



Multi-Functional Video Center

User Manual

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Preface

Applicable Models

This manual is applicable to the DS-B31 series multi-functional video center.

Default Parameters

Type	Default Parameter
Device	• Login user name: admin
SSH connection	• IP address: 192.0.0.64



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.
- The USB port of the device is used for connecting to a mouse, a keyboard, or a USB flash drive only. The current for the connected device shall be not more than 0.1 A.

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Chapter 1 Introduction

1.1 Overview

Designed with reference to the Advanced Telecommunications Computing Architecture (ATCA), the Multi-Functional Video Center (hereinafter referred to as the device) supports matrix switching of analog and digital videos, video encoding and decoding, and network real-time preview. It integrates image processing, network functions, log management and device maintenance, simplifies the installation, maintenance and the whole system, and has good compatibility and expandability. Thus, the device can be widely used in various video system and command control system. The device has the following advantages:

- Supports the video input and video output via various ports.
- Supports the network encoding and real-time preview of signal sources.
- Supports the decoding and output of various network signal sources.
- Supports the screen splicing, roaming window, and other operations.
- Supports the management on users, network, operation, alarm and logs.

1.2 First-Time Configuration Process

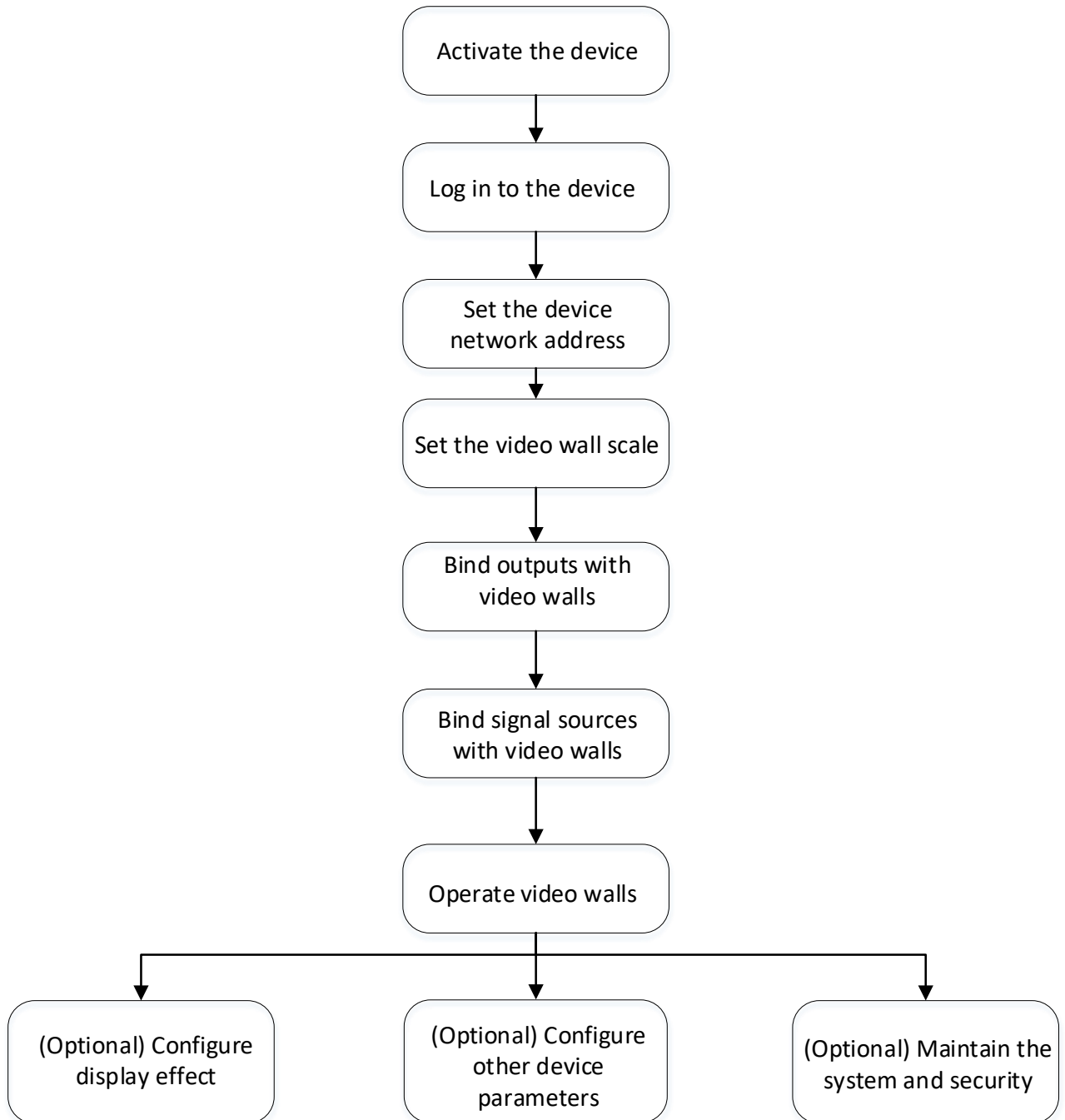


Figure 1-1 First-Time Configuration Process

Chapter 2 Device Activation

You should activate the device before using the device for the first time. When activating the device, obey the following requirements to set the password:

- 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.
- Password should contain 8 to 16 characters and at least 2 of the following types: digits, lowercase letters, uppercase letters, and special characters.
- Password cannot contain user name, 123, admin, 4 or more continuously ascending or descending digits, or 4 or more consecutive repeated characters.

2.1 Activate the Device via SADP Client

Step 1 Connect the device and computer to the same LAN.

Step 2 Visit <https://www.hikvision.com/en/support/tools/hitools/clea8b3e4ea7da90a9/> to download the SADP client from the Hikvision website and install the SADP client on the computer.

Step 3 Open the SADP client.

Step 4 Select the device that is not activated, enter the activation password and confirm it, and click **Activate**.

If the device cannot be found, you can restart the SADP client.

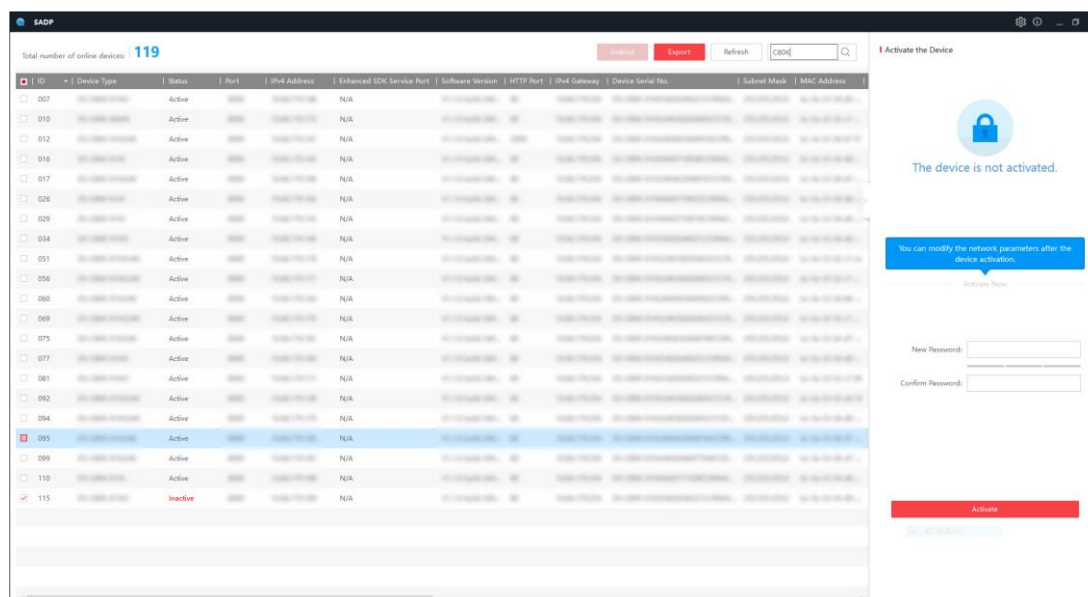


Figure 2-1 Activate the Device via SADP Client

2.2 Activate the Device via Web Browser

Step 1 Use a network cable to connect a computer to the device.

Step 2 Set an IP address for the computer.

To ensure the normal communication between the computer and device, the IP address of the computer should be in the range of 192.0.0.2 to 192.0.0.253 (excluding 192.0.0.64).
Because the default IP address of the device is 192.0.0.64.

Step 3 Enter 192.0.0.64 in the computer browser to enter the device activation page.

Step 4 Set the activation password.

Step 5 Click **Activate**.

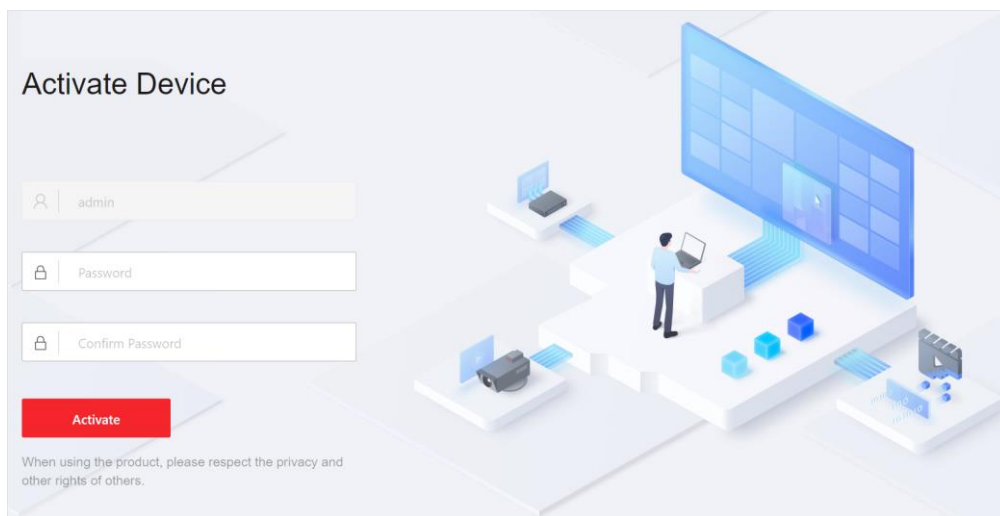


Figure 2-2 Activate the Device via Browser

Chapter 3 Device Configuration

On the web page, you can configure video walls, operate video walls, configure the device parameters, and maintain system and device security.

3.1 Log In to the Device via Web Browser

Step 1 Enter the device factory IP address in the web browser of the computer.

Step 2 Enter the user name and the set activation password.

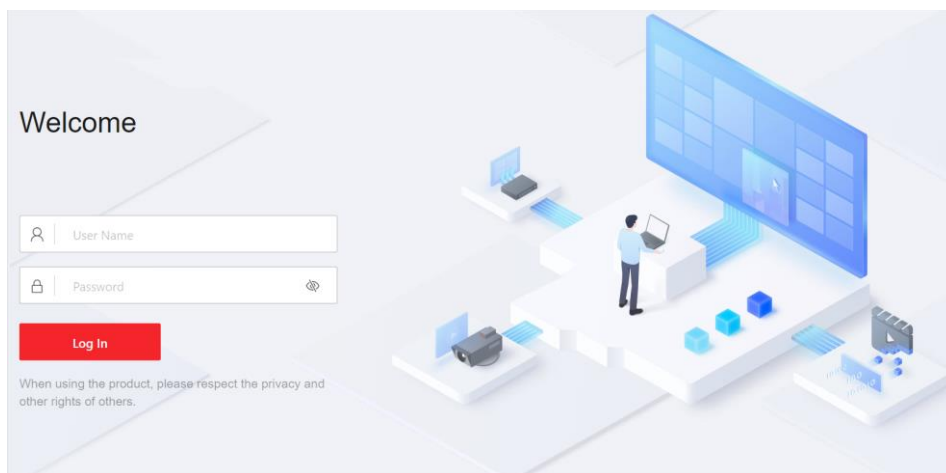


Figure 3-1 Login Page

Step 3 Click **Log In**.

3.2 Configure the Network Address

3.2.1 Configure TCP/IP

Step 1 Go to **Configuration** → **Network** → **Network Configuration** → **TCP/IP**.

The screenshot shows the 'TCP/IP' configuration page. At the top, there are two tabs: 'TCP/IP' (highlighted in red) and 'NAT'. Below the tabs, the 'NIC Type/NIC' is set to '10/100/1000 Mbps Self-Adaption'. There are three input fields for IPv4 configuration: '* IPv4 Address', '* IPv4 Subnet Mask', and '* IPv4 Default Gateway'. Below these is a section titled 'DNS Server Settings' with two input fields: '* Preferred DNS Server' and '* Alternative DNS Server'. A red 'Save' button is located at the bottom right of the form.

Figure 3-2 Configure the Device IPv4 Address

Step 2 Select the NIC type.

Step 3 Set the IPv4 address, IPv4 subnet mask, and IPv4 gateway.

Step 4 If you use the domain name to access the device, set the preferred and alternative DNS server.

Step 5 Click **Save**.

Step 6 Remove the network cable that connects the device and computer, and use the network cable to connect the device to the same network as the computer.

Make sure that the computer and device in the same network segment.

