

# Full-Color LED Display Client

User Manual

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

| Symbol  | Description   |
|---------|---|
| □ĨNote  | Provides additional information to emphasize or supplement important points of the main text.   |
| Caution | Indicates a potentially hazardous situation which, if not avoided,<br>could result in equipment damage, data loss, performance<br>degradation, or unexpected results. |
| Danger  | Indicates a hazardous situation which, if not avoided, will or could result in death or serious injury.   |

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# **Chapter 1 Introduction**

### **1.1 Product Introduction**

Full-Color LED Display Unit (hereinafter referred to as "display" or "screen") is a high-precision product delivering clear and vivid images. It is featured by wide color gamut, stable performance, long service life, strong environmental adaption, cost effective, and little cost to use. It is applicable to scenes such as radio and television stations, meeting room display, video security, information display, etc.

LED Full-Color Display Controller (hereinafter referred to as "sending card" or "device") can be used with the full-color display units to achieve the seamless jointing of the video wall in any dimensions. It is applicable to the meeting rooms, studios, gyms, airports, banks, advertisements, family cinemas, etc.

Full-Color LED Display Client (hereinafter referred to as "client" or "software") is used with the display controller to control displays. You can add display controllers to the client to manage the devices, set the display parameters, correct the screens, detect the screens, and maintain the displays.

### **1.2 Key Features**

### Full-Color LED Display Unit

- Modular design supports seamless jointing into screens of any size at any direction.
- High brightness and high contrast ratio. Broadcast level greyscale processing provides more detailed image display.
- Color temperature and brightness of every pixel are controlled under certain limits to realize image consistency.
- High refresh rate and nanosecond response rate provide smooth and delicate image with no trailing or ghosting.
- Wide color gamut coverage with range larger than NTSC.
- Adopts PixMaster low-level image processing technology. Supports one-button optimization of pixel original image by improving definition, contrast ratio and saturation.
- Wide viewing angle provides high-quality visual effects in every angle.
- Low heating, superior cooling system, and ultra-quiet design.
- Long service life, energy saving, and environmental friendly.
- Firm structure design. Supports single-light maintenance and intelligent dehumidification.
- Low defect rate and operation cost.

### LED Full-Color Display Controller

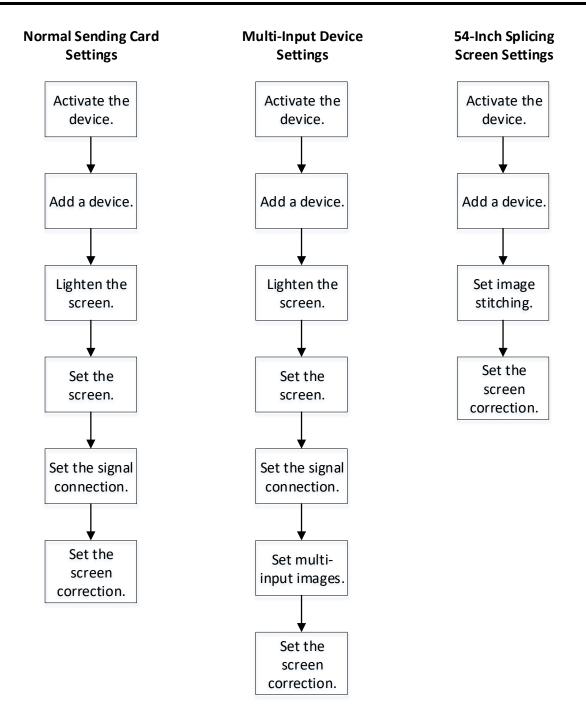
• Strong loading capacity: The maximum number of loading pixel points of a single network

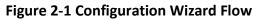
interface reaches 650,000. Multi-channel Gigabit Ethernet network interfaces output.

- Some controllers support the USB expansion interface. The interface can be connected with a mouse, a keyboard, or a USB flash drive. Supports audio input and output, light sensation access, Wi-Fi and bluetooth connection, remote controller access, and HDMI input and output.
- Scene management: The V serial sending cards support custom scenes and multiple scenes switch. Some models support multi-screen display and custom contents can be displayed on the windows.
- Some controllers support multi-controller self-splicing cascade display.

# **Chapter 2 Configuration Wizard**

After you start the client, you will enter the **Configuration Wizard** page automatically. You can click **Normal Sending Card**, **Multi-Input Device**, or **54-Inch Splicing Screen** tab and follow the wizard to complete the device basic configuration according to the actual added device type. Refer to the figure and table below for the basic configuration flow and detailed configuration description of normal sending cards, multi-input devices, and 54-inch splicing screen.





| <b>Table 2-1 Configuration</b> | Wizard | Description |
|--------------------------------|--------|-------------|
|--------------------------------|--------|-------------|

| Device Type         | Configuration Description  |
|---------------------|--|
|                     | 1. Activate the device. Refer to <u>Activate Device</u> .                |
| Normal Sending Card | <ol><li>Add a device. Refer to <u>Add Device</u>.</li></ol>              |
| Normal Sending Card | 3. Lighten the screen. Refer to Step 4 of general settings in <u>Set</u> |
|                     | Signal Connection.   |

4

| Device Type             | Configuration Description   |  |  |  |
|-------------------------|---|--|--|--|
|                         | 4. Set the screen. Refer to Step 5 of general settings in <u>Set</u>    |  |  |  |
|                         | Signal Connection.  |  |  |  |
|                         | 5. Set the signal connection. Refer to Step 6 of general                |  |  |  |
|                         | settings in <u>Set Signal Connection</u> .                              |  |  |  |
|                         | 6. Set the screen correction. Refer to <i>Correct Defective Pixel</i> . |  |  |  |
|                         | 1. Activate the device. Refer to <u>Activate Device</u> .               |  |  |  |
|                         | 2. Add a device. Refer to <u>Add Device</u> .                           |  |  |  |
|                         | 3. Lighten the screen. Refer to Step 4 of general settings in           |  |  |  |
|                         | Set Signal Connection.  |  |  |  |
| Multi-Input Device      | 4. Set the screen. Refer to Step 5 of general settings in <u>Set</u>    |  |  |  |
|                         | Signal Connection.  |  |  |  |
|                         | 5. Set the signal connection. Refer to Step 6 of general                |  |  |  |
|                         | settings in <u>Set Signal Connection</u> .                              |  |  |  |
|                         | 6. Set multi-input images. Refer to <u>Set Multi-Input Image</u> .      |  |  |  |
|                         | 7. Set the screen correction. Refer to <i>Correct Defective Pixel</i> . |  |  |  |
|                         | 1. Activate the device. Refer to <u>Activate Device</u> .               |  |  |  |
| 54-Inch Splicing Screen | 2. Add a device. Refer to <u>Add Device</u> .                           |  |  |  |
|                         | 3. Set image stitching. Refer to <u>Set Image Stitching</u> .           |  |  |  |
|                         | 4. Set the screen correction. Refer to <i>Correct Defective Pixel</i> . |  |  |  |

### **i**Note

You can check **Do not prompt again next time.**, **Configuration Wizard** interface will not prompt again next time you start the client. If you want to enter **Configuration Wizard** interface, click on the upper-right corner of the client interface, and select **Configuration Wizard**.

# **Chapter 3 Device Management**

### **i**Note

Only the devices supporting OTAP (Over-the-Air Programming) protocol can be accessed and managed via the client.

### **3.1 Activate Device**

The client should be used with the sending cards to control the displays. Activate the corresponding sending card via the client when using it for the first time.

#### **Before You Start**

- The client has been installed correctly.
- Ensure the PC running the client and the sending card are in the same network segment.

#### Steps

1. Run the client.

**Online Device** list will display all the online devices in the current network segment. You can click **Refresh** to refresh the online devices.

| - Add                   | × Delete   | 🗘 Refresh                 | 1 Upgrade       |                |         |                 |            |             |                | Search        |           |      |   |  |
|-------------------------|------------|---------------------------|-----------------|----------------|---------|-----------------|------------|-------------|----------------|---------------|-----------|------|---|--|
|                         |            | ice Name                  | Device Type     | IP Addres      | Port    | Software Versio | Serial No. |             | Ne             | twork Status  | Opera     | tion |   |  |
|                         | 1          |                           | Server type     | ii yaanta      |         |                 |            |             |                | Online        | _         |      | - |  |
|                         | 2          |                           |                 |                |         |                 |            |             |                | Online        |           |      | 8 |  |
|                         | 3          |                           |                 |                |         |                 |            |             |                | Online        | _         |      | 8 |  |
|                         | 4          |                           |                 |                |         |                 |            |             |                | Online        | _         |      | 6 |  |
| line C                  | Device(2)  |                           |                 |                |         | *               |            |             |                |               |           |      |   |  |
|                         | Device(2)  | <b>sh</b> 🔯 Activ         | ate 🔀 Set Netwo | ork Parameters | 1 Upgra |                 | sword      |             |                | Search        |           |      |   |  |
| Add                     | to 🥑 Refre | sh 🔯 Activ<br>Device Type | ate ⊕ Set Netwi |                |         |                 | sword      | MAC Address | Add v          | Search        | ation Sta | itus |   |  |
| nline C<br>- Add<br>- I | to 🗘 Refre |                           |                 |                |         | de 👌 Reset Pa   | sword      | MAC Address | Add v<br>Suppo | ia OT/ Activa |           | itus |   |  |

### Figure 3-1 LED Display Client

2. Select the inactive device from the list, and click Activate.

#### 3. Enter the password and confirm it. Click **OK**.

| Activate         |   | $\times$ |
|------------------|---|----------|
| User Name        | admin   |          |
| Password         | Password  |          |
| Confirm Password | 8 to 16 digits. The combination should<br>contain at least two of the following<br>types: numbers, upper case letters, lower<br>case letters, special characters (!"#\$<br>%&'()*+,/:;<=>?@[\]^_`{ }~ and space).<br>Password |          |

**Figure 3-2 Activation** 

## Caution

The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the service provider and/or end-user.

- 4. Optional: Edit network parameters of the activated device.
  - 1) Select the activated device from **Online Device** list.
  - 2) Click Set Network Parameters.
  - 3) Edit the network parameters of the device, such as the IP address, subnet mask, gateway, etc.
  - 4) Enter Admin Password, and click OK.

| Set Network Parar | ×          |  |
|-------------------|------------|--|
| IP Address        |            |  |
| Port              |            |  |
| Subnet Mask       |            |  |
| Gateway Address   |            |  |
| Manager Password  | Password 😽 |  |
|                   |            |  |
|                   |            |  |
|                   | OK Cancel  |  |

Figure 3-3 Set Network Parameters

### **i**Note

If the device connected network has DHCP function, the IP address of the device will be allocated automatically. You can skip step 4.

## 3.2 Add Device

The client provides multiple device adding modes including by IP address and IP segment. You can also import multiple devices in batch when there are large amount of devices to be added. After the devices are added to the client, you can realize remote configuration and management of the added devices.

### **i**Note

If you want to add the 54-inch splicing screen, after adding, a message will prompt on top of **Device Group** list: The current configuration is only available for the 54-inch LED splicing display unit. If you need to set the normal LED display, delete the added 54-inch LED splicing display unit(s) first.

### 3.2.1 Add Single or Multiple Online Devices

The client can detect online devices which are in the same network with the PC running the client. You can select a detected online device displayed in the online device list and add it to the client. For detected online devices sharing the same user name and password, you can add them to the client in batch.

#### **Before You Start**

- The device(s) to be added are in the same network with the PC running the client.
- The device(s) to be added have been activated.

#### Steps

#### 1. Click Device Management.

2. Check one or more online device(s) from **Online Device** list, and click **Add to**.

| Add                   | ×   |
|-----------------------|---|
| Name                  |   |
| IP Address            |   |
| Port                  |   |
| User Name             | admin   |
| Password              | Password  |
| Synchronize Time      |   |
| Parameters Self-Check |   |
|                       | <ul> <li>After enabled, the device will detect<br/>some of the sending/receiving card<br/>parameters. If abnormal parameters<br/>are found, the device will configure<br/>parameters automatically and record<br/>them in log.</li> </ul> |

Figure 3-4 Add Online Device

#### □ I Note

You can judge whether the device(s) can be added to **Device Group** list via the status shown under **Add via OTAP** item. Only the supported device(s) can be added to **Device Group** list.

### 3. Enter the required information.

### Name

Enter a descriptive name for the device.

#### **IP Address**

The IP address of the device is obtained automatically in this adding mode.

### Port

The port No. of the device is obtained automatically in this adding mode. You can also customize the port No.

### User Name

By default, the user name is *admin*.

### Password

Enter the device password.

### Caution

The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the service provider and/or end-user.

### Synchronize Time

Check **Synchronize Time** to synchronize the device time with the PC running the client after adding the device to the client.

### 4. Click OK.

### 3.2.2 Add Device by IP Address

If you know the IP address or domain name of the device to be added, you can add devices to the client by specifying the IP address, user name, password, etc.

### Steps

- 1. Click **Device Management**.
- 2. Click Add in Device Group list.
- 3. Select Adding Mode as IP Address.

| Add Device            |   | ×              |
|-----------------------|---|----------------|
| Adding Mode:          | IP Address     IP Segment   | O Batch Import |
| Add Offline           |   |                |
| * Device Name         |   |                |
| * IP Address          |   |                |
| * Port                |   |                |
| * User Name           | admin   |                |
| * Password            | >><   |                |
| Synchronize Time      |   |                |
| Parameters Self-Check |   |                |
|                       | <ul> <li>After enabled, the device will device will device will device of the sending/receiving parameters. If abnormal parameters are found, the device will config parameters automatically and record them in log.</li> <li>Add Add and New</li> </ul> | card<br>eters  |

Figure 3-5 Add Device by IP Address

4. Enter the required information.

# Caution

The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the service provider and/or end-user.

### 5. Optional:

| Add Offline              | You can check <b>Add Offline</b> if you want to add offline device(s). After<br>adding succeeded, the <b>Network Status</b> of the device shows <b>Offline</b> .<br>When the device is online, the <b>Network Status</b> will switch to <b>Online</b><br>automatically, and the client will connect it automatically.<br><b>I Note</b><br>If you do not check <b>Add Offline</b> , you cannot add the offline device(s). |
|--------------------------|--|
| Synchronize Time         | Check <b>Synchronize Time</b> to synchronize the device time with the PC running the client after adding the device to the client.   |
| Parameters<br>Self-Check | If you enable <b>Parameters Self-Check</b> , the device will detect some of the sending/receiving card parameters. If abnormal parameters are found, the device will configure parameters automatically and record them in log.  |

6. Click **Add** to add the device and exit from the interface. Or click **Add and New** to save the settings and continue to add other devices.

### 3.2.3 Add Device by IP Segment

If the devices share the same port No., user name, and password, and their IP addresses range in the same IP segment, you can add them to the client by specifying the start IP address and the end IP address, port No., user name, password, etc of the devices.

