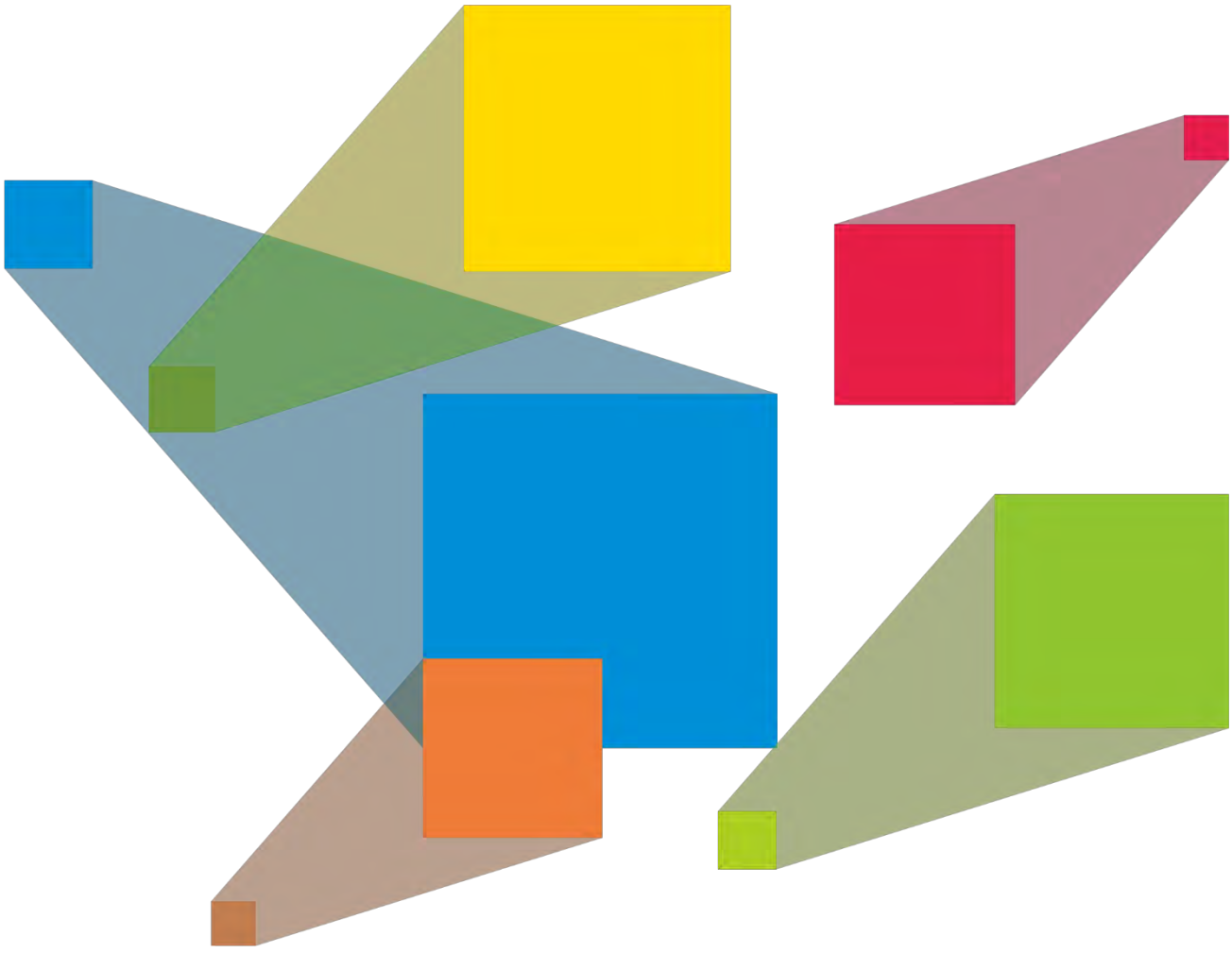
H Series

Video Wall Splicers



User Manual

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1 Device Connections

1.1 Input Cards

The H series supports a variety of input sources. Connect the input sources to the matched input card connectors.

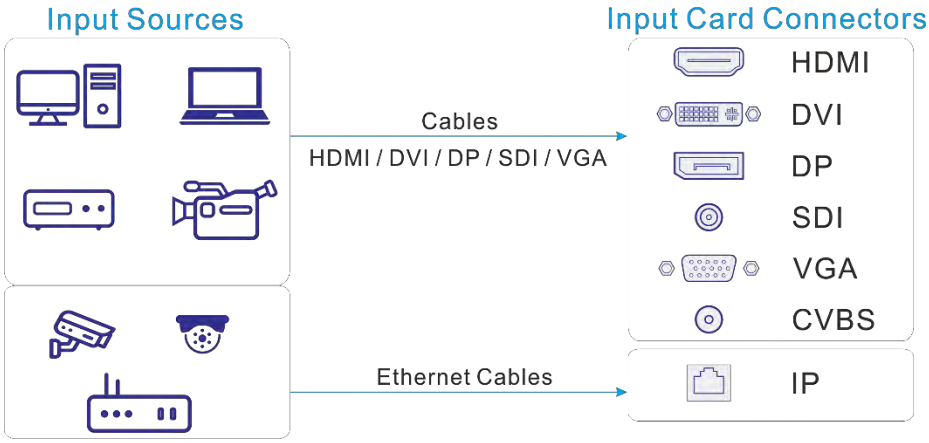
- DVI, HDMI, SDI, CVBS, VGA or DP input sources

  Connect the input sources to the matched input card connectors using corresponding cables or converter cables.

- IP camera sources

  Connect the input source to the Ethernet port of the H_2xRJ45 IP input card using an Ethernet cable.

Figure 1-1 Input card connection



1.2 Output Card

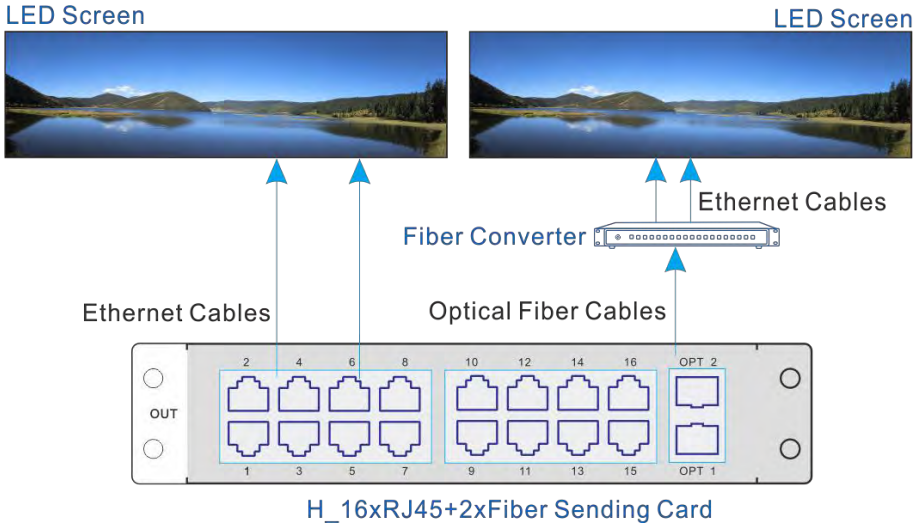
The H series provides two kinds of LED 4K sending cards: H_16xRJ45+2xfiber sending card and H_20xRJ45 sending card.

- When the H_16xRJ45+2xfiber sending card is used for output, the OPT ports copy the outputs on the Ethernet ports. OPT 1 copies and outputs the data on Ethernet ports 1–8. OPT 2 copies and outputs the data on Ethernet ports 9–16.
  - Via Ethernet port

    Connect the Ethernet ports directly to the LED screen based on the screen structure.
  - Via OPT port

    OPT ports are used for long-distance transmission. Connect the OPT ports to a fiber converter firstly, and then connect the fiber converter to the LED screen.

Figure 1-2 LED 4K sending card connection



Note:

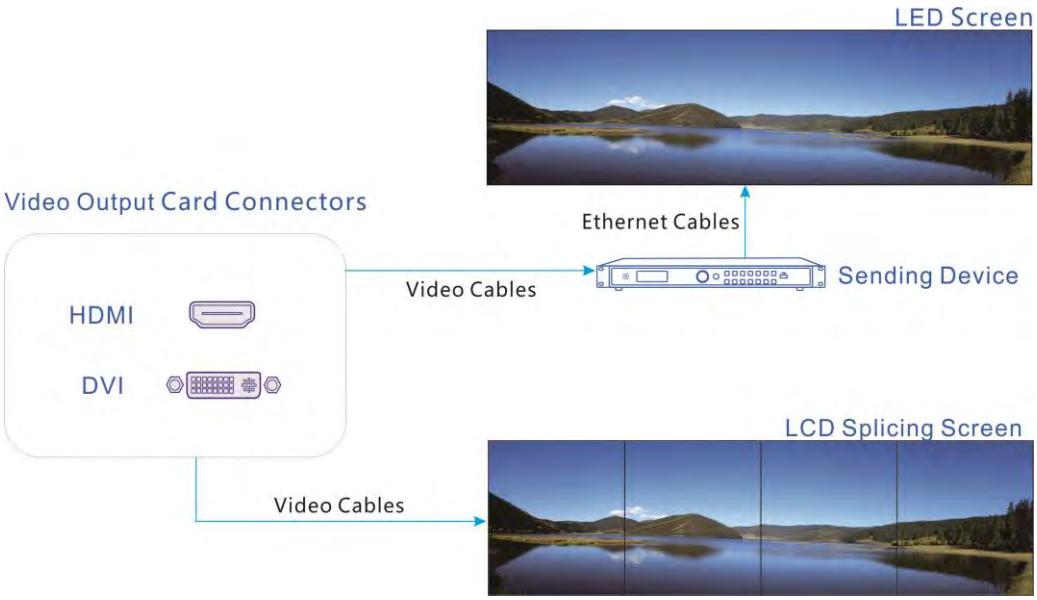
The H_20xRJ45 sending card is connected and configured in the same way as the H_16xRJ45+2xfiber sending card.

- When the video output card is used for output, the LED screen can be loaded by the sending device and the LCD screen can be loaded directly.
  - Via Ethernet cable

    To load the LED screen, connect the output card connectors to the input connectors of the sending device, and connect the sending device to the LED screen via Ethernet cables, as well as configure the screen on the sending device.
  - Via video cable

    To load the LCD screen, connect the output card connectors to input connectors of the LCD splicing screen via video cables.

Figure 1-3 Video output card connection



1.3 Power Supply

Connect the power connector on the rear panel to the electrical outlet using the supplied power cord.

1.4 Control Card

You can control the H series devices on a control PC through either of the following two methods.

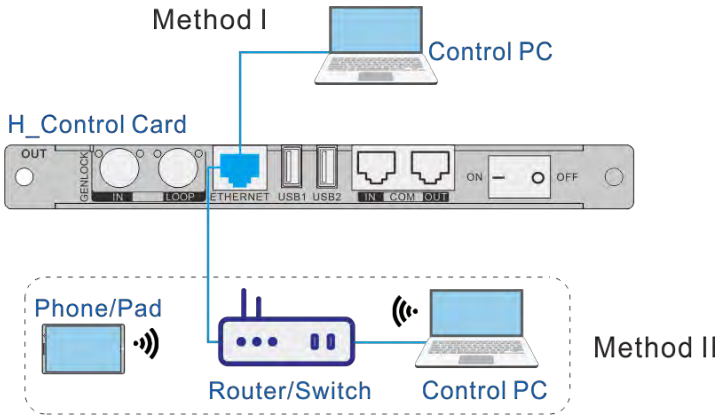
- Method I: Direct control for single-user control

  Connect the device Ethernet port to the control PC.

- Method II: Using a router or switch, for multiple user collaboration in a wired or wireless way

  Connect the Ethernet ports of both the device and control PC to the router or switch.

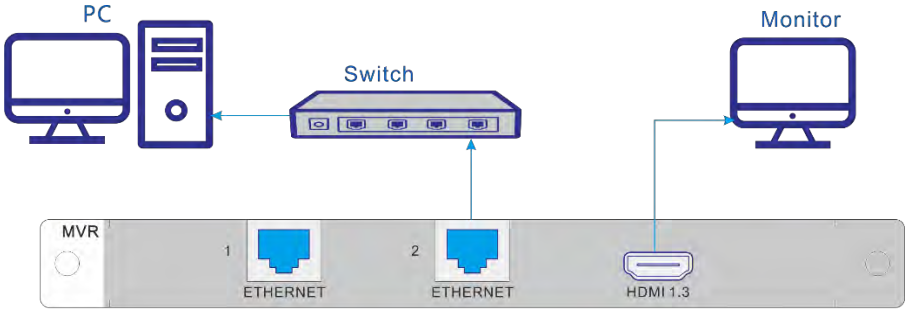
Figure 1-4 Control card connection



1.5 Preview Card

The H series allows you to monitor the inputs and outputs on a PC or monitor.

Figure 1-5 Preview card connection



H_2×RJ45+1×HDMI 1.3 preview card

- Via Ethernet port:

  Connect one of the Ethernet ports on the preview card and the Ethernet port of the control card to the same switch for the input source and screen monitoring on the Web page.

- Via HDMI connector:

  Connect the HDMI connector of the preview card to a monitor for on-site monitoring.

2 Device Login

2.1 Power On/Off

The power switch is on the H_Control card.

Figure 2-1 Control card



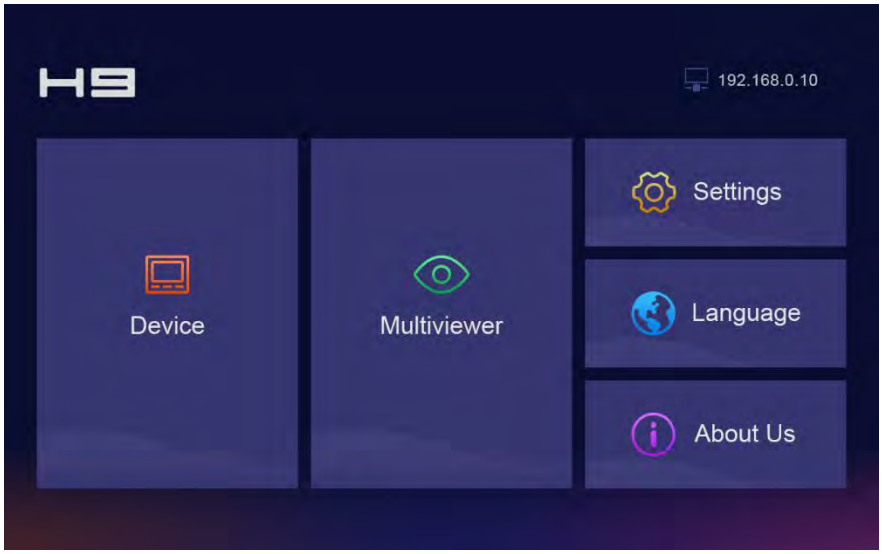
- – / On: Power on the device.
- O / Off: Power off the device.