Step 7 Enter the configured device IP address in the web browser of the computer to log in to the web page of the device.

3.2.2 Configure NAT

With NAT (Network Address Translation) enabled, the device can use a single IP address to communicate with other devices in the external network. By default, the IP address of the main control board is used as the NAT address, and NAT is enabled. If the device slot 4, 5, 6, or 7 is installed with a board, you must configure NAT address 1 to allow the board communicating with other devices in the external network. The NAT address 1 must be in the same network segment as the IP address of the main control board, but the NAT address 1 and the IP address of the main control board cannot be consistent.

Step 1 Go to **Configuration** → **Network** → **Network Configuration** → **NAT**.

TCP/IP NAT

Enable ☒

Auto Configuration On ☒

① NAT Address 1

IP Address

Subnet Mask

Gateway Address

Save

Figure 3-3 Configure NAT

Step 2 Choose either of the following methods to configure NAT:

- Enable **Auto Configuration On**. The system will automatically use an IP address that is in the same network segment as the device as the NAT address 1.
- To use a static IP address as the NAT address 1, enter the IP address that is in the same network segment as the device, subnet mask, and gateway address.

Step 3 Click **Save**.

3.3 Configure a Video Wall

3.3.1 Configure the Video Wall Scale

Step 1 Go to **Video Wall Configuration**, select a video wall in the upper left corner. Click **Configure** to configure the video wall scale.

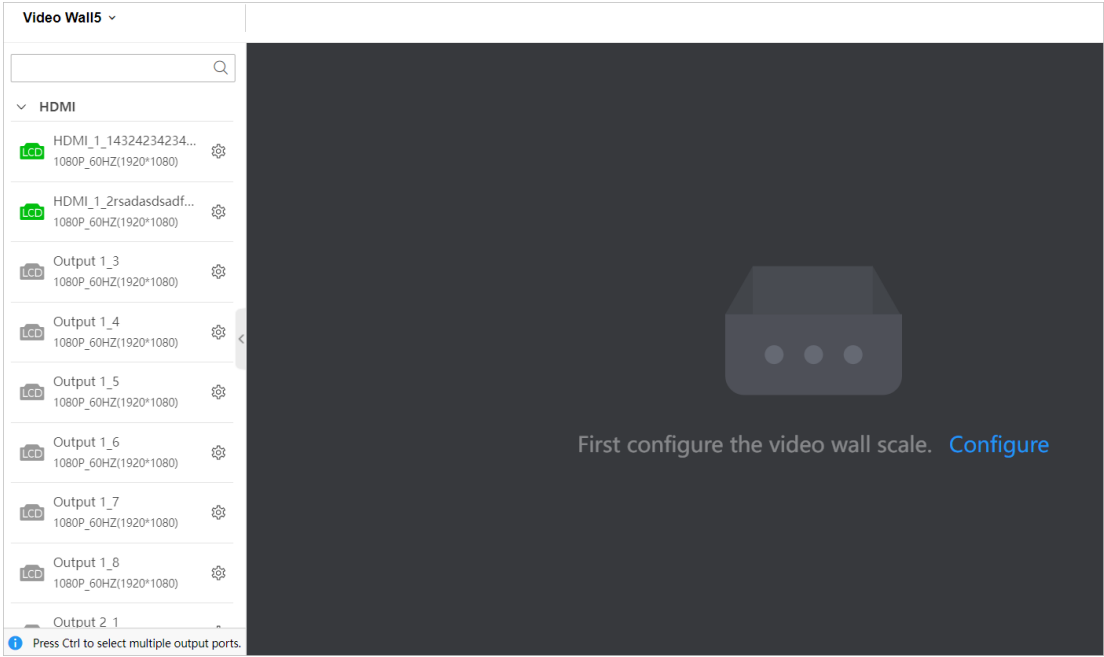


Figure 3-4 Video Wall Configuration Page

Step 2 According to the actual screen quantity, set the video wall scale and click **Save**.

You can also drag the mouse with the left button held to scale the video wall.

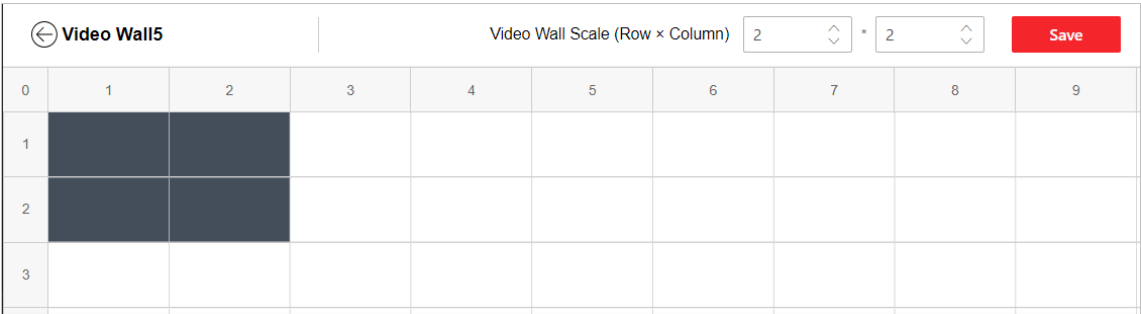


Figure 3-5 Set the Video Wall Scale

Note

After setting the video wall scale, you can click **Edit Video Wall Scale** to change the video wall scale.

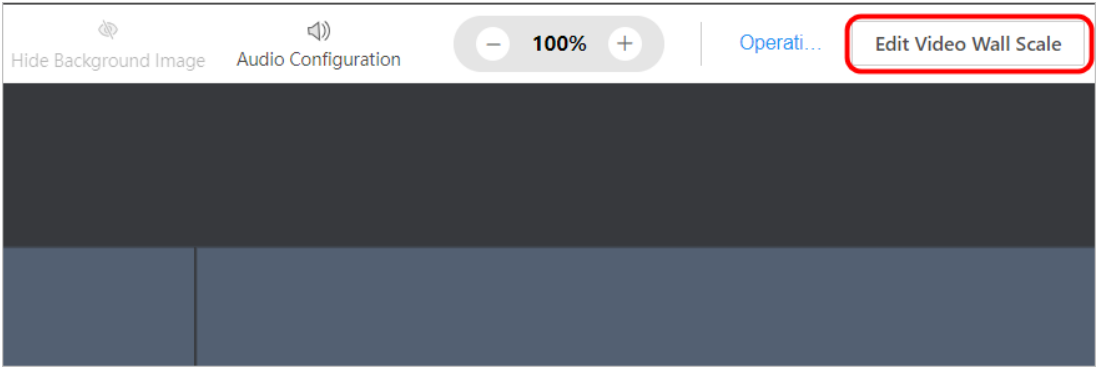


Figure 3-6 Edit Video Wall Scale

3.3.2 Bind Output Ports with Video Wall

A video wall can contain one screen or multiple screens. At a time, one screen can join only one video wall, and one output port can be bound with only one screen.

Step 1 On the **Video Wall Configuration** page, drag output ports rightward to the screens.

- If all screens of the video wall are bound with output ports, click  in the upper right corner of a screen and then bind another output port with the screen.
- You can press Ctrl to select multiple output ports and then batch bind output ports with the video wall.

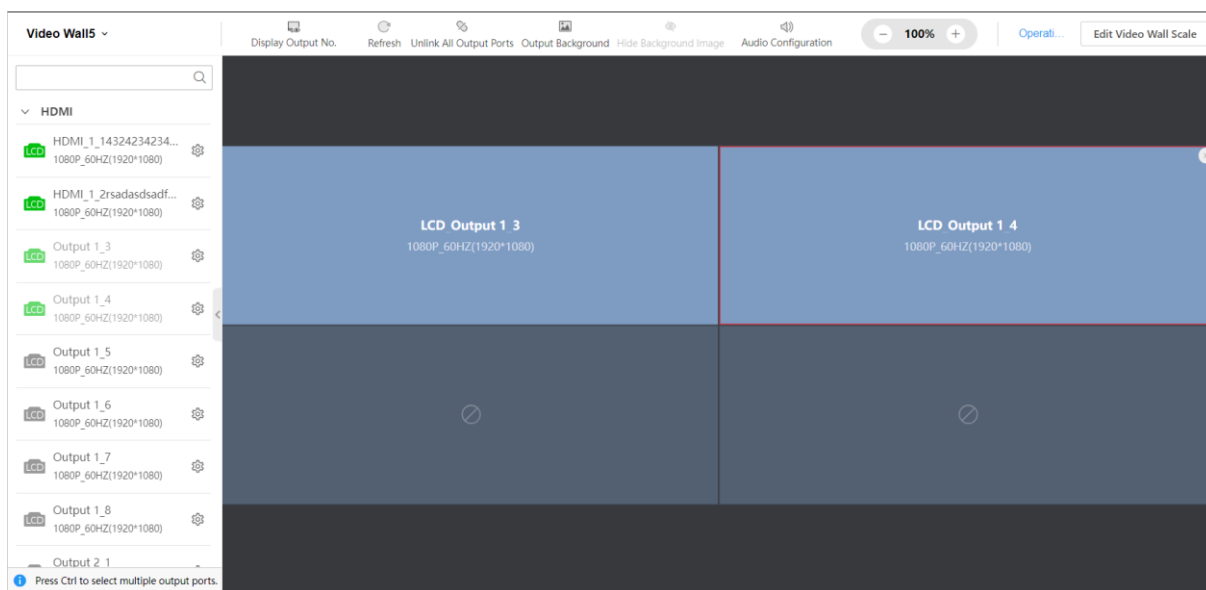


Figure 3-7 Bind Output Ports with Video Wall



Note

If you use the screens that support and are enabled with the control linkage function to configure the video wall, click **Edit Wall Scale** and select **Auto Configure**. Thus, the screens will be automatically bound with the output ports of the corresponding video wall according to the serial number set on the remote control.

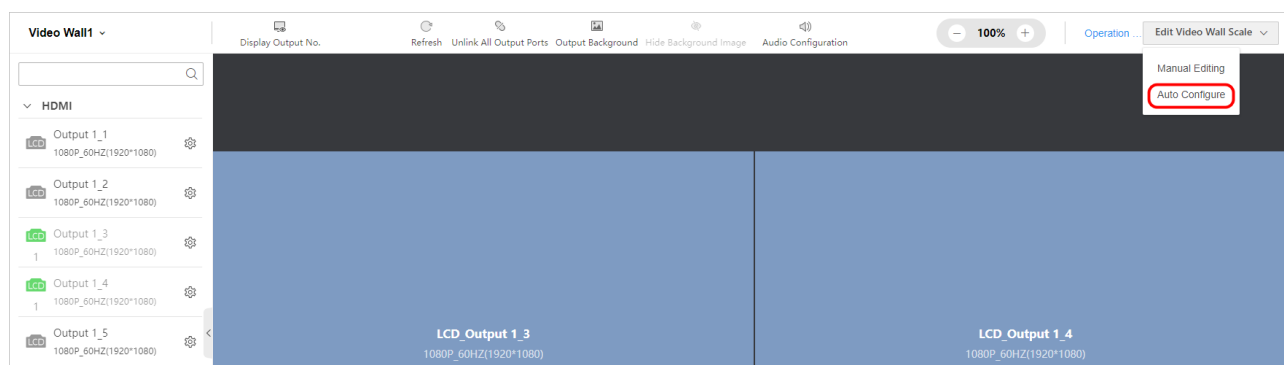


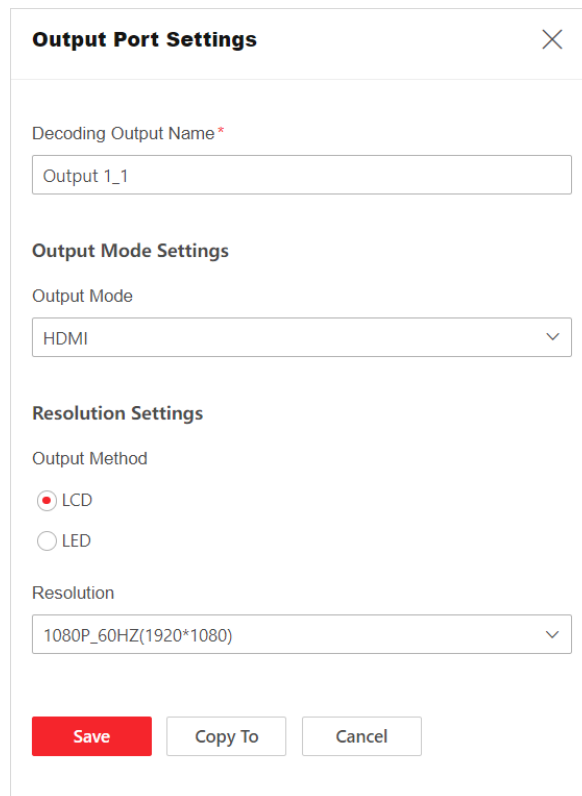
Figure 3-8 Auto Bind Output Ports with Video Wall

Step 2 Click  of an output port on the left to configure the following items:

- Set the output mode of the device according to the actual connection between the device and screen. You can select HDMI, DVI, or AUTO.
 - The DVI mode has better compatibility and the HDMI mode supports embedded audio output.
 - If you select AUTO mode, the device will automatically use the output mode that is supported by the screen.
- If you select LCD output method, select the LCD screen resolution as required.
- If you select LED output method, make sure that the configured width and height of the output port is same as the width and height of the LED screen.
 - If you select the loading mode, enter the width and height of the LED screen. Make sure that the configured resolution (width × height) is smaller than 2.6 MP.
 - If you select the clipping mode, enter the width and height of the LED screen. Make sure that the configured resolution is smaller than the reference resolution that is shown when you select the LCD output method.