### Steps

- 1. Click Device Management.
- 2. Click Add in Device Group list.
- 3. Select Adding Mode as IP Segment.

| Add Device            |   | ×              |
|-----------------------|---|----------------|
| Adding Mode:          | ○ IP Address ● IP Segment   | O Batch Import |
| Add Offline           |   |                |
| * Start IP            |   |                |
| * End IP              |   |                |
| * Port                |   |                |
| * User Name           | admin   |                |
| * Password            | •••••••   |                |
| Synchronize Time      |   |                |
| Parameters Self-Check |   |                |
|                       | <ul> <li>After enabled, the device will de<br/>some of the sending/receiving<br/>parameters. If abnormal parame<br/>are found, the device will config<br/>parameters automatically and<br/>record them in log.</li> </ul> | card<br>eters  |
|                       | Add Add and New   |                |

Figure 3-6 Add Device by IP Segment

4. Enter the required information.

### **i**Note

- The top three segments of the start and end IP addresses should be same. Up to 255 devices in the same IP segment can be added.
- The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

• Proper configuration of all passwords and other security settings is the responsibility of the service provider and/or end-user.

### 5. Optional:

| Add Offline              | You can check <b>Add Offline</b> if you want to add offline device(s). After<br>adding succeeded, the <b>Network Status</b> of the device shows <b>Offline</b> .<br>When the device is online, the <b>Network Status</b> will switch to <b>Online</b><br>automatically, and the client will connect it automatically.<br><b>I Note</b><br>If you do not check <b>Add Offline</b> , you cannot add the offline device(s). |
|--------------------------|--|
| Synchronize Time         | Check <b>Synchronize Time</b> to synchronize the device time with the PC running the client after adding the device to the client.   |
| Parameters<br>Self-Check | If you enable <b>Parameters Self-Check</b> , the device will detect some of the sending/receiving card parameters. If abnormal parameters are found, the device will configure parameters automatically and record them in log.  |

6. Click **Add** to add the device and exit from the interface. Or click **Add and New** to save the settings and continue to add other devices.

### **3.2.4 Import Devices in Batch**

You can add multiple devices to the client in batch by entering the device parameters in a pre-defined CSV file.

### Steps

- 1. Click Device Management.
- 2. Click Add in Device Group list.
- 3. Select Adding Mode as Batch Import.

| Add Device                  |                |  | ×                     |
|-----------------------------|----------------|--|-----------------------|
| Adding Mode: 🔘              | IP Address     | ○ IP Segment   | Batch Import          |
| * Batch Import Files(*.csv) | (i) parameters | •••<br>template first, fill ir<br>s according to the t<br>nd then import the | the device<br>emplate |
|                             | ок             |  |                       |

Figure 3-7 Import Devices in Batch

- 4. Click Export Template and save the pre-defined template (CSV file) to your PC.
- 5. Open the exported template file and enter the required information of the devices to be added on the corresponding column.

### Caution

The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the service provider and/or end-user.

6. On **Add Device** interface, click … and select the edited template file.

7. Click **OK**.

### **3.3 Reset Device Password**

If you forgot the password of the detected online device, you can reset the device password via the client.

### Steps

### **i**Note

The function should be supported by the device. The interface only shows the resetting mode supported by the device.

### 1. Click Device Management.

2. Select the device needed to reset password from **Online Device** list, and click **Reset Password**.

| Export   |  |
|--|--|
|  |  |
| Import   |  |
| Password   | >~<  |
| 8 to 16 digits. The combin<br>contain at least two of the<br>types: numbers, upper ca<br>case letters, special char<br>%&'()*+,/:;<=>?@[\]^_`{ | e following<br>use letters, lower<br>acters (!"#\$   |
| Password   | >><  |
|  | Password<br>8 to 16 digits. The combin<br>contain at least two of the<br>types: numbers, upper ca<br>case letters, special char<br>%&'()*+,/:;<=>?@[\]^_`{ |

#### Figure 3-8 Reset Password

- 3. Click **Export** to save the XML file on your PC and send the file to our technical support to get the Encryp.xml file.
- 4. Click **Import** to import the gotten Encryp.xml file.
- 5. Enter the new password and confirm the password.

## Caution

The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the service provider and/or end-user.

6. Click **OK**.

## 3.4 Upgrade Online Device

Only the devices supporting OTAP (Over-the-Air Programming) protocol can be accessed and managed via the client. For the devices which do not support OTAP protocol, they can be managed by the client via online upgrade.

### **Before You Start**

The device has been activated.

### Steps

- 1. Click Device Management.
- 2. Select the device from **Online Device** list, and click **Upgrade**.
- 3. Select Upgrade Mode.
  - Select Online to get the latest version of the upgrade package from the cloud to upgrade the sending card. Enter User Name and Password. Click Upgrade.

| Upgrade Sendir | ig Card                    |                   | × |
|----------------|----------------------------|-------------------|---|
| Upgrade Mode   | <ol> <li>Online</li> </ol> | ○ Offline         |   |
| User Name      | User Name                  |                   |   |
| Password       | Password                   | > <sub>25</sub> 4 |   |
|                |                            |                   |   |
|                | Upgrade                    |                   |   |

### Figure 3-9 Upgrade Device Online

 Select Offline to upload the upgrade package to upgrade the sending card. Select File Path, and enter User Name, Password, and Port. Click Upgrade.

### Full-Color LED Display Client User Manual

| Upgrade Sendin | g Card       |         | × |
|----------------|--------------|---------|---|
| Upgrade Mode   | 🔿 Online 🛛 🤇 | Offline |   |
| File Path      |              | 0 0 0   |   |
| User Name      | User Name    |         |   |
| Password       | Password     | >~<     |   |
| Port           | 8000         |         |   |
|                | Upgrade      |         |   |

Figure 3-10 Upgrade Device Offline

### 3.5 Manage Added Devices

After adding devices to the client, you can manage the added devices including editing device parameters, deleting devices, applying debug configuration, and viewing device details.

• Select an added online device from **Device Group** list. Click  $\ {\mathbb Z}$  to edit the device name.

| Edit                  | $\times$  |
|-----------------------|---|
| * Device Name         |   |
| * IP Address          |   |
| * Port                |   |
| * User Name           | admin   |
| * Password            | •••••   |
| Synchronize Time      |   |
| Parameters Self-Check | <ul> <li>After enabled, the device will detect<br/>some of the sending/receiving card<br/>parameters. If abnormal parameters<br/>are found, the device will configure<br/>parameters automatically and record<br/>them in log.</li> </ul> |

Figure 3-11 Edit Device Login Information

- Check one or more devices from **Device Group** list. Click **Delete** to delete the selected device(s) from the list.
- Select an added online device from **Device Group** list. Click 🖻 to enable the debug, and click **Apply** to apply the debug configuration to the device.

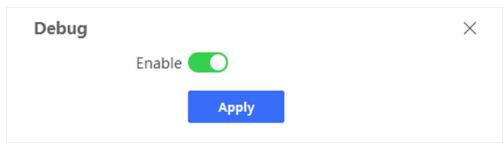


Figure 3-12 Apply Debug Configuration

• Select an added online device from **Device Group** list. Click ⊟ to view the device detailed information such as screen type, controller version, receiving card type, etc. You can click ∠ to edit **Alias** of the device.



Figure 3-13 View Device Detailed Information

- In **Device Group** list, click **Refresh** to get the latest device information.
- Check one or more upgradable devices from **Device Group** list. Click **Upgrade** to upgrade the sending card or receiving card/multi-functional card. Refer to <u>Upgrade</u> for details.

# **Chapter 4 LED Settings**

## []iNote

When you set device parameters via the client, if you select a device but not check it, you can only get the selected device parameters. You can only set and save the parameters to the device by checking one or more devices. When you check multiple devices to set parameters in batch, if the actual device does not support a certain function, the client will prompt when you save the settings.

### 4.1 Screen Control

### 4.1.1 Set Signal Connection

When the loading methods of multiple receiving cards controlled by a single sending card are consistent, select general settings. When the loading methods of multiple receiving cards controlled by a single sending card are inconsistent, select complex settings.

### **General Settings**

When the loading methods of multiple receiving cards controlled by a single sending card are consistent, select general settings.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Screen Control  $\rightarrow$  Signal Connection.
- 2. Check the device(s) to be set from the device list.
- 3. Select General.

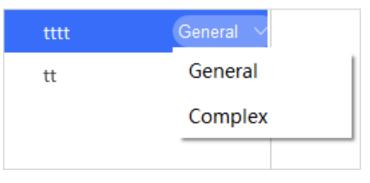


Figure 4-1 Select General Screen

- 4. Lighten the screen.
  - 1) Select Configuration Type.
    - Load from Cloud:

#### Enter the keyword, click **Search** and then select from the search result list.

| Select Configuration File |                          | ×                        |
|---------------------------|--------------------------|--------------------------|
| Search Condition          |                          |                          |
| Cabinet Serial No.        | Model                    | File Name                |
| Please enter search cond  | Please enter search cond | Please enter search cond |
|                           |                          | Search Reset             |
| Search Result             |                          |                          |
| File Name                 | -<br>                    | Operation                |
|                           |                          |                          |
|                           |                          |                          |

#### Figure 4-2 Load Screen Type from Cloud

#### – Load from Screen:

Click Load. The system will load the screen type automatically.

| Configuration Type | Load from Screen   | ~ | Load |
|--------------------|--------------------|---|------|
| Screen Type        | Device Screen Type |   |      |
|                    |                    |   |      |
|                    |                    |   |      |
|                    |                    |   |      |
| Parameters Curing  | Cure               |   |      |

### Figure 4-3 Load Screen Type from Screen

– Import File:

- a. Click ... to select the configuration file.
- b. Click **Import** to import the configuration file.

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| Configuration Type | Import File | $\sim$ |        |
|--------------------|-------------|--------|--------|
| Import File        |             | 0 0 0  | Import |
| Parameters Curing  | Cure        |        |        |

Figure 4-4 Import File

2) Click **Cure** to save the parameters to the receiving card to ensure the screen can display normally after next reboot.

3) Click Save.

5. Set the screen.

### 1) Click Screen Settings.

#### 2) Set the screen attribute.

| Video Wall Scale         | 2 *               | 2   |   |
|--------------------------|-------------------|-----|---|
| Enable Zooming           |                   |     |   |
| Screen Resolution        | Custom Resolution |     | ~ |
| Custom Screen Resolution | 1280 *            | 720 |   |
|                          |                   |     |   |
|                          |                   |     |   |

#### Figure 4-5 Set Screen Attribute

#### Video Wall Scale

Set the row(s) and column(s) of the screen according to the receiving card quantity. Each cabinet contains 1 or 2 receiving cards.

#### **Enable Zooming**

Check it to enable the signal source zooming. Uncheck it in splicing scenes.

#### **Screen Resolution**

Select the appropriate resolution. If there is no appropriate resolution, you can select **Custom Resolution**, and enter **Custom Screen Resolution**.

### iNote

The width of the custom resolution should be a multiple of 4.

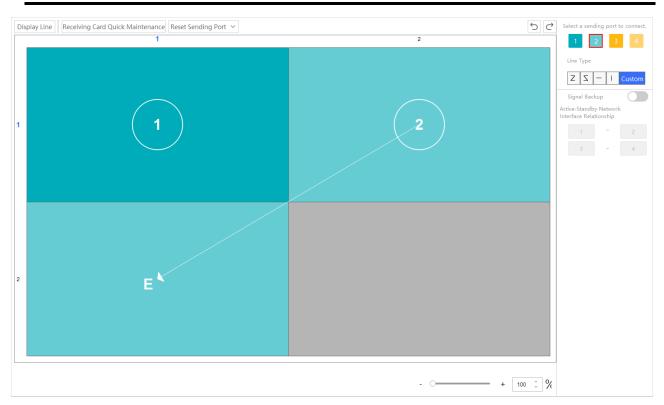
#### 3) Click Save.

6. Set signal line connection according to the actual receiving card connection between LED cabinets.

1) Click Signal Connection.

### iNote

After setting the video wall scale, the LED screen will show the signal line connection. The signal connection via the client must match with the actual screen connection.



### Figure 4-6 Set Signal Connection

2) Click **Display Line**. The location prompt of each screen will show on the screen.3) Select a sending port to connect.

### iNote

- Connect the signal line according to the location prompt on each screen. If the prompt is **2-1**, the screen is the first screen to connect to No. 2 sending port.
- Signal line connection should be the same as the actual screen connection.

4) Connect signal cables.

- Click the screen on the right side of the interface to connect signal lines.

| <ul> <li>Select Line Type, a</li> <li>Optional:</li> </ul> | and select the start port and end port.  |
|--|--|
| Display/Hide Line  | Click the button to display/hide the connection lines shown on the screen.   |
| Receiving Card Quick<br>Maintenance                        | Click the button to enter <b>Receiving Card Quick Maintenance</b><br>interface. You can copy the configuration of the referenced receiving<br>card to the new receiving card, or export the program or<br>configuration file of the referenced receiving card and import it to the<br>other receiving cards of the current screen or to the receiving cards in<br>other projects. Refer to <u>Receiving Card Quick Maintenance</u> for<br>details. |
| Reset Sending Port   | <ul> <li>Click Reset Sending Port, and select the operation.</li> <li>Click Reset Current Sending Port to clear all the configuration of the current signal sending port.</li> <li>Click Reset All Sending Ports to clear all the configuration of all the signal sending ports.</li> </ul>  |
| Cancel   | Click 🕤 to cancel the last operation.  |
| Restore  | Click C to restore the last operation.   |
| Signal Backup  | Enable <b>Signal Backup</b> to enable dual-channel signal inputs to ensure signal stability.          Image: The function is enabled, the relationship between the active and standby network interfaces should be the same as Active-Standby Network Interface Relationship shown on the client.  |
|  |  |

6) Click Save.

### **Complex Settings**

When the loading methods of multiple receiving cards controlled by a single sending card are inconsistent, select complex settings.

### Steps

- 1. Go to LED Settings  $\rightarrow$  Screen Control  $\rightarrow$  Signal Connection.
- 2. Check the device(s) to be set from the device list.
- 3. Select Complex.

| tttt | Complex $\checkmark$ |
|------|----------------------|
| tt   | General              |
|      | Complex              |
|      |                      |

Figure 4-7 Select Complex Screen

#### 1) Click Screen Settings.

2) Set the screen attribute.

| Enable Zooming<br>Screen Resolution<br>Custom Resolution<br>Custom Screen Resolution 1280 * 720 | Video Wall Scale         | 2               | *  | 2   |   |  |
|---|--------------------------|-----------------|----|-----|---|--|
|   | Enable Zooming           |                 |    |     |   |  |
| Custom Screen Resolution 1280 * 720   | Screen Resolution        | Custom Resoluti | on |     | ~ |  |
|   | Custom Screen Resolution | 1280            | *  | 720 |   |  |

Figure 4-8 Set Screen Attribute

#### Video Wall Scale

Set row(s) and column(s) of the screen according to the actual situation. Each cabinet contains 1 or 2 receiving cards.

#### **Enable Zooming**

Check it to enable the signal source zooming. Uncheck it in splicing scenes.

### **Screen Resolution**

Select the appropriate resolution. If there is no appropriate resolution, you can select **Custom Resolution**, and enter **Custom Screen Resolution**.

### iNote

The width of the custom resolution should be a multiple of 4.

