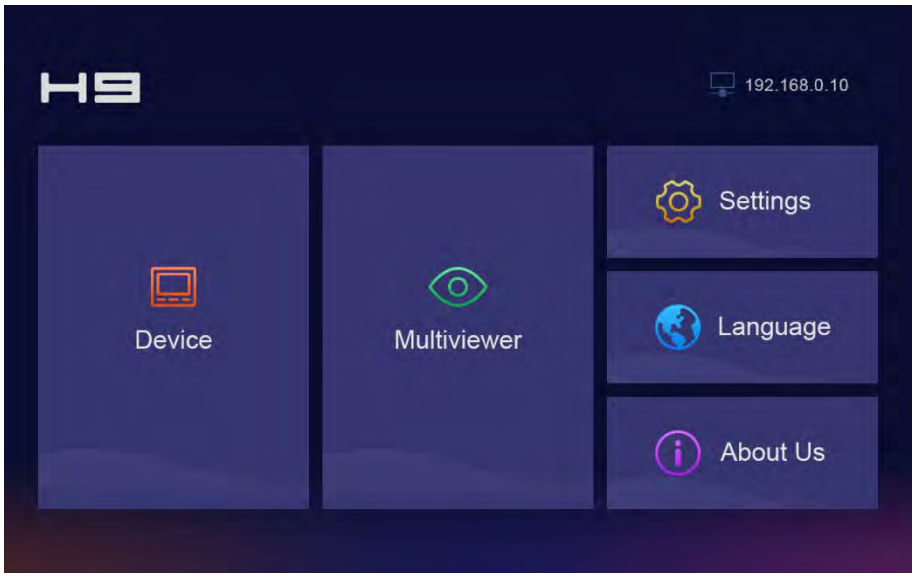
5 LCD Menu Introduction

After the device is successfully powered on, the home screen is displayed as follows.

Figure 5-1 Home screen



5.1 Device

Select **Device** to view the device-related information.

Figure 5-2 Device



You can view the device serial number (SN) and the connection statuses of all connectors.

- Green connector: The connector is connected normally.
- White connector: The connector is not connected yet.
- Gray connector: The connector is unavailable.

Below the connector area, the device temperature, fan and power statuses are displayed.

5.2 Multiviewer

View the input and screen monitoring information.

Figure 5-3 Multiviewer



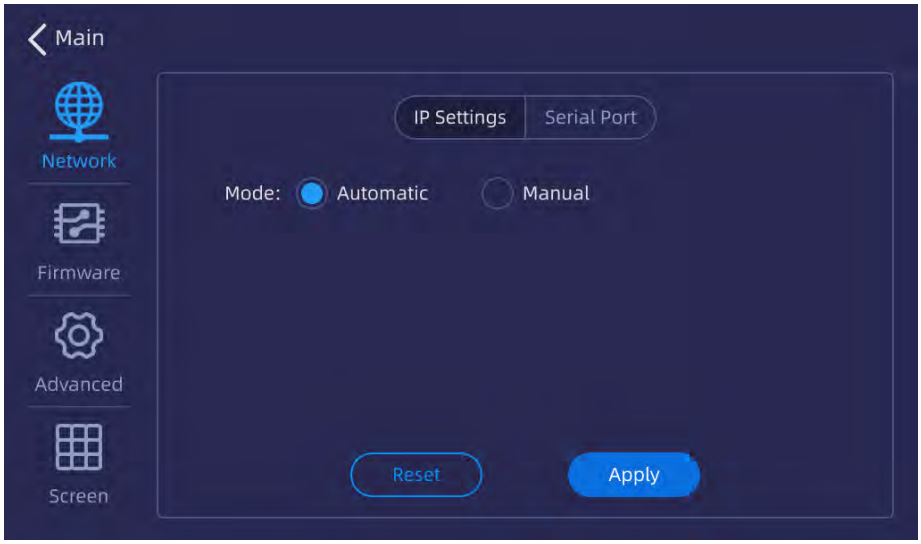
5.3 Settings

Set the device network mode, other advanced properties, and view the firmware version.

5.3.1 Communication Settings

Set the network parameters for the device.

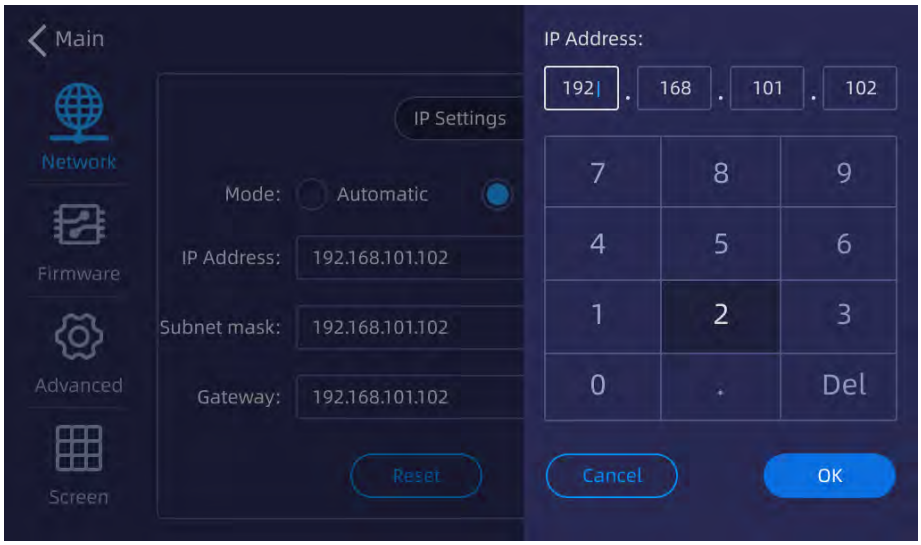
Figure 5-4 Communication



IP Settings

Set to obtain an IP address automatically or manually. When a router or switch is used, it is recommended you select the **Automatic** option. The device IP address will be assigned by the router or switch. When the **Manual** option is selected, you must set the device IP address, subnet mask and gateway.

Figure 5-5 IP settings



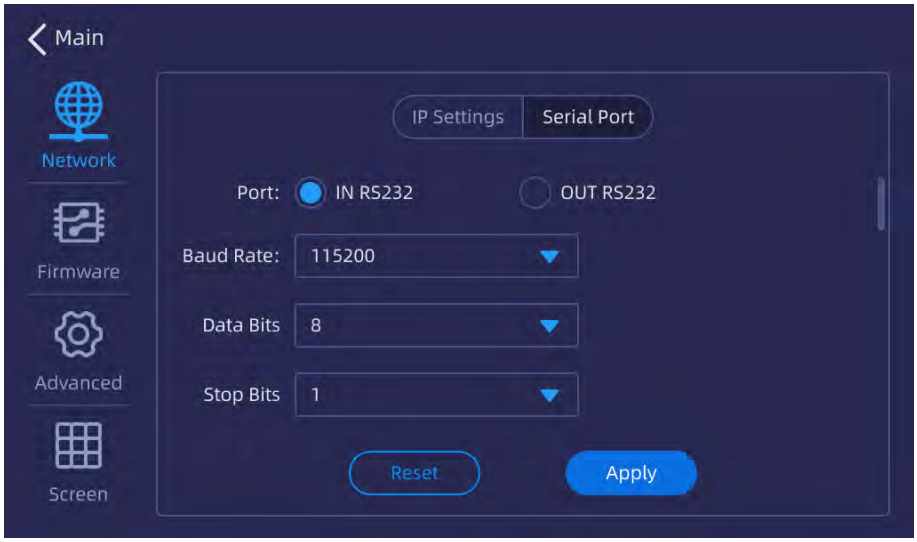
Note:

When you select to obtain the IP address manually, the IP addresses of both the device and control PC must be on the same network segment.

Serial Port Settings

Set the baud rate, data bits, stop bits and other related information for the RS232 serial port.

Figure 5-6 Serial port settings



5.3.2 Firmware Version

View the versions of all cards.

Figure 5-7 Firmware version

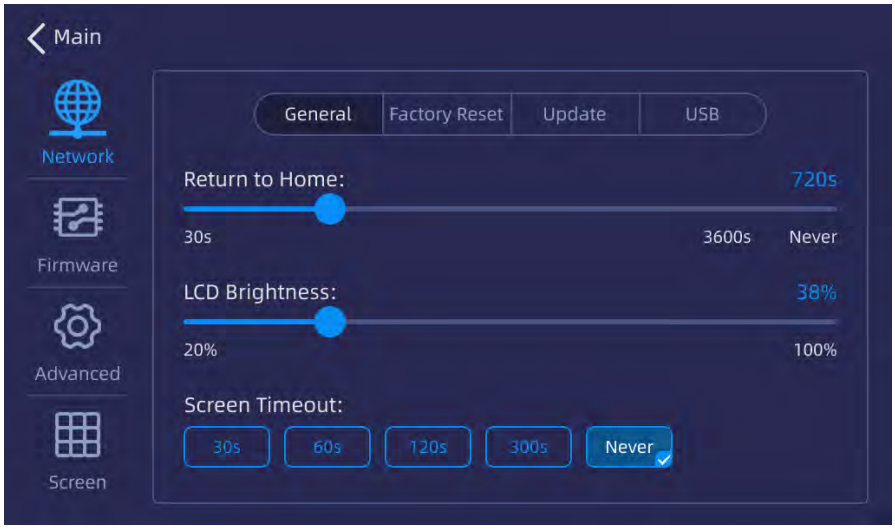


5.3.3 Advanced Settings

The advanced settings include the device general settings, factory reset, firmware update and USB import and export.

Select **Advanced** to enter the advanced setting screen.

Figure 5-8 Advanced settings



General Settings

Select **General** and you can perform the following operations.

- Return to Home: Set the period time during which the system stays at the current screen before returning to the home screen automatically when no operation is performed. The default value is **60s** and the value range is **0s** to **3600s** and **Never**.

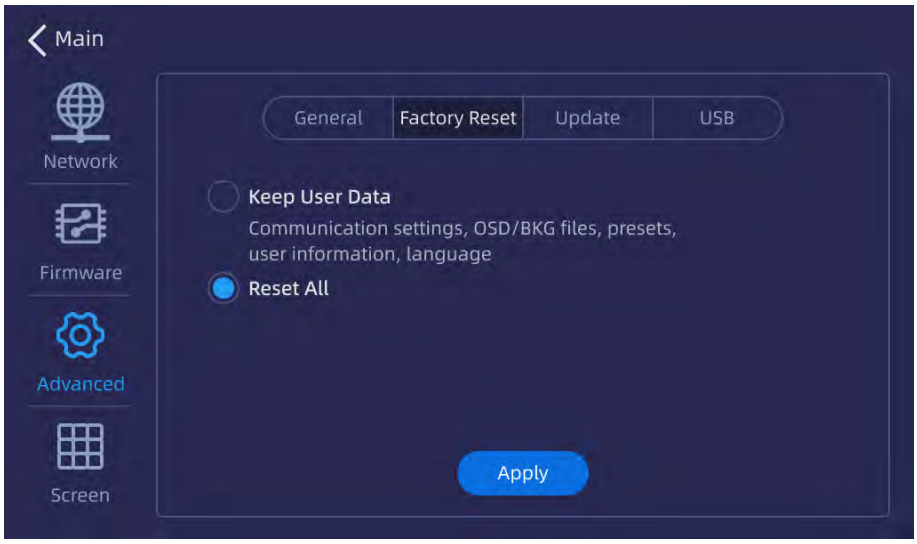
  Never: The system always stays at the current screen and will never return to the home screen.
- LCD Brightness: Set the device screen brightness.
- Screen Timeout: Set the period time after which the screen will automatically turn off when no operation is performed. The supported options include **30s**, **60s**, **120s**, **300s** and **Never**.

  Never: The screen always stay on and displays the corresponding content.

Factory Reset

Clear the data stored in the device, and reset the device settings to factory defaults.

Figure 5-9 Factory reset



- Keep User Data: When you reset the device, the following information will still be kept in the system, including the communication settings, OSD and BKG files, presets, user information and UI language settings. Other parameters restore to default.
- Reset All: Reset all the parameters to factory defaults.

  When you select **Reset All**, the language settings screen will be displayed on the device LCD screen and Web page after the device is restarted. Select the desired language and click **OK** to complete the language settings.

Figure 5-10 LCD screen

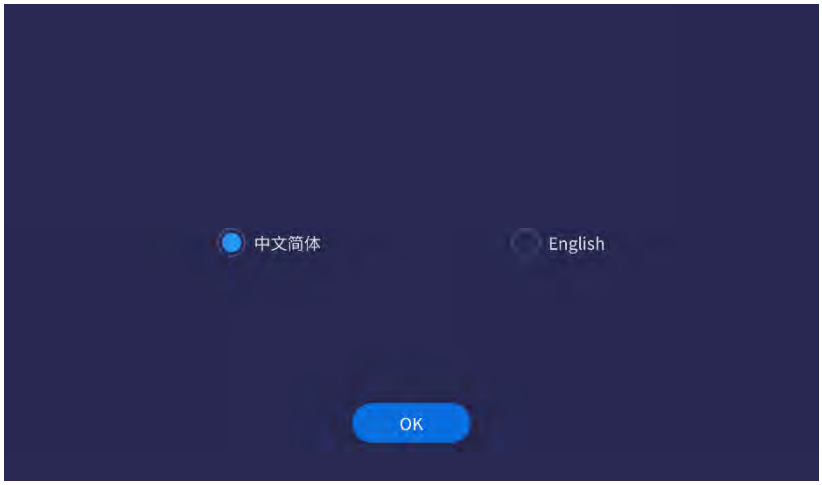
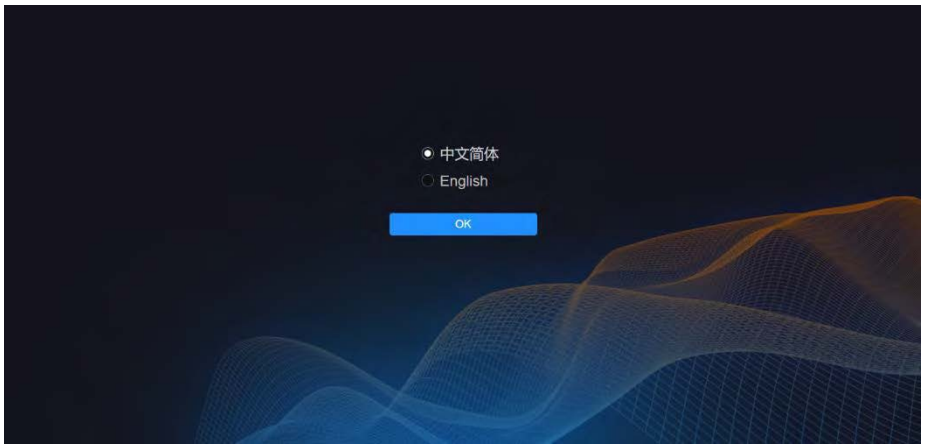


Figure 5-11 Web page



Note:

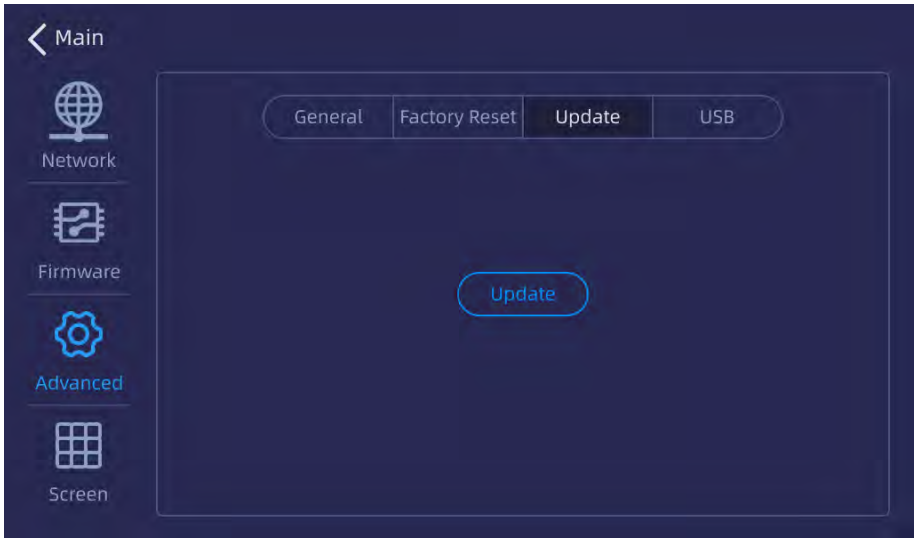
The LCD screen of the H2 will not display the language settings after the reset.

Firmware Update

Update the firmware using a USB drive. Make sure the update file is stored in the root directory of the USB drive before you update the firmware, and then insert the USB drive into the USB port on the H_Control card.

Step 1 Go to **Settings** > **Advanced** > **Update** to enter the firmware update screen.

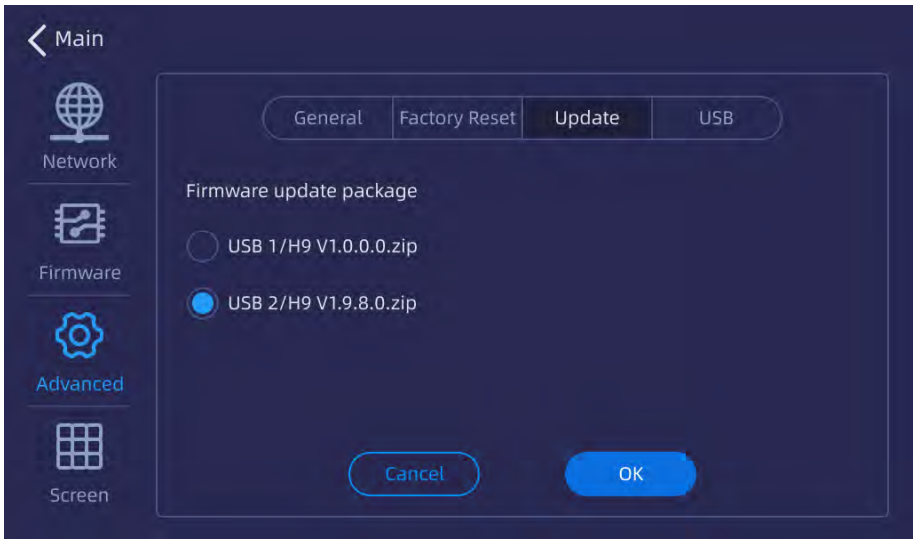
Figure 5-12 Firmware update



The system will automatically read the USB drive and detect the update file in the USB drive.

Step 2 Select the update file and click **OK** to start the update.