Step 3 (Optional) Click **Copy To** to copy the current output configuration to other selected output ports.

Step 4 Click **Save**.



Output Port Settings

Decoding Output Name *

Output 1_1

Output Mode Settings

Output Mode

HDMI

Resolution Settings

Output Method

☒ LCD

☐ LED

Resolution

1080P_60HZ(1920*1080)

Save Copy To Cancel

Figure 3-9 Configure Output Port

Step 5 (Optional) At the top of the **Video Wall Configuration** page, you can perform the following operations as required:

- Click **Output Background** to edit the background color or import images.

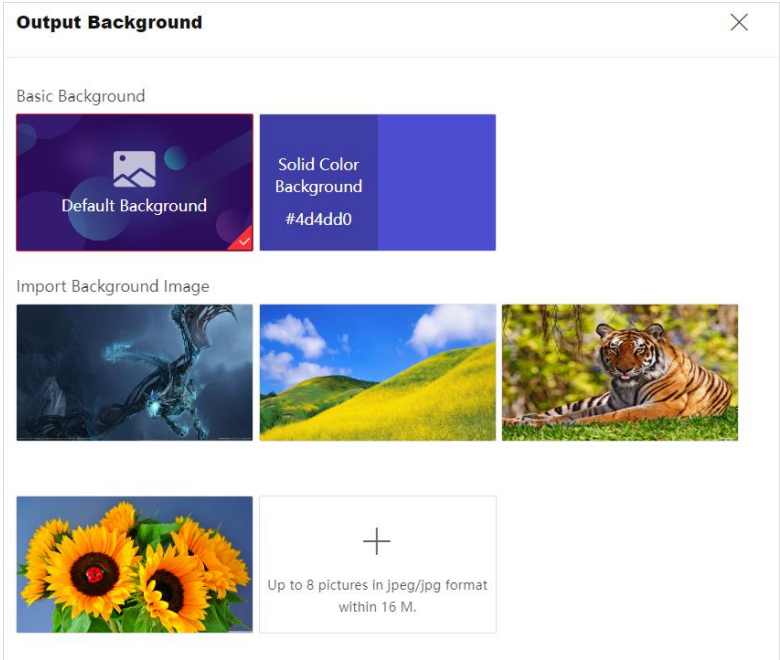


Figure 3-10 Edit Output Background

- Click **Hide Background Image** to hide the background image or click **Show Background Image** to display the background image.

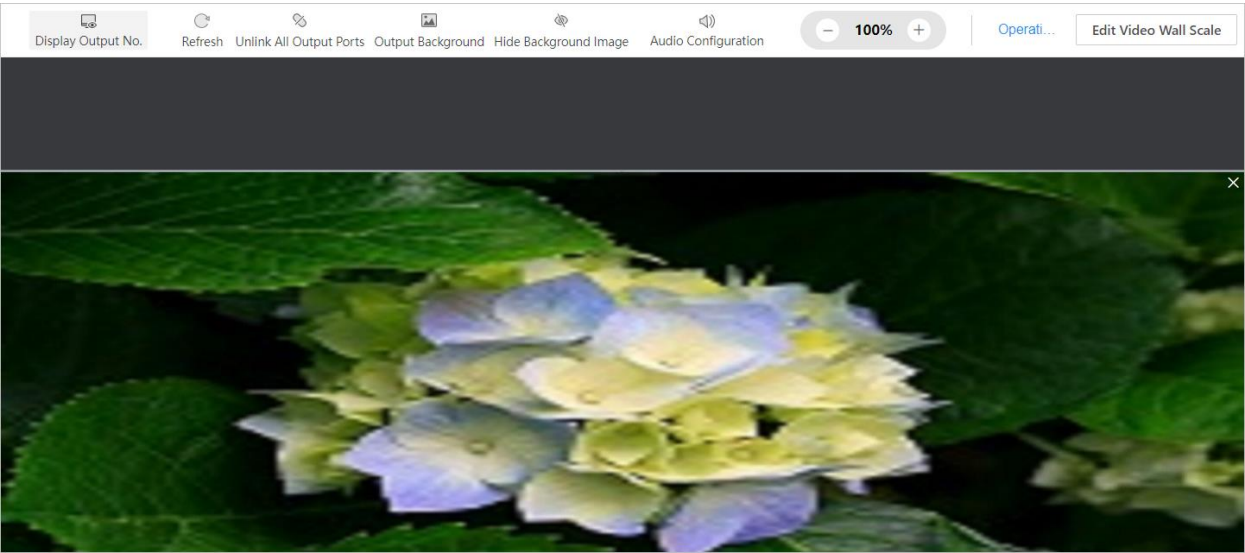


Figure 3-11 Set Background Image Status

- Click **Display Output No.** to display the output port number on the screen.

3.3.3 Configure the Audio Output Port

Step 1 On the **Video Wall Configuration** page, click **Audio Configuration**.

Step 2 Click  at the upper right corner of an audio output port to set it as the audio output port of the video wall.

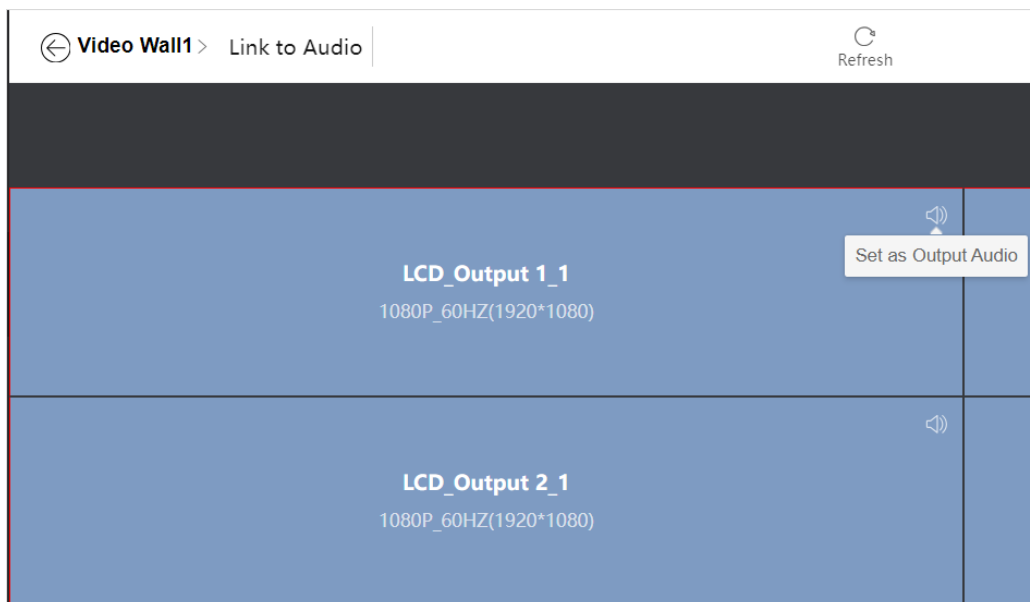


Figure 3-12 Configure the Audio Output Port

Note

- After setting the output audio of the video wall, you need to go to the **Video Wall Operation** page to enable audio. Thus, the audio output is allowed.
- One video wall can be linked with only one audio output port.

3.3.4 Add a Network Signal Source

Add a Network Signal Source via IP Address

Step 1 Go to **Video Wall Operation** → **Source**, click , and select **IP Address**.

Step 2 Enter the signal source information and stream media information.

- Select an added group or click **Add Group** to create a new group.
- Click **More** to select the transmission protocol, stream type, encrypted stream, device manufacturer, and streaming media information.

After enabling **Get Stream via Streaming Server**, you can perform live view data forwarding through the streaming server to reduce network stress.

- If you add an NVR, all channels of the NVR will be automatically added to the device.

Add Signal Source ✕ More ⬆

IP Address DDNS URL

Device Name *

IP Address *

Port No. *

User Name *

Password *

Group *

+ Add Group 1

Transmission Protocol
TCP

Stream Type
Main Stream

Encrypted Stream
☐

Device Manufacturer
HIKVISION

Get Stream via Streaming Server
☐

Stream Media IP Address

Port No.

Transmission Protocol
TCP

Save Cancel

Figure 3-13 Add a Network Signal Source via IP Address

Step 3 Click **Save**.

Add a Network Signal Source via DDNS

Step 1 Go to **Video Wall Operation** → **Source**, click , and select **DDNS**.

Before adding network signal sources via DDNS, you should configure DNS servers on the **TCP/IP** page.

Step 2 Enter the signal source information and stream media information.

- Select an added group or click **Add Group** to create a new group.
- Click **More** to select the transmission protocol, stream type, encrypted stream, device manufacturer, and streaming media information.

After enabling **Get Stream via Streaming Server**, you can perform live view data forwarding through the streaming server to reduce network stress.

- If you add an NVR, all channels of the NVR will be automatically added to the device.

Add Signal Source [X] More [^]

IP Address **DDNS** URL

Device Name *

Host IP Address *

Port No. *

User Name *

Password *

Group *

+ Add Group 1

Transmission Protocol: TCP

Stream Type: Main Stream

Encrypted Stream: [Off]

Device Manufacturer: HIKVISION

Get Stream via Streaming Server: [Off]

Stream Media IP Address

Port No.

Transmission Protocol: TCP

Save Cancel

Figure 3-14 Add a Network Signal Source via DDNS

Step 3 Click **Save**.

Add a Network Signal Source via URL Address

Step 1 Go to **Video Wall Operation** → **Source**, click , and select **URL**.

Step 2 Enter the signal source information.

- Enter the URL address of the signal source. The format of URL address can be any of the following format:
 - rtsp://stream media IP address:554/network camera IP address: port number:HIKDS8000HC: channel number: main stream: username: password/av_stream?linkmode=tcp?smversion=2
 - rtsp://stream media IP address:554/hikvision://network camera IP address: port number: channel number: main stream?username=username?password=password?linkmode=tcp?smversion=4
 - rtsp://network camera IP address:554/ch01/main/av_stream
 - rtsp://username: username password@front-end device IP address:554/ch01
- (Optional) Enable encrypted stream and enter secret key.
- Select an added group or click **Add Group** to create a new group.

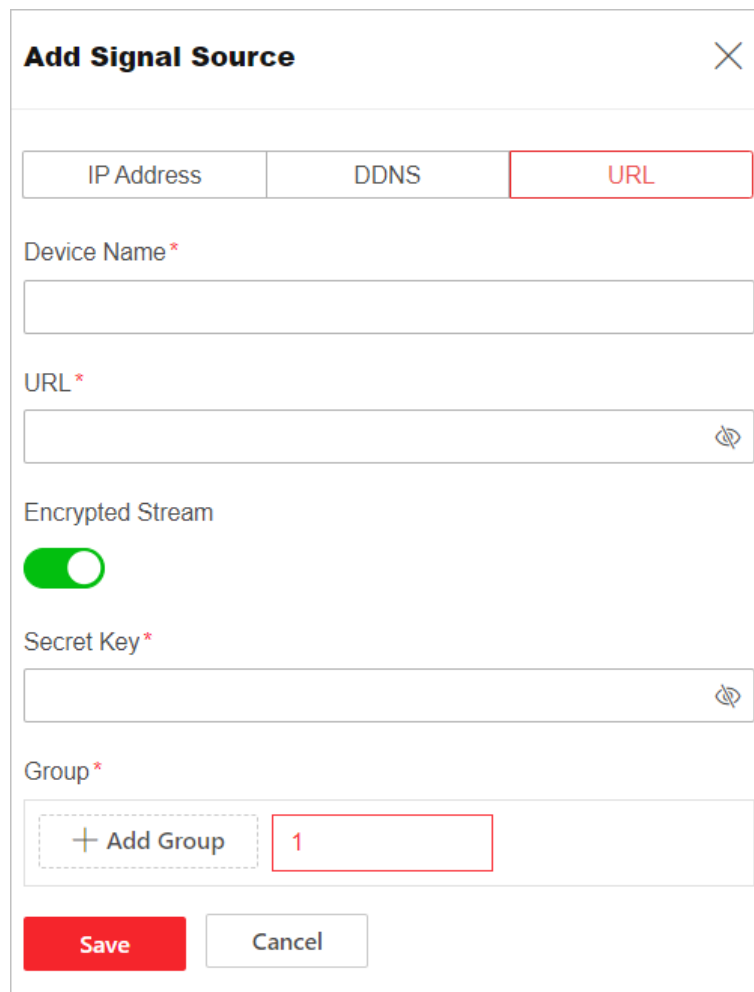


Figure 3-15 Add a Network Signal Source via URL Address

Step 3 Click **Save**.

3.3.5 Batch Delete Network Signal Sources

To batch delete invalid network signal sources, you can select multiple network signal sources with Ctrl or Shift pressed and then click .