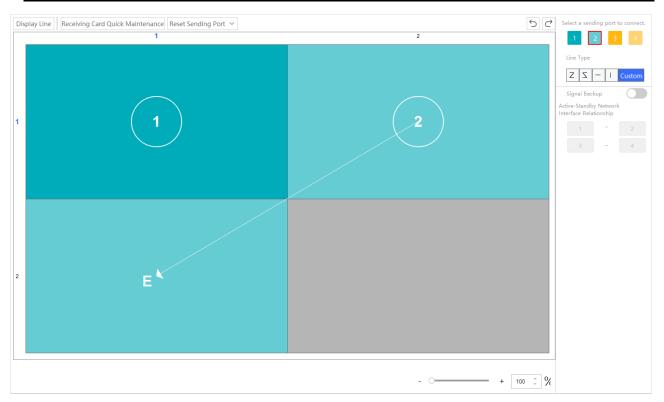
3) Click Save.

4. Set signal line connection according to the actual receiving card connection between LED cabinets.

1) Click Signal Connection.

### iNote

After setting the video wall scale, the LED screen will show the signal line connection. The signal connection via the client must match with the actual screen connection.



### Figure 4-9 Set Signal Connection

2) Select a sending port to connect.

### iNote

- Connect the signal line according to the location prompt on each screen. If the prompt is **2-1**, the screen is the first screen to connect to No. 2 sending port.
- Signal line connection should be the same as the actual screen connection.

3) Connect signal cables.

- Click the screen on the right side of the interface to connect signal lines.
- Select Line Type, and select the start port and end port.

4) Optional:

**Display/Hide Line** Click the button to display/hide the connection lines shown on the screen.

| Receiving Card Quick<br>Maintenance | Click the button to enter <b>Receiving Card Quick Maintenance</b><br>interface. You can copy the configuration of the referenced receiving<br>card to the new receiving card, or export the program or<br>configuration file of the referenced receiving card and import it to the<br>other receiving cards of the current screen or to the receiving cards in<br>other projects. Refer to <u>Receiving Card Quick Maintenance</u> for<br>details. |
|-------------------------------------|--|
| Reset Sending Port                  | <ul> <li>Click Reset Sending Port, and select the operation.</li> <li>Click Reset Current Sending Port to clear all the configuration of the current signal sending port.</li> <li>Click Reset All Sending Ports to clear all the configuration of all the signal sending ports.</li> </ul>  |
| Cancel                              | Click 🗇 to cancel the last operation.  |
| Restore                             | Click C to restore the last operation.   |
| Signal Backup                       | Enable <b>Signal Backup</b> to enable dual-channel signal inputs to ensure signal stability.          Image: The function is enabled, the relationship between the active and standby network interfaces should be the same as Active-Standby         Network Interface Relationship shown on the client.  |

5) Click Save.

5. Split and lighten the screen.

1) Click Split and Lighten Screen.

2) Click a screen and drag to select multiple screens, and then right click the mouse or click

🖉 Edit .

| 0    | Operation prompt: drag and then right click to finish screen select. | □ Do Not Prompt Again ×  |
|------|--|--|
| Spli | and Lighten Screen   | ∠ Edit 5 Refresh   |
|      | 1  | 2  |
| 1    | 640*360  | 640*360<br>Set Screen  |
| 2    | 640*360  | Configuration Type<br>Import File<br>Configuration Type<br>Import File<br>Configuration Type<br>Configuration Type |

### Figure 4-10 Split and Lighten Screen

- 3) Select the configuration type.
  - (Recommended) Import File:
    - a. Click ... to select the configuration file.
    - b. Click **Import** to import the configuration file.

| уре |          |
|-----|----------|
| ~   |          |
|     |          |
|     | 0 0 0    |
|     | ок       |
|     | ype<br>~ |

Figure 4-11 Import Configuration File

# **i**Note

This software supports a maximum of 10 types of configuration files.

- Load from Cloud:
  - a. Click Load. The system automatically obtains the screen type.
  - b. Select a screen type or enter a keyword to select.

| Load from Cloud 🛛 🗸 | Load |
|---------------------|------|
| Search              | Q    |
| In Design Designed  | ^    |
|                     |      |
|                     |      |
|                     |      |

Figure 4-12 Load Screen Type from Cloud

– Load from Screen:

Click Load. The system automatically obtains the screen type.

| Set Screen              |      |
|-------------------------|------|
| Configuration Type      |      |
| Load from Screen $\sim$ |      |
|                         | Load |
|                         |      |

Figure 4-13 Load Screen Type from Screen

4) Click Save.

## 4.1.2 Quickly Maintain Receiving Card

You can copy the configuration of the referenced receiving card to the new receiving card, or export the program or configuration file of the referenced receiving card and import it to the other receiving cards of the current screen or to the receiving cards in other projects.

Go to LED Settings  $\rightarrow$  Screen Control  $\rightarrow$  Signal Connection  $\rightarrow$  Signal Connection, and click Receiving Card Quick Maintenance. You can maintain the receiving card by the following 2 methods quickly.

### Method 1

- 1. Select a receiving card, and right click to select **Referenced Receiving Card**.
- 2. Click **Export Program** or **Export Configuration File** to save the program or configuration file to the PC.
- 3. Import the program or configuration file of the referenced receiving card to the other receiving cards of the current screen or to the receiving cards in other projects.

### Method 2

- 1. Select a receiving card, and right click to select **Referenced Receiving Card**.
- 2. Click **Quick Card Change** to copy the configuration of the referenced receiving card to the new receiving card.



Figure 4-14 Receiving Card Quick Maintenance

## 4.1.3 Set Signal Input

You can set input signal type, 3D video processing, input signal auto detection, custom resolution, audio configuration, etc.

- 1. Go to LED Settings  $\rightarrow$  Screen Control  $\rightarrow$  Signal Source Management.
- 2. Check the device(s) to be set from the device list.

| Input Signal Type                             | Android ~                           |
|---|-------------------------------------|
| Input Resolution                              | 1920x1080@60@8bit                   |
| 3D Configuration                              |                                     |
| 3D Video Processing                           |                                     |
| 3D Delay                                      | 850000                              |
| 3D Mode                                       | Upper and Lower Images Merge $\sim$ |
| Left and Right Images Alternation             |                                     |
| Input Signal Configuration                    |                                     |
| Input Signal Auto Detection                   |                                     |
| Signal Source Status                          | Accessed                            |
| Input Format                                  | • Force RGB                         |
| Resolution Self-adaption                      |                                     |
| Reserve Last Frame for No-Signal Sending Card |                                     |
| Audio Configuration                           |                                     |
| Volume  | <b>64</b>                           |
| Audio   |                                     |
|   |                                     |
|   | ок                                  |
|   |                                     |

Figure 4-15 Signal Input Management

# **i**Note

The shown functions vary with the device models. The unsupported functions will not be shown. The actual device prevails.

#### 3. Set parameters.

#### Input Signal Type

Select the correct input signal type according to the actual connection condition of the sending card.

#### **3D Configuration**

#### **3D Video Processing**

Enable the function if you need to process 3D video.

### **i**Note

- Before enabling the function, you need to install multi-functional card first.
- Enable this function only when 3D parameters are configured into screens before leaving the factory.

#### **3D Delay**

Keep the default value 850000.

#### 3D Mode

Select **Upper and Lower Images Merge** for video sources in upper and lower format. Select **Left and Right Eyes Alternate Output** for video sources in left and right format.

#### Left and Right Images Alternation

When the left image is opposite to the right image, you can enable the function.

#### Input Signal Configuration

#### **Input Signal Auto Detection**

Enable the function, and the system will detect and recognize the input signal automatically.

#### Input Format

The input standard is RGB by default. Select **Auto Recog** when the signal standard is not RGB.

#### **Resolution Self-adaption**

Enable the function, and the input resolution will not change with the output resolution. Disable the function, and you can set **Custom Resolution** which will not change with the output resolution.

#### **Reserve Last Frame for Non-Signal Sending Card**

Enable the function, and then when the sending card has no signal input, the screen will reserve the last frame. After the signal input is restored, the screen will restore to normal display.

#### **Audio Configuration**

Enable Audio, and then set the volume.

4. Click **OK**.

## 4.1.4 Set Scene

You can save the configurations of, for example, input signal type, 3D video processing, or video opening window, as a scene to call for convenience.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Screen Control  $\rightarrow$  Signal Source Management/Multi-Screen.
- 2. Check the device(s) to be set from the device list.
- 3. Click **Scene** on the right of the interface.

| you can call    | l it directly let |          |
|-----------------|-------------------|----------|
| /ou can call    | it directly let   |          |
| /ou can call    | it directly lat   |          |
|                 | in unectry la     | ter.     |
|                 |                   |          |
| . <b>∔</b> Call | 🖹 Save            | Delete   |
|                 |                   |          |
| , <b>≓</b> Call | 🖹 Save            | 🔟 Delete |
|                 |                   |          |

#### Figure 4-16 Set Scene

- 4. Click +.
- 5. Enter the scene name.
- 6. Click **Save** to save the scene to the scene list.
- 7. Optional:

- Call Call the scene.
- Save Apply the scene.
- **Delete** Delete the scene.

## 4.1.5 Set Image Stitching

You can set the image stitching of the normal screen and 54-inch LED splicing screen.

### Set Auto Splicing or External Splicing of Normal Screen

You can splice multiple LED screens into one to display a complete picture. 3D screen splicing is available. If the professional video wall controllers are needed, select external splicing. Otherwise, select auto splicing.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Screen Control  $\rightarrow$  Image Stitching.
- 2. Add the screen.
  - 1) Click Add Screen.
  - 2) Enter Screen Name.
  - 3) Select Auto Splicing or External Splicing as the image stitching mode.

## iNote

If the professional video wall controllers are needed, select **External Splicing**. Otherwise, select **Auto Splicing**.

#### 4) Click **OK**.

3. Set Sending Card Scale.

## iNote

Up to  $4 \times 4$  sending card scale is supported.

4. Select the online device(s) from the device list and drag to the area(s) on the right window.

| Search Q | test 🖉  |    |     |                 |                 |
|----------|---|----|-----|-----------------|-----------------|
| Device   | Sending Card Scale                                    | 1  | * 1 | Image Stitching | 🔗 Clear Linkage |
|          | (1,1)       IP:       Serial No.: /       Resolution: |    |     | 1               | + 100 ¢%        |
|          | Auto Splicing Canc                                    | el |     |                 |                 |

Figure 4-17 Set Normal Screen Auto Splicing

| Search Q | test 🖉   |                 |                 |
|----------|--|-----------------|-----------------|
| Device   | Sending Card Scale 1 * 1                                   | Image Stitching | 🔗 Clear Linkage |
|          | (1,1)         IP:         Serial No: ;         Resolution: | 1               | ×<br>+ 100 ‡ %  |

Figure 4-18 Set Normal Screen External Splicing

# iNote

- Enter the user name and password for the first-time login of the device.
- If the linked device is offline, the splicing area will turns grey.

### 5. Optional:

| Clear Linkage | Click the button to clear all the linked devices. |
|---------------|---|
| Edit          | Click 🖉 to edit the screen name.                  |

6. Click Auto Splicing to save the settings.

### Set Auto Splicing of 54-Inch Splicing Screen

You can use the LED display client or remote controller to set the auto splicing of the 54-inch splicing screen.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Screen Control  $\rightarrow$  Image Stitching.
- 2. Click **Display Device Information**.

The device IP address and physical wiring No. will be displayed on the screen.

- 3. Select the first device of physical wiring from the left device list, or enter the first device name of physical wiring in the text filed to search.
- 4. Enter **Splicing Scale** according to the actual condition.

# **i**Note

The splicing scale is the video wall scale.

5. Click **Display Screen Coordinate**, and select **Wiring Mode** according to the coordinates shown on the screen. Click **Number**.

The splicing window will show the corresponding device information according to the selected wiring mode and No.

| Select the first device<br>of physical wiring to<br>splice. | × Ima | ge Stitching                |                             | € Refresh | Splici  | ng Sca | le    |       |
|---|-------|-----------------------------|-----------------------------|-----------|---------|--------|-------|-------|
| Display Device Information                                  |       | 1                           | 2                           |           | 1       |        | 2     |       |
| Search C  | 511   | (1,1)<br>IP:<br>Screen No.: | (1,2)<br>IP:<br>Screen No.: |           | Max. sp |        |       | 400.  |
| Device  |       | Index: 1                    | Index: 2                    |           | isplay  |        | Coord | ₹.    |
|   |       |                             |                             |           |         | Num    |       |       |
|   | 1     |                             |                             |           | Splici  | ing Mo | de    |       |
|   |       |                             |                             |           | A       | uto    | Man   | ual   |
|   |       |                             |                             |           | X       | Delete | Ū (   | Clear |
|   |       |                             |                             |           | 1       | 2      | 3     | 4     |
|   |       |                             |                             |           | 5       | 6      | 7     | 8     |
|   |       |                             |                             |           | 9       | 10     | 11    | 12    |
|   |       |                             |                             |           | 13      | 14     | 15    | 16    |
|   |       | Save                        | - 0 +                       | 100 🗘 %   |         |        |       |       |

Figure 4-19 Set Auto Splicing of 54-Inch Splicing Screen

6. Select Splicing Mode.

- Auto splicing: Click Auto and set the splicing module scale. It is recommended to set as 2 × 2.
   You can click Clear to clear the set auto splicing module scale.
- Manual splicing: Click Manual, and select the number of the splicing module. Drag the mouse to select the screens to be spliced, and click Confirmed. Up to 16 splicing modules are supported for each splicing window, and up to 25 splicing units are supported for each splicing module. Select the set number of splicing module and click Delete to delete the selected settings. Click Clear to clear all the settings.
- 7. Click Save.

## 4.1.6 Set Multi-Input Image

Multi-input screens are virtual split screens on the LED display. It supports the display of HDMI signal source, DVI signal source, subtitles, graphic clock, and other contents.

## iNote

Only the multi-input devices support the function.