Figure 5-13 Select update file

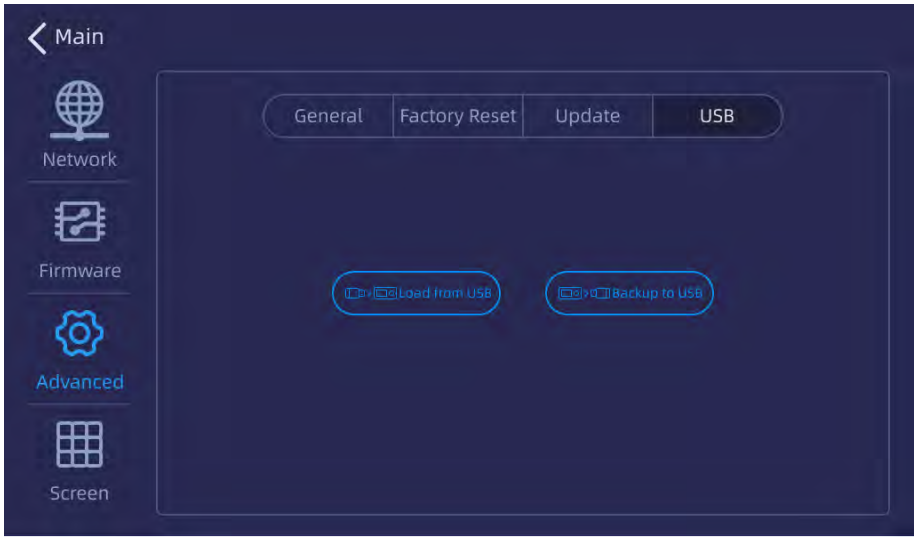


Step 3 When the message "**Updated successfully**" appears, click **Close** to restart the system.

USB Import and Export

The H series supports importing and exporting the device data using a USB drive, which will greatly facilitate the new device configuration in the future.

Figure 5-14 Import and export device data using a USB drive



- Load from USB: Import the data from a USB drive.
- Backup to USB: Export the device data to a USB drive for backup.

5.3.4 Screen Control

Control the screen via the front panel LCD.

Screen

The H series device supports the control of the added screen via the front panel LCD, including loading presets, adjusting screen brightness, turning on/off OSD and switching 3D eye priority.

Step 1 Go to **Settings** > **Screen** to enter the screen control screen.

Figure 5-15 Screen control



Step 2 Select the **Screen** tab.

Step 3 Select the desired screen and you can perform the following operations.

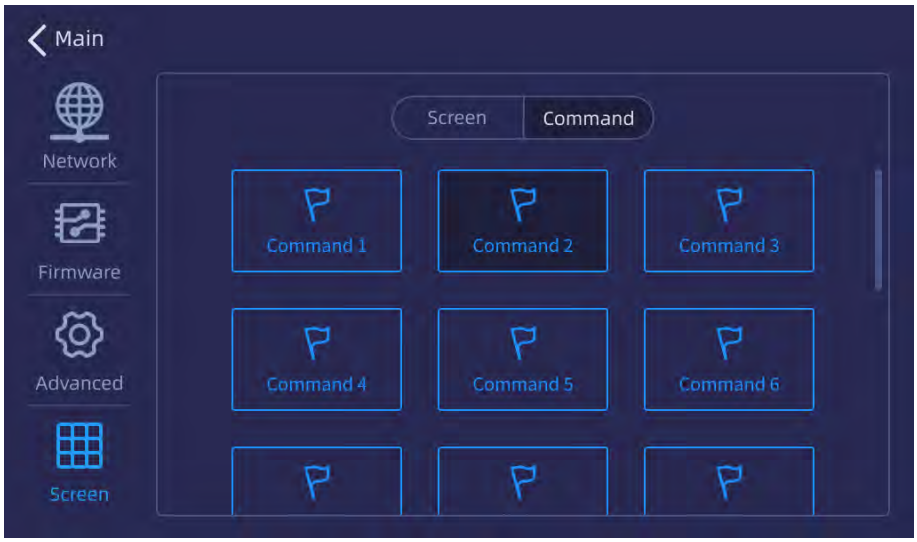
- Load a preset: Select the desired preset from the preset list on the left, and click **Switch** to load the selected one.
- Adjust screen brightness: When the loaded screen is an LED screen, the screen brightness adjustment is supported. You can drag the slider to adjust the brightness.
- Enable OSD text: When the OSD text is configured on the screen, you can turn on/off the toggle switch next to **OSD Text** to enable/disable the OSD text.
- Enable OSD image: When the OSD image is configured on the screen, you can turn on/off the toggle switch next to **OSD Image** to enable/disable the OSD image.
- 3D: When the 3D function is enabled, select **Left Eye** or **Right Eye** to switch the eye priority according to the mode of the 3D glasses.

Command

The COM OUT port on the H_control card supports the control of other devices. If you have configured the control command, you can send the command to the controlled device via the front panel LCD.

Step 1 Go to **Settings** > **Screen** > **Command** to enter the command control screen.

Figure 5-16 Command control



Step 2 Swipe up and down to select the desired command. Once selected, the command will be sent.

5.4 Language

Change the UI language. The H series currently supports English and Simplified Chinese.

Figure 5-17 Changing language



Notes:

- Switching the device front panel UI language will simultaneously switch the Web page UI language.
- The H2 does not support UI language switching via the front panel menu. If you need to switch the language, set it on the Web page.

5.5 About Us

View the device hardware version, company website and email address.

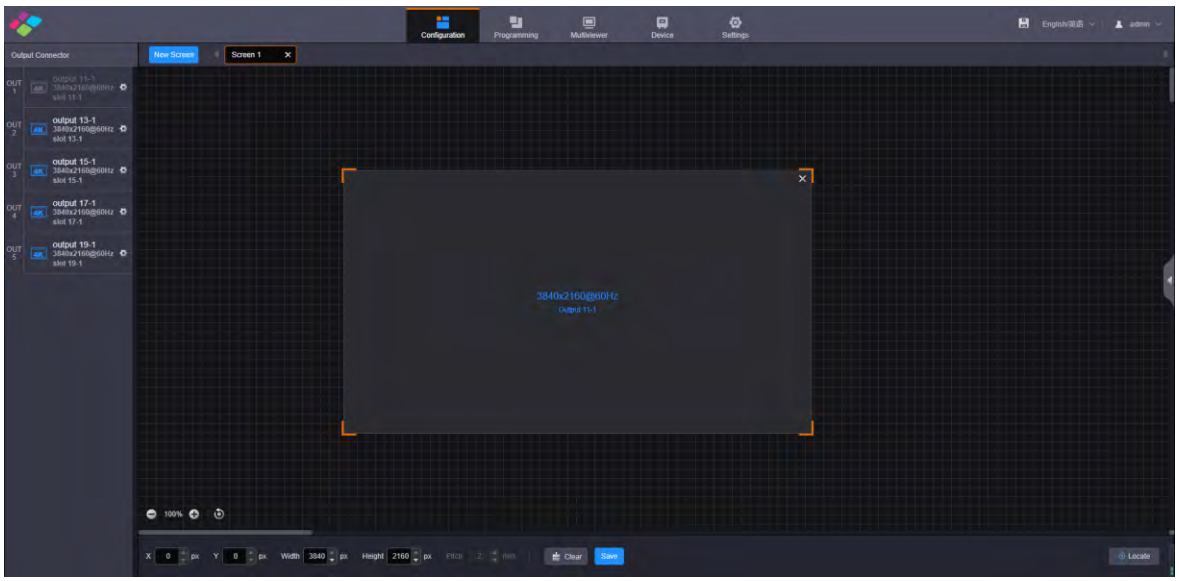
6 Web Introduction

- On the main user interface of the Web page, click  at the top right to save the configuration data to your local hard drive for future use.
- Click the drop-down arrow in the language area to change both the device front panel and Web UI language.
- Click the user name and select **Log Out** to end access to the system.

6.1 Screen Configuration

After you log in to the Web page, the screen configuration page is displayed by default. On this page, you can perform the operations such as changing the screen structure, renaming the screen, setting the test pattern as well as adjusting the output color.

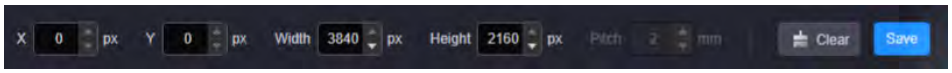
Figure 6-1 Screen configuration



Output Cropping

At the bottom of this page, you can set the cropping of each output area.

Figure 6-2 Output cropping



- X: Set the horizontal initial position for the cropping. The default value is 0 and the reference point for the cropping is the top left corner of the current output image.
- Y: Set the vertical initial position for the cropping. The default value is 0 and the reference point for the cropping is the top left corner of the current output image.
- Width: Set the width of the cropped area. The range is 64 to the width of the output image. The default value is the width of the current output image.
- Height: Set the height of the cropped area. The range is 64 to the height of the output image. The default value is the height of the current output image.
- Click **Clear** to clear the screen and screen configuration.
- Click **Save** to complete and save the screen configuration.

Output Locating

On the screen configurations page, click **Locate** at the bottom right, and then the location information appears on the loaded screen. This function provides convenience for adjusting the screen structure and screen configurations.

When the LED 4K sending card is used, to use the output locating function, you must enable the mapping function in NovaLCT and use the receiving cards that support the mapping function.

Note:

For related receiving card information, please visit NovaStar official website or contact our technical support staff.

Screen Configuration Parameters

On the screen configuration page, click  at the right edge to expand the screen parameter settings pane.

Figure 6-3 Screen configuration parameters



Table 6-1 Screen configuration parameters

Function	Parameter	Description
Basic Info	Name	Give a proper name to the screen for easy management. The screen name supports up to 15 Chinese characters, English letters, numbers, spaces, underscores and hyphens, and cannot be all spaces.
	Rows and columns	Set the row and column quantities to change the screen structure.
	3D	Set 3D-related parameters to provide users with the 3D visual experience. For detailed settings, please refer to 3D Settings on Web.
	Phase Offset	Set the time difference between the reference input clock and the feedback input. Before you enable the phase offset function, please enable the Genlock function first. 1. Go to **Settings** > **Other** and check the box in front of **Enable Genlock** to enable the Genlock function. 2. Click **Configuration** and then select the target screen 3. Click  at the right side of the page to open the screen parameter settings pane. 4. Click **Basic Info**. 5. Check the box in front of **Enable Genlock Phase Offset** to enable the function. 6. Drag the slider below **Phase Offset** and view the real-time recording image, and stop the dragging when you are satisfied with the output image to complete the phase offset settings.
Test Pattern	Test pattern	Test patterns are used to check the connection between the output connectors and the LED screen and check whether the display is normal. • Select or deselect **Enable** to open or close the test pattern. • Spacing: Set the width of gradient color or the space between test lines. This parameter is configurable when the test pattern is not a pure color. • Speed: Set the moving speed of the test lines. This parameter is configurable when the test pattern has lines. • Brightness: Set the brightness of the test patterns on the LED screen.
Color	Mode	Four display modes are provided for different user needs. The options are **Standard**, **Document**, **Conference** and **Video**.
	Eye saver mode	Turn on or turn off the eye saver mode for the Web page.
	Contrast	Contrast is the ratio of the luminance of the brightest color to that of the darkest color. Generally, the higher the contrast, the more clearer and colorful the image is. On the contrary, the entire image becomes gloomy. Contrast affects the exposure level of the entire image. It makes the bright part brighter and the dark part darker. The value range is 0 to 100, and it defaults to **50**.
	Brightness	Brightness is the shading of lights in the image. When the brightness increases, viewers will be dazzled. When the brightness decreases, the image becomes dark. The value range is 0 to 100, and it defaults to **50**.
	Saturation	Adjust the colorfulness of the output image. The value range is 0 to 100, and it defaults to **50**.
	Hue	Set the relative degree of how bright or dark the output image is. The value range is –180 to +180, and it defaults to **0**.
	Color Temperature	Adjust the cool or warm degree of the output image. The lower the

Function	Parameter	Description
		temperature, the warmer (redder) the image is. The higher the temperature, the colder (bluer) the image is.
	Gamma	Gamma: Set the Gamma for the output image. The value range is 0.25 to 4.00, and it defaults to **1.00**.
	HDR	HDR is the abbreviation for High-Dynamic Range. HDR function can greatly enhance the display image quality, allowing for a clearer and vivid image when the device is used together with NovaStar A8s/A10s receiving cards. Select **HDR** to enable the HDR function. • Format: Select the format of the current HDR source. HDR10 and HLG are both supported. HDR10 is selected by default. • Peak Screen Brightness: Adjust the screen brightness under normal operation. The value ranges from 100 to 10000 and defaults to 1000. • Ambient Illuminance: Display the ambient illuminance. The value ranges from 0 to 200 and defaults to 30. • Low Grayscale Mode: Adjust the screen image grayscale. The value ranges from 0 to 50 and defaults to 15.

Output Connectors

Click ⚙ next to the output connector to expand the output connector settings pane where you can set the following parameters.

Figure 6-4 Output connector parameters

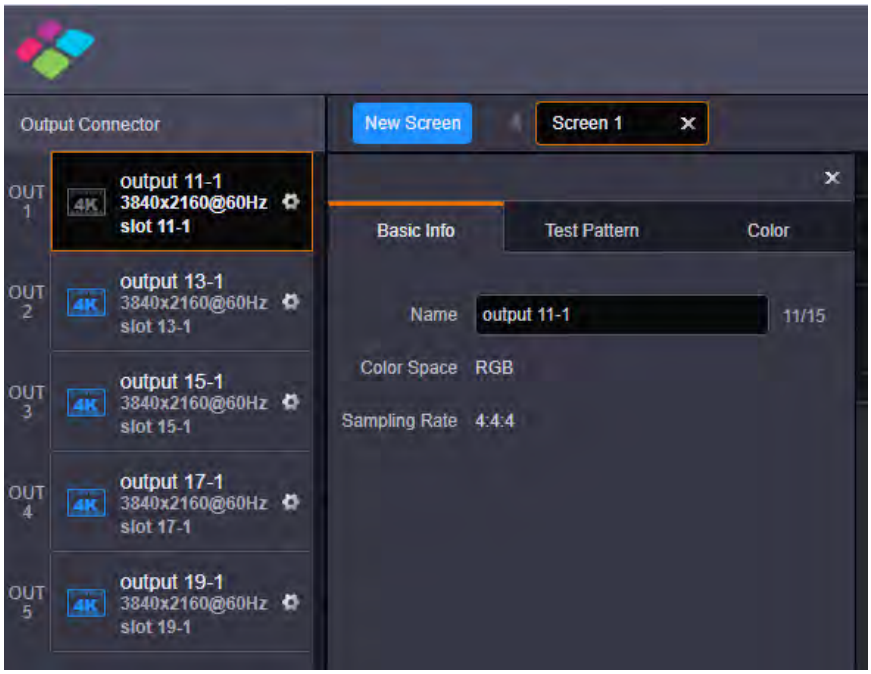


Table 6-2 Output connector parameters

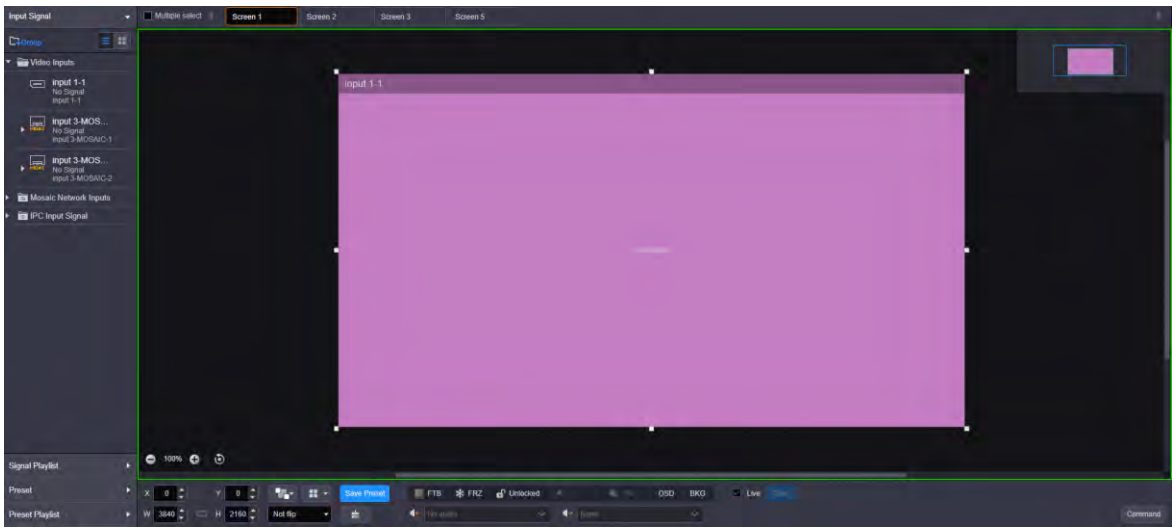
Function	Parameter	Description
Basic Info	Name	Give a proper name to the output connector for easy management. The connector name supports up to 15 Chinese characters, English letters, numbers, spaces, underscores and hyphens, and cannot be all spaces.
	Color Space/ Sampling Rate	Display the color space and sampling rate of the output connector, which can be set on the **Device** page.

Function	Parameter	Description
Test Pattern	Test pattern	Test patterns are used to check the connection between the output connectors and the LED screen and check whether the display is normal. • Select or deselect **Enable** to open or close the test pattern. • Spacing: Set the width of gradient color or the space between test lines. This parameter is configurable when the test pattern is not a pure color. • Speed: Set the moving speed of the test lines. This parameter is configurable when the test pattern has lines. • Brightness: Set the brightness of the test patterns on the LED screen.
Color	Contrast	Contrast is the ratio of the luminance of the brightest color to that of the darkest color. Generally, the higher the contrast, the more clearer and colorful the image is. On the contrary, the entire image becomes gloomy. Contrast affects the exposure level of the entire image. It makes the bright part brighter and the dark part darker. The value range is 0 to 100, and it defaults to **50**.
	Brightness	Brightness is the shading of lights in the image. When the brightness increases, viewers will be dazzled. When the brightness decreases, the image becomes dark. The value range is 0 to 100, and it defaults to **50**.
	Saturation	Adjust the colorfulness of the output image. The value range is 0 to 100, and it defaults to **50**.
	Hue	Set the relative degree of how bright or dark the output image is. The value range is –180 to +180, and it defaults to **0**.
	Color Temperature	Adjust the cool or warm degree of the output image. The lower the temperature, the warmer (redder) the image is. The higher the temperature, the colder (bluer) the image is.
	Gamma	Gamma: Set the Gamma for the output image. The value range is 0.25 to 4.00, and it defaults to **1.00**.

6.2 Programming

Click the **Programming** tab on the top to enter the programming page where you can perform the operations such as adding layers and BKG, cropping the input source, setting the preset and preset playback.

Figure 6-5 Programming



Button and Icon Descriptions

- : Zoom out the layer editing area.
- : Zoom in the layer editing area.
- : Display all the layers in the editing area in a perfect way, so that all the layers can be viewed completely.
- FTB: If the icon is highlighted, the output image will fade to black; otherwise, the output image will be displayed normally.
- FRZ: If the icon is highlighted, the current frame of the output image is frozen and the layer image cannot be edited; otherwise, the output image is not frozen.
- : Lock the editing area, and layer editing is prohibited.
- : Unlock the editing area.
- : Adjust the output image brightness. If an LED screen is selected, this parameter is available.
- Live: Turn on this function to display the layer editing process on the LED screen in real time. Turn off this function to not display the editing process on the LED screen, and click the **Pre-Edit** button if you want to display the output image on the LED screen.
- Pre-Edit: When the **Live** function is turned off, click this button to display the output image on the LED screen.

6.3 Multiviewer

Click the **Multiviewer** tab on the top to enter the monitoring page. Select the **Screen** or **Input** tab on the left, and then click and drag the desired screens or input sources to the monitoring editing area on the right. After the editing, you can go to Multiviewer on the LCD screen on the device front panel to view the monitoring information.

