LED Controller

User Manual

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Preface

Applicable Models

This manual is applicable to the LED controllers.

Default Parameters

Type	Default Parameter
LED Controller	• Login user name: admin • IP address: 192.0.0.64

Caution

To improve system security, it is highly recommended to change password regularly. In order to protect your privacy and corporate data and avoid network security issues, it is recommended to set strong password that meets security requirements.

Symbol Conventions

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

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

Safety Instructions

Caution

In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.

Note

- Provide a surge suppressor at the inlet opening of the device under special conditions such as the mountain top, iron tower, and forest.
- + identifies the positive terminals of the device which is used with, or generates direct current, and - identifies the negative terminals of the device which is used with, or generates direct current.
- The serial port of the device is used for debugging only.
- The interface varies with the models. Please refer to the product datasheet for details.

TABLE OF CONTENTS

Chapter 1 Introduction

1.1 Overview

The LED controller (hereinafter referred to as the device) is designed to control the full-color LED display (hereinafter referred to as the display). By connecting to the receiving cards within the display, the device can efficiently manage and control the display and seamlessly splice the cabinets. It is suitable for various scenarios such as meeting rooms, broadcasting studios, stadiums, airports, stations, banks, advertising locations, and home theaters.

Note

Different versions exist within each LED controller series, and the content presented in this document is based on the latest version as an example.

1.2 Supported Device List

LED controllers are categorized by their maximum supported resolutions as follows:

Supported Resolution	Supported LED Controller Series
2K resolution	• DS-DT60C/V/B/P series • DS-DT30C/V/B/P series • DS-TC/V/B/U Series
4K resolution	• DS-DT60C/V/B/P series • DS-TC/V/B/U series
Ultra 4K resolution	• DS-DT90C/V/P series • DS-TV series

The compatible receiving card models for each LED controller series are as follows:

LED Controller Series	Compatible Receiving Card Models
DS-DT90/60/30/20 series	• DS-DR series AXS-type and HUB-type receiving cards • DS-T series AXS-type and HUB-type receiving cards
DS-T series	• DS-DR series HUB-type receiving cards • DS-T series HUB-type receiving cards

1.3 First-Time Configuration Process

All devices support web interface and OSD interface, while the B-series, P-series, and U-series devices additionally support the GUI interface. The functionality of the web interface varies by device series. This section uses the most comprehensive configuration process as an example for illustration.

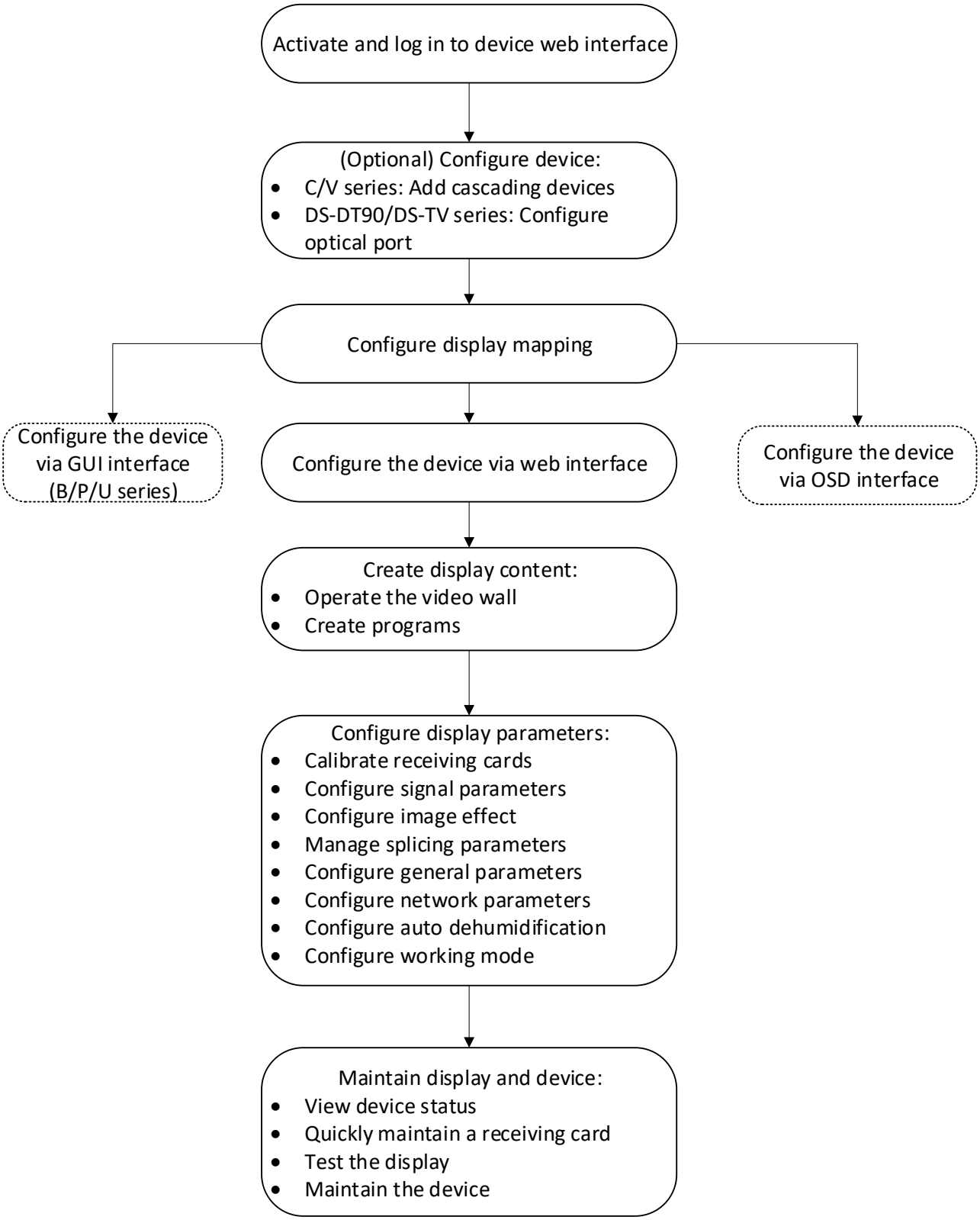

Figure 1-1 First-Time Configuration Process

Chapter 2 Prerequisite Configuration

2.1 Activate and Log In to the Device

Applicable Devices

All series.

Important

The device must be activated upon first use. When setting the password, please adhere to the following rules:

- The password should contain at least 8 characters and at least 2 types of characters (digits, lowercase letters, uppercase letters, special characters).
- The password must not contain the following:
  - The username spelled forward or backward, 123, or admin (case-insensitive).
  - Four or more consecutive digits in ascending or descending order (e.g., 1234).
  - Four or more consecutive identical characters (e.g., 8888).
  - Common weak passwords such as 1qaz2wsx, 1qaz@WSX, !@#$QWER, p@ssword, passw0rd, and p@ssw0rd.
- To ensure system security, it is recommended to change the password regularly and use a strong combination.

Activate Devices via LED Tool Client

Step 1 Connect all devices and the computer to the same LAN, ensuring they are on the same IP subnet.

Step 2 Install and launch the LED Tool client on the computer.

Step 3 Navigate to **Device Management**, click **Add Device**, and use any of the following methods to add devices:

- Auto Detect
- Batch Import
- Manually Add

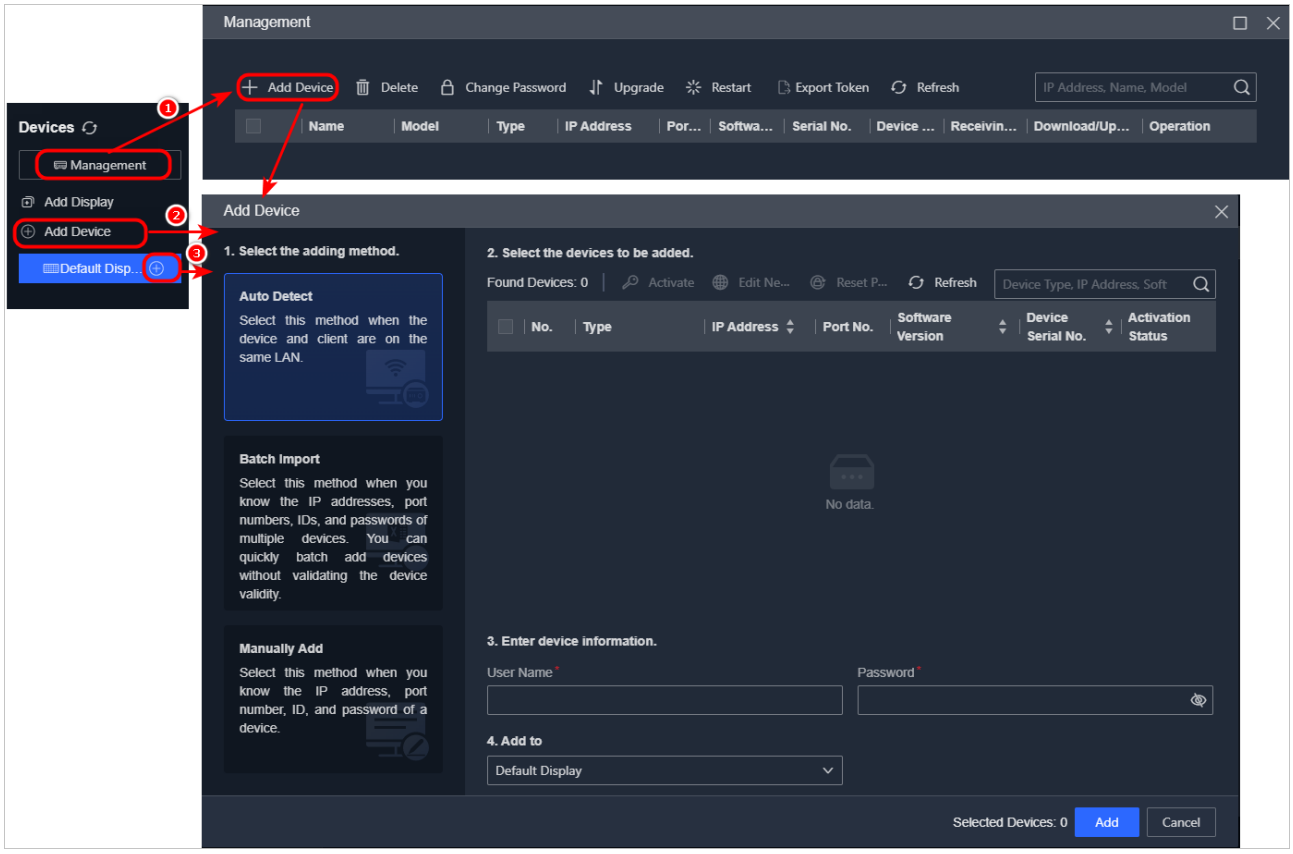

Figure 2-1 Open Add Device Window

Step 4 In the device list, select the inactive devices, click **Activate**, set the activation password and confirm the password, and click **OK**.

Step 5 Edit device IP addresses in batch:

1) Check multiple activated devices.
2) Click **Edit Network Parameters**.
3) Set the IP address, subnet mask, gateway address, and password, and click **OK**.

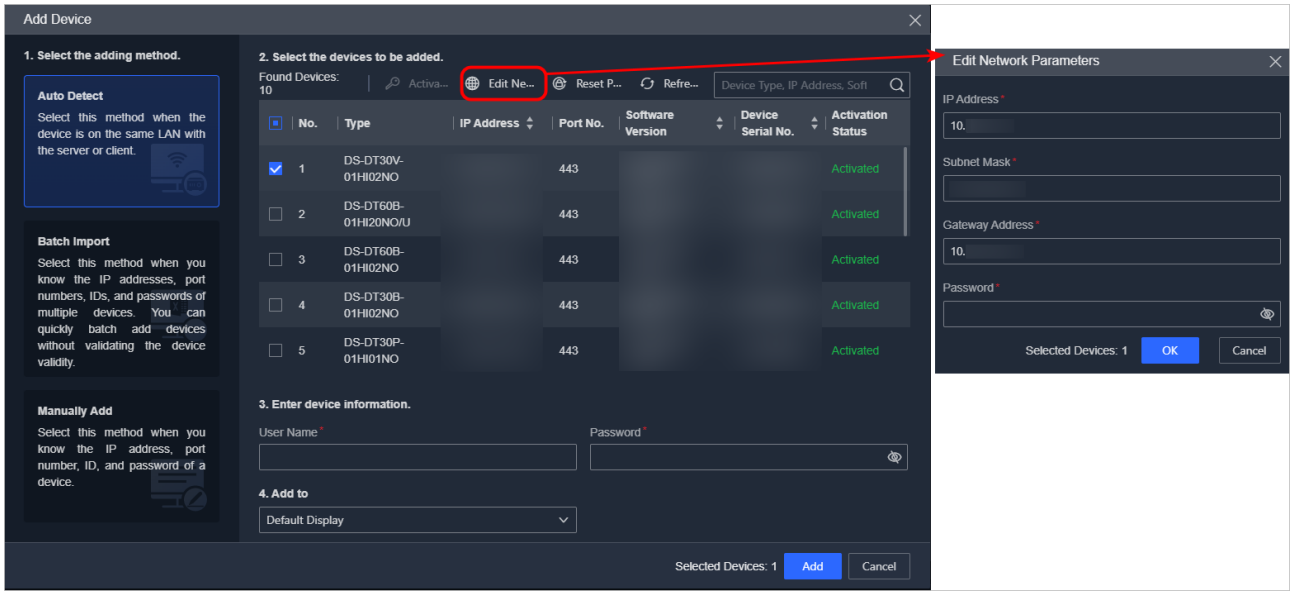

Figure 2-2 Edit Network Parameters

Note

For more information, see LED Tool client user manual.

Activate Devices via HiTools Delivery Client

Step 1 Connect all devices and the computer to the same LAN, ensuring they are on the same IP subnet.

Step 2 Install and launch the HiTools Delivery client on the computer.

Step 3 Navigate to **Device Management** → **Current Subnet**, and click **Refresh**.

Step 4 Select the inactive devices, set the activation password, confirm the password, and click **Activation**.

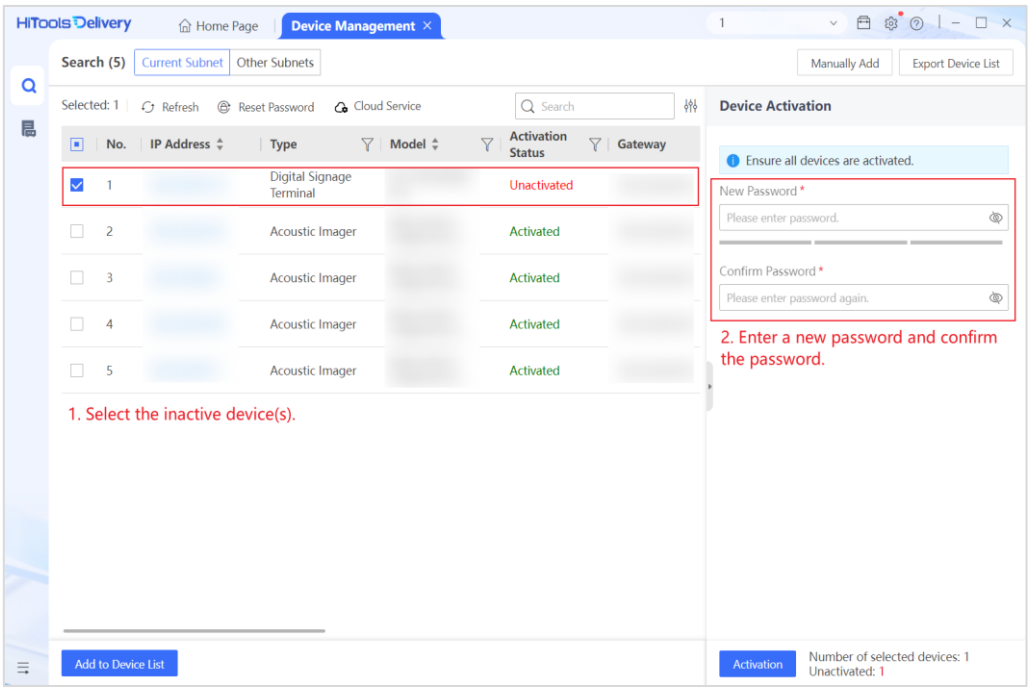

Figure 2-3 Batch Activate Devices

Step 5 Edit device IP addresses in batch:

1) Check multiple activated devices.
2) Choose one of the following methods to set IP addresses:
   - Manual assignment: Set the start IP address, port No., IPv4 subnet mask, IPv4 gateway, etc., and the selected devices will be automatically assigned to increasing IP addresses.
   - Dynamic acquisition (this option is only applicable to B/P/U series devices): Check **Enable DHCP** to assign dynamic IP addresses.
3) Enter the admin password and click **OK**.

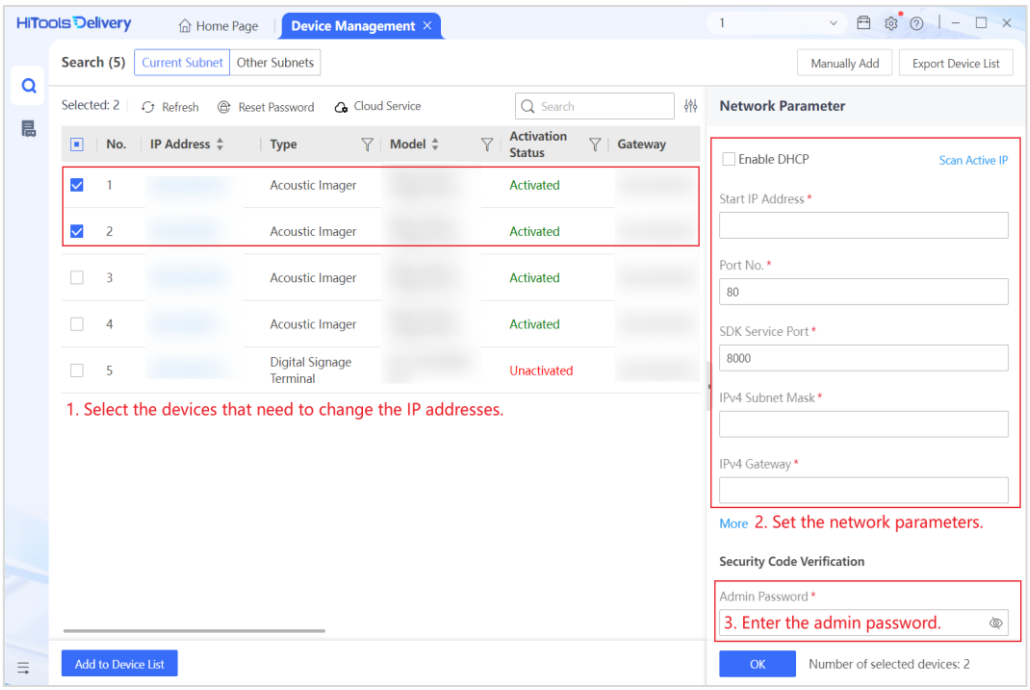

Figure 2-4 Batch Edit Device IP Addresses

Activate Devices via SADP Client

Step 1 Connect all devices and the computer to the same LAN, ensuring they are on the same IP subnet.

Step 2 Install and launch the SADP client.

Step 3 Select the inactive devices, set the activation password, confirm the password, and click **Activate**.

If the devices cannot be found, try restarting the client.

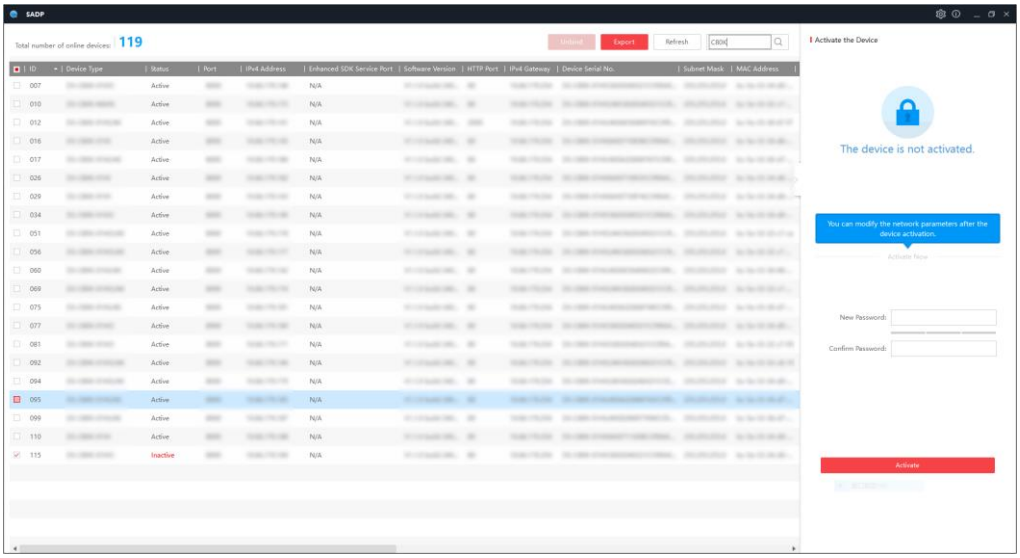

Figure 2-5 Batch Activate Devices

Step 4 Edit device IP addresses in batch:

1) Check multiple activated devices.
2) Choose one of the following methods to set IP addresses:
   - Manual assignment: Set the start IP address, port number, subnet mask, gateway, etc., and the selected devices will be automatically assigned to increasing IP addresses.
   - Dynamic acquisition (this option is only applicable to B/P/U series devices): Check **Enable DHCP** to assign dynamic IP addresses.
3) Enter the administration password and click **OK**.

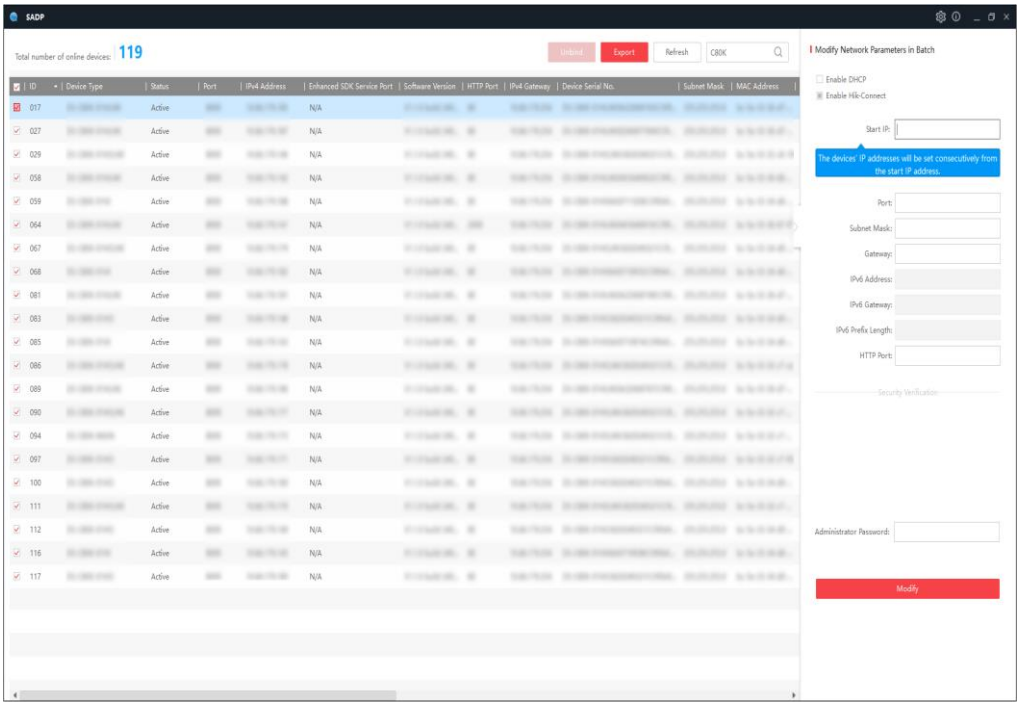

Figure 2-6 Batch Edit Device IP Addresses

Activate Device via Web Browser

Before You Start

- Use browsers such as Chrome, Edge, Firefox, or Safari (Internet Explorer is not supported).
- Ensure the computer and the device are on the same subnet.
- For DT60C/V and DS-TC/V series devices: Only one C or V series device needs to be activated. Other devices of the same type can then be added and activated in batch through this device.

Steps

Step 1 Choose either of the following methods to connect the device and the computer to the same subnet within the same LAN:

- Direct wired connection:

1) Connect the device to the power source and wait for it to start up.

2) Use an Ethernet cable to connect the computer’s network port to the device’s network port.
3) Set the computer’s IP address:
   – The device's factory default wired IP address: 192.0.0.64, default gateway: 192.0.0.1.
   – Set the computer's IPv4 address to any address within the range of 192.0.0.2 to 192.0.0.253 (do not use 192.0.0.64), and set the gateway to 192.0.0.1.

- Hotspot connection:

1) Install the Wi-Fi antenna onto the device.
2) Connect the device to the power source and wait for it to start up and broadcast a Wi-Fi signal.
3) On the computer, search for and connect to the Wi-Fi hotspot broadcast by the device. Check the device body label for the Wi-Fi name (SSID) and initial password.

Step 2 Activate the device:

1) Open a browser and enter the corresponding default IP address in the address bar:
   – Direct wired connection: Enter 192.0.0.64.
   – Hotspot connection: Enter 192.168.254.1.
2) On the activation page that appears, set an activation password that meets the complexity requirements, confirm it is correct, and click **Activate**.

Step 3 After the device is successfully activated, the page will redirect to the login page. Enter the username (default: admin) and password, then click **Log In**.

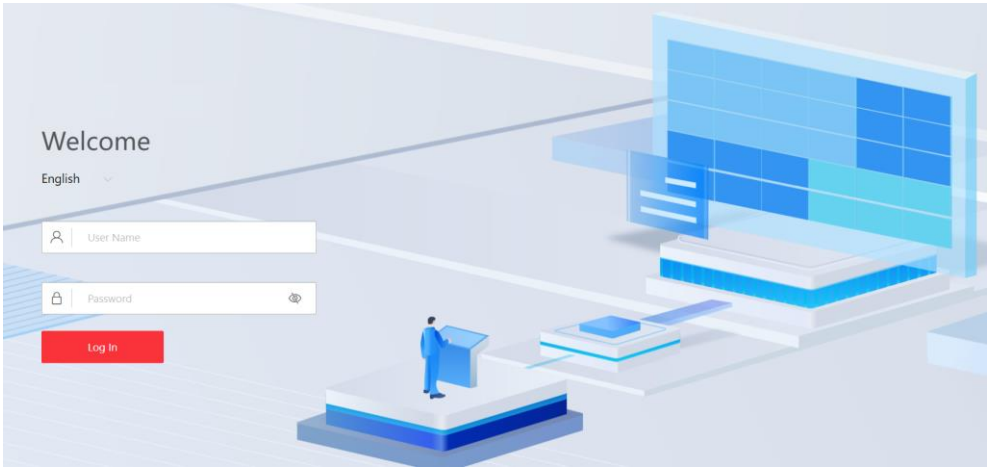

Figure 2-7 Login Page

Step 4 (Optional) Connect to the on-site network:

- Direct wired connection: After logging in successfully, disconnect the direct Ethernet cable and connect the device to the on-site LAN.
  – If the on-site network supports DHCP, the device will automatically obtain a new IP address. Use a tool (such as the LED Tool client) to search for the new IP address and log in.

- If a static IP address needs to be specified, refer to "Configure Wired Network Address".

- Hotspot connection: Enable the Wi-Fi function on the web page and connect to the on-site Wi-Fi. The device will obtain a new IP address. Specifying a static IP address is supported; refer to "Configure Wireless Network Address".

2.2 (Optional) Add Cascading Devices

Applicable Devices

DT90C/V series (V1.0), DT60C/V series (V6.2), and certain DS-TC/V series.

Description

When a single LED display is driven by multiple C/V series LED controllers, these controllers can be cascaded. After cascading, all devices can be controlled uniformly via a remote control. For specific operations, refer to "6.1 Use the OSD Interface".

Before You Start

Multiple LED controllers of the same series must be connected to the same network segment. This can be achieved using either of the following methods:

- Connect the LAN ports (LAN 1 or LAN 2) of all LED controllers to the same switch via Ethernet cables.
- Daisy-chain the LAN ports (LAN 1 or LAN 2) of the LED controllers: Connect the LAN port of the first controller to the switch, then connect each subsequent controller's LAN port to an available LAN port on the previous controller.

Steps

Step 1 Navigate to **Device List**.

Step 2 Expand the searched device list and activate the searched devices.

1) Select the inactive devices and click **Activate**.
2) Enter and confirm the device’s login password, and then click **Save**.

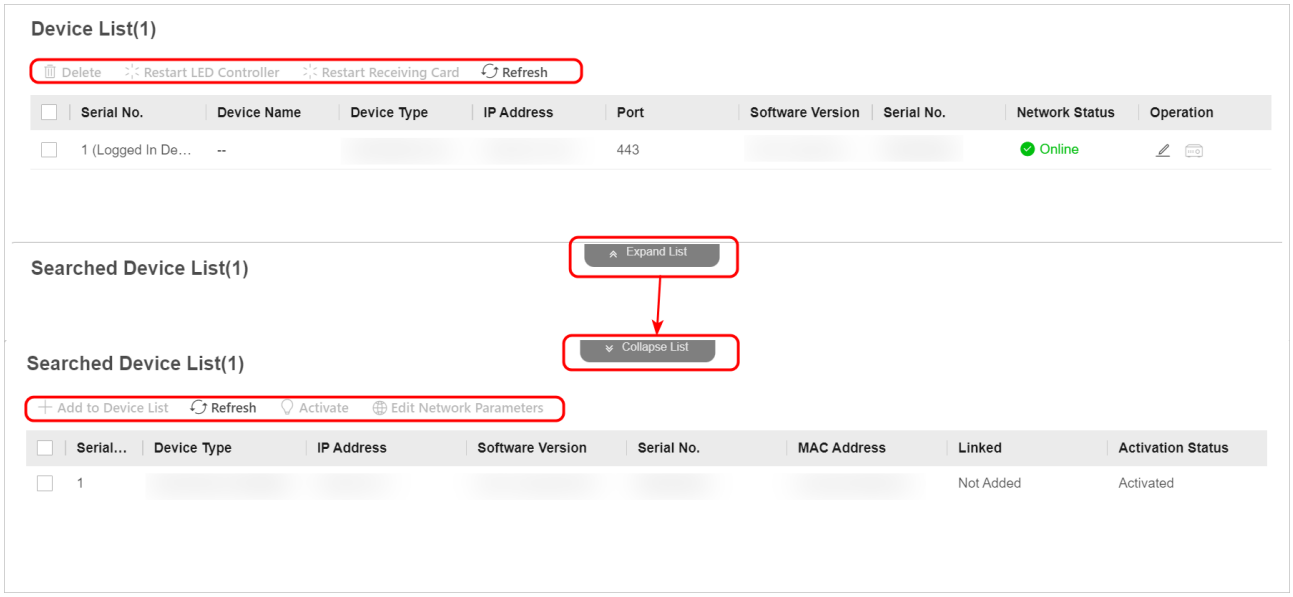

Figure 2-8 Device List Interface

Step 3 Select one or multiple activated devices and click **Add to Device List** to manage them.

To add multiple activated devices in batch, make sure they share the same username and password.

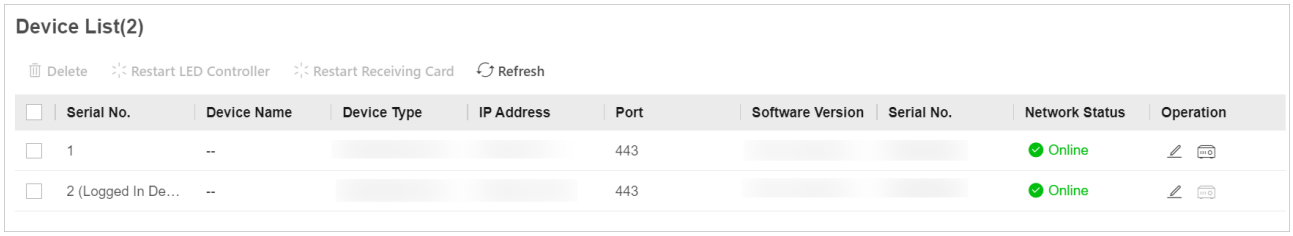

Figure 2-9 Manage Added Devices

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

- Select one or multiple activated devices and then click **Edit Network Parameters**.
- Click **Refresh** to refresh the device list or searched device list.
- Select one or multiple online devices and then click **Restart LED Controller**.
- Select one or multiple online devices and then click **Restart Receiving Card**.
- Click of an online device to edit its device parameters. If you enable **Sync Device Time**, the device's time will be synchronized with the computer's time.
- Click for an online device to jump to its web interface.
- Select one or multiple added device and click **Delete**.

2.3 (Optional) Configure Optical Port

Applicable Devices

DT90C/V/P and ultra 4K DS-TV series.

Description

To achieve long-distance control of a single or two LED displays, two devices can be connected via a fiber optic network (set as Transmitter and Receiver respectively). This setup requires an optical switch and optical port configuration.

Important

- The two devices communicating via optical ports must be of the same series and same model.
- Device roles are determined by both physical connections and configuration:
  - Transmitter: The device directly connected to the computer for configuration. In dual-display scenarios, it can also drive a local display.
  - Receiver: The device that receives signals solely via optical fibers to drive the remote display.

Single-Display Configuration

Step 1 Connect Ethernet cables:

1) Use one Ethernet cable to connect the computer to the LAN port of Device A (Transmitter).
2) Based on the on-site layout and the loading capacity of each DATA OUT port, divide the cabinets into several series links, with each link corresponding to one DATA OUT port.
3) Use Ethernet cables to connect the DATA OUT ports of Device B (receiver) to the network port of the first LED cabinet in each link. Subsequent cabinets within the same link are cascaded using Ethernet cables.

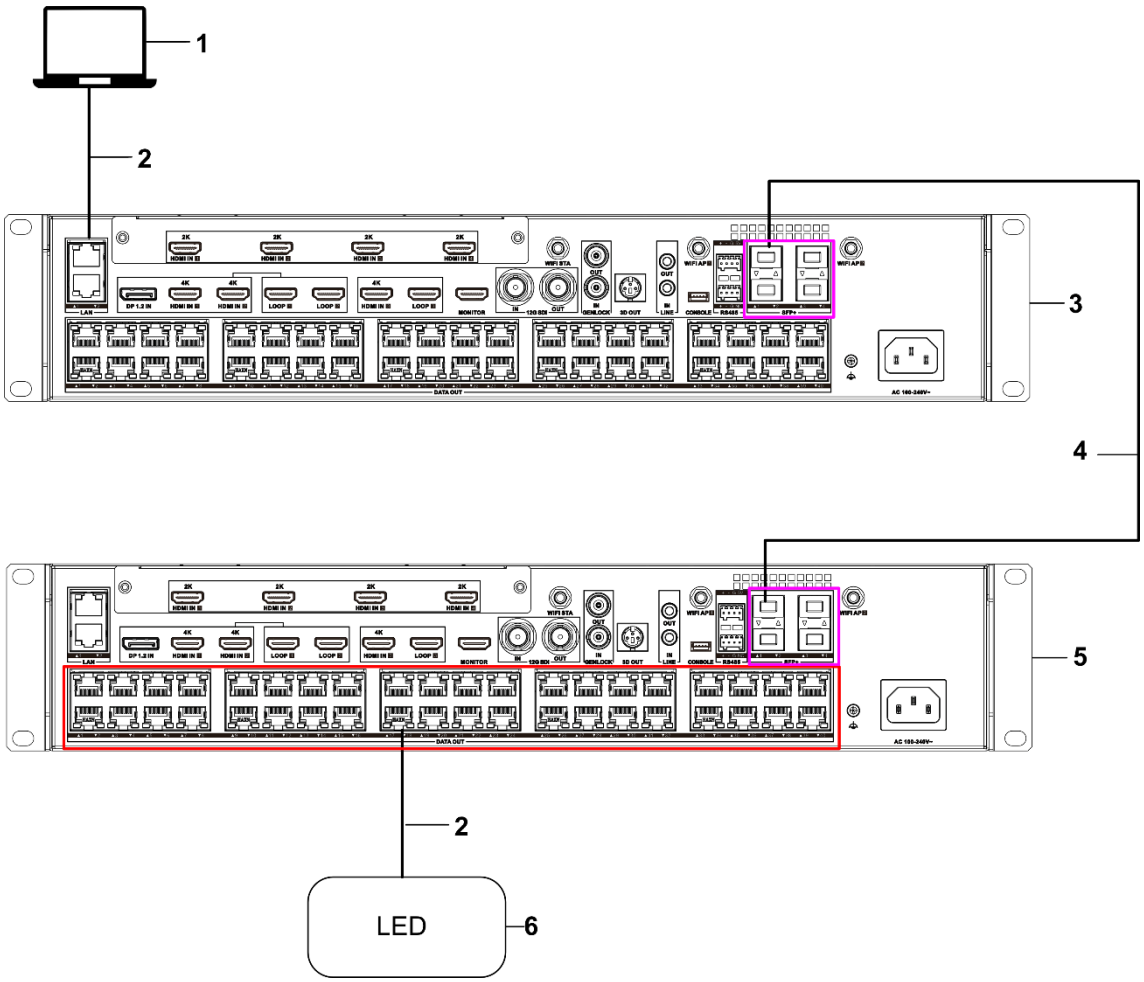

Figure 2-10 Single-Display Connection Topology

1. Computer	2. Ethernet cable
3. Device A (transmitter)	4. Optical network (optical fiber, optical module, and optical switch)
5. Device B (receiver)	6. LED display

Step 2 Connect optical fibers:

1) Determine the required number of optical fibers based on the mapping between the LED display and the DATA OUT ports.
2) Insert the optical modules into the corresponding SFP+ ports of Device A and Device B (the port numbers on both sides must be identical).
3) Use optical fibers to connect the optical modules to the optical switch.

Table 2-1 SFP+ Port Mapping

SFP+ Port	DATA OUT Port Range		
	40-Port Device	24-Port Device	16-Port Device
SFP+ 1	1 to 10	1 to 8	1 to 8
SFP+ 2	11 to 20	9 to 16	9 to 16
SFP+ 3	21 to 30	17 to 24	
SFP+ 4	31 to 40		

Step 3 Log in to the web pages of both devices and configure them as follows:

- Device A (Transmitter): Uses **Optical Port Transmit Mode** by default. No additional action is required.
- Device B (Receiver): Navigate to **Configuration** > **Optical Port Configuration**, and select **Optical Port Receive Mode**.

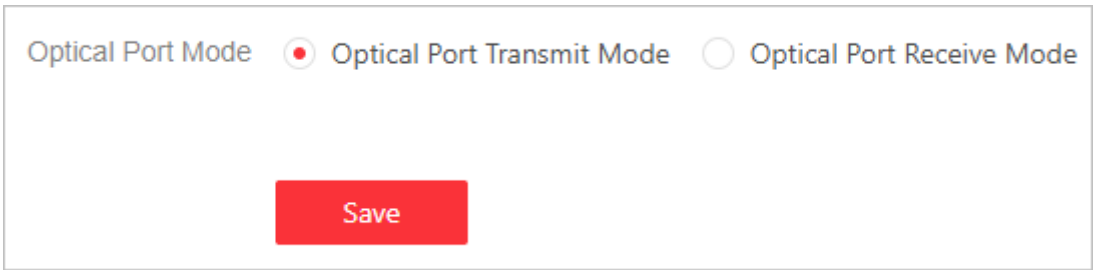

Figure 2-11 Configure Optical Port Mode

Note

After configuring the display mapping parameters, connect the video source to the transmitter (Device A in this example) to display video.

Dual-Display Configuration

Step 1 Connect Ethernet cables:

1) Use one Ethernet cable to connect the computer to the LAN port of Device A (transmitter).
2) Based on the on-site layout and the loading capacity of each DATA OUT port on Device A, divide the cabinets of LED Display 1 into several series links, with each link corresponding to one DATA OUT port.
3) Use Ethernet cables to connect the DATA OUT ports of Device A to the network port of the first LED cabinet in each link. Subsequent cabinets within the same link are cascaded using Ethernet cables.
4) Based on the on-site layout and the loading capacity of each DATA OUT port on Device B (receiver), divide the cabinets of LED Display 2 into several series links, with each link corresponding to one DATA OUT port.

5) Use Ethernet cables to connect the DATA OUT ports of Device B to the network port of the first LED cabinet in each link. Subsequent cabinets within the same link are cascaded using Ethernet cables.

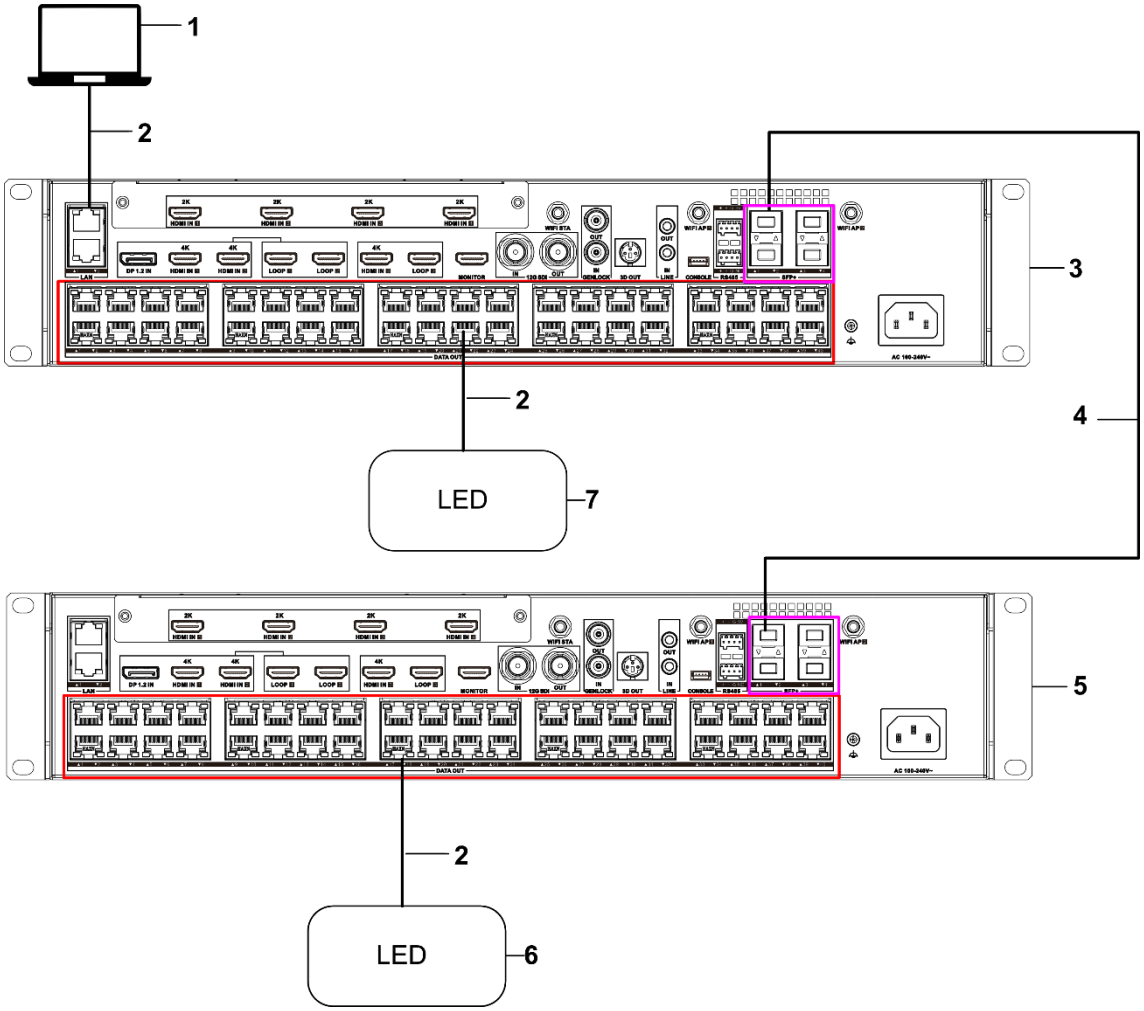

Figure 2-12 Dual-Display Connection Topology

1. Computer	2. Ethernet cable
3. Device A (transmitter)	4. Optical network (optical fiber, optical module, and optical switch)
5. Device B (receiver)	6. LED Display 2
7. LED Display 1	

Step 2 Connect optical fibers:

1) Determine the required number of optical fibers based on the mapping between the LED display and the DATA OUT ports.
2) Insert the optical modules into the corresponding SFP+ ports of Device A and Device B (the port numbers on both sides must be identical).