Go to **LED Settings**  $\rightarrow$  **Screen Control**  $\rightarrow$  **Multi-Screen**. Click **v** to select the device. The interface is divided into 3 areas. In left area, you can select the layout template or signal source. In middle area, you can edit the windows. In right area, you can set window parameters.

| 10.18.68.124 | ~      | T ± \$1 \$1 \$0 \$0 \$< <>     | Window Settings              |              |           |
|--------------|--------|--------------------------------|------------------------------|--------------|-----------|
|              |        |                                | Current Window               | Window 2_HDN | ∕II 1 ∨   |
| Layout       | Signal |                                | Window Coordinate            |              |           |
| 🗒 HDMI 1     | +      |                                | x                            | 2 Ĵ Y        | 0 Ĵ       |
| HDMI 2       | +      |                                | Window Size                  |              |           |
| 🛱 DVI 1      | +      |                                | w                            | 291 🗘 н      | 83 🗘      |
| 🛱 DVI 2      | +      |                                | Signal                       | HDMI1        | ~         |
| 🛱 DVI 3      | +      | Window 2_HDMI 1 Window 4_Clock | Signal                       |              |           |
| 🛱 DVI 4      | +      | P HDMI 1 P                     | Input Resolution             | 2048*1152@30 |           |
|              | +      |                                | Resolution Self-<br>adaption |              |           |
| 💬 Subtitle   | +      | Window 3 DVI 1 Clock           | 1                            | 1920 * 108   |           |
|              |        | Window 3_DVI 1 Clock           | Custom Resolution            | 1920 * 108   | Scene 🖏 0 |
|              |        | DVI 1                          | Audio Output                 |              | Scr       |
|              |        |                                |                              |              |           |
|              |        | Window 1_Subtitle              |                              |              |           |
|              |        | Subtitle                       |                              |              |           |
|              |        | Subilite                       |                              |              |           |
|              |        |                                |                              |              |           |
|              |        |                                |                              |              |           |
|              |        |                                |                              |              |           |
|              |        |                                |                              |              |           |
|              |        |                                |                              |              |           |
|              |        |                                |                              |              |           |
|              |        |                                |                              |              |           |

Figure 4-20 Set Multi-Input Image

| Configuration Item/Icon | Description   |
|-------------------------|---|
| Layout                  | You can select multiple layout templates to edit the windows,<br>including the signal source template, subtitle template, clock<br>template, and composite template. Drag the corresponding<br>template to the window area. |
|                         | <b>i</b> Note   |
|                         | Applying the new template will clear the original template data.  |
| Signal                  | You can select multiple signal sources, including HDMI signal, DVI signal, clock, and subtitle. Click $+$ to add the signal source to the window area.  |
| <u>∓/</u>               | Stick the selected signal source on top/at bottom.  |
| \$t / \$                | Move the selected signal source up/down.  |
| ô/ô                     | Lock/Unlock the selected signal source.   |
| */ >>                   | Cancel/Restore the last operation.  |
| ŵ                       | Display the selected signal source in full screen.  |
| ٠Ď٠                     | Display the window size.  |
|                         | Display the actual size.  |
| Window Settings         | Set the window parameters.  |

#### Table 4-1 Multi-Input Image Interface Description

# iNote

- Up to 9 windows can be added in one screen.
- The same HDMI or DVI source can only be added once.
- One subtitle source can only be added once.
- One clock source can be added twice.

### Set HDMI/DVI Signal Source Image

- 1. Add the signal source.
  - Click Layout. Drag the needed template to the window area.
  - Click Signal. Click + to add the signal source to the window area.
- 2. Select the HDMI/DVI window.
  - Click the HDMI/DVI window from the window area.

- In the right **Window Settings** area, select **Current Window** as HDMI or DVI window.

| Window Settings              |      |       |      |        |             |
|------------------------------|------|-------|------|--------|-------------|
| Current Window               | Win  | dow   | 1_HD | MI 1   | ~           |
| Window Coordinate            |      |       |      |        |             |
| x                            | 0    | 4<br> | Y    | 0      | *           |
| Window Size                  |      |       |      |        |             |
| W 6                          | 648  | *     | н    | 397    | *           |
| Signal                       | HDM  | 1     |      | $\sim$ | ]           |
| Input Resolution             | 1080 | *108  | 0@30 |        |             |
| Resolution Self-<br>adaption |      |       |      |        |             |
| Custom Resolution            | 1920 | *     | 10   | 80     | \$ <u>3</u> |
| Audio Output                 |      |       |      |        |             |
|                              |      |       |      |        |             |

Figure 4-21 Set HDMI/DVI Signal Source Image

- 3. Adjust the window position and size.
  - In the middle window area, select and drag the window to adjust position. Select and drag the borders or vertexes of the window to adjust size.
  - In the middle window area, select the window. In the right Window Settings area, set
     Window Coordinate and Window Size.
- 4. Select Signal.
- 5. Set the resolution.
  - Check **Resolution Self-adaption**.
  - Uncheck **Resolution Self-adaption**. Enter **Custom Resolution**, and click 🕸 to save.
- 6. Optional: For HDMI signal source, if you want to output audio, check **Audio Output**.

#### Set Graphic Image

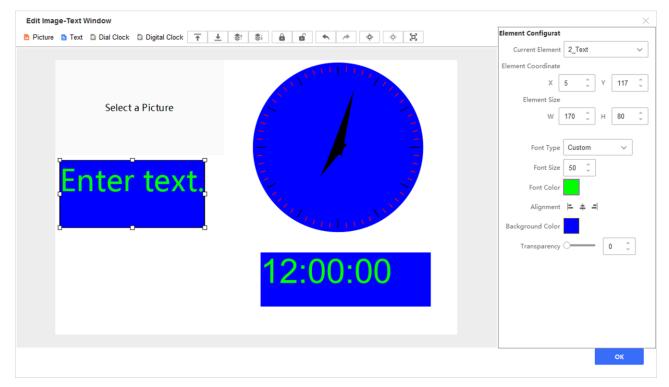
- 1. Add the signal source.
  - Click **Layout**. Drag the needed template to the window area.
  - Click Signal. Click + to add the signal source to the window area.
- 2. Select the clock window.
  - Click the clock window from the window area.

- On the right **Window Settings** area, select **Current Window** as the clock window.

| Window Settings   |      |     |          |     |        |
|-------------------|------|-----|----------|-----|--------|
| Current Window    | Win  | dow | 5_Clo    | ck  | $\sim$ |
| Window Coordinate |      |     |          |     |        |
| x                 | 1396 | Ĵ   | <b>Y</b> | 29  | ÷      |
| Window Size       |      |     | -        |     |        |
| w                 | 472  | *   | н        | 324 | ÷      |

Figure 4-22 Set Graphic Image

- 3. Adjust the window position and size.
  - In the middle window area, select and drag the window to adjust position. Select and drag the borders or vertexes of the window to adjust size.
  - In the middle window area, select the window. In the right Window Settings area, set
     Window Coordinate and Window Size.
- 4. Double click the clock window to edit it.



#### Figure 4-23 Edit Graphic Window

5. Select **Picture**, **Text**, **Dial Clock**, or **Digital Clock** in the element bar on the upper left corner to add different elements.

# iNote

Up to 3 picture elements, 2 clock elements, and 5 text elements can be added.

#### 6. Select the element to be edited, and set the parameters in **Element Configuration** area.

| Table 4-2 Graphic Element and Parameters Description |
|--|
|--|

| Element Type  | Description  |
|---------------|--|
| Picture       | Add a picture. You can adjust the picture position and size, and upload the local pictures.  |
| Text          | Add the text. You can adjust the text position and size, the font type, size, and color, alignment, background color, and transparency.                      |
| Dial Clock    | Add a dial clock. You can adjust the clock position and size,<br>the clock style, font color, background color, dial plate scale<br>color, and transparency. |
| Digital Clock | Add a digital clock. You can adjust the clock position and size,<br>the clock style, font size and color, alignment, background<br>color, and transparency.  |

7. Click **OK** to apply the current window contents.

#### Set Subtitle Image

- 1. Add the signal source.
  - Click Layout. Drag the needed template to the window area.
  - Click Signal. Click + to add the signal source to the window area.
- 2. Select the clock window.
  - Click the clock window from the window area.
  - On the right **Window Settings** area, select **Current Window** as the subtitle window.

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| Window Settings     |          |       |        |   |  |  |
|---------------------|----------|-------|--------|---|--|--|
| Current Window      | Window 4 | 4_Sub | otitle | ~ |  |  |
| Window Coordinate   |          |       |        |   |  |  |
| x                   | 560 Ĵ    | Y     | 564    | - |  |  |
| Window Size         |          |       |        |   |  |  |
| w                   | 796 🗘    | Н     | 456    | ÷ |  |  |
| Scrolling Direction | Leftward |       | ~      |   |  |  |
| Scrolling Speed     | Static   |       | ~      |   |  |  |

Figure 4-24 Set Subtitle Image

- 3. Adjust the window position and size.
  - In the middle window area, select and drag the window to adjust position. Select and drag the borders or vertexes of the window to adjust size.
  - In the middle window area, select the window. In the right Window Settings area, set
     Window Coordinate and Window Size.
- 4. Set Scrolling Direction and Scrolling Speed.
- 5. Double click the subtitle window to edit it.

| Edit Subtitle Window    |             | X                        |
|-------------------------|-------------|--------------------------|
| 🖻 Picture 🗎 Text  🛉 🌲 🕯 | i 🖆 🍝 🥕 🔶 🔁 | Element Configuratic     |
|                         |             | Current Element 2_Text ~ |
|                         |             | Element Coordinate       |
|                         |             | X 333 Û Y 14 Û           |
|                         | Enter text. | Element Size             |
| Calasta Disturs         |             | W 300 Û H 200 Û          |
| Select a Picture        | •           |                          |
|                         |             | Font Type Xiaomi 🗸       |
|                         |             | Font Size 50 🗘           |
|                         |             | Font Color               |
|                         |             | Alignment 🕒 ᆃ 🗐          |
|                         |             |                          |
|                         |             | Background Color         |
|                         |             | Transparency O 🗍         |
|                         |             |                          |
|                         |             |                          |
|                         |             |                          |
|                         |             |                          |
|                         |             |                          |
|                         |             |                          |
|                         |             | ОК                       |

Figure 4-25 Edit Subtitle Window

6. Select **Picture** or **Text** in the element bar on the upper left corner to add different elements.

## **i**Note

Up to 3 picture elements and 5 text elements can be added.

7. Select the element to be edited, and set the parameters in **Element Configuration** area.

| Table 4-3 Graphic Element and Parameters Description |
|--|
|--|

| Element Type | Description   |  |
|--------------|---|--|
| Picture      | Add a picture. You can adjust the picture position and size, and upload the local pictures.   |  |
|              | Add the text. You can adjust the text position and size, the font type, size, and color, alignment, background color, and transparency.       |  |
| Text         | <b>i</b> Note   |  |
|              | If you want to set <b>Font Type</b> as <b>Custom</b> , import the custom font library first. Refer to <u>Import Font Library</u> for details. |  |

8. Click **OK** to apply the current window contents.

## 4.1.7 Device Backup

For the device supporting dual backup, you can add main card and backup card, and switch them.

#### Steps

#### 1. Go to LED Settings $\rightarrow$ Screen Control $\rightarrow$ Device Backup.

2. Add linkage.

| Add linkage<br>manually      | <ol> <li>Click Add Linkage.</li> <li>Drag the devices from the device list to the main card and backup card areas on the right.</li> <li>Repeat the steps above to add more linkages.</li> </ol> |
|------------------------------|--|
| Get linkage<br>automatically | Click Link from Device to get the device linkage automatically.  |

| Search Q    | Device Backup  |   | + Add Linkage | [ ↓ Link from Device | € Refresh Status |
|-------------|----------------|---|---------------|----------------------|------------------|
| Man (Added) | C Working Main | Add Backup Card<br>Select an online device, and<br>drag it to the current position. |               |                      |                  |
| Man         |                |   |               |                      |                  |
|             |                |   |               |                      |                  |
|             | Total (1)      |   |               | < > 1                | /1 <b>Go</b>     |
|             |                | Sat   | /e Cancel     |                      |                  |

Figure 4-26 Device Backup

3. Optional:

| optional.                               |   |
|---|---|
| Delete the linked<br>devices            | Move the cursor to the linkage area, and click the trash can icon on the upper right corner of the tab to delete the linked device.   |
| Cancel the linkage                      | Move the cursor to the linkage area, and click the deleting icon on the<br>upper right corner of the area to cancel the linkage between the main<br>device and backup device. |
| Switch main device<br>and backup device | Click 🥯 to switch the main device and backup device.  |
| Refresh linkage<br>status               | Click <b>Refresh Status</b> to refresh the linkage status.  |
|   |   |

4. Click Save.

# 4.2 Display Effect

## 4.2.1 Select Display Mode

You can select a display mode according to the actual condition.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Display Effect  $\rightarrow$  Basic Display Effect.
- 2. Check the device(s) to be set from the device list.
- 3. Select Display Mode.

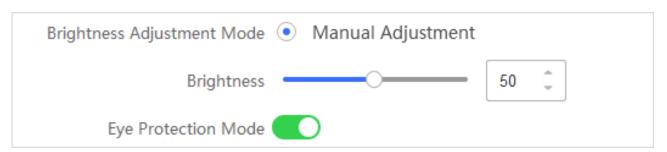
| Display Mode |      | General ~    | ]                                  |
|--------------|------|--------------|------------------------------------|
|              | 88   | General      |                                    |
|              | ₿₿   | Text         | Advanced Parameter                 |
| Brightness , | ₿₿   | Advertise    | lanual Adjustment                  |
|              | ₿₿   | Video Signal | 50 🗘                               |
| Fire         |      | HDR          |                                    |
| Eye          | ₿₿   | Movie        |                                    |
|              | ₽₽   | Monitoring   | nal 🗸                              |
| olor Temp. , | ₽₽   | Custom       | efined Adjustme 🔘 General Adjustme |
| C            | olor | Temp. Value  | 9300 🇘                             |
|              |      |              |                                    |

Figure 4-27 Select Display Mode

## 4.2.2 Adjust Screen Brightness

You can adjust the display brightness of the screen, or enable eye protection mode.

- 1. Go to LED Settings  $\rightarrow$  Display Effect  $\rightarrow$  Basic Display Effect  $\rightarrow$  Basic Parameter.
- 2. Check the device(s) to be set from the device list.



#### Figure 4-28 Adjust Screen Brightness

3. Adjust the brightness value.

4. Optional: Enable Eye Protection Mode as needed.

## 4.2.3 Adjust Screen Color

According to the different scenarios, select the color standard and select the color temperature mode. Before leaving the factory, the screen color has been adjusted and the color data is stored on the screen. If the default color data is missing, import the color file. When you select the original color standard and refined adjustment, you need to import the color file.

#### Steps

#### 1. Go to LED Settings $\rightarrow$ Display Effect $\rightarrow$ Basic Display Effect $\rightarrow$ Basic Parameter.

- 2. Check the device(s) to be set from the device list.
- 3. Select Color Standard.

#### Wide Color Gamut

Applicable to UHD (Ultra High Definition) devices.

#### **Digital Cinema**

Applicable to digital cinemas and high-end displays.

#### HDTV

Applicable to general displays, HDTV (High Definition Television), and other common video devices.

#### General

Applicable to the user defined color adjustment via the remote controllers.

#### Original

Restore to the original color.

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|---------------|--------------|-------------------|
|---------------|--------------|-------------------|

| Color Standard             | Original         | ~                        |
|----------------------------|------------------|--------------------------|
| olor Temp. Adjustment Mode | Wide Color Gamut | Adjustme                 |
| Color Temperature Mode     | HDTV             | or 🔿 Warm Color 🔿 Custom |
| color remperature mode     | Digital Cinema   |                          |
|                            | Original         |                          |
|                            | General          |                          |

#### Figure 4-29 Select Color Standard

#### 4. Adjust the color temperature.

1) Select Color Temp. Adjustment Mode. The Refined Adjustment and General Adjustment are supported.

#### 2) Select Color Temperature Mode.

| Color Standard             | Original                     | ~                                  |  |
|----------------------------|------------------------------|------------------------------------|--|
| olor Temp. Adjustment Mode | O Refined Adjust             | tme 💿 General Adjustme             |  |
| Color Temperature Mode     | <ul> <li>Standard</li> </ul> | ○ Cool Color ○ Warm Color ○ Custom |  |
|                            |                              |                                    |  |

Figure 4-30 Select Color Temperature Adjustment Mode

## 4.2.4 Import Color File

Before leaving the factory, the screen color has been adjusted and the color data is stored on the screen. If the default color data is missing, import the color file. When you select the original color standard and refined adjustment, you need to import the color file. The color file must be in .bin format and its size cannot exceed 20 KB.