Figure 6-6 Multiviewer editing



- Screen: Display all the output images of the screens.
- Input: Display all the input source images. Select **View inputs with signals** and the system only displays the input sources that are accessed with signals.
- MVR Layout: 4 layouts are provided for quick arrangement.
- Customize: Add new custom layouts.
- Clear: Clear all the MVR windows.
- Full Screen: Make the selected MVR window display in full screen.

6.3.1 Set MVR Properties

On the Multiviewer page, select an MVR window and click at the top right of the window to expand the MVR property settings pane.

Figure 6-7 MVR property settings



- Display Name: Enable or disable the display of the MVR window name. When enabled, the name color can be set.
- Border: Set the color of the MVR window border by adjusting the R, G and B values individually. Set the width of the MVR window border.

After the settings, click **Apply** to save and apply the settings.

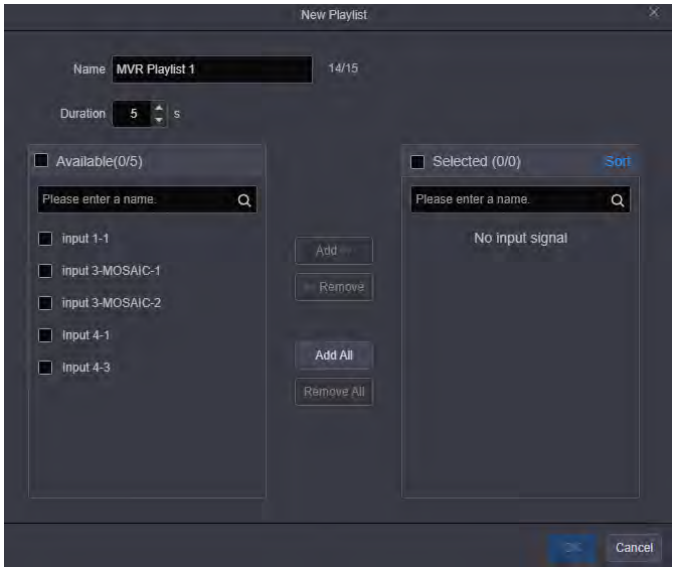
6.3.2 Set Monitoring Playlists

Step 1 On the **Multiviewer** page, click the **Input** tab on the left to expand the input source list.

Step 2 Click **Monitoring Playlist** to expand the monitoring playlist settings pane.

Step 3 Click **New Playlist** to open the playlist adding window.

Figure 6-8 Monitoring Playlists



Step 4 Enter a name for the new playlist.

Step 5 Enter the playback duration that specifies the time length each input lasts.

Step 6 Select the desired inputs in the **Available** area on the left.

Step 7 Click **Add** to add the selected inputs to the **Selected** area.

Step 8 In the **Selected** area, click **Sort** at the top right corner, and then move up and down the input to adjust the input sequence in the input playback list.

Step 9 Click **Done** at the top right corner to complete the adjustment.

Step 10 Click **OK** to complete the settings.

6.3.3 Monitoring Playlist Operations

Step 1 On the **Multiviewer** page, click the **Input** tab on the left to expand the input source list.

Step 2 Click **Monitoring Playlist** to expand the monitoring playlist settings pane.

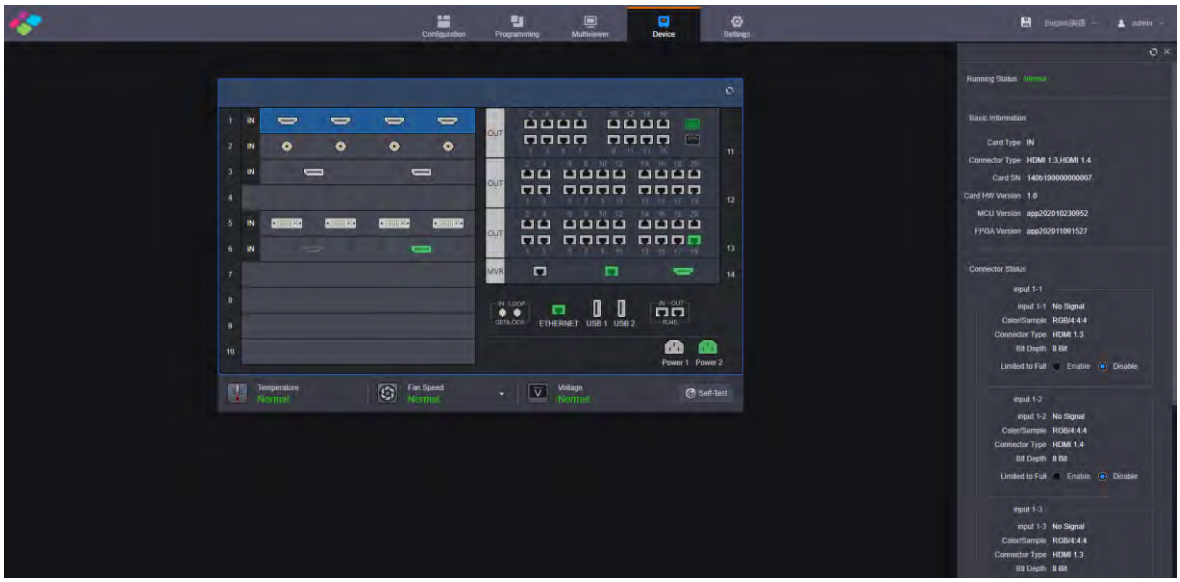
Step 3 Click the following icons next to the desired playlist to perform the related operations.

- : Play the input monitoring playlist.
- : Stop the playback.
- : More operations
  - Edit Group: Edit the current playlist settings.
  - Ungroup: Ungroup the current playlist.

6.4 Device

Click the **Device** tab on the top to enter the device page where you can view the input or output card statuses and device running status. If the device fails, check the health status of each module by clicking **Self-Test** on this page. If the fan fails, click the drop-down arrow in the fan status area to check which fan fails exactly.

Figure 6-9 Device



- The connector in green is connected.
- The connector in white is not connected, or the connected device fails.
- The connector in gray is unavailable.
- Self-Test: Diagnose the device and send the test result to NovaStar's technical support staffs for confirming and fixing the problems as soon as possible.

6.4.1 Input Card Configurations

6.4.1.1 Common Input Cards

Click an input card to view the input card type, connector type, card version, card SN and connector status and so on.

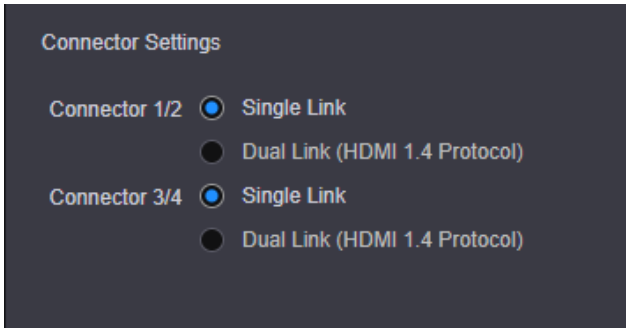
- Running status: Display the input card status.
  - Normal: The input card is normal and can be used.
  - Abnormal: The input card is abnormal and cannot be used.
- Basic Information: View the basic information of the input card, including the card type, connector type, SN and version.
- Connector Status: View the input resolution of each connector, the color space and sampling rate of the input source, the input connector type and input source bit depth, which are read by the system automatically and cannot be changed.
  - Connector status shows you the input signal status, color space and sampling rate, input connector type, input source bit depth which are all read automatically and cannot be changed.
  - Limited to Full: Convert an RGB limited input source to an RGB full range source for more precise video processing.

    Disable: Turn off the limited to full converting function.

    Enable: Turn on the limited to full converting function. It is recommended you turn on the function when the accessed input source has a limited color range.
- Capacity: Set the input connector capacity. The different connector capacity is matched with the different layer specification.

  When you use a connector with the capacity of DL to add a layer, the added layer specification is DL.
  - H_1xHDMI2.0+1xDP1.2 input card: The input connector capacity can be set to SL, DL and 4K.
  - H_1xHDMI2.1+1xDP1.4 input card: The input connector capacity can be set to SL, DL 4K and 8K.
- Connector Settings: Select the single link or dual link mode for the input connector.

Figure 6-10 Connector settings



When you set the input connector 1/2 to dual link mode, connector 1 is unavailable and connector 2 is used as a dual link connector. The input connector 3/4 follows the same rule.

When the input card is an H_1xHDMI2.0+1xDP1.2 input card or H_1xHDMI2.1+1xDP1.4 input card that supports only one input each time, you can select the desired connector here.

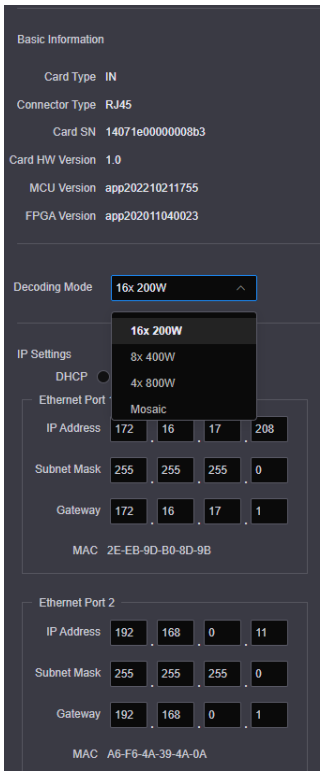
- When the input card is an H_2xRJ45 IP input card, you need to set the working mode for two Ethernet ports. The working mode is independent by default, and you need to set the IP address, subnet mask and other information for each Ethernet port independently.

6.4.1.2 IP Input Card

- When the H_2x RJ45 IP input card is used, you need to configure the working mode of the two Ethernet ports. The default working mode is **Independent**, and you need to set the IP settings of each Ethernet port.

- The H_2xRJ45 IP input card supports three kinds of decoding modes, including **16x 200W**, **8x 400W**, **4x 800W** and **Mosaic.** The decoding capability of the IP input card cannot be lower than the specification of the connected IP camera.
  - 16x 200W: Single card decoding capability: up to 16x 1080p or other lower-resolutions, and up to 16x layers
  - 8x 400W: Single card decoding capability: up to 8x 4K×1K or other lower-resolutions, and up to 8x layers
  - 4x 800W: Single card decoding capability: up to 4x 4K×2K or other lower-resolutions, and up to 4x layers
  - Mosaic: Single card decoding capability: up to 1x 64-channel D1 source mosaic for image partition display

Figure 6-11 H_2xRJ45 IP input card configuration

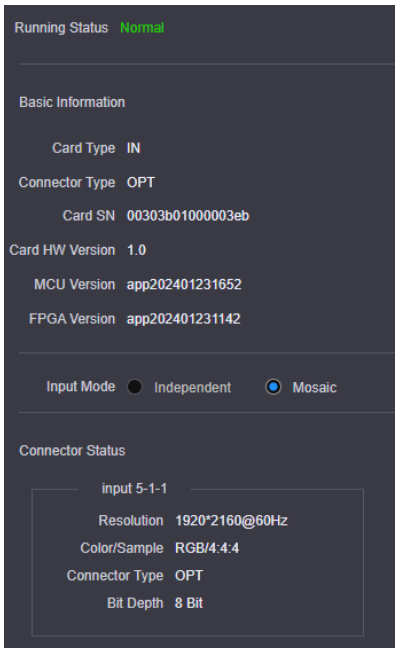


6.4.1.3 H_2xFiber Input Card

OPT 1 and OPT 2 are used for primary inputs. OPT 3 serves as the backup of OPT 1, while OPT 4 serves as the backup of OPT 2.

Click an H_2xfiber input card to view the basic information of the card, input mode and input source information.

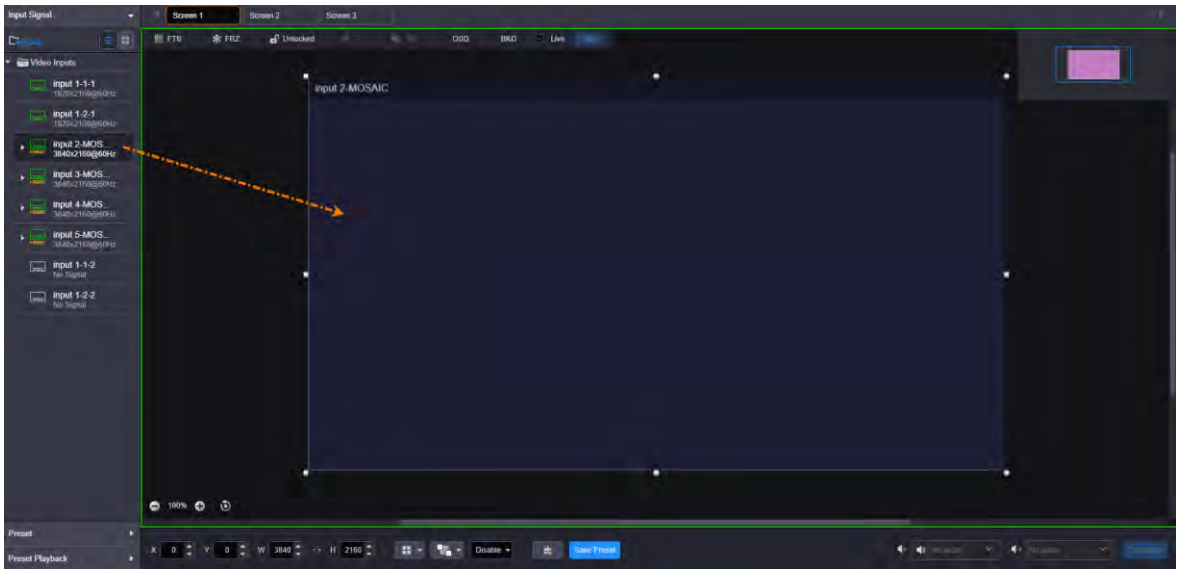
Figure 6-12 H_2xfiber input card parameters



- Running status: Display the current input card status.
  - Normal: The input card is normal and can be used.
  - Abnormal: The input card is abnormal and cannot be used.
- Basic Information: View the basic information of the input card, including the card type, connector type, SN and version.
- Input Mode: Set the input mode of the OPT port. The supported options include **Independent** and **Mosaic**.
  - Independent: The input source connected to each OPT port can be used as an independent source. You can use the desired source to add a layer.
  - Mosaic: The input sources connected to each H_2xfiber input card are used for one mosaic source, and the input source connected to each port cannot be used independently.
- Connector Status: View the input source name, the input resolution of each connector, the color space and sampling rate of the input source, the input connector type and input source bit depth.
- Set the input source mosaic.
  a. On the **Device** page, click an H_2xfiber input card and set the input mode to **Mosaic**.
  b. Click the **Programming** tab on the top to enter the programming page.

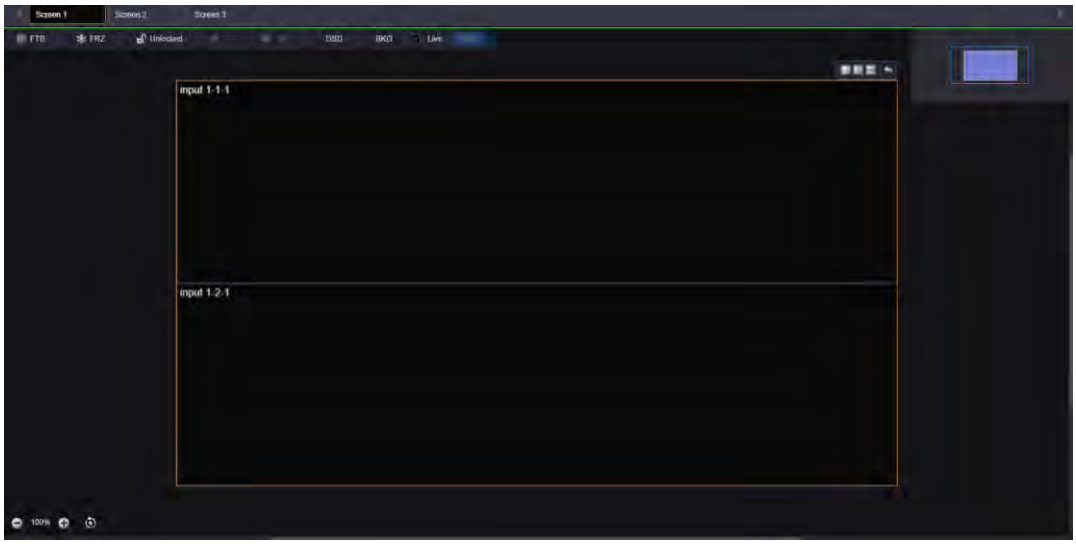
     In the **Video Inputs** area on the left, the input source name will change to "input x-MOSAIC", whereas "x" indicates the card slot number.
  c. Click a mosaic source in the **Video Inputs** area on the left and drag it to the editing area to add a layer.

Figure 6-13 Add mosaic source layers



d. Select a layer and click  in the layer menu to enter the layer layout settings page.

Figure 6-14 Edit mosaic layout

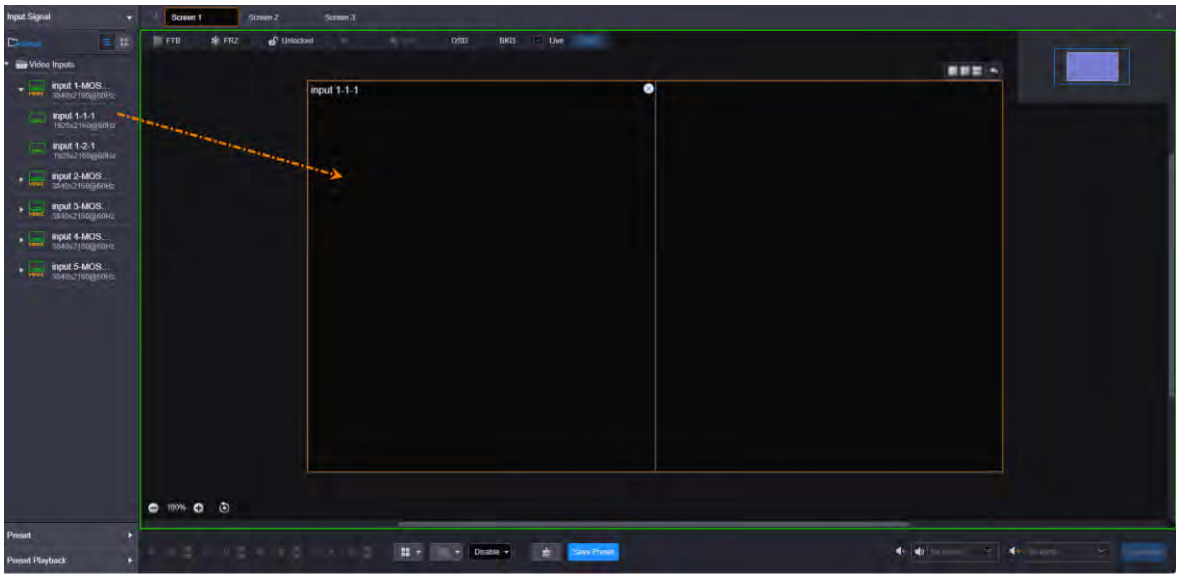


The SL source supports eight mosaic layout options, including , , , , , ,  and .