3.4 Bind Signal Sources with Video Wall

Step 1 Go to **Video Wall Operation** and then select a video wall.

Step 2 Take either of the following methods to bind signal sources with the video wall:

- Select multiple signal sources with Ctrl or Shift pressed, and drag signal sources rightward to the video wall.

Before dragging a network signal source to the video wall, make sure that the decoding board is in the device.

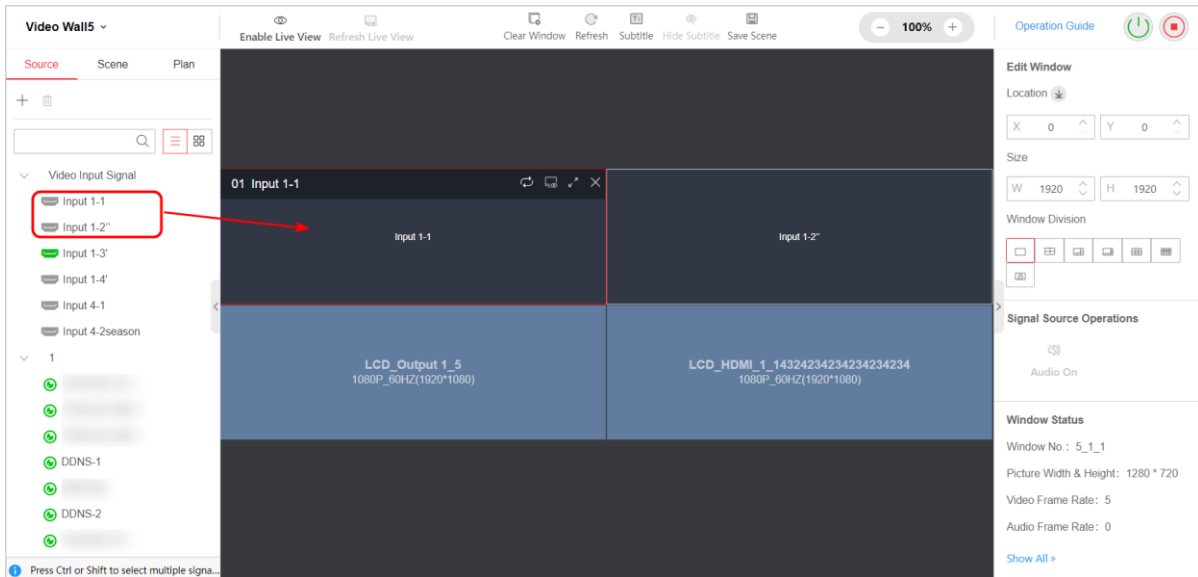


Figure 3-16 Drag Signal Sources to Video Wall

- Drag a signal source folder to the video wall rightward to batch bind multiple signal sources with the video wall.

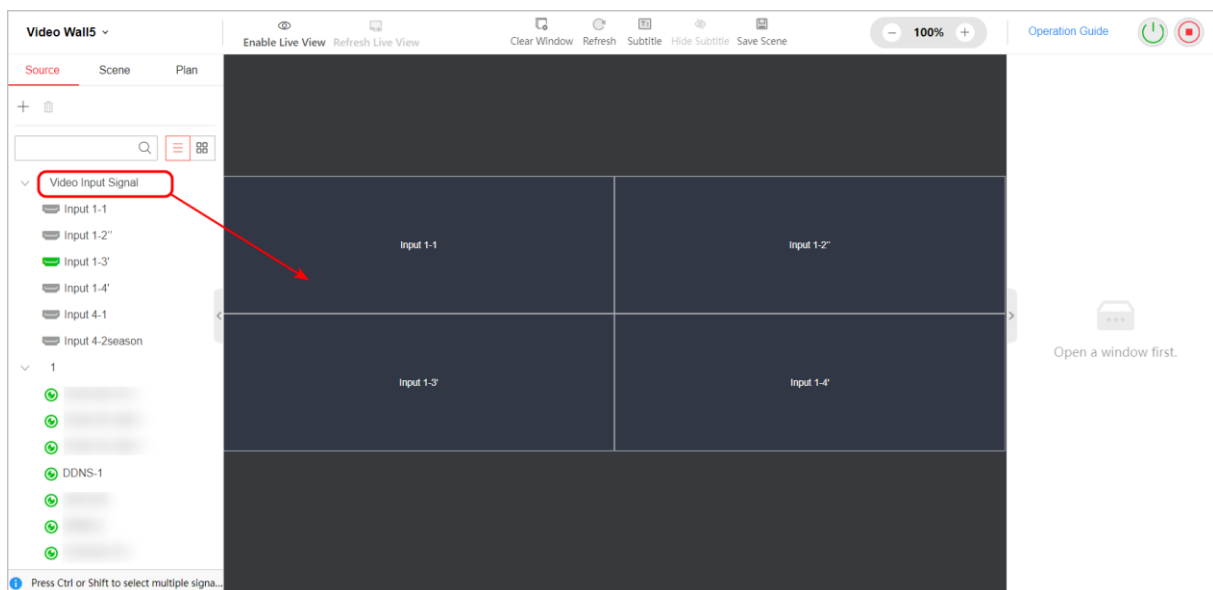


Figure 3-17 Drag a Signal Source Folder to Video Wall

3.5 Operate a Video Wall

3.5.1 Edit a Signal Source Window

Go to **Video Wall Operation** and perform the following operations as required:

- Click  to power on the screen or click  to power off the screen.
- Adjust the position of a signal source window:

- Select a signal source window to move directly.
- Select a signal source window, and enter the specific X and Y values in the pop-up window.

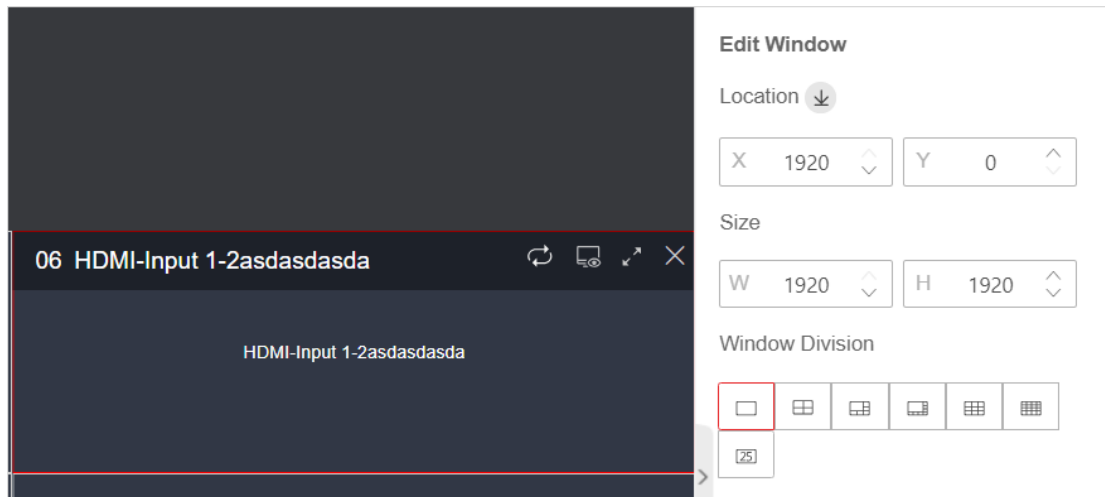


Figure 3-18 Adjust Position of a Signal Source Window

- Divide a signal source window: Select a signal source window, and click the window division icon.
- Adjust the size of a signal source window:
 - Drag the edge of a signal source window to adjust its size.
 - Select a signal source window and enter W and H values in the pop-up window.
 - Click  at the upper right corner of a signal source window to make it fully cover the occupied output ports and click  to restore the original size.

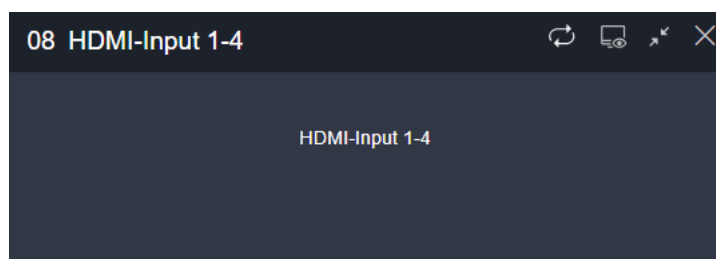


Figure 3-19 Roaming Window

- Select a signal source window, and click  to set the signal source window to the bottom.
- Enable audio for a signal source window.
 - Select a local signal source and configure audio status. Make sure that you have configured the audio output port for the video wall on the **Video Wall Configuration** page.

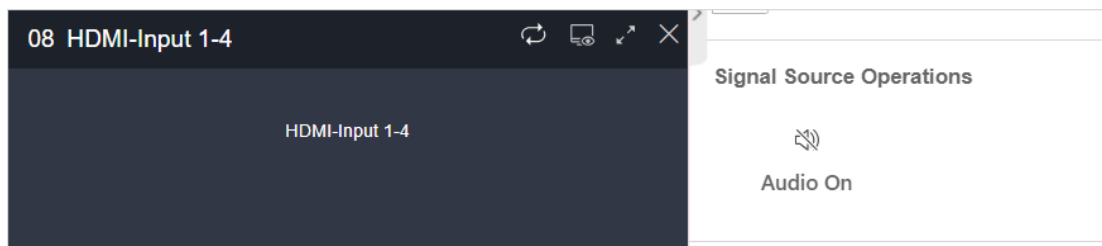


Figure 3-20 Configure Audio for Local Signal Source

- Select a network signal source to configure the decoding status, audio status, decoding delay, and smart decoding. With smart decoding enabled, the device can decode the network camera information.

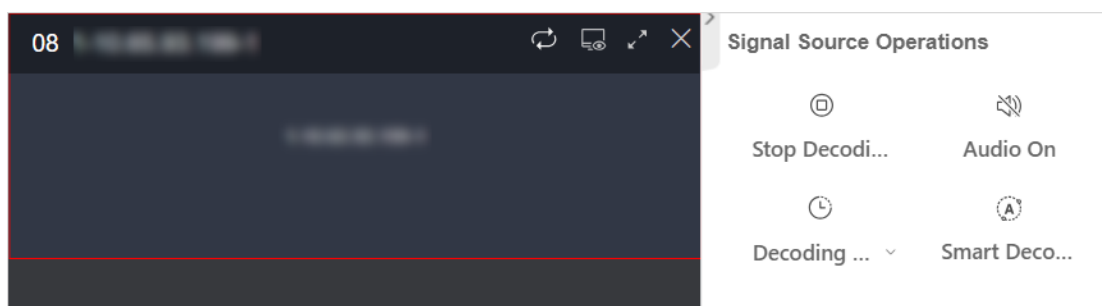


Figure 3-21 Configure Audio for Network Signal Source

- View the window status. You can click **Show All** to enter decoding status list to view details.

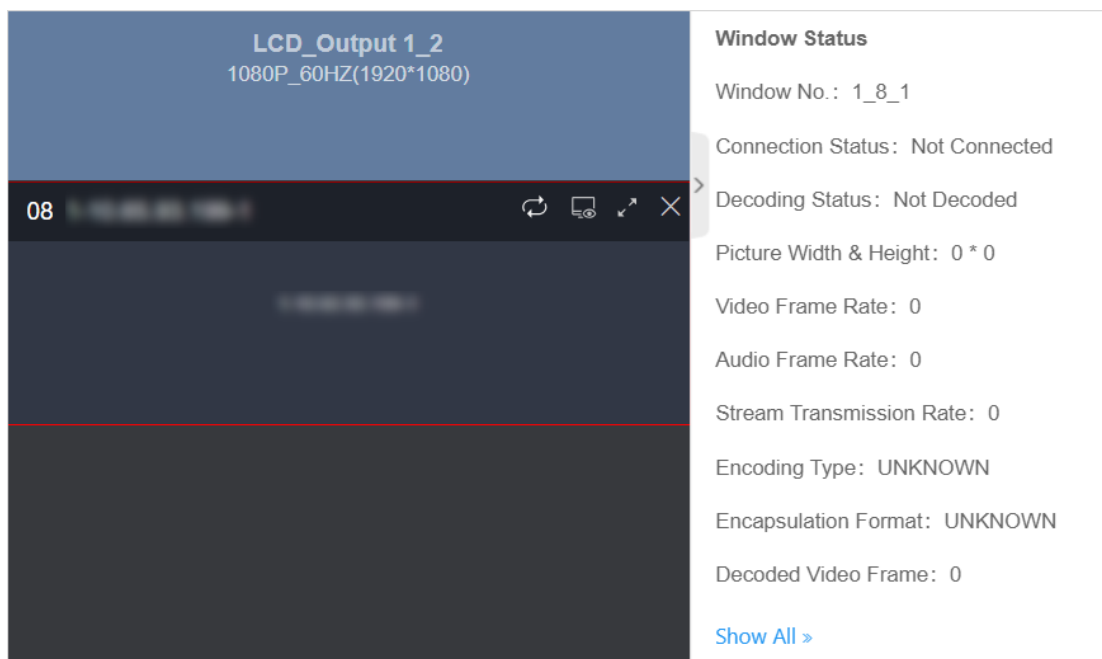


Figure 3-22 View Window Status

- Click  at the upper right corner of a signal source window to set auto-switch for signal sources.