Power on

Connect the power cord, and then set the rocker switch to **ON**. The home screen is displayed as follows after successfully powered on.

The device IP address is displayed at the top right on the home screen. The default IP address is 192.168.0.10.

Figure 2-2 Home screen



Power off

Set the rocker switch to **OFF**, and then disconnect the power cord if necessary.

2.2 Web Page Login

Prerequisites

- You have completed the connection as described in 1.4 Control Card.
- You have obtained the login user name and password. The default user name and password are "admin".

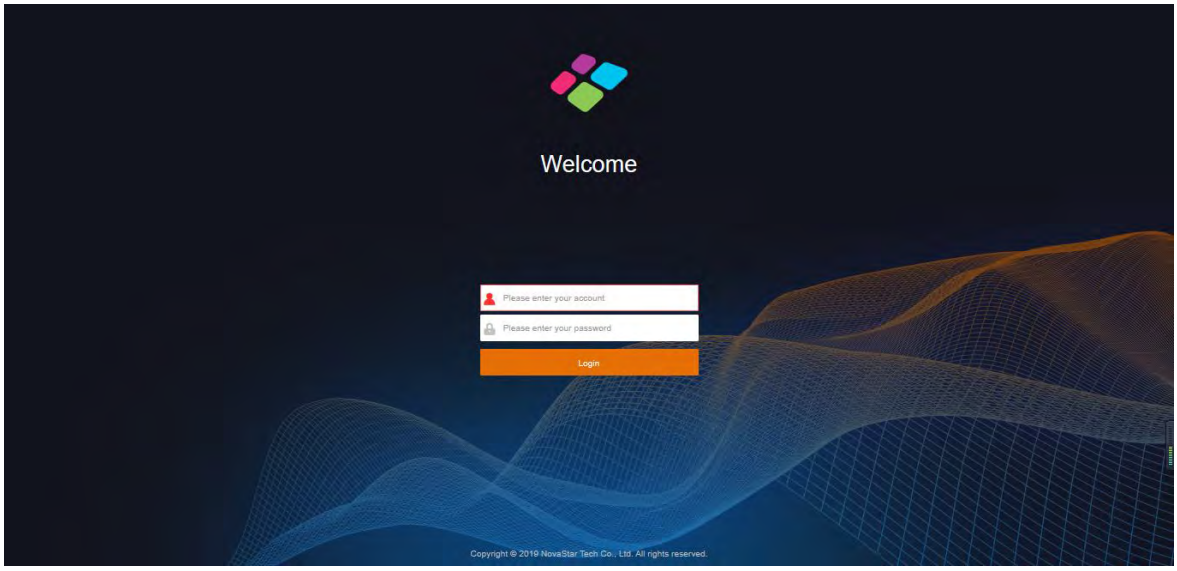
Notes

- When an H series device is connected directly to a control PC, the device and control PC must be on the same network segment and their IP addresses cannot conflict. For example, if the device IP address is 192.168.0.10, the IP address of the control PC must be 192.168.0.X and X cannot be 10.
- When an H series device is connected to a control PC using a router or switch, you must set to automatically get the IP address, and select **Obtain an IP address automatically** for the network settings on the control PC.
  a. Go to **Settings** > **Communication** from the home screen to enter the network settings screen.
  b. Click the **IP Settings** tab to enter the IP settings screen.
  c. Set the mode to **Automatic**.
  d. Click **Main** at the top left to return to the home screen and the current device IP address appears at the top right.
  e. Select **Obtain an IP address automatically** on the Internet protocol properties window on the control PC. The router or switch will assign the IP addresses to the device and control PC automatically.

Operating Procedure

Step 1 Open the suggested web browser on your computer, enter the device IP address in the address bar, and then press **Enter** to jump to the login interface for the Web page for the H series devices.

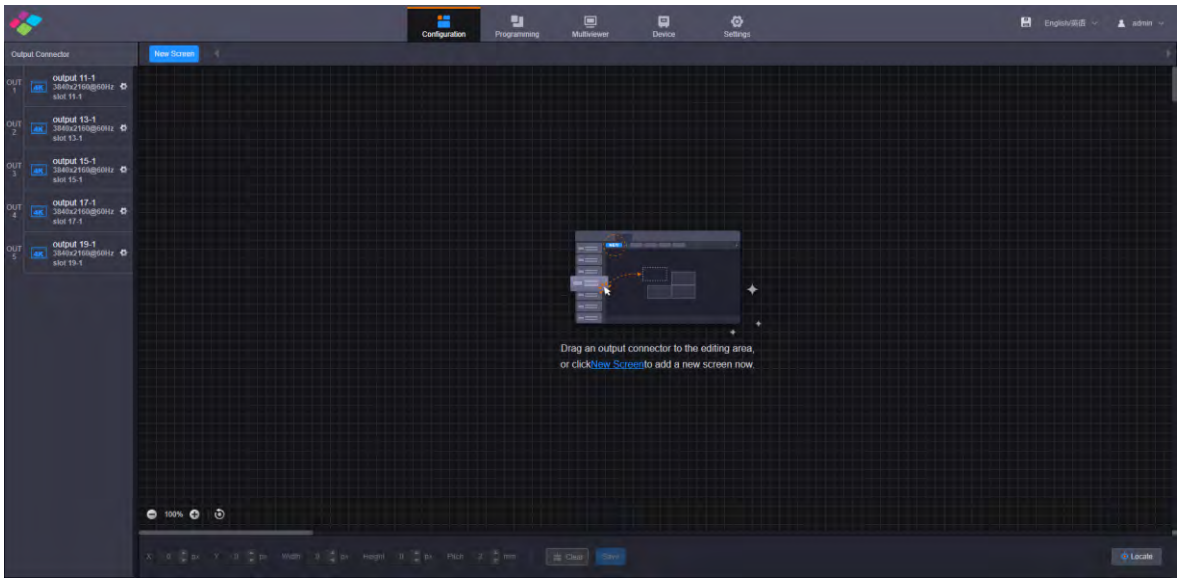
Figure 2-3 Web login page



Step 2 Enter the user name and password, and click **Login** to log in to the Web page.

The default user name and password are both "admin".

Figure 2-4 Web page after login



3 Screen Configuration

3.1 LED Screen

Configure the screen based on the structure and data flow of the screen loaded by the current device. Associating the screen with the outputs will make it convenient for you to control the screen by area.

When you use different output cards, the screen configuration methods are different.

- Method I:

  Use the LED 4K sending cards (H_16xRJ45+2xfiber sending card and H_20xRJ45 sending card) for output, a virtual 4K connector is displayed on the configuration page.
  Use the fiber sending card for output, a connector with the sender icon is displayed on the configuration page.

  – For the H_16xRJ45+2xfiber sending card, an icon 4K is displayed.

  – For the H_20xRJ45 sending card, an icon 4K+ is displayed.

  – For the H_4xfiber sending card, an icon SENDER is displayed.

Note:

The H_16xRJ45+2xfiber sending card and H_20xRJ45 sending card can be configured on the same screen when they have the same frame rate.

- Method II:

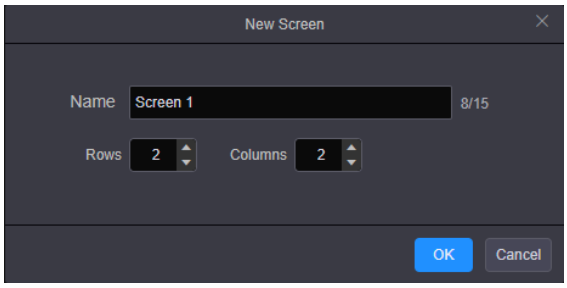
  Use the DVI and HDMI output cards for output, note that only the connectors of the same type can be configured on the same screen.

Web Operations

Step 1 Select **Configuration** to enter the screen configuration page.

Step 2 Click **New Screen** at the top to open the **New Screen** window.

Figure 3-1 New screen



Step 3 Enter a screen name. You can name the screen according to its location or input, which is easier for you to identify the screen quickly and precisely when operating the layers, presets and so on.

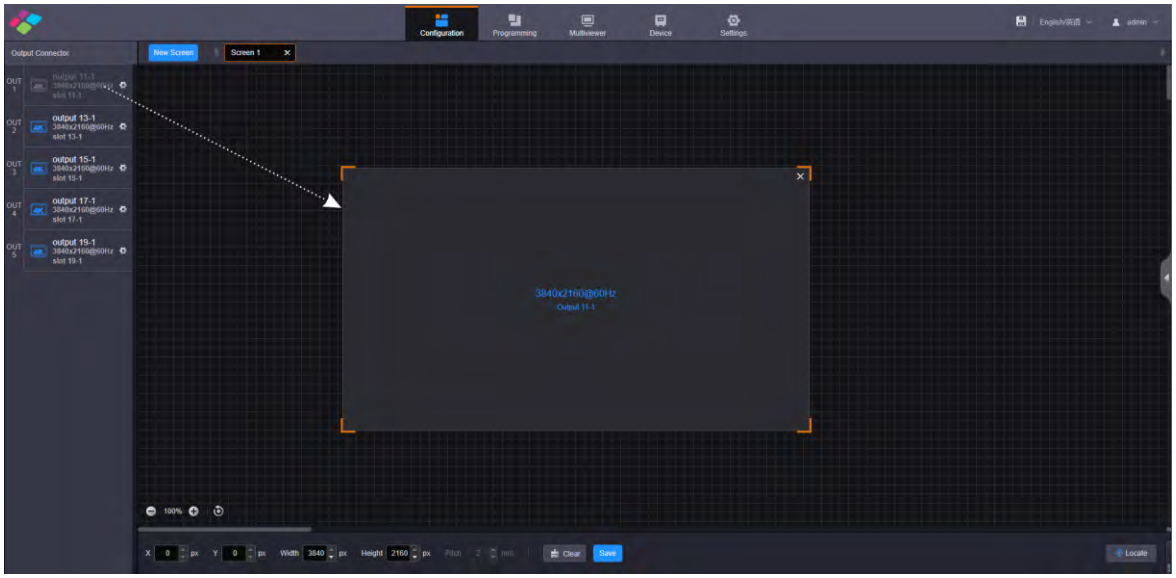
Step 4 Set the quantities of the rows and columns based on the screen structure.

Step 5 Select the desired output card to load the screen, and then click and drag the sending card to the screen.

Notes:

- When you use the H_16xRJ45+2xfiber sending card or H_20xRJ45 sending card, it is recommended you go to **Settings** > **EDID Management** > **Output** to set the output resolution and frame rate first.
- When you use the H_4xfiber sending card, go to the **Device** page to configure the connector working mode first, and then go to **Settings** > **EDID Management** > **Output** to set the output resolution and frame rate.
- When you use the DVI or HDMI output card, the real connector is displayed on the **Configuration** page, such as DVI or HDMI.

Figure 3-2 LED screen configuration



- Highlighted connector: The output connector is not used by the screen.
- Gray connector: The output connector is used by the screen and cannot be used repeatedly.

Step 6 Click **Save** to save the screen settings.

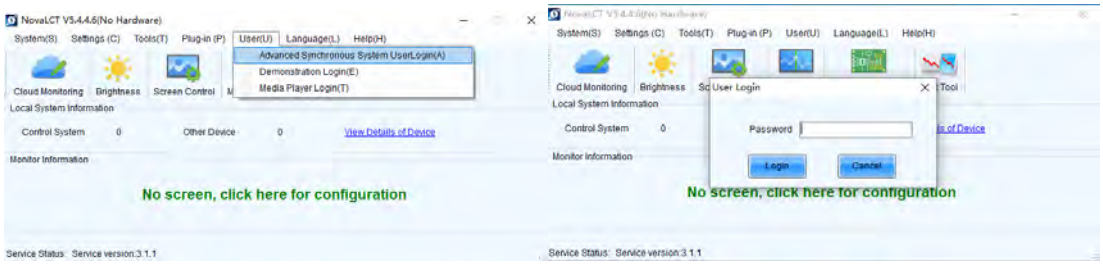
NovaLCT Operations

Note:

When the H_16xRJ45+2xfiber sending card, H_20xRJ45 sending card or H_4xfiber sending card is used, you must configure the screen in NovaLCT.

Step 1 Go to **User** > **Advanced Synchronous System User Login**. Enter the password and click **Login**. The default password is "admin".

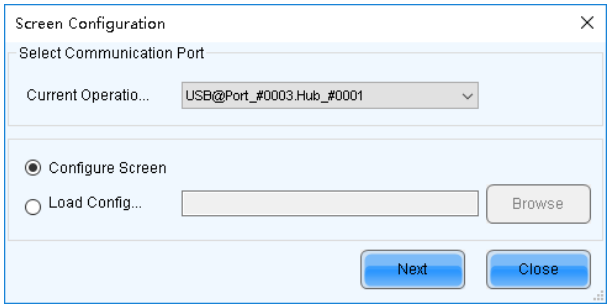
Figure 3-3 NovaLCT (logged in)



Step 2 On the menu bar, go to **Settings** > **Screen Configuration** to open the **Screen Configuration** window.

Step 3 Select a communication port and click **Next**.