The DL source supports three mosaic layout options, including ,  and .

e. In the **Video Inputs** area on the left, click a mosaic source to expand its sub inputs. Click and drag the inputs to the mosaic layout.

Figure 6-15 Add inputs



If you want to change the input, click and drag a new input to the corresponding layout area and the original one will be overwritten, or click at the top right corner of the desired layout area to delete the added input and drag a new one.

f. After all the inputs are added, click at the top right corner to complete the mosaic layout settings, and the mosaic layer image will be displayed.

6.4.1.4 H_1xST 2110 Input Card

When an H_1xST 2110 input card is installed, you need to set the stream information for the input source, IP information of the primary and backup OPT ports as well as PTP.

Click an H_1xST 2110 input card to view the card information on the right pane.

Basic Information

- Card: View the basic information of the current card, including the card type, connector type, serial number and version numbers.
- Source: View the detailed information of the connected input source.
- Connector Status: View the input resolution of each connector, the color space and sampling rate of the input source, the input connector type and input source bit depth.

Stream

Set the destination IP, port number, source IP and other source parameters when OPT port pulls stream.

Step 1 Set the stream pulling parameters.

Click the **Stream** tab and perform the following operations as needed to configure the stream pulling parameters. Click **Apply** to complete and apply the configuration.

- Load the SDP file to configure the parameters.

  Click **Load** and select the SDP file in the popup window. Click **OK** to load the file.

- Configure the parameters manually.

  Configure the parameters described in the following table as needed.

Type	Parameter Name	Description
Primary OPT IP	Destination IP	Configure the parameters according to the connected video source.
	Port	
	Source IP	

Type	Parameter Name	Description
Backup OPT IP	Destination IP	
	Port	
	Source IP	
Advanced Source Information	Resolution	The advanced parameters of the connected video source If the filled-in information does not match with the connected video source, you need to update the relevant parameters.
	Frame Rate	
	Color/Sample	
	Bit Depth	
	Interlaced/Progressive	

Step 2 Configure the IP information of the current input card.

In the **Primary OPT IP Settings** and **Backup OPT IP Settings** areas, set the IP information of the primary and backup OPT ports respectively. Enable **DHCP** and the IP information can be automatically obtained, or configure the IP information manually. Click **Apply** to complete and apply the configuration.

Step 3 Set PTP synchronization.

Check the box next to **PTP Synchronization** to enable this function. Enter the PTP domain value of the input source and switch to ensure video synchronization between the primary and backup ports.

In the **PTP Status** area, you can view the master clock ID, synchronization status, master and slave time difference.

6.4.1.5 H_1xNDI Input Card

On the **Device** page, click an H_1xNDI input card to view the card information on the right pane.

Figure 6-16 NDI card parameters



Basic Parameters

- Running Status: Display the input card status.
  - Normal: The input card is normal and can be used.
  - Abnormal: The input card is abnormal and cannot be used.
- Basic Information: View the basic information of the input card, including the card type, connector type, SN and version.

Connector Settings

- NDI Channel: Name the input card slot where the NDI card is installed.
- Decoding: The supported decoding specification include **1x 4K×2K@60Hz**, **2x 4K×2K@30Hz** and **4x 2K×1K@60Hz**.
  - 1x 4K×2K@60Hz: Single card decoding capability: 1x 4K×2K@60Hz or other lower-resolutions, and 1x layer
  - 2x 4K×2K@30Hz: Single card decoding capability: 2x 4K×2K@30Hz or other lower-resolutions, and 2x layers
  - 4x 2K×1K@60Hz: Single card decoding capability: 4x 2K×1K@60Hz or other lower-resolutions, and 4x layers

IP Settings

Set the IP information of the NDI connector, including the IP address, subnet mask and gateway.

DHCP: Set the configuration method of the IP address. The supported options include **Enable** and **Disable**.

- Enable: Enable DHCP and the IP address, subnet mask and gateway of the NDI connector can be obtained automatically.
- Disable: Manually configure the IP information, including the IP address, subnet mask and gateway.

6.4.2 Output Card

Video output card

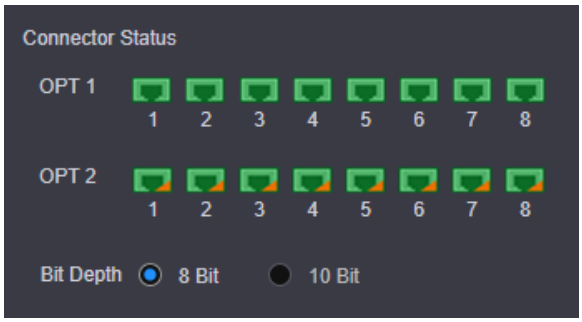
- Running status: Display the current output card status.
  - Normal: The card is connected normally and can be used for output.
  - Abnormal: The card fails and cannot be used for output.
- Basic Information: View the basic information of the output card, including the card type, connector type, serial number and version numbers.
- Connector Status: View the output resolution and connector type and set the output color space, sampling rate and bit depth.
- Connector Settings: For the DVI and HDMI output cards, you can configure the single-link or dual-ling output.
  - Single link: All four connectors are used for output.
  - Dual link: Connectors 2 and 4 are used for main output. Connector 1 copies the output on connector 2, while connector 3 copies the output on connector 4.

H_16xRJ45+2xfiber sending card and H_20xRJ45 sending card

- Running status: Display the current output card status.
  - Normal: The card is connected normally and can be used for output.
  - Abnormal: The card fails and cannot be used for output.
- Basic Information: View the basic information of the output card, including the card type, connector type, serial number and version numbers.
- Connector Status: Set the output bit depth. The supported options are 8-bit and 10-bit.

  If the backend device is connected to the OPT port on the H_16xRJ45+2xfiber sending card, the Ethernet port status of the backend device can be displayed on this page.

Figure 6-17 Ethernet port status



- Status descriptions:
  - : The Ethernet port on the backend device is connected.
  - : The Ethernet port on the backend device serves as the backup port. When at the bottom right flashes, the backup function is enabled.
  - : The Ethernet port on the backend device is not connected.
- Dynamic Sub-Pixels

  The sub-pixel refers to an individual light-emitting chip of a single color. In dynamic sub-pixels technology, each pixel may contain only one or two sub-pixels, and complete RGB pixels are composed of sub-pixels in adjacent pixels.

  The H_16xRJ45+2xfiber sending card supports the dynamic sub-pixels technology. Select the dynamic sub-pixels technology used by the current screen from the drop-down list. In this way, the dynamic sub-pixel technologies used by this sending card and the LED screen can be matched.
  - None: The dynamic sub-pixels technology is not used.
  - Delta1: Each basic pixel unit includes three sub-pixels.
  - RGGB: Each basic pixel unit includes four sub-pixels (R, G, G, and B).
  - Delta3: Each basic pixel unit includes six sub-pixels.
  - Delta4: Each basic pixel unit includes eight sub-pixels.
  - R/L/U/D: Share the adjacent sub-pixels in right/left/top/bottom directions.

Notes:

- Before enabling the dynamic sub-pixels function, please update the H_16xRJ45+2xfiber sending card to V1.9.9.0 or later. To activate this function, please check the box next to **Enable Dynamic Sub-Pixels** on the firmware update page before updating.
- To successfully load a screen, the dynamic sub-pixels technologies of the used H_16xRJ45+2xfiber sending cards must be the same.
- After the screen is configured, the dynamic sub-pixels technology cannot be changed.

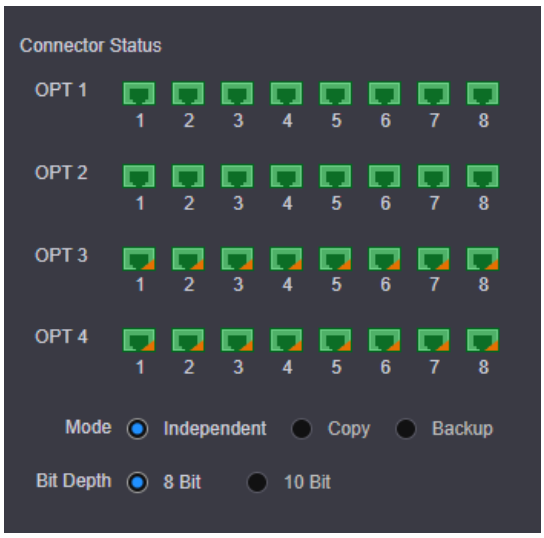
H_4xfiber sending card

- Running status: Display the current output card status.
  - Normal: The card is connected normally and can be used for output.
  - Abnormal: The card fails and cannot be used for output.
- Basic Information: View the basic information of the output card, including the card type, connector type, serial number and version number.
- Connector Status: View the status of the Ethernet port on the backend device connected to the OPT port on the H_4xfiber sending card, and set the connector mode and the output bit depth.

Ethernet port status:

Status descriptions

- : The Ethernet port on the backend device is connected.



- : The Ethernet port on the backend device serves as the backup port. When at the bottom right flashes, the backup function is enabled.
- : The Ethernet port on the backend device is not connected.

The supported connector modes include **Independent**, **Copy** and **Backup**. The supported bit depth options include 8-bit and 10-bit.

- Independent: Four OPT ports are all used for output and have the same loading capacity. The loading capacity of one port is equal to that of 8 Ethernet ports.
- Copy: OPT 1 and OPT 2 are used for main output. OPT 3 copies the output on OPT 1, while OPT 4 copies the output on OPT 2.
- Backup: OPT 1 and OPT 2 are used for main output. OPT 3 serves as the backup of OPT 1, while OPT 4 serves as the backup of OPT 2.

6.4.3 MRV Card

The MVR card is the preview card.

- Running Status: Display the MVR card status.
  - Normal: The card is connected normally and can be used for output.
  - Abnormal: The card fails and cannot be used for output.
- Basic Information: View the basic information of the MVR card, including the card type, connector type, serial number and version number.
- Network Settings: When Ethernet ports are used for output, you need to set the IP addresses of two Ethernet ports and the URLs for the screen and input monitoring.
  - Mode: Set the working mode of the Ethernet port. The working mode is independent by default, and you need to set the IP address, subnet mask and other information for each Ethernet port independently.
  - IP address: Set the IP address for each Ethernet port.
  - Subnet Mask: Set the subnet mask.
  - Gateway: Set the gateway.
  - URL: Set the URL paths and ports for the input and screen monitoring.

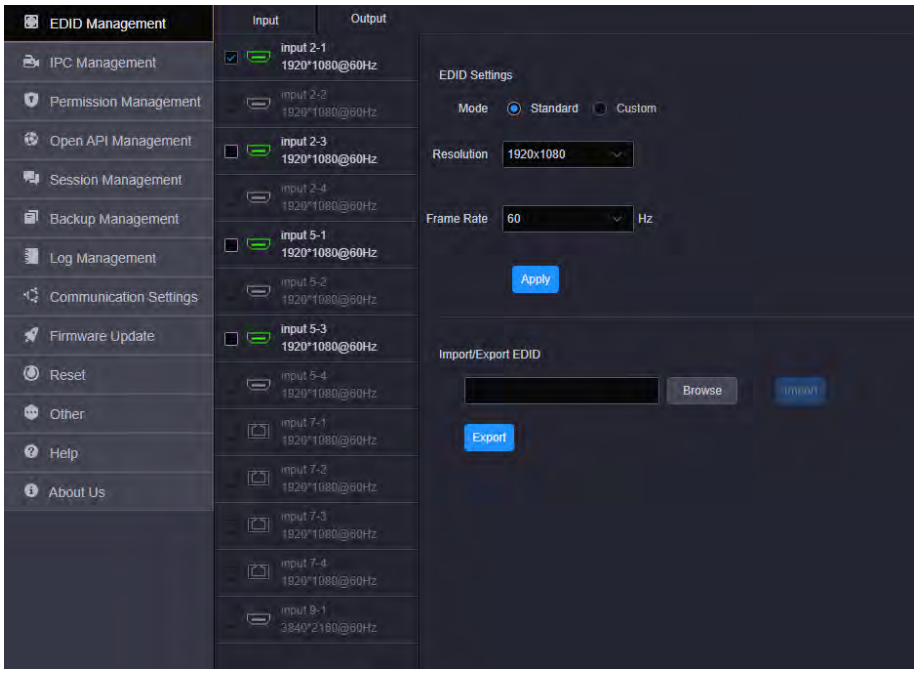
6.4.4 Control Card

View the basic information of the control card and AUX card, including the running statuses, serial numbers and hardware version numbers.

6.5 Settings

Click the **Settings** tab on the top to enter the settings page.

Figure 6-18 Settings



6.5.1 EDID Management

Set the input and output resolution. You can set the input or output connector resolution through the following four ways.

- Standard resolution

  Select an input or output resolution from the drop-down list next to **Standard Resolution**.

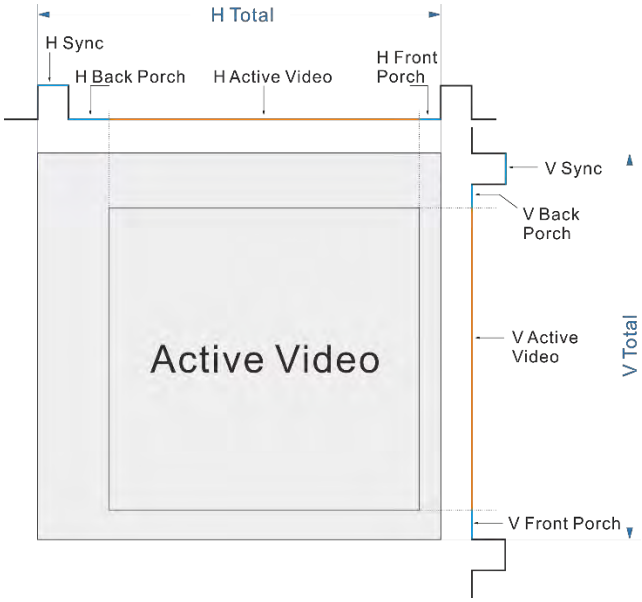
- Custom resolution

  Set the width, height and frame rate for the input or output connectors.

- Advanced Settings

  Under custom mode, you can select **Advanced** to enable the advanced EDID settings function. The parameters for advanced settings are shown as follows.

Figure 6-19 EDID management



- Import EDID

Click **Browse** to open the window where you can select the desired EDID configuration file, and import it for quick configuration.

Notes:

- The system supports simultaneous EDID settings for multiple input and output connectors of the same type and version.
- The H_16xRJ45+2xfiber sending card, H_20xRJ45 sending card and H_4xfiber sending card support custom resolution settings only.
- The VGA, CVBS and SDI connectors do not support resolution and frame rate settings.

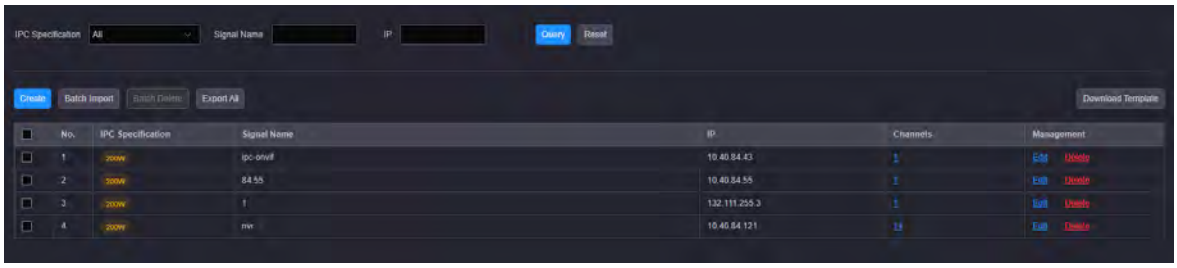
6.5.2 IPC Management

6.5.2.1 Add IPC Signal

When an IP input is accessed, you need to manage and configure the IPC signal source.

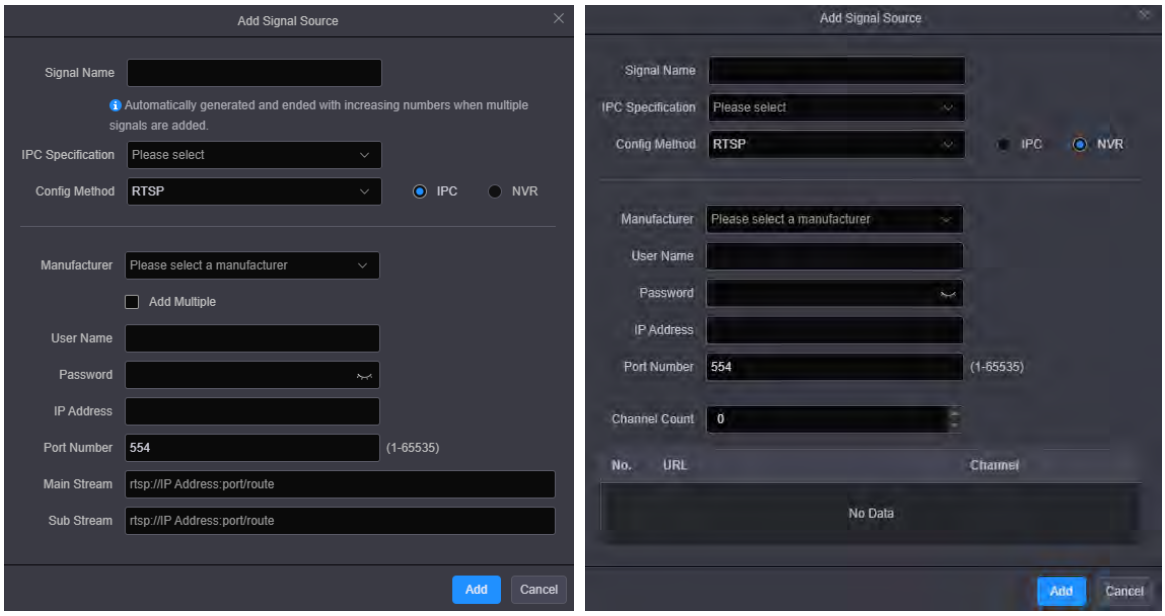
Step 1 On the **Settings** page, click **IPC Management** on the left to enter the IPC management page.

Figure 6-20 IPC management



Step 2 Click **Create** to open the **Add Signal Source** window.

Figure 6-21 Add IPC / NVR signal sources



Step 3 Enter a name for the added signal.

Step 4 Click the drop-down list next to **IPC Specification** to select the specification of the added signal. The supported options include **200W**, **400W** and **800W**.

When you select the IPC specification, it must match the resolution of the IP camera. If the selected specification is lower than the resolution of the connected IP camera, the camera image cannot be decoded.

Step 5 Click the drop-down list next to **Config Method** to select the input source protocol for the IPC card.

GB28181, RTSP and ONVIF protocols are supported currently.

When you select different protocols, you need to check the parameters of the added camera and then fill in the configuration parameters.