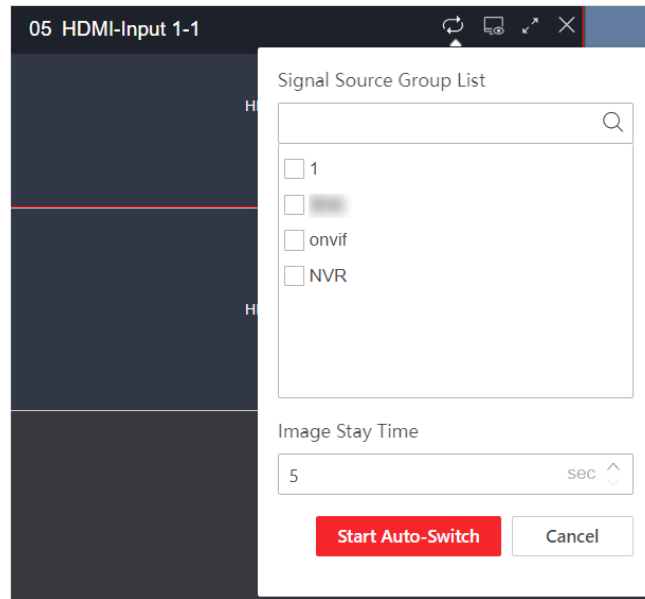


Figure 3-23 Set Auto-Switch

- Preview Signal Source:

- Click  at the upper right corner of a signal source window to preview the signal source. Click  to cancel the live view.
- Click **Enable Live View** at the top of the **Video Wall Operation** page to preview all signal sources on the video wall. Click **Close Live View** at the top of the **Video Wall Operation** page to stop previewing all signal sources on the video wall.
- Click **Refresh Live View** at the top of the **Video Wall Operation** page to refresh the live view of all signal sources.

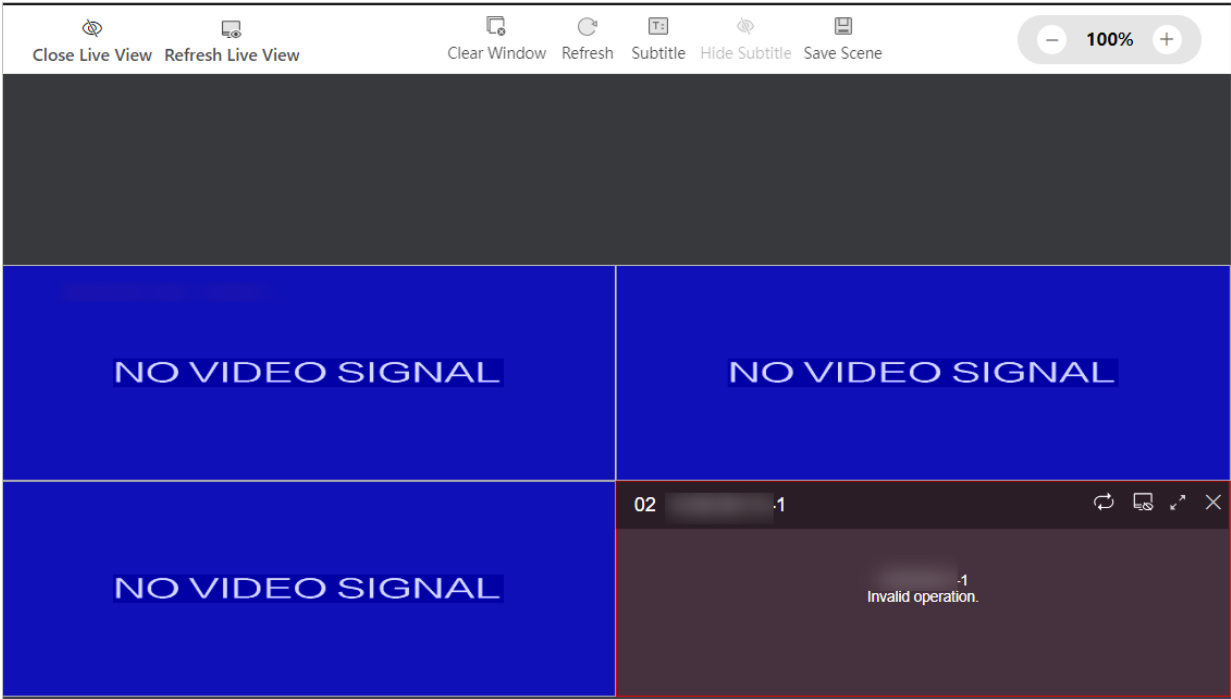


Figure 3-24 Preview Signal Source

- Click **Clear Window** at the top of the **Video Wall Operation** page to clear all bound signal source windows.

3.5.2 Configure Subtitles

Go to **Video Wall Operation**, click **Subtitle**, press and hold the left mouse button to drag subtitles to the video wall. To add multiple subtitles, you can drag the remaining subtitles.

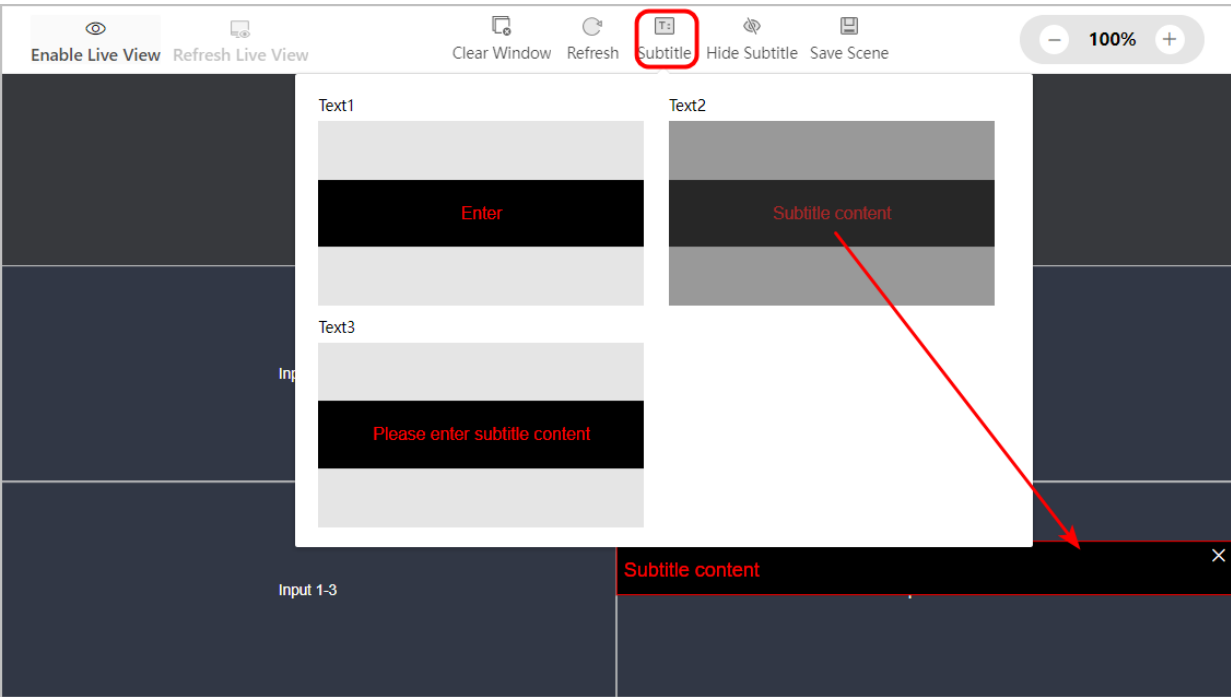


Figure 3-25 Add a Subtitle

- Add a text subtitle:
 - 1) Select **Text** for the subtitle type.
 - 2) Enter the subtitle content, adjust the subtitle position and size, and set the text and background.
 - 3) (Optional) Enable **Move** to set the movement speed.

Subtitle Type

Text Time

Content

Subtitle content 240

Window

Location

X 1920 Y 2215

Size

W 1920 H 480

Text & Background

Font Size

2

Font Color

#ff0000

Font Direction

A=I

Font Style

B

Alignment

Left Center Right

Background Color

#000000

Background Transparency

Cover

Move

Move ☒

Direction

Left

Speed

1 2 3 4

Figure 3-26 Add a Text Subtitle

- Add a time subtitle:
 - 1) Select **Time** as the subtitle type.
 - 2) Adjust the subtitle position and size, adjust the time format, and set the text and background.

- Click **Scene**. Hover over a scene and then click  to delete the scene.

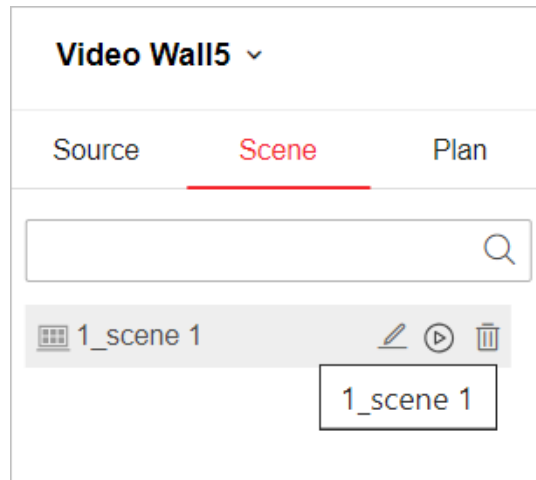


Figure 3-29 Manage Scene

3.5.4 Manage Plans

You can add multiple scenes and set the scene schedule in a plan. Go to **Video Wall Operation** and click **Plan** to manage plans.

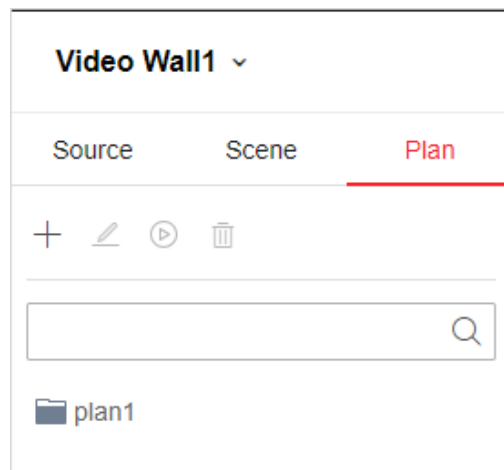


Figure 3-30 Manage Plan

- Click  to add a plan:
 - Set the plan name.
 - Add tasks.
 - (Optional) Execute the plan automatically and set the schedule.
 - Click **Save**.

Add Plan

Plan Name *

Task

+ Add Task Delete

No.	Task	Scene Name	Interval(S)	Sort	Operation
1	Change Scene	scene 2	10		

Execute Plan Automatically

Figure 3-31 Add a Plan

- Click a plan and then click to edit the plan.
- Click a plan and then click to call the plan.