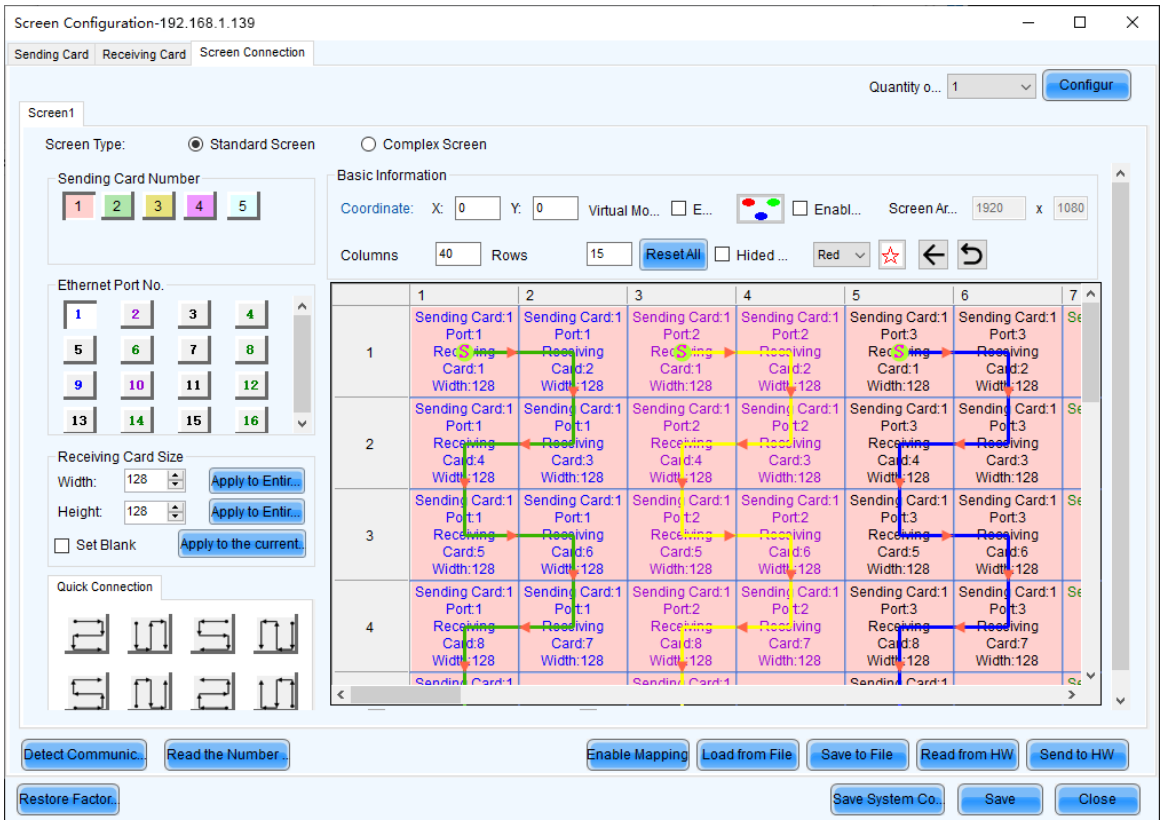
Figure 3-4 Select a communication port



Step 4 Select the **Sending Card** tab to select the desired input sources and click **Send**.

Step 5 Select the **Screen Connection** tab to show the screen configuration settings.

Figure 3-5 Screen configuration



Step 6 Click the drop-down arrow next to **Quantity o**... on the top right to set the screen quantity and then click **Configure**. You can also increase or decrease screen quantity here.

Step 7 Select the sending card number which indicates the sequence number of the installed H_16xRJ45+2xfiber sending cards. The sending cards are numbered from left to right.

Step 8 Set the column and row quantities of receiving cards, as well as the receiving card size (loading capacity) based on the current screen structure.

Step 9 Select the Ethernet port number and draw lines between cabinets based on the cabinet connection and the connection mode between the device and screen.

Step 10 After the settings, click **Send to HW** to complete the screen configuration.

Notes:

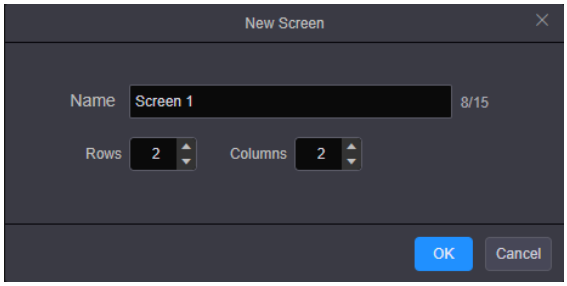
- If some receiving cards are left blank, please cancel the connection of those cards according to on-site configuration.
- For configuration for irregular screens, please refer to the NovaLCT User Manual.
- For configuration for common and irregular screens, you can also use SmartLCT software from NovaStar. For detailed information, please refer to the SmartLCT User Manual.

3.2 LCD Screen

Step 1 Select **Configuration** to enter the screen configuration page.

Step 2 Click **New Screen** at the top to open the **New Screen** window.

Figure 3-6 New screen



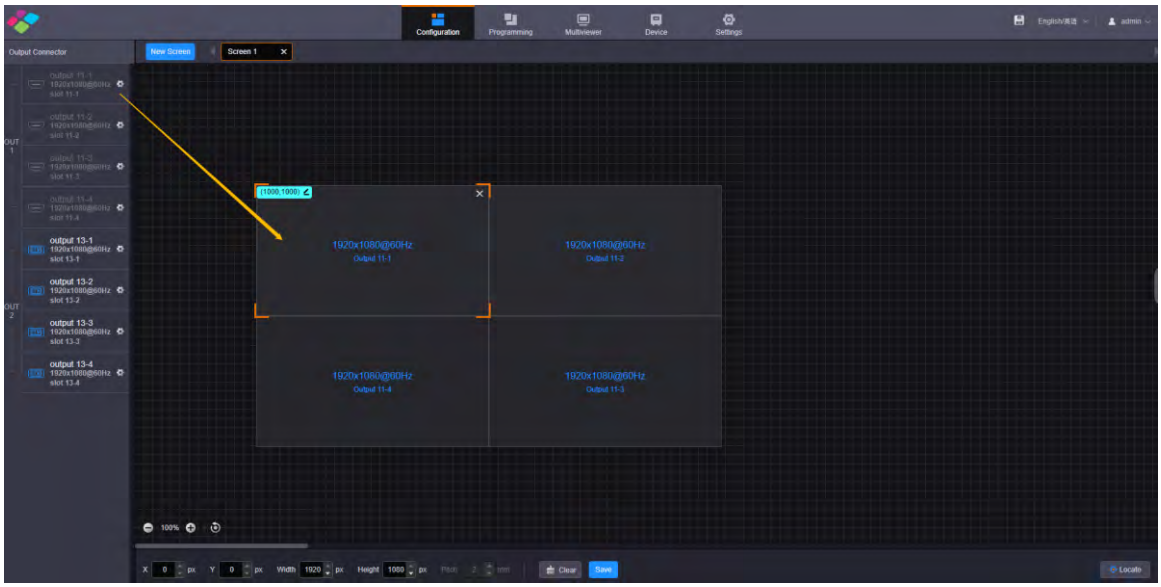
Step 3 Enter a screen name. You can name the screen according to its location or input, which is easier for you to identify the screen quickly and precisely when operating the layers, presets and so on.

Step 4 Set the quantities of the rows and columns based on the screen structure.

Step 5 Select the desired output card to load the screen, and then click and drag the video output card to the screen.

Step 6 Click **Save** to save the screen settings.

Figure 3-7 LCD screen configuration



Notes

- On the screen configurations page, click **Locate** at the bottom right, and the location information appears on the loaded screen, which is easier for you to configure the screen.
- For quickly locating the screen position in the editing area, select the loaded screen and click  at the top left next to the coordinates to enter the values of **X** and **Y**, and then click . The initial position is at the top left of the editing area.

Step 7 Set the LCD bezel compensation.

1. Click  on the right edge to expand the screen properties pane.
2. Check the box in front of **LCD Bezel Compensation** to turn on the bezel compensation function.
3. Enter the values in the **H Spacing** and **V Spacing** text boxes based on the LCD edge width.

Note

When there is a spacing between two screens, the values of **H Spacing** and **V Spacing** are set to the edge width plus the half spacing. The unit is pixel.

4 Basic Operations

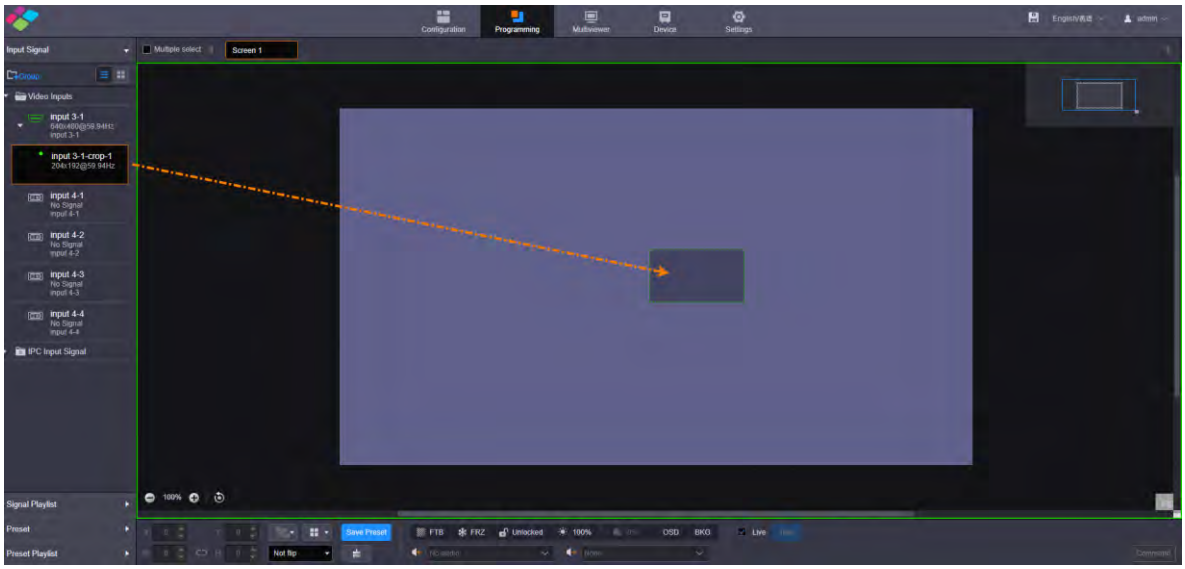
4.1 Add Layers

Step 1 Click **Programming** to enter the layer editing page.

Step 2 On top of the **Programming** page, select the screen that you will operate.

Step 3 Click an input in the **Input Signal** area on the left and drag it to the editing area to add a layer.

Figure 4-1 Add layers



Notes:

- If you have grouped the input sources, you need to expand the group and drag the desired input source to the layer.
- If you use an IPC source to add a layer, please complete the configuration described in 6.4.1.2 IP Input Card and add an IPC source following the steps described in 6.5.2 IPC Management.
- If you use the H_2xfiber input card to add a layer, please complete the configuration described in 6.4.1.3 H_2xFiber Input Card.
- If you use the H_1xST 2110 input card to add a layer, please complete the configuration described in 6.4.1.4 H_1xST 2110 Input Card.
- If you use a signal source playlist to add a layer, please complete the configuration described in 4.2 Set Signal Playlists.
- If you use a network mosaic source to add a layer, please complete the configuration described in 4.3 Set Mosaic Network Inputs.

Adjust Layers

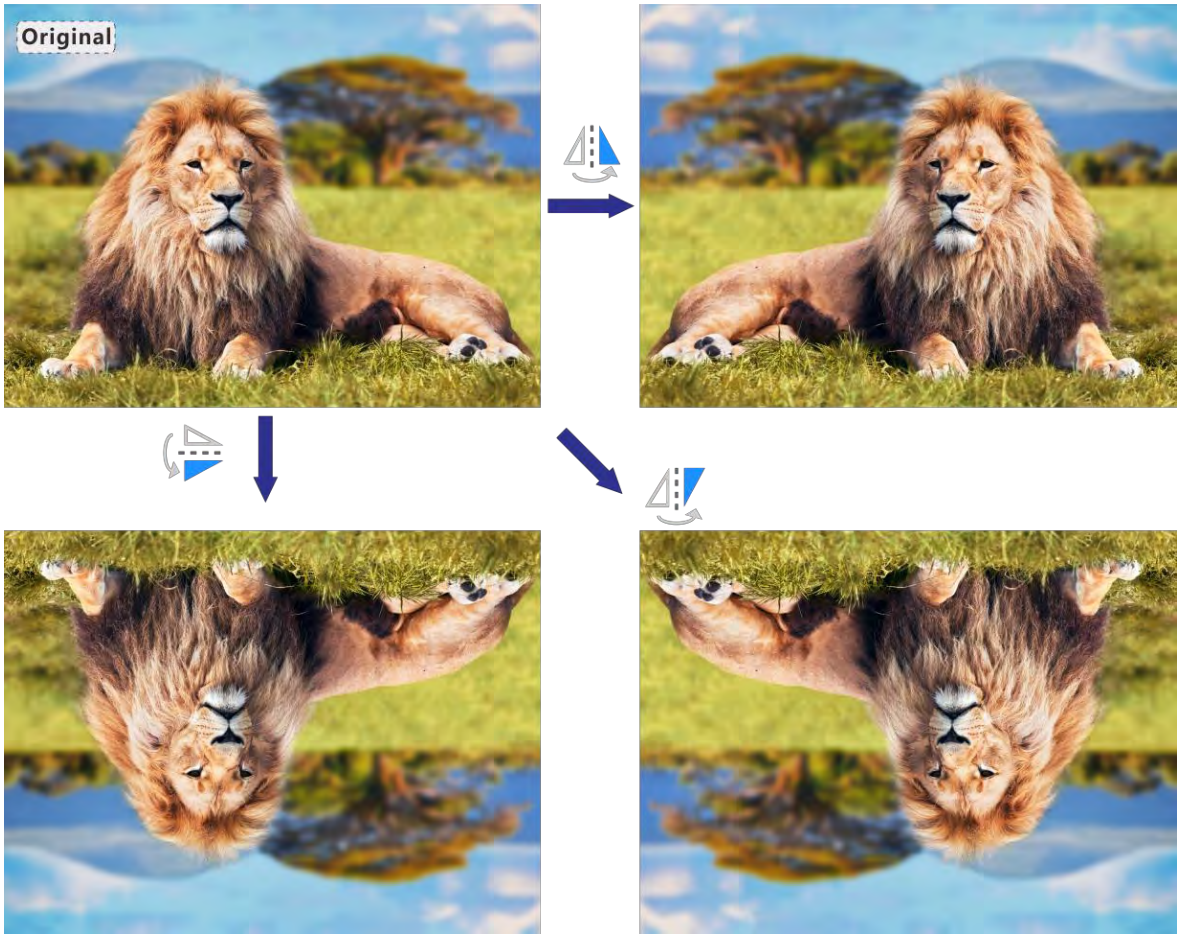
Click the layer and you can perform the following operations.