- Config Method - RTSP

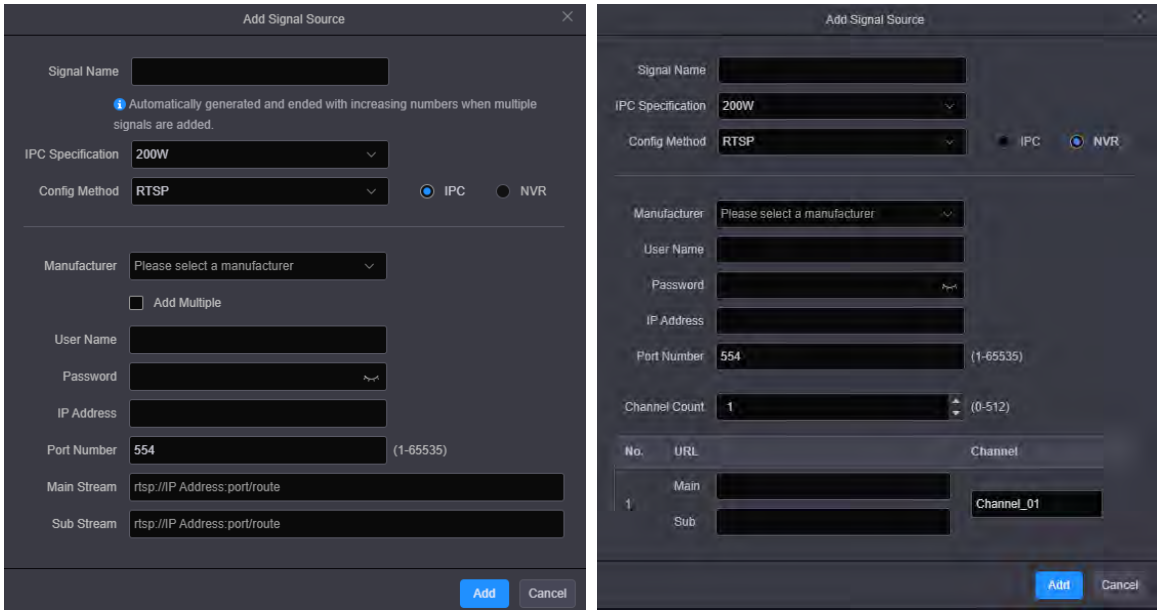
  Real Time Streaming Protocol (RTSP) is a protocol that provides a framework for real-time media data transfer at the application level. The protocol focuses on connecting and controlling the multi-data delivery sessions on lines of time synchronization for continuous media like video and audio.

  When you set the config method to RTSP, you must obtain the URL of the RTSP service and the matched user name and password in advance, and then fill the necessary parameters accordingly on the Web page.

Note:

When you select Dahua, Hikvision, Uniview, Jovision or Xiongmai, the URL address is obtained automatically by the system. You only need to enter the IP address, user name and password.

Figure 6-22 RTSP



- Config Method - ONVIF

  Open Network Video Interface Forum (ONVIF) is a global and open industry forum with the goal of facilitating the development and use of a global open standard for the interface of physical IP-based security products. ONVIF creates a standard for how IP products within video surveillance and other physical security areas can communicate with each other.

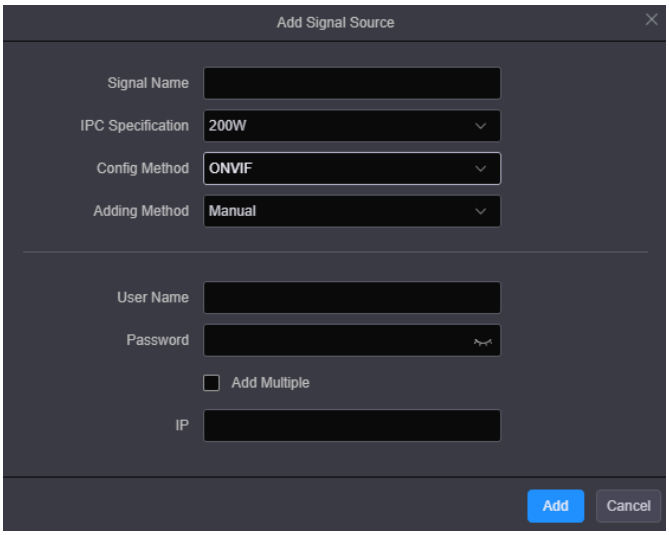
  When you set the config method to ONVIF, you can select to add the camera information manually or by auto scanning.

  – Manual

    When you set the adding method to **Manual**, you must enter the camera IP address and the user name and password for logging in camera.

    When you check the box next to **Add Multiple**, you must enter the start and end IP addresses of the camera.

Figure 6-23 Add manually



– Auto scan

When you set the adding method to **Auto scan**, the system will scan and list all the cameras on the current network segment.

Figure 6-24 Auto scan



Check the box in front of the desired camera, and enter the user name and password for logging in camera.

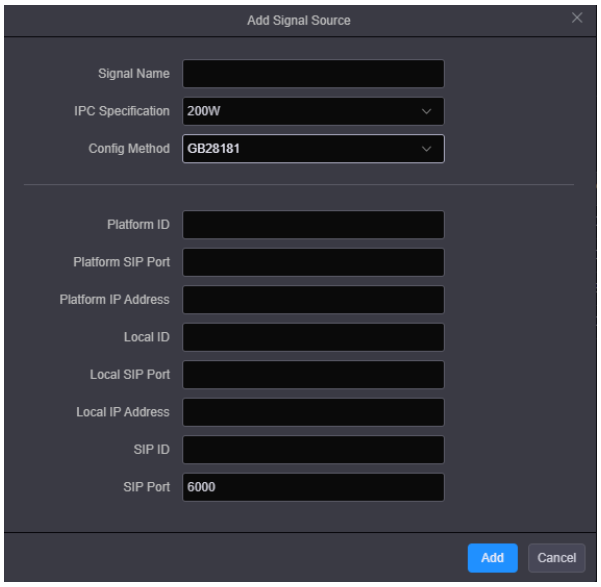
When adding multiple cameras, you must set the same user name and password for the selected cameras in advance.

- Config Method - GB28181

GB28181 is a standard that is widely used in security-related industries, such as police, traffic police and other government projects.

When you set the config method to GB28181, you must obtain the related information of the accessed monitoring system and the IP settings of the device in advance, and then fill the related parameters accordingly on the Web page.

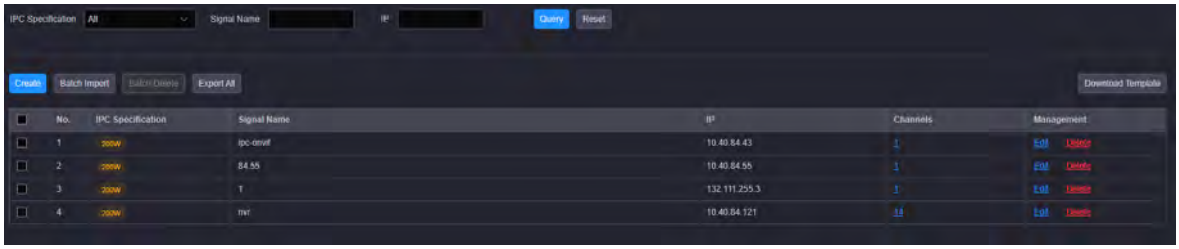
Figure 6-25 GB28181



Step 6 Click **Add** to complete adding the cameras.

After the video sources are added successfully, the cameras and their IP address will be listed.

Figure 6-26 IPC signal source list



6.5.2.2 Import Multiple IPC Sources

The H series supports batch importing and exporting of IPC sources.

Step 1 Click **Download Template** at the top right corner to download the template for importing IPC sources to your local computer.

Step 2 Fill in the relevant information according to the requirements in the template.

Step 3 Click **Batch Import** to import the IPC sources in the template to the system.

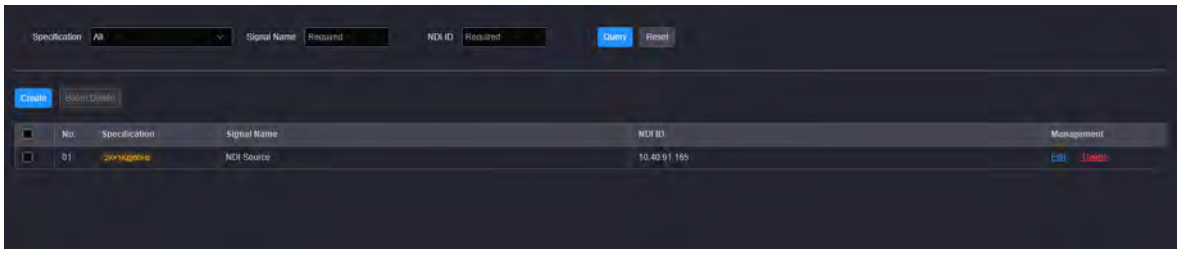
Note:

You can also export all the added IPC sources to your local computer for future use.

6.5.3 NDI Management

On the **Settings** page, click **NDI Management** to enter the corresponding page.

Figure 6-27 NDI management

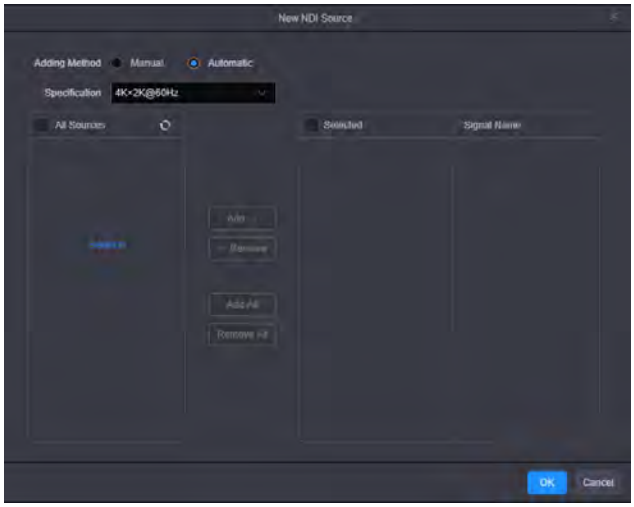


6.5.3.1 Add NDI Sources

Before adding an NDI source, you need to connect the NDI connector to the local area network where the NDI source is located using an Ethernet cable, and set the decoding specification of the NDI card on the **Device** page.

Click **Create** to open the NDI source adding window.

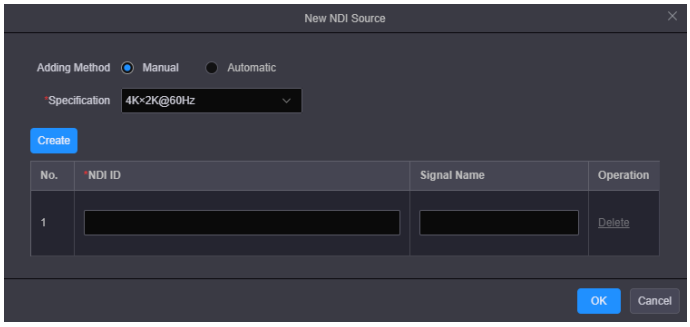
Figure 6-28 New NDI sources



Add Manually

Step 1 Select **Manual** next to **Adding Method** to open the corresponding window.

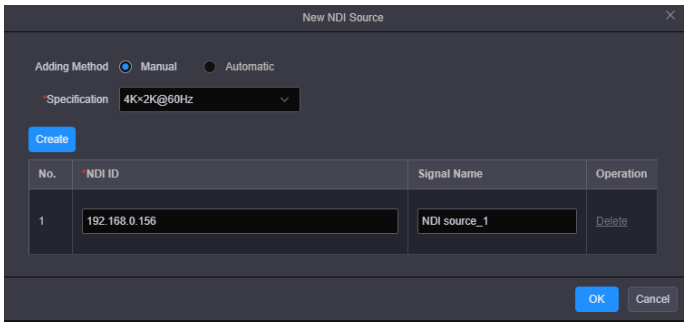
Figure 6-29 Manually add NDI sources



Step 2 Select the decoding specification.

Step 3 Click **Create** to add a new NDI source.

Figure 6-30 New NDI sources



Step 4 Fill in the NDI source information.

- NDI ID: Enter the ID or IP address of the device providing the NDI source.
- Signal Name: Enter a name for the added NDI source.

Step 5 Click **Create** to add more NDI sources and enter the source information.

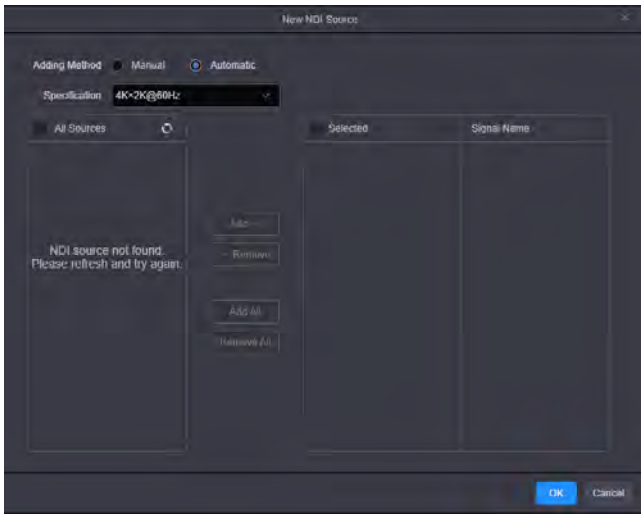
Step 6 Click **OK** to complete the adding.

Add Automatically

Step 1 Select **Automatic** next to **Adding Method** to open the corresponding window.

Step 2 Select the decoding specification and the system will automatically search for the NDI sources in the current environment.

Figure 6-31 Automatically add NDI sources

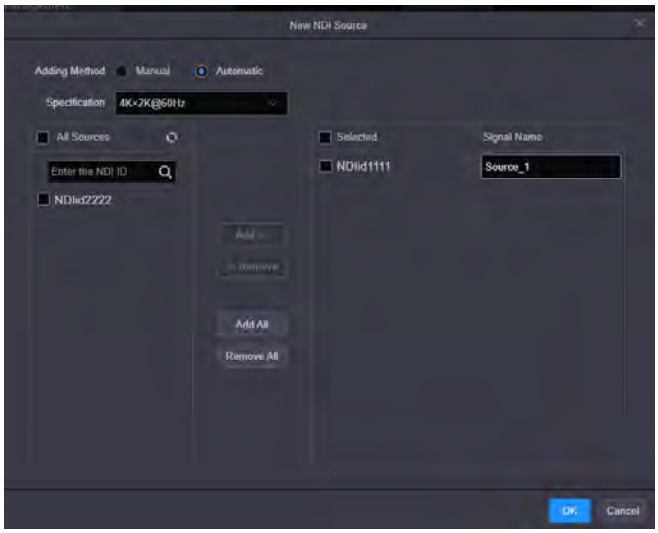


Step 3 In the **All Sources** area, check the box next to the desired NDI source.

Step 4 Click **Add** to add the selected source to the **Selected** area.

Step 5 In the **Signal Name** area, enter a name for the added NDI source.

Figure 6-32 Name NDI sources



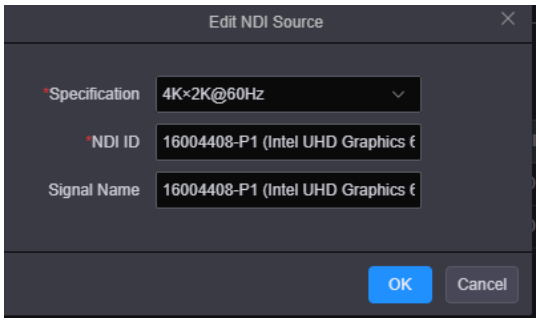
Step 6 Click **OK** to complete the adding.

6.5.3.2 Edit NDI Sources

After the NDI source is added successfully, you can edit the source.

Step 1 On the NDI management page, select the desired NDI source and click **Edit** in the column of **Management** to open the NDI source editing window.

Figure 6-33 Edit NDI sources



Step 2 Edit the decoding specification, ID and name of the NDI source respectively.

Step 3 Click **OK** to complete the editing.

6.5.3.3 Delete NDI Sources

If the NDI source is not in use, you can delete it on the NDI management page.

- Delete single source: Check the box next to the desired source and click **Delete** in the column of **Management** to delete the selected source.
- Batch delete: Check the boxes next to the desired sources and click **Batch Delete** to delete all the selected sources.

6.5.4 Permission Management

6.5.4.1 Role Management

The administrator is able to create permission collections and grant permissions to each user in the system through the role management function. This function also facilities the fine control of user permissions. For adding new roles, please refer to 4.17 Manage Roles.

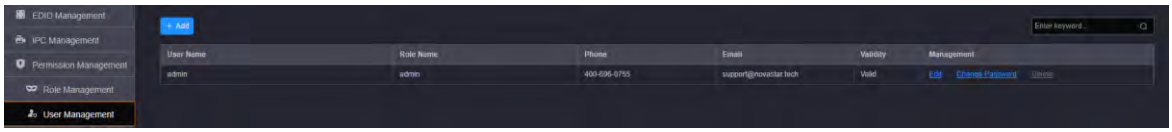
Figure 6-34 Role management



6.5.4.2 User Management

The H series supports multi-user collaboration at the same time. Only one user (admin) is created in the system by default. For adding new users, please refer to 4.18 Manage Users.

Figure 6-35 User management

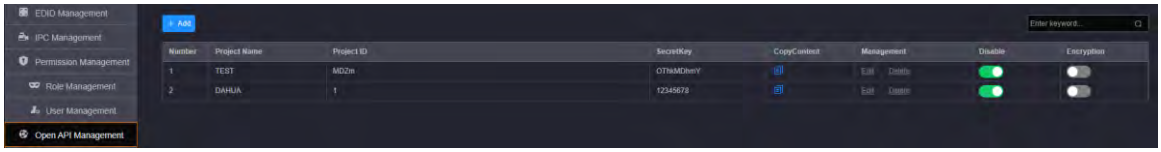


6.5.5 Open API Management

The H series provides the open API connector. The third-party developers can control video wall splicers through this connector.

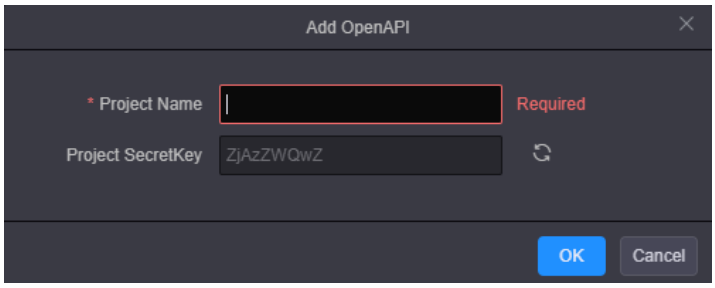
Step 1 Click **Open API Management** on the left to enter the open API management page.

Figure 6-36 Open API management



Step 2 Click **Add** to add a new open API project.

Figure 6-37 Add open API-1

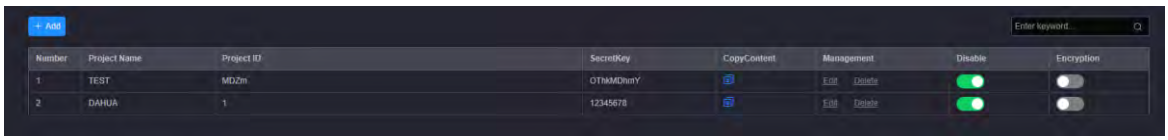


Step 3 Enter the name of the third-party control in the **Project Name** text box.

The system automatically generates a secret key and display it in the **Project Secret Key** text box. Click to generate a new key.

Step 4 Click **OK** to complete the adding.