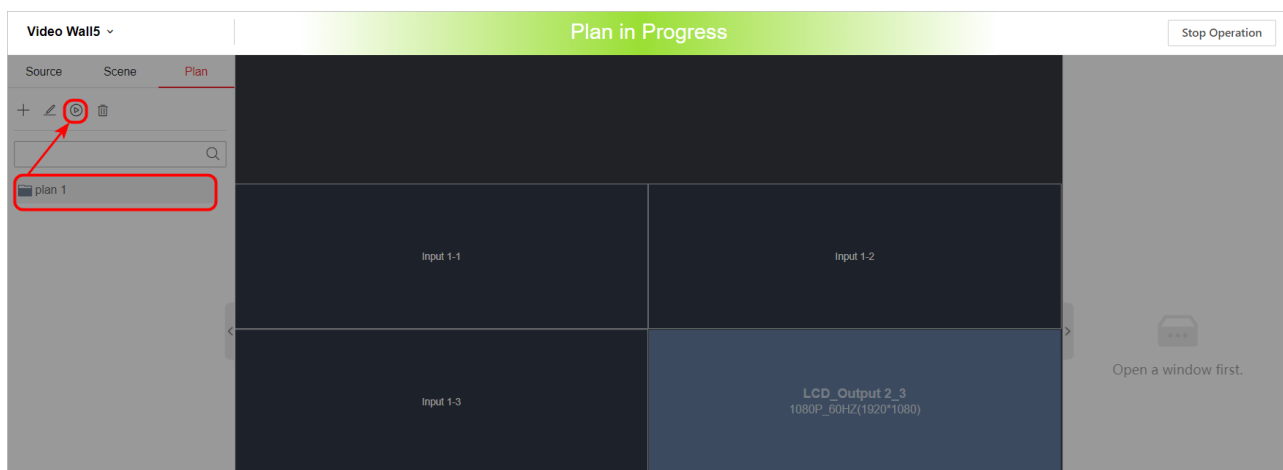


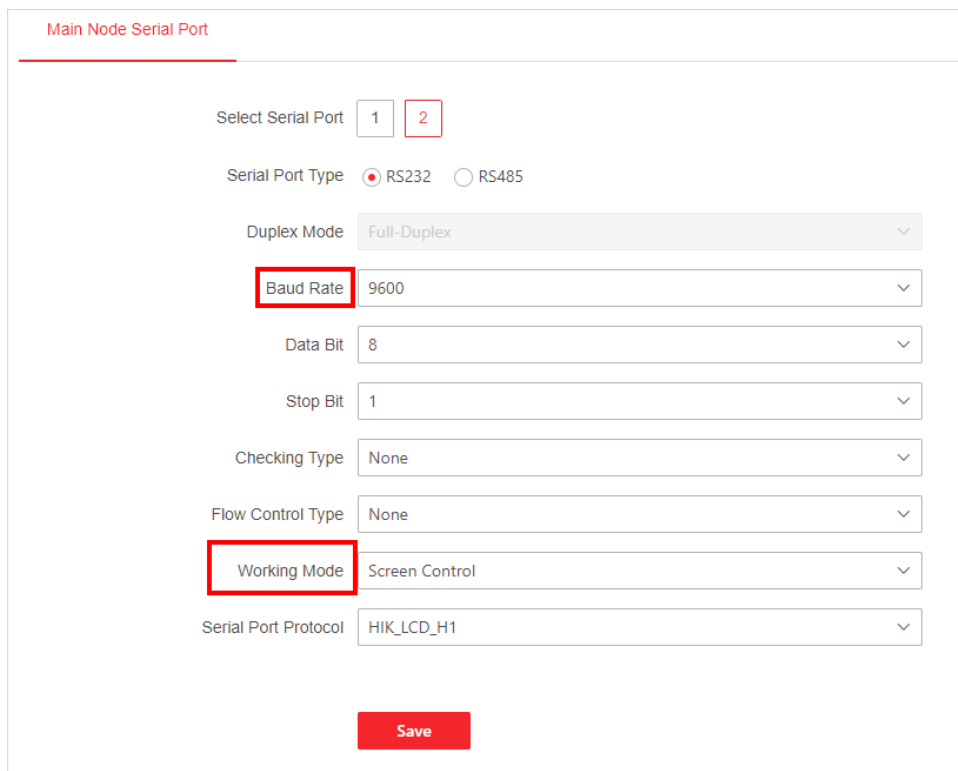
Figure 3-32 Call a Plan

- Click a plan and then click to delete the plan.

3.5.5 Maintain Screens

Control Screen via Serial Port

Step 1 Go to **Configuration** → **System** → **Serial Port Settings** → **Main Node Serial Port**, select serial port 2, select **Screen Control** as the working mode, set the baud rate of the device same as the baud rate of the screen, and set other serial port parameters.



Main Node Serial Port

Select Serial Port: 1 2

Serial Port Type: ☒ RS232 ☐ RS485

Duplex Mode: Full-Duplex

Baud Rate: 9600

Data Bit: 8

Stop Bit: 1

Checking Type: None

Flow Control Type: None

Working Mode: Screen Control

Serial Port Protocol: HIK_LCD_H1

Save

Figure 3-33 Configure Serial Port

Note

The serial port also supports the keyboard control working mode. If you need to use the serial port for keyboard control, select **Keyboard Control** as the working mode, and set the baud rate of the device same as the baud rate of the keyboard.

Step 2 Use a serial port cable to connect a screen and the device.

Step 3 Go to **Screen Maintenance** and select the screen that is connected with the serial port cable.

Step 4 Select an image mode and adjust the backlight.

Step 5 (Optional) Click  to power on the screen or click  to power off the screen.



Figure 3-34 Control Screen via Serial Port

Control Screen via Linkage Protocol

Step 1 Use multiple HDMI cables to connect the device and multiple screens. Make sure all screens support and are enabled with the control linkage function.

Step 2 Go to **Screen Maintenance** and select a screen.

Step 3 Set the image mode and adjust the backlight.

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

- Click **Show** to show the serial number, software version, work duration and device temperature on all screens.
- Click **Copy to All Screens** to copy the current screen image parameters to all screens.
- Click  to power on the screen or click  to power off the screen.

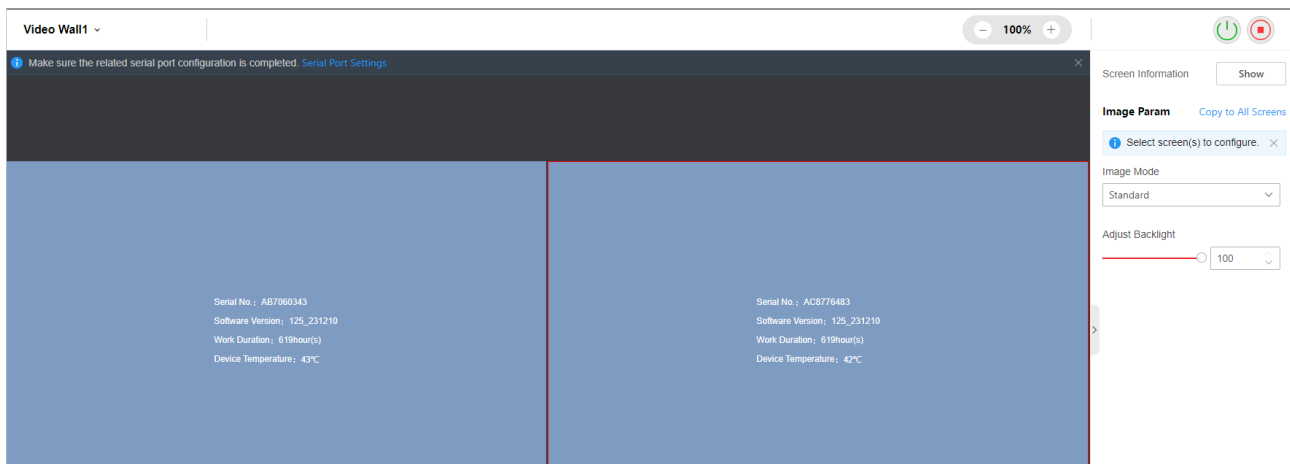


Figure 3-35 Control Screen via HDMI Port

3.6 Configure Display Effect

3.6.1 Edit a Signal Source

Edit a Local Signal Source

Go to **Video Wall Operation**, hover over a local signal source and then click  to edit its parameters:

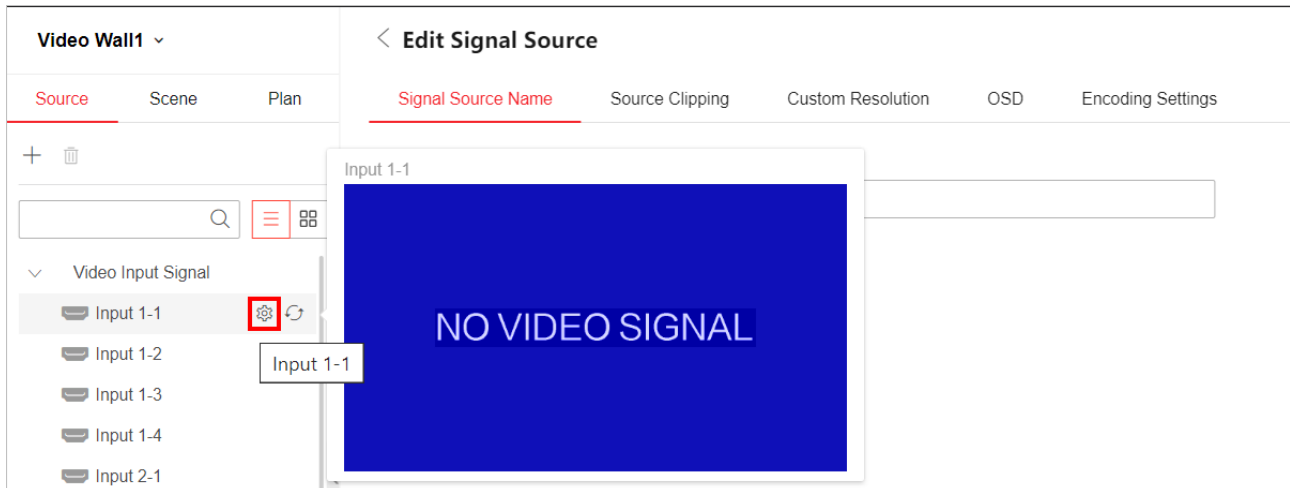


Figure 3-36 Edit a Local Signal Source

- Edit the signal source name.
- Click **Source Clipping**, and set the clipping value at top, bottom, left, and right edges. The clipping value ranges from 0 to 200. The clipping value at the top and bottom edges should be a multiple of 2, and the clipping value at the left and right edges should be a multiple of 4.

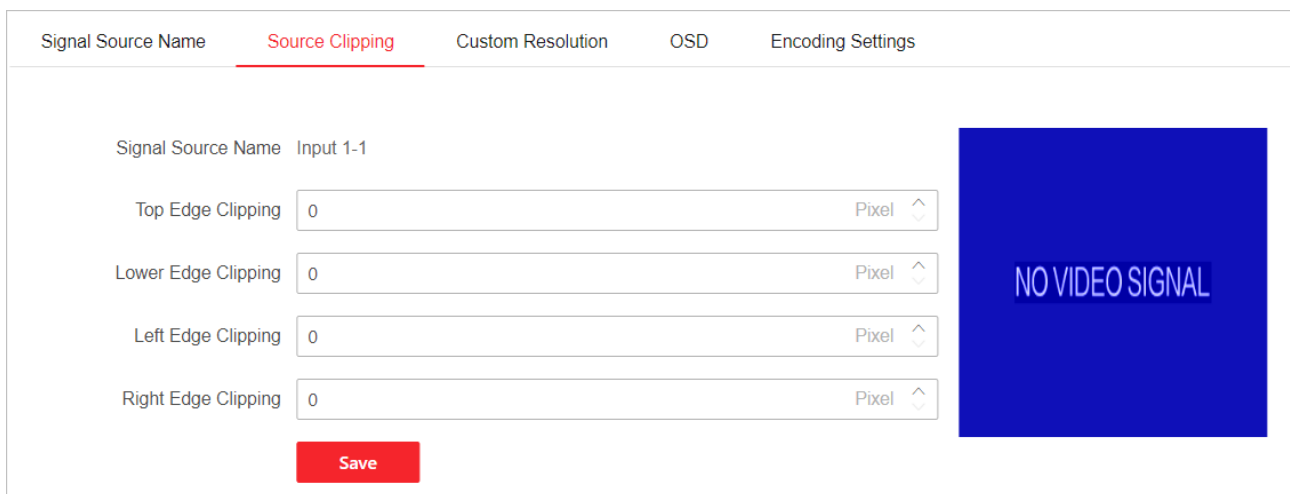
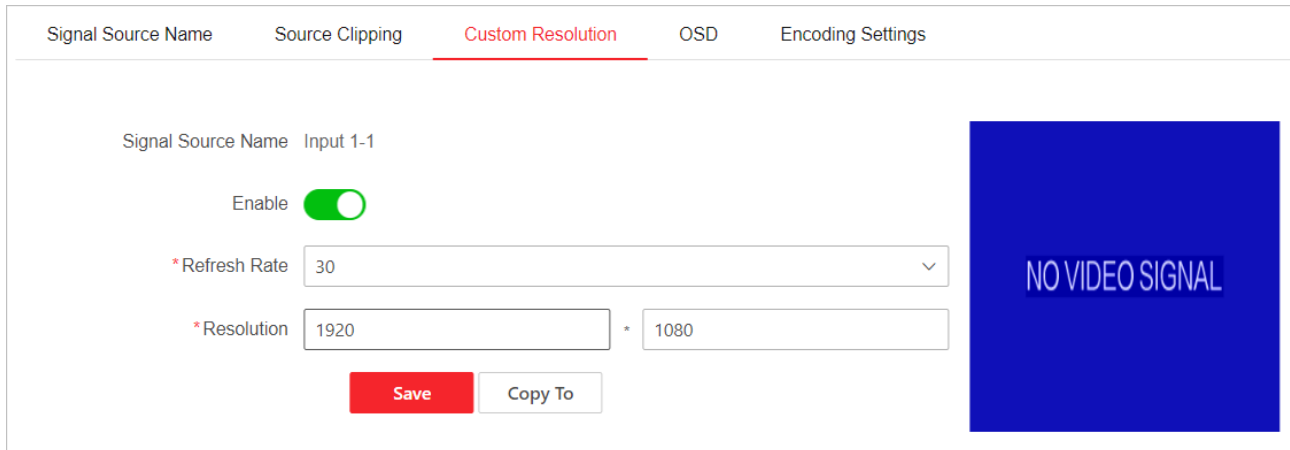


Figure 3-37 Clip a Signal Source

- If the resolution of a signal source does not match the resolution of the screen, you can customize the resolution of signal source.
 - 1) Click **Custom Resolution**.
 - 2) Enable custom resolution and set the refresh rate and resolution. The width should be a multiple of 4 and the height should be a multiple of 2.
 - 3) (Optional) Click **Copy To** to copy the current signal source configuration to other signal sources.
 - 4) Click **Save**.