- 1. Go to LED Settings  $\rightarrow$  Display Effect  $\rightarrow$  Basic Display Effect.
- 2. Check the device(s) to be set from the device list.
- 3. Import the color file:
  - Local Import: Click Local Import and then select a local color file to import.
  - Load from Cloud: Click Load from Cloud, enter the keyword to search and then select a color file from the search result list.



## 4.2.5 Set Image Enhancement

You can set image enhancement to adjust the image display effect.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Display Effect  $\rightarrow$  Basic Display Effect  $\rightarrow$  Advanced Parameter.
- 2. Check the device(s) to be set from the device list.

| Image Enhancement | Medium Enhancement | $\sim$ |
|-------------------|--------------------|--------|
| Presentation      |                    |        |

#### Figure 4-32 Set Image Enhancement

3. Select Image Enhancement according to the device surroundings, Weak Enhancement, Medium Enhancement, Strong Enhancement, or Close.

4. Optional: Enable **Presentation** to compare the image effect before and after enabling image enhancement.

With presentation enabled, a scroll bar appears. The left side of the scroll bar displays the enhanced image and the right side of the scroll bar displays the original image.

5. Optional: Enable **Eye Protection Mode** to reduce the brightness in high gray scale condition and power consumption and to make the screen light softer.

### iNote

After enabling the image enhancement, you cannot enable eye protection mode.

### 4.2.6 Set Advanced Image Parameters

You can set contrast mode, initial brightness level, brightness management, shooting management, ultra-low gray, etc.

- 1. Go to LED Settings  $\rightarrow$  Display Effect  $\rightarrow$  Basic Display Effect  $\rightarrow$  Advanced Parameter.
- 2. Check the device(s) to be set from the device list.

| Filter                   | None Safety Ad | Video Doc. | Movie Custom |
|--------------------------|----------------|------------|--------------|
| Brightness Management    | General        | ~          |              |
| Shooting Management      | Normal         | ~          |              |
| Contrast Mode            | Shutdown       | ~          |              |
| Gamma Coefficient        |                | 2.8 🗘      |              |
| Environment Brightness   | •              | 8          |              |
| Initial Brightness Level | 0              | 4          |              |
| Initial Brightness       |                | 0          |              |
| Image Enhancement        |                | ~          |              |
| Presentation             |                |            |              |
| Eye Protection           |                |            |              |
| Strength Coefficient     |                | 25 🗘       |              |
|                          |                |            |              |

#### Figure 4-33 Set Advanced Image Parameter

#### 3. Set the parameters below.

#### Filter

Select a filter according to the scene. You can select **Safety**, **Ad**, **Video**, **Doc**, **Movie** or **Custom**.

#### **Brightness Management**

The brightness of the screen under different modes: Highlight > General > Low Light.

#### **Shooting Management**

You can adjust the screen refresh rate to improve the scanning patterns phenomenon when shooting the screen with a mobile phone. In **Professional** mode, the refresh rate is higher than that in **Normal** mode.

#### **Contrast Mode**

You can select Shutdown, Weak, Medium, or Strong.

#### Gamma Coefficient

Lower gamma coefficient makes shadows look brighter and higher gamma coefficient makes shadows look darker.

#### **Environment Brightness**

Set the environment brightness according to the actual scene.

#### **Initial Brightness Level**

The brightness level and value of the screen initial grayscale.

4. Optional:

1) Click **Cure Scene Parameters** to save the set parameters and load the cured parameters next startup.

- 2) Click Restore Scene Parameters to restore the scene parameters to the default.
- 5. Set the gray parameters.
  - 1) Go to LED Settings  $\rightarrow$  Display Effect  $\rightarrow$  Advanced Display Effect  $\rightarrow$  Image Parameters.
  - 2) Check the device(s) to be set from the device list.
  - 3) Enable Ultra-Low Gray Control or Gray Scale Optimization.

#### **Ultra-Low Gray Control**

Enable the function to avoid the low gray halo phenomenon.

#### **Gray Scale Optimization**

Enable the function to make the screen gray display more uniformly.

| Ultra-Low Gray Control   |   |
|--------------------------|---|
| Gray Scale Optimization  |   |
| Receiving Card No Signal | $\bigcirc$ Reserve Last Frame $\bigcirc$ Aging Mode $\bigcirc$ Black Screen |

#### Figure 4-34 Set Gray Parameters

6. Optional: Select the image when the receiving card has no signal.

### iNote

The function varies with different models. The actual device prevails.

#### **Reserve Last Frame**

When the receiving card has no source input, the screen will keep the last frame display, and continue to display normally when the signal is restored.

#### Aging Mode

The screen will flash in a random pure color.

#### Black Screen

When the receiving card has no source input, the screen will display in black.

## 4.2.7 Set Receiving Card

View or edit the configuration information related to the receiving card. It is generally used by technical support personnel to debug the device.

Go to **LED Settings**  $\rightarrow$  **Display Effect**  $\rightarrow$  **Advanced Display Effect**. Check the device(s) to be set from the device list. Click **Receiving Card Parameters** or **Gamma Table** to view the related information.

### **Receiving Card Parameters**

View or edit the basic parameters of the receiving card.

| Gray Level                |      | ~        |           |
|---------------------------|------|----------|-----------|
| Dclk Clock Cycle          | 0    | •        | 8ns       |
| Gclk Clock Cycle          | 0    | ▲<br>▼   | 8ns       |
| Dclk Duty Ratio           |      | ~        | (1~100)   |
| Dclk Phase                |      | ~        | (1~65535) |
| Refresh Rate              |      | ~        | (1~128)   |
| Line Blanking Time        | 0    | •        | (1~65535) |
| fterglow Control End Time | 0    | •        | (1~65535) |
| Line Feed Time            | 0    | •        | (1~65535) |
| Line Scan Number          | 0    | •        | (0~255)   |
| fresh Complete Gray Level | 0    | •        | (0~255)   |
| Number of Gclk            | 0    | •        | (0~255)   |
| Gclk Count Value          | 0    | <b>•</b> | (1~65535) |
| Refresh Rate              | 0    | *<br>*   | (1~65535) |
| Open Circuit Detection    |      |          |           |
| Parameters Curing         | Cure |          |           |

## Figure 4-35 Basic Parameters of Receiving Card

| Related Operation | Description   |
|-------------------|---|
| Cure              | Save the set parameters. Load the cured parameters next |

| Related Operation | Description |
|-------------------|-------------|
|                   | startup.    |

### Gamma Table

View the Gamma table information, import, or export the table.

| x  | R-Y | G-Y | B-Y |  |
|----|-----|-----|-----|--|
| 0  | 0   | 0   | 0   |  |
| 1  | 8   | 8   | 8   |  |
| 2  | 16  | 16  | 16  |  |
| 3  | 24  | 24  | 24  |  |
| 4  | 32  | 32  | 32  |  |
| 5  | 40  | 40  | 40  |  |
| 6  | 48  | 48  | 48  |  |
| 7  | 56  | 56  | 56  |  |
| 8  | 64  | 64  | 64  |  |
| 9  | 72  | 72  | 72  |  |
| 10 | 80  | 80  | 80  |  |
| 11 | 88  | 88  | 88  |  |
| 12 | 96  | 96  | 96  |  |
| 13 | 104 | 104 | 104 |  |
| 14 | 112 | 112 | 112 |  |

#### Figure 4-36 Gamma Table

| Related Operation | Description   |  |
|-------------------|---|--|
| Switch View Modes | Click $ Black reduction Boundary Stress S$ |  |
| Save              | Apply the current parameters.   |  |
|                   | In list view, click <b>Import</b> to import the Gamma table from the PC.  |  |
| Import            | <b>I</b> INote  |  |
|                   | The Gamma table saved in the PC should be in CSV format.  |  |

| Related Operation | Description  |  |
|-------------------|--|--|
| Export            | In list view, click <b>Export</b> to export the current Gamma table to the PC. |  |

## 4.3 System Settings

### 4.3.1 Set Screen Saver

When the connected signal input is weak or there is no signal input, the screen will display the screen saver automatically.

#### Steps

#### 1. Go to LED Settings $\rightarrow$ System Configuration $\rightarrow$ Screen Saver.

2. Check the device(s) to be set from the device list.

| Screen Saver                       | ◯ Default ● Custom ◯ Black Screen |
|------------------------------------|-----------------------------------|
|                                    |                                   |
|                                    | +<br>Add Picture                  |
| Random Play                        |                                   |
| Picture Auto-Switch Interval (min) | 1<br>Save                         |

Figure 4-37 Set Screen Saver

3. Select Screen Saver.

#### Default

System default screen saver.

#### Custom

You can upload custom screen saver. Click **Add Picture** to select picture(s) as the screen saver(s).

## iNote

- Up to six pictures can be added.
- Only the pictures in JPG format are supported. The picture size and resolution varies by the sending card. For example, one 2K sending card supports a picture with a maximum size of 2 MB and a maximum resolution of 1080p.
- If you add multiple pictures, the pictures will switch automatically. You can enable **Random Play** and set **Picture Auto-Switch Interval**. When there is no signal input, the screen will play the added pictures randomly according to the set interval.

### **Black Screen**

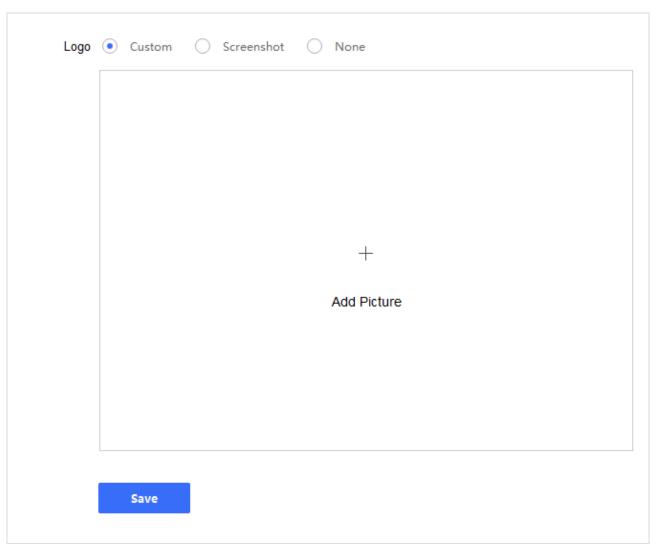
When there is no signal input, the screen will show black.

4. Click Save.

## 4.3.2 Set Startup Logo

Set the logo displayed on the screen when the device starts up.

- 1. Go to LED Settings  $\rightarrow$  System Configuration  $\rightarrow$  Startup Logo.
- 2. Check the device(s) to be set from the device list.
- 3. Select Logo.



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#### Figure 4-38 Set Startup Logo

## □iNote

The supported logos vary with different models. The actual device prevails.

#### Custom

You can upload the custom pictures as the logo. Click **Add Picture** to select the pictures from the PC.

## iNote

Only the pictures in JPG format are supported. The picture width should be in the range of 640 to 1920, the picture height should be in the range of 480 to 1080. The picture size cannot exceed 7 MB. The 4K pictures can be supported according to the sending card.

#### Screenshot

Snipe the current display image as the startup logo.

#### None

No startup logo.

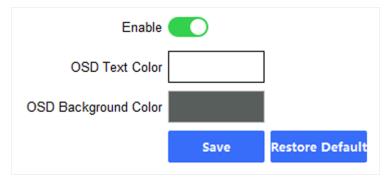
4. Click **Save**.

## 4.3.3 Set OSD

You can set the OSD (On-Screen Display) of the display.

### Steps

- 1. Go to LED Settings  $\rightarrow$  System Configuration  $\rightarrow$  OSD.
- 2. Check the device(s) to be set from the device list.



#### Figure 4-39 Set OSD

- 3. Enable the function.
- 4. Set OSD Text Color and OSD Background Color.
- 5. Click Save.
- 6. Optional: Click **Restore Default** to restore to the default settings.

## 4.3.4 Set Dehumidification Mode

After the display is turned on, the dehumidification function automatically adjusts the brightness and preheats the lamp beads to evaporate the water vapor in the lamp beads, thereby improves the service life of the LED display. You can set the dehumidification mode of the following two triggering methods via the client.

## Triggered by Shutdown Time

In this method, when the device is turned off for more than 24 hours, it will automatically match the dehumidification mode parameters according to the humidity type in the current area and enable the dehumidification function immediately when it is restarted.

#### **Before You Start**

When there are multiple sending cards in the same project, use a switch to set the sending cards that need dehumidification in the same network segment.

#### Steps

- 1. Enable simultaneous dehumidification mode.
  - 1) Add a sending card, and go to LED Settings → System Configuration → Sending Card Network Cascade.
  - 2) Enable the function.
  - 3) Check Simultaneous Dehumidification Mode.
  - 4) Check all the device(s) that need to be dehumidified, including the added sending card.
  - 5) Click **Save**.

# **i**Note

If there is only one sending card in the project, you only need to log in to the sending card via the client, and the operations above are not required.

The sending card enabling the simultaneous dehumidification mode is the primary dehumidification card by default, and other checked devices will synchronize the dehumidification configuration of the primary card.

- 2. Synchronize time. Refer to <u>Synchronize Time</u> for details.
- 3. Set dehumidification.

1) Go to LED Settings  $\rightarrow$  System Configuration  $\rightarrow$  Dehumidification.

2) Check the device(s) to be set from the device list.

| Auto Dehumidification |                |
|-----------------------|----------------|
| Region                | Custom ~       |
| Time Step(min)        | 5              |
| Brightness Step       | 1              |
| Delayed Duration(min) | 30             |
| Usage                 | 100%           |
|                       |                |
|                       | OK Save and Do |
|                       |                |

#### Figure 4-40 Dehumidification

#### 3) Enable Auto Dehumidification.

- 4) Select **Region** according to the actual humidity condition of the device location.
- 5) Optional: If you select **Custom**, set the parameters below.

#### Time Step

The time interval the brightness increases in the total working time within single dehumidification.

#### **Brightness Step**

The brightness interval the brightness increases in the total working time within single dehumidification.

#### **Delayed Duration**

The total working time within single dehumidification.

6) Click **OK**.

- 7) Optional: Click Save and Do to start dehumidification immediately.
- 8) Optional: Disable Auto Dehumidification to disable dehumidification function manually.

# iNote

Disabling dehumidification function manually is only valid once. The next time you start the device, the dehumidification will be enabled automatically.

### **Triggered by External Sensor**

In this method, the device will obtain the current surrounding humidity via an external temperature and humidity sensor, and compare it with the humidity threshold set by the system. If the current humidity exceeds the threshold, it will automatically match the dehumidification parameters and enable the dehumidification function immediately.

#### **Before You Start**

The sensor has been connected to the multi-functional card via RS-485 interface. When there are multiple sending cards in the same project, use a switch to set the sending cards that need dehumidification in the same network segment.

#### Steps

- 1. Enable simultaneous dehumidification mode.
  - 1) Add a sending card, and go to LED Settings → System Configuration → Sending Card Network Cascade.
  - 2) Enable the function.
  - 3) Check Simultaneous Dehumidification Mode.
  - 4) Check all the device(s) that need to be dehumidified, including the added sending card.
  - 5) Click Save.

# iNote

If there is only one sending card in the project, you only need to log in to the sending card via the client, and the operations above are not required.

The sending card enabling the simultaneous dehumidification mode is the primary dehumidification card by default, and other checked devices will synchronize the dehumidification configuration of the primary card.