Figure 6-38 Add open API-2



After the API is added, the system automatically creates the project ID and the open API is enabled by default. When you need to transmit encrypted control commands, set the button in the column of **Encryption** to .

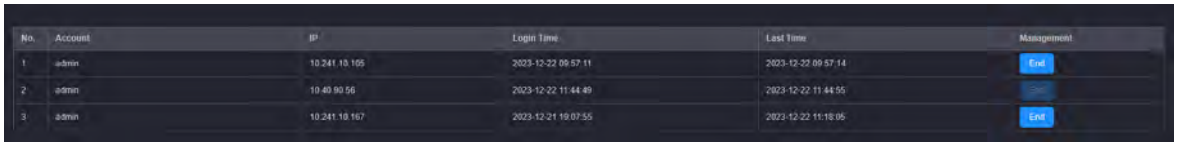
Click  in the column of **Copy Content** to copy the project name, project ID and secret key information and send them to third-party developers.

When you no longer use the open API and need to delete the created open API project, set the button in the column of **Disable** to , and then click **Delete** in the column of **Management.**

6.5.6 Session Management

Click **Session Management** on the left to enter the session management page. You can view the relevant information of the current users in the system.

Figure 6-39 Session management

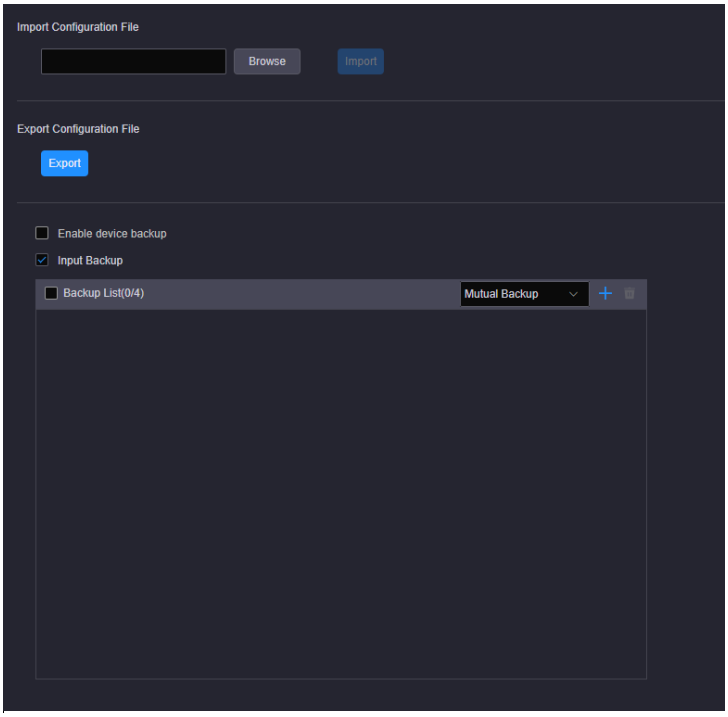


If the user has the permission to end the session for other users, click **End** to force other users to log out.

6.5.7 Backup Management

Click **Backup Management** on the left to enter the backup management page. You can save and export the configured device parameters as a configuration file for future use.

Figure 6-40 Backup management



6.5.7.1 Import/Export Configuration Files

- Import Configuration File: Import the saved configuration file for quick screen configuration, color, EDID, layer, BKG, OSD, preset and preset playback settings.
- Export Configuration File: Click **Export** to export the device configuration parameters for future use.

6.5.7.2 Device Backup

When both the primary and backup sources fail, the device backup will take effect.

The H series devices support both the backup between the devices and the backup between the sending cards on the same device. You must set the backup in NovaLCT by referring *NovaLCT User Manual*.

After configuring the backup in NovaLCT, on the **Backup Management** page of each device, check the box in front of **Enable device backup** to turn on the backup function.

If you connect the H series device via NovaLCT, the controlled sending card varies depending on the communication port. The correspondence between the communication port and sending card is shown in the following table.

Table 6-3 Correspondence between port numbers and sending cards

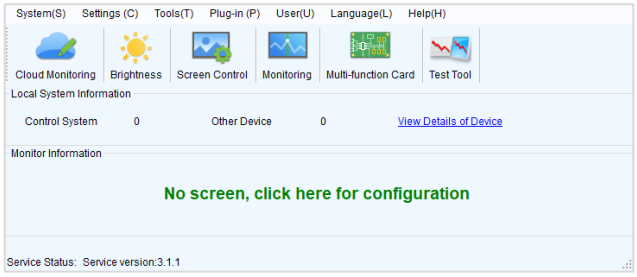
Port Number	Sending Card	Description
5201	H_16xRJ45+2xfiber sending card	The mode of the communication port used to connect NovaLCT to the H series device: IP: port number • IP: The IP address of the controlled H series device • Port number: The port number varies depending on the sending card.
5202	H_20xRJ45 sending card	
5203	H_4xfiber sending card	

Card Backup

The backup between cards refers to the backup relationship between two sending cards of the same type on the same device.

Step 1 Run the NovaLCT software. On the menu bar, go to **User** > **Advanced Synchronous System User Login**.

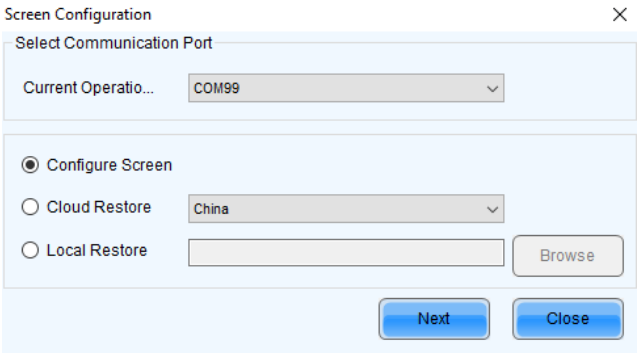
Figure 6-41 Log into NovaLCT



Step 2 Click **Screen Configuration** to open the window.

Step 3 Select a communication port and click **Next** to open the **Screen Configuration** window.

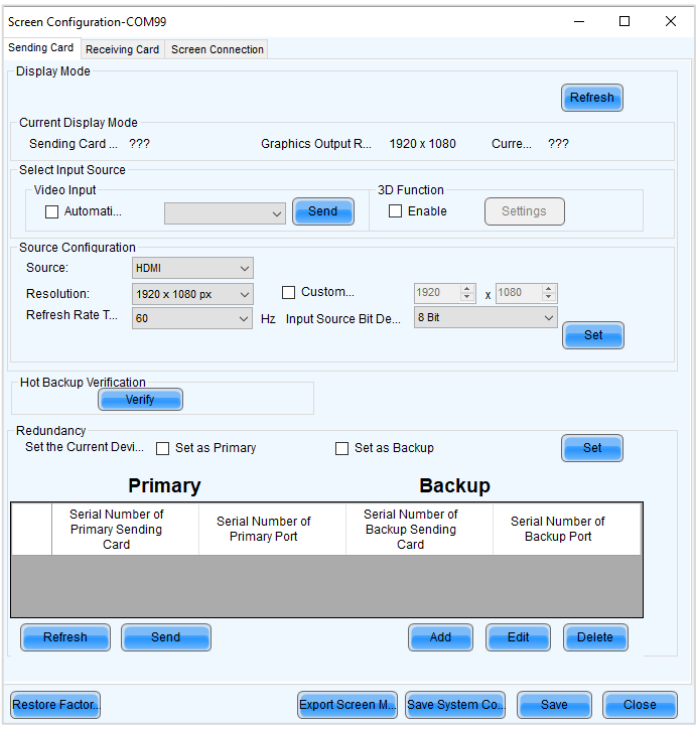
Figure 6-42 Select communication port



For communication port selection, please refer to Table 6-3.

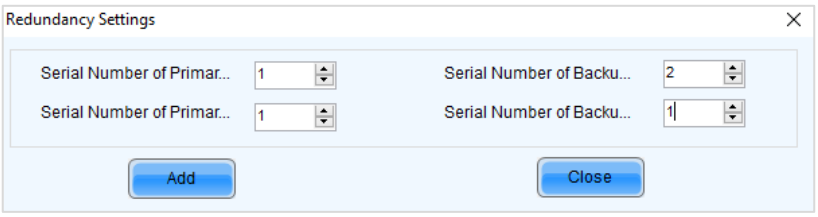
Step 4 Click the **Sending Card** tab and set the backup relationship between two sending cards in the **Redundancy** area.

Figure 6-43 Backup settings



There are two methods to set the backup relationship between two sending cards.

- Configure the backup relationship between connectors.
  a. In the **Redundancy** area, click **Add** to open the **Redundancy Settings** window.

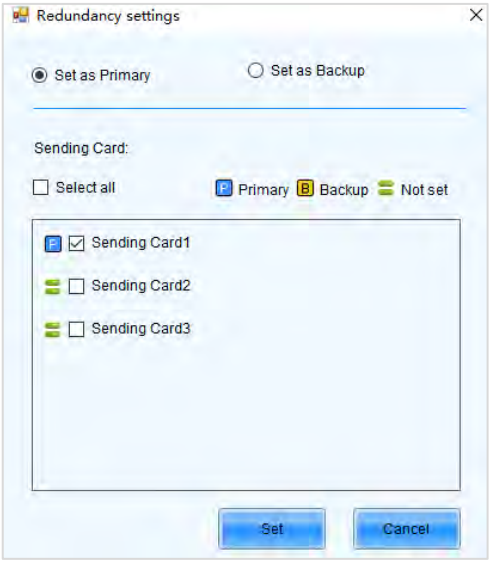


  b. Enter the serial numbers of the primary sending card, primary port, backup sending card and backup port respectively.

     If you set the backup relationship between the Ethernet ports on the same sending card, enter the same serial numbers of both the primary and backup sending cards. If you set the backup relationship between the Ethernet ports on different sending cards, enter the serial numbers of both the primary and backup sending cards according to the device cascading relationship.

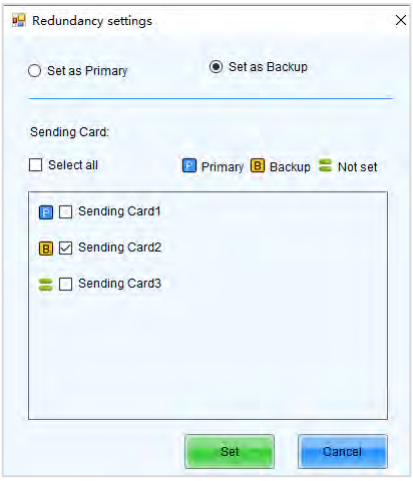
  c. Click **Add** to complete the backup relationship settings.
  d. Repeat the above mentioned operations to set the backup relationship of other connectors. Click **Close** to complete the settings.
  e. Click **Send** to send the configuration to the H series device.
  f. Click **Save** to save the configuration to the H series device.
- Configure the backup relationship between two sending cards.
  a. In the **Redundancy** area, click **Set** to open the **Redundancy settings** window.

Figure 6-44 Set backup relationship between sending cards



b. Click Set as Primary.
c. In the sending card list, select the desired sending card used as the primary one.
d. Click **Set** to complete the primary card settings.
e. Click Set as Backup.
f. In the sending card list, select the desired sending card used as the backup one.
g. Click **Set** the complete the backup card settings.

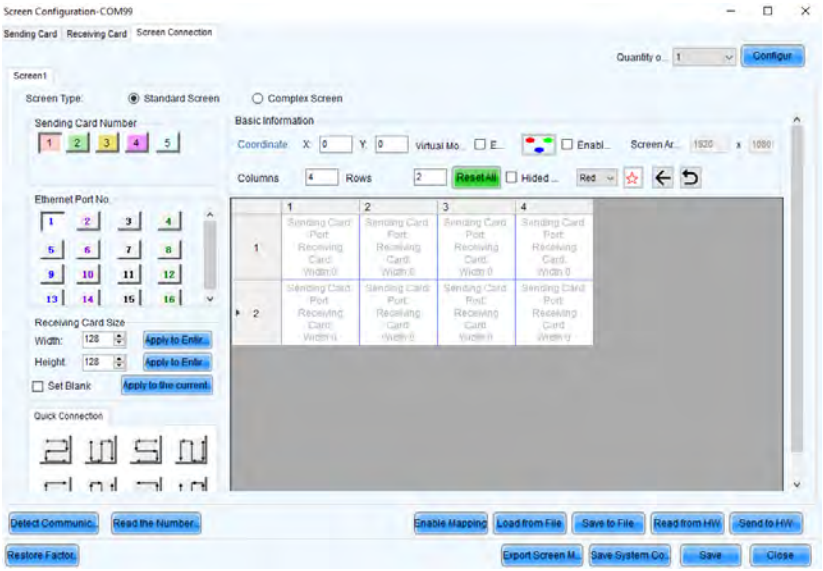
After you set both the primary and backup sending cards, the status icons of **Primary** and **Backup** will be displayed next to the corresponding cards.



h. After you complete the settings, click **Save** to send the configuration to the H series device.

Step 5 After you complete the backup settings, click the **Screen Configuration** tab to open the corresponding window.

Figure 6-45 Screen configuration



Step 6 Select the desired screen quantity from the drop-down list next to **Quantity of Screens**, and then click **Configure** to complete the configuration.

You can also increase or decrease the screen quantity here.

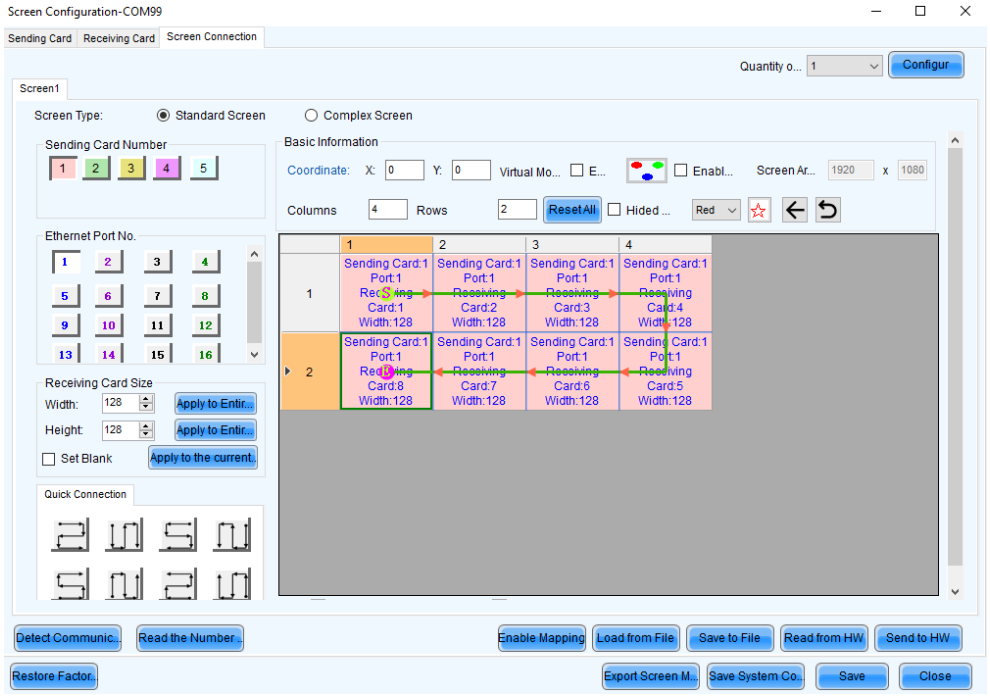
Screen quantity descriptions:

- When you set the backup relationship between Ethernet ports, only one screen loaded by the primary Ethernet ports needs to be configured.
- When you set the backup relationship between sending cards, you need to configure the screen for each sending card, and the screen configuration parameters of the primary and backup cards must be the same. The screen configuration parameters include the screen size, cabinet size and connection topology of the Ethernet ports matched with the primary and backup sending cards.

Step 7 Configure the loaded screen.

1. Set the cabinet width and height in the **Receiving Card Size** area according to the actual cabinet specification.
2. Set the values of **Columns** and **Rows** of the receiving card.
3. Select the desired sending card number and Ethernet port number respectively.
4. Set the connection topology of the receiving card.

Figure 6-46 Connection topology



5. Repeat the above mentioned two steps to complete the connection topology of other ports.

   When you set the backup relationship between two sending cards, you need to configure another screen whose connection topology is the same as that of the primary sending card.

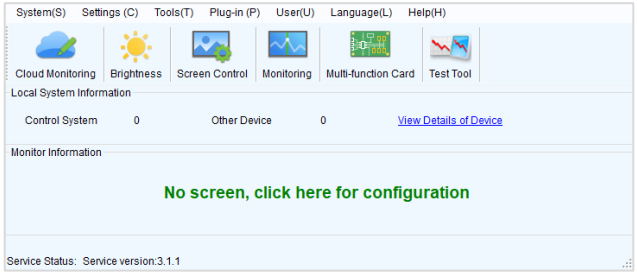
6. After you complete the configuration, click **Send to HW** to send the configuration to the H series device.
7. Click **Save** to save the configuration to the hardware.

Device Backup

Set the backup relationship between two devices.

Step 1 Run the NovaLCT software. On the menu bar, go to **User** > **Advanced Synchronous System User Login**.

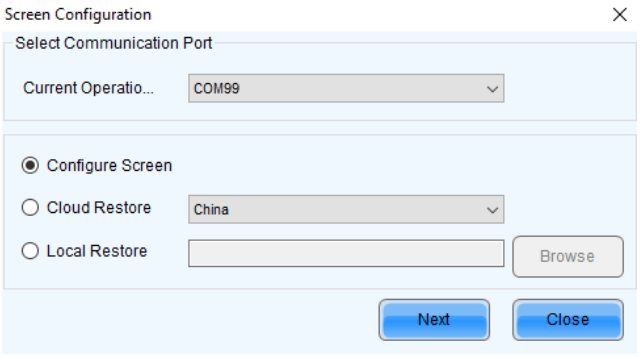
Figure 6-47 Log into NovaLCT



Step 2 Click **Screen Configuration** to open the window.

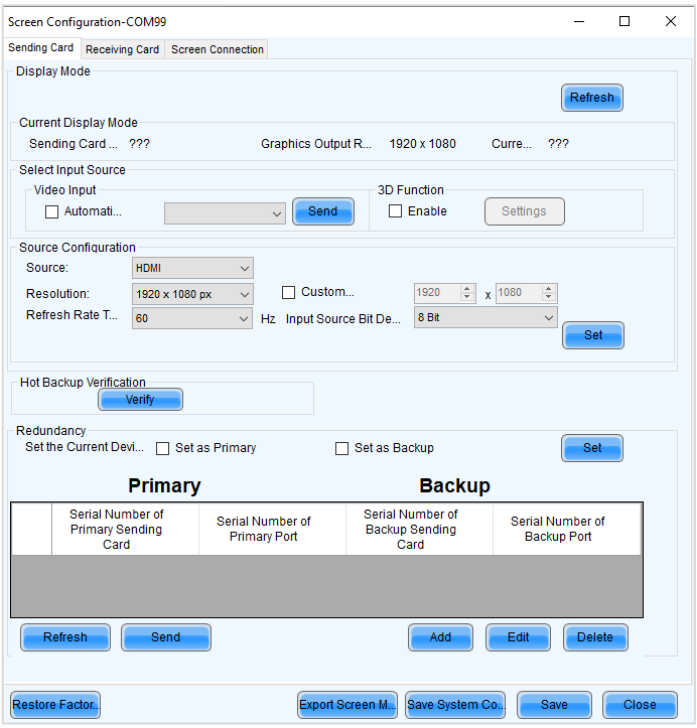
Step 3 Select a communication port and click **Next** to open the **Screen Configuration** window.