- Adjust the layer size.
  - Quick adjustment: Click the small square on the layer edge, and drag the square when the cursor turns to a double-sided arrow to quickly adjust the layer size.
  - Precise adjustment: Enter specific numbers in the **W** and **H** text boxes below the layer editing area to precisely adjust the layer size.
- Adjust the layer position.
  - Quick adjustment: Click and drag the layer to quickly move the layer.
  - Precise adjustment: Enter specific numbers in the X and Y text boxes below the layer editing area to precisely position the layer. The adjustment reference is the top left corner of the layer. If the X and Y values are both 0, the layer's top left corner locates at the top left corner of the screen.
- Capacity: On the device management page, click the desired input card to expand the input card properties pane. In the **Connector Status** area, select the connector capacity from the drop-down list next to **Capacity**.

  The layer capacity is matched with the input connector capacity. If the specification of the connected input source is lower than the connector capacity and the current connector is used to add a layer, the layer capacity will follow the connector capacity.
- Lock or unlock the layer by clicking or at the top right corner of the layer.
- Freeze or unfreeze the layer image by clicking .

- Display or hide the layer playback on the Web page by clicking / .
- When the IPC signal is used as the layer input source, click at the top right corner of the layer to view the detailed decoding parameters and stream parameters.
- When there are multiple overlapping layers, you can adjust the layer priorities.
  - : Bring the selected layer to the front, and the layer image will be displayed completely.
  - : Send the selected layer to the back, and the layer will be partially covered by other overlapping layers.
  - : Bring the selected layer forward.
  - : Send the selected layer backward.
- Set whether to flip the layer image. Three options are provided as follows.
  - Not flip: Do not flip the layer image.
  - : Flip the layer image horizontally.
  - : Flip the layer image vertically.
  - : Flip the layer image horizontally and vertically.

Figure 4-2 Layer flipping



- Layer layout: Click and select the desired standard layout in the popup menu or customize the layout.

  After the settings are done, the screen editing area will be divided according to the selected layer layout. Click and drag the desired signal source to the corresponding area to add a layer, and then the added

layer will automatically fill the target area. If you select **None**, the added layers will be arranged according to the connector arrangement.

- Click  to quickly clear all the added layers.

Layer Menu

The layer menu shown at the top right corner varies with the layer input source. When you use a local input source to add a layer, the layer menu is shown as Figure 4-3.

Figure 4-3 Layer menu-1



- Layer 1: The layer name
- : The icon will appear after you configure the reverse control for the input source. Click this icon to enter the desktop of your local computer to reversely control the input source PC.
- : Display or hide the layer image on the Web page.
- : Freeze or unfreeze the layer image.
- : Lock or unlock the layer.
- : Display the layer in full screen or restore the layer to its original size and position.
- : Delete the layer.

When you use an IPC source to add a layer, the layer menu is shown as Figure 4-4.

Figure 4-4 Layer menu-2



Click to view the details of the IPC source, including the decoding status, streaming media, decoding details and resource details of the IP input card.

Figure 4-5 Decoding status



Figure 4-6 Streaming media



Figure 4-7 Decoding details

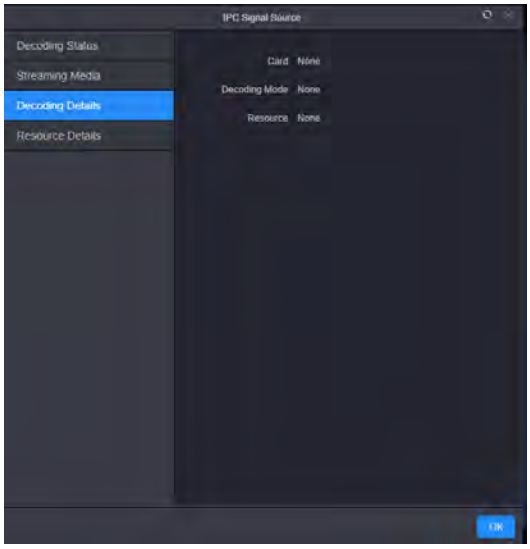
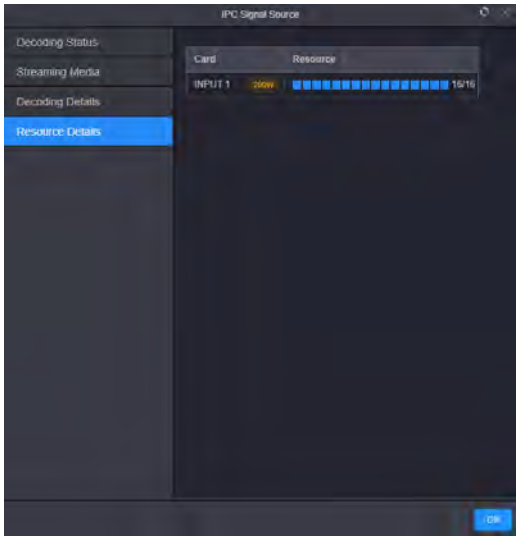


Figure 4-8 Resource details

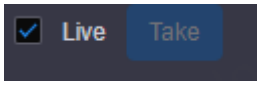


Take to Screen

There are two taking to screen modes: **Live** and **Pre-Edit**.

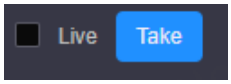
- Live (default): The layer editing process is displayed on the screen in real time.

Figure 4-9 Live more



- Pre-Edit: Deselect **Live**, and the layer editing process will not be displayed on the screen in real time. Click **Pre-Edit** after the layer editing is completed, and the screen will display the layer.

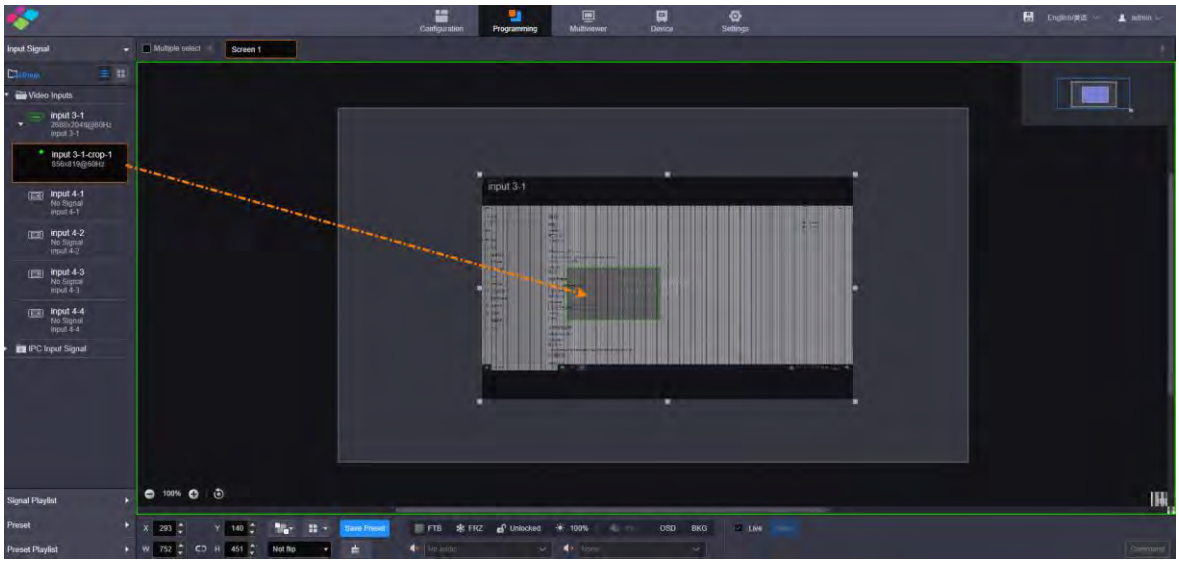
Figure 4-10 Pre-edit mode



Switch Layer Input Sources

- Click an input in the **Input Signal** area on the left and drag it to an added layer to quickly switch the layer input source. The layer size and position remain the same.
- Select the desired layer and click ••• next to the desired input in the **Input Signal** area on the left. Click **Replace Input** in the popup menu to replace the layer source with a new one.

Figure 4-11 Switch layer input sources

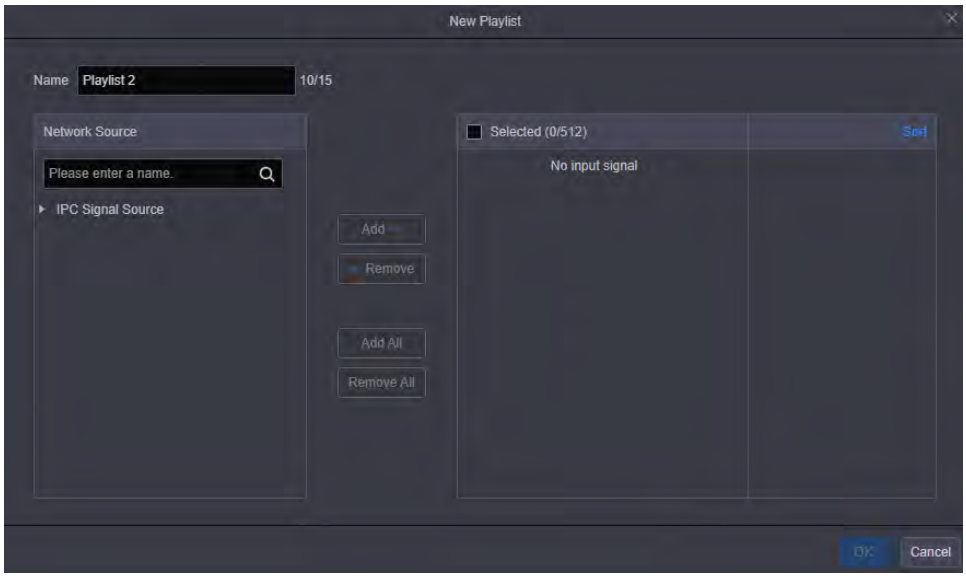


4.2 Set Signal Playlists

Step 1 Click **Signal Playlist** on the left to expand the signal playlist.

Step 2 Click **New Playlist** to open the signal playlist adding window.

Figure 4-12 Add signal playlists

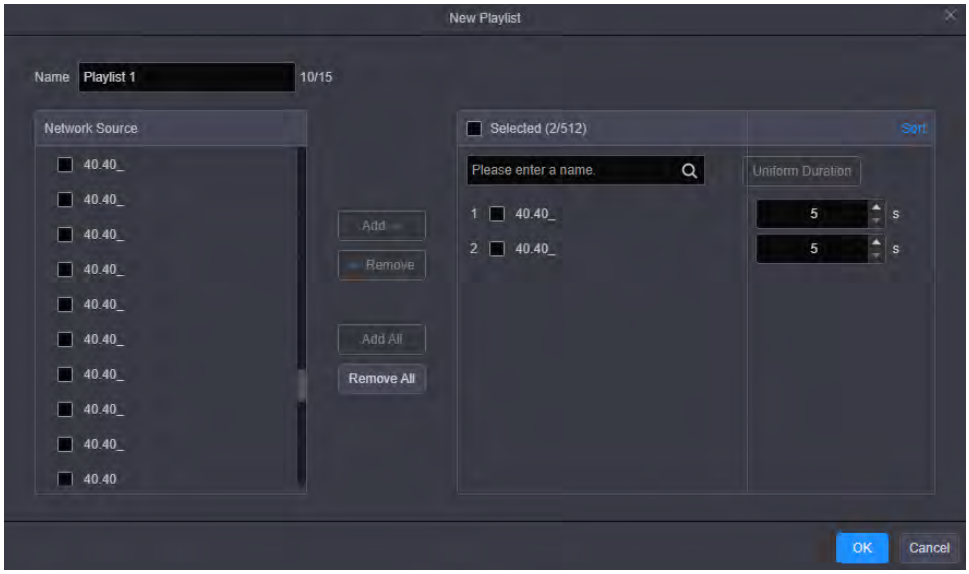


Step 3 Enter a name for the new signal playlist.

Step 4 Check the boxes next to the desired IPC signal sources in the **Network Source** area on the left.

Step 5 Click **Add** to add the selected sources to the **Selected** area.

Figure 4-13 Add inputs



Step 6 Set the playback duration that specifies the time length each signal lasts.

You can change the playback duration as follows.

1. Check the box next to the desired preset in the **Selected** area.
2. Enter the playback duration in the text box on the right.
3. Press **Enter** or click somewhere else on the Web page to complete the settings.

   When you want to set the same playback duration for all the selected signals, check the boxes next to the desired signals and then click **Uniform Duration**. In the popup text box, enter the desired playback duration and then press **Enter** to complete the settings.

Step 7 [Optional] Adjust the signal playback sequence.

The sequence that you add the signals is the default signal playback sequence. You can adjust the sequence as follows.

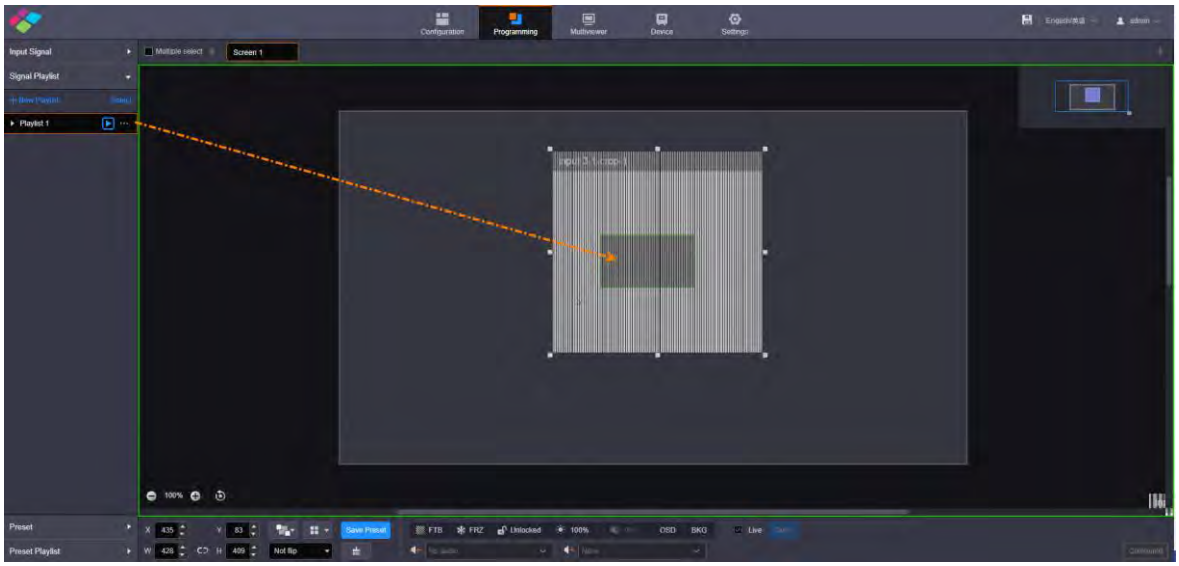
1. In the **Selected** area, click **Sort** at the top right corner.