3) Use optical fibers to connect the optical modules to the optical switch.

Table 2-2 SFP+ Port Mapping

SFP+ Port	DATA OUT Port Range		
	40-Port Device	24-Port Device	16-Port Device
SFP+ 1	1 to 10	1 to 8	1 to 8
SFP+ 2	11 to 20	9 to 16	9 to 16
SFP+ 3	21 to 30	17 to 24	
SFP+ 4	31 to 40		

Step 3 Log in to the web pages of both devices and configure them as follows:

- Device A (Transmitter): Navigate to **Configuration** > **Optical Port Configuration**, verify that **Optical Port Transmit Mode** is used, and select a readback mode as required.
  - To control the LED Display 1, select **Local Display Readback**.
  - To control the LED Display 2, select **Peer Display Readback**.
- Device B (Receiver): Navigate to **Configuration** > **Optical Port Configuration**, and select **Optical Port Receive Mode**.

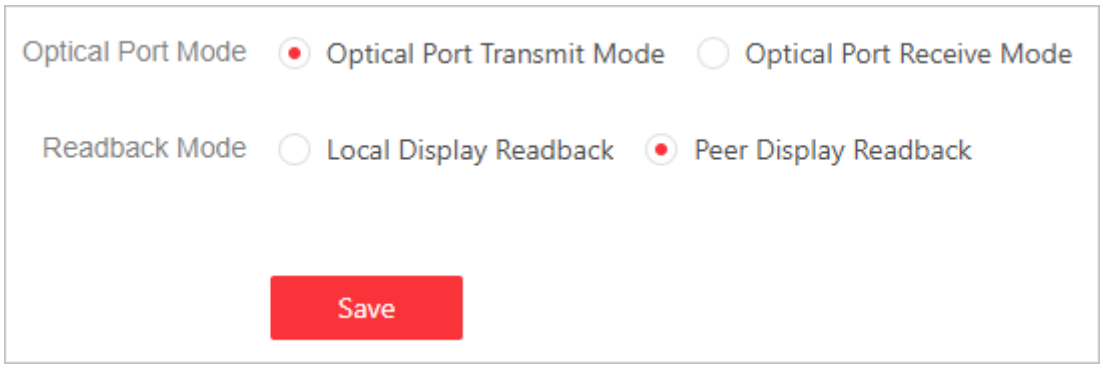

Figure 2-13 Configure Optical Port Mode

Note

After configuring the display mapping parameters, connect the video source to the transmitter (Device A in this example) to display video.

2.4 Configure Display Mapping

Applicable Devices

All series.

Description

This function enables the correct output of the LED controller's video signal to the LED display by configuring the display mapping parameters.

Important

- General configuration process: Importing the cabinet configuration and configuring the display mapping parameters are applicable to all types of receiving cards (including HUB and AXS).
- Special requirements for AXS receiving cards: For AXS receiving cards, a calibration operation must be performed upon initial use after the general configuration is complete to ensure display accuracy.
- Supported methods: Display mapping can be configured via device's web interface, the LED Tool client, or the LED batch controller client.
  - The web interface will prompt for reconfiguration if the mapping was previously configured through the LED Tool client.
  - For devices of version V6.0 and above, using the device's web interface and the LED Tool client is recommended.
  - For DT30, DT90, and certain DS-T series devices, display mapping can be configured only via the device's web interface and the LED Tool client.

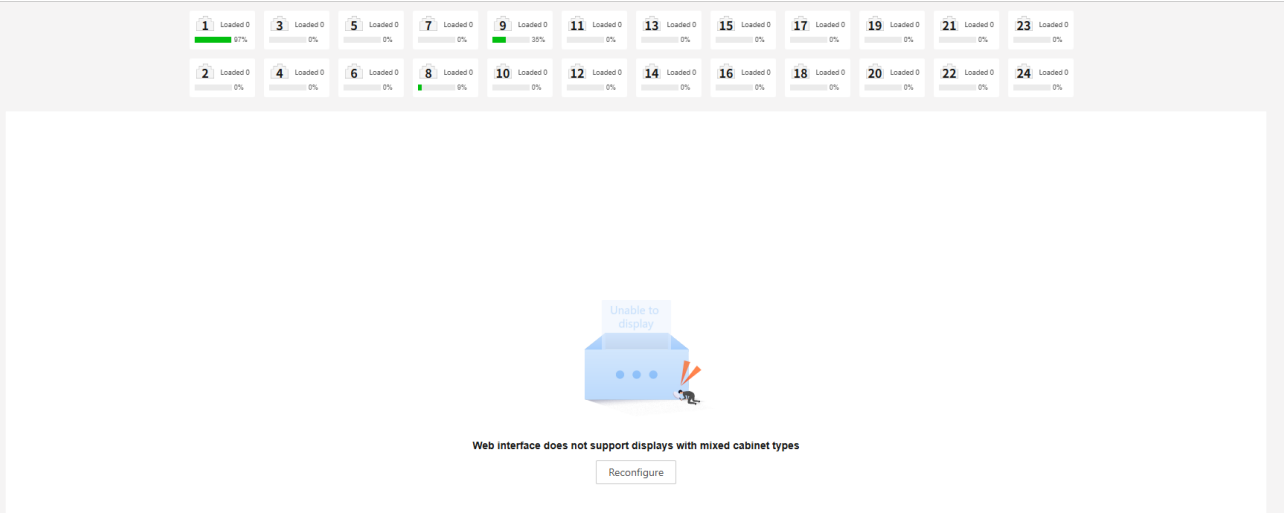

Figure 2-14 Reconfiguration Prompt on Display Mapping Page

2.4.1 Import Cabinet Parameters

Step 1 Navigate to **Display Mapping**.

Step 2 (Optional) For DT60C/V and DS-TC/V series cascaded devices, first select a single device.

Step 3 Choose any of the following methods to import the cabinet parameters:

- Select **Load from Display** and click **Load**.
- Select **Load from File**, click  to import a file, and then click **Load**.

- Select **Load from Cloud**, enter the LED module serial number, click **Search**. Select a configuration file and click **Load**.

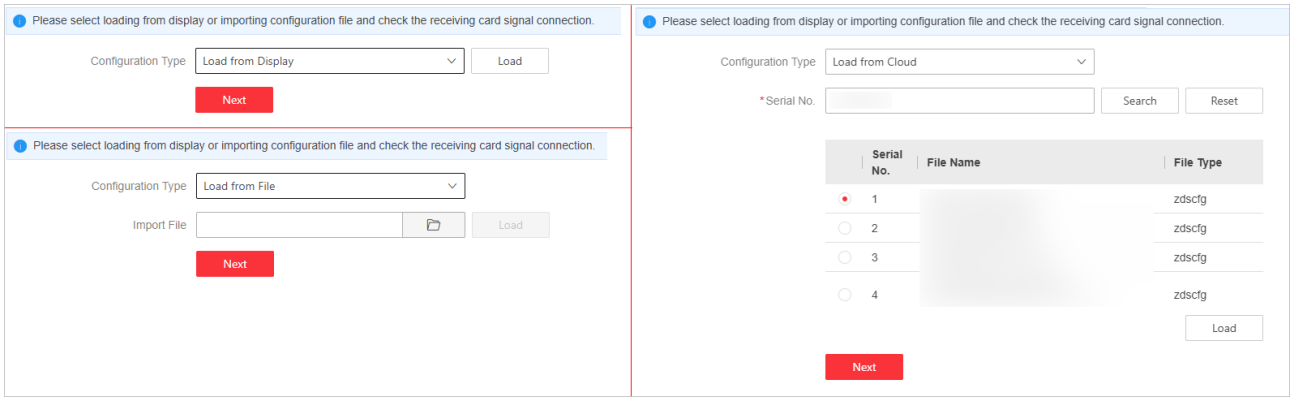

Figure 2-15 Import Cabinet Parameters

- Select **Copy from Other Displays**, select a source whose configuration meets the requirement, and then click **Load**. Only DT60C/V and DS-TC/V series devices support copying from other displays that have been added to a device group.

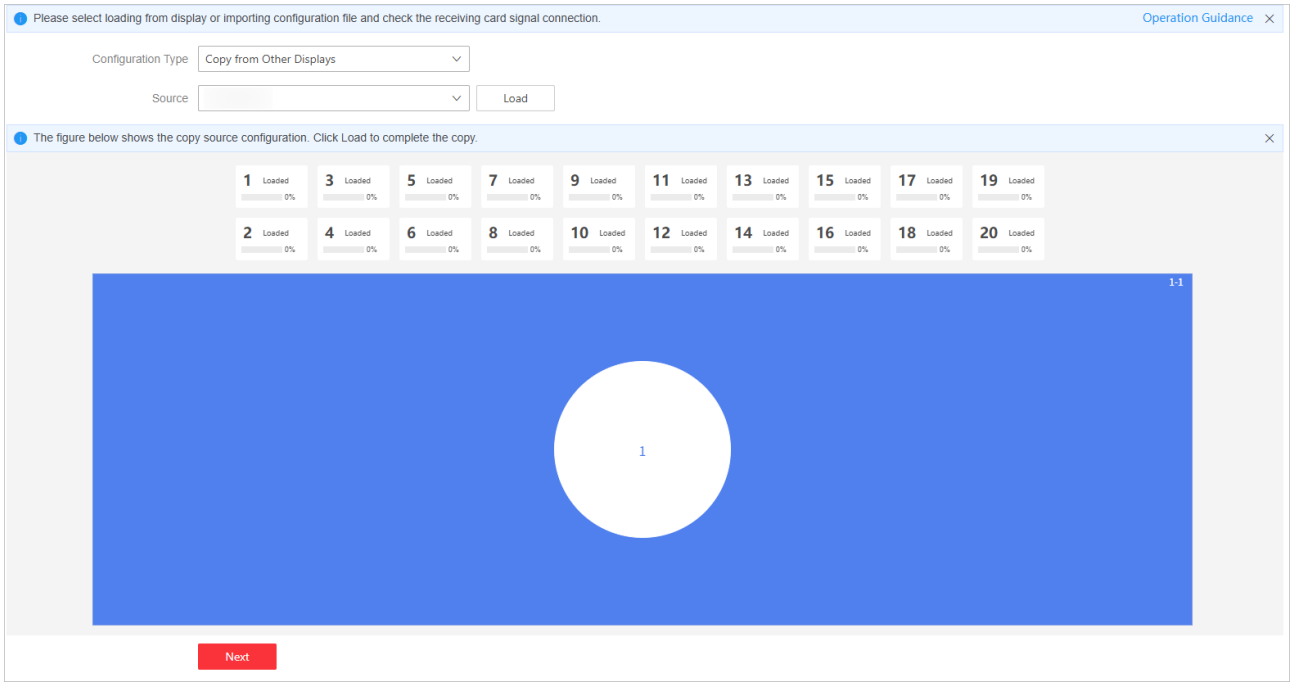

Figure 2-16 Copy Cabinet Parameters

Step 4 Click **Next**.

2.4.2 Configure Display Mapping Parameters

Important

- Only B/P/U series devices support configuring ultra-wide or ultra-tall displays.
- Resolution limits:

- 2K DT60C/B series: ≤ 5120 pixels
- 4K DT60C/B series: ≤ 8192 pixels
- DT60V/P, DT90V/P series: ≤ 32760 pixels
- DT30 series: ≤ 2048 pixels
- DT90C series: ≤ 16384 pixels

- Device load capacity:
  - 2K B/P/U series and 4K P/U series: ≤ 1920 × 1200
  - 4K B series: ≤ 4094 × 2160
  - All B/P/U devices single fold length ≤ 4096 (limited by the Android system).

Steps

Step 1 Enable **Show Connections** to show the connection numbers between receiving cards and LED controller network ports directly on the physical display.

Step 2 Click **Edit** to set the display size and resolution, and click **OK**.

- Normal display:
  - The display size (rows × columns) must be greater than or equal to the actual number of receiving cards. An AXS cabinet contains 1 or 2 receiving cards.
  - Set the resolution according to the actual display resolution.
- Ultra-wide or ultra-tall display: Calculate the display size and resolution based on the actual display resolution, cabinet resolution, and device load limitations. See "**Display Calculation Example**".

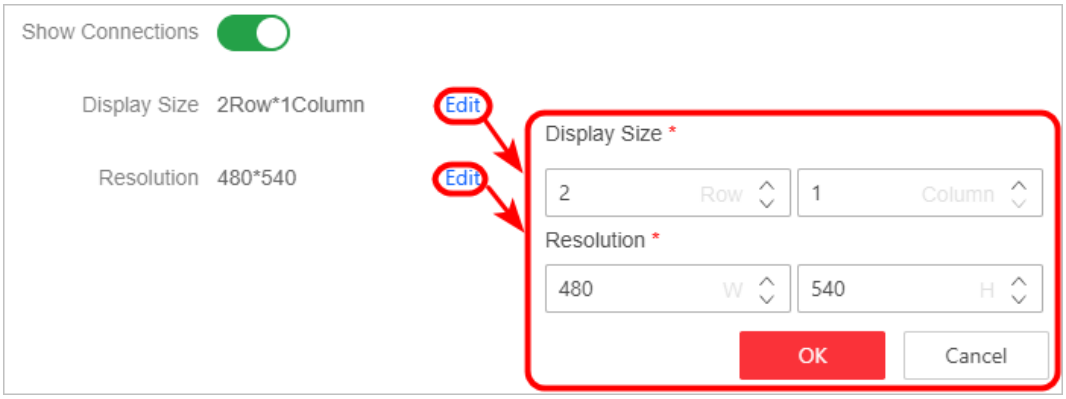

Figure 2-17 Edit Display Size and Resolution

Step 3 Configure corresponding connections for the LED controller on the web page based on the connection numbers displayed on the physical display:

1) Select a network port of the device. A single device's network port can connect up to 252 cabinets.
2) Use one of the following methods to establish signal connections for this port:

- Click on the cabinets in sequence to complete the connection according to the operation order. The connection can span across different device's network ports.
- Click a cabinet as the starting point, press and hold to define the connection range, select the connection shape in the pop-up window, and then click **OK** to complete the connection.

3) (Optional) You can perform the following operations as required:
   - Click **Undo** to undo the previous operation.
   - Click **Restore** to restore the previous operation.
   - Click **Clear Connections** and select **Clear Current Sending Port Connection** to remove signal connection for the selected network port.
   - Click **Clear Connections** and select **Clear All Sending Port Connection** to remove signal connections for all network ports.
   - Click **Get Status** to refresh the receiving card online status.
4) Configure other LED controller network ports in the same manner.
5) After completing all connections, click **Save All Connections**.

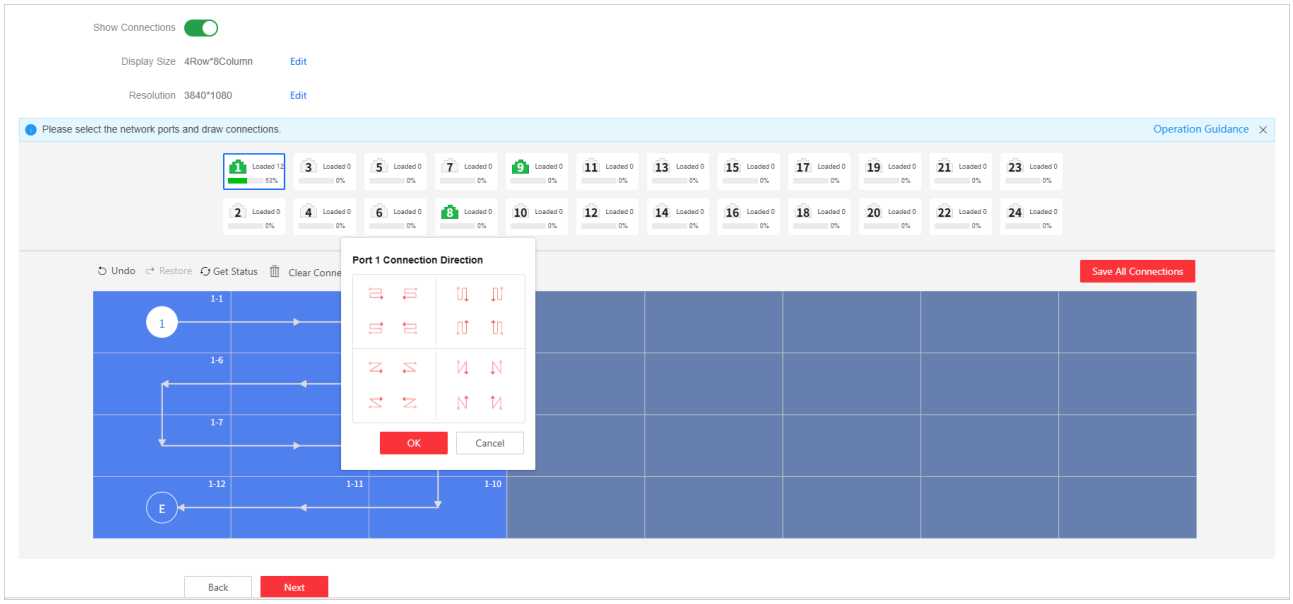

Figure 2-18 Configure Display Mapping Parameters

Step 4 Complete display mapping:

- For the HUB receiving cards, the display mapping configuration is complete.
- For the AXS receiving cards, click **Next** to proceed to subsequent configuration.

Display Calculation Example

Calculate the display size and resolution. Example: actual display resolution: 15360 (W) × 135 (H), cabinet resolution: 240 (W) × 135 (H)

1) Compare actual resolution versus device capacity: 15360 × 135 < 1920 × 1200, so a 2K device is sufficient.
2) Fold count (round up) = maximum dimension value of the actual display resolution ÷ 4096 = 15360 ÷ 4096 = 3.75 ≈ 4.
3) Cabinet units per row = actual display width ÷ cabinet width ÷ fold count (round up) = 15360 ÷ 240 ÷ 4 = 16.
4) Display width on web page = cabinet units per row × cabinet width = 16 × 240 = 3840.
5) Display height on web page = cabinet height × fold count (round up) = 135 × 4 = 540.
6) Column count = display width on web page ÷ cabinet width = 3840 ÷ 240 = 16.
7) Row count (for ultra-wide display) = fold count = 4.
8) Final configuration: display size: 4 (rows) × 16 (columns), resolution: 3840 (W) × 540 (H)

2.4.3 First Calibrate AXS Receiving Cards

For the AXS receiving cards, enable calibration to load the LED module data to the AXS receiving cards.

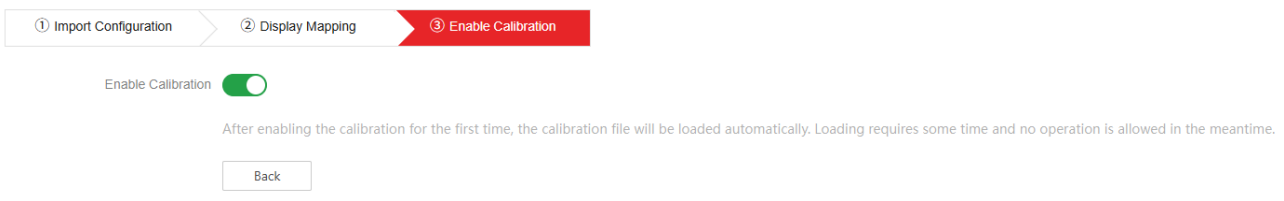

Figure 2-19 First Calibrate AXS Receiving Cards

2.5 Using Web Interface Auxiliary Functions

The following auxiliary functions are available in the upper-right corner of the web interface:

- Global search: Click  to display commonly used search keywords and paths. You can directly click on a keyword or enter a custom keyword to search.
- Help guide: Click  to access the user manual (supports scanning a QR code for viewing) or view open-source software statement.
- Account: Click 

to display the role information of the currently logged-in account. Supports modifying the password or logging out.

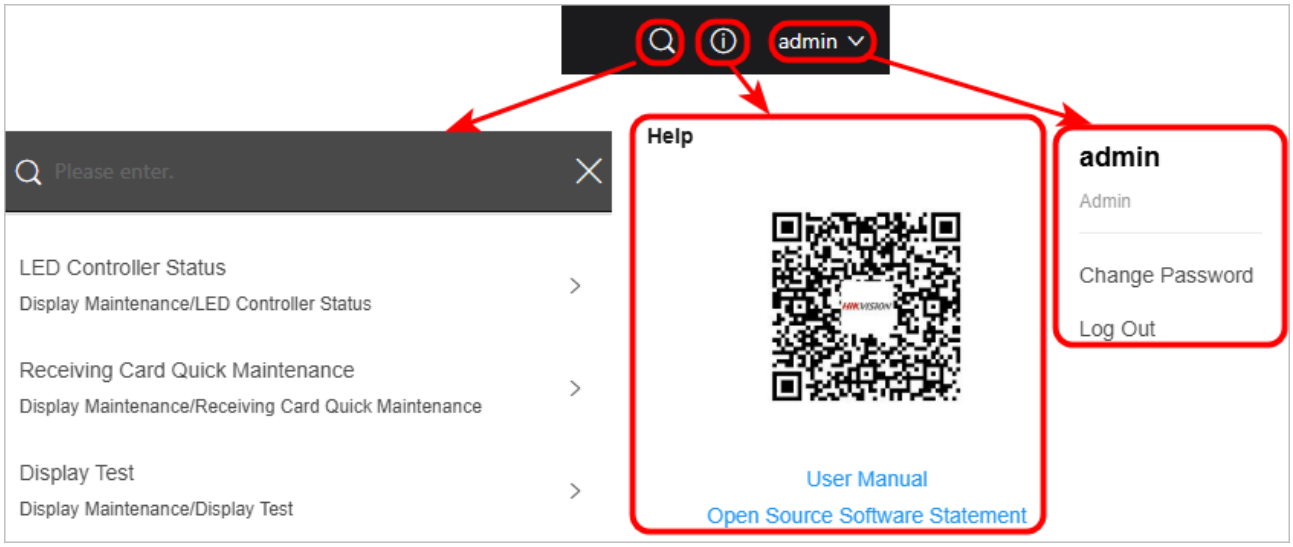

Figure 2-20 Auxiliary Functions

Chapter 3 Display Content Configuration

3.1 Operate the Video Wall

Applicable Devices

DT90V, DT60V, and certain DS-TV series.

Important

- The scrolling window and static image/text/clock window support only JPG and JPEG images.
- Scrolling window: Supports up to 5 scrolling text elements and 3 scrolling image elements.
- Static image/text/clock window: Supports up to 5 static text elements, 3 static image elements, 1 digital clock, and 1 dial clock.

Steps

Step 1 Navigate to **Video Wall Operation**.

Step 2 Select a video wall layout.

The following example uses a mixed layout of scrolling text/image + signal source + static image/text/clock. To edit the layout, click on a blank area outside the layout range to bring up the quick layout window.

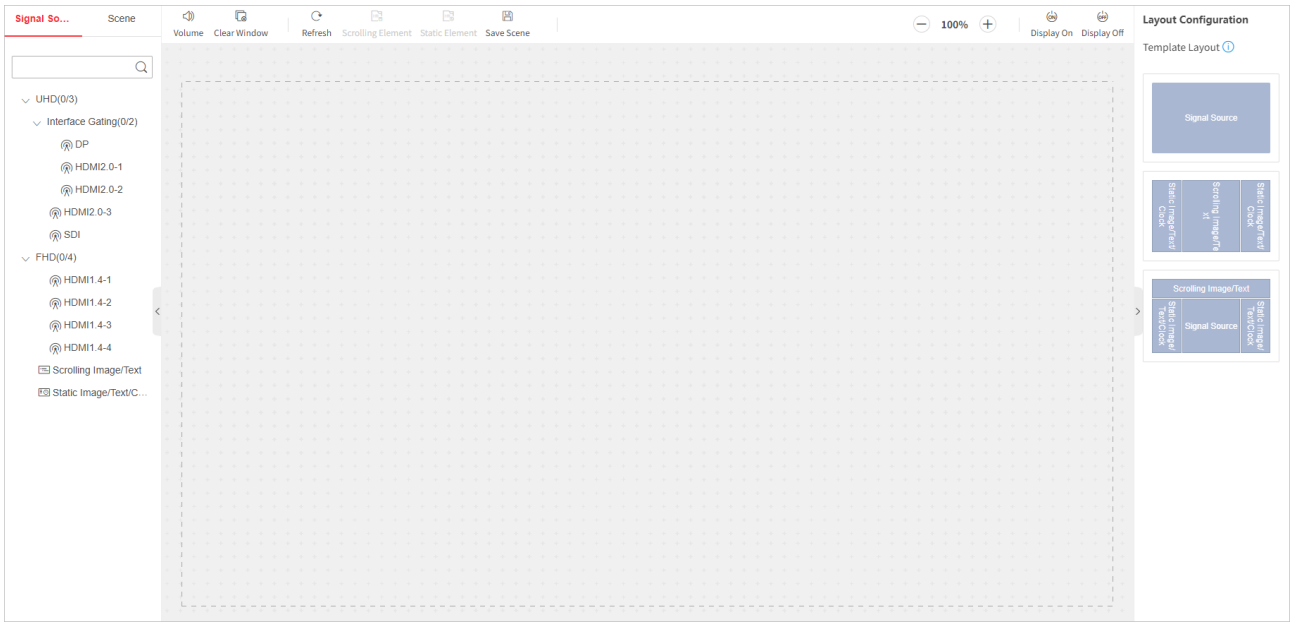

Figure 3-1 Select a Layout (DT90V Series)

Step 3 Configure the signal source:

1) Select a signal source from the left and drag it to the signal source area:

- DT90V series: 4K inputs (HDMI 2.0/SDI/DP) support 1-to-3 distribution and 2K inputs (HDMI 1.4/DVI) support 1-to-4 distribution.
- 2K DT60V/DS-TV series: All inputs supports 1-to-3 distribution.
- 4K DT60V/DS-TV series: HDMI 1 input is limited to 1-to-1 distribution and other inputs support 1-to-3 distribution.

2) Configure the signal source window:
   - Directly move the window or enter the X and Y values to adjust the window location.
   - Click the corresponding icon to stick the window on top, stick the window at bottom, move up the window, move down the window, lock the window, and unlock the window.
   - Move the mouse to the window edge to adjust the window size or enter the W and H values.
   - Select a signal source to switch the signal source.
   - Set resolution or enable **Resolution Self-Adaption**.
   - Click **Delete** or  to unbind the signal source from the video area.

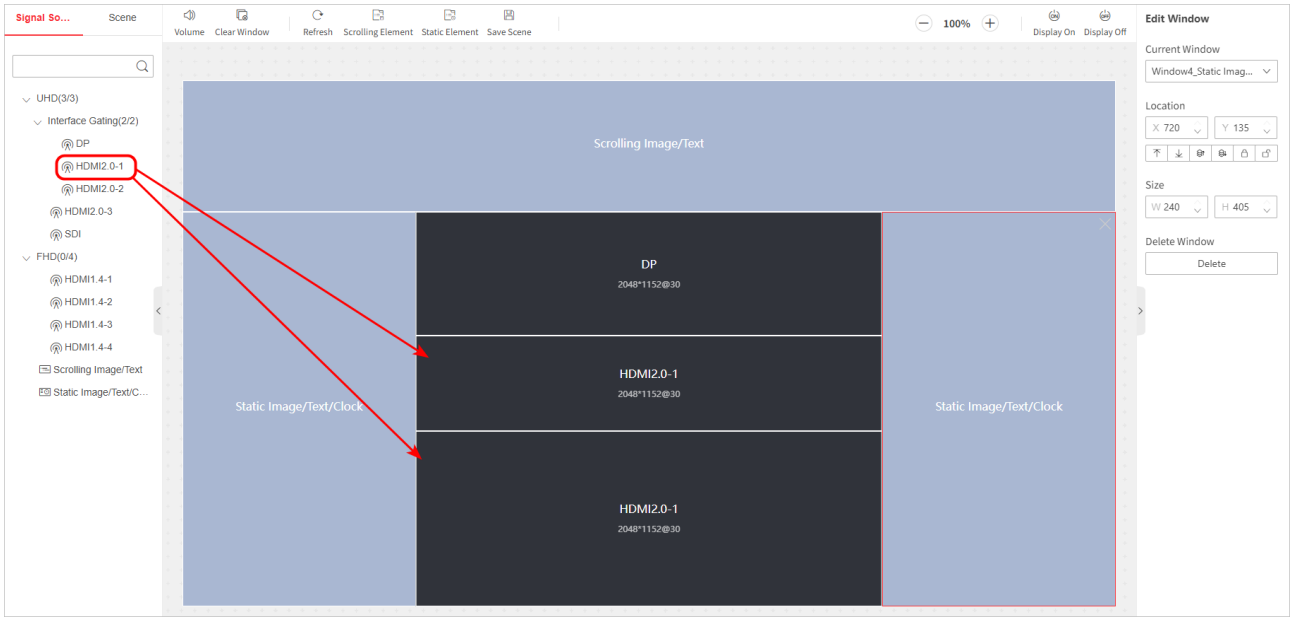

Figure 3-2 Configure Signal Source

Step 4 Configure the scrolling text/image window:

1) Click the scrolling window to set the window location, window size, scrolling speed and direction.
2) Click **Subtitle** and select **Text** or **Image**.
3) Use either of the following methods to add the scrolling elements to the scrolling window:
   - Click on the scrolling window where you want to add a scrolling element.

– Drag a scrolling element to the scrolling window and then draw the desired area.

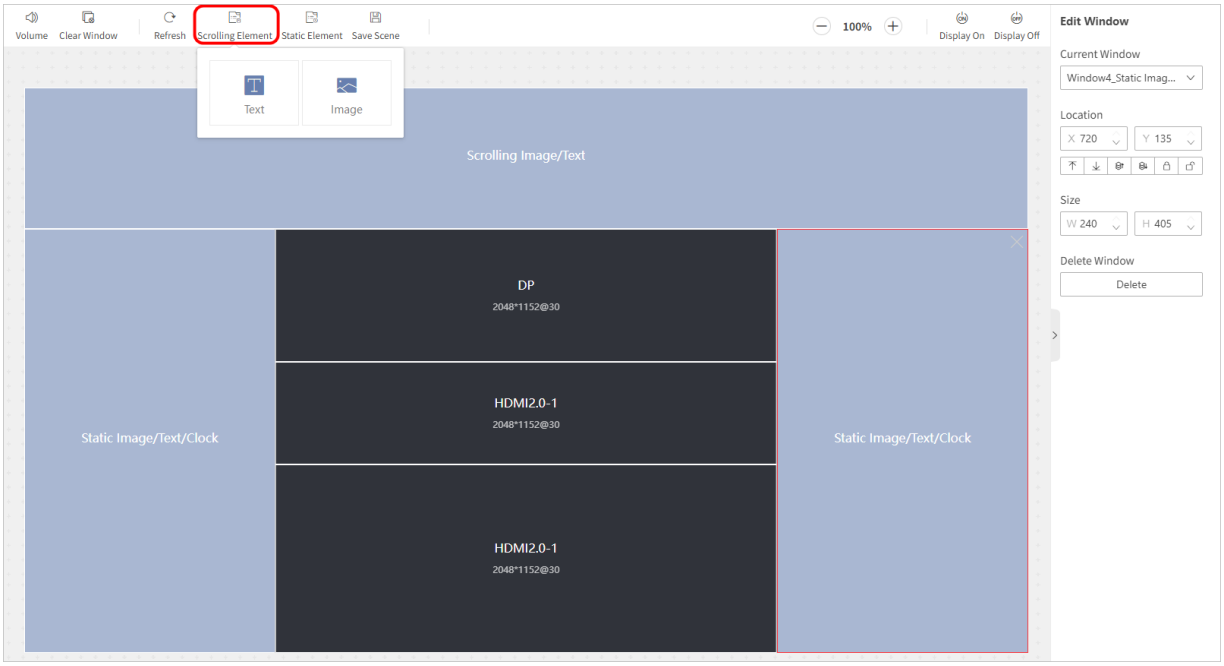

Figure 3-3 Select Scrolling Element Type

4) Edit the scrolling element.

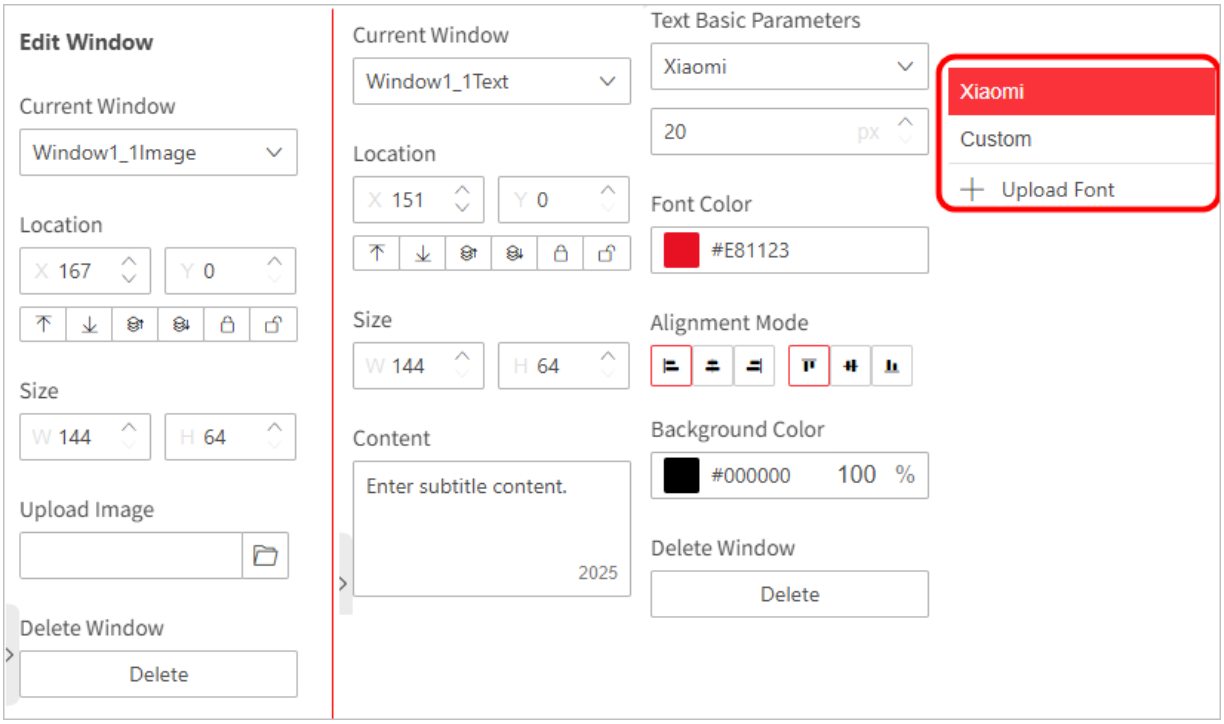

Figure 3-4 Edit Text or Image Subtitle

Step 5 Configure the image/text/clock window:

1) Click **Static Image/Text/Clock Element** and select **Text**, **Image**, **Digital Clock**, or **Dial Clock**.

2) Use either of the following methods to add the static element to the image/text/clock area:
   - Click on the static window where you want to add a static element.
   - Drag a static element to the static window and then draw the desired area.
3) Edit the static element.

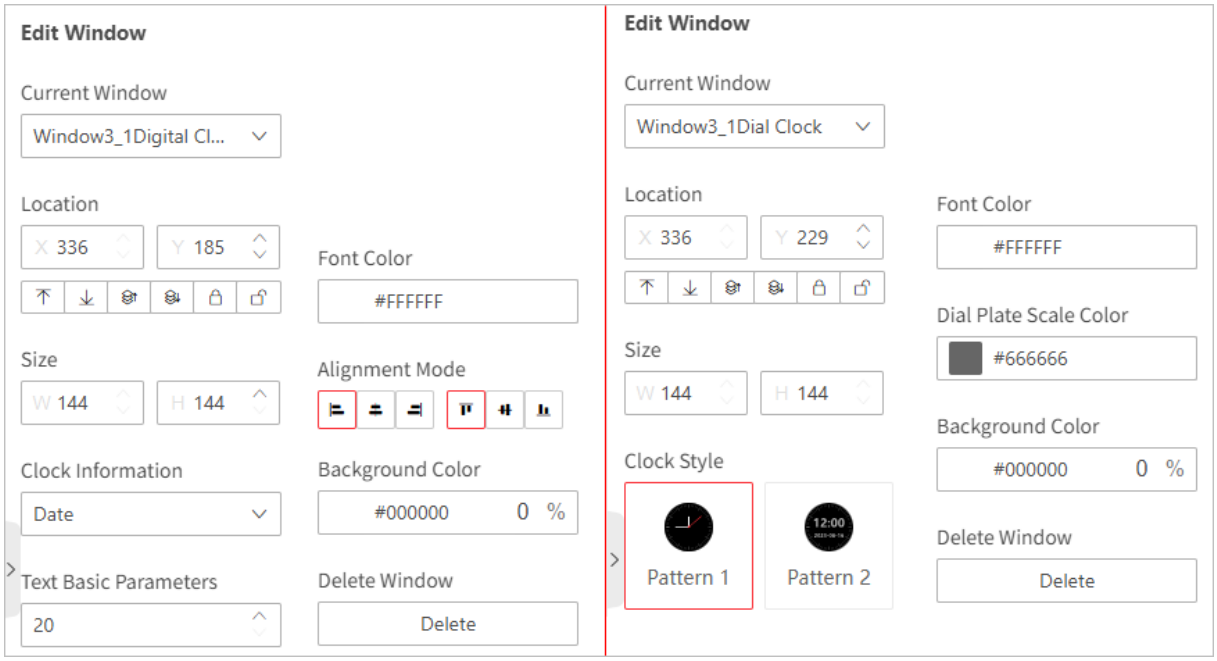

Figure 3-5 Edit Clock

Step 6 Select the audio source and adjust the volume.

- Each signal type has specific limits (indicated next to the type label), as shown in the figure below:
  - Maximum number of UHD (Ultra High Definition) signals: 3
  - Maximum type of interface gating signal sources: 2
  - Maximum number of FHD (Full High Definition) signals: 4
- To output audio from an interface gating source, first drag the interface gating source onto the video wall.
- One video wall allows the output of only one audio. Make sure you have enabled audio output on the **Configuration** > **Signal Configuration** page. See “Basic Output Parameters”.

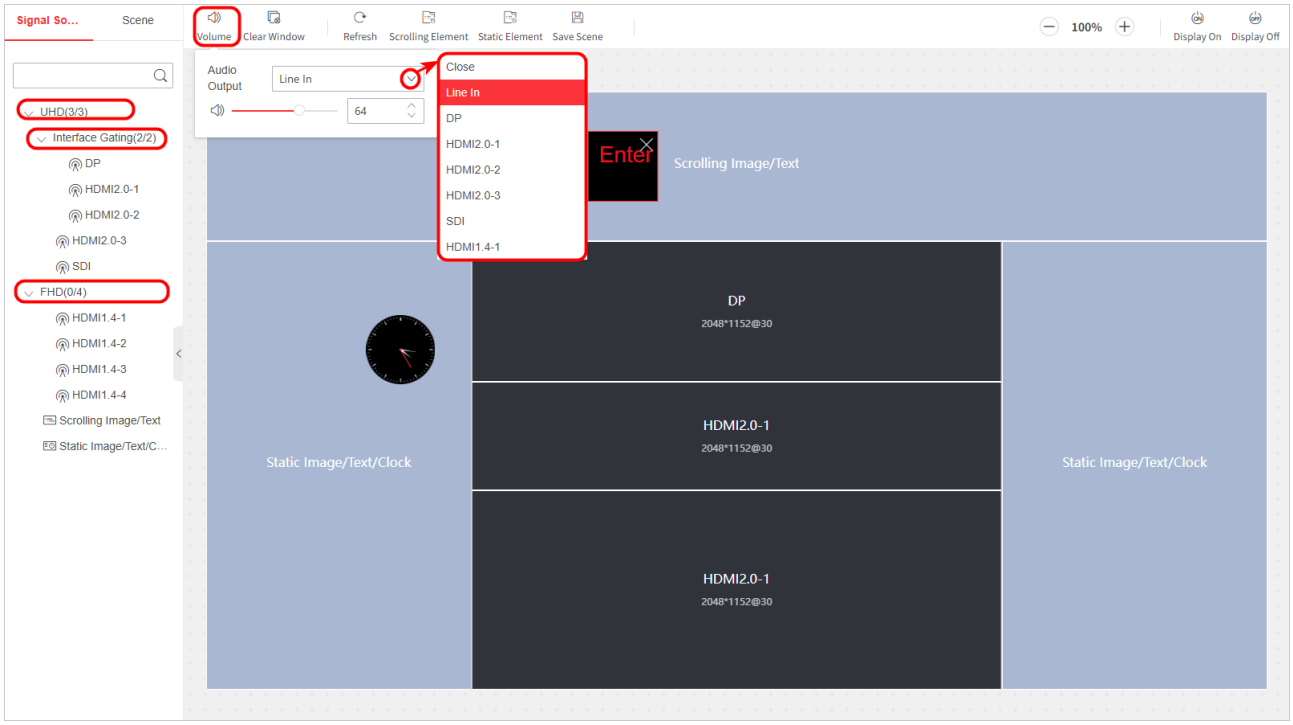

Figure 3-6 Configure Audio Output

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

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

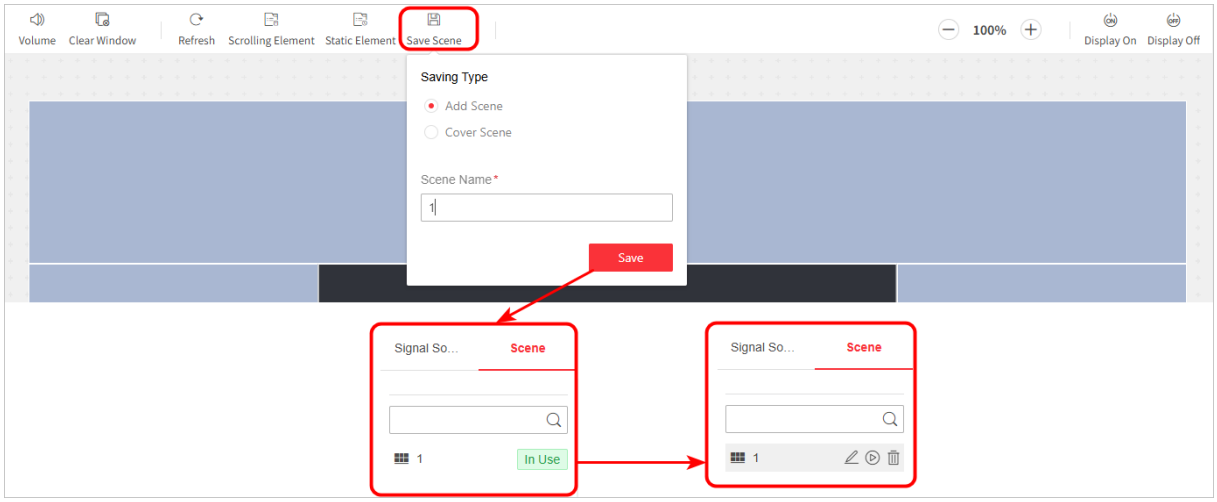

Figure 3-7 Save Scene

- Click **Scene**, click a scene and then click an icon to edit, recall or delete the scene.