Figure 6-48 Select communication port



Step 4 Click the **Sending Card** tab and set the backup relationship between two devices.

Figure 6-49 Backup settings



Step 5 If the current device serves as the primary one, check the box next to **Set as Primary**.

Step 6 Repeat Step 3 to select the communication port of the backup device, and then the backup device will be connected.

Step 7 In the **Redundancy** area, check the box next to **Set as Backup**.

Step 8 On the **Screen Configuration** page, configure the screen loaded by the primary and backup devices respectively.

The screen parameters of the primary device must be the same as that of the backup device.

Note:

The settings for the backup device and the backup sending card must be same as that of the primary device and primary sending card.

6.5.7.3 Input Backup

The H series devices support the input source backup function. If the input signal in use is abnormal or lost, the backup one will take over the job seamlessly to ensure the display not go black.

The backup relationship cannot be set for NDI or IPC sources.

Step 1 Click **Backup Management** on the left to enter the backup management page.

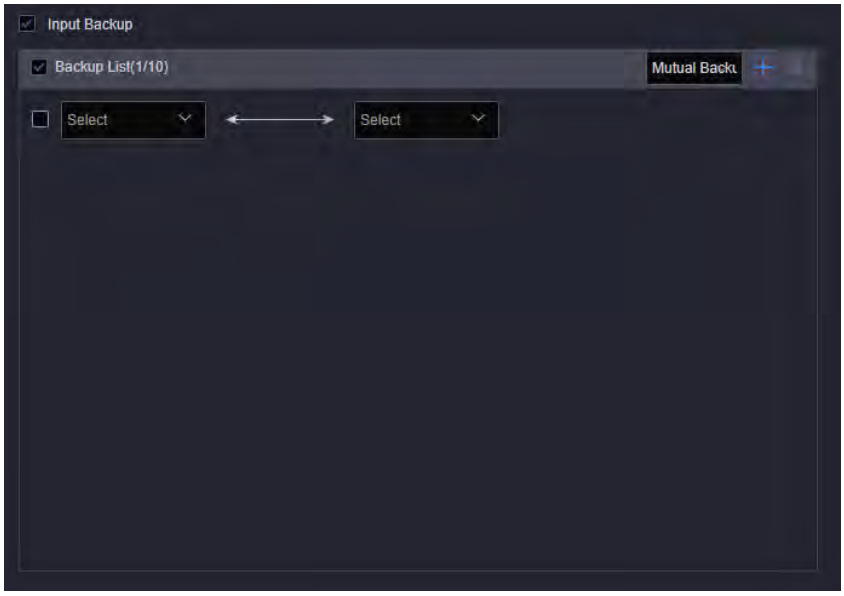
Step 2 Check the box next to **Input Backup** to enable the input source backup function.

Step 3 Select the desired backup relation. The options include **Mutual Backup** and **Primary and Backup**.

- Mutual Backup: When one input source fails, the other one takes the job seamlessly; when the failed one resumes, it continues to work normally and the other does not work.
- Primary and Backup: When the primary input source fails, the backup one takes the job seamlessly; when the primary one resumes, it continues to work normally and the backup one does not work.

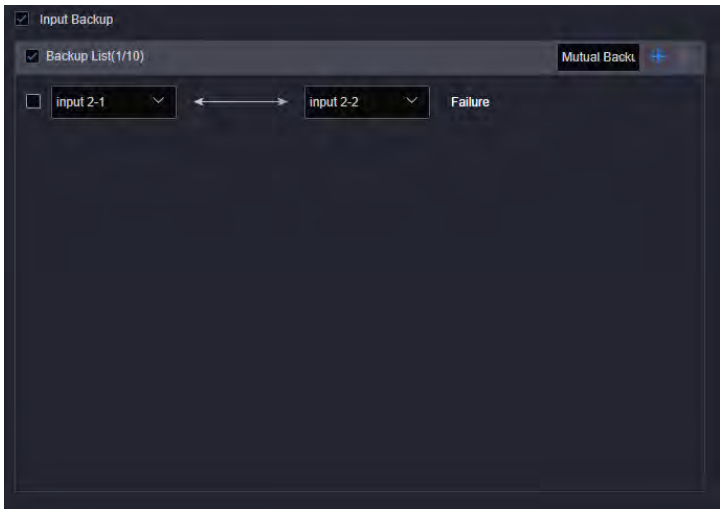
Step 4 Click  at the top right of the input backup list to add a new backup pair.

Figure 6-50 Add backup pairs-1



Step 5 Select two input sources respectively from the two drop-down lists to complete the adding of one backup pair.

Figure 6-51 Add backup pairs-2



The system will automatically detect the status of the backup one and display the status next to the backup pair.

Step 6 Repeat Step 3 and Step 4 to add more backup pairs.

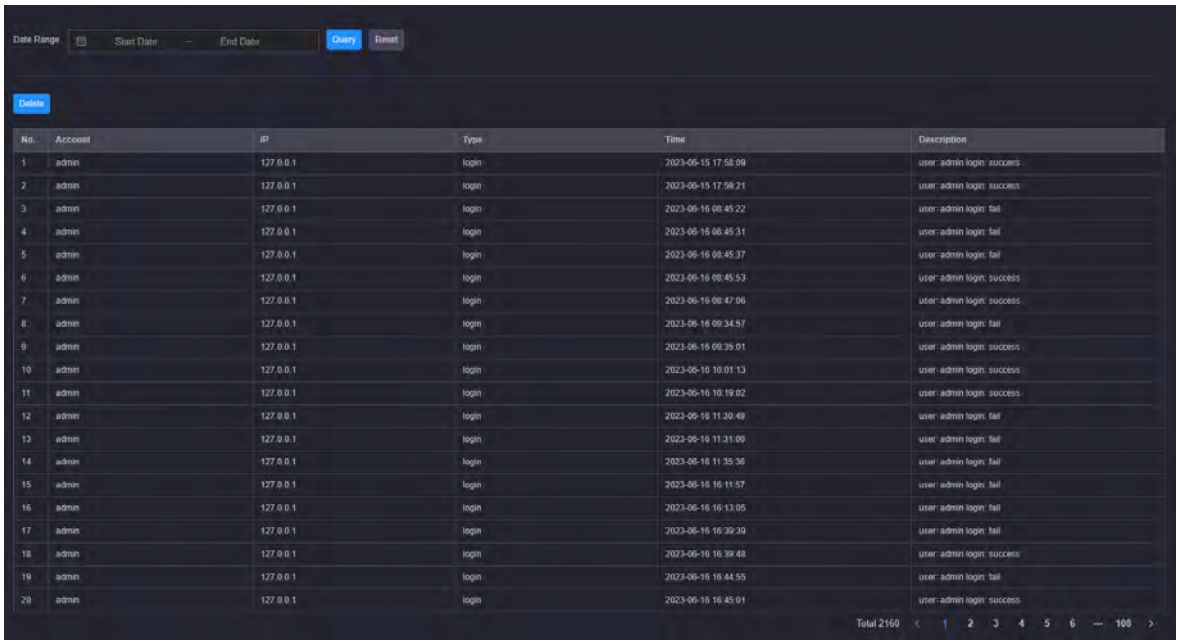
6.5.8 Log Management

You can view the login logs and operation logs for analyzing problems.

6.5.8.1 Login Logs

Go to **Log Management** > **Login Logs** to enter the login log management page. You can view the IP address, login time and login status of each user.

Figure 6-52 Login logs



Query Logs

Select the start and end dates and click **Query** to query the login logs of the selected period.

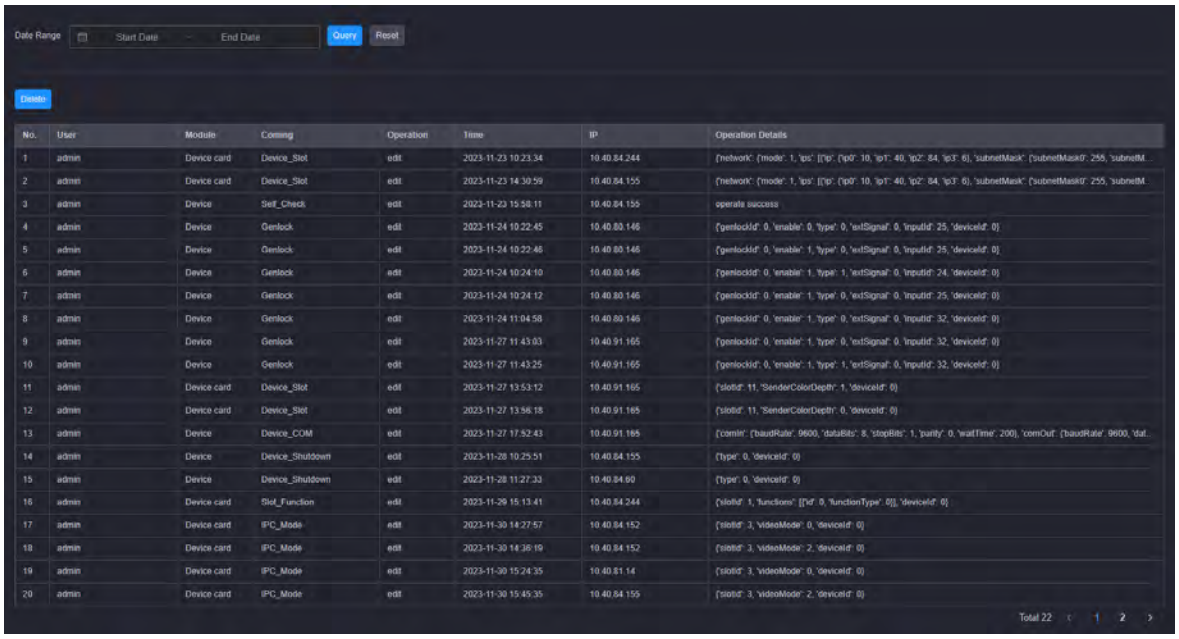
Delete Logs

Click **Delete** to delete all the login logs.

6.5.8.2 Operation Logs

Go to **Log Management** > **Operation Logs** to enter the operation log management page. You can view the operation modules, operations, operation time and operation details of all the users.

Figure 6-53 Operation logs



Query Logs

Select the start and end dates and click **Query** to query the operation logs of the selected period.

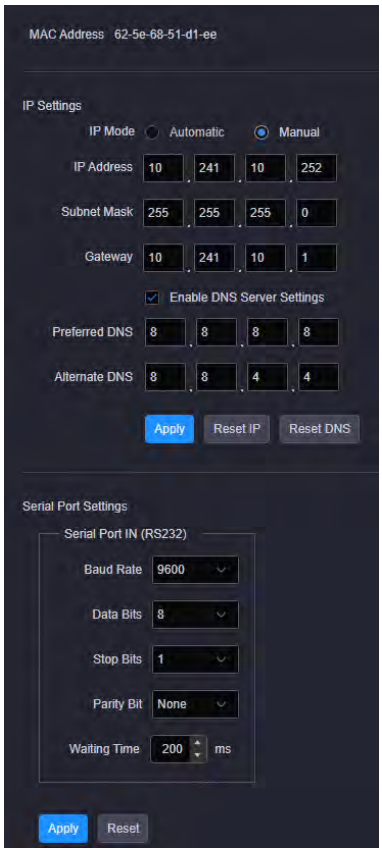
Delete Logs

Click **Delete** to delete all the operation logs.

6.5.9 Communication Settings

Click **Communication Settings** on the left to complete the IP address and serial port settings.

Figure 6-54 Communication settings



6.5.9.1 IP Settings

- Set the IP address.

  The IP address can be set manually or automatically.

  It should be noted that the IP addresses of both the device and control PC must be on the same network segment, and the device IP address cannot be the same as that of the control PC. For example, if the IP address of the control PC is 192.168.0.100, the device IP address must be 192.168.0.X and the "X" cannot be 100.

  The subnet mask and gateway of the device must be the same as that of the control PC.

- Set the DNS server.

  Set the DNS server for easy access to Internet resources. This helps to achieve the functions such as system time synchronization, OSD weather data retrieval, and time update in time OSD.

  a. Check the box next to **Enable DNS Server Settings** to enable the DNS service.
  b. Enter the IP addresses of the DNS servers next to **Preferred DNS** and **Alternate DNS** respectively.

     It is recommended to use a reliable public DNS server, such as Google 8.8.8.8 and 8.8.4.4.
  c. Click **Apply** to make the IP address and DNS server addresses take effect.

     Click **Reset IP** to reset the IP information, including the IP address, subnet mask and gateway.

     Click **Reset DNS** to reset the IP addresses of the preferred and alternate DNS servers.

6.5.9.2 Serial Port Settings

Set the serial port (COM IN) related parameters for a better connection with the central control device and device control through the central control device.

6.5.9.3 Set Serial Port Parameters

The H series devices support the control of other devices via the COM OUT port on the H_Control card.

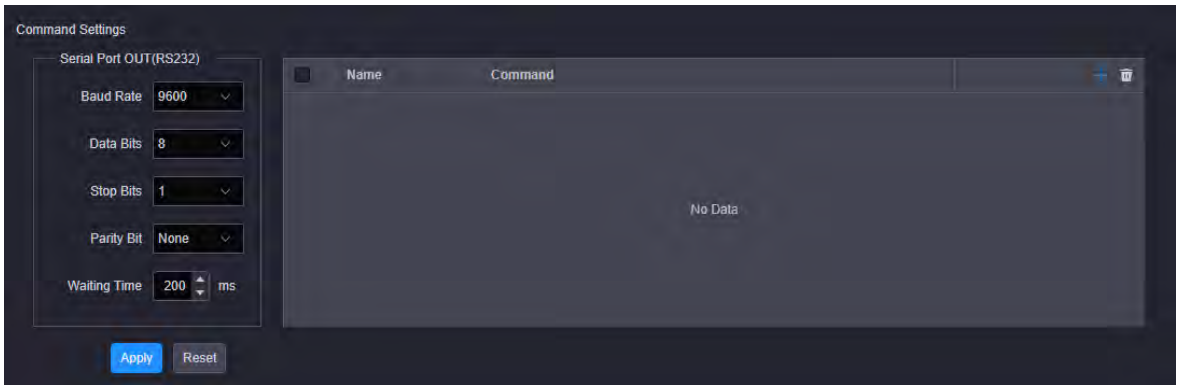
The serial port (COM OUT) is used to connect the controlled device. You need to obtain the serial port parameters of the controlled device before settings.

Step 1 Click **Communication Settings** on the left to enter the communication settings page.

Step 2 In the **Command Settings** area, set the serial port parameters.

Each serial port parameter must be the same as that of the controlled device.

Figure 6-55 Serial port parameters



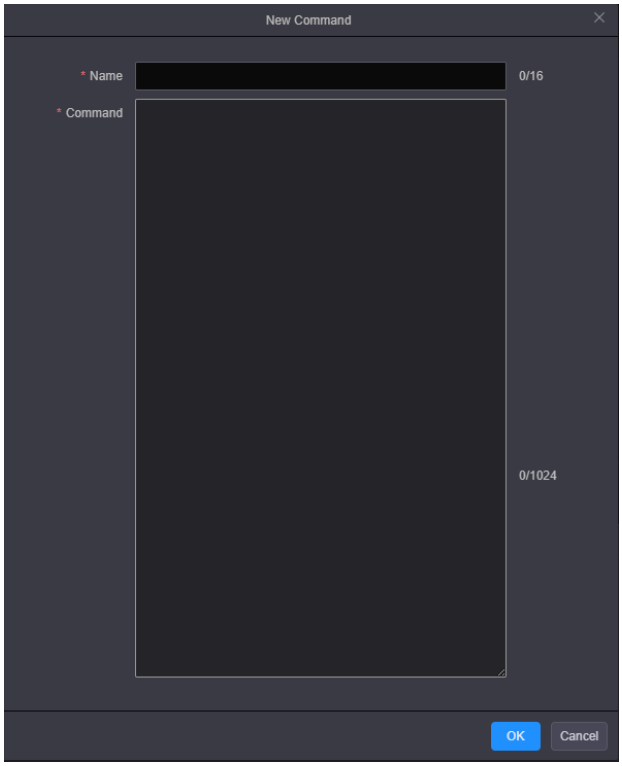
Step 3 Click **Apply** to save and apply the settings.

6.5.9.4 Add Commands

Add the operation commands for the device.

Step 1 Click **+** at the top right corner of the command list to open the new command adding window.

Figure 6-56 Add new commands



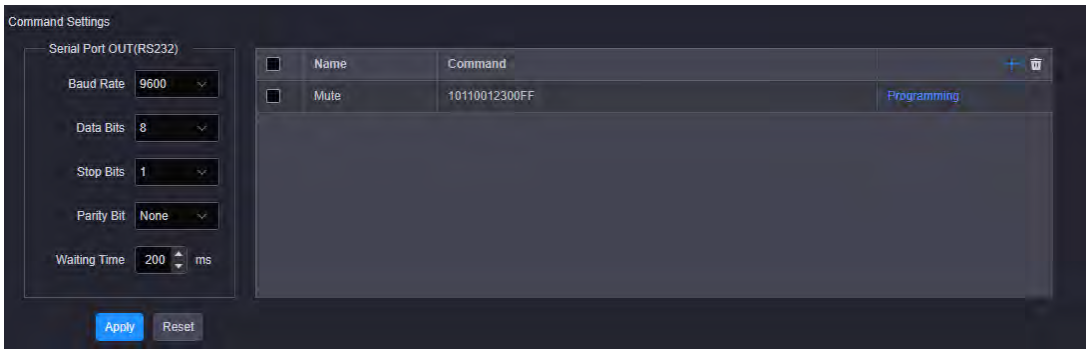
Step 2 Enter a name for the added command.

Step 3 Enter the command code.

For the command code, you can refer to the command in the control protocol of the controlled device.

Step 4 Click **OK** to complete the adding.

Figure 6-57 Command added successfully

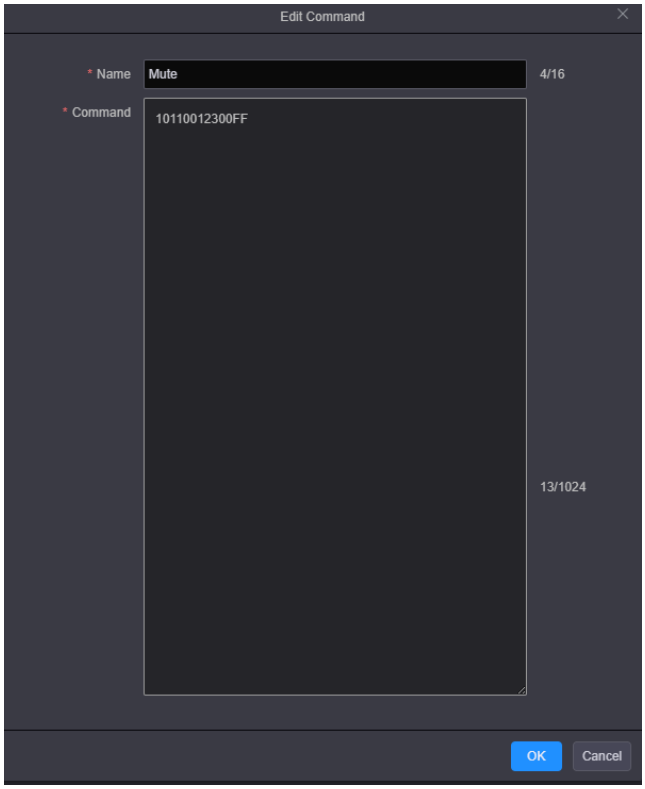


Step 5 Repeat Step 1 to Step 4 to add more commands.