2. Move up and down the signal to adjust the signal sequence in the signal playback list.
3. Click **Done** at the top right corner to complete the adjustment.

Step 8 Click **OK** to complete the settings.

Step 9 Click and drag the added signal playlist to the screen editing area to add a layer or replace the target layer source.

Figure 4-14 Use a signal playlist as a layer source



After the layer source is replaced with a signal playlist, the first signal in the playlist will be played by default.

Step 10 Click  next to the desired signal playlist to play it.

Click  next to the desired signal playlist to stop the signal playback.

Other Operations

Click next to the desired signal playlist and you can perform the following operations.

- Edit Group: Click **Edit Group** to open the signal playlist editing window, where you can edit the selected signal playlist.
- Dissolve Group: Click **Dissolve Group** to delete the selected signal playlist.

4.3 Set Mosaic Network Inputs

4.3.1 Add Mosaic Network Inputs

Mosaic multiple IPC signal sources, realizing display of custom mosaicked images.

Note:

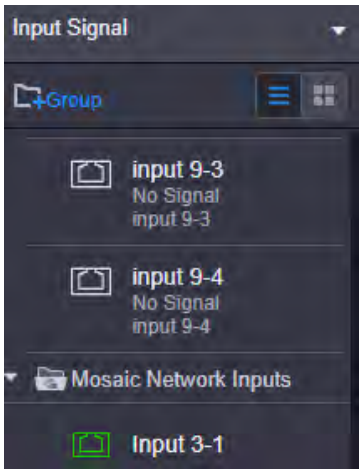
Before setting a mosaic network input, please refer to the details described in 6.4.1.2 IP Input Card to set the decoding mode to **Mosaic**.

Step 1 Click **Programming** to enter the layer editing page.

Step 2 In the **Input Signal** area on the left, click **Mosaic Network Input** to expand the corresponding list.

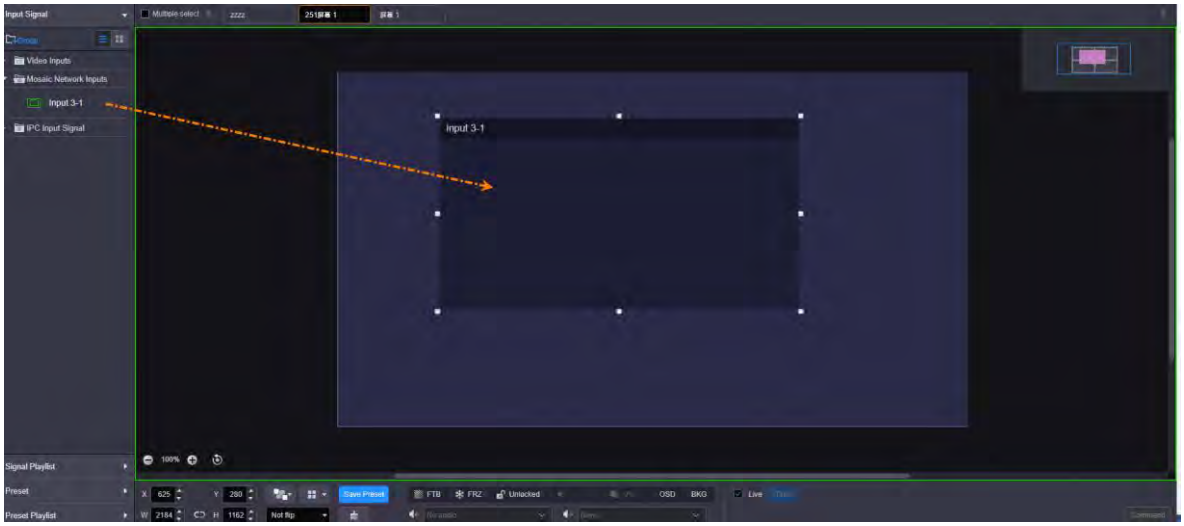
If the decoding mode of the IPC card is set to **Mosaic**, the mosaic source named "Input x-1" or "Input x-3" will be displayed. "x" represents the number of the slot where the IPC card is installed.

Figure 4-15 Mosaic network inputs



Step 3 Click and drag the desired mosaic input to the screen editing area to add a layer.

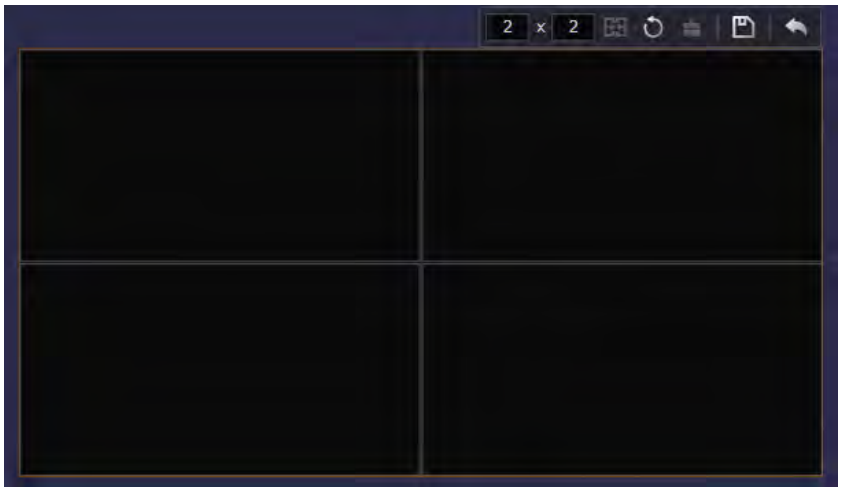
Figure 4-16 Add layers



The default layout of a mosaic input is 1×1.

Step 4 Hover the mouse over the added layer and click in the layer menu to enter the layout settings page.

Figure 4-17 Layout settings

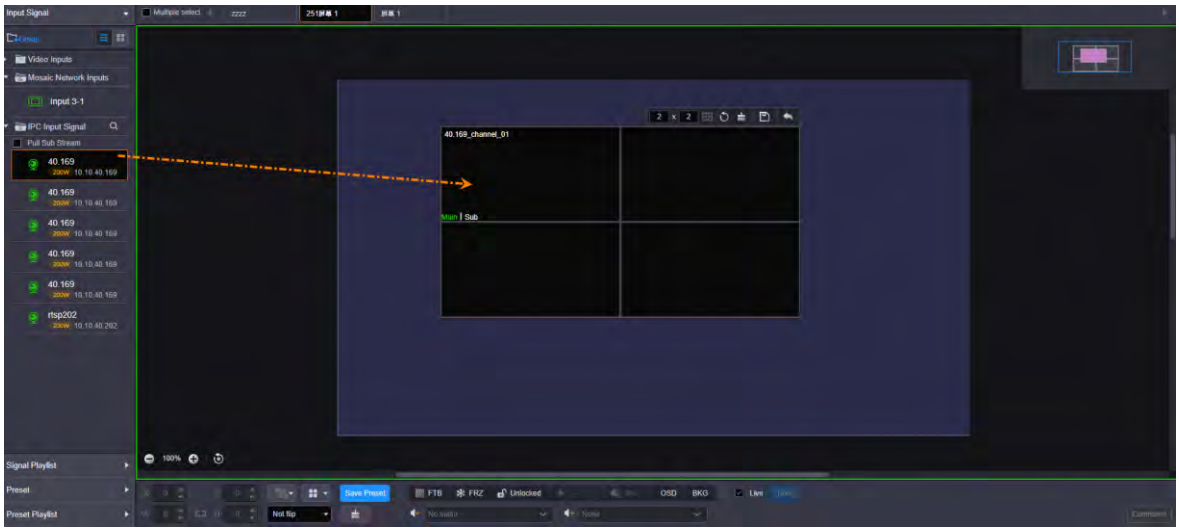


1. Enter the row and column values in the text boxes (Row×Column ≤ 32).
2. Select the contiguous cells and click at the top right corner to merge them as needed. Select the merged cell and click again to unmerge it.

Step 5 In the **Input Signal** area on the left, click **IPC Input Signal** to show all the added IPC and NVR sources.

Step 6 Click and drag the desired input to the target layout area.

Figure 4-18 Add IPC inputs



In the **IPC Input Signal** area, check the box next to **Pull Sub Stream** to set the IPC or NVR input as the sub stream. After the input is added, the sub stream will be displayed by default. Click **Main** or **Sub** at the bottom left corner of the added input to switch to the main stream or sub stream.

Step 7 After the input is added successfully, click at the top right corner and enter a name for the added template in the popup window.

Step 8 Click **New** to save the template.

Step 9 Click to return to the layer editing page.

- : Reset the layout to 1×1.
- : Delete all inputs in the current mosaic layout.

4.3.2 Switch Mosaic Templates

Step 1 In the **Input Signal** area on the left, click **Mosaic Network Input** to expand the corresponding list.

Step 2 Click next to the desired mosaic input and select the desired template in the popup menu.

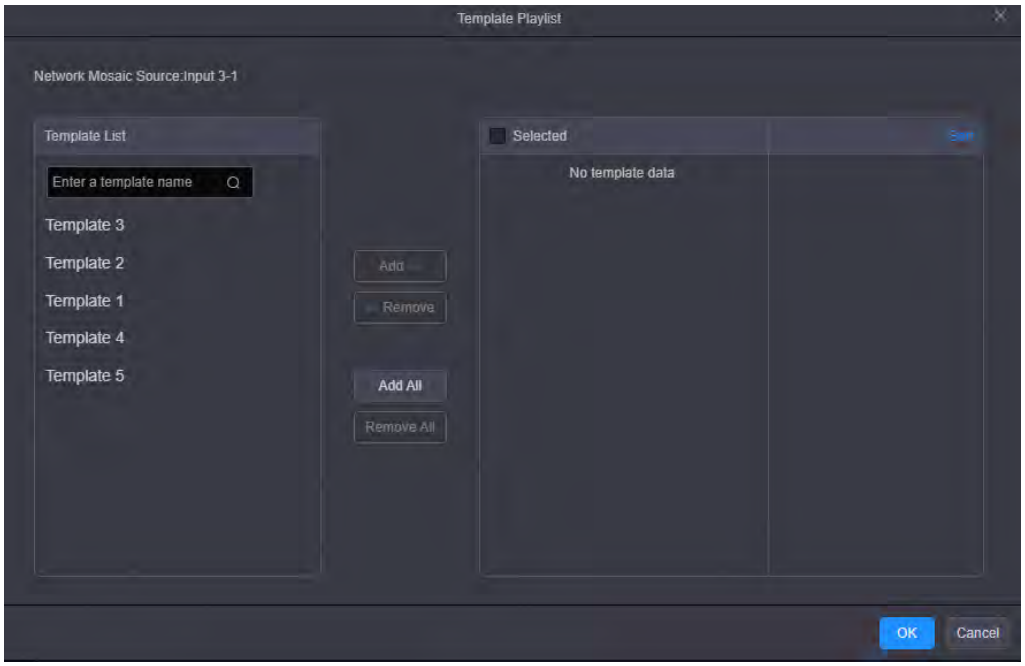
- Click next to the desired template to rename it.
- Click next to the desired template to delete it.
- Click and move up or down the desired template to adjust the template display sequence.

4.3.3 Set Mosaic Template Playlists

Step 1 In the **Input Signal** area on the left, click **Mosaic Network Input** to expand the corresponding list.

Step 2 Click ••• next to the desired mosaic input and select **Template Playlist** in the popup menu.

Figure 4-19 Template playlist management



Step 3 Check the boxes next to the desired templates in the **Template List** area on the left.

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

Double click the desired template to quickly add it to the **Selected** area.

Step 5 Set the playback duration that specifies the time length each template lasts.

You can change the playback duration as follows.

1. Check the box next to the desired template in the **Selected** area.
2. Enter the playback duration in the text box on the right.
3. Press **Enter** or click somewhere else on the Web page to complete the settings.

   When you want to set the same playback duration for all the selected templates, check the boxes next to the desired templates and then click **Uniform Duration**. In the popup text box, enter the desired playback duration and then press **Enter** to complete the settings.

Step 6 [Optional] Adjust the template playback sequence.

The sequence that you add the signals is the default template playback sequence. You can adjust the sequence as follows.

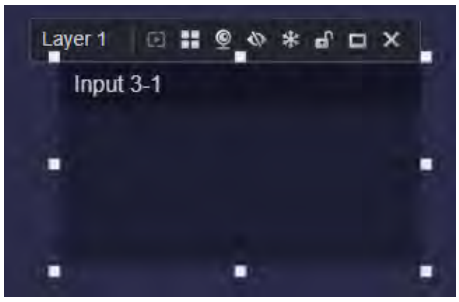
1. In the **Selected** area, click **Sort** at the top right corner.
2. Move up and down the template to adjust the signal sequence in the template playback list.
3. Click **Done** at the top right corner to complete the adjustment.

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

Step 8 Click and drag the added mosaic network input to add a layer.

The layer menu will appear at the top right.

Figure 4-20 Mosaic network input layers



Step 9 Click in the layer menu to play the template playlist.