3.2 Create Programs

Applicable Devices

DT90P, DT60B/P, DT30B/P, and DS-TB/U series.

Function Description

A program refers to content played on the video wall according to preset template, materials, and schedule. Different device series support varying types of materials. This section uses the DT90P as an example for explanation.

Important

- Supported material types for different device series are detailed in the table below.

Table 3-1 Comparison Table of Materials Supported by Devices

Material Type	B Device	P/U Device
Application		√
Signal source		√
Image	√	√
Video	√	√
PDF file	√	√
PPT file	√	√
Web page	√	√
Clock	√	√
Text	√	√
Table	√	√
Stream media	√	√
Network camera (IPC)	√	√

- Currently, only WonderCast application is supported.

3.2.1 Create and Play Programs

Create and Play One Normal Program

Important

- Special material restrictions:
  - Each program can only contain one clock.
  - After dragging a PPT file or an application to the program window, non-signal source materials will be automatically cleared, and background image, background color, or background music cannot be configured.
  - Currently, only WonderCast application is supported. After deploying a program containing WonderCast application, the home page of the WonderCast application will be displayed. Follow the on-screen instructions to proceed.
- DT90P series loading rules:
  - Hybrid 4K signal sources (2× HDMI 2.0, 1× DP 1.2, 1× built-in Android) support 2-out-of-4 simultaneous input.
  - Hybrid 4K signal sources (HDMI 2.0 and DP 1.2) and independent 4K signal sources (HDMI 2.0 and SDI) support 1-to-3 output.
  - 2K signal sources (HDMI 1.3, up to 1080p) support 1-to-4 output.
- DT60P/DS-TU series loading rules:
  - 2K version: External signal sources support 1-to-2 output, and the built-in Android source occupies 1 layer.
  - 4K version: External HDMI 1 signal source supports 1-to-1 output (4K@30 Hz), other external sources support 1-to-2 output (1080p), and the built-in Android source occupies 1 layer.
- DT30P series loading rules: External signal sources support 1-to-1 output, and the built-in Android source occupies 1 layer.

Steps

Step 1 Navigate to **Playback Control**.

Step 2 In the popped-up program creation window, select **Normal**, set the program name and program resolution, and select a template.

- If you click **Restore to Display Size**, the actual size of the connected display will be used as the program resolution.
- If you want to customize the layout, select **Blank Page**.
- After creating a program, you can click **Edit** on the right side of the program attributes to edit the program type, name, resolution, or template.

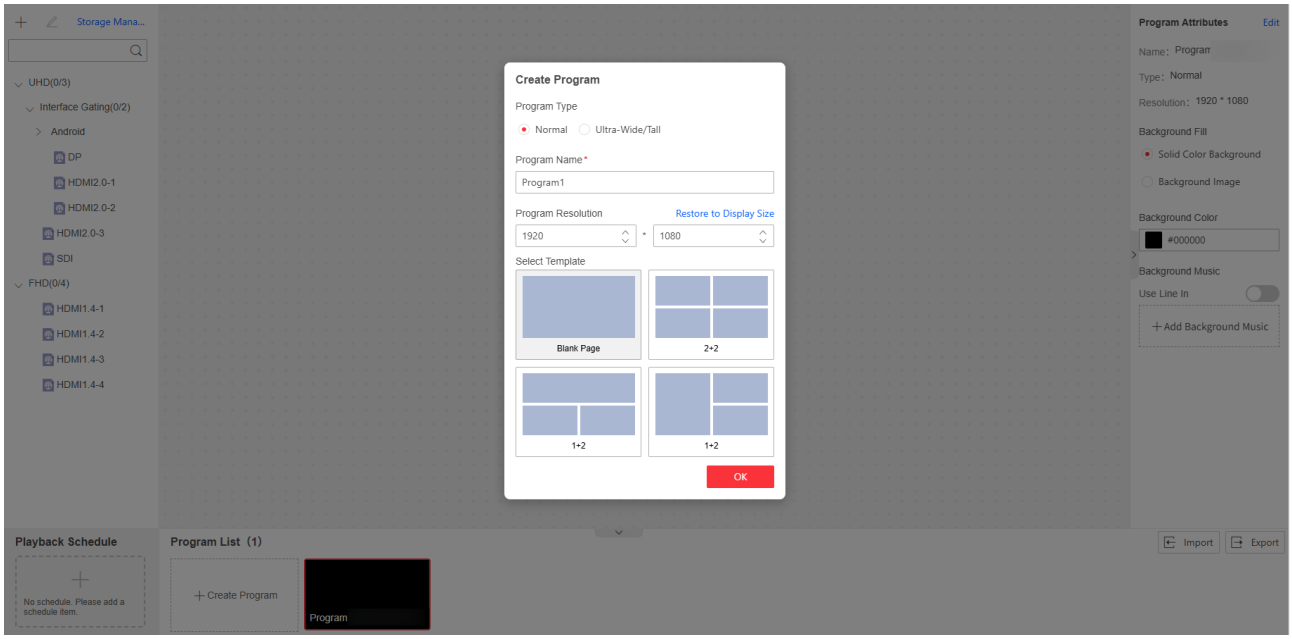

Figure 3-8 Create a Normal Program

Step 3 Click + to upload the locally saved materials or to add the material.

- Normal programs support application, signal source, image, video, document, web page, clock, text, table, stream media, IPC, and music materials.
- If you batch upload materials, make sure the total size of the uploaded materials does not exceed the remaining available storage space on the system.
- Supported material formats are as follows:
  - Images: BMP, JPG, PNG, GIF
  - Documents: PDF, PPT
  - Videos: ASF, AVI, MPG, 3GP, MOV, MKV, WMV, FLV, MP4, RM
  - Web pages: Prefixes http and https
  - Stream media: Prefix rtsp
- Each signal type has specific limits (indicated next to the type label), as shown in the figure below:
  - Maximum number of UHD (Ultra High Definition) signals: 3
  - Maximum type of interface gating signal sources: 2
  - Maximum number of FHD (Full High Definition) signals: 4

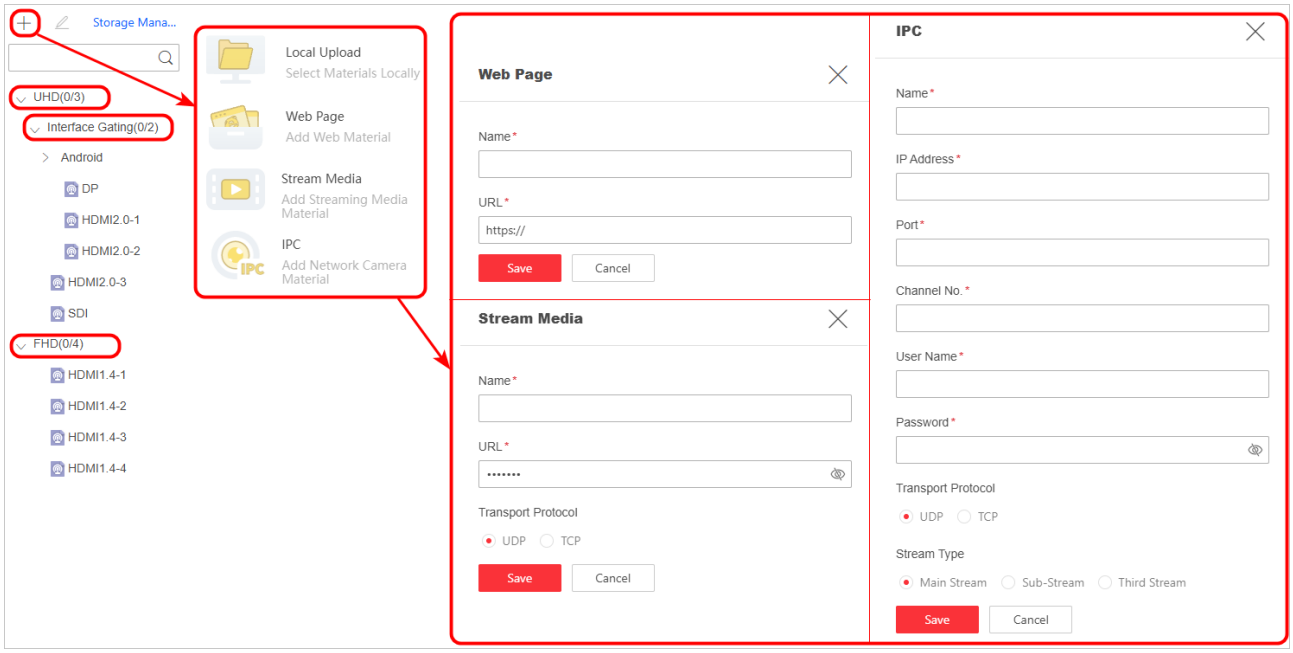

Figure 3-9 Add Materials for Normal Program

Step 4 (Optional) When internal storage is insufficient, you can use external storage to save locally uploaded images, videos, documents, and music.

1) Insert a FAT32-formatted USB drive into the device.
2) Use either of the following methods to access the **Storage Management** interface and click **Switch to External Storage**:
   - Navigate to **Configuration** > **Storage Management**.
   - On the **Playing Control** page, click **Storage Management**.

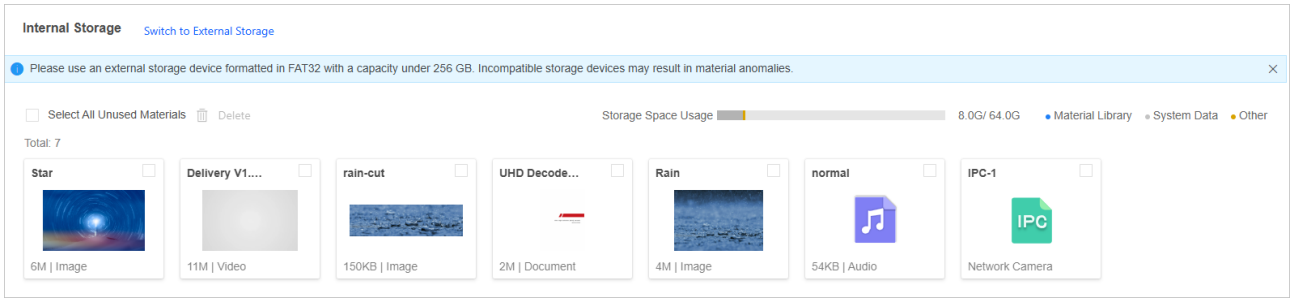

Figure 3-10 Switch to External Storage

3) On the **Playback Control** page, click + to upload the locally saved images, videos, documents, and music. The uploaded files will be automatically stored to the USB drive.

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

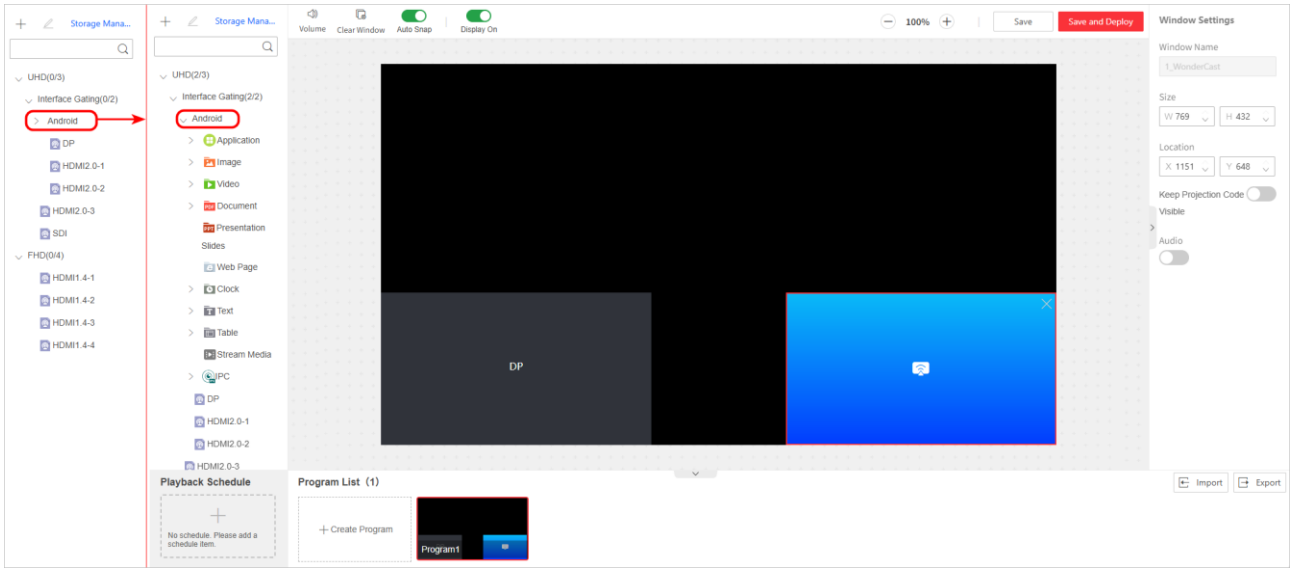

Figure 3-11 Bind Materials with Normal Program

Note

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

Step 6 Click **Save and Deploy**.

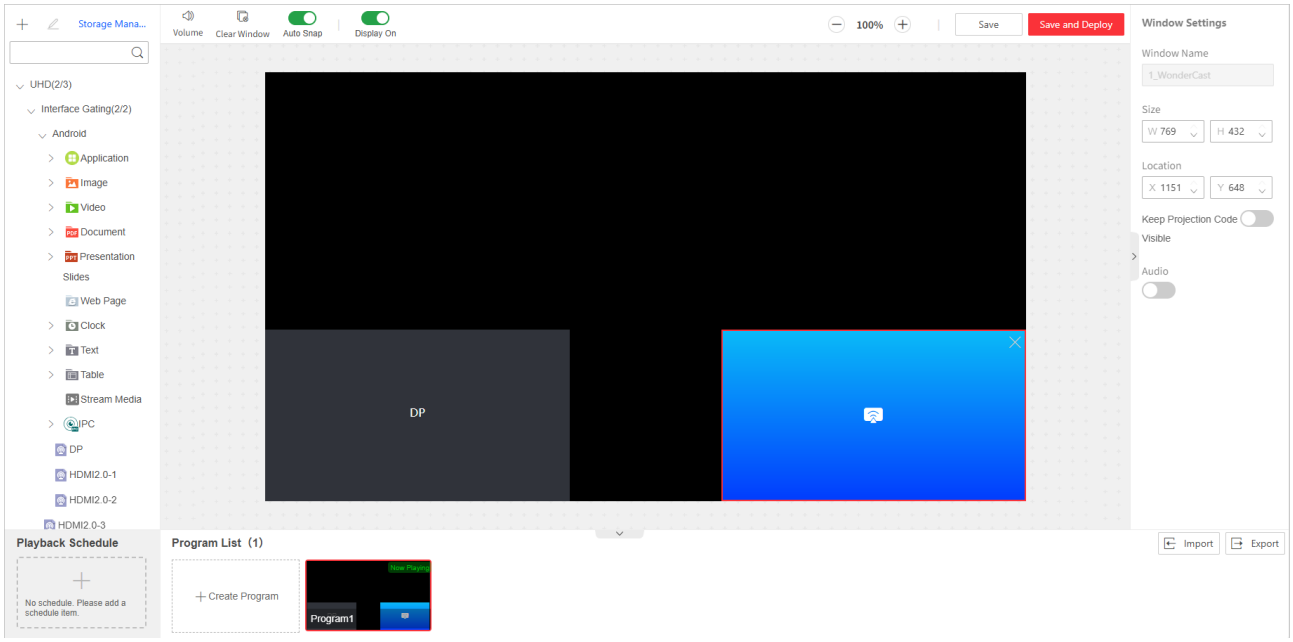

Figure 3-12 Deploy a Normal Program

Create and Play One Ultra-Wide/Tall Program

Applicable Scenario

When the width or height of an actual display exceeds 4096 pixels, it is recommended to create an ultra-wide/tall program.

Important

- Device loading limitations:
  - DT90P/DT60P/DT30P/DS-TU series and 2K DT60B/DT30B/DS-TB series: Program resolution ≤ 1920 × 1200 pixels.
  - 4K DT60B/DT30B/DS-TB series: Program resolution ≤ 4094 × 2160 pixels.
  - All devices: Single fold length ≤ 4096 pixels.
- Layout rules:
  - The device automatically sets the number of folds based on the resolution, with a maximum of 8 folds.
  - A maximum of 8 materials can be placed in a single fold.
  - When one material spans multiple folds, the number of materials allowed per fold is reduced by 1.

Steps

Step 1 Navigate to **Playback Control**.

Step 2 In the popped-up program creation window, select **Ultra-Wide/Tall**, and set the program resolution based on the actual display resolution.

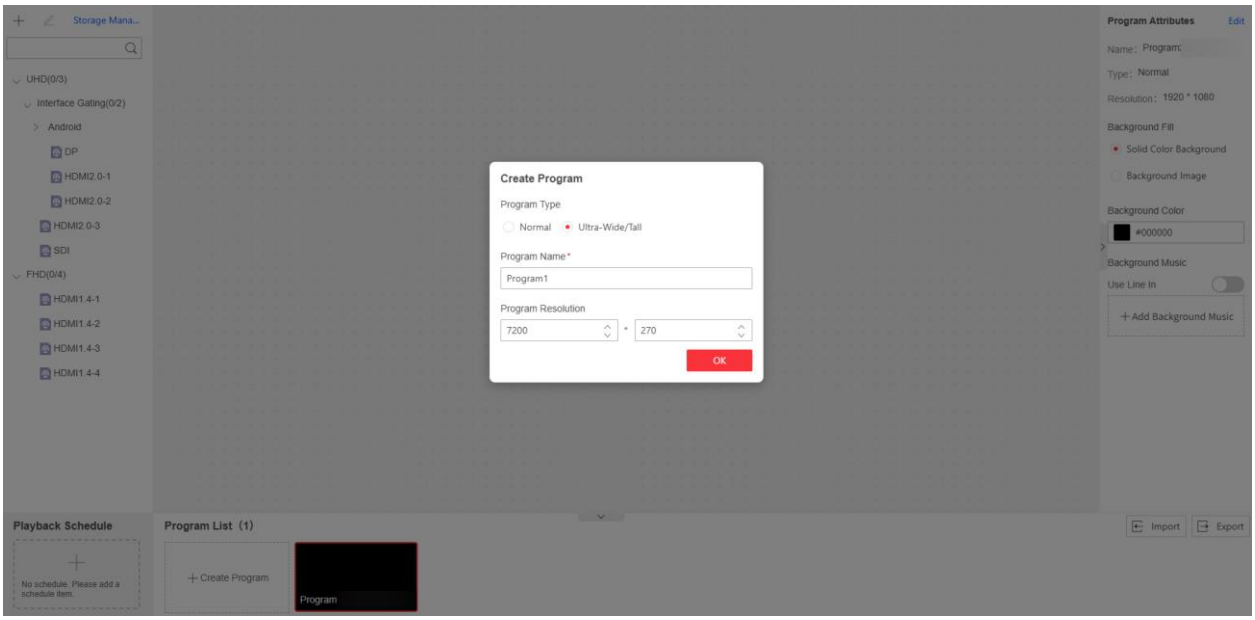

Figure 3-13 Create Ultra-Wide/Tall Program

Step 3 Click + to upload the locally saved images.

- A ultra-wide/tall program supports only image, text, clock, and music materials.
- Supported image formats include BMP, JPG, PNG, and GIF.

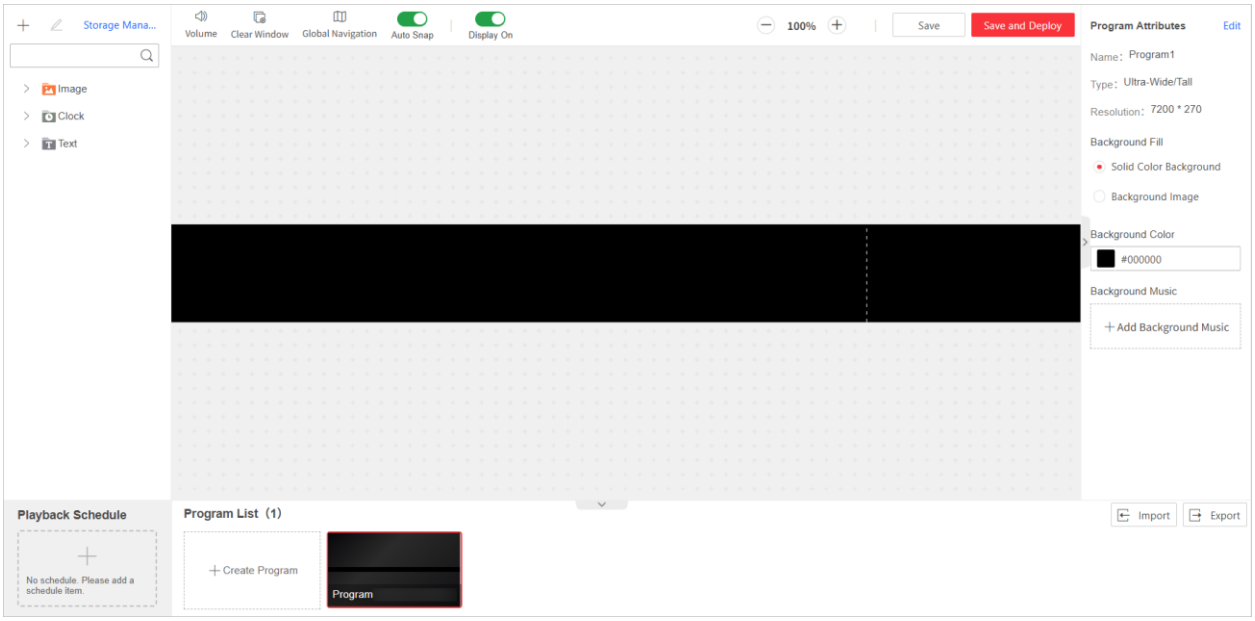

Figure 3-14 Add Materials for Ultra-Wide/Tall Program

Step 4 (Optional) When internal storage is insufficient, you can use external storage to save locally uploaded images and music.

1) Insert a FAT32-formatted USB drive into the device.
2) Use either of the following methods to access the **Storage Management** interface and click **Switch to External Storage**:
   - Navigate to **Configuration** > **Storage Management**.
   - On the **Playback Control** page, click **Storage Management**.

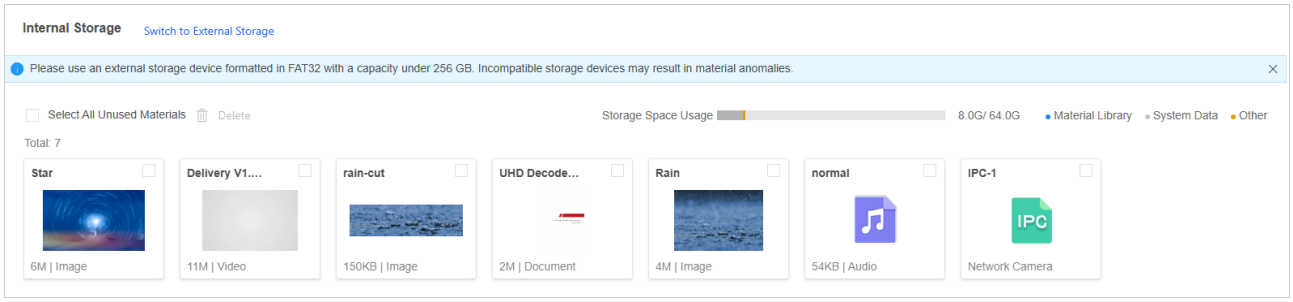

Figure 3-15 Switch to External Storage

3) On the **Playback Control** page, click + to upload the locally saved images and music. The uploaded files will be automatically stored to the USB drive.

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

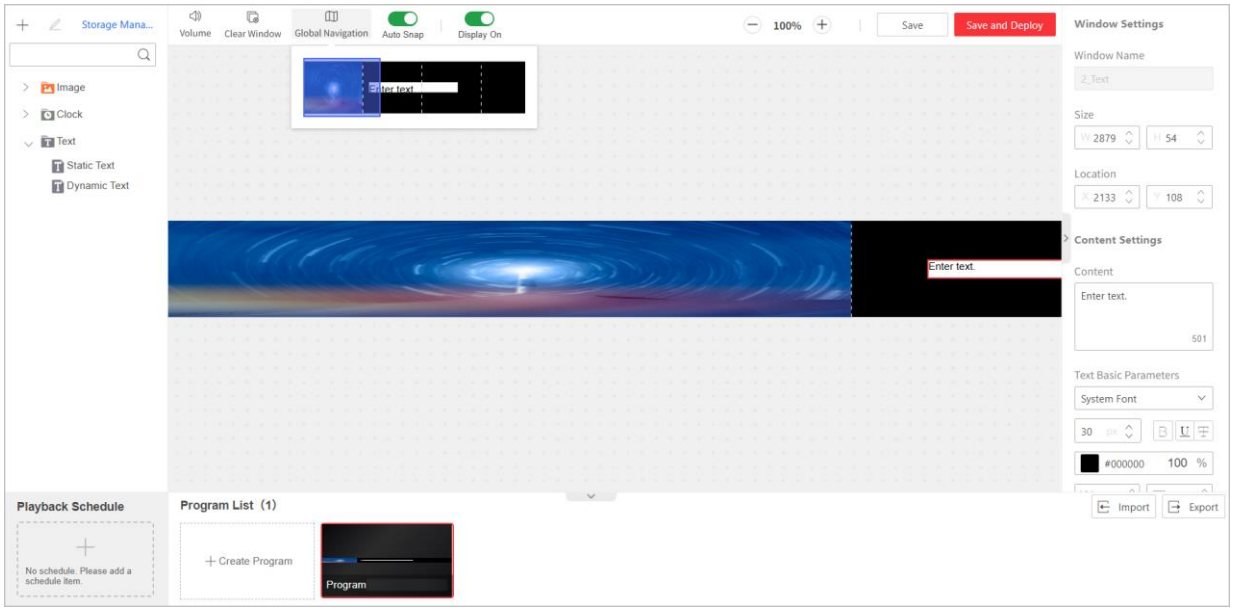

Figure 3-16 Bind Materials with Ultra-Wide/Tall Program

Note

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

Step 6 Click **Save and Deploy**.

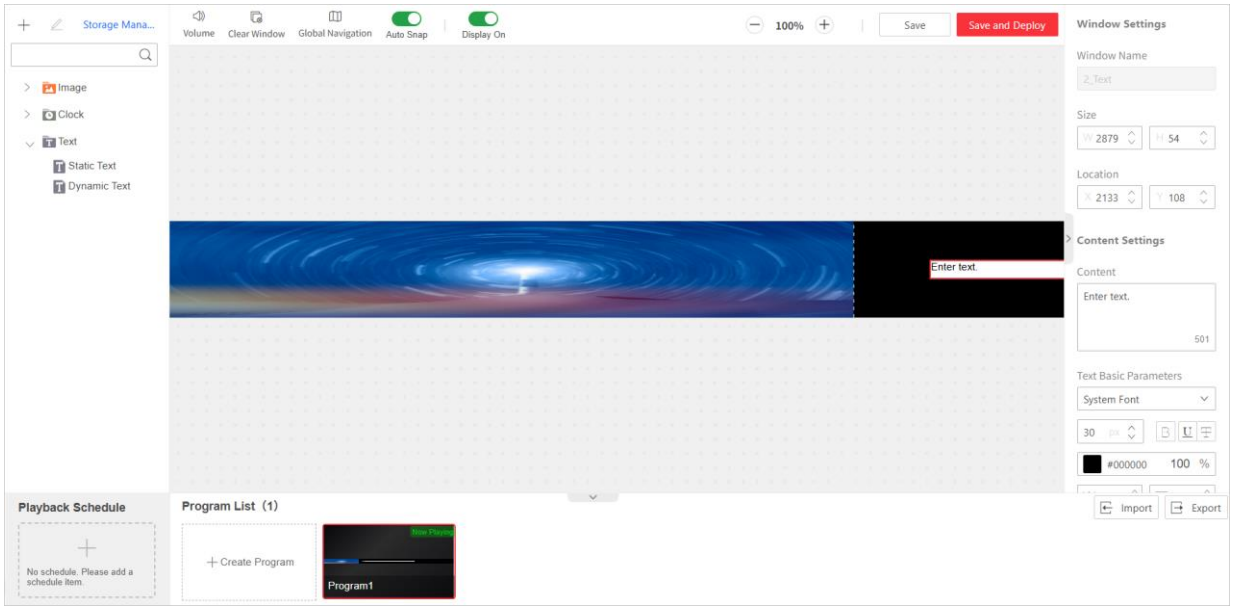

Figure 3-17 Deploy an Ultra-Wide/Tall Program

Create and Play Multiple Programs

To play different programs at different times, create multiple programs and set the playback schedule. This method applies to both normal programs and ultra-wide/tall programs. The following uses normal programs as an example.

Step 1 Create the first program and save it. For details, see “Create and Play One Normal Program” or “Create and Play One Ultra-Wide/Tall Program”.

Step 2 Click **Create Program**, set the program parameters, and bind materials to the program window.

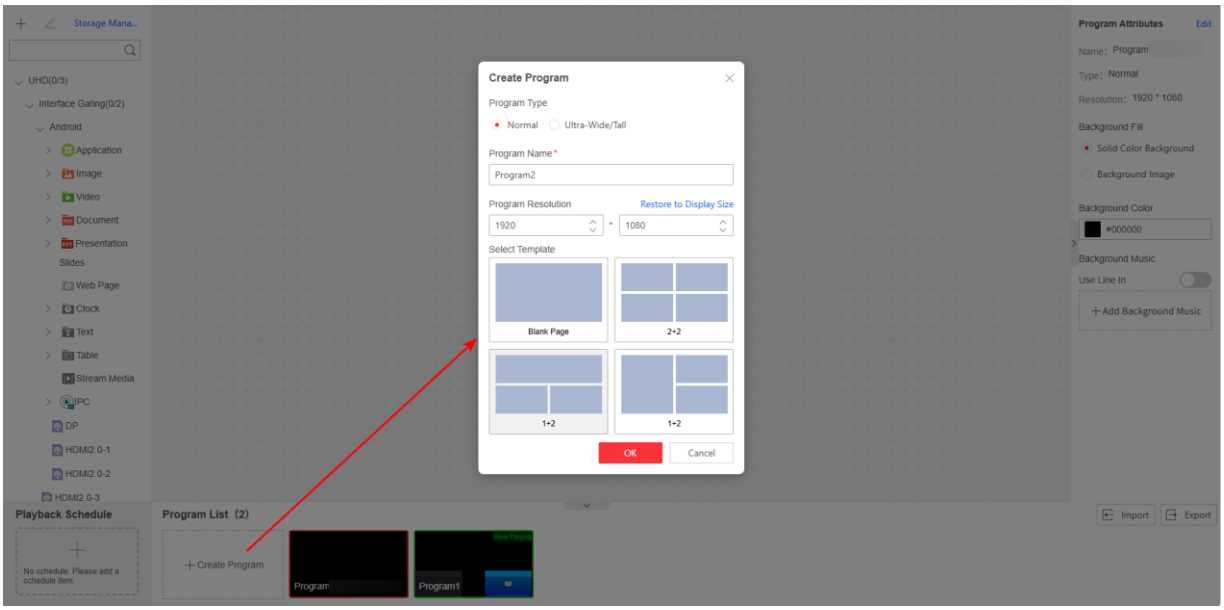

Figure 3-18 Create a New Normal Program

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

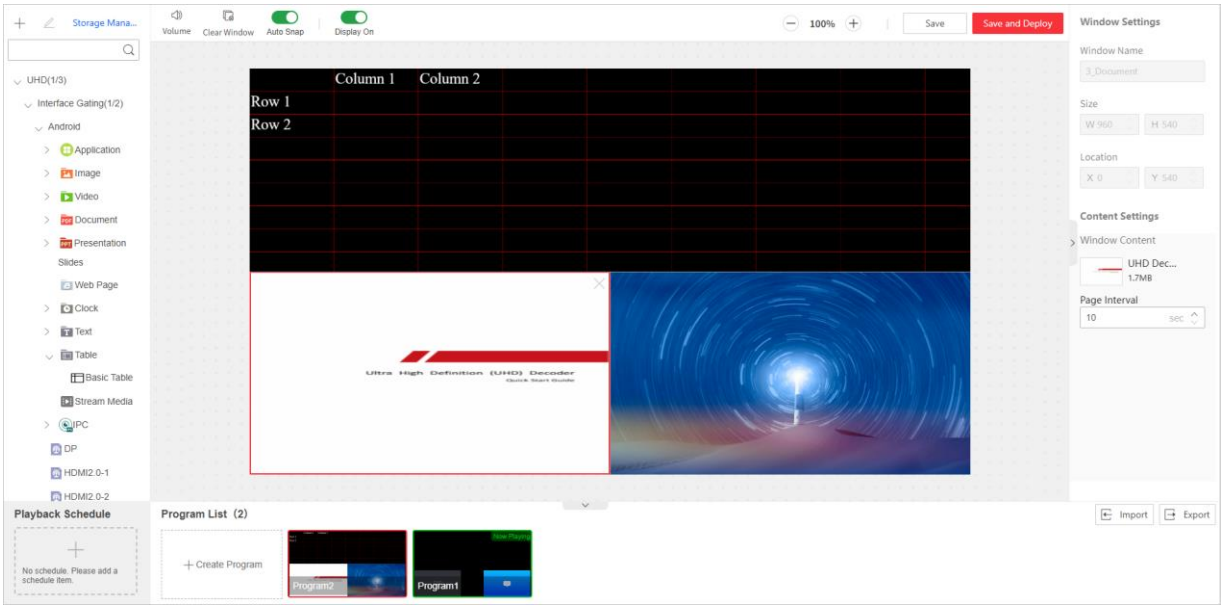

Figure 3-19 Create the Schedule

- Select **Auto-Switch**, drag programs to the playlist, and click **Save and Deploy**.
  - To clear the playlist, click **Clear**.
  - To save only the auto-switching schedule without deploying, click **Save**.

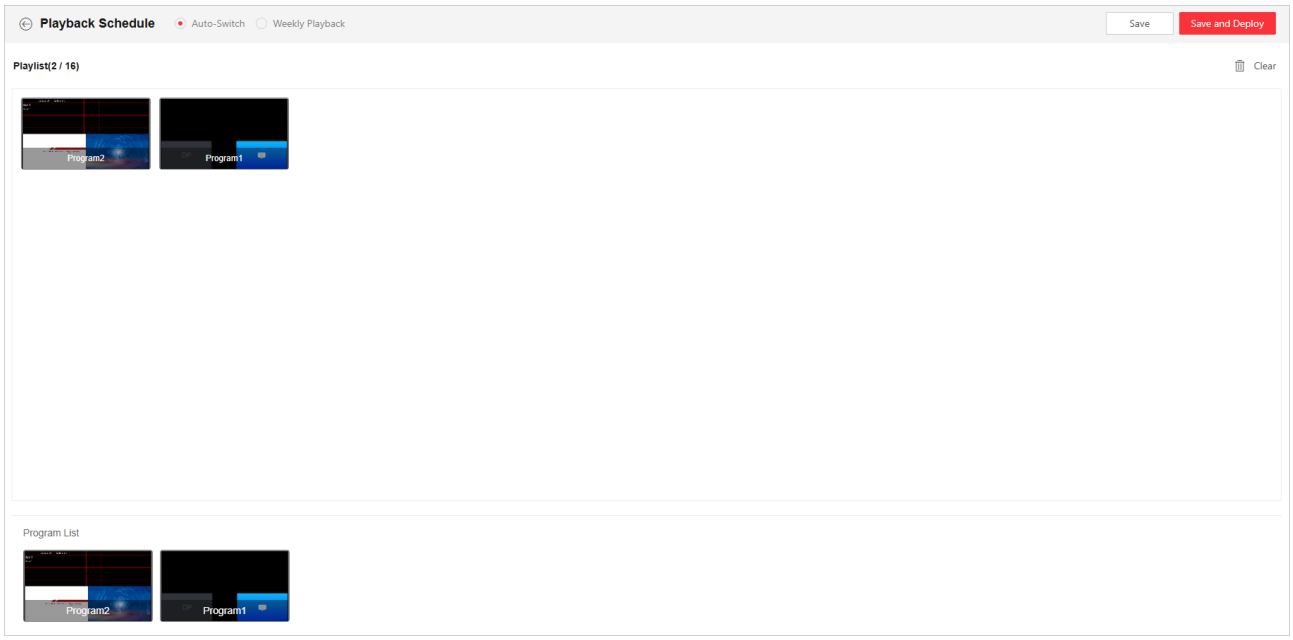

Figure 3-20 Set Auto-Switching Schedule

Figure 3-21 Auto Switch Normal Programs

- Select **Weekly Playback**, and set the programs and duration on the schedule.

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

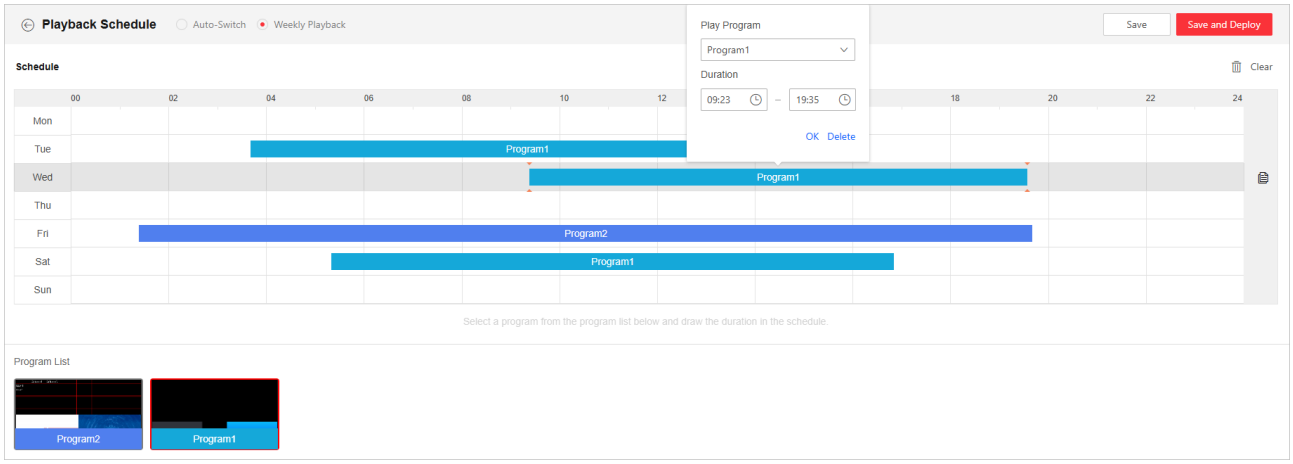

Figure 3-22 Configure the Schedule

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

Figure 3-23 Weekly Playback of Normal Programs

Set Other Program Parameters

On the **Playback Control** page, you can configure the following parameters for normal programs or ultra-wide/tall programs:

- Click on a blank area outside the program range to add a background color, background image, or background music.
  - Background music supports MP3, WAV, and WMA formats.
  - Enable **Use Line In** to play audio input from the device's Line In port.

Note

- Enabling Line In automatically mutes all other audio sources, playing only the Line In signal.
- DT30B/P series devices do not support Line In.

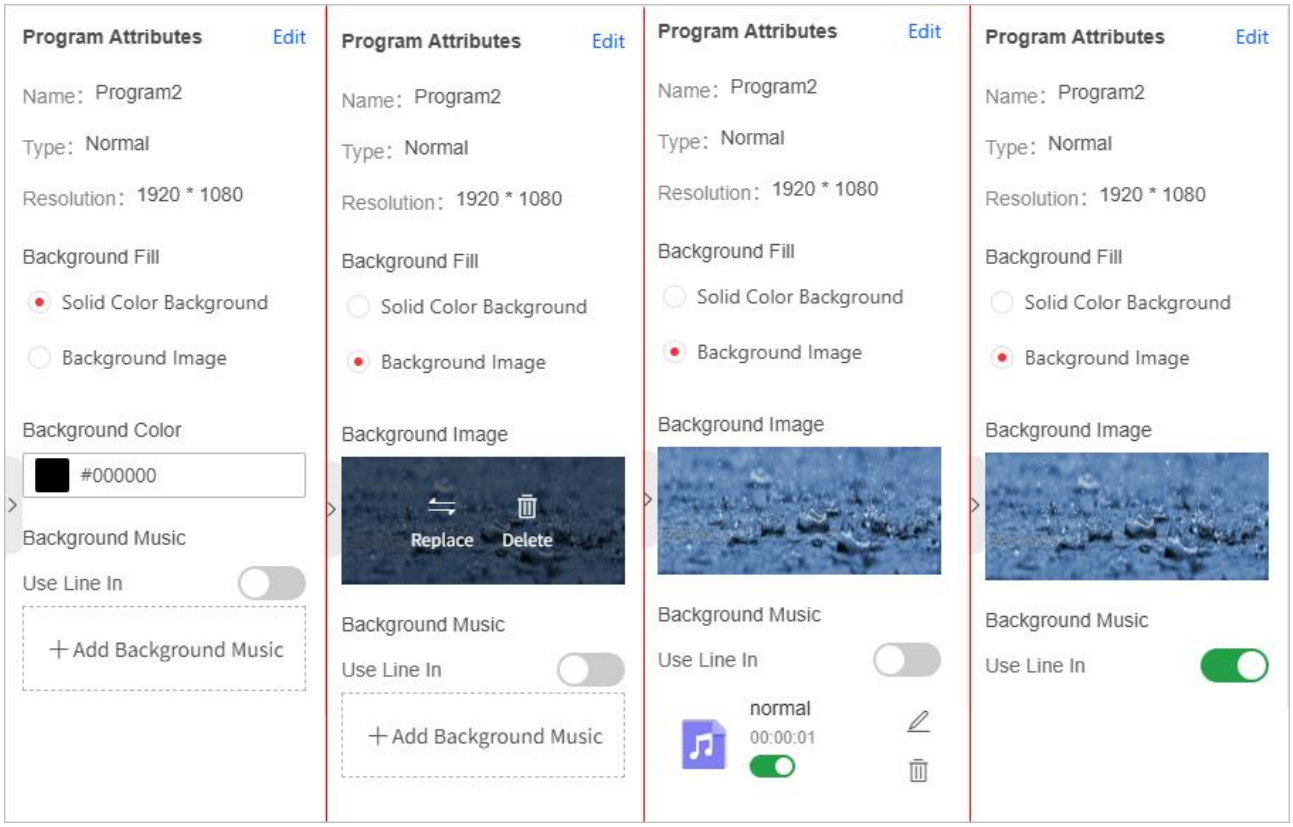

Figure 3-24 Add a Background

- Adjust the volume.
- Set the display status:
  - If you enable **Display On**, the display exits the sleep mode.
  - If you disable **Display On**, the display enters the sleep mode.
- Manage a program and schedule by hovering to reveal action icons:
  - Deploy: Click  to deploy the program or schedule.
  - Edit: Click  to edit the program or schedule.
  - Export: Select a non-editable program, and click  to export the program, materials and schedule to the USB flash drive. During export, you can enable **Autoplay Program from USB Flash Drive**.
  - Delete: Click  to delete the program.
  - Stop: Click  to stop the program.
- Export/Import data:
  - Insert a USB flash drive into the device and click **Import** to import all programs, materials and the schedule in the USB flash drive to the device.
  - Insert a USB flash drive into the device and click **Export** to export all programs, materials and the schedule.