- 2. Enable the sending card temperature detection, environment temperature detection, and environment humidity detection. Refer to *Detect Screen Status* for details.
- 3. Set dehumidification.
  - 1) Go to LED Settings  $\rightarrow$  System Configuration  $\rightarrow$  Dehumidification.
  - 2) Check the device(s) to be set from the device list.

| Auto Dehumidification |                |
|-----------------------|----------------|
| Region                | Custom ~       |
| Time Step(min)        | 5              |
| Brightness Step       | 1              |
| Delayed Duration(min) | 30             |
| Usage                 | 100%           |
|                       |                |
|                       | OK Save and Do |
|                       |                |

Figure 4-41 Dehumidification

#### 3) Enable Auto Dehumidification.

- 4) Select **Region** according to the actual humidity condition of the device location.
- 5) Optional: If you select **Custom**, set the parameters below.

#### Time Step

The time interval the brightness increases in the total working time within single dehumidification.

#### **Brightness Step**

The brightness interval the brightness increases in the total working time within single dehumidification.

#### **Delayed Duration**

The total working time within single dehumidification.

6) Click **OK**.

- 7) Optional: Click Save and Do to start dehumidification immediately.
- 8) Optional: Disable Auto Dehumidification to disable dehumidification function manually.

## iNote

Disabling dehumidification function manually is only valid once. The next time you start the device, the dehumidification will be enabled automatically.

## 4.3.5 Set Sending Card Network Cascade

You can set the sending card parameters simultaneously in batch.

#### **Before You Start**

The multiple sending cards to be configured simultaneously must be in the same LAN.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  System Configuration  $\rightarrow$  Sending Card Network Cascade.
- 2. Enable the function.

| Enable 🧲                   |  |
|----------------------------|--|
| Cascade Control Parameters | Adjust Brightness/White Balance Simultaneously |
|                            | Advanced Function                              |
|                            | Simultaneous Dehumidification Mode             |
|                            | Attribute Configuration                        |
|                            | System Configuration                           |
|                            | Basic Settings                                 |
|                            | Switch Input Signals Simultaneously            |
|                            | Save   |

Figure 4-42 Set Sending Card Network Cascade

- 3. Select Cascade Control Parameters.
- 4. Check the device(s) to add to the multicast.
- 5. Check any device added to the client to realize simultaneous control.
- 6. Click Save.

# 4.4 Device Maintenance

## **4.4.1 Correct Defective Pixel**

If you enable defective pixel correction for the first time, load the original correction data to make

the data on the lamp board consistent with the data on the receiving card. If the data on the lamp board is missing, select file correction. Otherwise, select manual correction. If there is a color difference, light seam line, or dark seam line, adjust the RGB permillage of the screen or seam. Clicking start correction is only the first step to configure the defective pixel correction and then you need to configure the correction parameters.

#### **Manual Correction**

Correct single or multiple modules or screens manually.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  Defective Pixel Correction.
- 2. Click **Start Correction** to start configuring the correction.
- 3. Select the device to be corrected:
  - Select the device to be corrected from the device list.
  - Click Batch Configuration, select the devices, enable correction and check the correction content.
- 4. Set the correction area.
  - Click B, and select the area to be corrected.

# iNote

- If single or multiple modules need to be corrected, check **Show Module**. If single or multiple screens need to be corrected, uncheck **Show Module**.
- If you select seam correction, you cannot check **Show Module**.

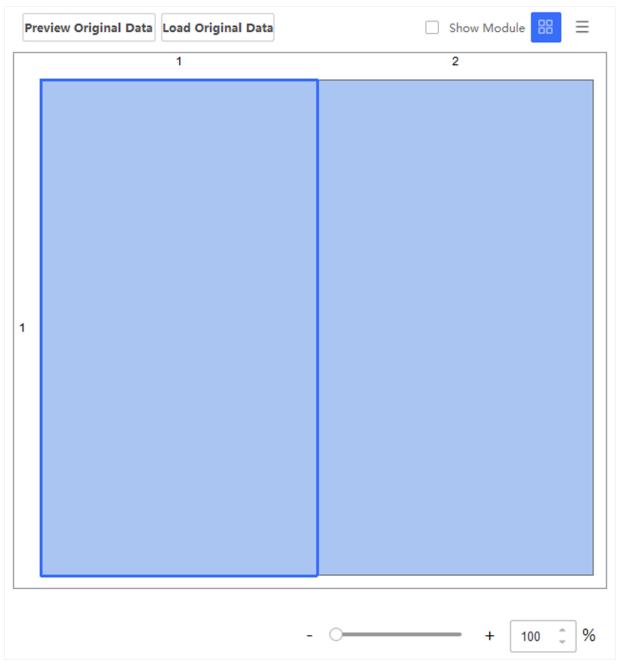


Figure 4-43 Select Correction Area

– Click  $\equiv$ , and enter Start Coordinate and End Coordinate.

| Previev | v Origin | al Data Load Original Da | ta             |  |
|---------|----------|--------------------------|----------------|--|
|         | Ind      | ex Start Coordinate      | End Coordinate |  |
|         | 1        | 1,1                      | 240,270        |  |
|         |          |                          |                |  |

#### Figure 4-44 Set Correction Area Coordinate

5. Click **Original Corr. Data**, and select **Load Original Corr. Data** to load the default correction data stored on the lamp board.

# □iNote

If you enable defective pixel correction for the first time, load the original correction data to make the data on the lamp board consistent with the data on the receiving card.

- 6. If the desired display effect is not reached, click **Defective Pixel Correction**.
- 7. Select Correction Mode as Manual Correction.
- 8. Select Correction Type.
  - Select Screen Correction.

| Defective Pixel Correction  | Download |
|---|----------|
| Correction Mode<br>File Correction<br>Manual Correction                                 |          |
| <ul> <li>Correction Type</li> <li>Screen Correction</li> <li>Seam Correction</li> </ul> |          |
| Sync Adjustment (RGB)<br>Red  |          |
| Green   | 1000 🤤   |
| Blue  | 1000 Ĵ   |
| (   | 1000 🤤   |
| Clear Correction Data   |          |
| Apply Preview   | ,        |

Figure 4-45 Screen Manual Correction

- Select Seam Correction.
  - 1) Set Calibration Bar.

#### All

Correct all the seams.

#### Vertical

Correct all the vertical seams.

#### Horizontal

Correct all the horizontal seams.

#### 2) Set Seam Width.

Adjust the seam width ranging from 1 to 50.

| Defective Pixel Co   | rrection | Down | load     |
|--|----------|------|----------|
| Correction Mode<br>File Correction<br>Manual Correct         | ion      |      |          |
| Correction Type<br>Screen Correction<br>Seam Correction      |          |      |          |
| Calibration Rar<br><ul> <li>All</li> <li>Vertical</li> </ul> |          |      |          |
| <ul> <li>Horizontal</li> <li>Seam Width</li> </ul>           |          | 1    | <b>A</b> |
| Sync Adjustment (RO<br>Red                                   | GB)      |      | ÷        |
| Green  |          | 1000 | *        |
| Blue   |          | 1000 | *        |
|  | [        | 1000 | *<br>*   |
| Clear Correction Da  | ta       |      |          |
| Apply  | Preview  | ,    |          |

Figure 4-46 Seam Manual Correction

9. Adjust the RGB value.

**i**Note

- The RGB permillage ranges from 800 to 1200, and the default value is 1000.
- Enable **Sync Adjustment (RGB)**, and you can adjust the RGB permillage simultaneously. The values will be the same.

#### 10. Click **Live View** to preview the display effect.

## iNote

If the display effect is not appropriate, you can adjust the RGB permillage again.

11. Click **Apply** when the desired display effect is reached.

- 12. Optional:
  - Click Original Corr. Data, and select Preview Original Corr. Data to preview the display effect by using the original correction data.
  - Click Manual Corr. History, and select Reuse Manual Corr History to reuse the stored seam correction data.
  - Click Manual Corr. History, and select Clear Manual Corr History to clear the stored seam correction data.
  - Click Clear to clear the data on the receiving card when the correction data is completely
    misaligned and loading the original correction data has no effect.

13. Click **Disable** to exit from the correction configuration.

## **File Correction**

If the data on the lamp board is missing, you can import a correction file to batch correct the screens/seams. The correction file size cannot exceed 1 GB.

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  Defective Pixel Correction.
- 2. Click Start Correction.
- 3. Select the device to be corrected:
  - Select the device to be corrected from the device list.
  - Click Batch Configuration, select the devices, enable correction, and check the correction content.
- 4. Click B, and select an area as the start area of the batch correction.
- 5. Click Defective Pixel Correction.
- 6. Select Correction Mode as File Correction.

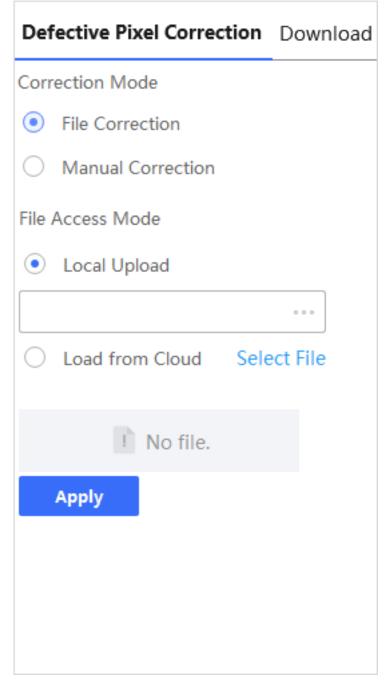


Figure 4-47 File Correction

7. Select the file access mode:

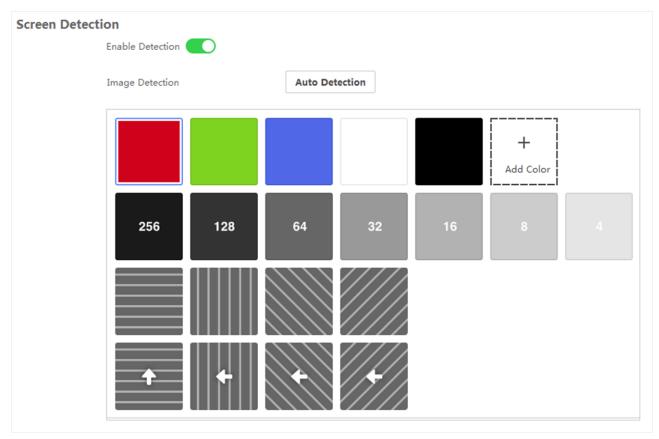
- Local Upload: Click ... to select the local correction file.
- Load from Cloud: Click Select File, enter the keyword, click Search, and the select a correction file.
- 8. Click Apply.
- 9. Optional: Click **Download** and select the saving path to download the correction file for backup.

# 4.4.2 Detect Screen Color

You can select different images to test if the screen can display normally.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  Screen Detection.
- 2. Check the device(s) to be set from the device list.
- 3. Enable detection.



#### Figure 4-48 Detect Screen Color

- 4. Detect the screen color.
  - Manual detection.
    - Click the color bars and ripples to detect the corresponding screen colors.
    - Click Add Color, select the color to be detected, and click OK to complete the custom color detection.
  - Auto detection. Click Auto Detection, and the system will display the detection images one by one automatically.

# 4.4.3 View Device Information

Click **Device Management**. Select an online device, and click  $\boxplus$  to view the device information. You can click  $\checkmark$  to edit the device name.

# 4.4.4 Upgrade

# Caution

Do not disconnect the power supply during upgrade.

#### Upgrade Receiving Card/Multi-Functional Card

You can upgrade the receiving card or multi-functional card online or offline.

#### Steps

- 1. Click Device Management.
- 2. Select an online device, and click Upgrade.
- 3. Select Upgrade Content as Receiving/Multi-Functional Card.
- 4. Select Upgrade Mode.
  - Select **Online** to get the latest upgrade package from the cloud. Click **Upgrade**.
  - Select **Offline**. Click .... to select the upgrade package from the PC. Click **Upgrade**.

# **i**Note

If upgrading failed and the device cannot function correctly, contact the supplier in time.

#### Result

The device will reboot automatically when upgrading succeeded.

## Upgrade Sending Card

You can upgrade the sending card online or offline.

#### Steps

- 1. Click **Device Management**.
- 2. Select an online device, and click Upgrade.
- 3. Select Upgrade Content as Sending Card.
- 4. Select Upgrade Mode.
  - Select **Online** to get the latest upgrade package from the cloud. Click **Upgrade**.
  - Select **Offline**. Click ···· to select the upgrade package from the PC. Click **Upgrade**.

## iNote

If upgrading failed and the device cannot function correctly, contact the supplier in time.

#### Result

The device will reboot automatically when upgrading succeeded.

# 4.5 System Maintenance

# 4.5.1 Smart Maintenance

Go to **LED Settings**  $\rightarrow$  **Maintenance**  $\rightarrow$  **Smart Maintenance** to synchronize parameters, monitor device status, export device information, compare parameters, etc.

#### **Synchronize Parameters**

You can synchronize the parameters of the sending cards in the same device group.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  Smart Maintenance.
- 2. Select the device group from the dropdown list.
- 3. Click Sync Parameters.

| Sync Par  | $\times$ |
|---|----------|
| o1 Select a sending card as the standard one.         |          |
| Standard Sending                                      |          |
| 02 Select the sending card to copy the standard card. |          |
| Сору То   |          |
|   |          |
|   |          |
|   |          |
| No Data   |          |
|   |          |
|   |          |
|   |          |
| OK Cancel   |          |

Figure 4-49 Synchronize Parameters

#### 4. Select Standard Sending Card.

5. Select the sending card to copy the standard card.

6. Click **OK**.

#### **Monitor Device Status**

You can monitor the added device status.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  Smart Maintenance  $\rightarrow$  Status Monitoring.
- 2. Select the device group from the dropdown list to view the device status.
- 3. Click **Show All Devices**, and select **Display All** or **Display Exception** to view the status of all the added devices, including the sending card status, receiving card status, memory usage, and CPU usage.

| < All Device   |  | ● Display All ○ Display exceptio   |
|--|--|--|
| <ul> <li>Sending Card RunniNormal</li> <li>Receiving Card RunAbnormal</li> </ul> | <ul> <li>Sending Card RunniNormal</li> <li>Receiving Card RunAbnormal</li> </ul> | <ul> <li>Sending Card RunniNormal</li> <li>Receiving Card RunAbnormal</li> </ul> |
| 45% 0%<br>Memory Usage CPU Usage   | 54% 0%<br>Memory Usage CPU Usage   | 45% 27%<br>Memory Usage CPU Usage  |
| <ul> <li>Sending Card RunniNormal</li> <li>Receiving Card RunAbnormal</li> </ul> | <ul> <li>Sending Card RunniNormal</li> <li>Receiving Card RunNormal</li> </ul>   | <ul> <li>Sending Card RunniNormal</li> <li>Receiving Card RunNormal</li> </ul>   |
| 45% 10%<br>Memory Usage CPU Usage  | 47% 9%<br>Memory Usage CPU Usage   | 54% 10%<br>Memory Usage CPU Usage  |

#### Figure 4-50 Monitor Device Status

4. Click the specific device status tab to view the device status details or export the status information.

1) Click Sending Card, Receiving Card, or Register to view the status details.