4.4 Add BKG

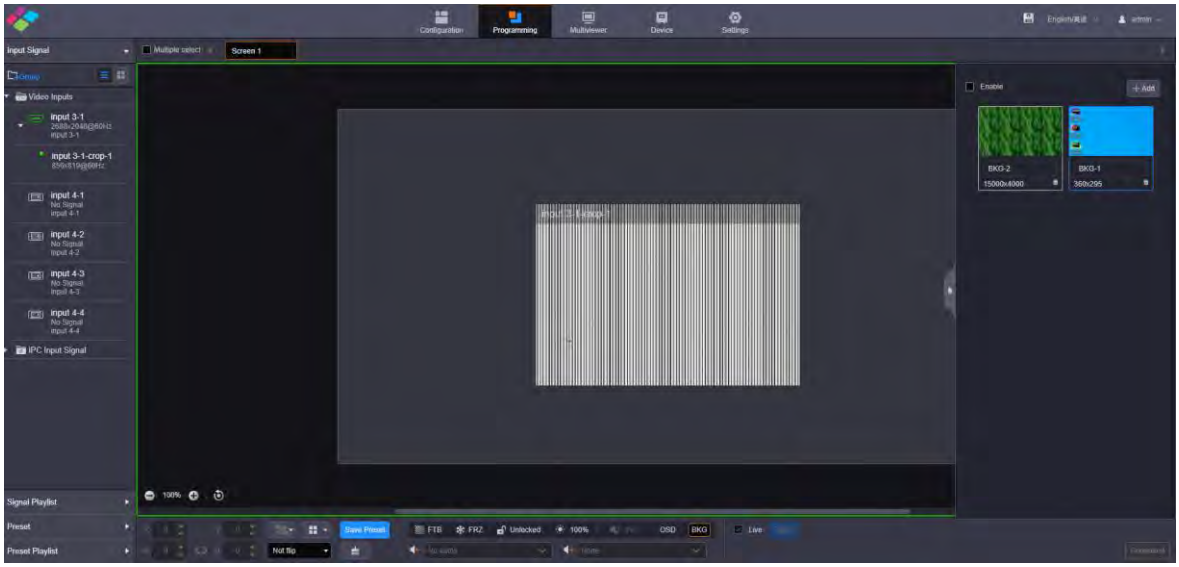
Make sure you have imported the BKG files before you add a BKG. The added BKG fills the whole screen automatically and locates at the bottom. The size and priority of the BKG cannot be adjusted.

BKG does not occupy layer resources. The maximum size of a BKG reaches 15K in width and 8K in height.

Import BKG

Step 1 On the **Programming** page, click **BKG** below the layer editing area to expand the BKG settings pane.

Figure 4-21 Import BKG



Step 2 Click **Add** to open the window where you can select and add a BKG file.

Step 3 Select the desired file and click **Open** to add it to the BKG list.

Add BKG

Step 1 On the BKG settings pane, select the desired BKG image.

Step 2 Check the box next to **Enable** to turn on the BKG function.

The system will use the selected image as background automatically.

Note:

Click another image in the BKG list to replace the current BKG.

4.5 Add OSD

The H series supports various OSD options, including static text OSD, dynamic text OSD, weather OSD, clock OSD and image OSD.

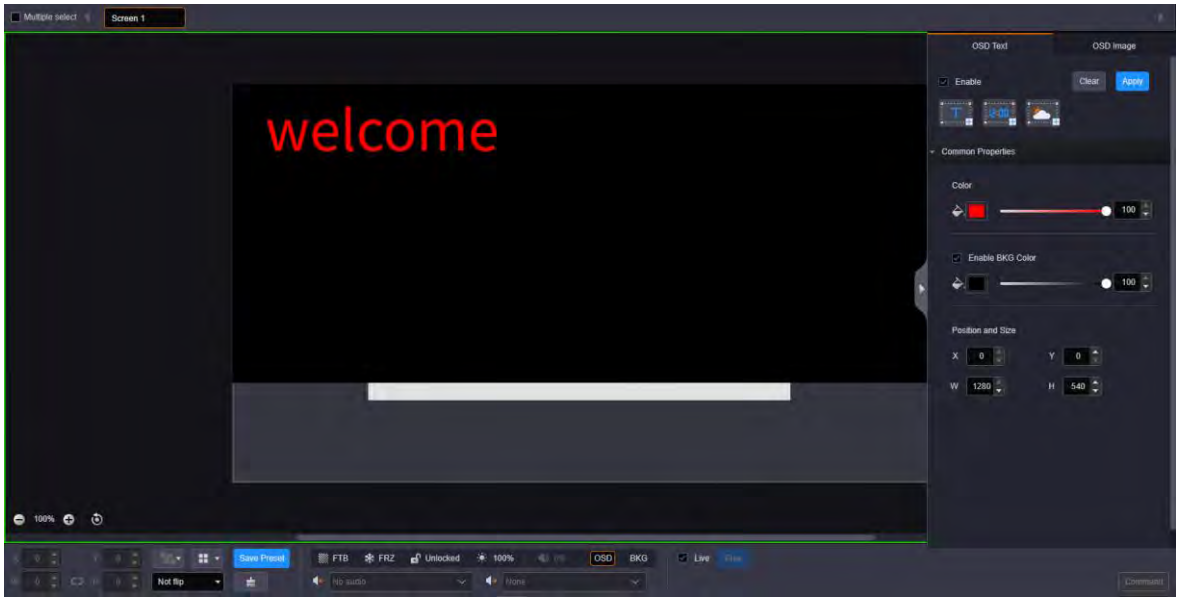
OSD is displayed at the top level and its priority cannot be adjusted.

Step 1 On the **Programming** page, click **OSD** below the screen editing area to expand the OSD settings pane.

Step 2 Click the **OSD Text** tab to show the OSD text settings pane.

Step 3 Check the box next to **Enable** to turn on the OSD text settings.

Figure 4-22 OSD settings



4.5.1 Add Static Text OSD

Step 1 Click  and the system will automatically create an OSD layer.

Step 2 Click the OSD layer to expand the static text OSD settings pane.

Figure 4-23 Static text OSD settings



Step 3 Enter the text OSD content.

The static text OSD supports multi-line display. You can press **Enter** on the keyboard to have line breaks.

Step 4 Set the text properties in the **Text** area.

- : Select the desired text font from the drop-down list.
- : Set the font size. The value ranges from 8 to 512 px and it defaults to 100 px.
- : Make the text bold or not.
- : Italicize the text or not.
- : Underline the text or not.
- : Set the spacing between characters. The value ranges from 0 to 1000 px and it defaults to 0 px.
- : Set the spacing between rows. This parameter is available when there are multiple rows. The value ranges from 0 to 1000 px and it defaults to 0 px.
- : Align the text content with the left margin of the OSD area.
- : Center the text content in the OSD area.
- : Align the text content with the right margin of the OSD area.
- : Align the text to the top of the display area.
- : Center the text vertically to the display area.
- : Align the text to the bottom of the display area.

- : Horizontally display the text.
- : Vertically display the text.

Step 5 Set the position and size of the OSD area.

- X: Set the horizontal distance from the top left corner of the OSD area to that of the OSD layer.
- Y: Set the vertical distance from the top left corner of the OSD area to that of the OSD layer.
- W: Set the OSD area width.
- H: Set the OSD area height.

Step 6 Set the text scrolling speed and direction.

A static text OSD is added by default. Check the box next to **Scrolling** to display the scrolling text.

1. Check the box next to **Scrolling** to enable the scrolling settings.
2. Set the scrolling speed. The value ranges from 0 (static) to 10 (fastest).
3. Set the scrolling direction.

– : The text scrolls from right to left in the OSD area.

– : The text scrolls from left to right in the OSD area.

Step 7 Set the OSD common properties.

- Color: Click the color block icon to open a window where you can select the desired color or customize your own color. Drag the slider or enter a value in the text box to adjust the opacity. The opacity ranges from 0% (totally transparent) to 100% (nontransparent).
- Set the OSD background color.
  a. Check the box next to **Enable BKG Color** to turn on the background for OSD text.
  b. Click the color block icon to open a window where you can select the desired color or customize your own color
  c. Set the opacity for the OSD background.
- Position and Size: Set the position and size of the OSD layer, that is, the position and size of the OSD layer displayed on the screen.
  – X: Set the horizontal distance from the top left corner of the OSD layer to that of the screen.
  – Y: Set the vertical distance from the top left corner of the OSD layer to that of the screen.
  – W: Set the OSD layer width.
  – H: Set the OSD layer height.

Step 8 Click **Apply** at the top right corner to complete the settings and display the set OSD on the screen.

4.5.2 Set Time OSD

Before setting a time OSD, please ensure that the device is connected to the network to obtain the precise time information.

Prerequisites

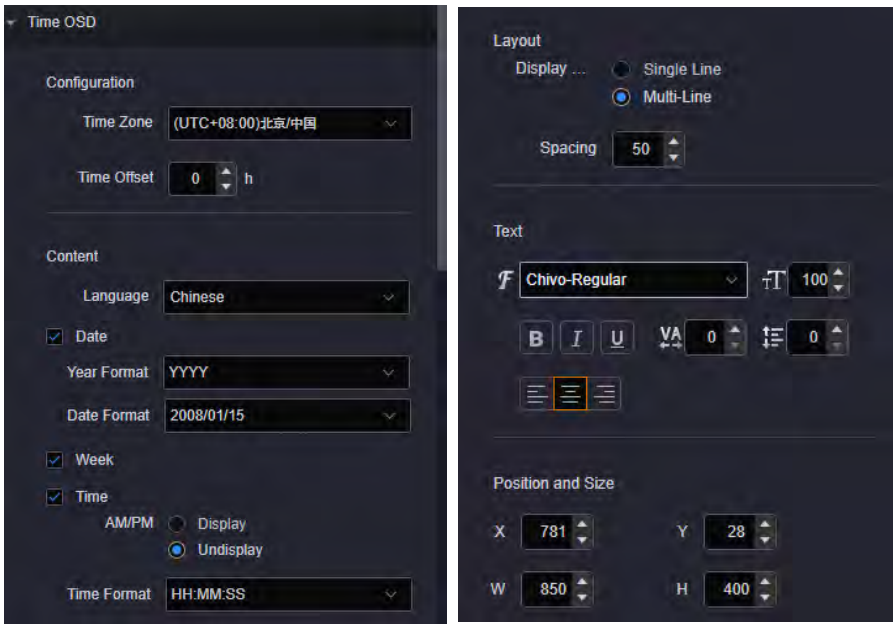
- You have set the DNS server by referring the details described in 6.5.9 Communication Settings.
- The device is connected to the network.

Operating Procedure

Step 1 Click  and the system will automatically create a time OSD layer.

Step 2 Click the OSD layer to expand the time OSD settings pane.

Figure 4-24 Time OSD settings



Step 3 In the **Configuration** area, set the time zone for the screen or time offset to ensure a precise time.

- Time Zone: Select the time zone from the drop-down list.
- Time Offset: Set the time offset value. The value ranges from -2 to +2 (unit: hour).

Step 4 Set the content to be displayed in the time OSD.

- Language: Set the text language. The supported options include English and Chinese.
- Date: Set the date format.
  - Year Format: Set the year format. The supported options include YYYY (four-digit year) and YY (two-digit year).
  - Date Format: Set the date format.
- Week: Check or uncheck the box next to **Week** to display or hide the week.
- Time: Set the specified time and time format.
  - AM/PM: Set whether to display **AM** or **PM**.

    Display: Display the time with **AM** or **PM** in 12-hour format.

    Undisplay: Display the time without **AM** or **PM** in 24-hour format.
  - Time Format: Set the time format.

Step 5 Set the time OSD layout.

- Display Mode: Set the display mode of the time OSD.
  - Single-Line: Display the date, day of the week and time in single-line.
  - Multi-Line: Display each item in single-line.
- Spacing: Set the spacing between the date, day of the week and time in **Single Line** display mode or set the spacing between rows in **Multi-Line** display mode.

Step 6 Set the text properties in the **Text** area.

- : Select the desired text font from the drop-down list.
- : Set the font size. The value ranges from 8 to 512 px and it defaults to 100 px.
- B: Make the text bold or not.

- : Italicize the text or not.
- : Underline the text or not.
- : Set the spacing between characters. The value ranges from 0 to 1000 px and it defaults to 0 px.
- : Set the spacing between rows. This parameter is available when there are multiple rows. The value ranges from 0 to 1000 px and it defaults to 0 px.
- : Align the text content with the left margin of the OSD area.
- : Center the text content in the OSD area.
- : Align the text content with the right margin of the OSD area.
- Position and Size: Set the position and size of the OSD area.
  - X: Set the horizontal distance from the top left corner of the OSD area to that of the OSD layer.
  - Y: Set the vertical distance from the top left corner of the OSD area to that of the OSD layer.
  - W: Set the OSD area width.
  - H: Set the OSD area height.

Step 7 Set the OSD common properties.

- Color: Click the color block icon to open a window where you can select the desired color or customize your own color. Drag the slider or enter a value in the text box to adjust the opacity. The opacity ranges from 0% (totally transparent) to 100% (nontransparent).
- Set the OSD background color.
  a. Check the box next to **Enable BKG Color** to turn on the background for OSD text.
  b. Click the color block icon to open a window where you can select the desired color or customize your own color
  c. Set the opacity for the OSD background.
- Position and Size: Set the position and size of the OSD layer, that is, the position and size of the OSD layer displayed on the screen.
  - X: Set the horizontal distance from the top left corner of the OSD layer to that of the screen.
  - Y: Set the vertical distance from the top left corner of the OSD layer to that of the screen.
  - W: Set the OSD layer width.
  - H: Set the OSD layer height.

Step 8 Click **Apply** at the top right corner to complete the settings and display the set OSD on the screen.

4.5.3 Set Weather OSD

Before setting a weather OSD, please ensure that the device is connected to the network to obtain the precise weather information.