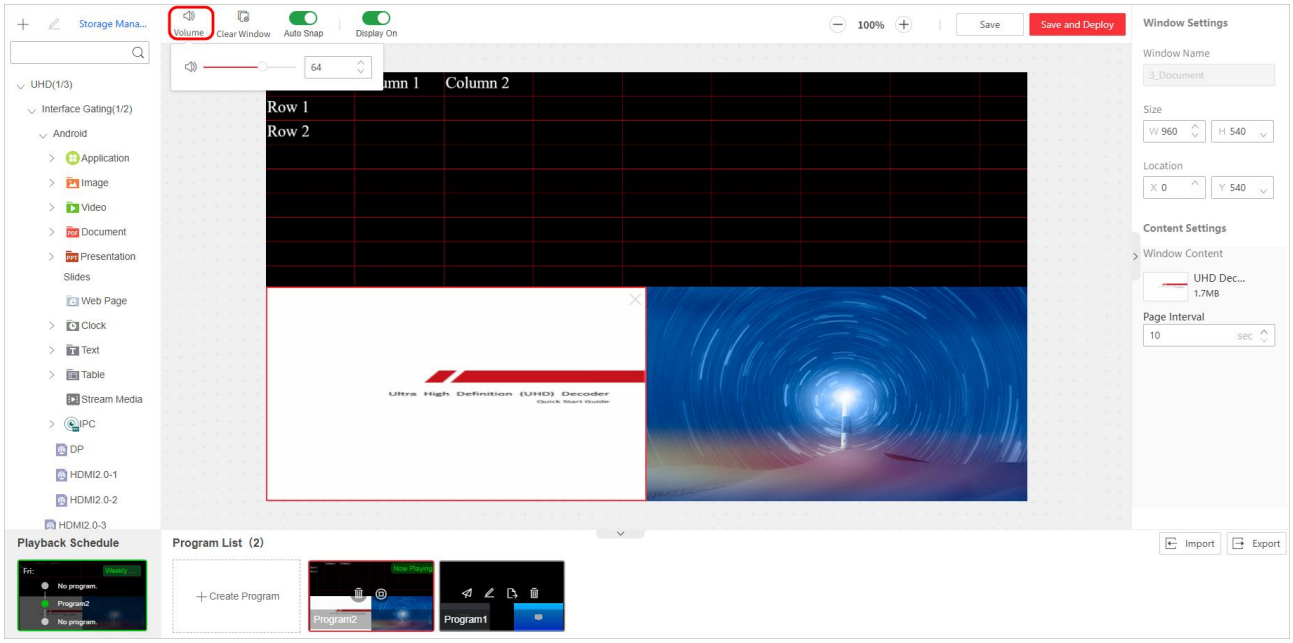

Figure 3-25 Manage Program

Note

- Only USB flash drives in FAT32 format are supported.
- Do not remove the USB drive until the system prompts that the import or export operation is complete, as this may cause data loss.

3.2.2 Manage Materials

Material Type

- Normal program: Support application, signal source, image, video, document, web page, clock, text, table, stream media, IPC, and music materials.
- Ultra-wide/tall program: Support image, text, clock, and music materials.

Common Material Operations

- Adjust the window position: Select the material window, and then drag with left mouse button or directly enter position coordinates.
- Adjust the window size: Drag window edges, enter width/height values, or double-click to fill the program sub-window (double-click again to restore original size).

Set Specific Material Parameters

After selecting the target material in the program window, you can configure its parameters.

- WonderCast material: Enable **Keep Projection Code Visible** as required.
- Signal source material:
  - Manually set the resolution or enable **Resolution Self-Adaption**.
  - Enable audio. Each program can output only one audio source.

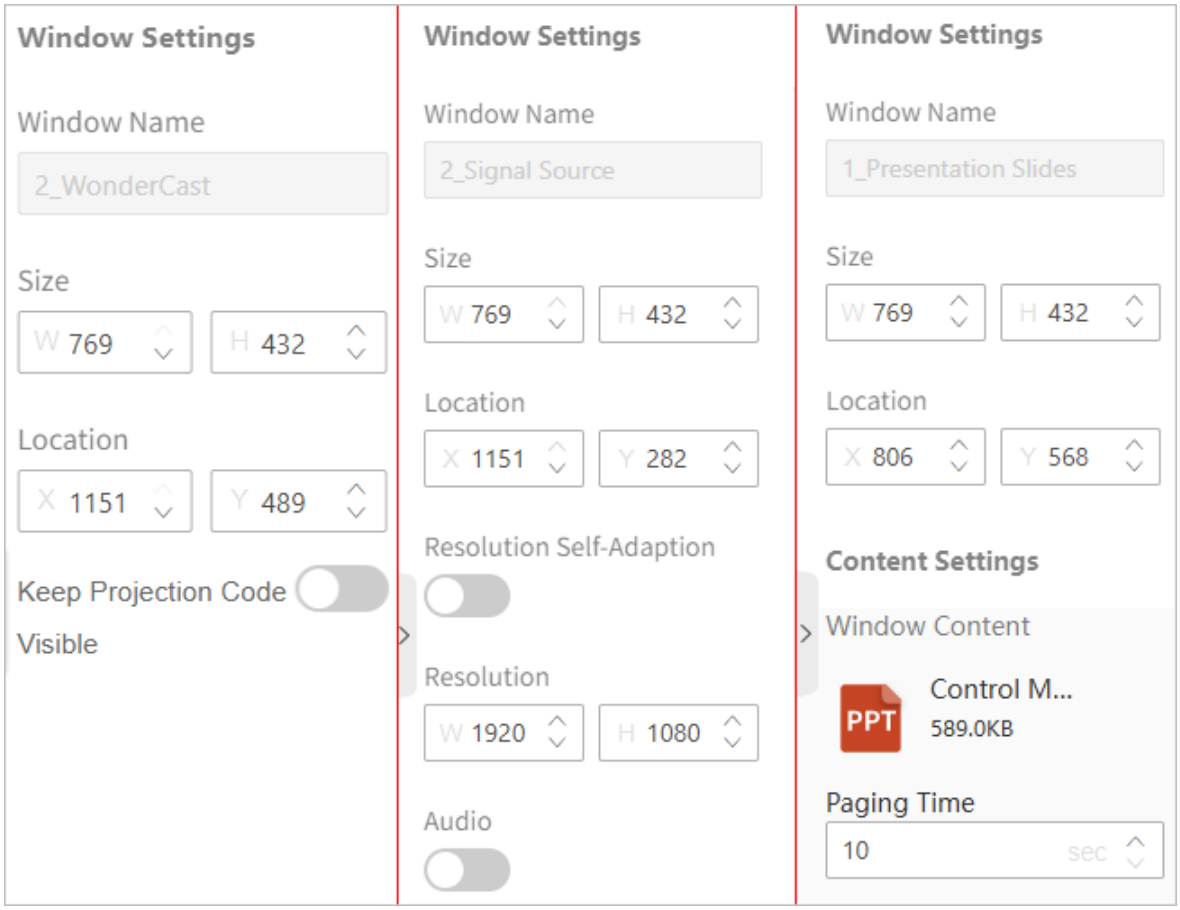

Figure 3-26 Configure Application/Signal Source/PPT File Material

- Image and video materials:
  - Click **Add More Materials** to upload the locally saved images or videos, or to select the images or videos from the material library.
  - Click and hold ☰ to adjust the playing order of the image or video.
  - Set an interval for each image.
  - Adjust the corner radius of the image window.
  - Audio from only one material (video, stream media, or IPC) is active per program. It is automatically enabled for the first material added to the program window. To use audio from a different material, select it and enable **Use Audio Tracks**.
- PPT document and PDF document materials: Set the page interval in the range of 10 to 120 seconds.
- Web page material: Set the webpage refresh interval.

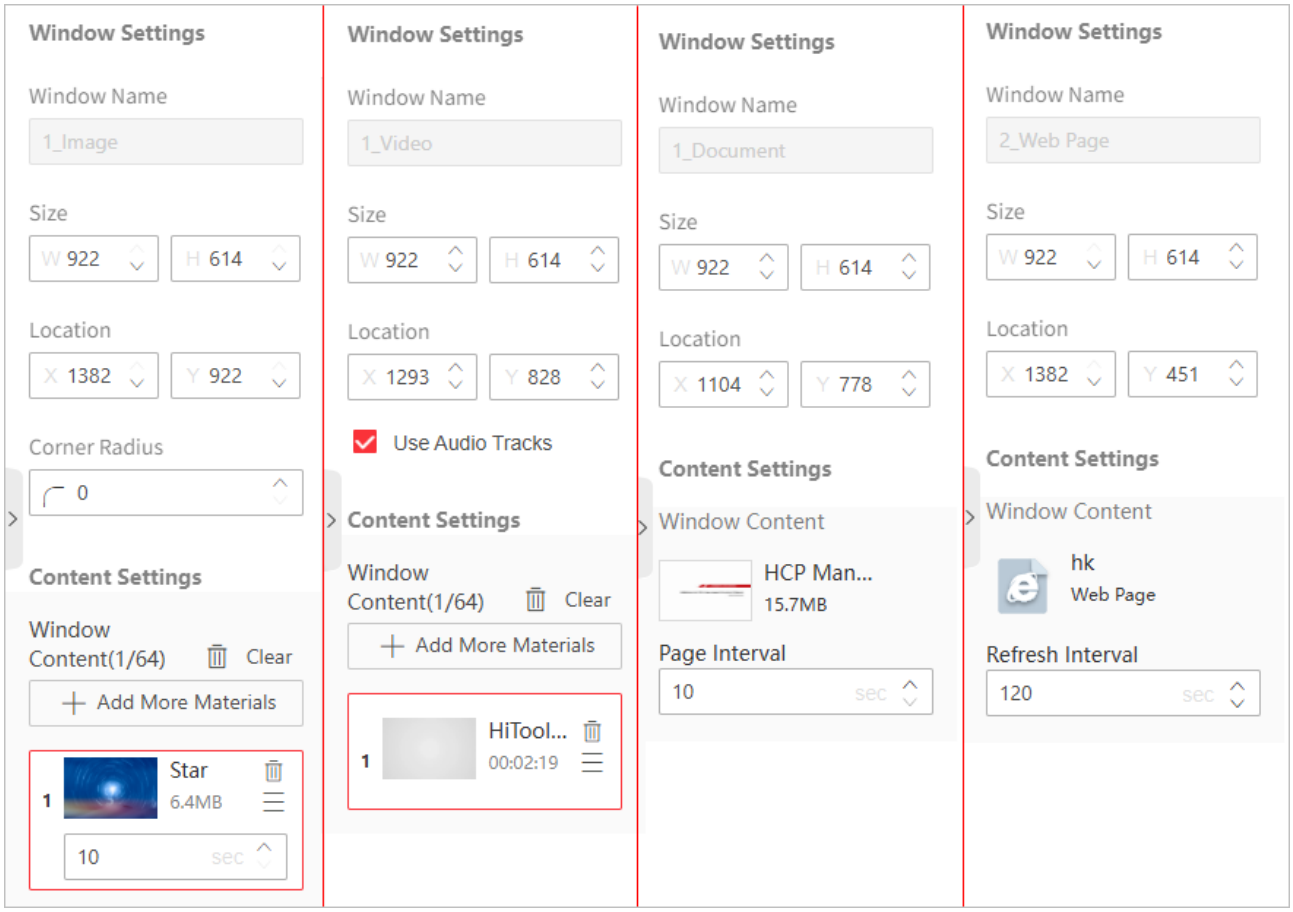

Figure 3-27 Configure Image/Video/PDF File/Webpage Material

- Stream media and IPC materials: Audio tracks from only one material (video, stream media, or IPC) is enabled per program. The audio tracks are automatically enabled for the first material added to the program window. To use audio tracks from a different material, select the target material and enable **Use Audio Tracks**.

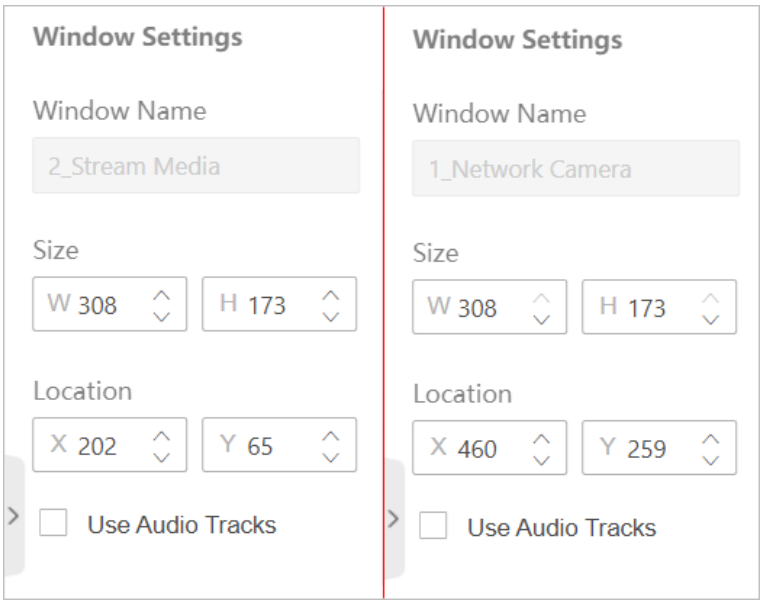

Figure 3-28 Configure Stream Media/Network Camera Material

- Clock material:
  - Supports 7 types of clocks. One program allows only one clock.
  - Click to hide the clock template and time.
  - Edit the clock template, font size, and font color.
- Text material:
  - Enter the content, and set the text basic parameters, text stroke, text shadow, and text background.
  - For the dynamic text material, set the scrolling direction and speed.

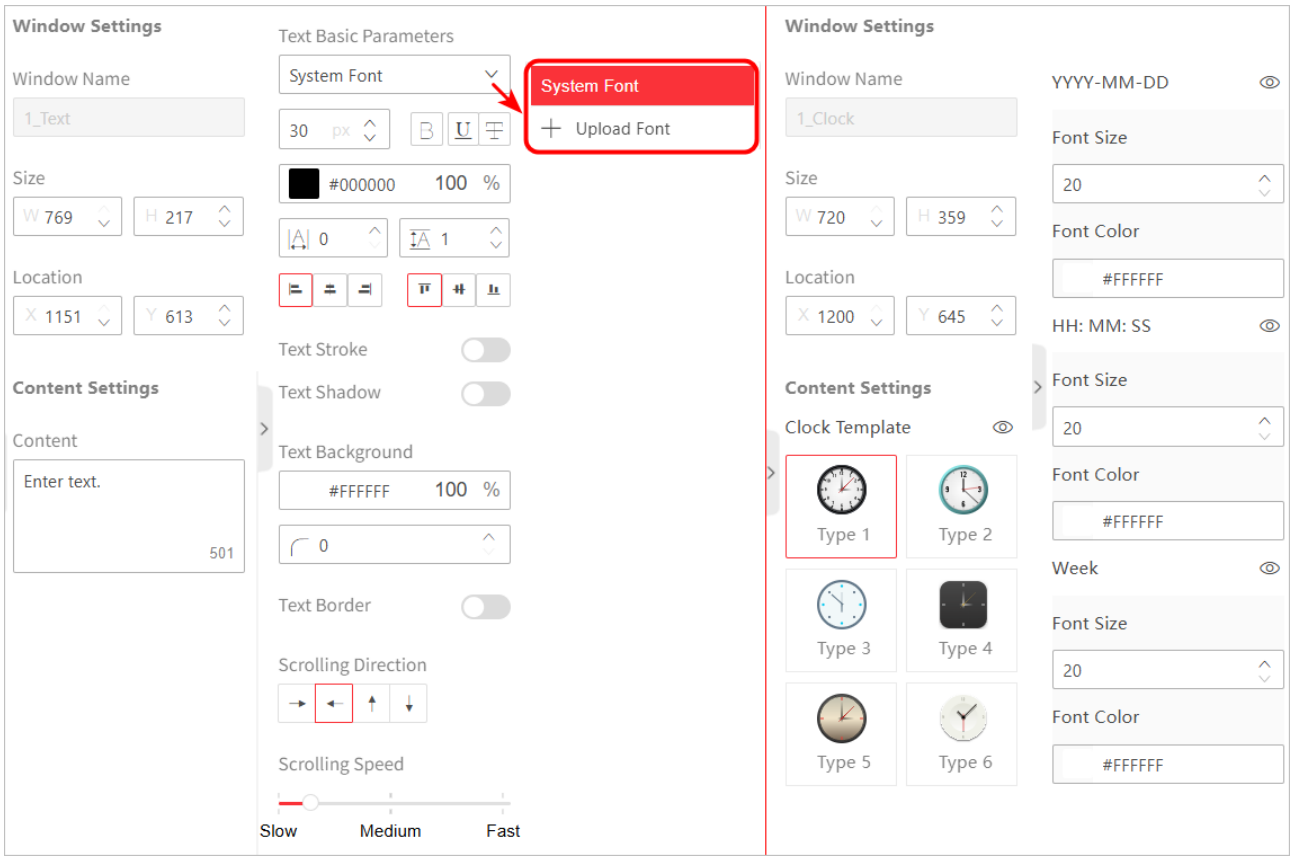

Figure 3-29 Configure Text/Clock

- Table material: Click **Edit Table** to edit the table content and style in the pop-up window.

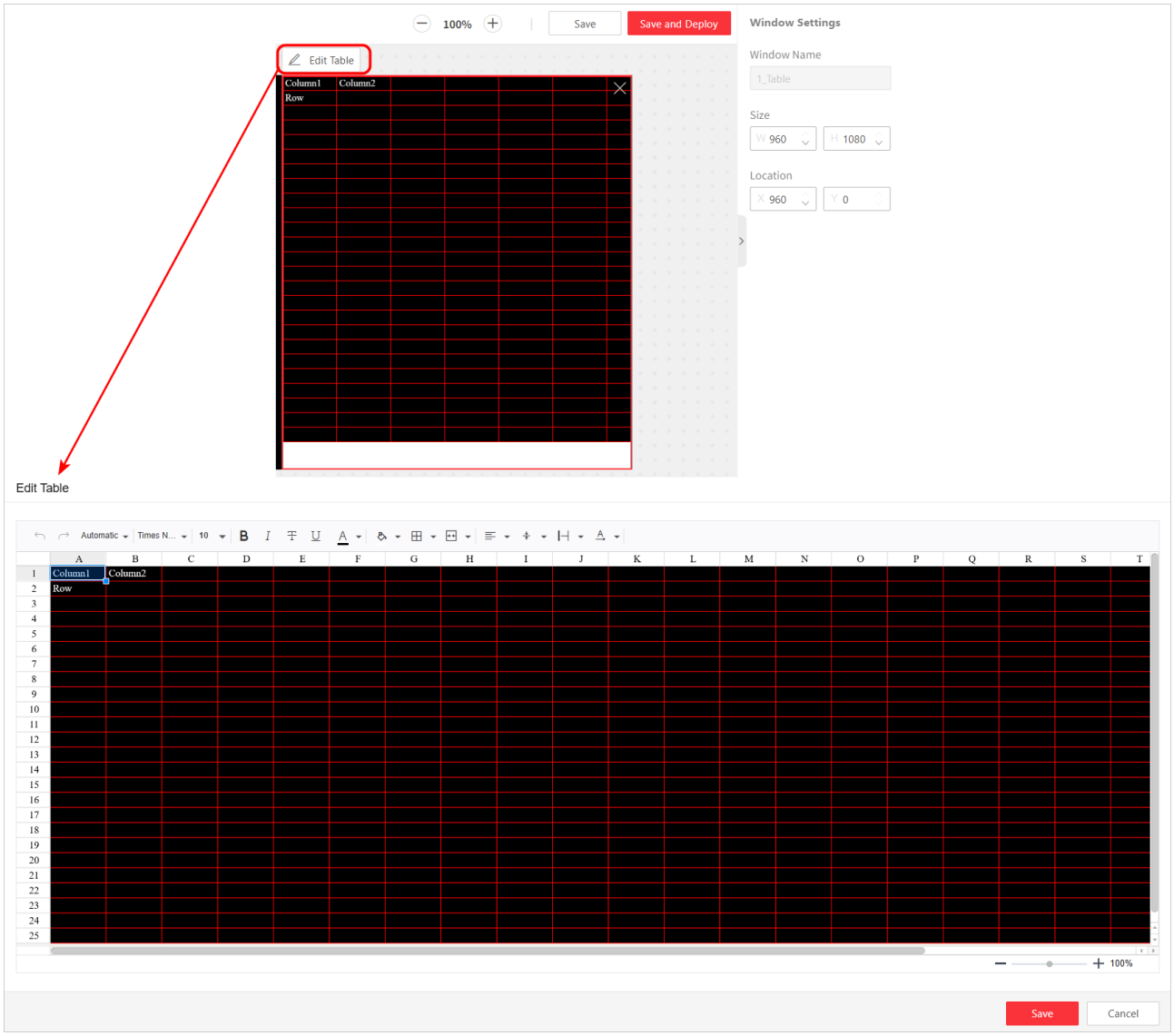

Figure 3-30 Manage Clock Material

Delete Materials

Step 1 Use either of the following methods to access the **Storage Management** interface.

- Navigate to **Configuration** > **Storage Management**.
- On the **Playback Control** page, click **Storage Management**.

Step 2 Check the materials to delete or select all unused materials.

Note

All materials are displayed on both the internal storage page and external storage page.

Step 3 Click **Delete**.

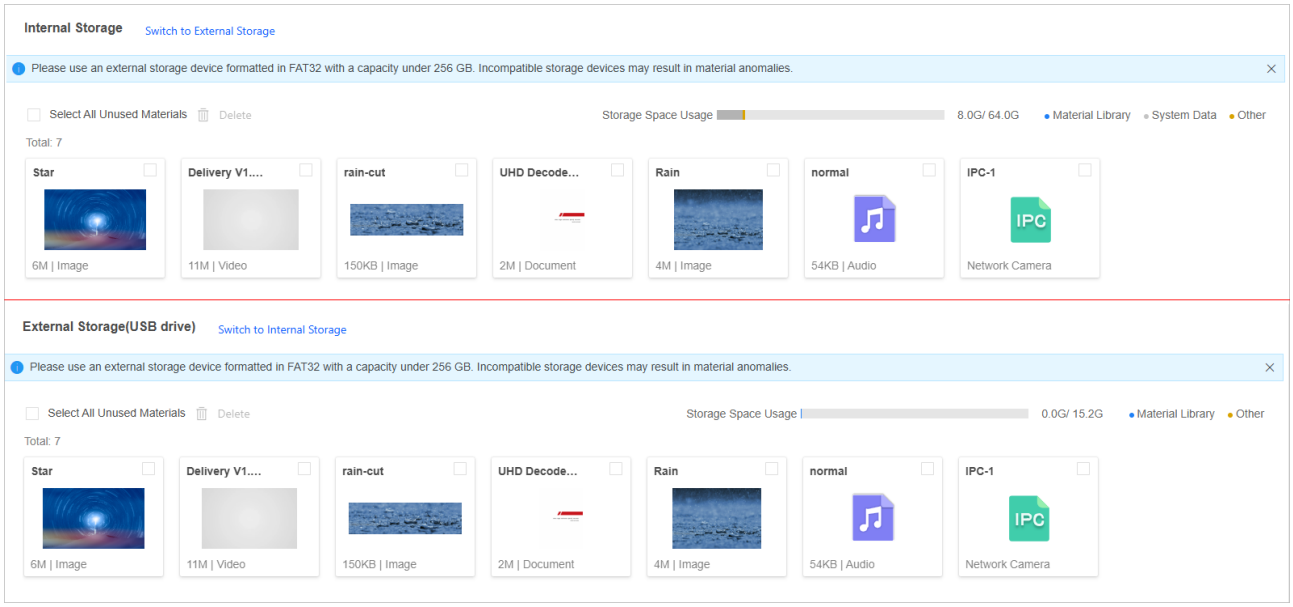

Figure 3-31 Storage Management Page

Chapter 4 Display Parameters Configuration

4.1 Calibrate Receiving Cards

Applicable Devices

All series.

Important

For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.

Steps

Step 1 Navigate to **Configuration** > **Receiving Card Calibration**.

Step 2 Enable calibration based on the device type.

- For B/P/U devices and a single C/V device: Turn on the **Enable Calibration** switch. The system will automatically activate brightness/chroma calibration. If the LED modules support low gray calibration, manually check this option.
- For cascaded C/V devices: Click **Batch Calibration**. The system will automatically enable brightness/chroma calibration for all cascaded LED modules:
  - If the LED modules support low gray calibration, manually check this option.
  - The **Configure All LED Controllers** option is enabled by default, which automatically applies the configuration to all cascaded devices.

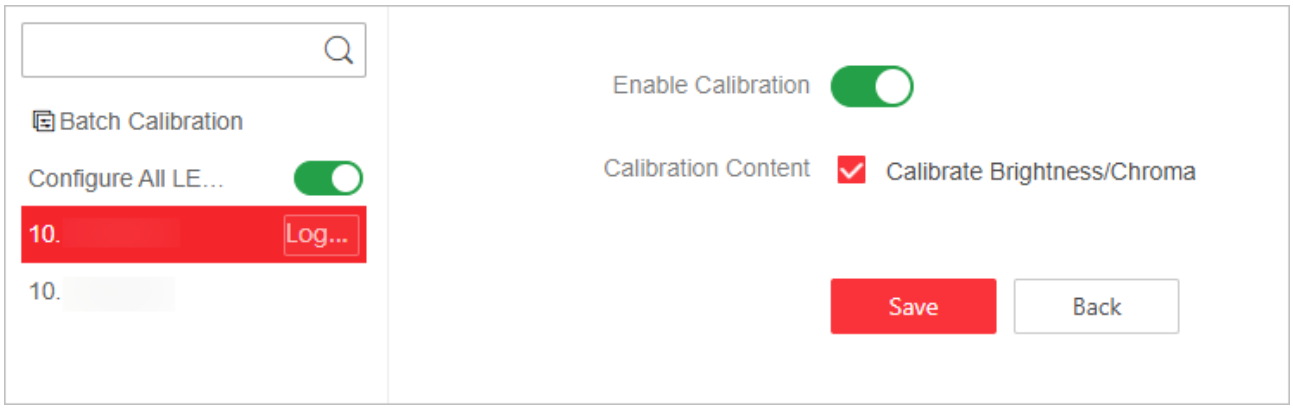

Figure 4-1 Select Calibration Content (Cascaded C/V Devices)

Step 3 (Optional) If you cannot locate the faulty display area easily, you can enable **Show Connections** to show the connection numbers between receiving cards and LED controller network ports directly on the physical display.

Step 4 Set the calibration area.

- Click and select the calibration area.
- Click and enter the start coordinate and end coordinate.

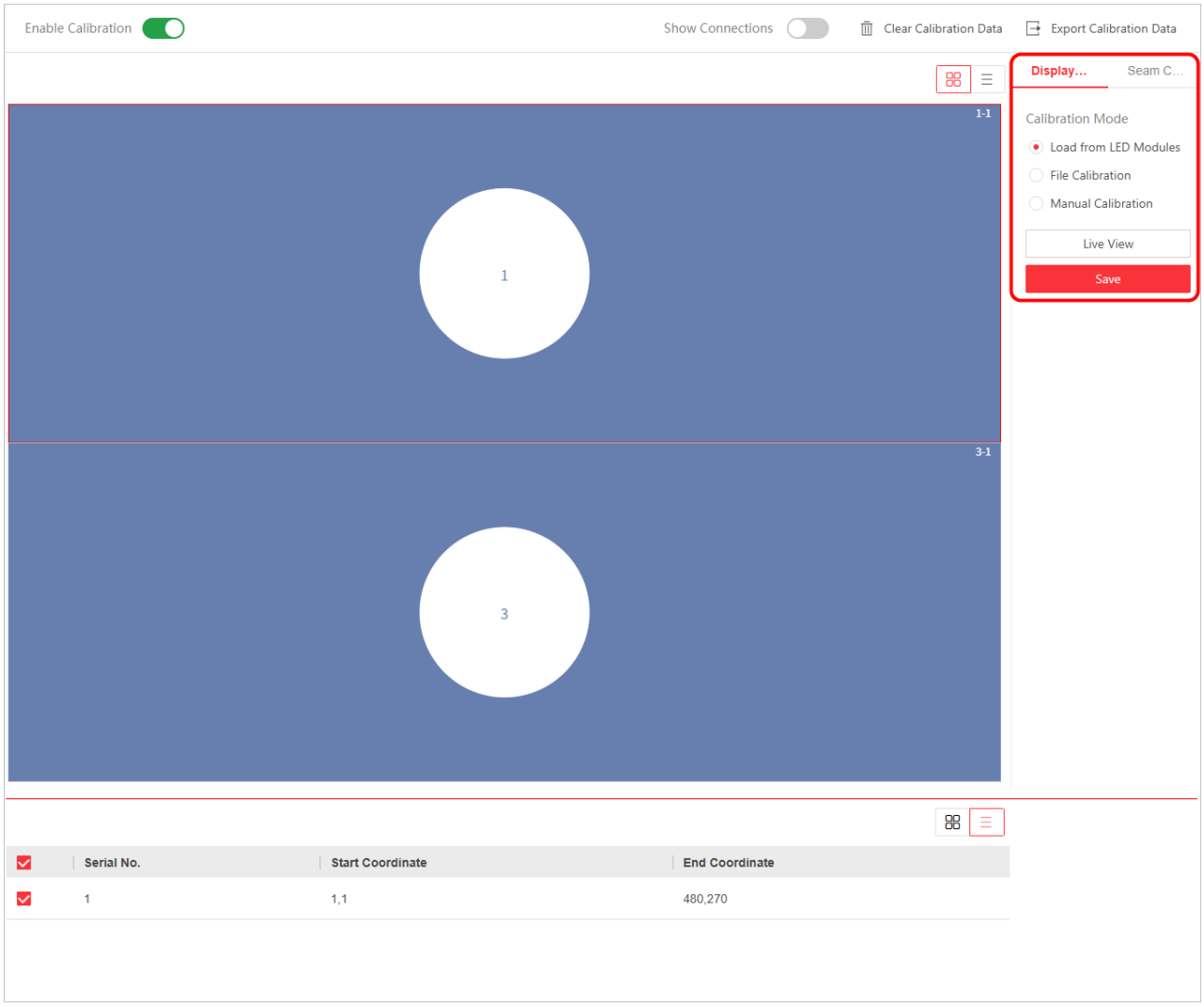

Figure 4-2 Set Calibration Areas

Step 5 Select a calibration method according to the receiving card type:

- Calibrate the AXS receiving cards. See “4.1.1 Calibrate AXS Receiving Cards”.
- Calibrate the HUB receiving cards. See “4.1.2 Calibrate HUB Receiving Cards”.

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

- If the calibration results are unsatisfactory, click **Clear Calibration Data** and select the target area(s) to reset.
- Click **Export Calibration Data** and select the target area(s) to export the calibration data.

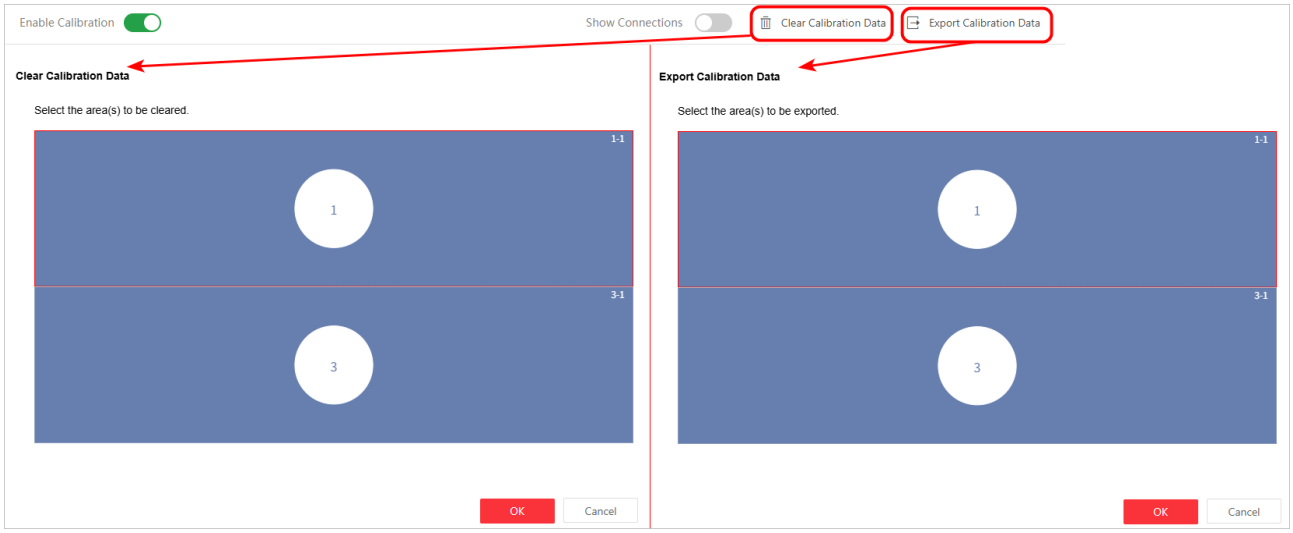

Figure 4-3 Clear/Export Calibration Data

4.1.1 Calibrate AXS Receiving Cards

Step 1 In the **Display Calibration** window, load the calibration data:

- If factory calibration data is available, select **Load from LED Modules** to import it.
- If no factory correction data is available, select **File Calibration** to upload a locally saved calibration file.

Step 2 Click **Live View** to check the display effect after loading the factory data.

Step 3 If the display effect is unsatisfactory, manually calibrate the display:

1) In the **Display Calibration** window, manually adjust the red/green/blue values (in ‰). To synchronize adjustments to the same value for all three colors, enable **Sync Adjustment**.
2) Click **Live View** to check the display effect after manual calibration.
3) If satisfied, click **Save**.

Step 4 If brightness/darkness seams exist, manually calibrate seams:

1) Click **Seam Calibration** and set the seam direction and width.
2) Adjust the red/green/blue values (in ‰). You can enable **Sync Adjustment**.
3) Click **Live View** to verify the seam display effect.
4) If satisfied, click **Save**.

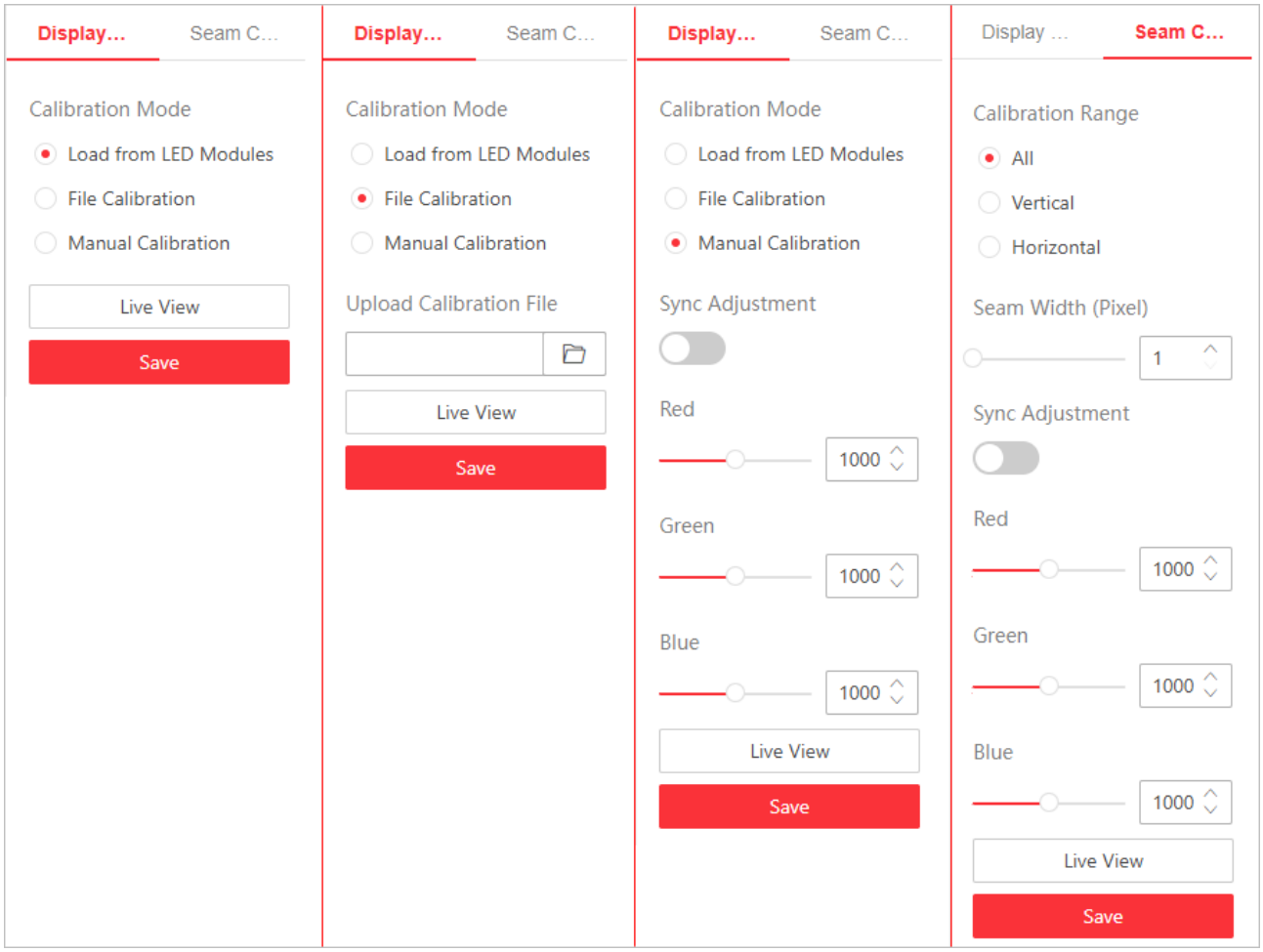

Figure 4-4 Calibrate AXS Receiving Cards

4.1.2 Calibrate HUB Receiving Cards

Step 1 In the **Display Calibration** window, select **File Calibration** to upload a locally saved calibration file.

Step 2 Click **Live View** to check the display effect after loading the calibration file.

Step 3 If the display effect is unsatisfactory, manually calibrate the display. The procedure is the same as 4.1.1 Step 3 for the AXS receiving cards.

Step 4 If brightness/darkness seams exist, manually calibrate seams. The procedure is the same as 4.1.1 Step 4 for the AXS receiving cards.

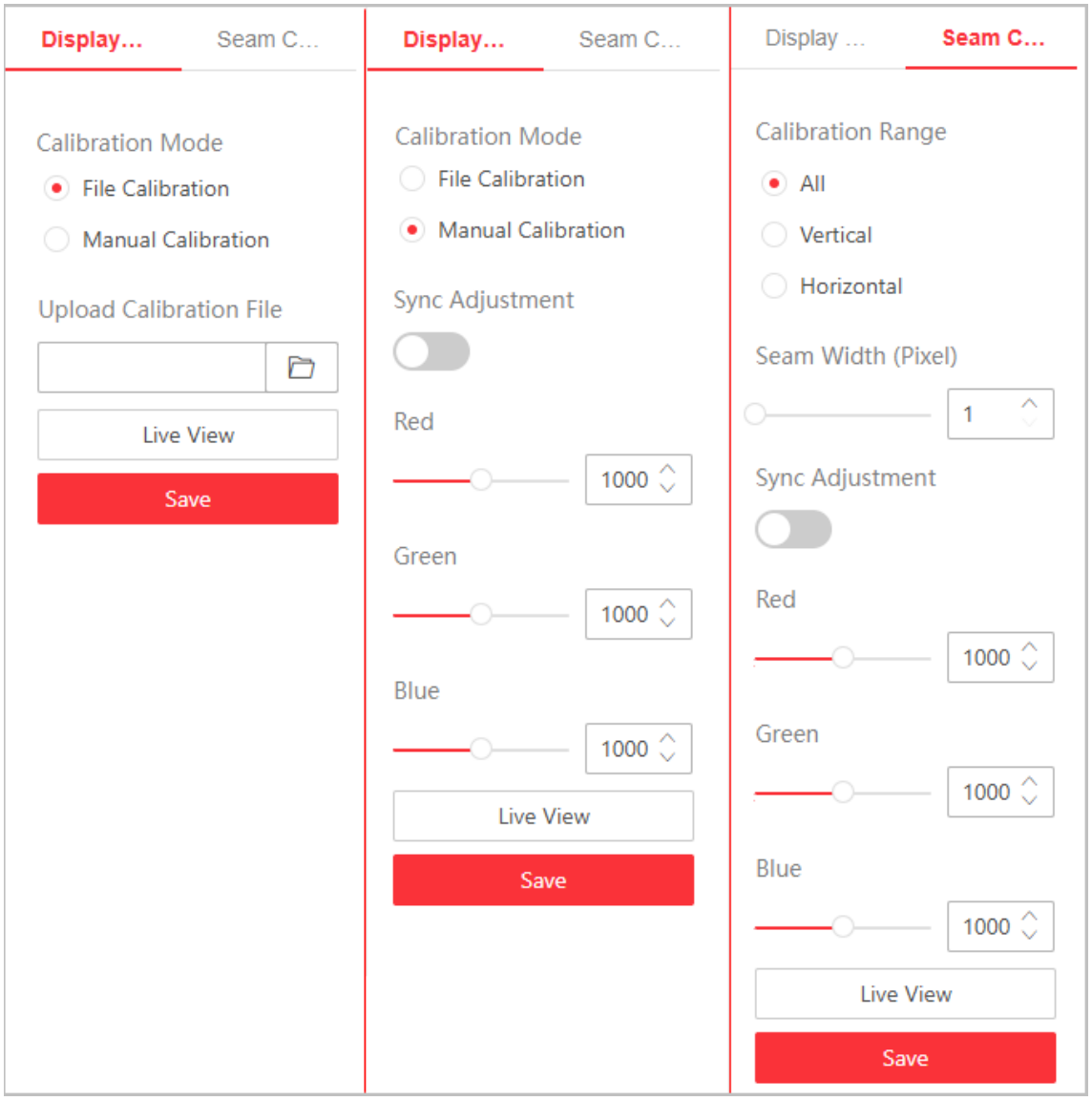

Figure 4-5 Calibrate HUB Receiving Cards

4.2 Configure Signal Parameters

Applicable Devices

All series.

Important

For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.

Steps

Step 1 Navigate to **Configuration** > **Signal Configuration**.

Step 2 (Optional) Configure cascaded C/V devices individually: After disabling the **Configure All LED Controllers** option, you can configure settings for an individual device.

Step 3 Set the input signal parameters.

Step 4 Set the output signal param3ters.

Step 5 Click **Save**.