|         |              | Details                       | 🕀 Expor   | t           |  |
|---------|--------------|-------------------------------|-----------|-------------|--|
|         | Sending Card | Receiving                     | Card      | Register    |  |
| Basic I | nformation   |                               |           |             |  |
|         | S            | creen Position<br>Coordinates |           |             |  |
|         | Device       | e Type/Version<br>Information |           |             |  |
|         | Signal Sou   | Irce Resolution               |           |             |  |
|         |              | Frame Rate                    |           |             |  |
|         | Signal       | Source Status                 |           |             |  |
|         | Signal       | Source Format                 |           |             |  |
|         | Out          | put Resolution                |           |             |  |
|         | i Parame     | eters Self-Check              |           |             |  |
| Runniı  | ng Status    | _                             |           |             |  |
|         | Dev          | ice Temperature               | Norm      | al          |  |
|         | Environme    | ent Temperature               | Norm      | al          |  |
|         | Enviro       | nment Humidity                | 🕑 Norm    | al          |  |
|         | Last Sł      | nutdown Time                  | 2023/01/2 | 11 11:15:33 |  |
|         | Current      | Startup Time                  | 2023/01/  | 11 19:11:39 |  |
| Systen  | n Status     | 45%                           |           | 5%          |  |

Figure 4-51 Sending Card Status Details

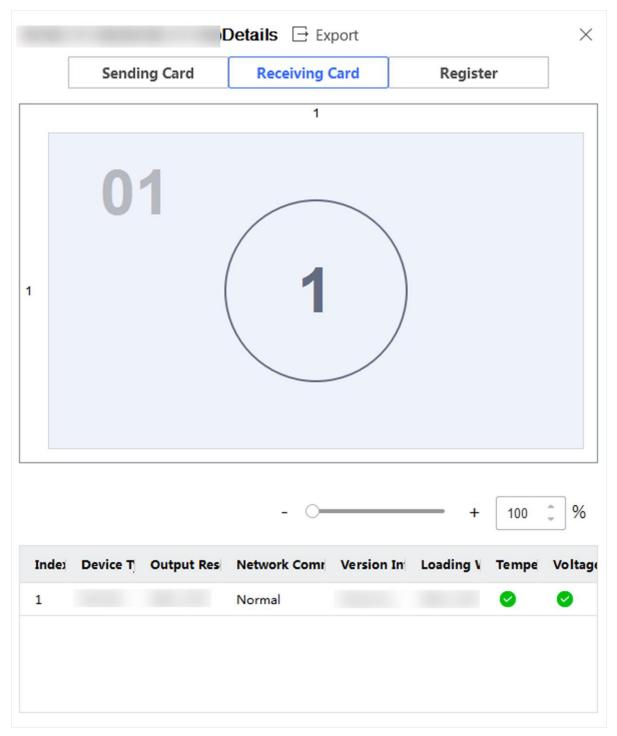


Figure 4-52 Receiving Card Status Details

Full-Color LED Display Client User Manual

|  |  | Details 📑 Expo            | ort      | 2 |
|--|--|---------------------------|----------|---|
|  | Sending Card   | Receiving Card            | Register |   |
| Da   | ta Type 💿 Sendir   | ng Card 🔘 Receiving       | Card     |   |
| Start L  | ocation  |                           |          |   |
| Data   | Length   |                           |          |   |
|  | Search   |                           |          |   |
| Search Res   | ult  |                           |          |   |
| 0x40010198<br>0x4001019c<br>0x400101a0<br>0x400101a8<br>0x400101a8<br>0x400101ac<br>0x400101b0<br>0x400101b4<br>0x400101b8<br>0x400101b6<br>0x400101c0<br>0x400101c0<br>0x400101c3<br>0x400101c8<br>0x400101c8<br>0x400101d4<br>0x400101d8<br>0x400101d8<br>0x400101d8 | 00000000<br> 00ff001e <br> 00000000<br> 00ff0000 <br> 0180010e<br> 00000180<br> 0000010e<br> 0000003c<br> fffffff <br> 00000000<br> fffffff <br> 00000000<br> 00000000<br> 000097e0<br> 00004bf0 | . <br>. <br>. <br>. <br>. |          |   |
| 0x400101010<br>0x400101e4<br>0x400101e8<br>0x400101ec<br>0x400101f0<br>0x400101f4<br>0x400101f8<br>0x400101f6  | 00004bf1<br> 00000000<br> 00000000   | . <br> <br> <br>          |          |   |

#### Figure 4-53 Register Status Details

- 2) Optional: For register status, you can select **Data Type**, and click **Search** to search the details of the sending card or receiving card register.
- 3) Optional: Click **Export**, and select the content(s) to export. Click **Export**, and select the saving path to save the exported files.

The CSV file named with the device IP address and the picture named as

"Topological\_graph.jpg" will be exported. Open the CSV file, and you can view the detailed

information such as device type, display effect, sending card status, etc.

5. Optional: On **Smart Maintenance** interface, click **Export** and select the device group to export the detailed status information of the device group.

The CSV file named with the device IP address and the picture named as "map.jpg" will be exported. Open the CSV file, and you can view the detailed information such as device type, display effect, sending card status, etc.

#### **Compare Parameters**

You can compare the added device parameters for troubleshooting.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  Smart Maintenance  $\rightarrow$  Parameters Comparison.
- Select the parameters types which need to be compared from Content dropdown list, and select the devices which need to be compared from Device dropdown list.
   The parameters comparison table will display. Click View All Parameters to fill the table in full

display mode.

| Smart Maintenance 88 All         | $\sim$ |  | Sync Parameters Export |
|----------------------------------|--------|--|------------------------|
| < Parameters Comparison          |        | Content:Model Ving Card Status $ 	imes $ | Device:                |
| Parameter                        |        |  |                        |
| Sending Card Version Information |        |  |                        |
| Receiving Card Software Version  |        |  |                        |
| Receiving Card Type              |        |  |                        |
| Color Temperature Mode           |        |  |                        |
| R/G/B                            |        |  |                        |
| Environment Brightness           |        |  |                        |
| Enhanced                         |        |  |                        |
| Gamma Coefficient                |        |  |                        |
| Ultra-Low Gray Control           |        |  |                        |
| Receiving Card Flash Checksum    |        |  |                        |
| Receiving Card Gamma Checksum    |        |  |                        |
| Receiving Card Basic Checksum    |        |  |                        |
| Brightness Flash Checksum        |        |  |                        |
| Color Gamut Flash Checksum       |        |  |                        |
| Gray Scale Optimization          |        |  |                        |
| Brightness                       |        |  |                        |
| Screen Type                      |        |  |                        |

#### Figure 4-54 Compare Parameters

3. Click < to return to Smart Maintenance interface.

# 4.5.2 Search and Export Log

You can search for and export device operation and exception logs, or view the client operation and exception logs.

#### Steps

- 1. Go to **LED Settings**  $\rightarrow$  **Maintenance**  $\rightarrow$  **Log**.
- 2. View the device logs:
  - 1) Select Search Mode.
  - 2) Click the device to search.
  - 3) Click Search.

The log information will display on the right.

| Search Mode   |      |                |             |                 |                |  | Export |
|---------------|------|----------------|-------------|-----------------|----------------|--|--------|
| All v         | ID   | Operation Time | Major Type  | Minor Type      | Remote Host Ac | Description                                      |        |
| Device        |      | 2023 11 4771   | Operation   | Basic Operation |                | (Ther Reg) Remote Logend?                        |        |
| benee         |      | ARES 11 APRIL  | Operation   | Real Operation  |                | (DarrApp) Remote Logend                          |        |
| Search Q      |      | 2023 11 40711  | Operation   | Basic Operation |                | (TeerApp) Remote Lopest                          |        |
| uu            |      | 2023 11 4775   | Operation   | Rest: Operation |                | (ThereByzg) Remote Logend                        |        |
| tt            |      | 2023 11-0771.  | Operation   | Digital (Bell - |                | (MittApp) Restore/Toping/coneMicite-ck           |        |
| 10.12.113.121 |      | 2023 11 42711. | Operation   | Daping Dect     |                | (Minishpa) Set also Minis calo Minis - 2         |        |
| 10.12.113.121 |      | and in error.  | Operation   | Daping Ohnt     |                | (Middagg) 'artf yn arddiade yn colorffiliaie - 1 |        |
|               |      | and to state?  | Operation   | Daping Direct   |                | (MithApp) Reduce/Siglig/coneMiche-ik             |        |
|               |      | AUG. 11 4771.  | Operation   | Daping Direct   |                | (Mittelagg) Anton/Deploylemethicsh-sk            |        |
|               |      | and to state.  | Operation   | Rest: Operation |                | (See App) Nettorie Logical                       |        |
|               |      | 2023 11 40711  | Connection  | Basic Operation |                | (TeerApp) Remote Lopical                         |        |
|               | 14   | 2023 11 4775   | Operation   | Basic Operation |                | (herdge) Renate Lagrad                           |        |
|               | 10   | 2023 11-0711   | Operation   | Real Operation  |                | (Ther-Rgg) Remote Logical                        |        |
|               | 14   | 2023 11 4275.  | Operation   | Real Operation  |                | (Hardge) Renote Logent                           |        |
|               | 10   | Mark In Arts.  | Operation   | Real Operation  |                | (San App) Nemale Lapad                           |        |
|               | 10   | and to serve   | Operation   | Real Operation  |                | (San App) Remate Lapard                          |        |
|               | 10   | and to state.  | Operation   | Basic Operation |                | (See App) Remote Logenth                         |        |
|               | 10   | AREA 11 40751  | Operation   | Rest: Operation |                | (San App) Remote Logical                         |        |
|               |      | 2023 0072      | Operation   | Daping Music    |                | (Mittidage) dealfroffigeal(3plipTeel5ge + 1      |        |
|               |      | 2023 11 4871.  | Operation   | Advanced Up.    |                | (Mithag) Withouthdate (R citeartadate-1          |        |
|               | 10   | 2023 11 4871.  | Operation   | Advanced Tax.   |                | (Mithep) Withouthinks (Kuthourischer-1           |        |
|               |      | 2023 11 4871.  | Operation   | (C) Receiving . |                | (Webdags) Tell carliery' area fissible (W        |        |
|               |      | 2023 11 4821.  | Operation   | (22 Revenues)   |                | (Minishpag) Satishagi sadish Tradish - 1         |        |
|               |      | 2023 11 4821.  | Operation   | Real Connection |                | (Motolgay) SetMaster 'ly sc"perokadis - 1        |        |
|               | 10   | and the second | Operation   | Daglag Mode     |                | (Mittelagg) LogelModelari ak                     |        |
| Search        | - 10 | 2023 11 4071   | Operation   | Daging Mode .   |                | (Mitches) Set of Second Involution all cal       |        |
| 🗁 Client Log  |      | 2022 11 48271  | Connections | Daping Multi-   |                | (MintApp) Logolitochist of                       |        |

#### Figure 4-55 Search Log

- 3. Click **Client Log** to view the client logs.
- 4. Optional: Click Export and select the saving path to export device logs as a CSV file.

# 4.5.3 Edit Password

You can edit the device password.

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Password.
- 2. Check the device(s) to be set from the device list.
- 3. Enter Old Password, New Password, and confirm the new password.

| Old Password     | ••••• | >~<    |
|------------------|-------|--------|
| New Password     | ••••• | >~<    |
|                  |       | Strong |
| Confirm Password | ••••• | >75    |
|                  | ОК    |        |

Figure 4-56 Edit Password

# Caution

The password strength of the device can be automatically checked. We highly recommend you change the password of your own choosing (using a minimum of 8 characters, including at least three kinds of following categories: upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you change your password regularly, especially in the high security system, changing the password monthly or weekly can better protect your product.

Proper configuration of all passwords and other security settings is the responsibility of the service provider and/or end-user.

4. Click **OK**.

# 4.5.4 Synchronize Time

Select the time zone and synchronize the system time.

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Time.
- 2. Check the device(s) to be set from the device list.
- 3. Select Time Zone, and click OK.
- 4. Select the time synchronization Mode.
  - Enable Local Time to synchronize the device time with that of the PC running the client. Click Sync.
  - Set **Time** manually from the calendar and click **OK**. Click **Sync**.

# 4.5.5 Set Network

The device will obtain IP address automatically when the network segment of the device has changed. If the device supports Wi-Fi, you can set the Wi-Fi name and password.

#### Before You Start

The network segment connected by the device has DHCP (Dynamic Host Configuration Protocol) function.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Network.
- 2. Check the device(s) to be set from the device list.

|       | DHCP                |
|-------|---------------------|
| Wi-Fi |                     |
|       | Wi-Fi Configuration |
| DHCP  |                     |
|       | DHCP                |
|       | ОК                  |

Figure 4-57 Set Network

3. Enable or disable DHCP.

# iNote

The function is enabled by default.

- 4. Optional: If the device has been connected with a Wi-Fi device, the interface will display the Wi-Fi settings.
  - 1) Enable Wi-Fi Configuration.
  - 2) Enter Wi-Fi Name and Wi-Fi Password.

## iNote

The Wi-Fi name is "device serial No. \*\*", and the default password is "hik12345".

5. Optional: The IP address will be allocated automatically when activating the online device. When the number of devices is larger than 200, you can enable **DHCP**.

# iNote

When the number of devices is larger than 200, if you have enabled **DHCP** after activating one device and activate the other device(s) in batch, the IP address(es) of other device(s) will be allocated with the DHCP service.

#### 6. Click **OK**.

# 4.5.6 Detect Screen Status

After enabling screen status detection, alarm information will be shown on the screen if the cabinet temperature, cabinet voltage, sending card temperature, and environment temperature and humidity are out of range.

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Alarm Threshold.
- 2. Check the device(s) to be set from the device list.
- 3. Enable the corresponding detection according to the actual needs.

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| Cabinet Voltage                  |      |
|----------------------------------|------|
| Max. Voltage Threshold (V)       | 4.6  |
| Min. Voltage Threshold (V)       | 3.6  |
| Cabinet Temperature              |      |
| Temperature Alarm Threshold (°C) | 60   |
| Sending Card Temperature         |      |
| Temperature Alarm Threshold (°C) | 70   |
| Environment Temperature          |      |
| Temperature Alarm Threshold (°C) | 50.2 |
| Environment Humidity             |      |
| Humidity Alarm Threshold (%)     | 40   |
|                                  |      |
| ок                               |      |

Figure 4-58 Detect Screen Status

#### Cabinet Voltage

Enable cabinet voltage detection, and enter **Max. Voltage Threshold** and **Min. Voltage Threshold**. When the cabinet voltage is larger than the set max. threshold or lower than the set min. threshold, the current voltage alarm information will be display on the screen.

#### **Cabinet/Sending Card Temperature**

Enable cabinet/sending card temperature detection, and enter **Temperature Alarm Threshold**. When the cabinet/sending card temperature is larger than the set threshold, the current cabinet/sending card temperature alarm information will be display on the screen.

#### **Environment Temperature**

Enable environment temperature detection, and enter **Temperature Alarm Threshold**. When the environment temperature is larger than the set threshold, the current environment temperature alarm information will be display on the screen.

#### **Environment Humidity**

Enable environment humidity detection, and enter **Humidity Alarm Threshold**. When the environment humidity is larger than the set threshold, the current environment humidity alarm information will be display on the screen.