Prerequisites

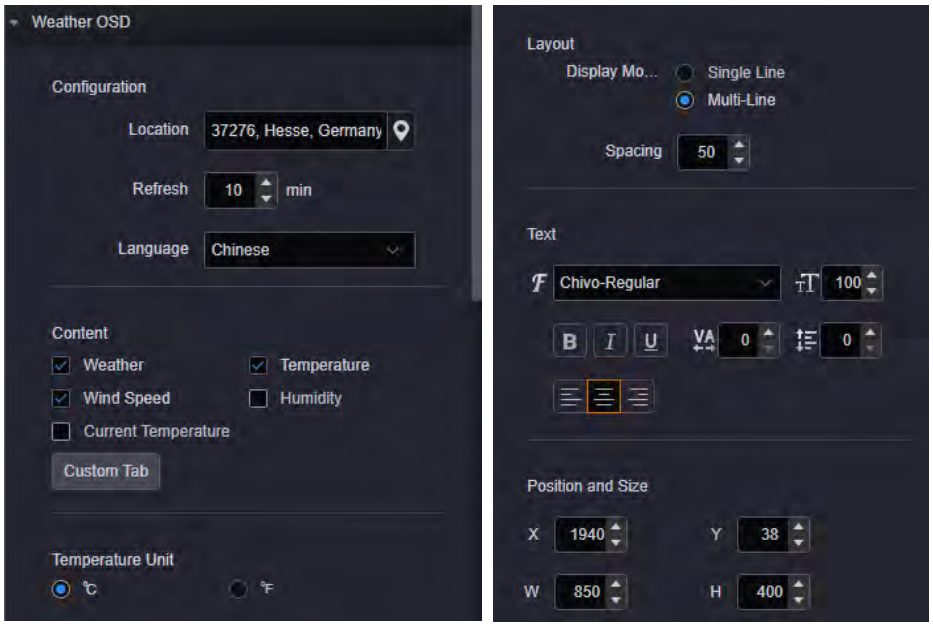
- You have set the DNS server by referring the details described in 6.5.9 Communication Settings.
- The device is connected to the network.

Operating Procedure

Step 1 Click  and the system will automatically create a weather OSD layer.

Step 2 Click the OSD layer to expand the weather OSD settings pane.

Figure 4-25 Weather OSD settings



Step 3 In the **Configuration** area, set the location for the current screen and refresh interval for the weather information.

- Location: Click to open the map window, where you can select the desired location or enter the address. Click **OK** to complete the settings.
- Refresh: Set the automatic refresh interval for the weather information. The value ranges from 1 to 1440 minutes and it defaults to 10 minutes.
- Language: Set the text language. The supported options include English and Chinese.

Step 4 Set the content to be displayed in the weather OSD.

Check the box next to the desired content to display it in the weather OSD. You can also click **Custom Tab** to edit the default display content.

Step 5 Set the temperature unit. The supported options include ℃ and ℉ .

Step 6 Set the weather OSD layout.

- Display Mode: Set the display mode of the weather OSD.
  - Single Line: Display all items in single line.
  - Multi-Line: Display each item in single-line.
- Spacing: Set the spacing between each selected content in **Single Line** display mode or set the spacing between rows in **Multi-Line** display mode.

Step 7 Set the text properties in the **Text** area.

- : Select the desired text font from the drop-down list.
- : Set the font size. The value ranges from 8 to 512 px and it defaults to 100 px.
- B: Make the text bold or not.
- I: Italicize the text or not.
- U: Underline the text or not.
- VA: Set the spacing between characters. The value ranges from 0 to 1000 px and it defaults to 0 px.

- : Set the spacing between rows. This parameter is available when there are multiple rows. The value ranges from 0 to 1000 px and it defaults to 0 px.
- : Align the text content with the left margin of the OSD area.
- : Center the text content in the OSD area.
- : Align the text content with the right margin of the OSD area.
- Position and Size: Set the position and size of the OSD area.
  - X: Set the horizontal distance from the top left corner of the OSD area to that of the OSD layer.
  - Y: Set the vertical distance from the top left corner of the OSD area to that of the OSD layer.
  - W: Set the OSD area width.
  - H: Set the OSD area height.

Step 8 Set the OSD common properties.

- Color: Click the color block icon to open a window where you can select the desired color or customize your own color. Drag the slider or enter a value in the text box to adjust the opacity. The opacity ranges from 0% (totally transparent) to 100% (nontransparent).
- Set the OSD background color.
  a. Check the box next to **Enable BKG Color** to turn on the background for OSD text.
  b. Click the color block icon to open a window where you can select the desired color or customize your own color
  c. Set the opacity for the OSD background.
- Position and Size: Set the position and size of the OSD layer, that is, the position and size of the OSD layer displayed on the screen.
  - X: Set the horizontal distance from the top left corner of the OSD layer to that of the screen.
  - Y: Set the vertical distance from the top left corner of the OSD layer to that of the screen.
  - W: Set the OSD layer width.
  - H: Set the OSD layer height.

Step 9 Click **Apply** at the top right corner to complete the settings and display the set OSD on the screen.

4.5.4 Set Image OSD

Step 1 Click the **OSD Image** tab to show the OSD image settings pane.

Step 2 Check the box next to **Enable** to turn on the OSD image settings.

Step 3 Click **Upload** to open a window where you can select the desired OSD images.

Step 4 Click **Open** to upload the selected images.

Step 5 Set the OSD image properties.

- X: Set the horizontal initial position of the OSD image.
- Y: Set the vertical initial position of the OSD image.
- Width: Set the width of the OSD image.
- Height: Set the height of the OSD image.
- Opacity: Set the opacity of the OSD image.

Step 6 Click **Apply** at the top right corner of the OSD settings pane to complete the OSD image settings and display the OSD image on the screen.

Notes:

- After an OSD image is applied, you can click **Upload** and select a new image to replace the current one.
- Click **Crop** to crop the added OSD image if necessary.

- On the Web page, you can click and drag the OSD to quickly adjust its position.

4.5.5 Delete OSD

Step 1 Select the **OSD Text** or **OSD Image** tab to expand the OSD text or image settings pane.

Step 2 Uncheck the box next to **Enable**.

In the layer editing area, click ⊗ at the top right corner of the desired text OSD to delete it.

Step 3 Click **Apply** to delete OSD.

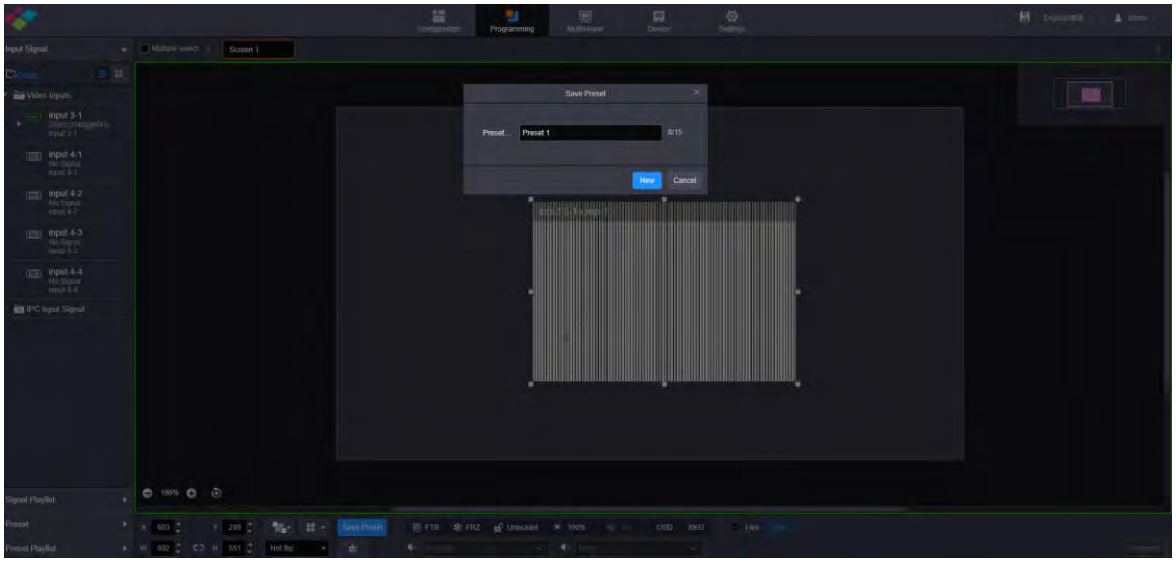
4.6 Set Presets

After the layer settings, you can save the current layer layout and settings as a preset for future use.

Save Presets

Step 1 On the **Programming** page, click **Save Preset** below the layer editing area to open the preset saving window.

Figure 4-26 Save presets



Step 2 Enter a preset name that is easier for you to remember and identify the preset quickly.

Step 3 Click **New** to save the preset.

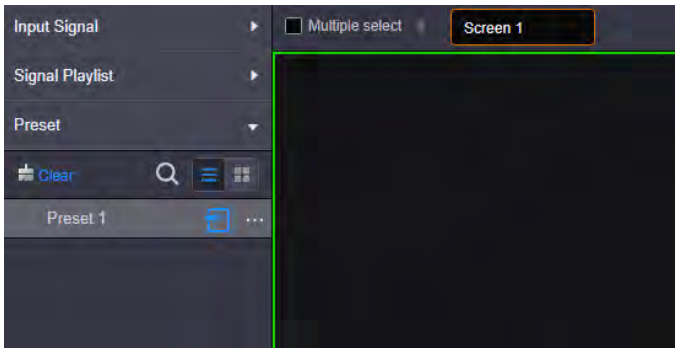
Load Presets

The preset is screen-specific, so select a configured screen before you load a preset.

Step 1 On top of the **Programming** page, select the screen that you will operate.

Step 2 Click **Preset** on the left to expand the preset list.

Figure 4-27 Load presets



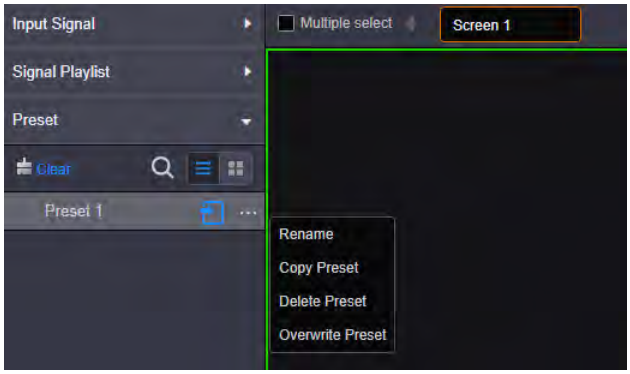
- Click to search the presets by name.
- Click to switch to the list view.
- Click to switch to the thumbnail view that allows you to view the layer layout of the preset.
- Click to clear all the presets.

Step 3 Click a preset and the icon appears next to the preset name. Click this icon to load the current preset to the screen.

Other Preset Operations

Click a preset and ... appears next to the preset name. Click this icon to open the preset operations menu.

Figure 4-28 Preset operations menu



- Rename: Rename the saved preset.
- Copy Preset: Copy the layer layout and content in the current preset to a new preset.
- Delete Preset: Delete the selected preset.
- Overwrite Preset: Overwrite the selected preset with a new preset.

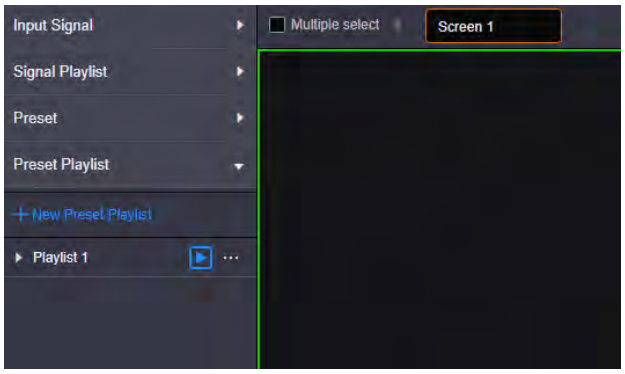
4.7 Set Preset Playlists

The preset playback function allows you to play the presets automatically based on the set playback sequence and single preset playback duration. After the settings, the system will play the presets automatically with no manual operations required.

Add Preset Playbacks

Step 1 On the **Programming** page, click **Preset Playlist** on the left to enter the preset playlist settings page.

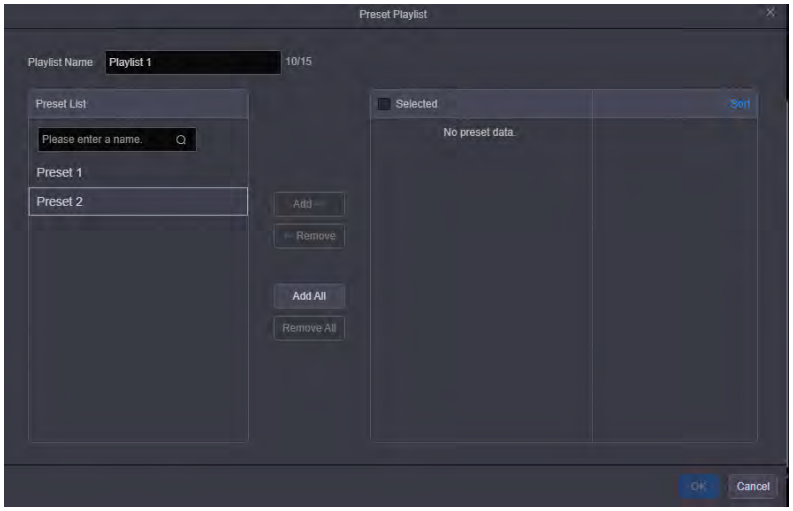
Figure 4-29 Add preset playbacks - 1



Step 2 On top of the page, select the screen that you will operate.

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

Figure 4-30 Add preset playlists



Step 4 Enter a name for the new playlist.

Step 5 Select the desired presets in the **Preset List** area on the left, and then click **Add** to add the selected presets to the **Selected** area.

- Remove: Select the desired presets in the **Selected** area and click **Remove** to remove them from the list and make them go back to the left area.
- Add All: Add all the presets in **Preset List** to **Selected.**
- Remove All: Remove all the presets in **Selected**.

Step 6 Set the playback duration that specifies the time length each preset lasts.

The default playback duration is 5s. You can change the playback duration as follows.

1. Check the box next to the desired preset in the **Selected** area.
2. Enter the playback duration in the text box on the right.
3. Press **Enter** or click somewhere else on the Web page to complete the settings.

   When you want to set the same playback duration for all the selected presets, check the boxes next to the desired presets and then click **Uniform Duration**. In the popup text box, enter the desired playback duration and then press **Enter** to complete the settings.

Step 7 [Optional] Adjust the preset playback sequence.

The sequence that you add the presets is the default preset playback sequence. You can adjust the sequence as follows.

1. In the **Selected** area, click **Sort** at the top right corner.

2. Move up and down the preset to adjust the preset sequence in the preset playback list.
3. Click **Done** at the top right corner to complete the adjustment.

Step 8 Click **OK** to complete the settings.