Basic Input Parameters

- Signal source: Select a signal source. The options include an AUTO mode (which automatically switches to the most recently connected signal source).
  - Devices supporting signal source selection by default: DT90C, DT60C/B, DT30V/B, and certain DS-TC/B/V series.
  - Devices supporting signal source selection after switching to sync mode: DT60V/P, DT30P, and certain DS-TV/U series. (For mode switching instructions, see "4.8 Configure Working Mode".)
  - Devices not supporting AUTO mode: 2K DT60C series, certain DS-TC series, as well as 2K DT60V, 2K DT20V, and certain DS-TV series when operating in sync mode.
- Resolution: Set the resolution or enable **Resolution Self-Adaption**.

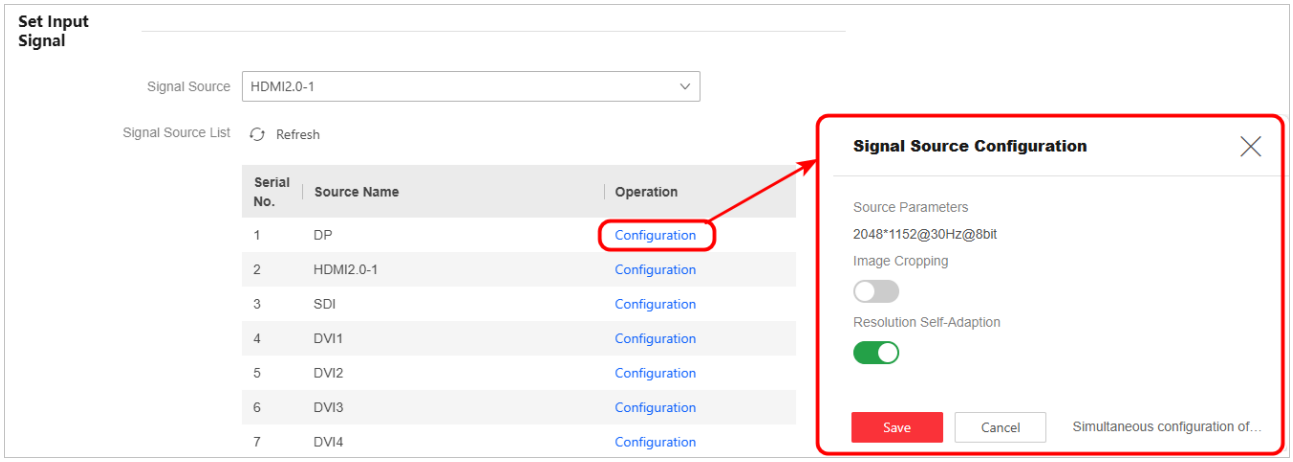

Figure 4-6 Configure Input Signals (DT90C Series)

Image Cropping

Applicable Devices

4K DT60C/V/B/P series, 4K DT90C/V/P, and some 4K DS-TC/V/B/U series.

Function Description

Each signal source supports only one rectangular area crop. After cropping, an independent signal source will be generated. The original signal source and the cropped signal source cannot be displayed on the video wall simultaneously.

Steps

Step 1 Enable **Image Cropping**.

Step 2 Set the cropping area.

- Free ratio: Drag the border in the preview window to adjust the position and size, or manually enter the X and Y coordinate values.
- Fixed ratio (16:9 or 4:3): Drag the border to adjust the position, or enter the X and Y coordinate values.
- Manual input: Directly enter the Width (W) and Height (H) values of the cropping area.

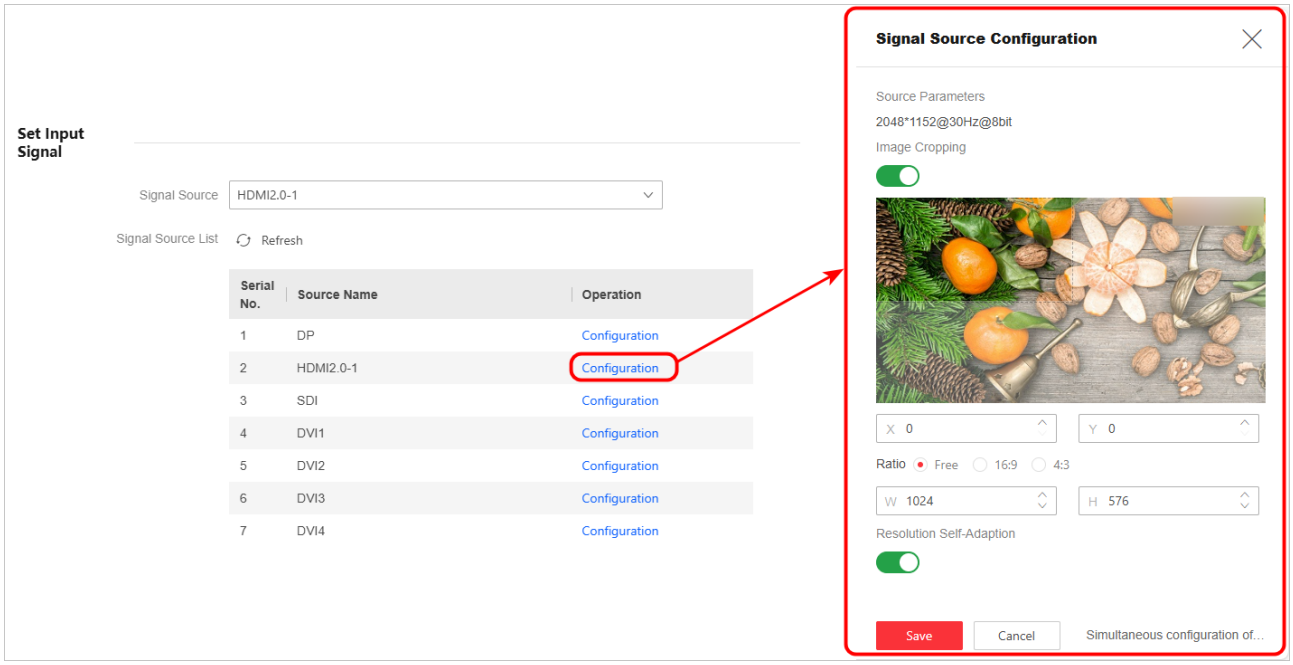

Figure 4-7 Configure Input Signal (DT90C Series)

USB Playback Function

Applicable devices: DT90P, DT60B/P, DT30V/B/P, and certain DS-TB/U series.

After enabling **USB Storage Playback**, the system will automatically loop through video and image files in the root directory of the USB drive.

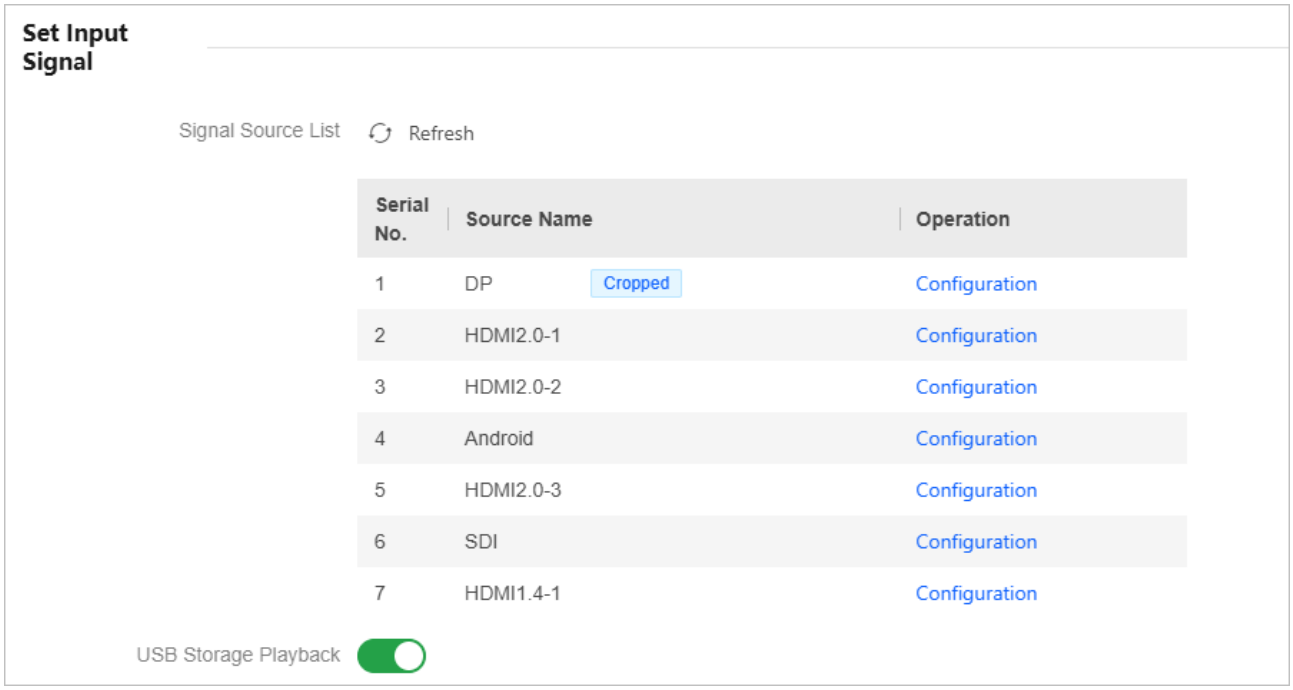

Figure 4-8 USB Playback Function

HDR Functionality

- Applicable devices: DT90C/V/P series and certain DS-TV series (requires a 4K signal source connected via HDMI 2.0, SDI, or DP port).
- Configuration method:
  - DT90C series: Enable HDR directly and configure the HDR parameters as required.
  - DT90V/P series: Click **Configuration** of the target signal source, enable HDR, and configure the HDR parameters as required.

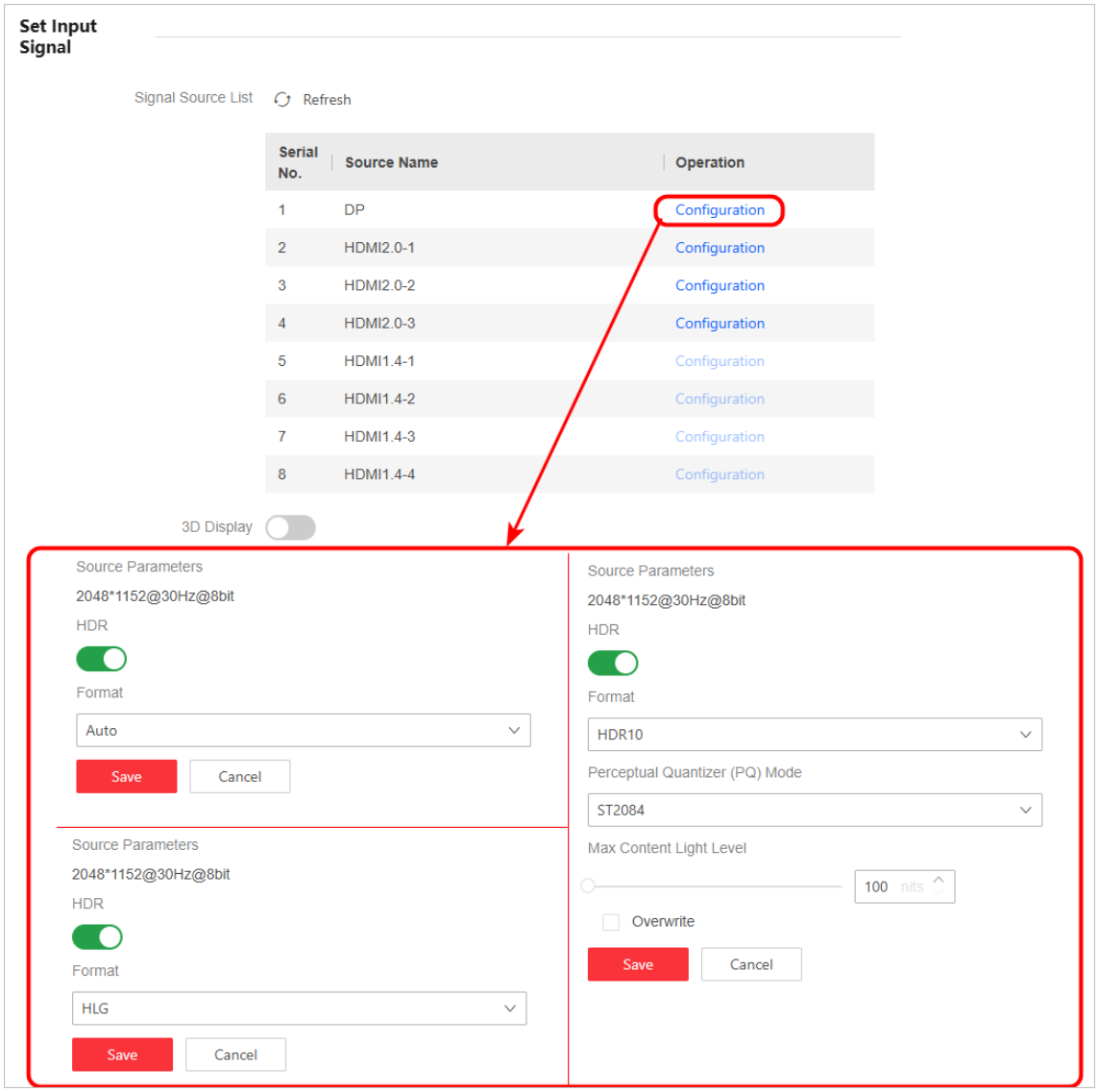

Figure 4-9 Configure HDR Functionality (DT90V Series)

- HDR processing rules: The device will only activate HDR processing when the signal source conditions, output bit depth, and HDR format meet the requirements listed in the table below. Otherwise, the device will output SDR content.

Table 4-1 HDR Processing Rules

Signal Source Conditions	Output Bit Depth Setting	HDR Format Selection	Output Effect
10-bit + HDR video	Auto/10-bit	Auto/HDR10	HDR10 output
10-bit + HDR video	Auto/10-bit	HLG	HLG mode output
10-bit + Non-HDR video	Auto/10-bit	Auto/HLG	HLG mode output
Non-10-bit + HDR video	10-bit	Auto/HLG	HLG mode output

- After enabling HDR, ensure the display's receiving card supports HDR effects to view HDR content on the display.

Basic Output Parameters

- Scaling mode: Choose pixel-to-pixel mode or full-screen scaling mode as needed.

  Applicable devices: All C/B-series devices, as well as DT60V/P series and certain DS-TV/P/U series devices in sync mode.

- Audio output: Select an audio source, control the audio on/off, and adjust the volume.
- Output bit depth: Select an output bit depth.

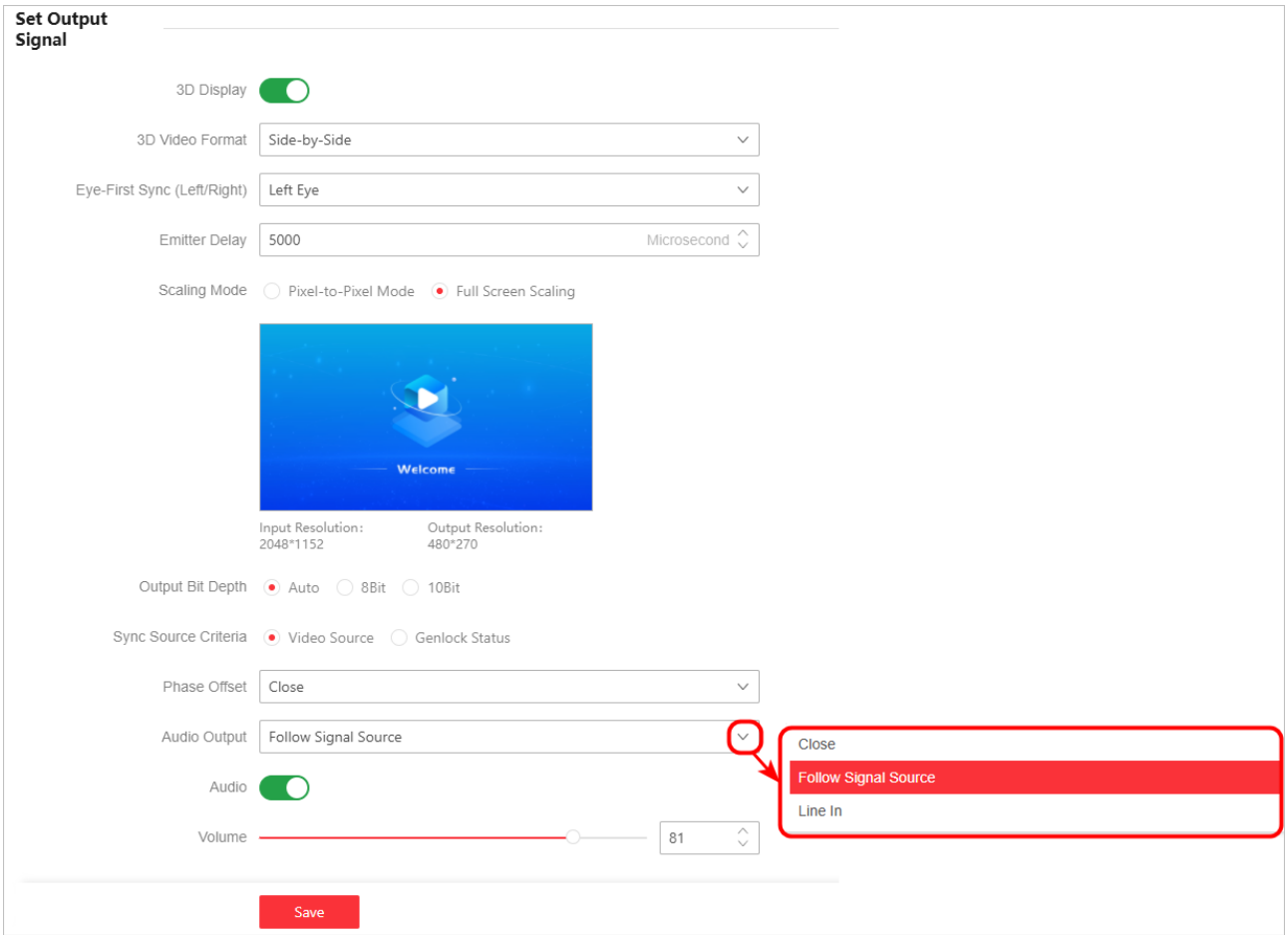

Figure 4-10 Configure Output Signal (DT90C Series)

3D Display

Enable **3D Display** and configure parameters when either of the following conditions is satisfied:

- A 4K C/B-series device is connected to a 3D sync signal transmitter via a multi-function card.
- A DT90C/V/P series device is connected to a 3D sync signal transmitter.

Source Synchronization

Applicable Devices

DT90V/P and certain DS-TV series.

Function Description

The source synchronization function utilizes frame-level synchronization technology to resolve timing issues in multi-device collaboration scenarios, primarily applied in:

- Multi-screen splicing: Eliminates image tearing between LED cabinets.
- Heterogeneous input sources: Synchronizes signals from diverse video sources (e.g., cameras, computers).
- Professional production: Integrates with Genlock signals for studio-grade applications (e.g., broadcast studios).

Steps

Step 1 Select the synchronization reference source:

- **Internal**: Uses the device's built-in 60 Hz clock. Choose this mode when a single device drives one LED display. This mode can avoid microsecond-level timing deviations in multi-controller environments.
- **Video Source**: Synchronizes with the input signal's timing. Used for live broadcasts (concerts/conferences), multi-source switching systems, or non-standard timing devices (e.g., gaming consoles).
- **Genlock**: Locks to an external sync generator's pulse for nanosecond-level precision. Used for studio multi-screen systems (e.g., TV studios). Before selecting Genlock, connect the required devices as follows:

1) Connect the Genlock transmitter to the GENLOCK IN port of the first device.
2) Connect the GENLOCK OUT of each device to the GENLOCK IN of the next.
3) Repeat until all devices are chained.

Step 2 Set the phase offset:

- **Off**: No adjustment (immediate synchronization by default).
- **Angle**: Enter degrees (1°≈ 0.28 ms @60 Hz) for fine delay calibration within a cycle.
- **Score**: Enter a percentage to quickly align devices with different frame rates.
- Absolute Value: Enter rows and pixels. The system calculates the delay for precise fixed-duration control.

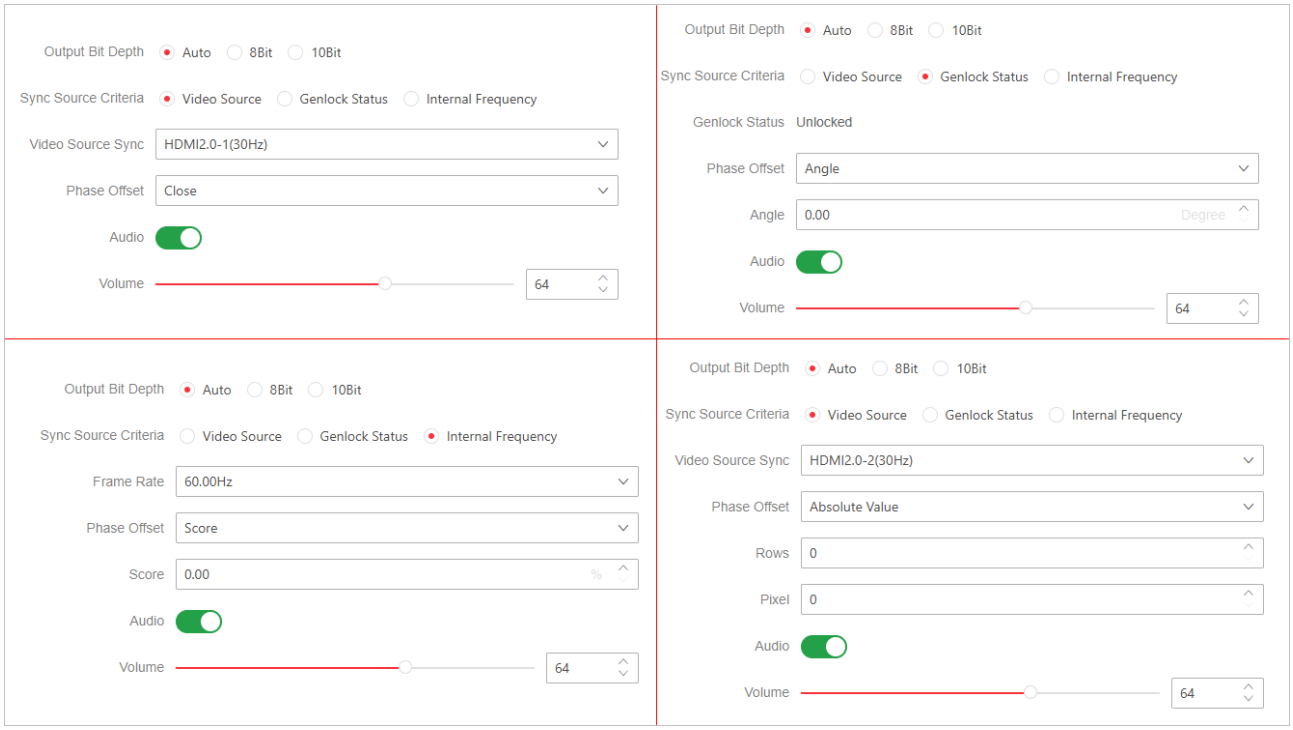

Figure 4-11 Configure Output Parameters (DT90P Series)

4.3 Configure Image Effect

Configure Display Effect

Applicable Devices

All series.

Important

For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.

Steps

Step 1 Navigate to **Configuration** > **Display Effect**.

Step 2 (Optional) Configure cascaded C/V devices individually: After disabling the **Configure All LED Controllers** option, you can configure settings for an individual device.

Step 3 Select a preset mode.

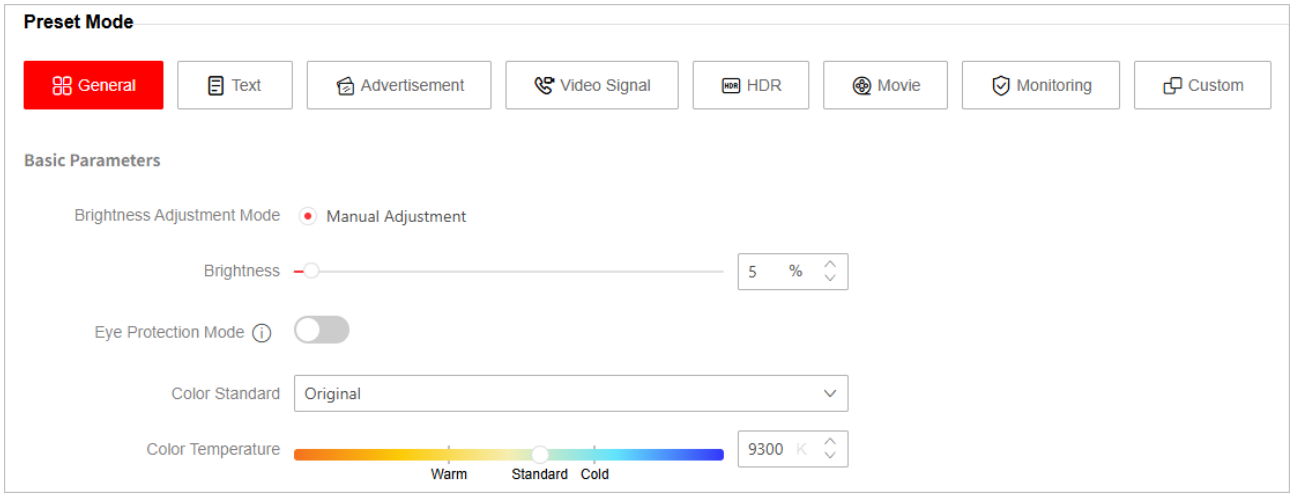

Figure 4-12 Select a Preset Mode

Step 4 If the current preset mode parameters do not meet the requirements, customize the parameters.

- Adjust brightness:
  - Manual adjustment: Set brightness directly.
  - Auto adjustment: Supports auto-brightness when the device is connected to a light sensor and the sensor is configured in the LED Tool client.
- Set energy-saving parameters:
  - Enable **Eye Protection Mode** to reduce brightness and blue light output.
  - Enable **Dynamic Energy Saving** and set the strength coefficient (only supported by some receiving cards).
- Optimize color and grayscale:
  - Set the color standard, color temperature, and contrast mode.
  - Lower the Gamma coefficient to brighten dark areas or raise it to enhance contrast.
  - Set the appropriate ambient brightness: Increase the value in strong lighting conditions.
- Address low-gray anomalies:
  - Adjust the initial brightness level if low-gray flickering occurs.
  - Increase the initial brightness value if low-gray banding is uneven.
  - Enable **Frame Rate Adaptation** for low-gray flickering (only supported by C devices).
  - Enable **Gray Scale Optimization** or **Ultra-Low Gray Control** for uneven grayscale (only supported by some receiving cards).

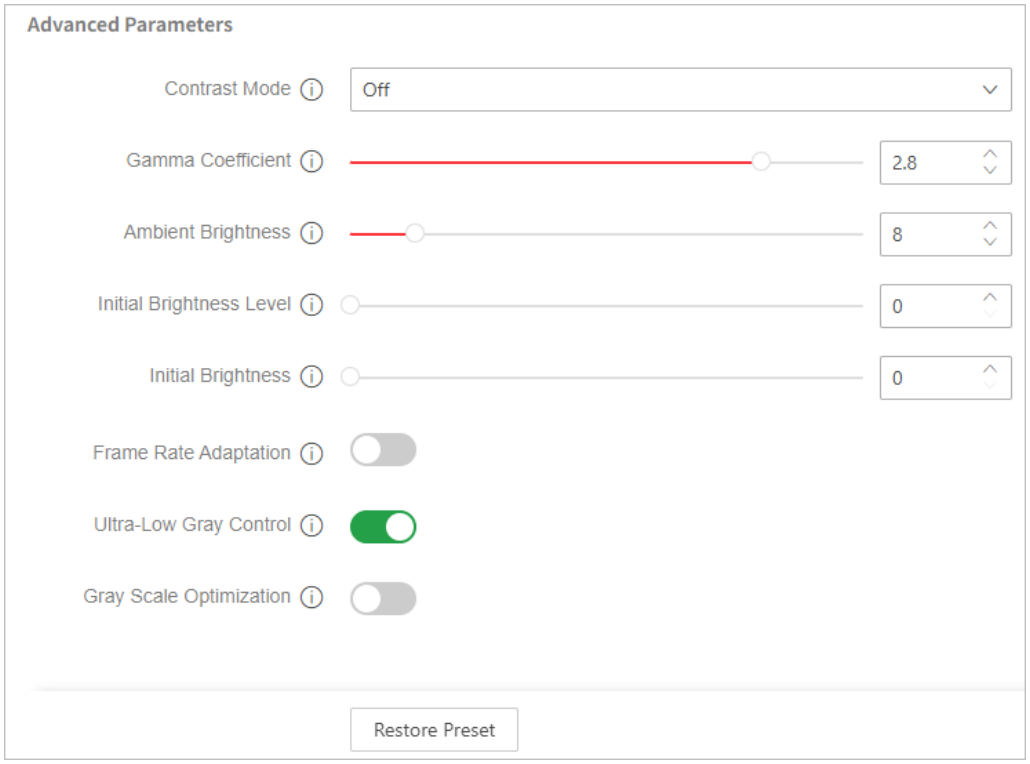

Figure 4-13 Configure Advanced Parameters of Display Effect

Step 5 (Optional) Click **Restore Preset** to restore the default parameters of the selected preset mode.

Configure Startup Image

Applicable Devices

DT90C/V, DT60C/V, DT30C/V, and DS-TC/V series.

Important

For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.

Steps

Step 1 Navigate to **Configuration** > **Customization** > **Startup Image**.

Step 2 (Optional) Configure cascaded C/V devices individually: After disabling the **Configure All LED Controllers** option, you can configure settings for an individual device.

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

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

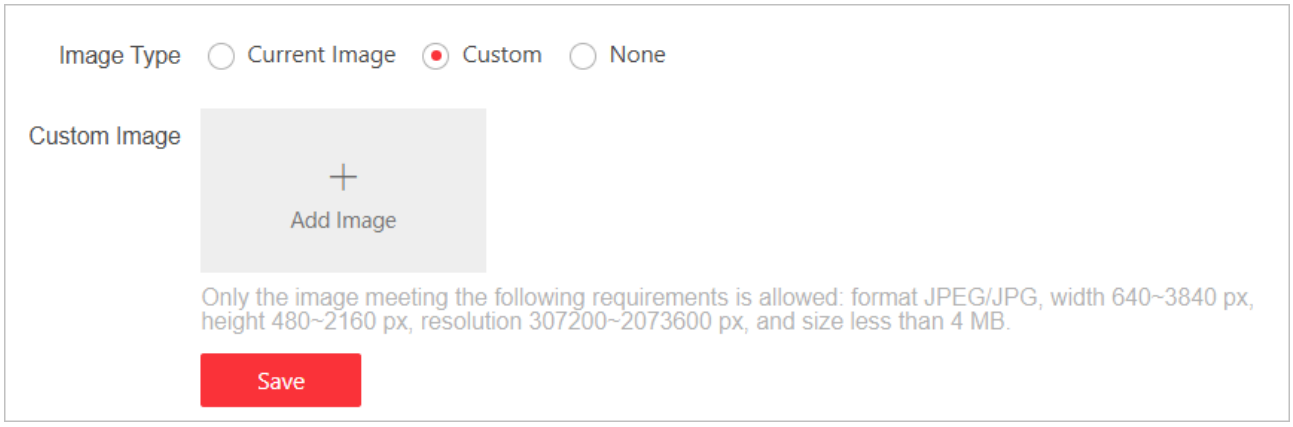

Figure 4-14 Configure Startup Image

Configure No Signal Images

Applicable Devices

All series.

Important

- For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.
- No signal images vary with the device type. This section uses the C/B device as an example.

Steps

Step 1 Navigate to **Configuration** > **Customization** > **No Signal Image**.

Step 2 (Optional) Configure cascaded C/V devices individually: After disabling the **Configure All LED Controllers** option, you can configure settings for an individual device.

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

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

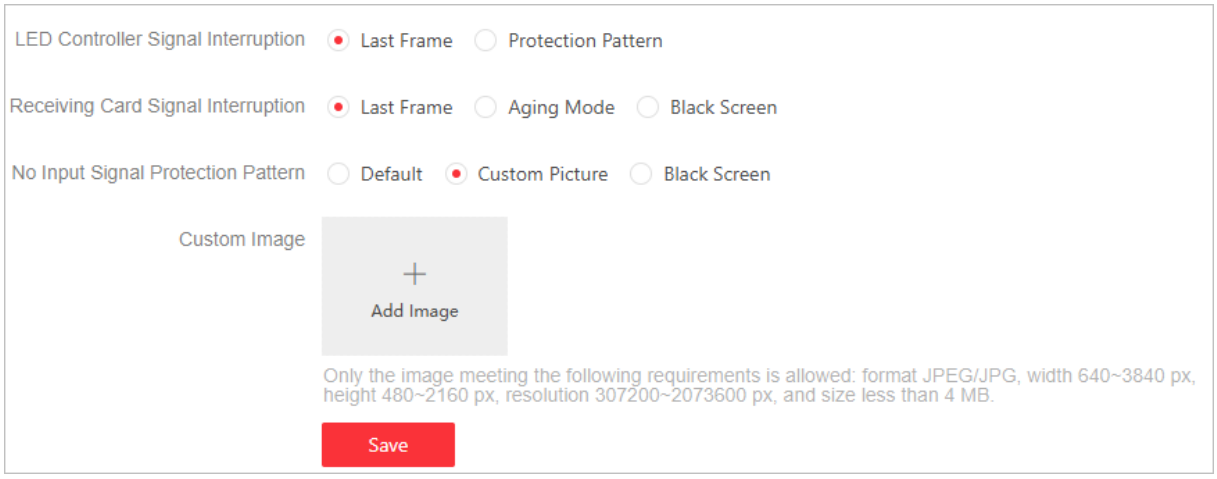

Figure 4-15 Configure No Signal Images of C/B Devices

Configure Front Panel Shortcut Keys

Applicable Devices

DT60C/V/B/P and certain DS-TC/V/B/U series.

Steps

Navigate to **Configuration** > **Customization** > **Front Panel Shortcut Keys**, select a mode, and click **Save**.

- Input switching: Press the button to switch signal sources.
- Program switching: This mode is only available for B/P series devices. Press the button to switch programs.
- USB file selection: This mode is only available for B/P series devices. When a USB drive is inserted and **USB Storage Playback** is enabled, press the button to switch files in the USB drive.
- Scene switching: This mode is only available for V series devices. Press the button to switch between configured scenes.
- Disable shortcut: In this mode, the source button function is disabled to prevent accidental activation.

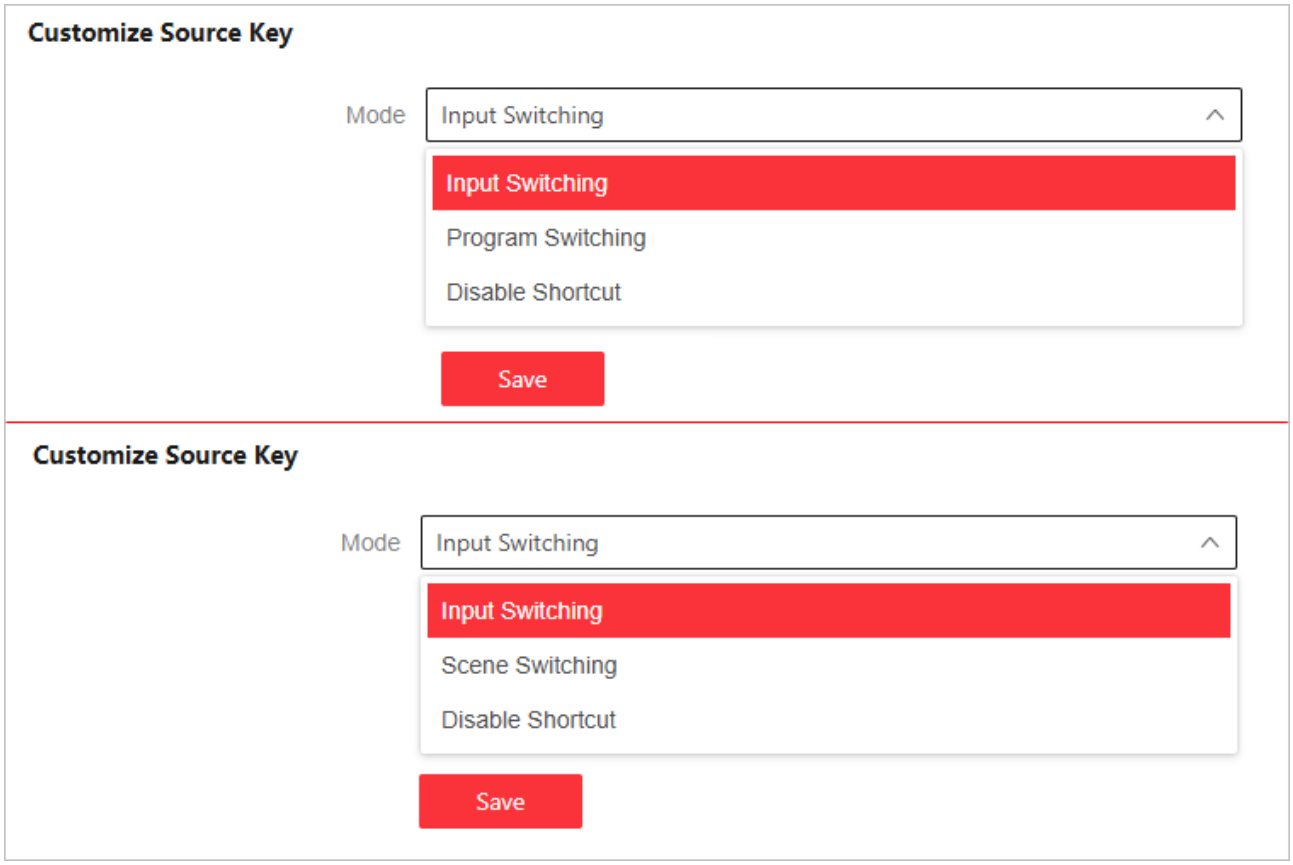

Figure 4-16 Configure Front Panel Shortcut Keys (Up: DT60B, Down: DT60V)

4.4 Manage Splicing Parameters

4.4.1 View/Cancel Splicing

Applicable Devices

DT60B/P and certain DS-TB/U series.

Before You Start

The self-splicing function has been configured for the device in the LED Tool client.

Steps

Navigate to **Configuration** > **Splicing Configuration** to view the splicing status of the device. To cancel splicing, click **Cancel Splicing**.

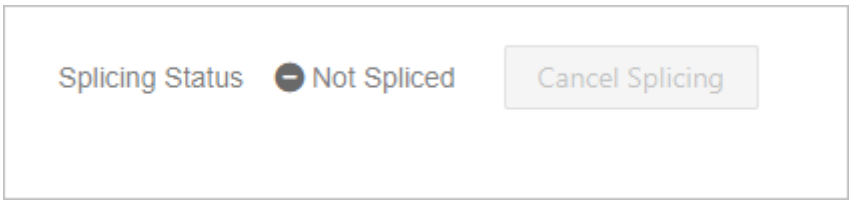

Figure 4-17 View/Cancel Splicing

4.4.2 Splice V-Series Devices

Applicable Devices

4K DT60V and some 4K DS-TV series.

Function Description

When the driving capacity of a single V device is smaller than the driving capacity required by the display, you need to use multiple V devices and configure splicing.

When the load capacity of a single 4K V series device cannot meet the requirements of the display, multiple devices can be connected and configured for self-splicing to expand the overall load capacity. The self-splicing function can be configured via the web page or the LED Tool client.

Before You Start

Complete the physical connection of multiple V series devices using one of the following methods:

- Direct device connection: Connect the signal source to the first device, and then use an HDMI cable to connect the HDMI LOOP port of the first device with the HDMI IN port of the next device. Repeat this process to connect all devices in a daisy chain.
- External video wall controller connection: Connect the signal source to a video wall controller that has multiple HDMI OUT ports. Use HDMI cables to connect the HDMI IN port of each device to the HDMI OUT ports of the video wall controller.

Steps

Step 1 Navigate to **Configuration** > **Splicing by LED Controller**.

Step 2 Select a device.

Step 3 According to the actual cabinet quantity, set the row and column values.

Step 4 Control the self-splicing switch as follows:

- Direct device connection: Enable **Splicing by LED Controller**.
- External video wall controller connection: Disable **Splicing by LED Controller**.

Step 5 Click **Show ID on Display**.

Step 6 According to the IDs on the display, drag one online device from the device list to the video wall window. Repeat this operation to ensure all video wall windows are bound with devices.

Step 7 Click **Save**.

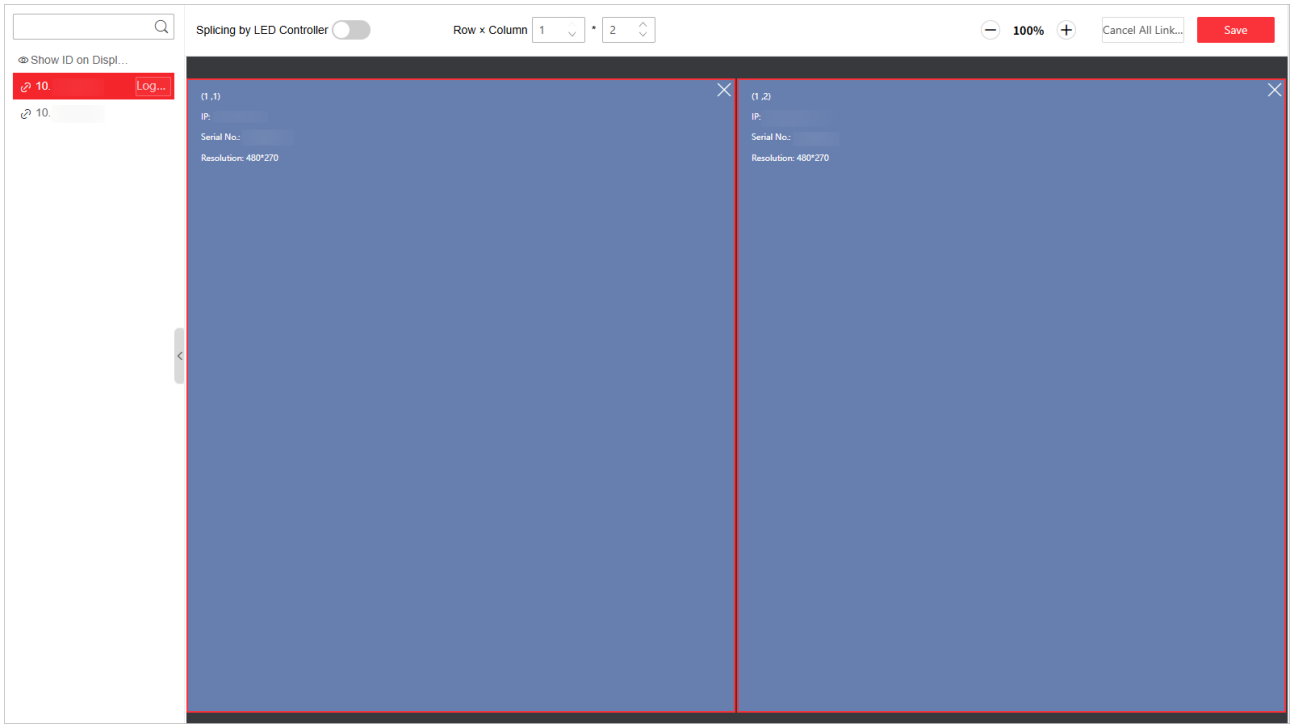

Figure 4-18 Splice the Video Wall

Step 8 (Optional) Click **Unbind All Linkage** to unbind all devices from the video wall.