Signal Source Name Source Clipping **Custom Resolution** OSD Encoding Settings

Signal Source Name Input 1-1

Enable ☒

*Refresh Rate 30

*Resolution 1920 * 1080

Save Copy To

NO VIDEO SIGNAL

Figure 3-38 Customize Resolution

- You can add multiple OSDs (On-Screen Displays) to the input signal image.
 - 1) Click **OSD**.
 - 2) Configure the font size, font color, and font direction.
 - 3) (Optional) Overlay the channel name to the input signal image. Set the channel name and adjust the channel name position. You can enter the position values or directly drag the character to adjust the position.
 - 4) (Optional) Overlay date and time to the input signal image. Select the format and adjust the position.
 - 5) (Optional) Overlay text to the input signal image. Switch on **Enable**, enter content, select font size and color, and adjust the text position.
 - 6) Click **Save**.
 - 7) (Optional) Click **Copy To** to copy the current signal source configuration to other signal sources.

Figure 3-39 Add OSDs

- Edit the encoding parameters:
 - 1) Click **Encoding Settings**.
 - 2) Set the video encoding parameters.
 - Set the bit rate type and maximum bit rate. If you select **Constant Bit Rate**, the device uses the average bit rate for transmission and uses fast compression speed. The video mosaic might occur. If you select **Variable Bit Rate**, the device automatically adjusts the bit rate for transmission as long as the bit rate is within the limit and uses slow compression speed to ensure the image definition in complex scenarios.
 - If you select **Variable Bit Rate**, you should select a video quality. The higher video quality, the higher the bandwidth requirement.
 - Enter an I-frame interval. The larger the I-frame interval, the smaller the stream fluctuation, and the lower the image quality.
 - Select a resolution. The higher resolution, the higher the bandwidth requirement.
 - Select an encoding type and video type.

- 3) Select an audio encoding type and an input audio mode.
- 4) Click **Save**.

Signal Source Name Source Clipping Custom Resolution OSD **Encoding Settings**

Signal Source Name Input 1-1

Video Encoding

Stream Type ☐ Main Stream (Scheduled) ☒ Sub-stream

Bit Rate Type ☐ Variable Bit Rate ☒ Constant Bit Rate

Video Quality Medium ▼

*I-Frame Interval 60

*Custom Max. Bit Rate 512 ▼ kbps

Resolution 704*576 ▼

Frame Rate 20 ▼ fps

Encoding Type ☐ H.264 ☒ H.265

Video Type ☐ Video Stream ☒ Video and Audio Stream

Audio Encoding

Encoding Type G.722.1 ▼

Save

Figure 3-40 Set Encoding Parameters

Edit a Network Signal Source

Go to **Video Wall Operation**, hover over a network signal source and then click  to edit its parameters.

When the added network signal source supports multiple channels, you can click **Copy to** to copy the user name, password, and encrypted stream information to other channels of the same network signal source.

Edit Signal Source

Device Name *

nvr-0

IP Address *

Port No. *

8000

User Name *

user

Password *

.....

Group *

+ Add Group

nvr

More

Transmission Protocol

TCP

Stream Type

Main Stream

Encrypted Stream

Device Manufacturer

HIKVISION

Channel No.

0

Get Stream via Streaming Server

Stream Media IP Address

Port No.

Transmission Protocol

TCP

Save

Copy To

Cancel

Figure 3-41 Edit a Network Signal Source

3.6.2 Set Other Parameters

Go to **Configuration** → **Other Settings** to set the following parameters:

- Enable **Sub-Stream Auto-Switch** and set the window division threshold.
If the window division reaches the window division threshold, the device will automatically use sub-stream to get the images. In low bandwidth networks, you can use sub-stream to get relatively smooth images with a small bandwidth footprint.

Sub-Stream Auto-Switch

Display Settings

Decoding Delay

Enable

Division Threshold

16

Save

Figure 3-42 Set Sub-Stream Auto-Switch

- Click **Display Settings** to configure the content displayed when decoding ends, when streaming fails, and when the decoding resource is insufficient.

If you select **Connection Exception**, the specific streaming failure reason will be displayed on the screen.

Figure 3-43 Set Display Content

- Click **Decoding Delay** and select a default decoding delay level.

Figure 3-44 Set Decoding Delay

3.7 Configure the Device

3.7.1 Configure System Parameters

Go to **Configuration** → **System** to configure the following parameters:

- Go to **System Settings** → **Basic Information** to view the device information and edit the device name as required. You can click **Upgrade** to go to the **Upgrade** page.

Basic Information

Time Settings

Font Settings

* Device Name

Video Integrated Platform

MAC Address

00:00:00:00:00:00

Model

DS-B31-1632HU

Device Serial No.

00000000000000000000000000000000

Main Control

00.0.0.00000000

Upgrade

Decoder Version

00.0.0.00000000

Web Version

00.0.0.00000000

Plug-in Version

00000000

Save

Figure 3-45 View Basic Information

- Go to **System Settings** → **Time Settings**, if you select **NTP Sync**, the device clock synchronizes with the clock of the NTP server at the specified interval.
 - Set the address and port number of the NTP server.
 - Set the synchronization interval.

Device Time

2024-03-28 15:39:36

Time Zone

(GMT+08:00) Beijing, Urumqi, Singapore, Perth

▼

Time Sync Mode

☒ NTP Sync

☐ Manual Time Sync

* Server Address

000.000.000.000

* NTP Port

123

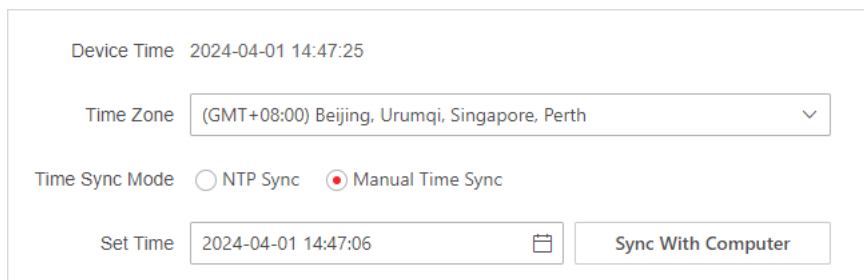
* Time Sync Interval

1

min

Figure 3-46 Select NTP Sync

- On the **Time Settings** page, if you select **Manual Time Sync**, you can click **Sync with Computer** to make the device time same as the computer time.



Device Time 2024-04-01 14:47:25

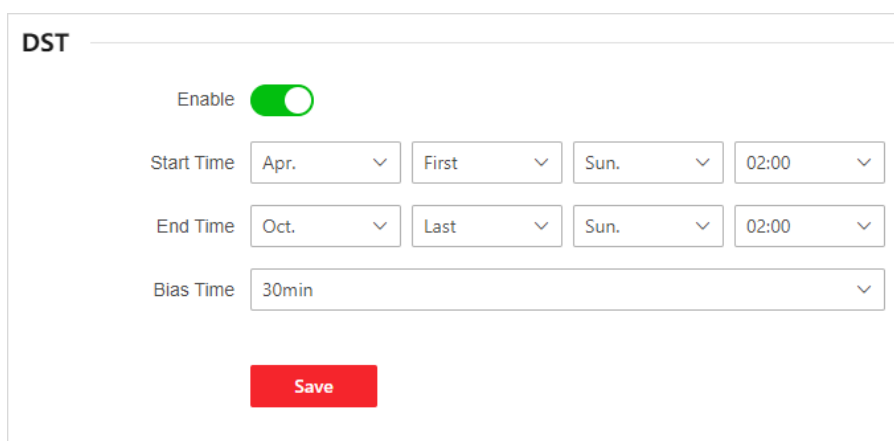
Time Zone (GMT+08:00) Beijing, Urumqi, Singapore, Perth

Time Sync Mode ☐ NTP Sync ☒ Manual Time Sync

Set Time 2024-04-01 14:47:06 Sync With Computer

Figure 3-47 Select Manual Time Sync

- On the **Time Settings** page, if you enable DST (Daylight Saving Time), the device clock is set forward a specified time during the summer months.
 - Set the start time and end time.
 - Set the bias time.



DST

Enable ☒

Start Time Apr. First Sun. 02:00

End Time Oct. Last Sun. 02:00

Bias Time 30min

Save

Figure 3-48 Enable DST

- Go to **System Settings** → **Font Settings** to set the font of OSDs and subtitles. You can use the default font, or click **Add** to import a new font.

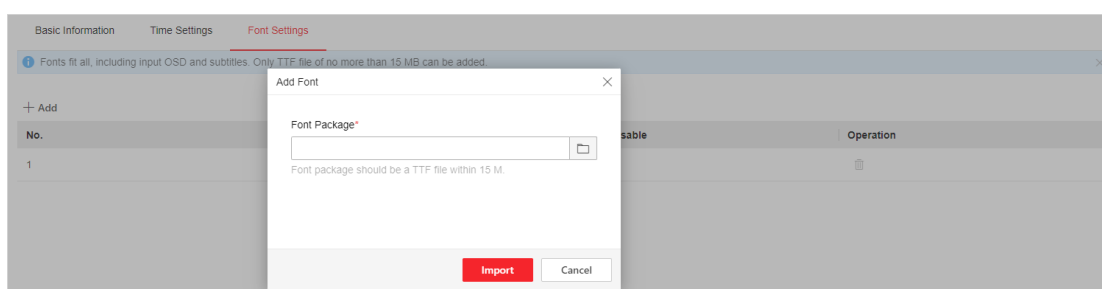


Figure 3-49 Set Font

- Go to **User Management** → **User Management** to add users, edit the user name or password, or delete the users. When the user type is administrator, you cannot edit or delete it.

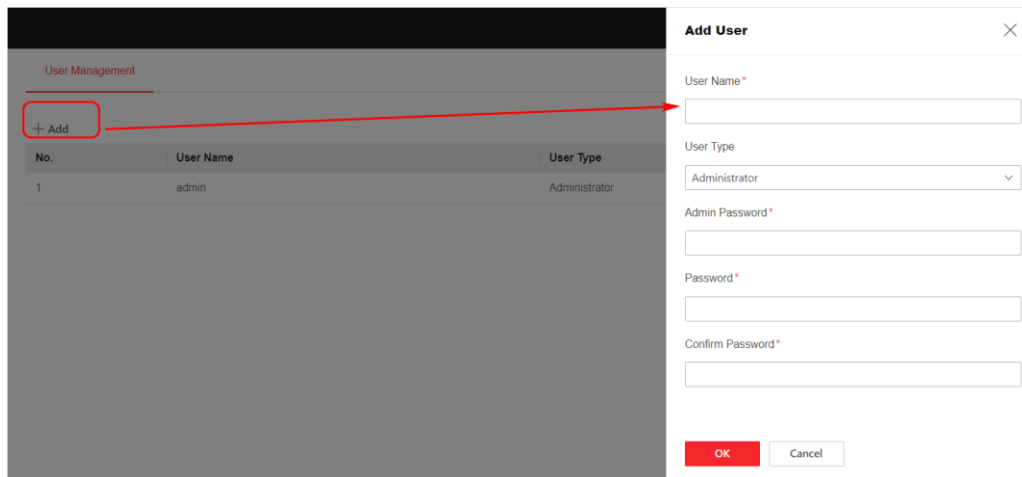


Figure 3-50 Manage Users

3.7.2 Configure HTTP(S) Parameters

Step 1 Go to **Configuration** → **Network** → **Network Service** → **HTTP(S)**.

Step 2 Set the HTTP port number.

The port number can be either 80 or any value from 2000 to 65535. After editing the HTTP port, you need to enter HTTP://Device IP Address: Port in the browser to access the device.

Step 3 Enable HTTPS and then set the HTTPS port.

The default port number is 443. After editing the HTTPS port, you need to enter HTTPS://Device IP Address: Port in the browser to access the device.

Step 4 (Optional) Enable redirect to HTTPS automatically. Thus, the device access via HTTPS is used by default.

Step 5 Click **Save**.

The screenshot displays the 'HTTP(S)' configuration page. It has a red header bar with the text 'HTTP(S)'. Below this, there are two main sections: 'HTTP' and 'HTTPS'. In the 'HTTP' section, there is a label '* HTTP Port' followed by a text input field containing the value '80'. In the 'HTTPS' section, there is an 'Enable' toggle switch that is currently turned on (green). Below the toggle, there is a label '* HTTPS Port' followed by a text input field containing the value '443'. At the bottom of the 'HTTPS' section, there is a label 'Redirect to HTTPS Automatically' followed by a toggle switch that is currently turned off (grey). At the very bottom of the page is a red button with the text 'Save'.

Figure 3-51 Configure HTTP (S) Parameters

3.7.3 Configure Event

Step 1 Go to **Configuration** → **Event**.

Step 2 Set the highest temperature and lowest temperature thresholds for the device.

Step 3 Configure the audible warning and alarm reporting to the platform when the following exceptional events occur:

- The IP address of the device is the same as that of other devices in the network.
- Incorrect user name or password.
- Network is disconnected.
- The device temperature is too high or too low.
- The fan status is abnormal.
- The video loss occurs.
- The decoding signal source is abnormal.

Step 4 Click **Save**.