4. Click **OK**.

# 4.5.7 Export Configuration File

You can export the device configuration file for backup. When the other devices need the same parameters, you can import the configuration file to the other devices.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Import/Export  $\rightarrow$  Export.
- 2. Check the device(s) to be set from the device list.
- 3. Select Exported Type.
- 4. Click … to select the saving path.
- 5. Click Export.
- 6. Enter Password, and click OK.

# 4.5.8 Import Configuration File

After exporting the configuration file, when the other devices need the same parameters, you can import the configuration file to the other devices.

#### Before You Start

Export the configuration file of the device from which the parameters of the imported device are copied. Refer to *Export Configuration File*.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Import/Export  $\rightarrow$  Import.
- 2. Check the device(s) to be set from the device list.
- 3. Click ... after **Import Configuration File** to select the configuration file saved in the PC.
- 4. Click Import.
- 5. Enter **Password**, and click **OK**.

# iNote

The password is the set password when exporting the configuration file.

# 4.5.9 Import Font Library

For the multi-input sending card, if you want to display the subtitle with the custom font type, import the custom font library first.

#### Before You Start

Download the custom font library. The font library file should be in .ttf format, and the file size cannot be larger than 10 MB.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Import/Export  $\rightarrow$  Import.
- 2. Check the device(s) to be set from the device list.
- 3. Click ... after **Import Font Library** to select the font library file saved in the PC.
- 4. Click Import.

#### What to do next

When setting the subtitle, you can select the custom font type. Refer to <u>Set Subtitle Image</u> for details.

# 4.5.10 Reboot Remotely

You can reboot the sending card or receiving card remotely.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Device Control  $\rightarrow$  Reboot/Restore.
- 2. Check the device(s) to be set from the device list.
- 3. Select the type of **Remote Reboot**.
- 4. Click **Reboot**.

# 4.5.11 Restore Parameters

You can restore the device settings to the factory parameters or default parameters if the device parameters are abnormal.

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Device Control  $\rightarrow$  Reboot/Restore.
- 2. Check the device(s) to be set from the device list.
- 3. Restore device parameters.
  - Click Factory Settings to restore the device parameters to the factory settings.
  - Click **Restore Default** to restore the device parameters to the default settings.
- 4. Click **OK**.

# 4.5.12 Add Power Distribution Cabinet

You can add a power distribution cabinet as needed. Then you can turn on/off the screen remotely.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Device Control  $\rightarrow$  Power Distribution Cabinet.
- 2. Check the device(s) to be set from the device list.
- 3. Click Configure.
- 4. Enable power distribution cabinet.

| Power Distribution Cabinet           | $\times$ |
|--------------------------------------|----------|
| Enable Power Distribution<br>Cabinet |          |
| IP Address                           |          |
| Port                                 |          |
| Add                                  |          |
| ОК                                   |          |

Figure 4-59 Add Power Distribution Cabinet

#### 5. Enter IP Address and Port.

- 6. Optional: Click **Add** to continue to add the other power distribution cabinet.
- 7. Click **OK**.

# 4.5.13 Start/Shut down Device Remotely

You can start or shut down the sending card remotely via the client.

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Device Control  $\rightarrow$  Startup/Shutdown.
- 2. Check the device(s) to be set from the device list.
- 3. Click Shutdown or Startup.
- 4. Click OK.

# 4.5.14 Enable Dual Power Supply

If the device supports dual power supply and the dual power supply has been installed, you can enable dual power supply. When one power supply fails, there will be prompt on the screen.

#### Steps

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  System Maintenance  $\rightarrow$  Device Control  $\rightarrow$  Dual Power Supply.
- 2. Check the device(s) to be set from the device list.
- 3. Click Startup.

# 4.5.15 Report Device Exception Event

When exception occurs to the device(s) added to the client, the exception event information will report to the client. After the client receives the information, a prompt will display on the client interface in real time and you can view the exception details for further checking. You can also search the historical device exception event information.

#### **View Real-time Event Information**

When exception occurs to the device(s) added to the client, the exception event information will report to the client. After the client receives the information, a prompt will display on the client interface in real time and you can view the exception details for further checking.

- 1. Enter Real-time Event interface.
  - When the exception event information prompts on the screen, click View Details to enter Real-time Event interface.
  - Click on the upper right corner of the client interface. Click **Real-time Event**.

| Event C  | enter                     |           |            |               | ×c |
|----------|---------------------------|-----------|------------|---------------|----|
| Real-tim | ne Event History Search   |           |            |               |    |
| Delete   |                           |           |            |               |    |
|          | Report Time               | Device IP | Event Type | Event Details |    |
|          | 2023-01-13T15:59:17+08:00 |           |            |               |    |
|          | 2023-01-13T15:59:28+08:00 |           |            |               |    |
|          | 2023-01-13T16:01:55+08:00 |           |            |               |    |
|          | 2023-01-13T16:02:02+08:00 |           |            |               |    |
|          | 2023-01-13T16:03:30+08:00 |           |            |               |    |
|          | 2023-01-13T16:03:30+08:00 |           |            |               |    |
|          | 2023-01-13T16:03:45+08:00 |           |            |               |    |
|          | 2023-01-13T16:04:00+08:00 |           |            |               |    |
|          | 2023-01-13T16:04:16+08:00 |           |            |               |    |
|          | 2023-01-13T16:04:31+08:00 |           |            |               |    |
|          | 2023-01-13T16:05:16+08:00 |           |            |               |    |
|          | 2023-01-13T16:05:31+08:00 |           |            |               |    |
|          | 2023-01-13T16:05:39+08:00 |           |            |               |    |
|          | 2023-01-13T16:05:44+08:00 |           |            |               |    |
|          | 2023-01-13T16:06:02+08:00 |           |            |               |    |
|          | 2023-01-13T16:06:17+08:00 |           |            |               |    |

#### Figure 4-60 View Real-time Event Information

- 2. View the exception event information, including **Report Time**, **Device IP**, **Event Type**, and **Event Details**.
- 3. Optional: Select the item(s), and click **Delete** to delete the event information.
- 4. Click **Close** to exit from **Real-time Event** interface.

## Search Event Information

You can search the historical device exception event information.

#### Steps

- 1. Click on the upper right corner of the client interface.
- 2. Click History Search.
- 3. Set Event Type, Start Time, and End Time.
- 4. Click Search.

The searched event information will be displayed in the list.

| LED Display Client                          | Device Management     | 바 LED Settings    |               |              |
|---|-----------------------|-------------------|---------------|--------------|
| Event Center<br>Real-time Event History Sea | arch                  |                   |               | ×c           |
| Search Condition                            |                       |                   |               |              |
| Event Type                                  | Start Time            | End Time          |               |              |
| All   | ✓ 2023-01-14 00:00:00 | 2023-01-14 23:59: | 59 🛗          | Search Reset |
| Delete                                      |                       |                   |               |              |
| Report Time                                 | Device IP             | Event Type        | Event Details |              |
|   |                       | Event Type        | Event Details |              |
| 2023-01-14T14:24                            |                       |                   |               |              |
| 2023-01-14T14:26                            |                       |                   |               |              |
| 2023-01-14T14:29                            |                       |                   |               |              |
| 2023-01-14T14:41                            |                       |                   |               |              |
| 2023-01-14T14:41                            | 413+                  |                   |               |              |
| 2023-01-14T14:41                            | :45+                  |                   |               |              |
| 2023-01-14T14:52                            | :07+                  |                   |               |              |
| 2023-01-14T16:19                            | :32+                  |                   |               |              |
| 2023-01-14T16:19                            | :47+                  |                   |               |              |
| 2023-01-14T16:20                            | :02+                  |                   |               |              |
| 2023-01-14T16:21                            | :03+                  |                   |               |              |
| 2023-01-14T16:22                            | :03+                  |                   |               |              |
| 2023-01-14T16:22                            | :18+                  |                   |               |              |

#### Figure 4-61 Search Event Information

5. Optional:

| Reset search condition      | Click <b>Reset</b> to reset the search condition.                            |
|-----------------------------|--|
| Delete event<br>information | Select the item(s), and click <b>Delete</b> to delete the event information. |

6. Click **Close** to exit from **History Search** interface.

## 4.5.16 View Video Cloud Classroom

Click 🔄 on the upper right corner of the client interface to enter the online classroom. You can view the device installation and configuration instruction videos.

#### **i**Note

Only when the PC running the client has been connected to the Internet, can you view the videos.

# 4.5.17 Switch Language

Click 🔯 on the upper right corner of the client to switch the language.

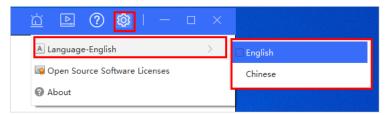


Figure 4-61 Switch Language

# Chapter 5 FAQ

# 5.1 Full screen is unlit.

#### Reason

- No power supply for screen or control device.
- No input signal.
- The controlling computer is sleeping or the graphics card settings are incorrect.
- Incorrect receiving card configuration.

#### Solution

- Check if the computer is in sleep or screensaver mode. If yes, start the computer, go to Control Panel → Power Options → Change Plan Settings, and set the sleep time to Never. If not, check the connection of the DVI cable between computer and control card.
- Check the graphics card settings.
- Check the connection between receiving card and sending card, and the connection between receiving cards.
- Restore to default settings.

# 5.2 Image displays incompletely or in wrong position.

#### Reason

- Incorrect screen configuration file.
- Incorrect signal cable connection.
- Incorrect screen size configuration.

#### Solution

- For incomplete image, check if the configured screen scale and the actual screen scale are the same.
- For image in wrong position, check if the configured display position and screen scale are the same as the actual. If not, adjust the parameters based on the difference until they are the same.
- Check if the signal cable connection and the receiving card connection among screen cabinets are the same.
- Check if the configured sending card output resolution and the actual receiving card input resolution are the same.

# 5.3 Full-screen image flashes or vibrates.

#### Reason

- Signal output of graphics card or other device fails.
- The number of the receiving card loaded by single network interface is larger than its load capacity.
- Signal cable is too long.

## Solution

- Check system connection to see if the signal cable or the network cable is loose, if the signal cable length exceeds the allowable transmission distance, etc.
- Reduce receiving card loading capacity of each network interface. Configure signal cable again via the client after changing connection mode.
- Check the resolution configurations of the graphics card, sending card, and video processor.

# 5.4 Spots/Strips exist in full-screen image.

#### Reason

Incorrect screen type configuration.

#### Solution

Check screen type configuration.

# 5.5 Image on certain display unit flashes or has spots.

#### Reason

- Loose connection of receiving card or HUB card.
- Incorrect receiving card program.

## Solution

- Check the receiving card, HUB card, and data cable connection in the unit.
- Check if the receiving card program of the unit is correct, or if the receiving card functions well.

# 5.6 Certain display unit screen is unlit.

#### Reason

- The power supply or the receiving card of the unit fails.
- The signal output of the previous unit fails.

## Solution

- Check if the power supply output of the unit is 5 VDC.
- Check if power supply indicator of the receiving card in the unit is solid red, or if the receiving card is operating normally.
- Check the receiving card, HUB card, and data cable connection in the unit.
- Check if the receiving card signal output of the previous unit is normal.

# 5.7 Certain module or row of modules are unlit in display unit.

#### Reason

- The switching power output controlling the modules fails.
- The signal output controlling the modules fails.

#### Solution

- Check if the power supply output of the modules is 5 VDC.
- Check the connection of the data cable and the HUB card controlling the modules.

# 5.8 Display error occurs when setting screen attributes.

#### Reason

Incorrect screen parameters.

## Solution

- Check if the resolution of receiving card and output resolution of graphics card is the same. If not, set them as the same.
- If the resolution of receiving card and output resolution of graphics card is the same, check if the screen attributes parameters are correct.

# 5.9 Searching online device failed.

#### Reason

- The network cable of the sending card is not connected.
- Incorrect client installation (the WinPcap plugin is not installed well or its version is incorrect).

## Solution

- Check network cable connection.
- Reinstall the client, or update WinPcap plugin directly.

# **5.10** Color differences exist for sending cards.

#### Reason

- 1. Go to LED Settings  $\rightarrow$  Maintenance  $\rightarrow$  Smart Maintenance  $\rightarrow$  Parameters Comparison.
- 2. Select the parameters types which need to be compared from **Content** dropdown list, and select the devices which need to be compared from **Device** dropdown list.
- 3. Click **View All Parameters** to compare the display parameters of the devices. The red marked parameters are the differences, which causes the color differences.

| < Parameters Comparison         |  |  | Content:Mo | evice: |  |
|---------------------------------|--|--|------------|--------|--|
| Parameter                       |  |  |            |        |  |
| ending Card Version Information |  |  |            |        |  |
| Receiving Card Software Version |  |  |            |        |  |
| Receiving Card Type             |  |  |            |        |  |
| Color Temperature Mode          |  |  |            |        |  |
| l/G/B                           |  |  |            |        |  |
| invironment Brightness          |  |  |            |        |  |
| inhanced                        |  |  |            |        |  |
| Bamma Coefficient               |  |  |            |        |  |
| Iltra-Low Gray Control          |  |  |            |        |  |
| Receiving Card Flash Checksum   |  |  |            |        |  |
| Receiving Card Gamma Checksum   |  |  |            |        |  |
| Receiving Card Basic Checksum   |  |  |            |        |  |
| Brightness Flash Checksum       |  |  |            |        |  |
| Color Gamut Flash Checksum      |  |  |            |        |  |
| Gray Scale Optimization         |  |  |            |        |  |
| Brightness                      |  |  |            |        |  |

Figure 5-1 Compare Parameters

## Solution

According to the parameters differences, you can solve the problems in two ways.

- If Receiving Card Flash Checksum, Brightness Flash Checksum, and Color Gamut Flash Checksum are different, export the configuration file of the receiving card with the normal display, and import it to the receiving card with color differences. Then compare other parameters and adjust. Refer to <u>Export Configuration File</u> and <u>Import Configuration File</u> for details.
- If the other parameters are different, edit the settings until the parameters are the same to remove the color differences. Or restore to the factory settings. Refer to <u>Restore Parameters</u> for details.

# 5.11 Screen color is inconsistent with LCD.

## Reason

The screen display capability depends on the color gamut. The color gamut of LED is larger than that of LCD, which results in that the LED screen color is inconsistent with that of LCD.

# Solution

- 1. Go to LED Settings → Display Effect → Basic Display Effect → Basic Scene. Select Color Standard as HDTV.
- Go to LED Settings → Display Effect → Basic Display Effect → User Configuration. Select Color Temperature Mode as Custom, and adjust the RGB value according to the actual display effect.

# 5.12 Color exception occurs for the screen loaded by sending card.

# Reason

- Incorrect receiving card settings.
- The sending card signal source has problems.

## Solution

- Go to LED Settings → Maintenance → Screen Detection. Enable detection, and check if the displayed colors are normal. If abnormal, the receiving card settings are incorrect, and you need to set again. If normal, the sending card signal source has problems, and you need to check the sending card signal source.
- Connect to the sending card directly with the PC signal source, or with other signal sources in the site crosswise. Check if the screen signal source display is normal. If abnormal, the signal source processing has problems, and you need to contact to the technical support. If normal, the signal source, signal source lines, and the interconnecting device have problems, and you need to change a new device.



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