4.4.3 Sync Video Wall Parameters

Applicable Devices

DT90C, DT60C, and DS-TC series.

Function Description

C series devices do not natively support splicing function. When the load capacity of a single C series device is insufficient for the display requirements, multiple C series devices must be used in conjunction with a video wall controller to achieve video wall functionality. The role of the C device's web page is to synchronize the video wall parameters already configured on the video wall controller.

Before You Start

- Complete physical connection:
  - Use HDMI cables to connect the HDMI OUT ports on the output board of the video wall controller to the HDMI IN ports of multiple C series devices.
  - Use Ethernet cables to connect the DATA OUT ports of the multiple C series devices to the corresponding ports on the LED display.
- Complete video wall configuration on the video wall controller: Complete the video wall configuration via the video wall controller's web page or the HCP client, and bind the HDMI outputs corresponding to the C series devices to the video wall.

Steps

Step 1 Navigate to **Video Wall Configuration**.

Step 2 Select a C series device to synchronize the video wall configuration.

Step 3 Enter the video wall name, row value, and column value to match the settings on the video wall controller.

Step 4 Click **Show ID on Display**.

Step 5 Based on the IDs on the display, drag online C series devices from the list on the left to the corresponding windows on the right. Repeat this operation until all video wall windows are associated with devices.

Step 6 Click **Save**.

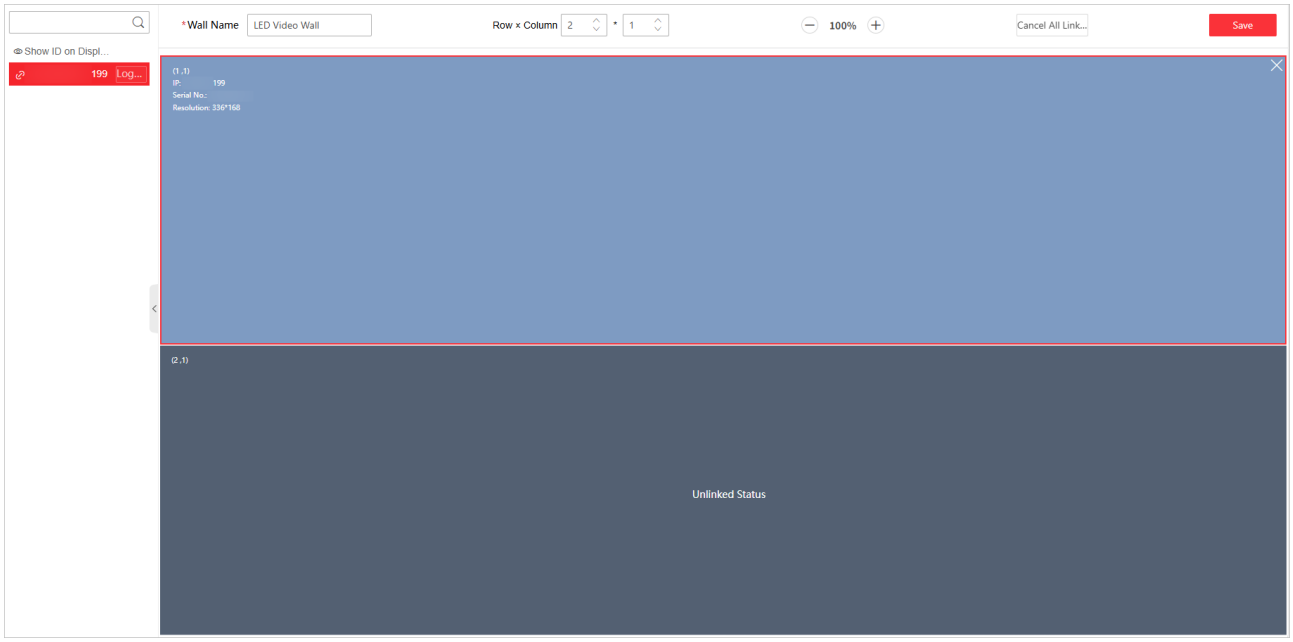

Figure 4-19 Splice the Video Wall

4.5 Configure General Parameters

Configure Time

Applicable Devices

All series.

Important

For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.

Steps

Step 1 Navigate to **Configuration** > **System** > **System Configuration** > **Time Settings**.

Step 2 (Optional) Configure cascaded C/V devices individually: After disabling the **Configure All LED Controllers** option, you can configure settings for an individual device.

Step 3 Select a time zone.

Step 4 Set the time:

- C/V series devices:
  - Set the time manually, or click **Sync with Computer Time**.
  - Enable **DST** and set the related parameters.
- B/P/U series devices:
  - Select **NTP Sync**, enter the NTP server address, NTP port number, and interval.
  - Select **Manual Time Sync**, and then set the time manually or click **Sync with Computer Time**.

Step 5 Click **Save**.

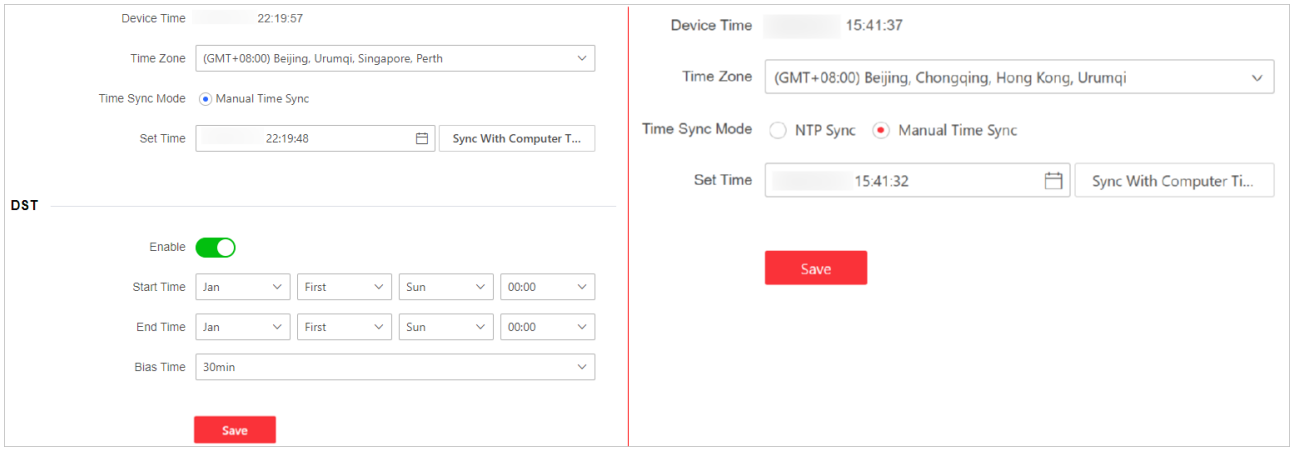

Figure 4-20 Configure Time (Left: DT60C, Right: DT60B)

Configure Serial Port Parameters

Applicable devices: All series.

To connect a central control device or third-party device, navigate to **Configuration** > **System** > **Serial Port Configuration** to configure serial port parameters matching the target device.

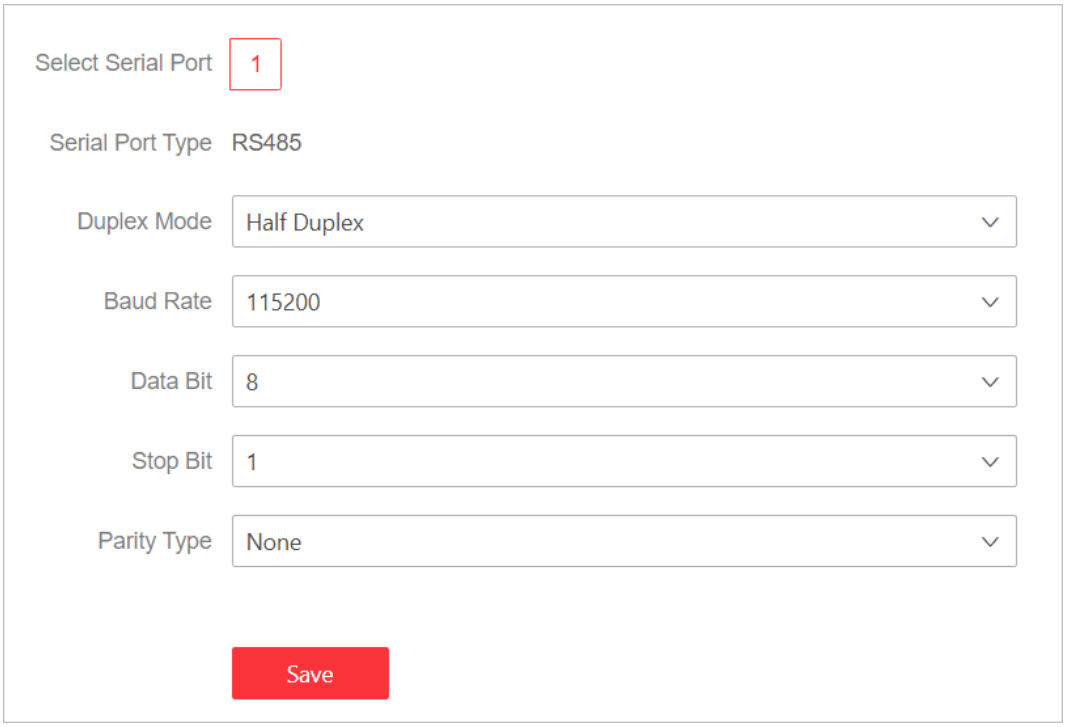

Figure 4-21 Configure Serial Port Parameters

Configure Font

Applicable Devices

DT90V, DT60V, and certain DS-TV series.

Important

For batch operations on cascaded V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for a single V device.

Steps

Step 1 Navigate to **Configuration** > **Customization** > **Font Settings**.

Step 2 (Optional) Configure cascaded V devices individually: After disabling the **Configure All LED Controllers** option, you can configure settings for an individual device.

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

Figure 4-22 Configure Font

Configure LED Controller Hot Standby

Applicable Devices

DT90C/V, DT60C/V, and certain DS-TC/V series.

Important

The DT30V series devices do not support web-based configuration for LED controller hot standby. To configure this function, please use the LED Tool client.

Steps

Step 1 Navigate to **Configuration** > **Hot Standby** > **LED Controller Hot Standby**.

Step 2 When the device supports hot standby, select a device and drag it to the **Add Standby Card** area.

Step 3 (Optional) Click  to switch the active card and standby card.

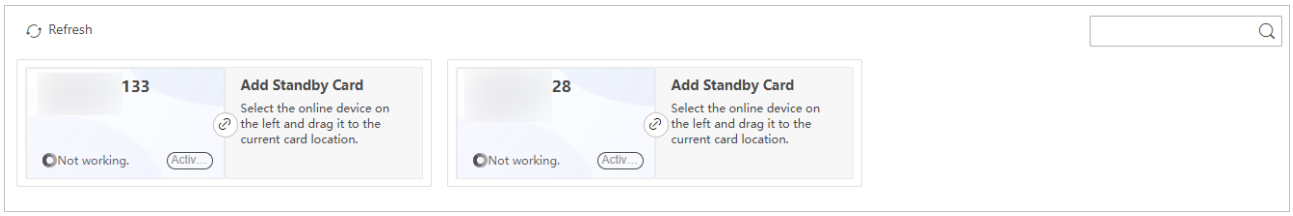

Figure 4-23 Configure LED Controller Hot Standby

Configure Data Port Backup

Applicable Devices

- DT90 and DT60 series: Support data port backup on all models.
- DT30 and DS-T series: Support data port backup on dual-port models only.

Before You Start

The Ethernet ports on the rear panel of the device are grouped into several backup pairs in top-to-bottom columns. For example:

- DATA OUT 1 and DATA OUT 2 form one pair.
- DATA OUT 3 and DATA OUT 4 form one pair.
- DATA OUT 5 and DATA OUT 6 form one pair.

Before enabling the data port backup function, you must connect both ports within the same backup pair to the LED display. If the connections are incorrect (for example, connecting DATA OUT 1 and DATA OUT 3 to the display), the data port backup function cannot be enabled.

Steps

Step 1 Navigate to **Configuration** > **Hot Standby** > **Data Port Backup**.

Step 2 Enable **Data Port Backup**.

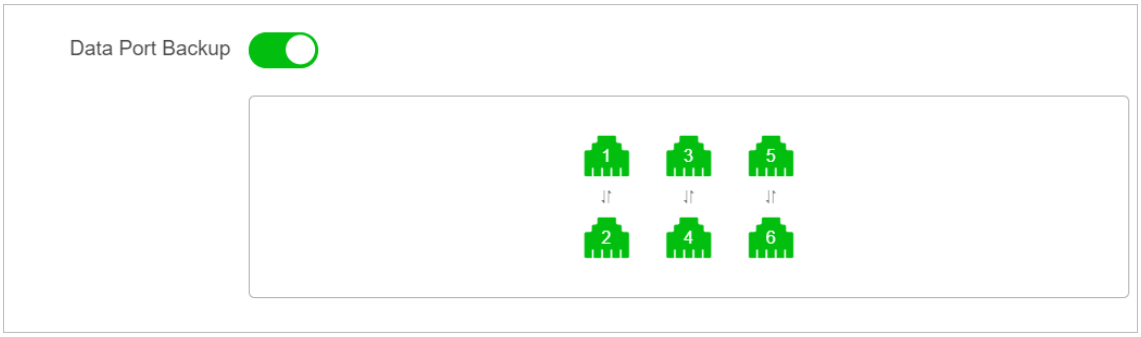

Figure 4-24 Configure Data Port Backup

Configure Alarms

Applicable Devices

All series.

Steps

Navigate to **Configuration** > **Environment and Alarm**, monitor the following items as required and set the thresholds:

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

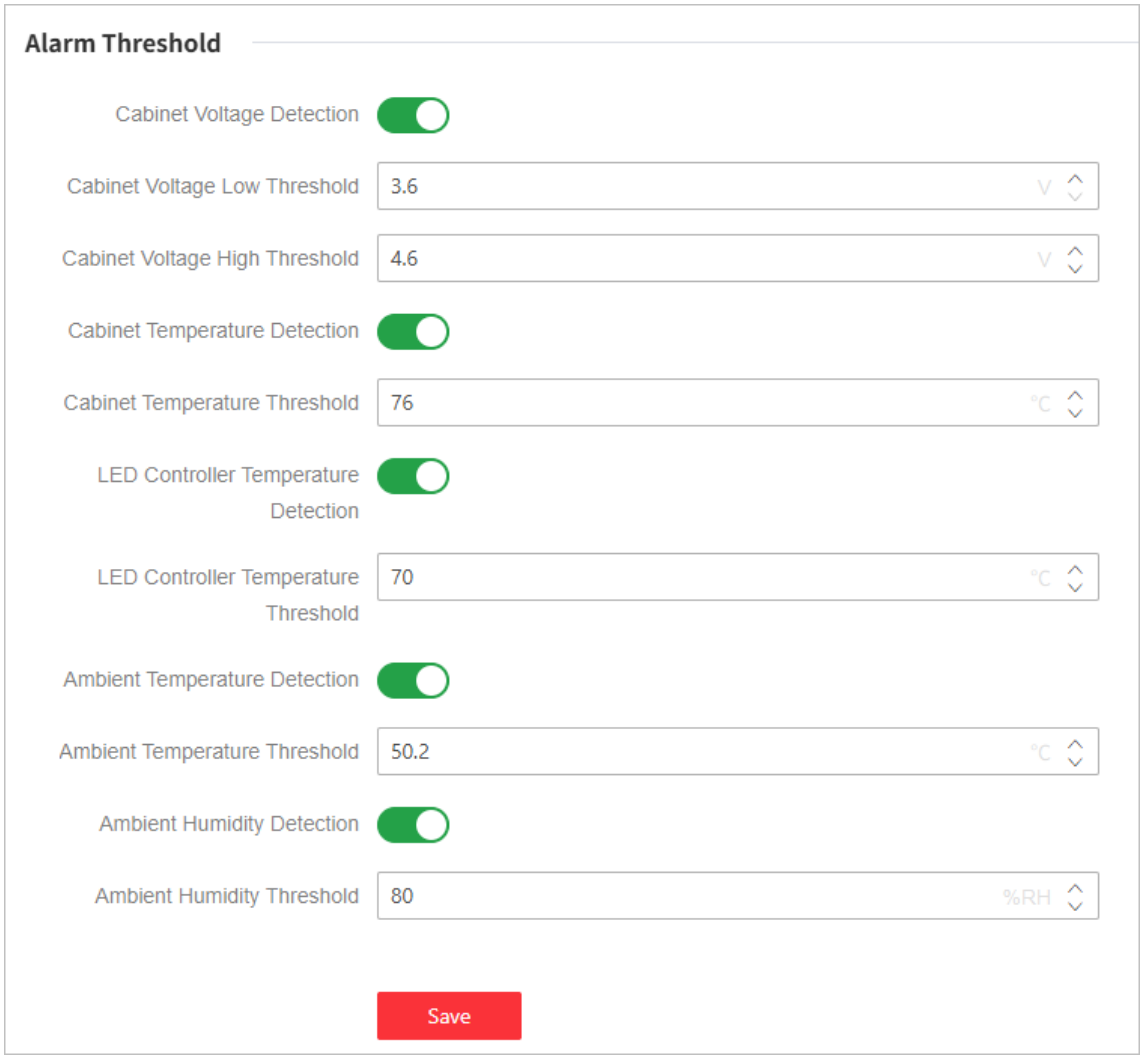

Figure 4-25 Configure Alarms

Configure Schedule

Applicable Devices

All series.

Important

For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.

Steps

Step 1 Navigate to **Configuration** > **Schedule**.

Step 2 (Optional) Configure cascaded C/V devices individually: After disabling the **Configure All LED Controllers** option, you can configure settings for an individual device.

Step 3 On the **Scheduled Display On/Off** page, enable the function and set the display-on time and display-off time.

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

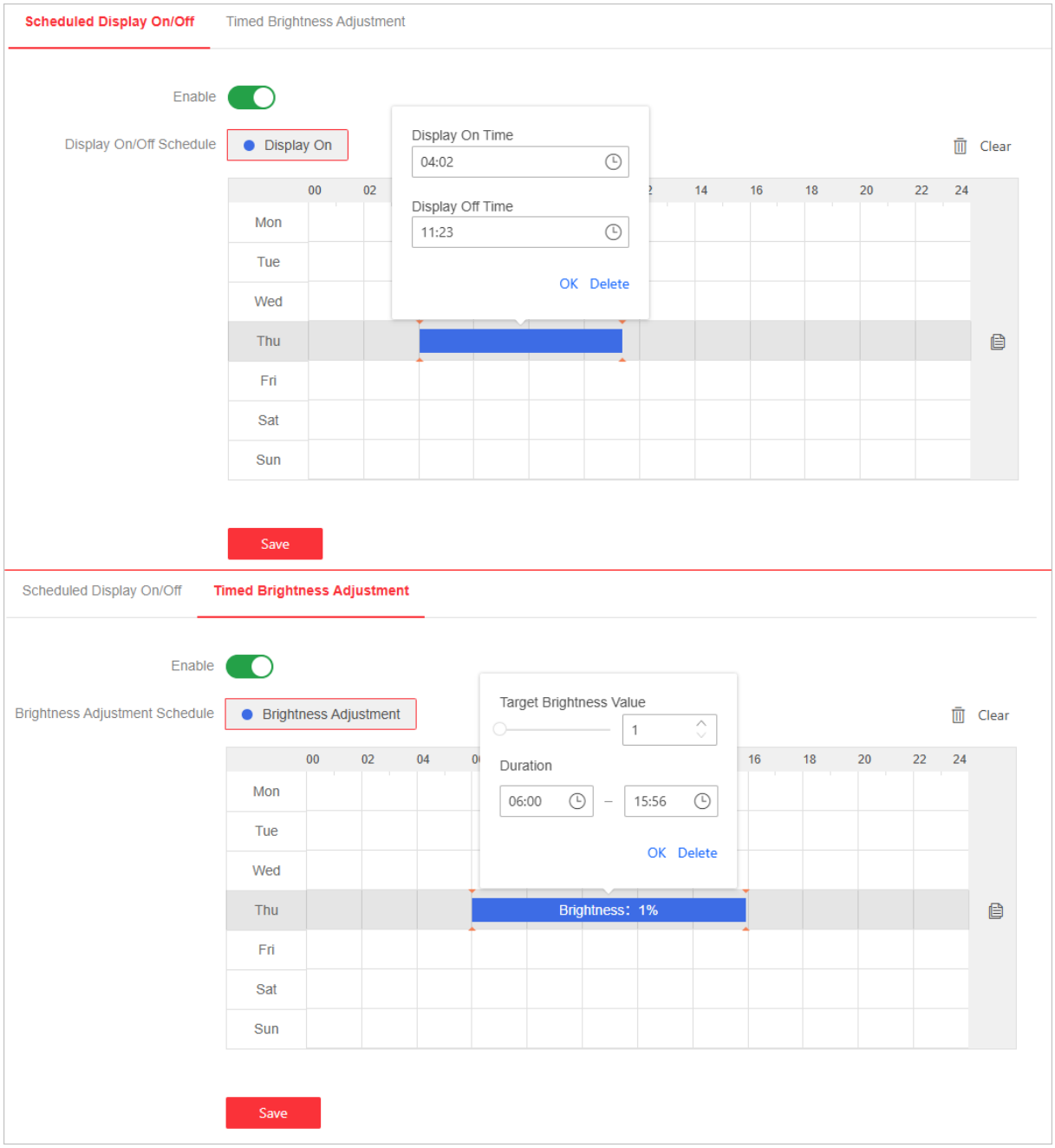

Figure 4-26 Configure Schedule

Configure OSD

Applicable Devices

All series.

Steps

Navigate to **Configuration** > **OSD Configuration** to customize OSD text color and OSD background color. OSD is enabled by default. You can disable OSD or restore the default OSD parameters as required.

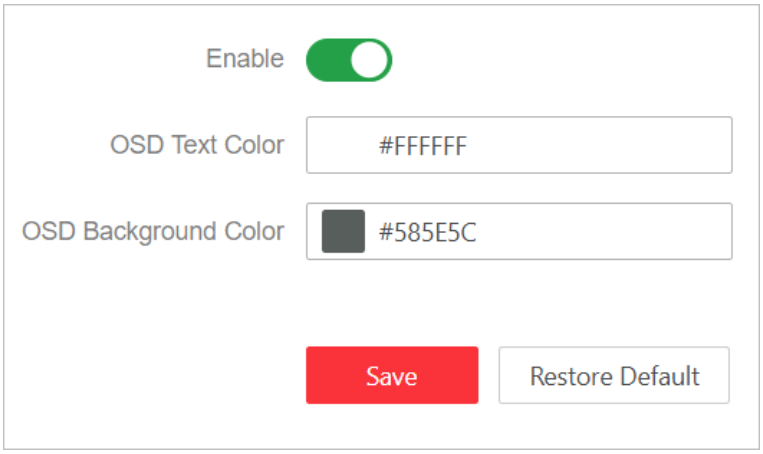

Figure 4-27 Configure OSD

4.6 Configure Network Parameters

Configure Wired Network Address

Applicable Devices

All series.

Steps

Step 1 Navigate to **Configuration** > **Network** > **Network Settings** > **TCP/IP**.

Step 2 Enable **Static IP Address**.

Step 3 Set the static wired IP address:

- If the device is directly connected to a computer, manually set an unused IP address within the same subnet as the computer's current network segment.
- If the device is connected to an existing local area network (LAN), you can either use the IP address automatically obtained by the device, or manually assign an unused IP address within the LAN.

Step 4 (Optional) Configure the network priority for the B/P/U series devices:

- Default mode: Wired Network > Wi-Fi > 4G Network.
- Adaptive mode: The device automatically selects a network that can access the internet.

Step 5 Click **Save**.

Step 6 Enter the static wired IP address of the device in a browser on the computer to log in to the device web interface.

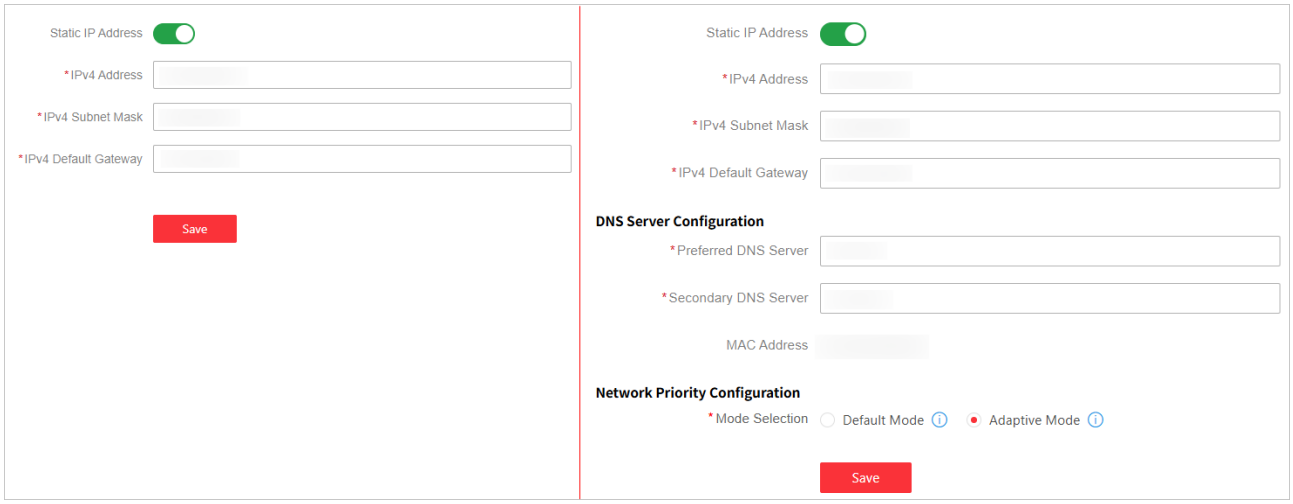

Figure 4-28 Configure Wired Network Address (Left: C/V Devices, Right: P devices)

Configure Wireless Network Address

Applicable Devices

DT90P, DT60B/P, DT30B/P, and DS-TB/U series.

Before You Start

The device must have a Wi-Fi antenna installed.

Important

The device will automatically use the wired connection when both wired and wireless networks are available.

Steps

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

Step 2 Navigate to **Configuration** > **Network** > **Network Settings** > **Wi-Fi** and enable Wi-Fi.

Step 3 Select an available Wi-Fi network and click **Connect**.

Step 4 Click **Network Status** to view the IP address automatically obtained by the device after the device connects to the wireless network.

Step 5 Enable **Static IP Address**.

Step 6 Set the static wireless IP address:

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

Step 7 Click **Save**.

Step 8 When the wired network is unavailable or the Ethernet cable is removed, enter the configured wireless IP address of the device in the browser of the computer to log in to the device web interface.

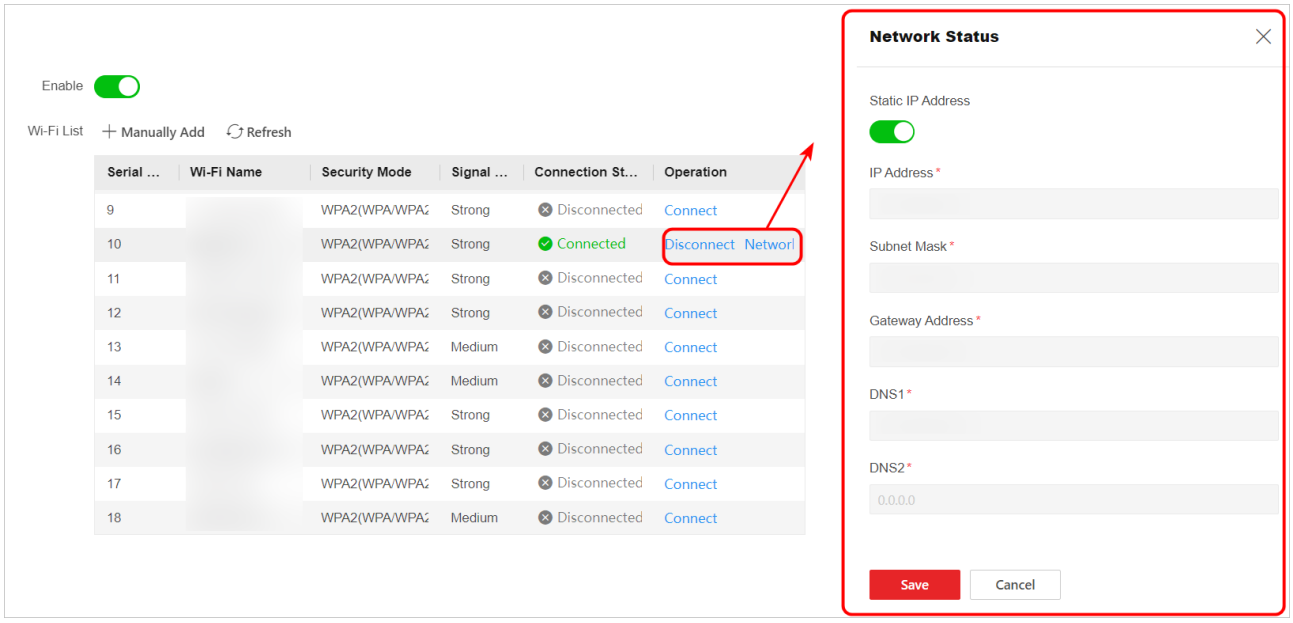

Figure 4-29 Configure Wireless Network Address

Configure Bluetooth

Applicable Devices

DT90P, DT60B/P, and DS-TB/U series.

Steps

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

Step 2 Navigate to **Configuration** > **Network** > **Network Settings** > **Bluetooth** and enable Bluetooth.

Step 3 Use Bluetooth to connect the device to other devices:

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

Step 4 Click **Save**.

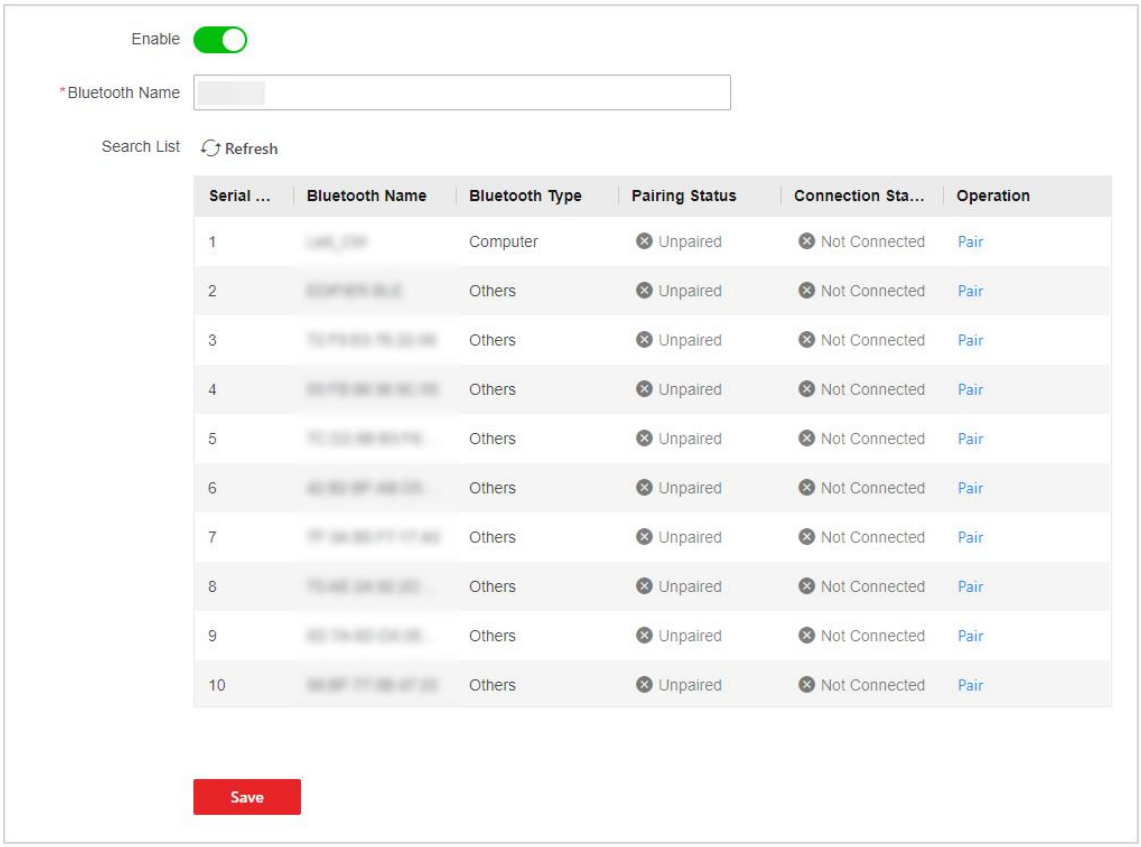

Figure 4-30 Enable Bluetooth

Configure Hot Spot

Applicable Devices

DT90P, DT60B/P, DT30B/P, and DS-TB/U series.

Steps

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

Step 2 Navigate to **Configuration** > **Network** > **Network Settings** > **Hot Spot** and enable hot spot.

Step 3 (Optional) Configure hot spot parameters as required:

- After hot spot is enabled, the default name and password are used. You can edit the hot spot name and password.
- After hot spot is enabled, the network isolation function is turned on by default. To ensure the network security of the device, it is recommended to keep network isolation enabled.
- Select the security, AP band, or AP channel.

Step 4 Click **Save**.

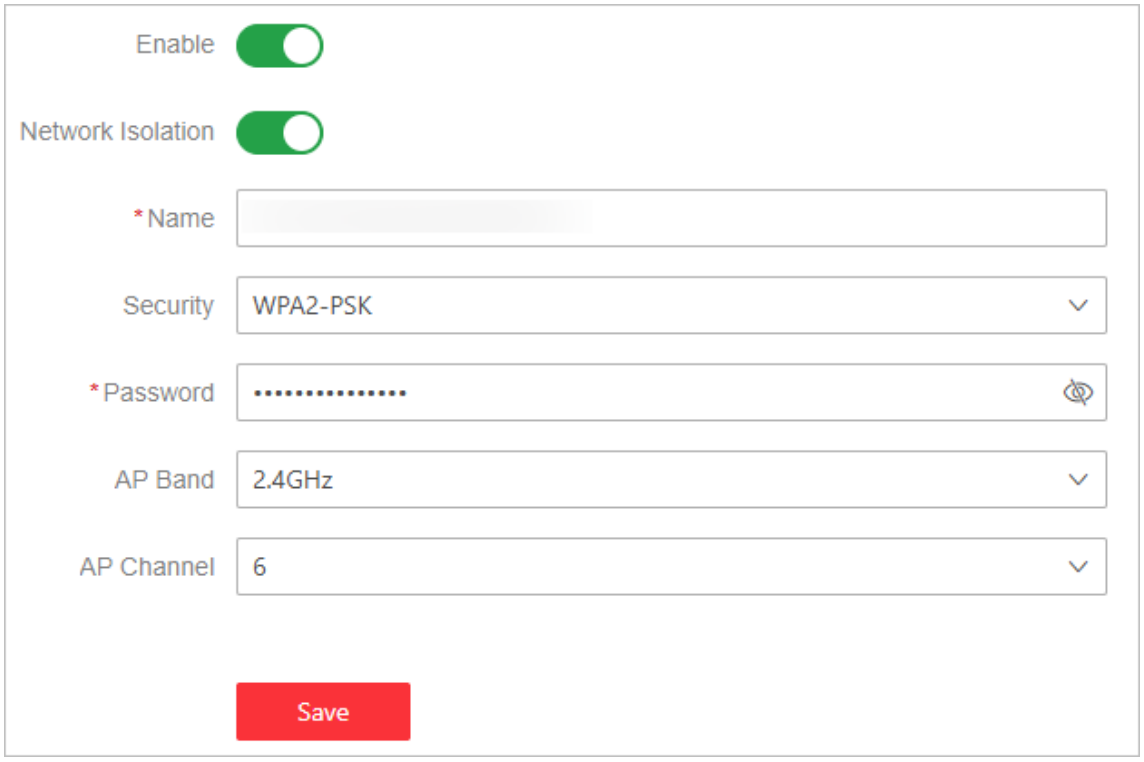

Figure 4-31 Configure Hot Spot

Configure OTAP Service

Applicable Devices

DT90P, DT60B/P, DT30B/P, and DS-TB/U series.

Steps

Step 1 Navigate to **Configuration** > **Network** > **Device Access** > **OTAP** and enable the OTAP service.

Step 2 Enter the target server address and port number, and customize the device ID and authentication code.

Step 3 Click **Save**.

Step 4 Add the device to the platform:

1) Log in to the corresponding platform and use the device's authentication code to complete the addition. Once successfully added, you can remotely configure the device, maintain settings, manage playback content, and monitor its status via the platform.
2) Handling the exception:
   - If the device goes offline abnormally due to server power failure or network issues, use the initially bound authentication code to re-add it.
   - A factory reset will clear the authentication code on the OTAP page. Be sure to record it in advance. If the authentication code is forgotten, contact the platform administrator and provide the device serial number to retrieve the original authentication code.

Step 5 (Optional) Click **Refresh** to update the registration status.

When the device has been successfully added to the platform, its status will be **Registered**.

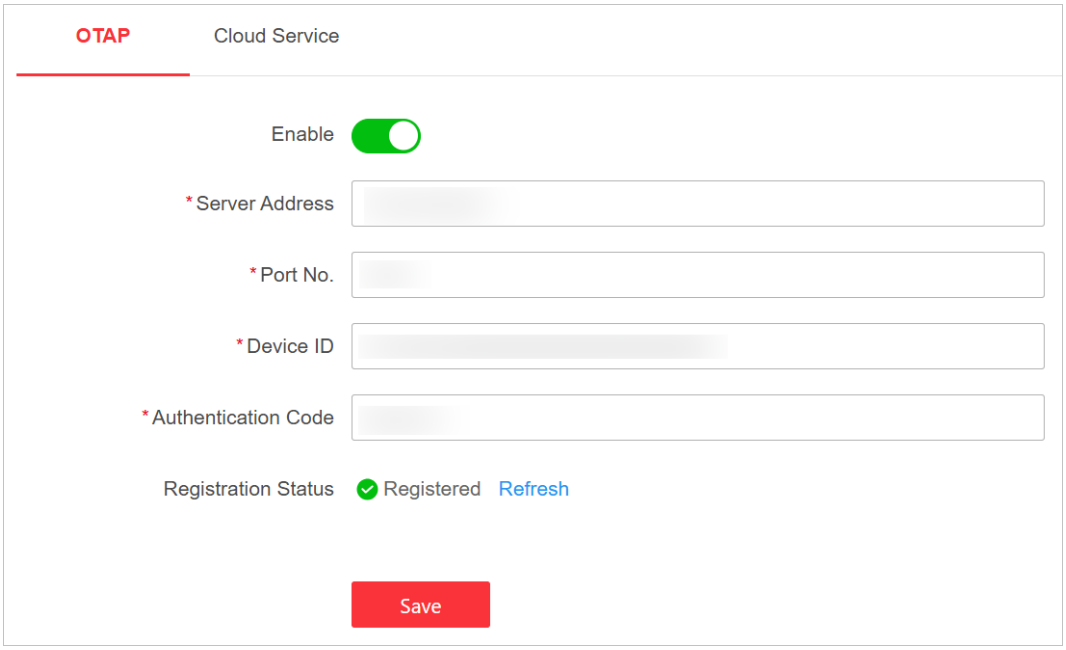

Figure 4-32 Configure OTAP Service

Configure Cloud Service

Applicable Devices

DT90P, DT60B/P, DT30B/P, and DS-TB/U series.

Steps

Step 1 Navigate to **Configuration** > **Network** > **Device Access** > **Cloud Service** and enable cloud service.

- After enabling, the device will register to the default server. When successfully registered, the device status shows **Online**.
- If registration fails, the device status shows **Offline**.
  - Click **Refresh** to renew the network connection status.
  - Click **Detect** to test the network connection status.

Step 2 Add the device to the platform via any of the following methods:

- Open the mobile client of the corresponding platform and scan the QR code in the **Account Binding** section.
- Open the web client of the corresponding platform and enter the verification code in the **Account Binding** section.

Note

- When the device has been successfully added to the platform, its status will be **Cloud Account Bound**.
- After the device is successfully added to the platform, you can remotely configure the device, maintain the device, manage display content, and monitor the device status through the platform.

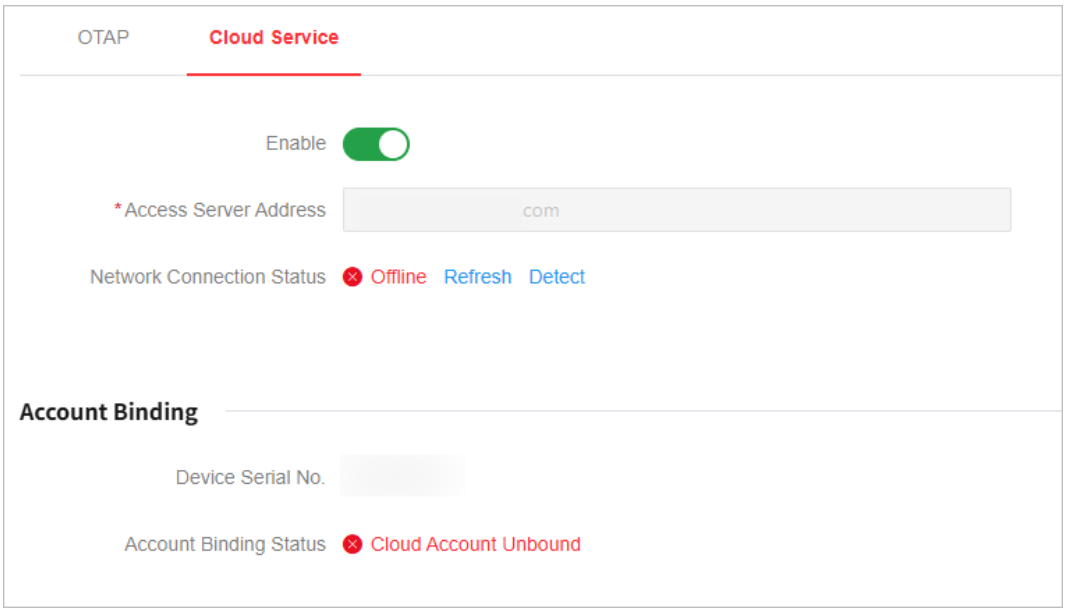

Figure 4-33 Configure Cloud Service

4.7 Configure Auto Dehumidification

Applicable Devices

All series.

Steps

Step 1 Navigate to **Configuration** > **Dehumidification**.

Step 2 Enable **Auto Dehumidification** and set the dehumidification parameters.

Step 3 Select the region according to the actual humidity condition of the device location. If you select **Custom**, set the time step, brightness step and duration.

- **Time Step**: The time interval between two consecutive brightness adjustments by the device during a single dehumidification process. If the brightness is adjusted every 5 minutes, the time step is 5 minutes.
- **Brightness Step**: The minimum change in brightness for each adjustment by the device during a single dehumidification process. If the brightness increases by 1 each time, the brightness step is 1.

- **Duration**: The total time of a single dehumidification process.
- **Usage**: The usage rate of the device.