Device Exception Alarm

IP Address Conflict	☐ Trigger Audible Warning	☐ Report to the Platform
Invalid Access	☐ Trigger Audible Warning	☐ Report to the Platform
Network Disconnected	☐ Trigger Audible Warning	☐ Report to the Platform
Temperature Alarm	☐ Trigger Audible Warning	☐ Report to the Platform
Fan Exception	☐ Trigger Audible Warning	☐ Report to the Platform
Video Loss	☐ Trigger Audible Warning	☐ Report to the Platform
Source Decoding Exception	☐ Trigger Audible Warning	☐ Report to the Platform

Device Working Status Alarm

Below Above

Temperature Alarm

Save

Figure 3-52 Set Device Exception Alarm

3.8 Maintain the System

Go to **Maintenance and Security** → **System Maintenance** to configure the following parameters:

- Click **Restart** to restart the device.

- Click  to select an upgrade file, and click **Upgrade**. You need to get the upgrade file in advance and save it locally.

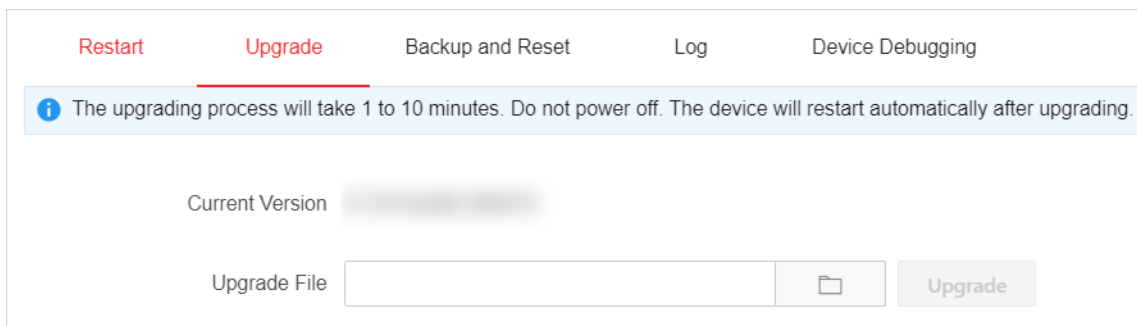


Figure 3-53 Upgrade the System

- Backup the device parameters.
- Backup the scene parameters.
- Reset the device:
 - Click **Restore Default** to restore the parameters except for user information and network parameters to the default settings. Please use this function with caution.
 - Click **Restore Factory** to restore all functions and parameters of the device to the factory settings. Please use this function with caution.
 - Click  to select a device parameter file saved locally, and click **Import** to import device parameters.
 - Click  to select a scene parameter file saved locally, and click **Import** to import scene parameters.

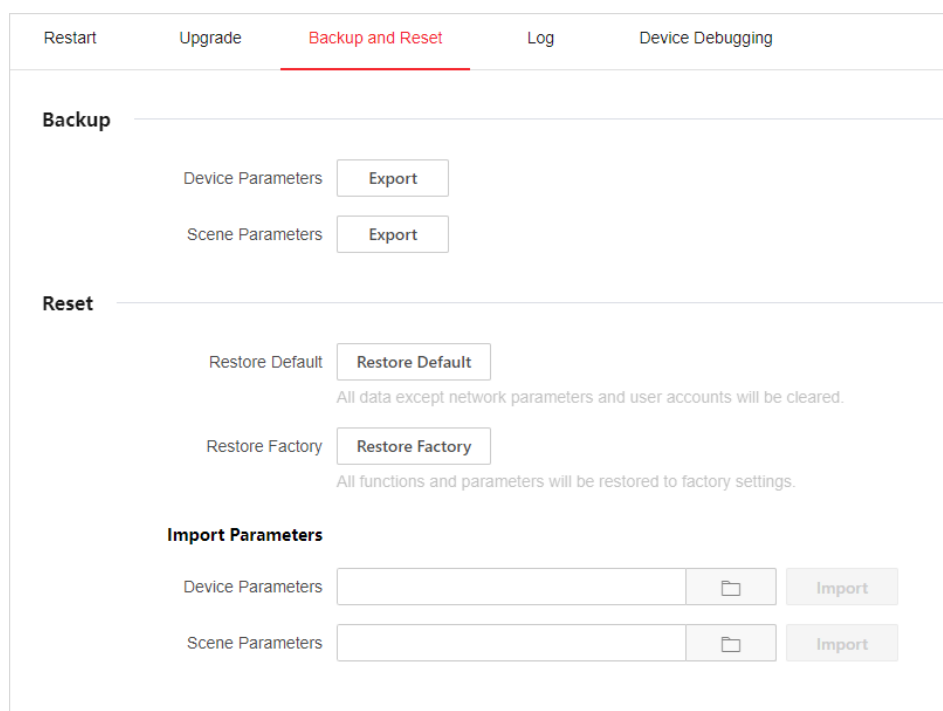


Figure 3-54 Backup and Reset Device Parameters

- Search logs: Click **Log** to set the search condition and click **Search**. You can view the searched logs in the list below. You can click **Export CSV File** to export the searched logs.

Main Type

Sub Type

Time

All Types

All Types

2024-06-24 00:00:00 - 2024-06-24 23:59:59

Search

Reset

☐ Export CSV File

No.	Time	Main Type	Sub Type	Remote Host IP	Description
-----	------	-----------	----------	----------------	-------------



No logs. Search first.

Figure 3-55 Search Logs

- Click **Device Debugging** to configure the following parameters:
 - Enable SSH (Secure Shell) as required. With SSH enabled, you can use a computer installed with the SSH client to access the device.
 - Format the USB flash drive before inserting it into the device. Only the USB flash drives in FAT32 format are supported. Insert a USB flash drive into the device, and click **Start Exporting** to export the logs to the USB flash drive.
 - Select a sub-system, click **Start Capturing** and then you can download the obtained packet capture file.
 - Send a shell command and then check the response message.

SSH

Enable ☒

*Port No.

Export Logs to USB

Start Exporting ☐

USB Drive Status No USB flash drive.

Export Network Switching Packet

Subsystem

Packet Capture File


Please click Start Capturing.

Shell Command Operation

Shell Command

Status

Response Message


Please send command first.

Figure 3-56 Debug the Device

3.9 Maintain the Device Security

Go to **Maintenance and Security** → **Security Management** to configure the following parameters:

- Configure the IP addresses that are allowed to or forbidden to access the device.

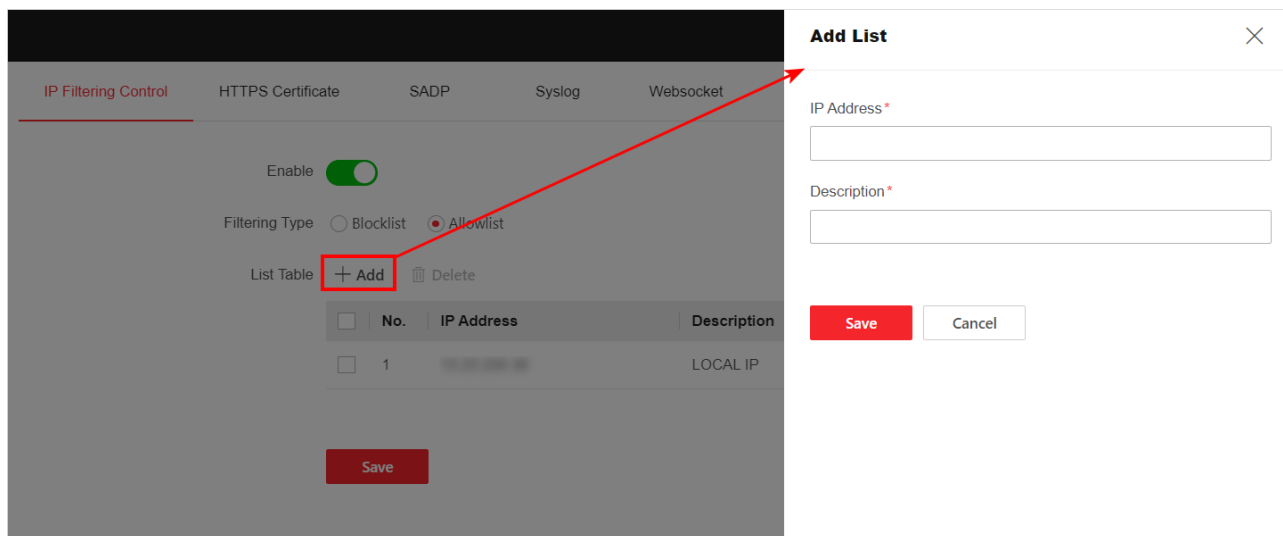


Figure 3-57 Configure IP Address Filter

- Import the locally saved HTTPS certificate and secret key.

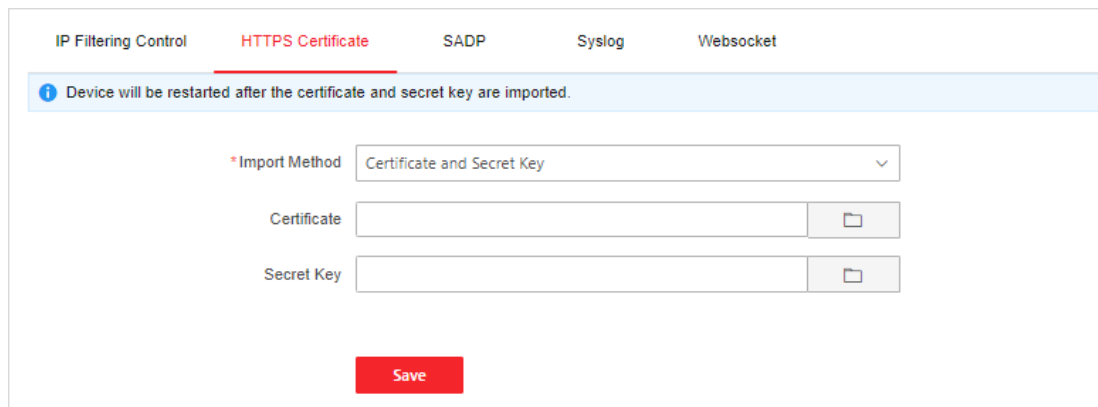


Figure 3-58 Import HTTPS Certificate and Secret Key

- Enable SADP as required. With SADP enabled, you can use the SADP software to search the device when it is in the same network segment with the computer.
- Enable Syslog as required. With Syslog enabled, the device logs can be uploaded to the Syslog server.

Enable ☒

* Server IP Address

* Port No.

8543

* Uploading Period

1

h

* Protocol Type

TCP

Save

Figure 3-59 Enable Syslog

- Enable Websocket as required. With Websocket enabled, you can export the stream of network signal sources.

3.10 View Device Status

Click **Overview** to view the decoding resource status, network status, and device status.

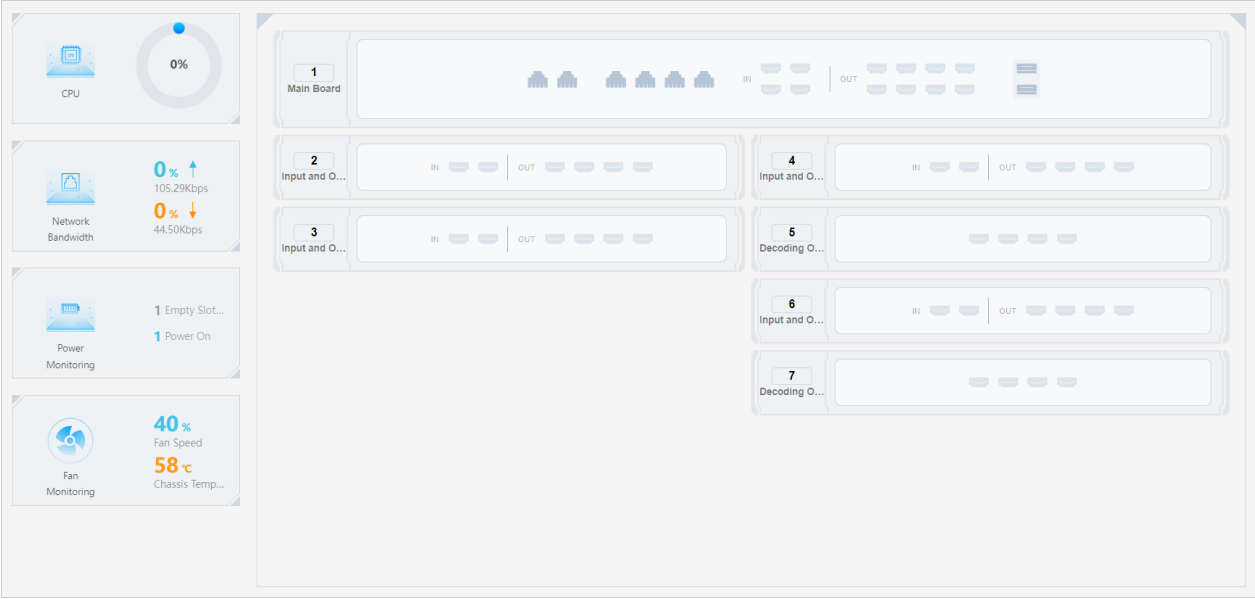
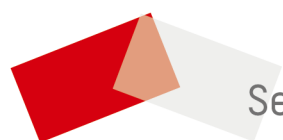


Figure 3-60 View Device Status



See Far, Go Further