6.5.9.5 Edit Commands

Step 1 In the command list, select the desired command and click **Programming** to open the command editing window.

Figure 6-58 Edit commands



Step 2 Edit the command name and code.

Step 3 Click **OK** to complete the editing.

6.5.9.6 Delete Commands

If the command for the controlled device is changed or removed, you can delete the added command from the system.

Step 1 Check the box next to the desired command.

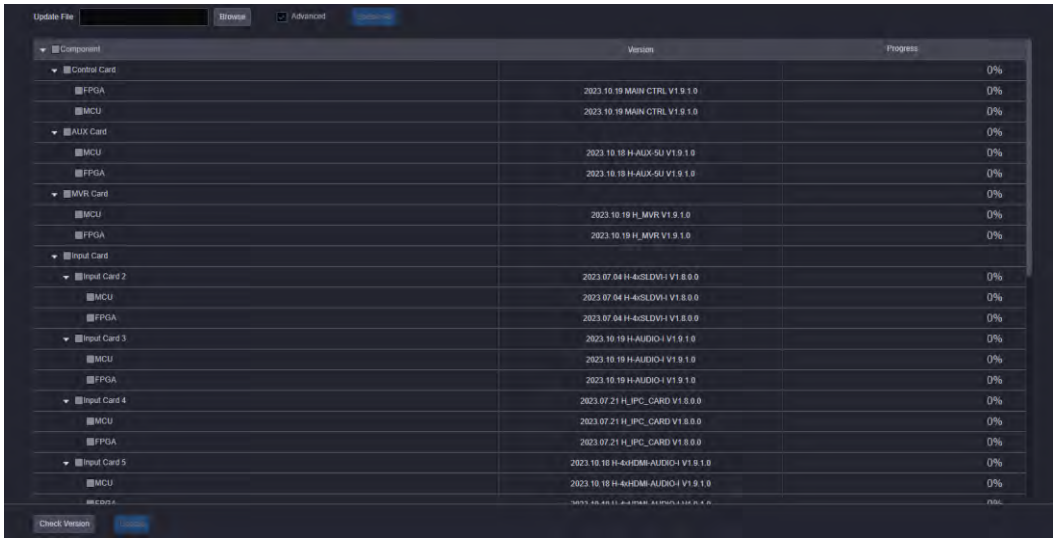
Check the box in the title bar to select all the commands.

Step 2 Click  at the top right corner of the command list to delete the selected commands.

6.5.10 Firmware Update

The H series supports firmware update through the Web page. Make sure you have downloaded the update package from NovaStar's official website before the update. The system supports the update for the control card, AUX and MVR cards, input cards and output cards. You can select to update a single component or the whole unit.

Figure 6-59 Firmware update



The update procedure is as follows.

Step 1 Firstly, make sure you have downloaded the software package of the component to be updated from NovaStar's official website.

Step 2 Click **Firmware Update** on the left to enter the update page.

Step 3 Click **Browse** to select the location of the version to be updated in the pop-up dialog box.

Step 4 Click **Update All** to update the components of the software in the current software package automatically.

Advanced Update

Step 1 Firstly, make sure you have downloaded the software package of the component to be updated from NovaStar's official website.

Step 2 Click **Firmware Update** on the left to enter the update page.

Step 3 Click **Browse** to choose the location of the version to be updated in the pop-up dialog box.

Step 4 Select **Advanced** to enter the advanced update page.

The system will select the corresponding components according to the software in the current software package automatically.

Step 5 You can deselect the unwanted components.

Step 6 Click **Update** to update the selected components.

Click **Update All** to update the components of the software in the current software package automatically.

Click **Check Version** to view the component versions.

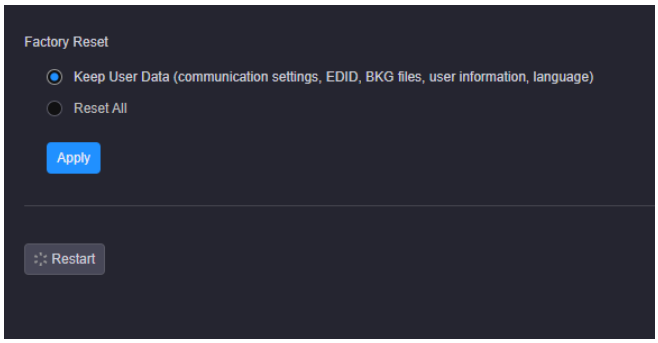
Note:

The H_16xRJ45+2xfiber sending card of V1.9.9.0 or later supports the dynamic sub-pixels function. Before updating, please check the box next to **Enable Dynamic Sub-Pixels** to ensure activation of this function.

6.5.11 Reset Settings

You can reset the device configuration data to factory defaults.

Figure 6-60 Reset



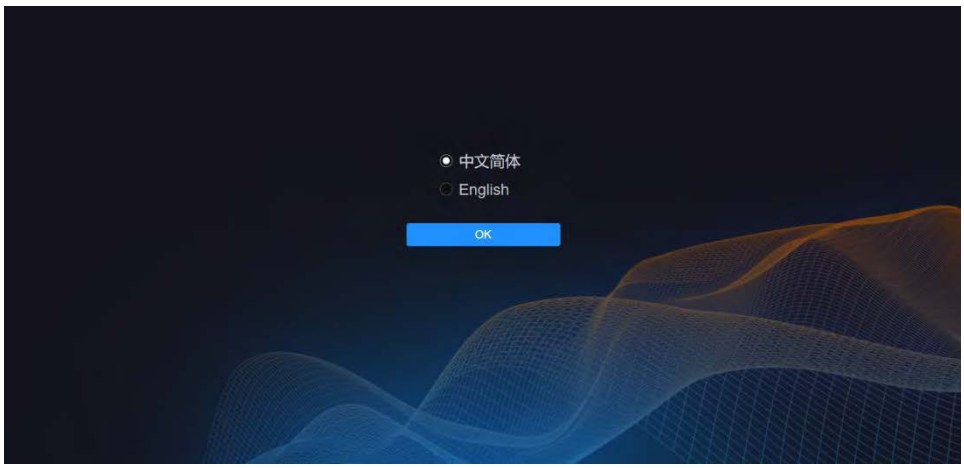
Factory Reset

Select the desired reset mode and click **Apply**.

- Keep User Data: When you reset the device, the following information will still be kept in the system, including the communication settings, EDID, BKG files, user information and language settings as well as other user data.
- Reset All: Reset all the parameters to factory defaults.

When you select **Reset All**, the language settings screen will be displayed on the device LCD screen and Web page after the device is started. Select the desired language and click **OK** to complete the language settings.

Figure 6-61 Web page



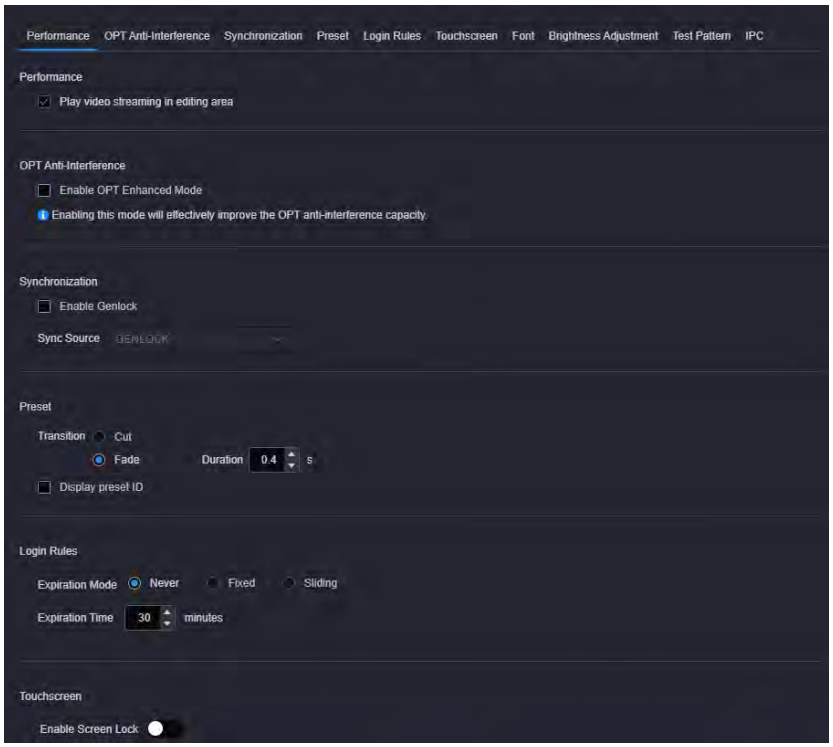
Restart

Click **Restart** and the device will restart automatically.

6.5.12 Other Settings

On this page, you can set the performance, Genlock and preset transition.

Figure 6-62 Other settings



Performance

Set whether to play the video streaming of the layer in the editing area. Turn off this function for quicker layer configuration.

OPT Anti-Interference

Enable or disable the OPT anti-interference function of the H_4xfiber sending card and H_16xRJ45+2xfiber sending card.

- Select **Enable OPT Enhanced Mode** to enable the OPT anti-interference function. Once enabled, the H series device must work with the CVT10 and CVT4K of V1.3.0 or later to ensure normal output.
- Deselect **Enable OPT Enhanced Mode** to disable the OPT anti-interference function. Once disabled, the H series device can work with fiber converters or video controllers that support OPT input to ensure normal output.
- If the OPT anti-interference function is enabled, but the backend device does not support this function, the image cannot be output normally.

Synchronization

- Enable Genlock: Set whether to use the external Genlock sync source.
  - Select **Enable Genlock** to turn on the Genlock function.
  - Deselect **Enable Genlock** to turn off the Genlock function.
- Sync Source: Select the connected input source used as the sync source.

Notes:

- When you use an input source for synchronization, the synchronization will be successful if the difference value between the frame rate of the sync source and the output frame rate (not SDI connector) is within ±0.5%.
- The synchronization will be successful if the difference value between the refresh rate of the sync source and the output refresh rate of the SDI connector is within ±0.01%.
- The supported sync refresh rate of the SDI connector: 23.98/24/25/29.97/30/50/59.94/60Hz

Preset

Set the preset transition effect. Cut and fade effects are supported. When **Fade** is selected, the transition duration can be set.

Notes:

- If the total number of the layers in the current preset and the preset to be switched exceeds 16x SL layers, 8x DL layers or 4x 4K layers, the fade effect is not supported and the preset will be switched in cut mode.
- The screens loaded by OPT ports, SDI connectors and HDBaseT ports do not support the fade transition effect.

Check the box next to **Display preset ID** and the system will automatically add an ID for each added preset.

The preset ID contains four digits and is displayed in front of the preset name. Once enabled, it will be added automatically by the system and cannot be changed.

Login Rules

Set the expiration mode and time after the user logs in to the Web page.

- Expiration Mode: Set the expiration mode when the login has expired. The supported options include **Never**, **Fixed** and **Sliding**.
  - Never: The login is long-term valid with no need to log in to the system again.
  - Fixed: Set the expiration time. If the login time exceeds the set time, the login will automatically expire and the user needs to log in to the system again for operations.
  - Sliding: Set the expiration time. If no operation is made during the set time, the login will automatically expire and the user needs to log in to the system again for operations.
- Expiration Time: Set the default login time. The default value is 30 minutes.

Touchscreen

- Enable Screen Lock: Enable or disable the screen lock function. Once enabled, the lock icon will be displayed on the front panel LCD and no operation is allowed on the LCD screen.
- Screen Timeout: Set the period time after which the screen will automatically turn off when no operation is performed. The supported options include **30s**, **60s**, **120s**, **300s** and **Never**.

  Never: The screen always stay on and displays the corresponding content.
- Screen Control: Enable or disable the screen control function.

Before enabling or disabling the desired function below **Touchscreen**, you need to enter the correct device login password in the popup dialog.

Text Font

The H series supports uploading local text fonts to the system, and the uploaded fonts can be used for OSD font settings.

- Add: Click **+** to select the font files to be added in the popup dialog. Click **Open** to upload the selected fonts to the system.
- Delete: In the font list, check the box in front of the font name, and then click  to delete the selected font, but the built-in font cannot be deleted.

Brightness Adjustment

When the device is used to load an LED screen, the system will automatically adjust the screen brightness according to the set time and brightness value.

You need to select the adjustment mode according to the used module chip.

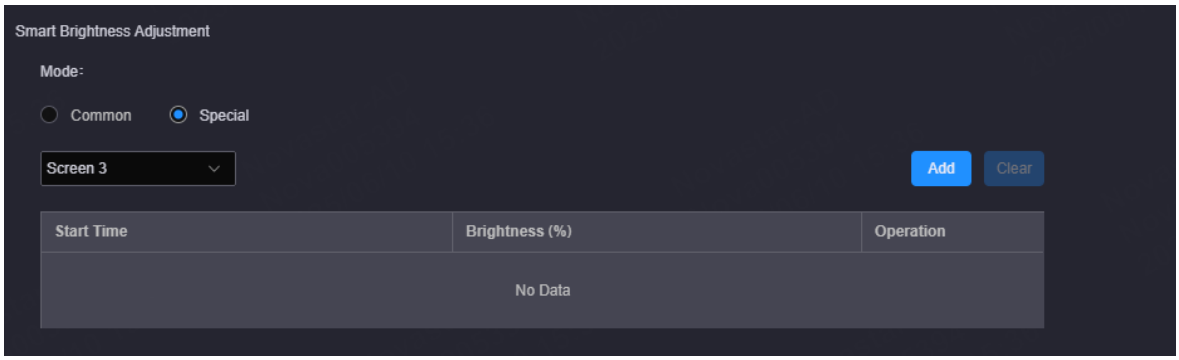
- Common: Except for the 2153 module chip, other chips not used for special adjustment
- Special: Only for the 2153 module chip

Step 1 Go to **Settings** > **Other** to enter the other settings page.

Step 2 In the **Smart Brightness Adjustment** area, select the adjustment mode according to the used module chip.

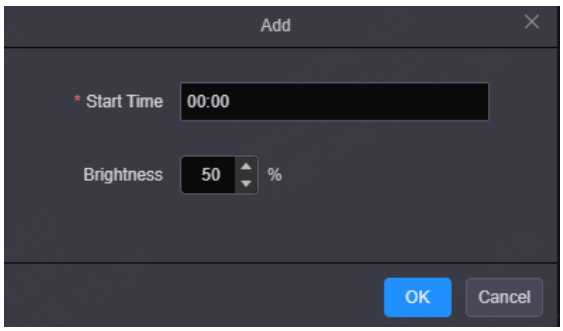
Step 3 Select the desired screen from the drop-down list.

Figure 6-63 Select screens



Step 4 Click **Add** to open the brightness adjustment settings window.

Figure 6-64 Add brightness adjustment



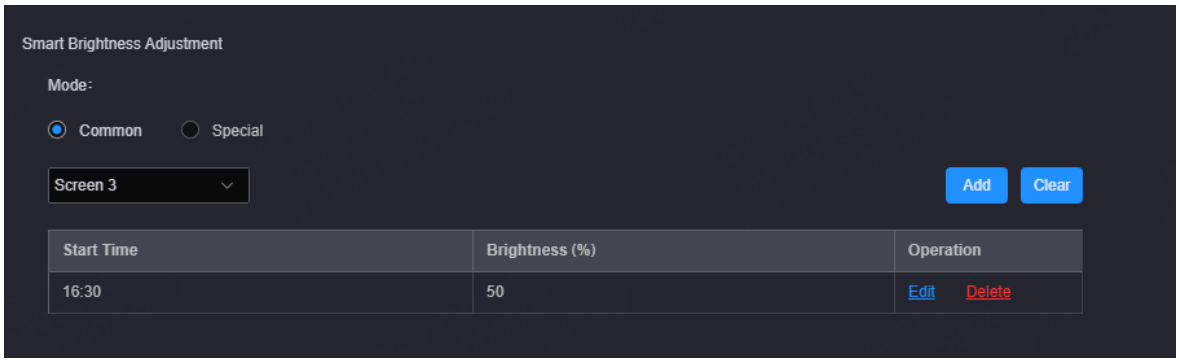
Step 5 Set the adjustment start time.

Step 6 Set the target brightness value. The value ranges from 0 to 100.

Step 7 Click **OK** to complete the adding.

Step 8 Repeat Step 4 to Step 7 to add new adjustment.

Figure 6-65 Automatic brightness adjustment



Test Pattern Border

Display or hide the test pattern border.

IPC

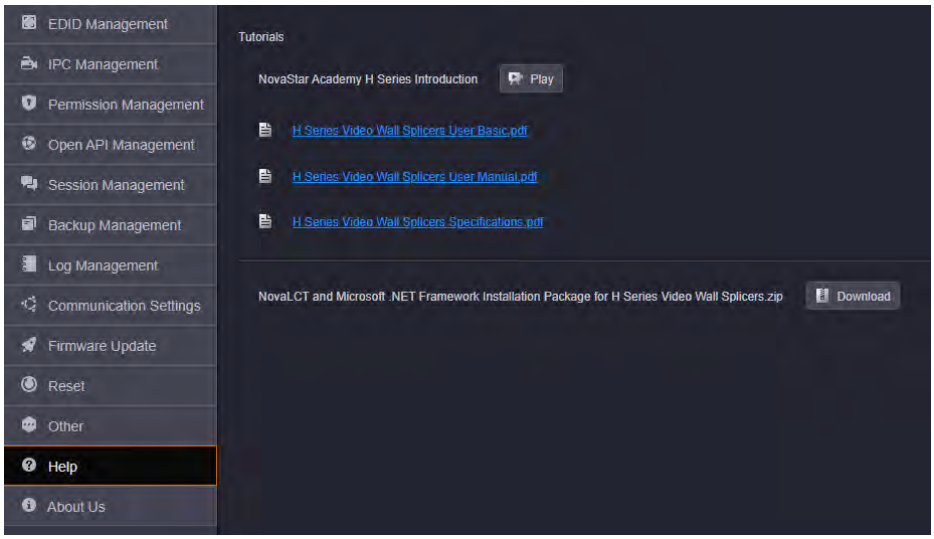
Set the image display mode when IPC decoding fails.

- Abnormal Display: “No signal” will be displayed in the layer editing area and the layer background color will be enabled.
- Stay on Last Frame: Display the normal last frame image before decoding failure.

6.5.13 Help

View the documents provided to help you, such as tutorials, manuals and related installation packages.

Figure 6-66 Help



6.5.14 About Us

On this page, you can view the information such as the official website, email address and device version.

Click **Download Log** to download the device operation log. When the device fails, you can download the log and send it to your device manufacturer for analyzing problems and offering suggestions to fix the problems.