Step 4 Click **Save** or **Save and Start**.

Step 5 (Optional) Click **Stop Current Dehumidification Process** to stop the ongoing dehumidification process.

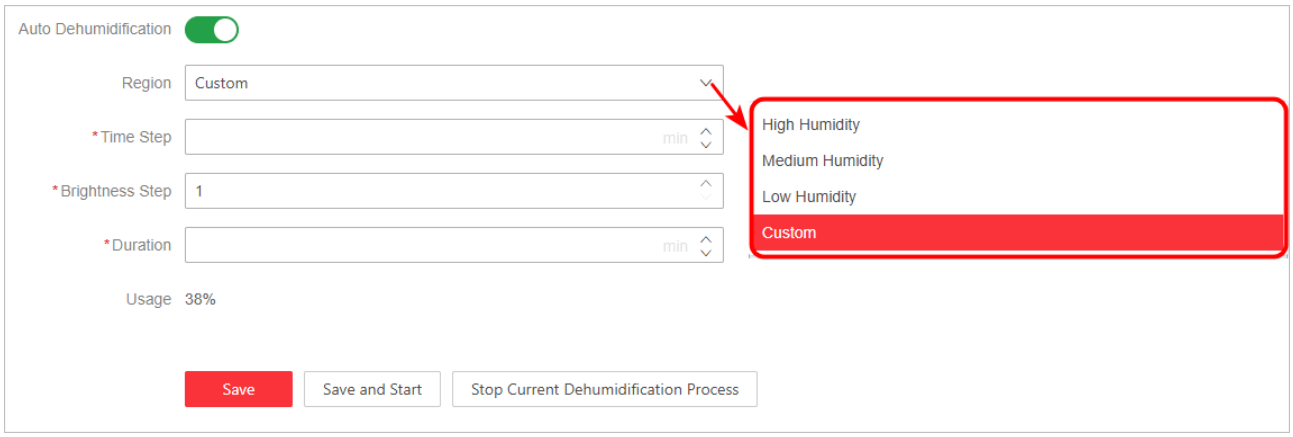

Figure 4-34 Configure Auto Dehumidification

4.8 Configure Working Mode

Applicable Devices

DT60V/P, DT30P, and certain DS-TV/U series.

Steps

Step 1 Navigate to **Configuration** > **Working Mode**.

Step 2 Select the desired working mode.

Step 3 Click **Save**.

- After clicking **Save**, the device will automatically restart to apply the new working mode.
- By default, the V/P/U devices use video processing mode.
- When a V series device needs to function as a C series device, select **Sync Mode**.
- When a P/U series device needs to function as a B series device, select **Sync Mode**.

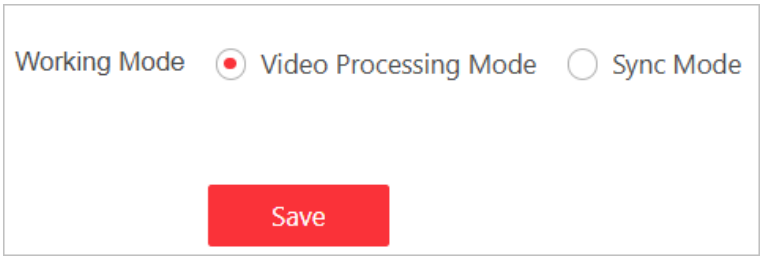

Figure 4-35 Configure Working Mode

Chapter 5 Display/Device Maintenance

5.1 View Device Status

Applicable Devices

All series.

Important

For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.

Steps

Step 1 Navigate to **Overview** or **Display Maintenance** > **LED Controller Status**.

Step 2 View the following information based on the device type and connection status:

- For cascaded C/V devices, a single C/V device, or B/P/U devices: After clicking on the device, the interface displays its LED controller details, network port usage, and basic information.
  - When a receiving card is online, its corresponding cabinet area is displayed in blue. Hover the mouse over the cabinet area to view the receiving card's resolution.
  - Hover the mouse over a network port to view its utilization rate.

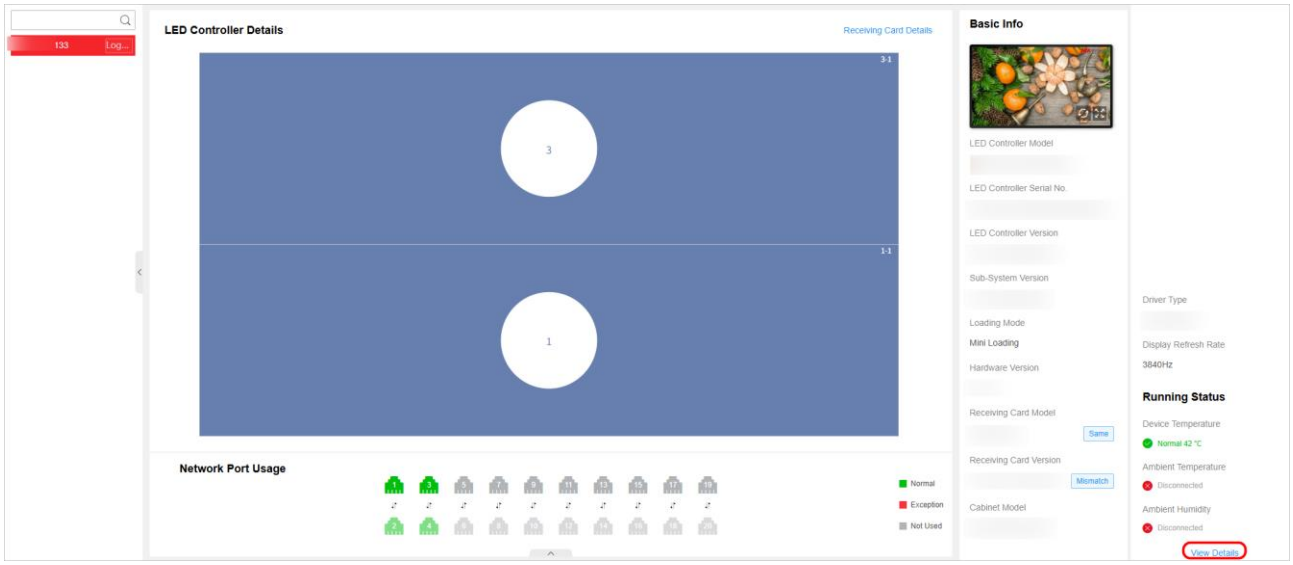

Figure 5-1 View Status of Single C/V Device

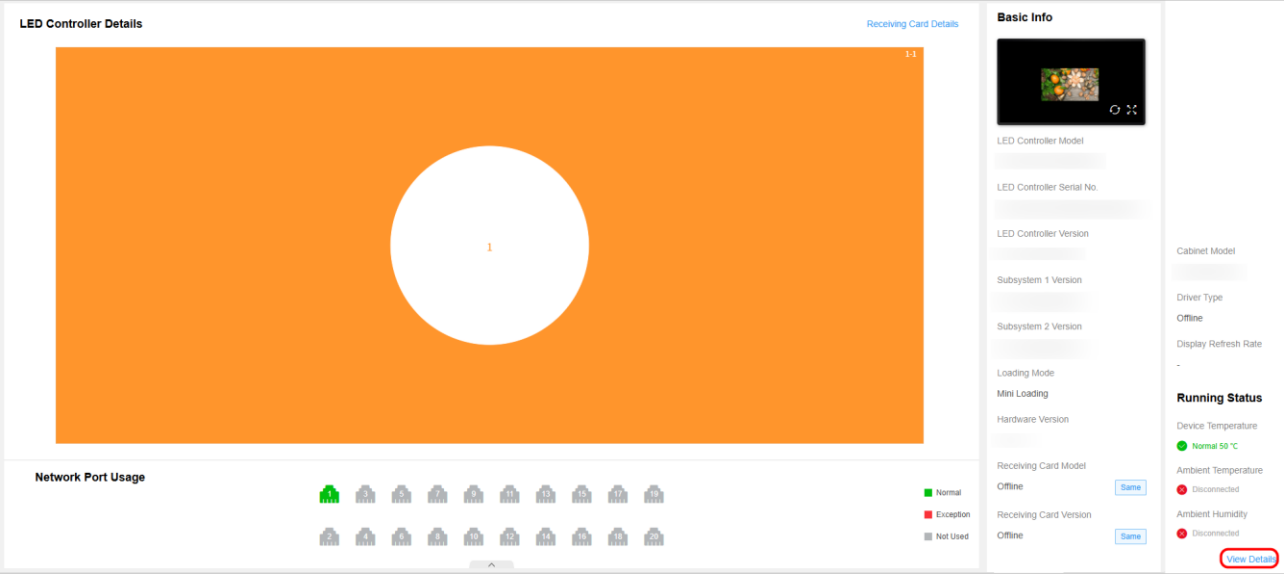

Figure 5-2 View Status of B/P/U Device

- For cascaded and spliced C/V devices: The interface displays the overall status of the video wall. Click **Details** for the target device to view its LED controller details, network port usage, and basic information. For details on device splicing configuration, see “4.4.2 Splice V-Series Devices” for V series devices and “4.4.3 Sync Video Wall Parameters” for C series devices.

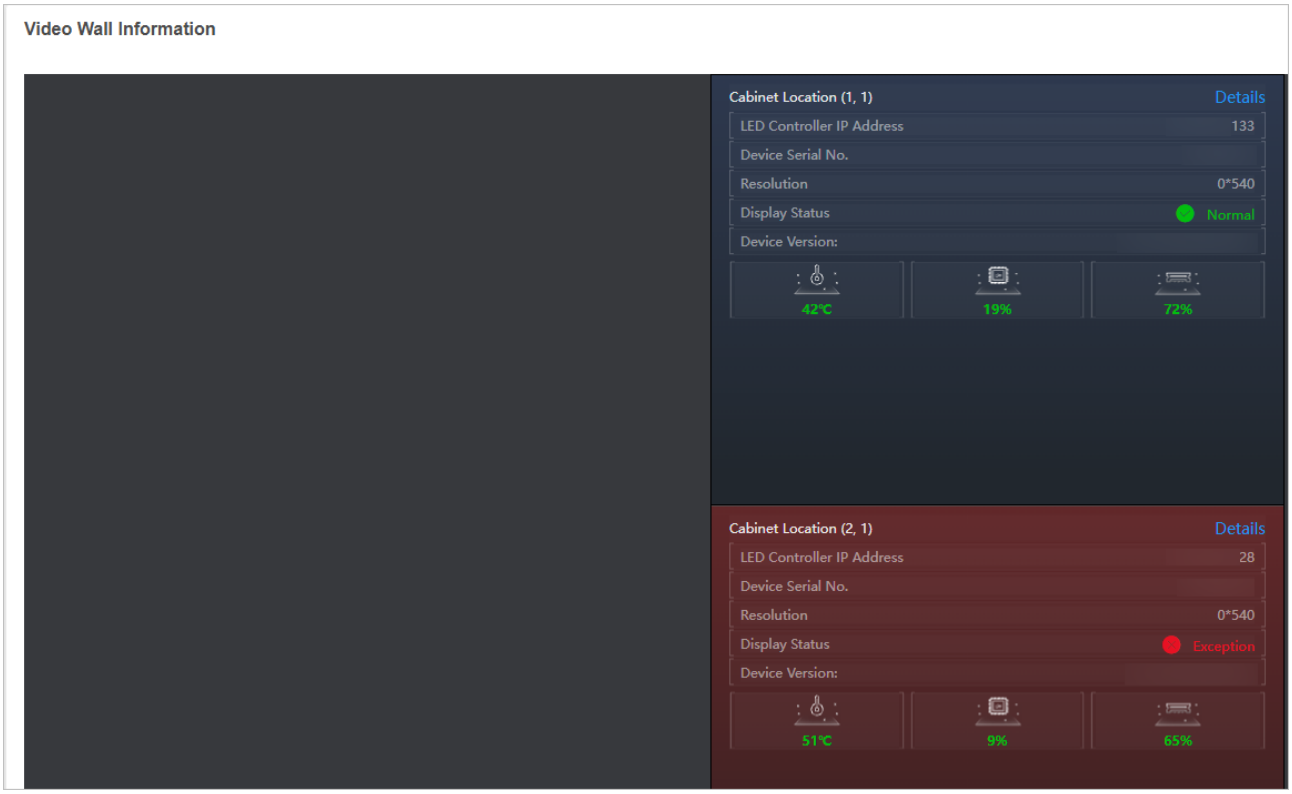

Figure 5-3 View Video Wall Status

Step 3 View detailed information:

- Receiving card details: Click **Receiving Card Details** to view the receiving card details. For HUB receiving cards, you can click to view the signal port connection.

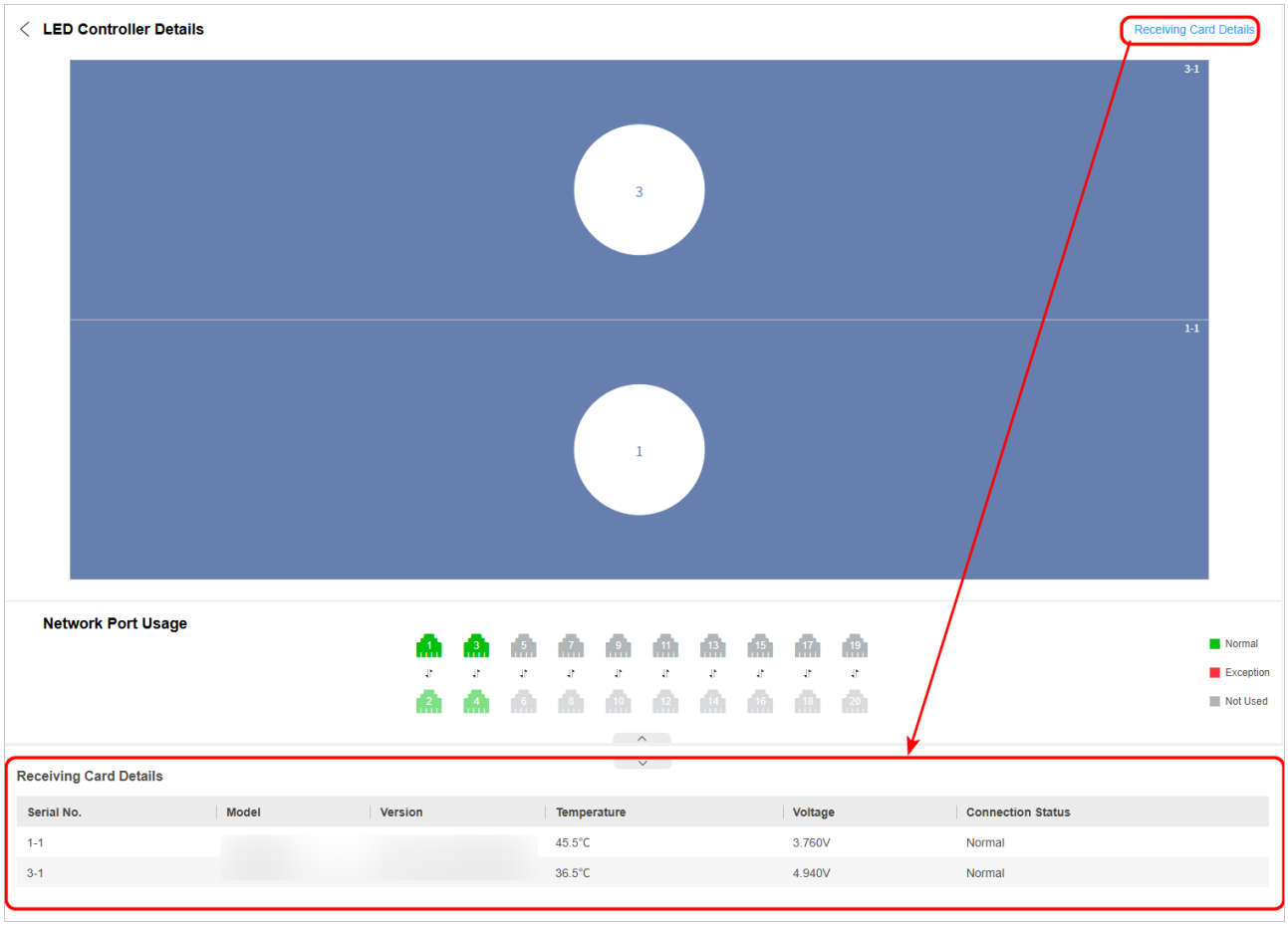

Figure 5-4 View Receiving Card Details

- Device basic information: Click **View Details** in the **Basic Info** area to jump to **Configuration** > **System** > **Basic Information**.

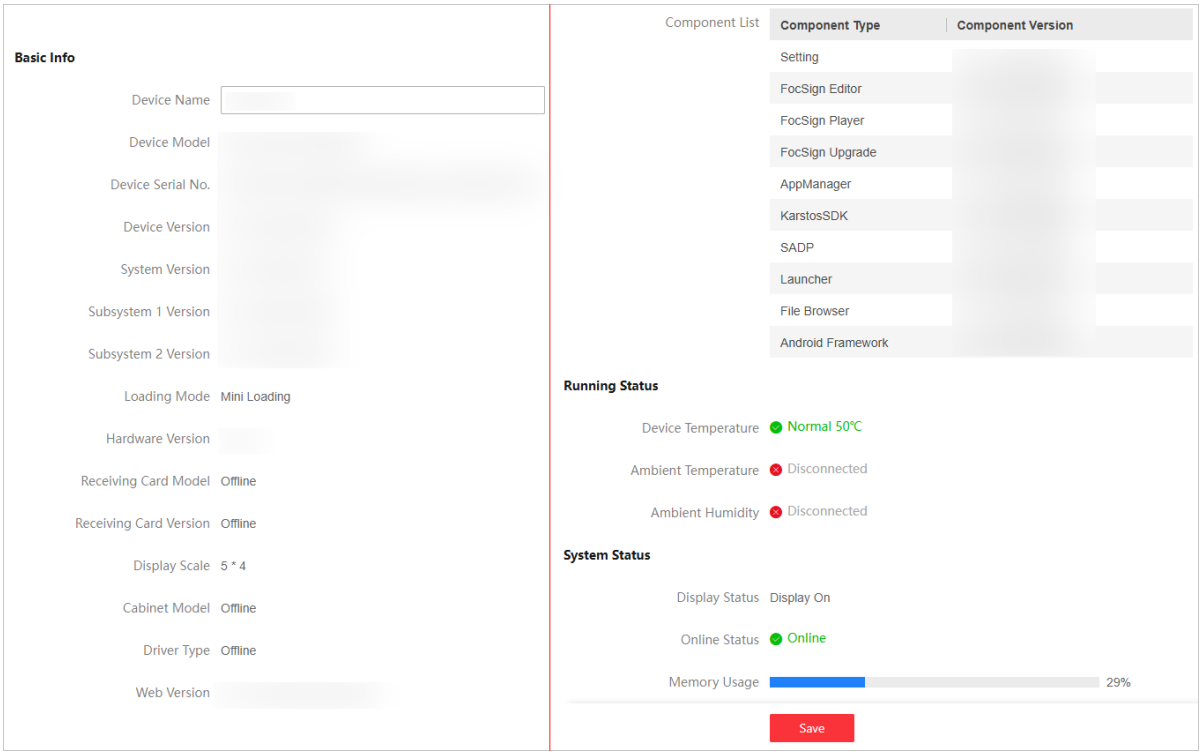

Figure 5-5 Basic Information Page of P Device

Step 4 Synchronize the display mapping parameters: After configuring display mapping via the LED Tool client, a prompt to reconfigure the parameters will appear on the **Overview** page when you log in to the device web interface. Reconfigure the display mapping parameters on the web interface.

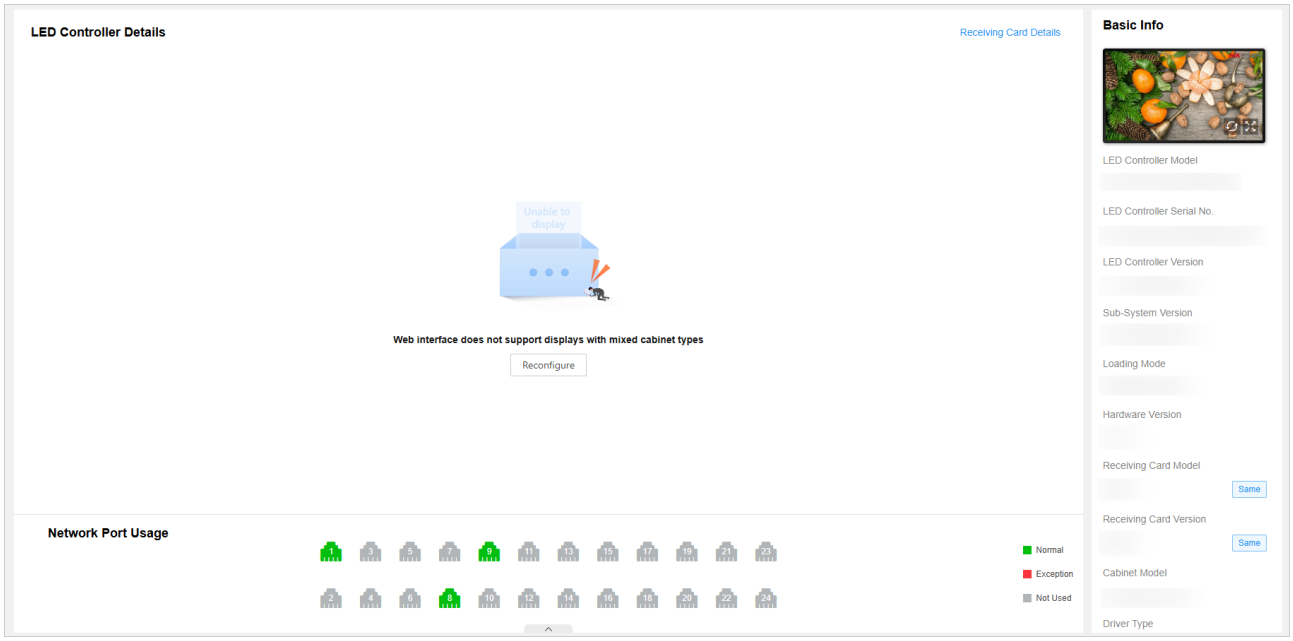

Figure 5-6 Reconfiguration Prompt on Overview Page

5.2 Quickly Maintain Receiving Cards

Manual Mode

Applicable Devices

All series.

Function Description

Manually designate a correctly configured receiving card as the reference card, and precisely copy its parameters (including configuration file and program) to specified new receiving cards.

Important

- At least one receiving card with correct parameters must exist in the system to serve as the reference card.
- The new receiving cards must be properly connected to the LED controller.

Steps

Step 1 Install the receiving cards and ensure that they are correctly connected to the LED controller.

Step 2 Navigate to **Display Maintenance** > **Receiving Card Quick Maintenance**.

Step 3 Click on a correctly configured receiving card, and then click **Set as Reference Card**.

Step 4 Click on the newly installed receiving cards, and click **Set as New Card**.

Step 5 Click **Copy** to copy the parameters (including configuration file and program) from the reference card to the new cards.

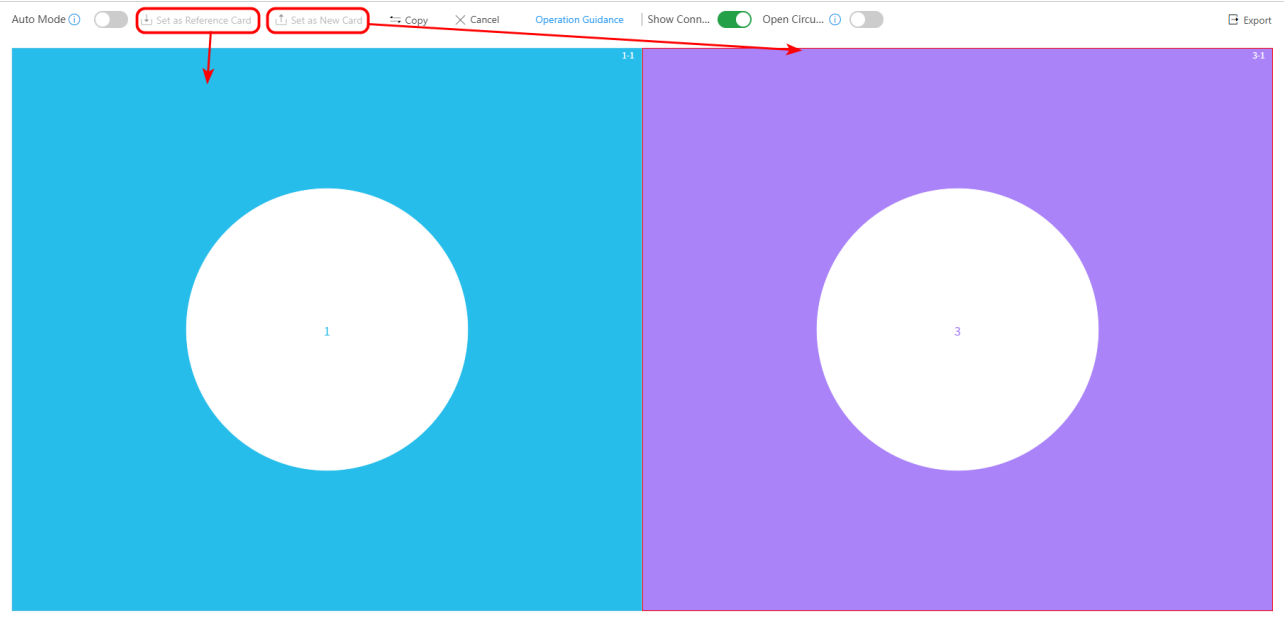

Figure 5-7 Manual Mode (DT90 Series)

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

- Click **Export** to export the receiving card program file or receiving card configuration file.

Figure 5-8 Export Receiving Card Parameters

- Click **Cancel** to cancel the copy operation.
- Click **Show Connections**. The LED display will show the connection numbers between the receiving cards and network ports of the LED controller.
- Enable **Open Circuit Detection** to automatically detect and mask open-circuit bad pixels, eliminating display abnormalities such as cross-shaped bright lines. Disable this function before performing physical LED bead repairs to ensure faulty pixels remain visible for maintenance. This function is only supported by certain receiving card models.

Auto Mode

Applicable Devices

All series.

Function Description

When new cards are detected, the system automatically uses a normally functioning receiving card within the same area as a template to copy its parameters (including configuration file and program) to the new cards.

Important

Before enabling this mode, ensure that all receiving cards within a single LED controller area have identical parameters (including configuration file and program).

Steps

Step 1 Navigate to **Display Maintenance** > **Receiving Card Quick Maintenance**.

Step 2 Confirm that all receiving cards are installed, and then enable **Auto Mode**.

Step 3 When receiving cards fail, replace the faulty cards with new ones.

Step 4 The system automatically identifies the new cards and completes the parameter copying process (including configuration file and program).

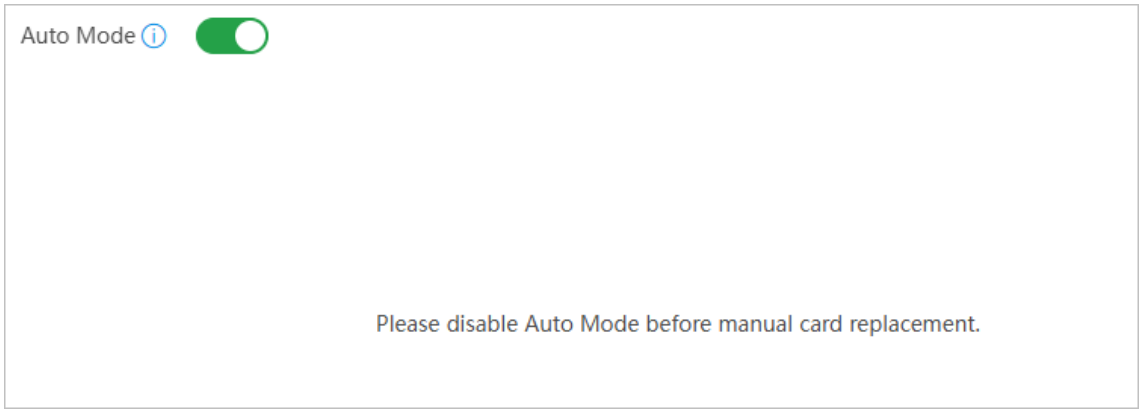

Figure 5-9 Auto Mode (DT90 Series)

5.3 Test Display Condition

Applicable Devices

All series.

Important

For batch operations on cascaded C/V devices, complete the cascade configuration in advance (refer to "2.2 (Optional) Add Cascading Devices"). This step is not required for B/P/U devices or a single C/V device.

Steps

Step 1 Navigate to **Display Maintenance** > **Display Test**.

Step 2 (Optional) Configure cascaded C/V devices individually: After disabling the **Configure All LED Controllers** option, you can configure settings for an individual device.

Step 3 Enable the display test.

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

If the existing color does not meet the requirements, add a new color. You can edit the newly added color.

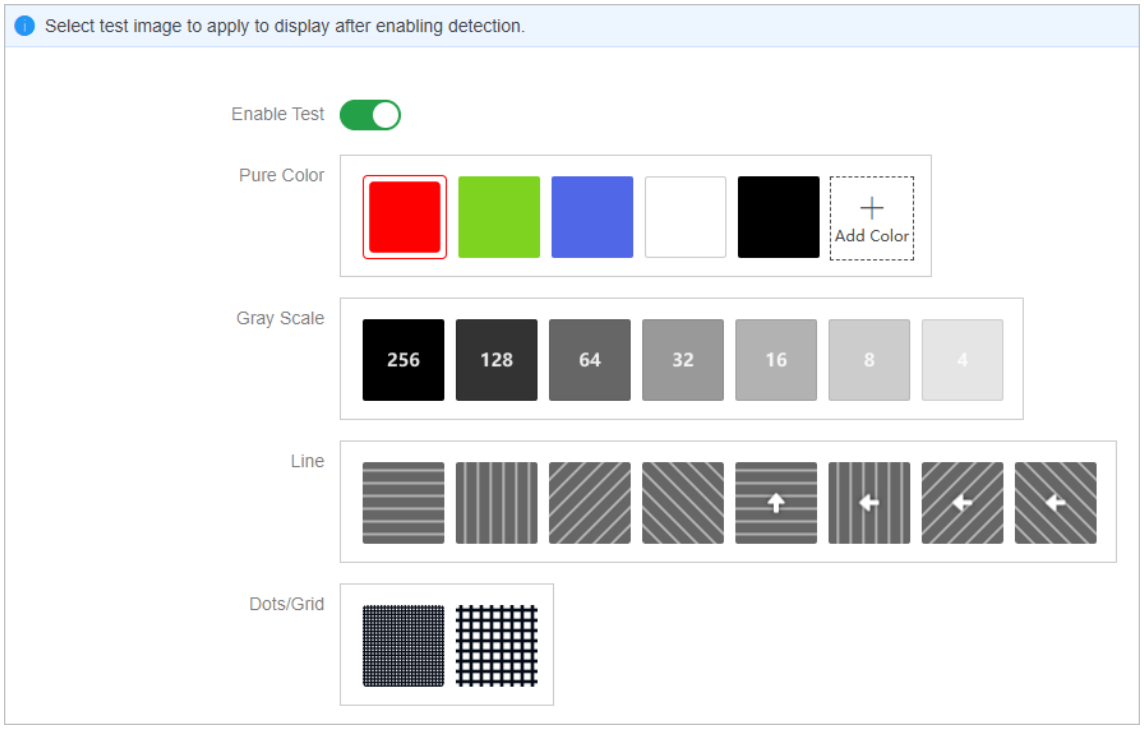

Figure 5-10 Test Display Condition

5.4 Maintain the System

Applicable Devices

All series.

Restart and Upgrade

Important

- Do not power off the device during the upgrade process.
- Do not use an upgrade package with a version lower than the device's current version.
- The device will automatically restart after the upgrade is complete.
- If the upgrade fails and causes abnormal device behavior, please contact your supplier.

Steps

Step 1 Navigate to **Maintenance and Security**.

Step 2 On the **Restart** page, restart the LED controller or receiving card.

Step 3 On the **Upgrade** page, click to select a locally saved upgrade package and click **Upgrade**.

Backup and Reset

Step 1 Navigate to **Maintenance and Security** > **Backup and Reset**.

Step 2 Export the configuration file of the LED controller or receiving card.

Step 3 Use either of the following methods to reset the device:

- Click **Restore Default** to restore the display effect and receiving card parameters to the factory settings. Please use this function with caution.
- Click **Restore Factory** to restore all functions and parameters to the factory settings. Please use this function with caution.

Step 4 Import configuration file: Click to select a locally saved configuration file and click **Upload**.

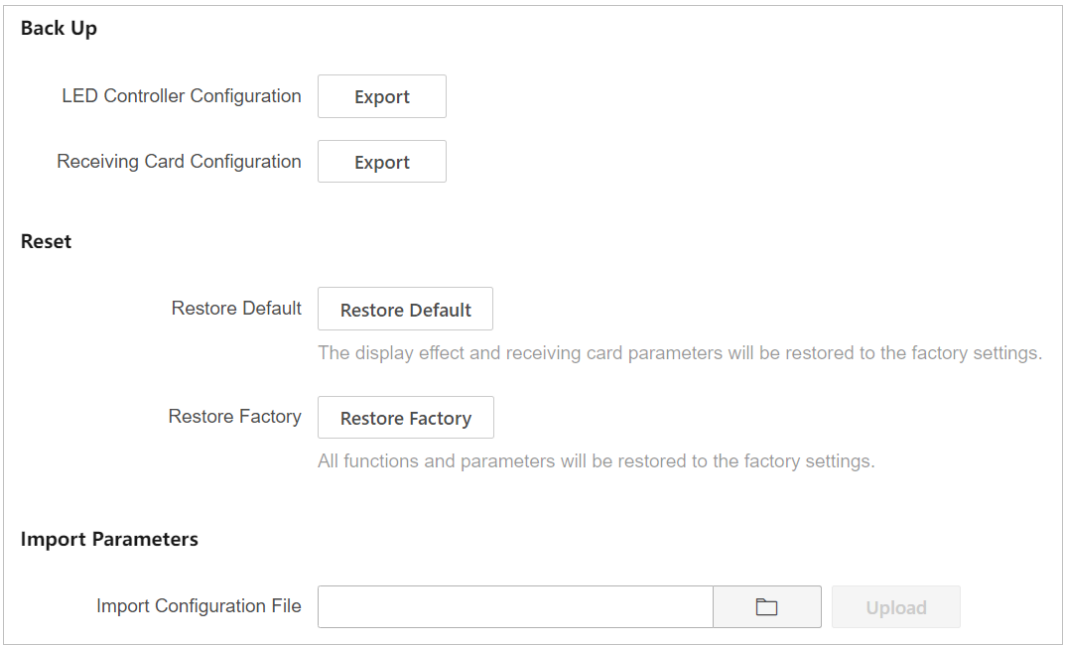

Figure 5-11 Back Up and Reset Device

Log Management

Step 1 Navigate to **Maintenance and Security** > **Log**.

Step 2 Set the search conditions and click **Search**.

Step 3 You can view the searched logs in the list below. You can click **Export** to export the logs.

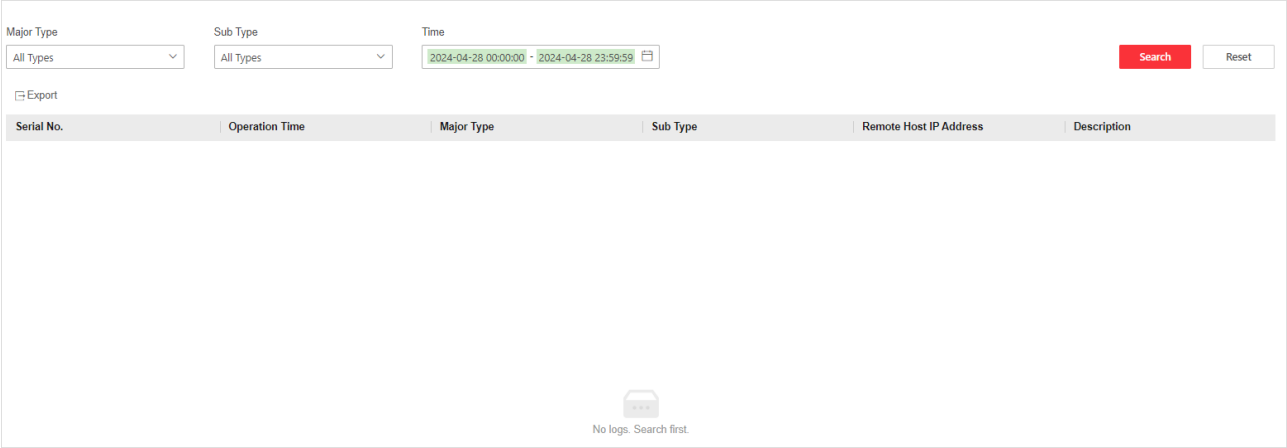

Figure 5-12 Search Logs

Device Debugging

Step 1 Navigate to **Maintenance and Security** > **Device Debugging**.

Step 2 Enable dual power supply monitoring for all series devices when it is equipped with dual power supplies. The web interface will display a warning if one power supply fails.

Step 3 Enable SSH (Secure Shell) for C/V series devices as required. If remote login is not required, it is recommended to disable SSH to ensure network security.

Step 4 Configure Android maintenance for B/P/U series devices:

- Enable **Log Records** to record the maintenance logs of the Android system.
- Click **Export** to export the ZIP file of the Android system maintenance logs.
- Enable **ADB Debugging**, and then use the Android Debug Bridge (ADB) tool and the device activation password to maintain the device Android system.

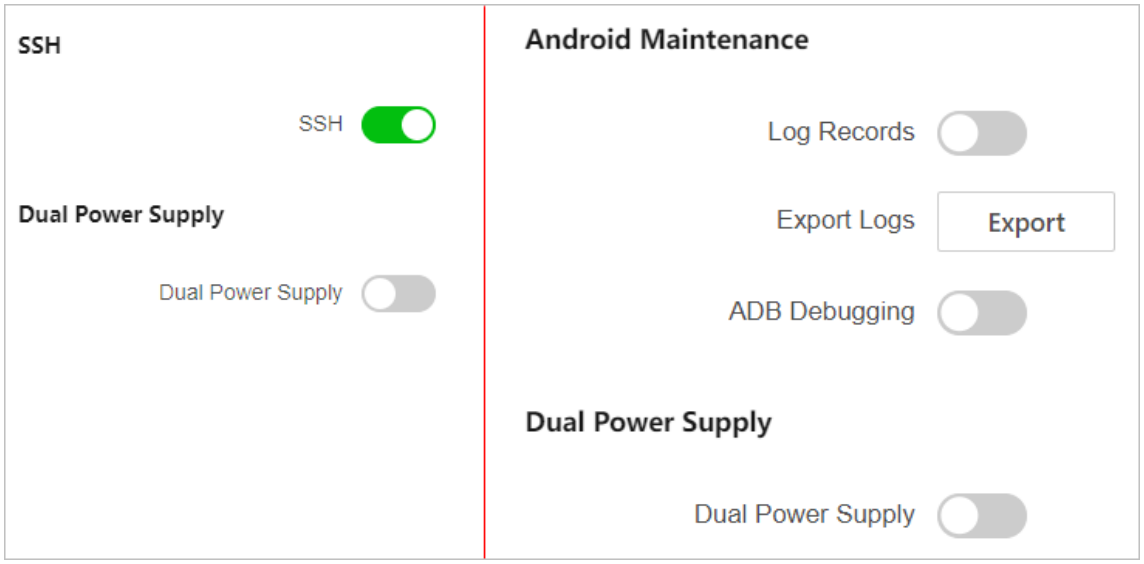

Figure 5-13 Debug Device (Left: DT60C Series, Right: DT60P Series)

Permission Management

Step 1 Navigate to **Maintenance and Security** > **Permission Management**.

Step 2 Enable **Display-Off**.

Step 3 Select a display-off method.

Step 4 Set the display-on code. When the display is turned off, you can navigate to the **Permission Management** page and enter the display-on code to turn on the display.

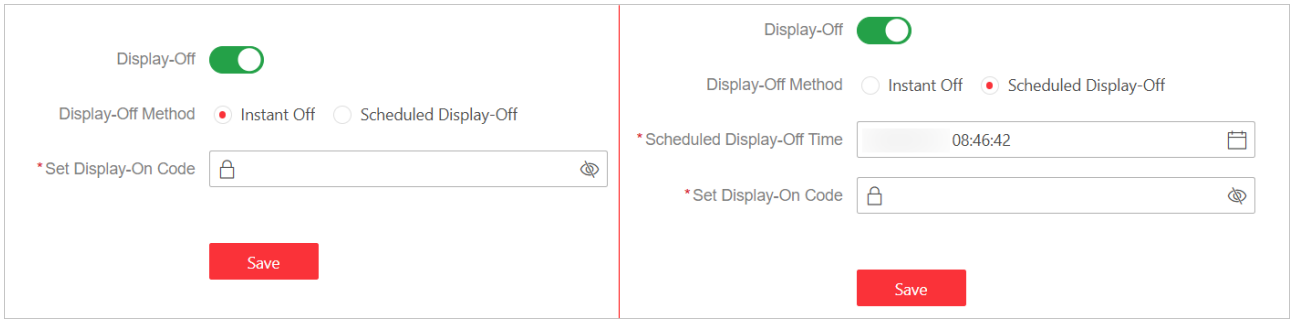

Figure 5-14 Permission Management Page

User Mode

Applicable devices: DT90C/V/P, DT60C/V/B/P, DT30C/V/B/P, and certain DS-TC/V/B/U series.

Navigate to **Maintenance and Security** > **User Mode**, and enable **Switch to User Mode** as required. After switching, the following functions will be unavailable:

- Configure display mapping.
- View device status.
- Quickly maintain receiving cards.
- Test display condition.

Chapter 6 Display Configuration (Other Interfaces)

6.1 Use the OSD Interface

Before You Start

Make sure that you have configured display mapping. For details, see “2.4 Configure Display Mapping”.

Steps

Step 1 Select a remote control and connect the selected remote control to the device.

- Insert the USB plug of RF remote control into the USB port of the device. The valid distance between RF remote control and device is about 15 m within 45° angle in the left and right.
- Insert the 3.5 mm plug of IR remote control into the IR IN port of the device. The valid distance between IR remote control and device is about 10 m within 45° angle in the left and right.

Step 2 Use the remote control to operate the OSD page of the device.

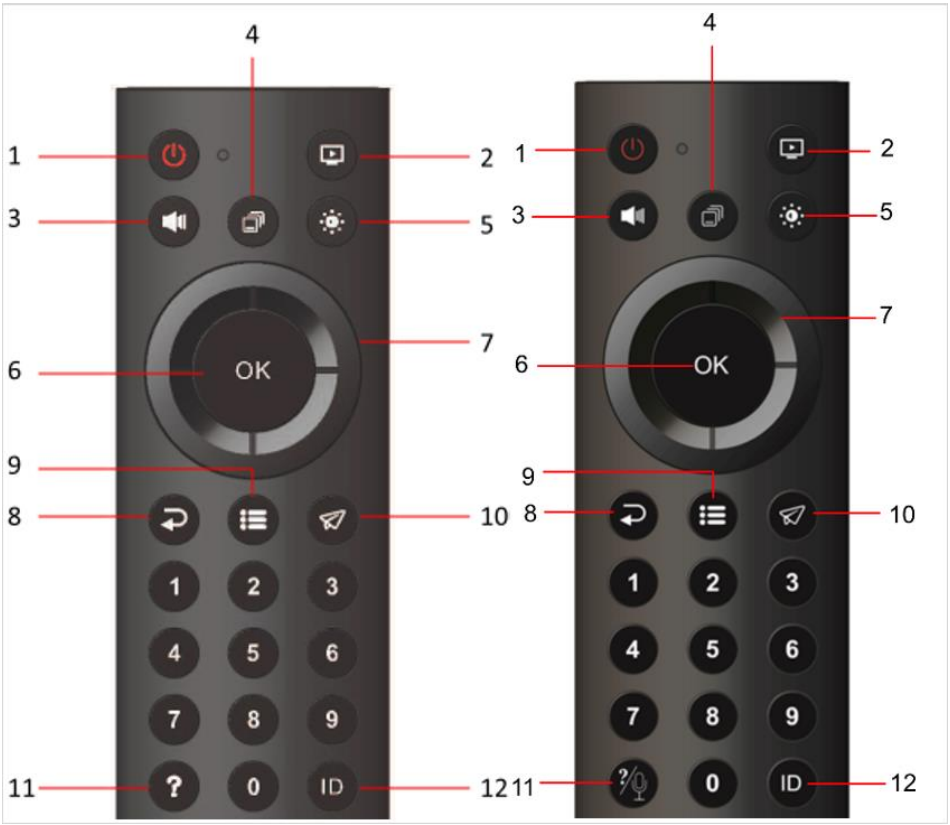

Figure 6-1 IR Remote Control (Left) and RF Remote Control (Right)

Table 6-1 Remote Control Button Description

No.	Name	Description
1	Power	• If the display is on, pressing the button will make the display enter sleep mode. • If the display is in sleep mode, pressing the button will wake up the display.
2	Signal source switchover	Press the button to call out the signal source channel page. Use the left and right direction buttons to switch the signal source channel, and press OK to confirm the channel selection.
3	Volume	Press the button to call out the volume adjustment page. Use the left and right buttons to adjust the volume.
4	Shortcut menu	Press the button to enter the shortcut menu page. • After selecting **System Info**, you can view the LED controller information, receiving card information, and system monitoring information. • After selecting **Source Info**, you can press the button to call out the signal source information page to view the detailed signal source information. • After selecting **Choose Scene**, you can press the button to call out the scene switching page. Use the up and down direction buttons to switch scenes, and press OK to confirm the scene selection. • After selecting **Open Dehum**, you can enter the dehumidification page. Use the left and right direction buttons to enable or disable the immediate dehumidification function. • After selecting **Best EDID**, you can press OK to enable BEST EDID, and press OK again to disable it.
5	Brightness adjustment	Press the button to call out the brightness adjustment page. Use the left and right direction buttons to adjust the brightness.
6	OK	Confirm the current configuration.
7	Direction	Control the upper, lower, left and right directions.
8	Exit	Exit the current page.
9	Menu	Enter the main menu page. On the main menu page, you can configure input, output, display, and color parameters.
10	Back	Return to the main menu page.

No.	Name	Description
11	Help	Press the button to call out the remote control help instruction. **Note** Voice control is not supported.
12	ID	• Press the button to show the device ID. • Press the button to show the device ID and enter the ID of the device you want to control. Ensure that you have enabled display cascading on the **Display Maintenance** > **Settings** > **Cascading & Self-Splicing** page of the LED Tool client.

6.2 Use GUI Interface (B/P/U Device)

6.2.1 GUI Interface Overview

Only B-series, P-series, and U-series devices support the GUI interface.

Step 1 Connect the mouse and keyboard to the USB ports of the device, and connect the device to the display.

Step 2 Configure mapping for display connected to a P device. For details, see “2.4 Configure Display Mapping”.

Step 3 The FocSign Player page shows on the display.

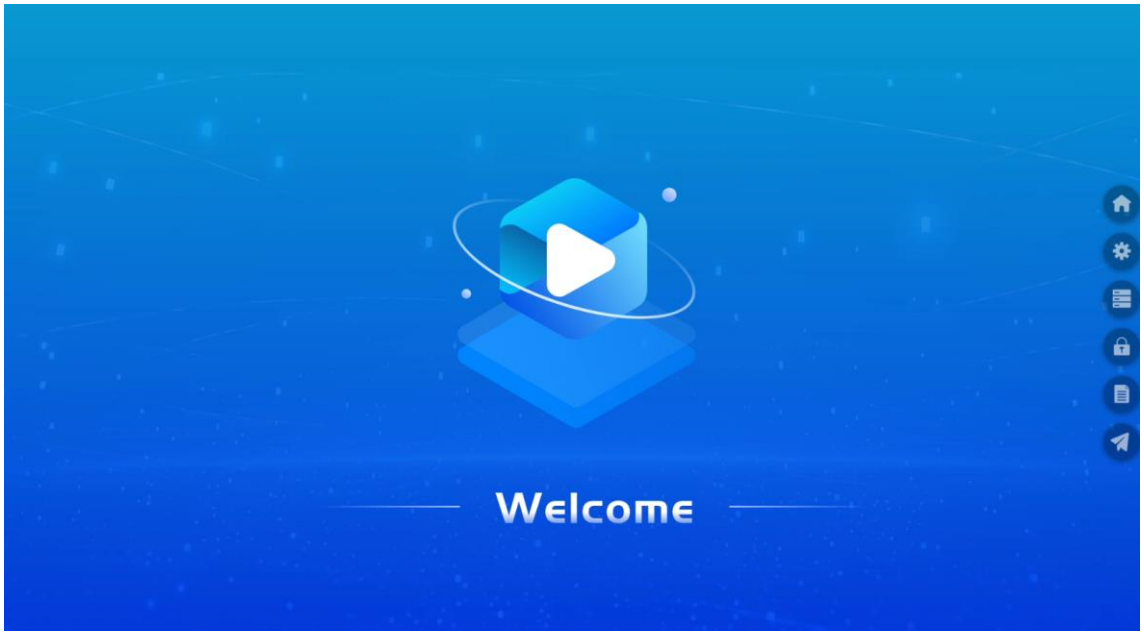

Figure 6-2 FocSign Player Page

- Click  to enter the main page.
  - Click **Settings** or click  in the lower right corner of the main page to enter the **Settings** page.
  - Click FocSign Player to enter the FocSign Player page.
  - Click  to view the notifications.
  - Right click the mouse to exit the current application or current page.

Figure 6-3 GUI Main Page

- Click  to open the **System Settings** window. You can set the terminal information and display lock.

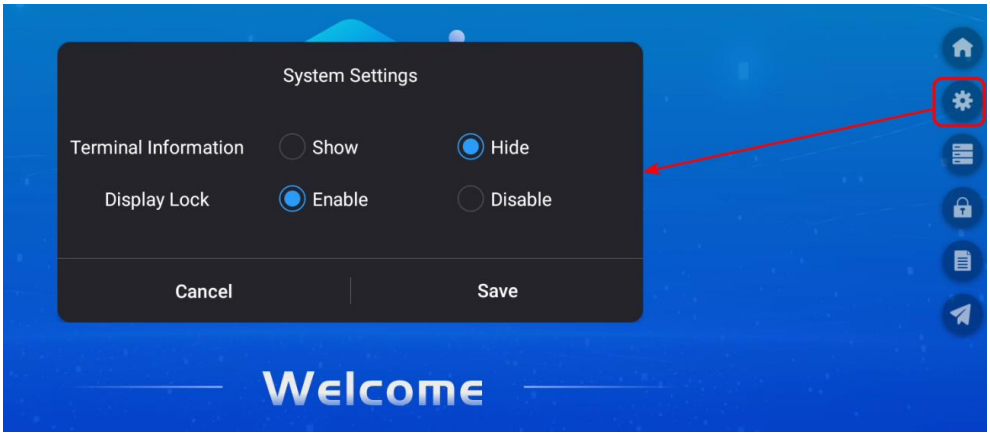

Figure 6-4 System Settings Window

- Click  to open the **Server Settings** Page. Select a server registration method and enter the related parameters.

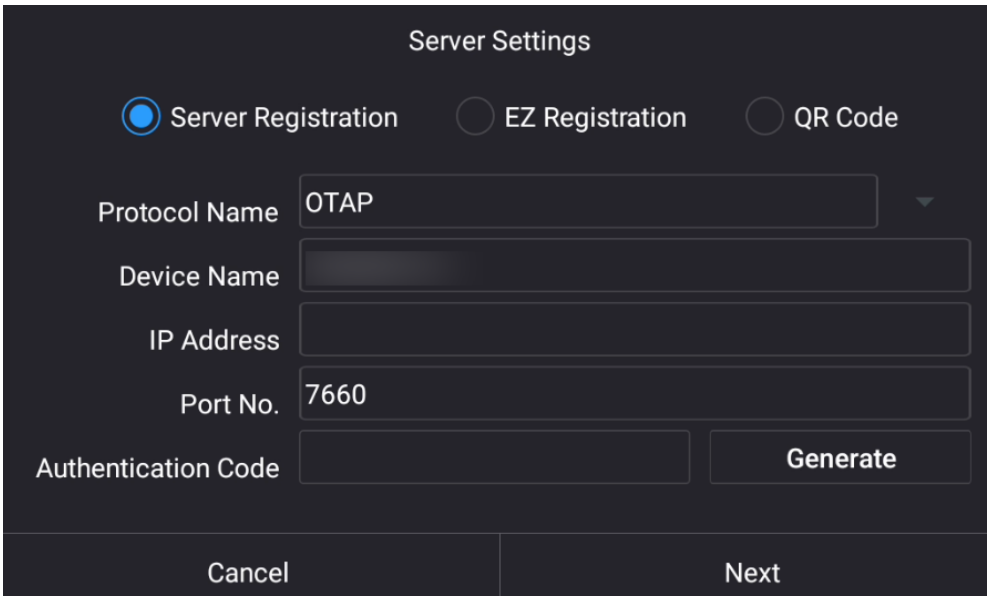

Figure 6-5 Server Settings Window

- Click  to enable display lock and click  to lock the display. After the display is locked, you need to enter the device activation password to unlock the display.
- Click  to open the **Basic Information** page to view the basic information of the device.
- Click  to enter the **Playback Schedule** page.

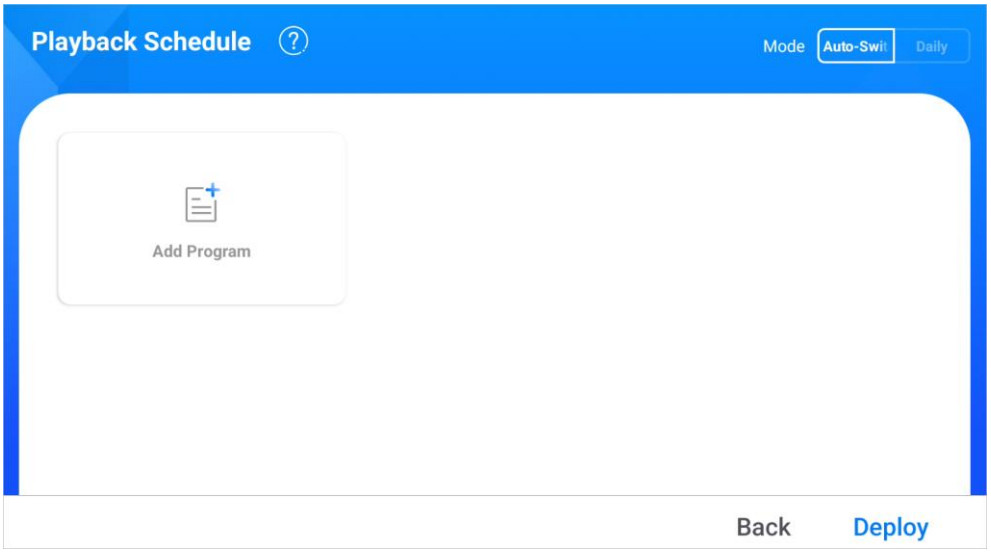

Figure 6-6 Playback Schedule Page

6.2.2 Set Playback Schedule

Step 1 On the FocSign Player page, click  to enter the **Playback Schedule** page.

Step 2 Select a mode:

- If you select **Auto-Switch**, click **Add Program**, and select a template.
- If you select **Dayily**, click **Add Time Slot Program**, and select a time period and a template.

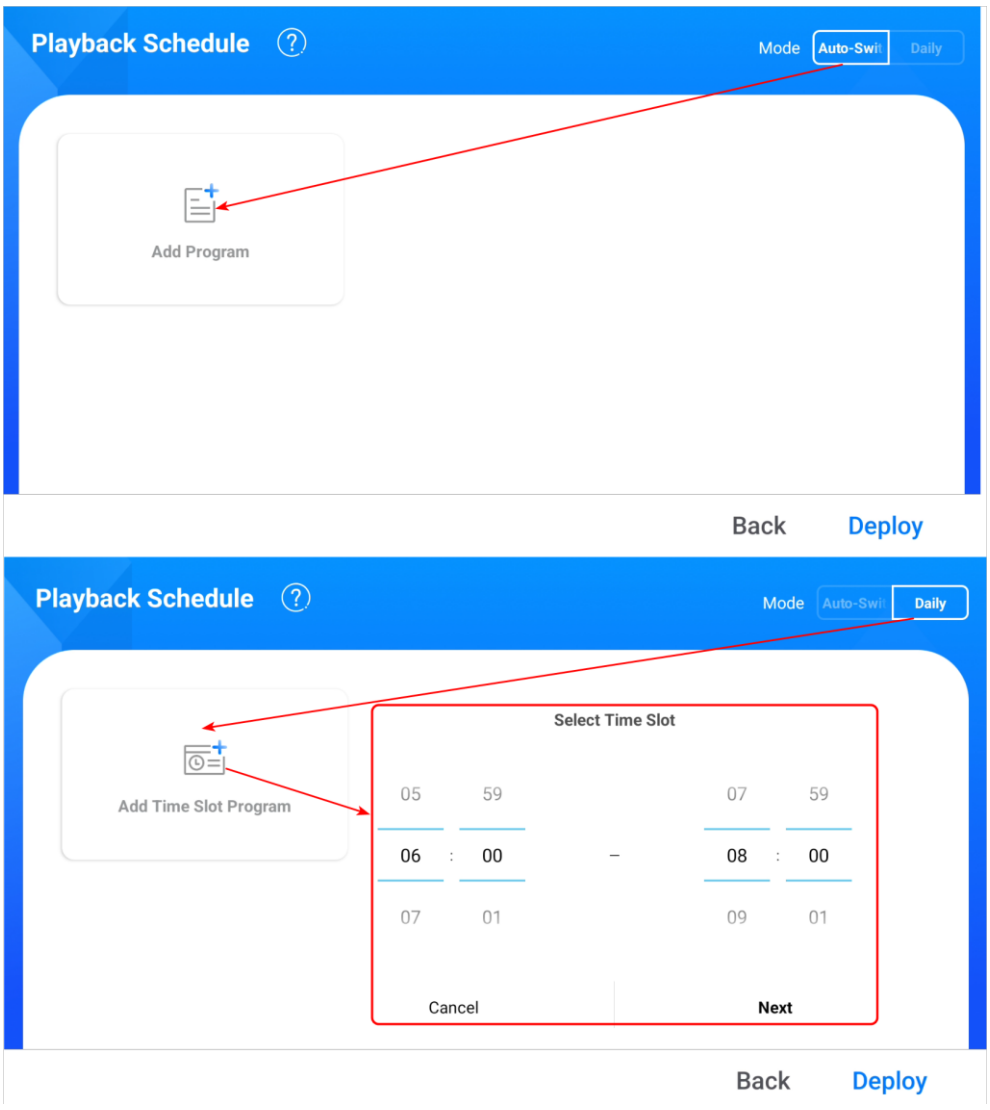

Figure 6-7 Select a Mode

Step 3 Add materials:

1) Click **Add Material**, and then select video or picture.

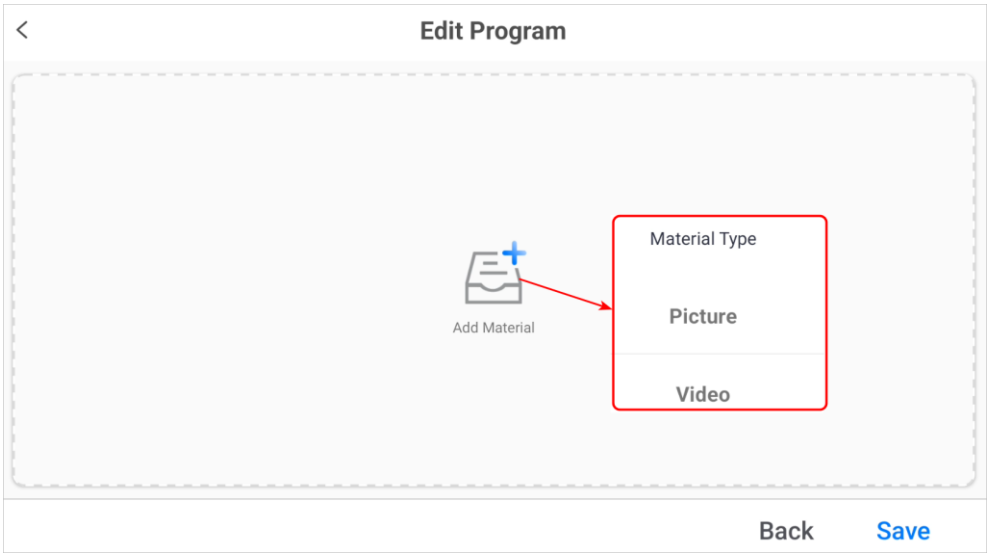

Figure 6-8 Select Material Type

2) Select materials from the storage, set the duration of each material, and set the switching effect, click **OK**.

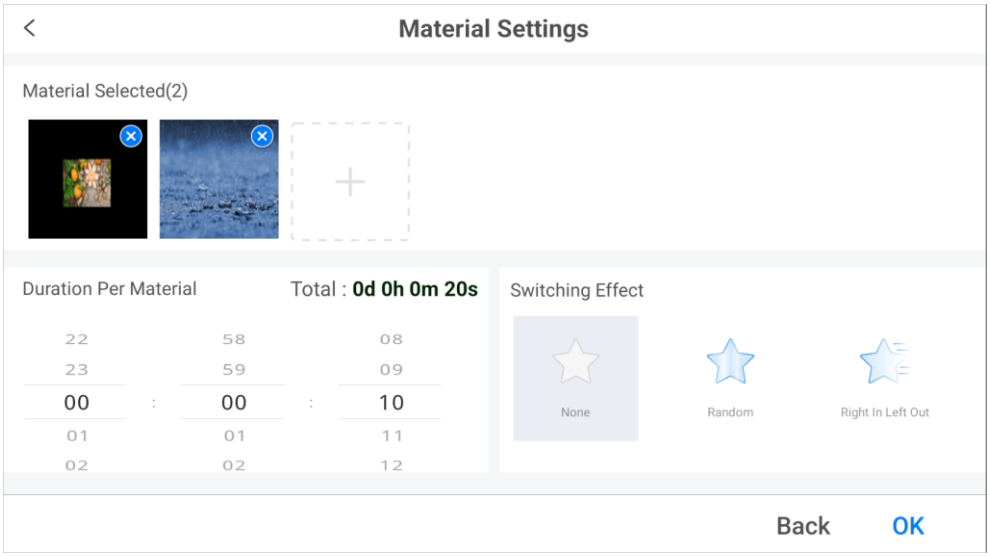

Figure 6-9 Add Materials

Step 4 Click **Save**.

Figure 6-10 Save Program Configuration

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

- Repeat the above steps to create multiple programs.
- Click  in the upper right corner of a program to delete the program.
- Click a program to edit its material, duration or switching effect.
- For a daily playback program, you can click  to edit the time period for the program.

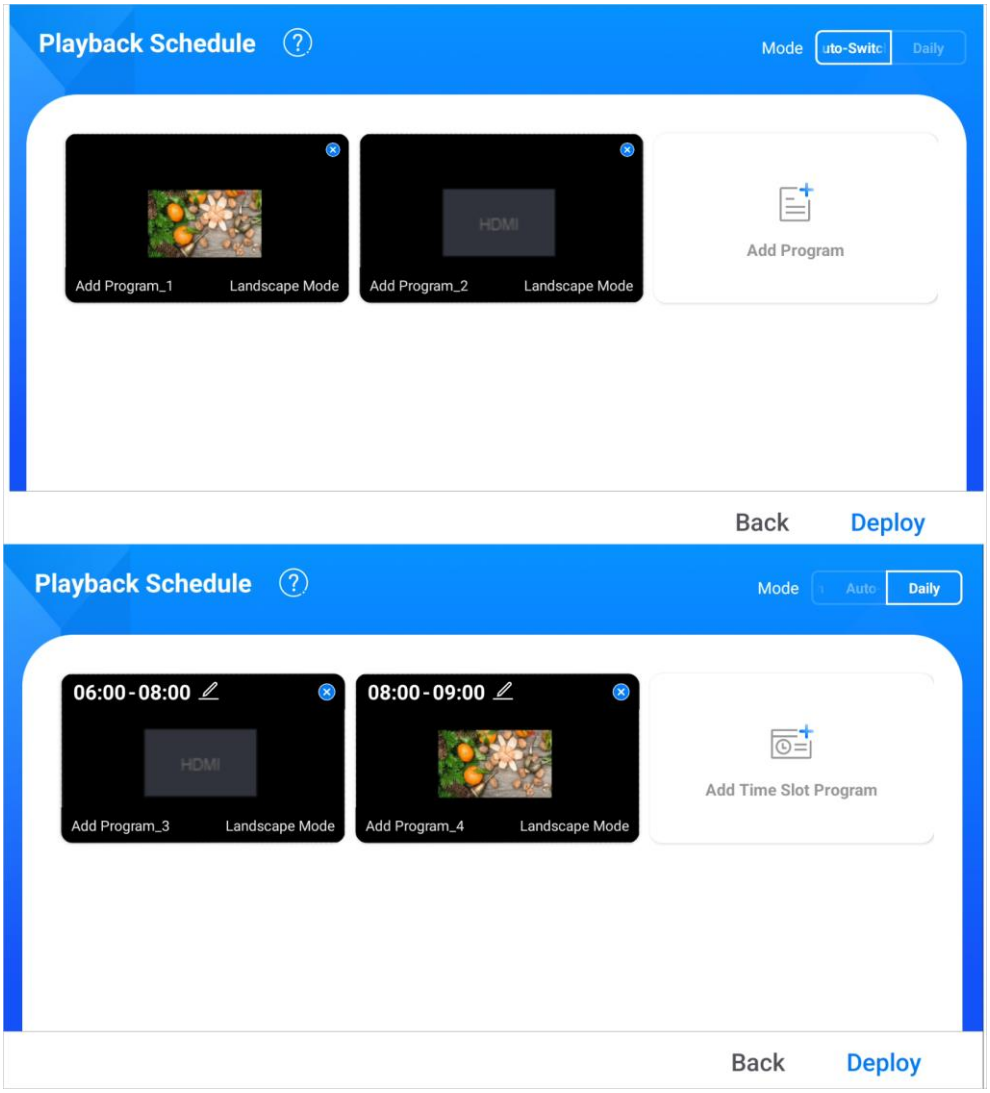

Figure 6-11 Manage Programs

Step 6 Click **Deploy**.

6.2.3 Edit Device Parameters

Note

- Click > to enter the parameter setting page.
- Right click the mouse to exit the current application or current page.

Click  on the FocSign Player page to enter the main page, and then click **Settings** or click  in the lower right corner of the main page to enter the **Settings** page. You can set the following device parameters as required:

- On the **Network** page, set the wired network, WLAN, hotspot, or Bluetooth. If the device is connected to both a wired and wireless network simultaneously, it will prioritize the wired network.

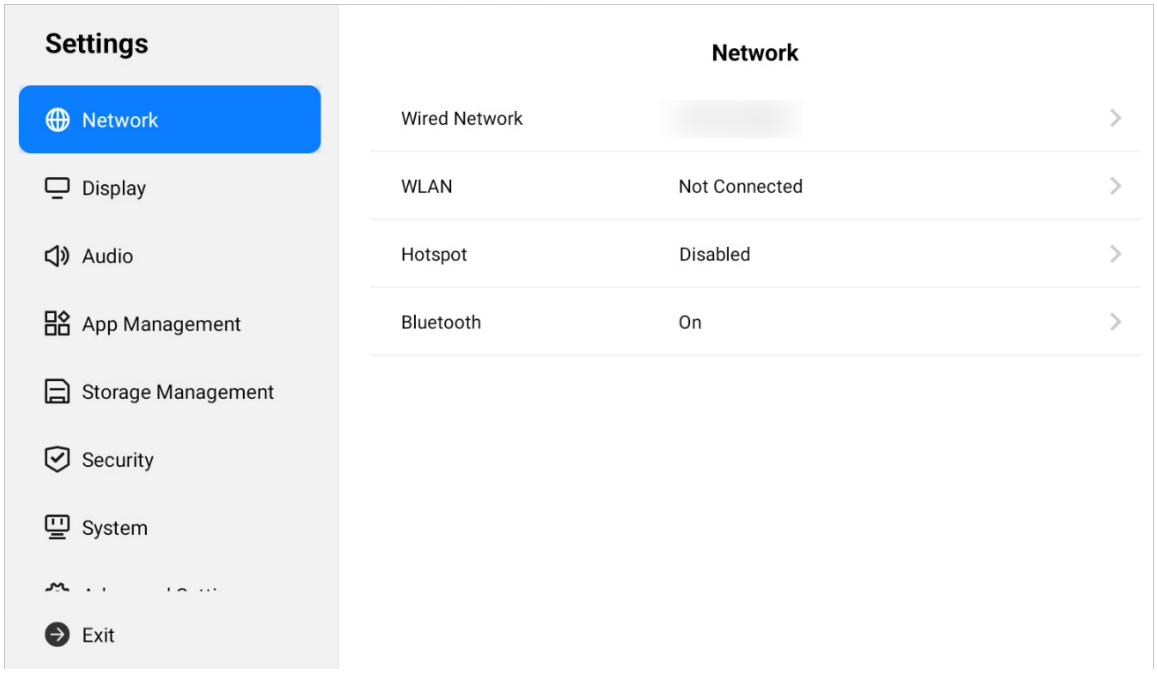

Figure 6-12 Set Network Parameters

– Click > of the wired network, enable static IP as required, and set the automatically obtained IP address or an unused IP address from the local network as the wired network address of the device.

– Click > of the WLAN, and enable WLAN. Click a wireless network, and enter the connection password to join the wireless network. Click ⓘ to view the wireless network address of the device. Click ⓘ and click **Clear Network** to disconnect the device from the wireless network.

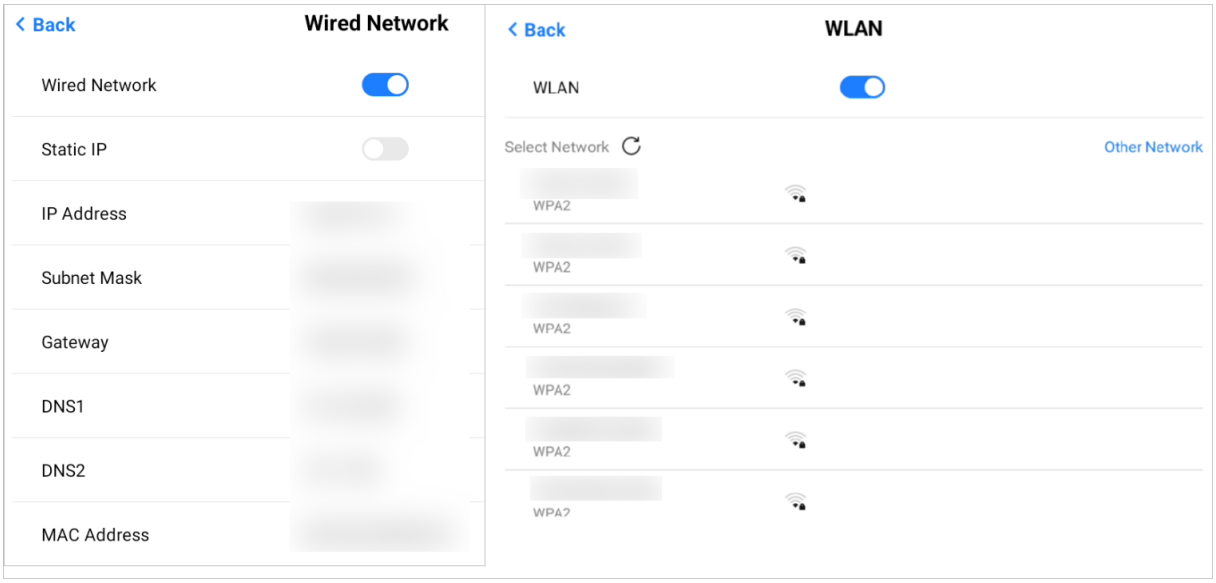

Figure 6-13 Set Wired and Wireless Network

- On the **Display** page, set HDMI output, display rotation, font size, notification bar, navigation bar, or wallpaper.

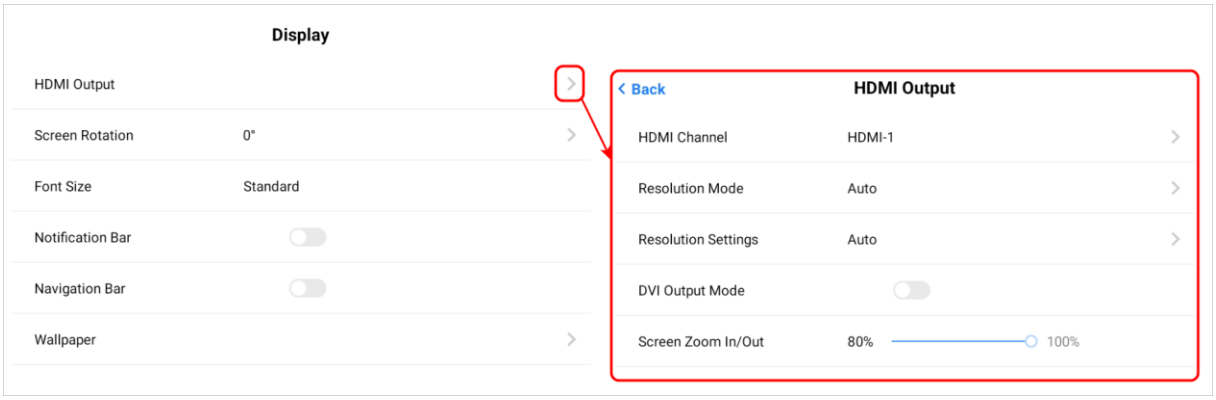

Figure 6-14 Set Display Parameters

– Click > of the HDMI output to set the HDMI channel, resolution mode, resolution settings, DVI output mode, or display zoom in/out.

– After enabling navigation bar, you can click ◀ to go back to previous menu, click ● to return to the homepage application page, and click ■ to show the opened applications. You can click 🗑 to close the opened applications.

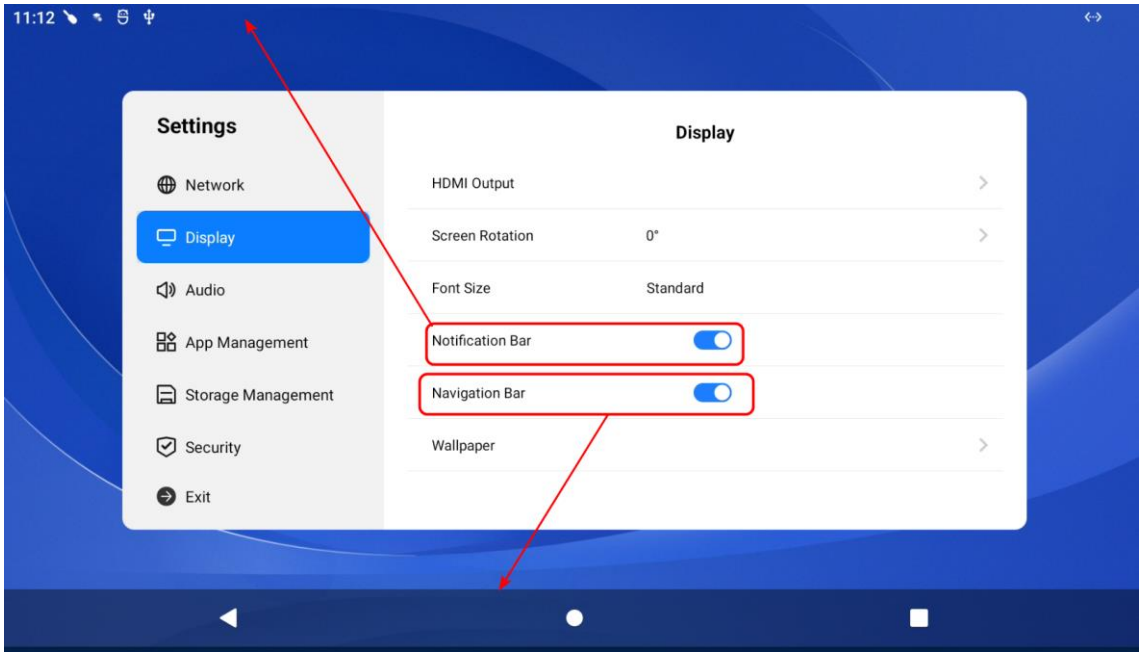

Figure 6-15 Set Notification Bar and Navigation Bar

- On the **Audio** page, set the volume.
- On the **App Management** page, enable run at startup, set default app, and show applications or system process.

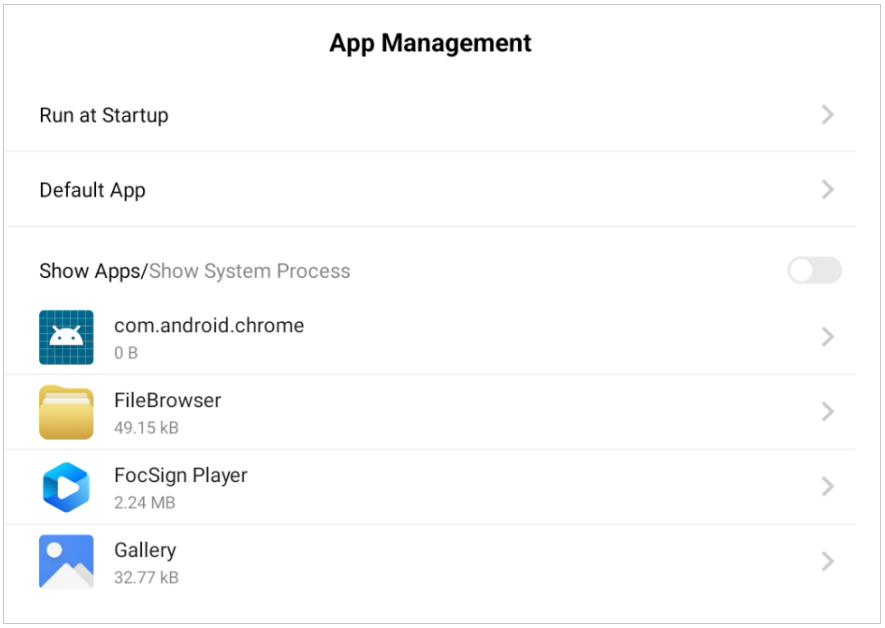

Figure 6-16 Manage Applications

- On the **Storage Management** page, view the internal shared storage, memory usage, and real-time memory usage. You can click **Free Up Space**.

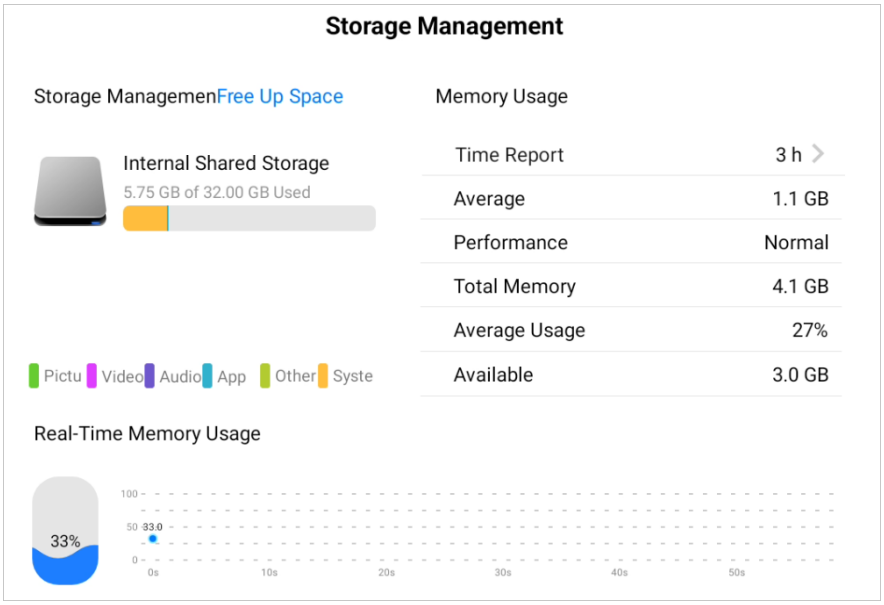

Figure 6-17 Manage Storage

- On the **Security** page, enable SADP and change the device activation status.

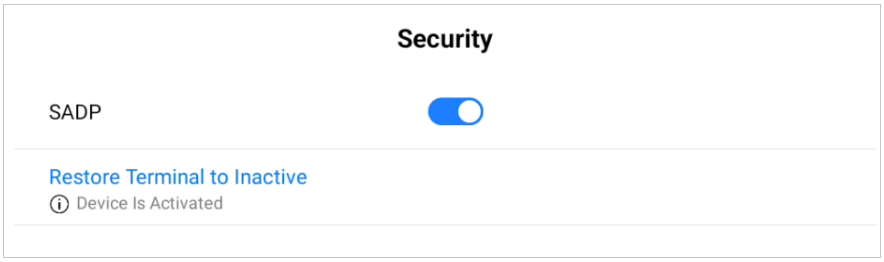

Figure 6-18 Set Security Parameters

- On the **System** page, view the basic system information, enable system debug, enable system log, restore the device to factory settings, or restart the device.

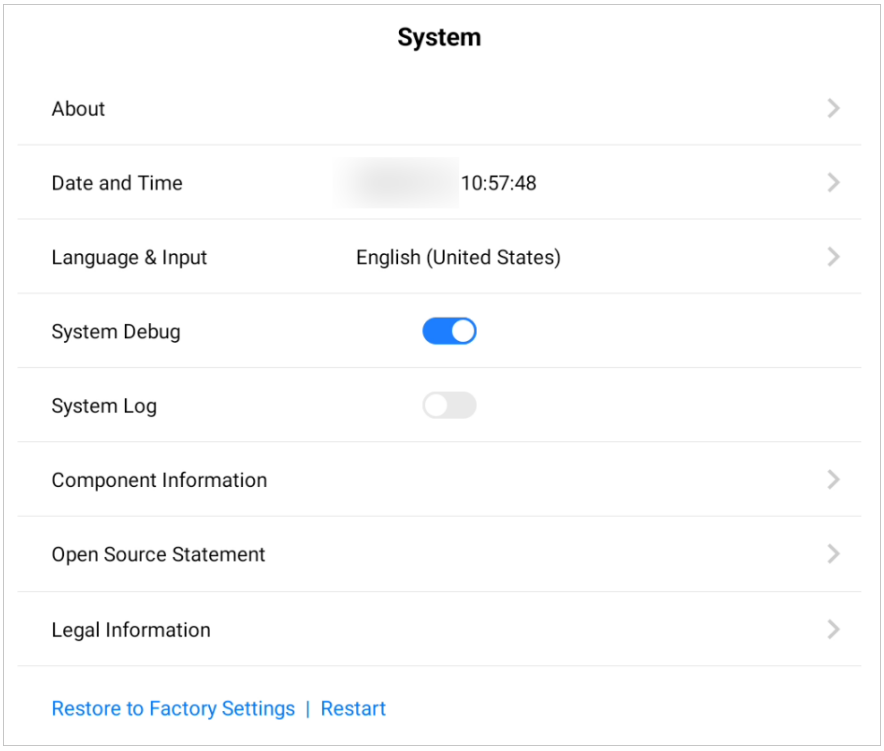

Figure 6-19 View System Parameters

- On the **Advanced Settings** page, set the scheduled startup.
  1) Enable scheduled power on/off.
  2) Click > of the on/off settings.
  3) Set the power-on time, power-off time, and weekly recurrence schedule, and click **OK**.
  4) Enable the scheduled power on/off entry.

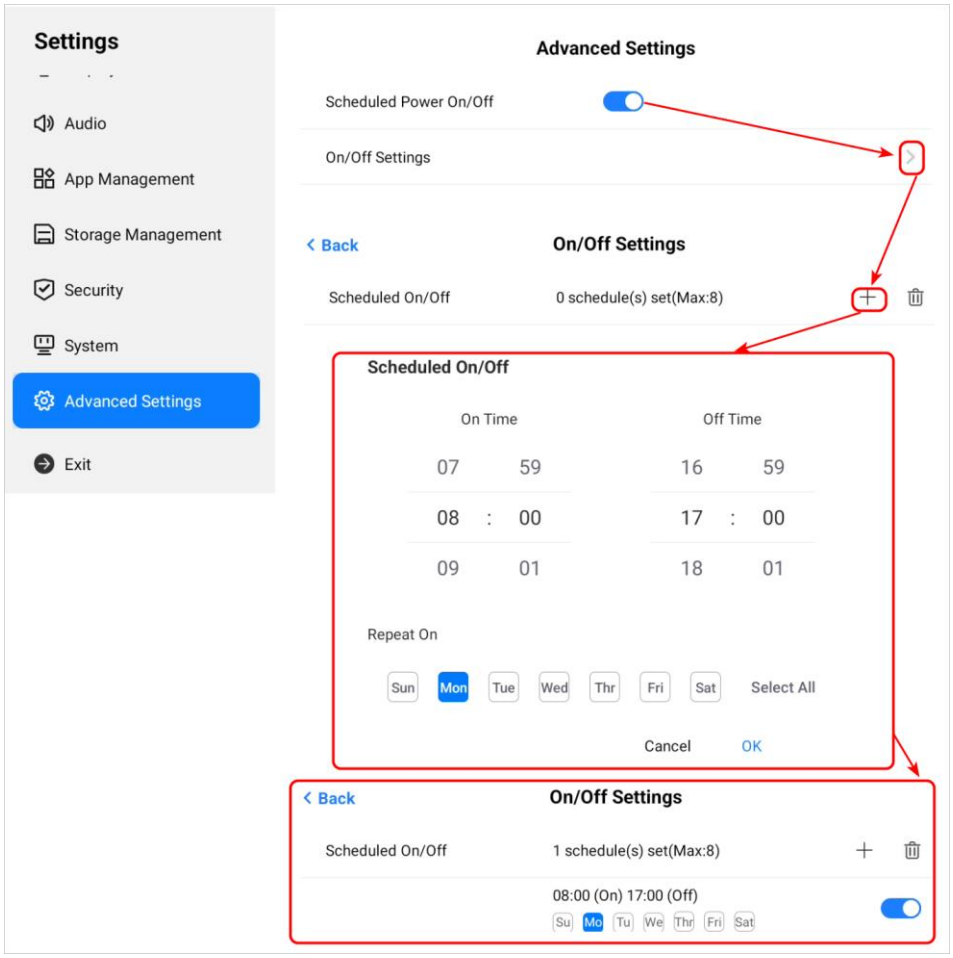

Figure 6-20 Set Scheduled Startup


See Far, Go Further