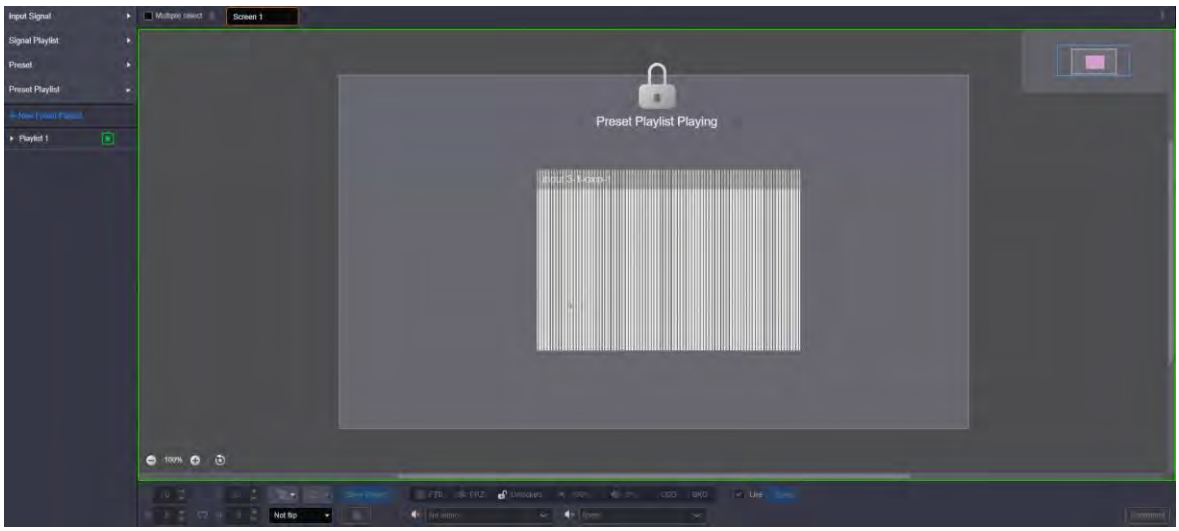
Play Presets

Step 1 On top of the **Programming** page, select the screen that you will operate.

Step 2 Click **Preset Playback** on the left to expand the preset playback list.

Step 3 Click the icon to play the selected preset playlist. The screen is locked during the playback.

Figure 4-31 Play presets

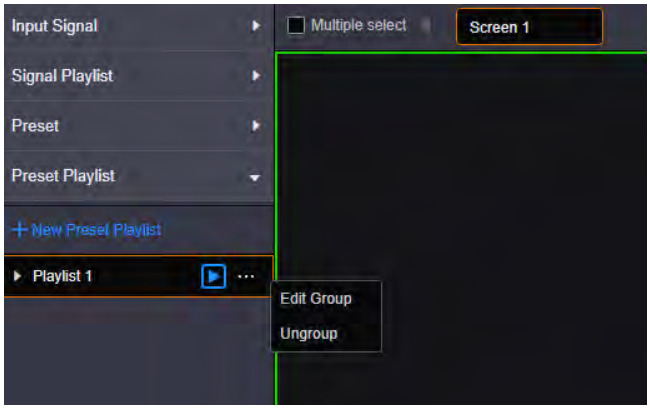


Click the icon to pause the playback.

Other Operations

Click a playlist and **…** appears. Click this icon to open the playlist operation menu.

Figure 4-32 Playback operation menu



- Edit Group: Rearrange the preset list and readjust the playback duration.
- Ungroup: Ungroup the current playlist.

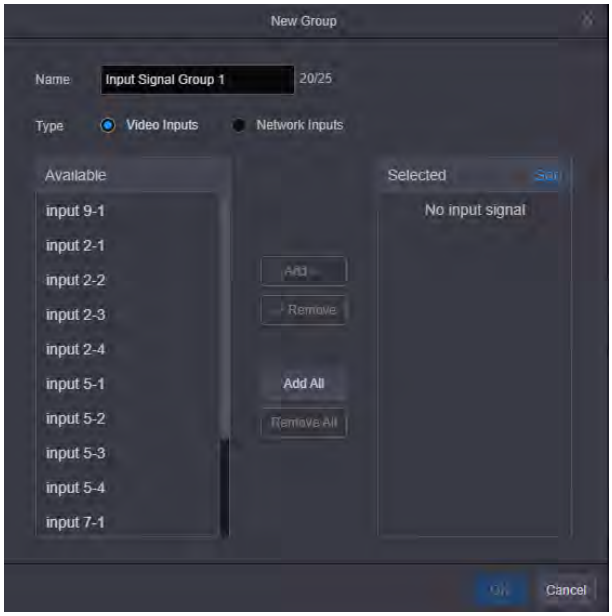
4.8 Group Input Sources

The H series supports input source group management.

Step 1 On the **Programming** page, click **Input Signal** on the left to view the input source list. The green connectors are accessed with signal sources.

Step 2 Click **Group** to open the grouping window.

Figure 4-33 Group input sources



Step 3 Enter a name for the group.

Step 4 Select the desired input source type.

- Video Inputs: Group the local input sources.
- Network Inputs: Group the input sources connected to the IP input card.

Step 5 Select the desired inputs in the **Available** area on the left.

Step 6 Click **Add** to add the selected inputs to the **Selected** area.

- Remove: Select the desired inputs in the **Selected** area and click **Remove** to remove them from the list and make them go back to the left area.
- Add All: Add all the inputs in **Available** to **Selected**.
- Remove All: Remove all the inputs in the **Selected** area.

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

4.9 Crop Input Sources

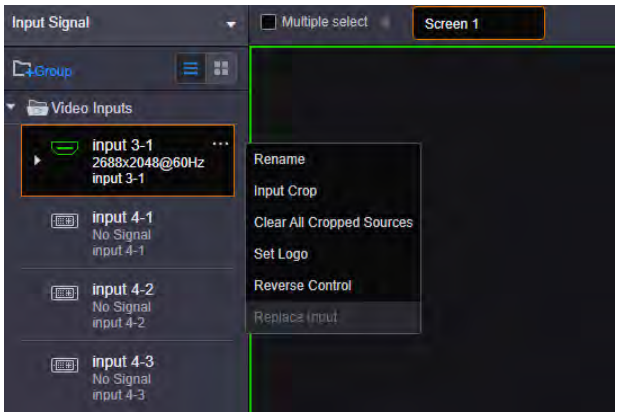
The H series supports the input source cropping function. The cropped input source can be used as a new input source.

Step 1 On the **Programming** page, click **Input Signal** on the left to view the input source list. The green connectors are accessed with signal sources.

Step 2 Select an input source and **…** appears next to the input source name.

Step 3 Click **…** to open the input source operations menu.

Figure 4-34 Input source operations menu



Step 4 Select **Input Crop** to open the input source cropping window.

Figure 4-35 Crop input source



Step 5 Name the cropped input source image.

Step 6 Enter the values in the **X** and **Y** text boxes to set the horizontal and vertical start positions respectively for the cropping. The cropping reference is the top left corner of the input source image.

Step 7 Enter the values in the **Width** and **Height** text boxes to set the width and height of the left area after cropping.

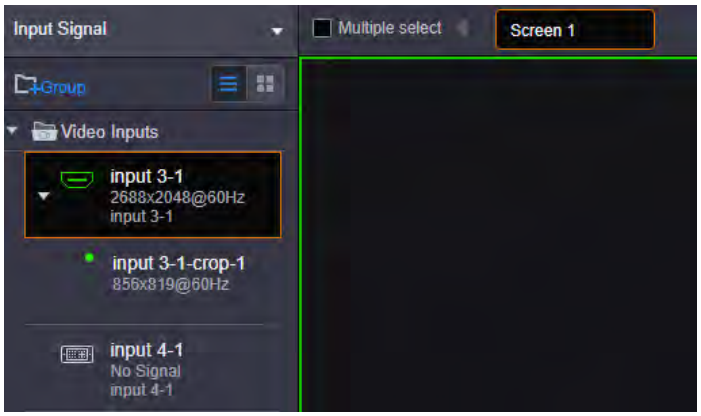
Note:

After the width and height values are set, click and drag the highlighted frame on the input source area to quickly adjust the start position for the cropping.

Step 8 Click **OK** to complete the cropping.

After the cropping, the new input source appears below the original input source in the **Input Signal** area. For the new input source, the operations such as renaming and cropping are also provided.

Figure 4-36 Cropped input source



Note:

In the input source operations menu, click **Clear All Cropped Sources** to delete all the cropped sources.

4.10 Set 3D Effect

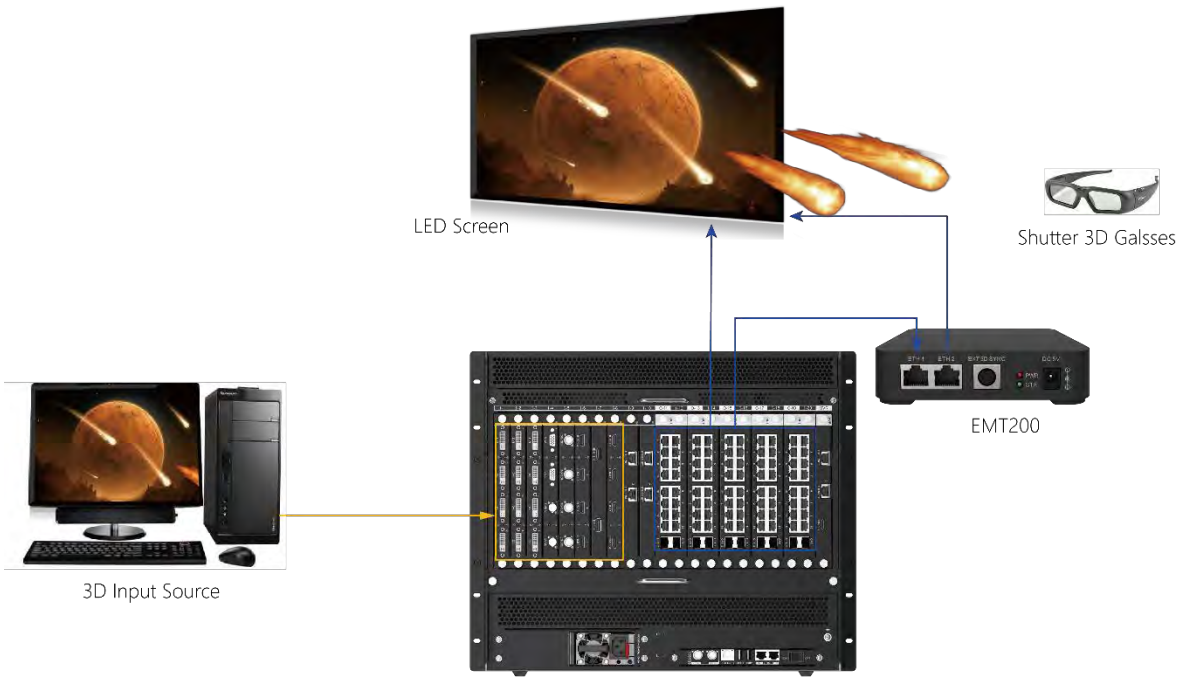
The H series can work with the EMT200 3D emitter from NovaStar and 3D glasses to provide you with 3D visual experience.

You can set the 3D parameters in NovaLCT or on the Web.

Notes:

- Turning on 3D mode will halve the device output capacity.
- The 3D and low latency functions cannot be turned on at the same time.
- For pixel-to-pixel display in 3D mode, if the 3D source is in side-by-side format, the layer width must be set to half of the input source width; if the 3D source is in top-and-bottom format, the layer height must be set to half of the input source height.

Figure 4-37 Hardware connections



The EMT200 is connected in between the LED 4K sending card and the receiving card via Ethernet cables, or connected to any of the receiving cards.

Each screen supports only one EMT200.

Step 1 Log in to NovaLCT.

Step 2 Go to **Screen Configuration** > **Sending Card** to open the sending card window.

Step 3 Check the box in front of **Enable** to turn on the 3D function.

Step 4 Click **Set 3D Parameters** to open the 3D parameter settings window.

Figure 4-38 Set 3D parameters



Step 5 Select the video source format. The options are **Side-by-Side**, **Top-and-Bottom** and **Frame Sequential**.

Step 6 Set the eye priority according to the 3D glasses mode. The options are **Left eye** and **Right eye**.

Step 7 Set the right eye start position.

Notes:

- For side-by-side 3D sources, **Right Eye Start** must be set to half of the input source width.
- For top-and-bottom 3D sources, **Right Eye Start** must be set to half of the input source height.

Step 8 Select or unselect **Enable third-party emitter** according to your actual setup.

Step 9 Adjust the signal delay time to make left and right eye images of the 3D glasses in sync with the images on the display.

3D Settings on Web

You can set the 3D effect on the Web page.

Step 1 Click **Configuration** to enter the screen configuration page.

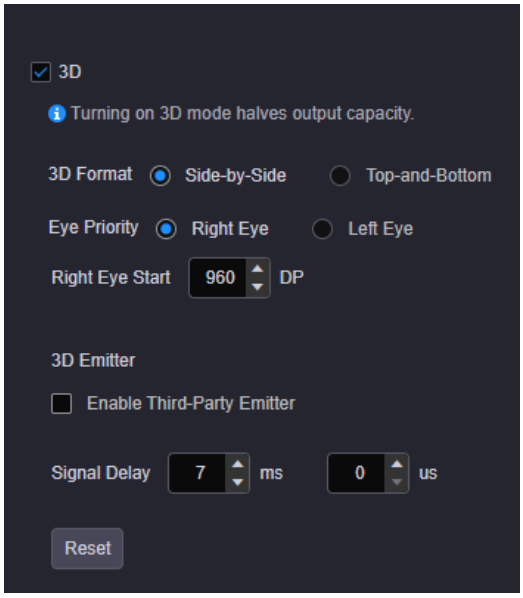
Step 2 Select the desired screen on the top of the page.

Step 3 Click on the right edge to expand the configuration settings pane.

Step 4 Click the **Basic Info** tab to show the basic settings.

Step 5 Check the box next to **3D** to turn on the 3D function.

Figure 4-39 3D settings



Step 6 Select the video source format based on the accessed 3D source. The options are **Side-by-Side** and **Top-and-Bottom**.

Step 7 Set the eye priority according to the 3D glasses mode. The options are **Right Eye** and **Left Eye**.

Step 8 Set the right eye start position.

Notes:

- For side-by-side 3D sources, **Right Eye Start** must be set to half of the input source width.
- For top-and-bottom 3D sources, **Right Eye Start** must be set to half of the input source height.

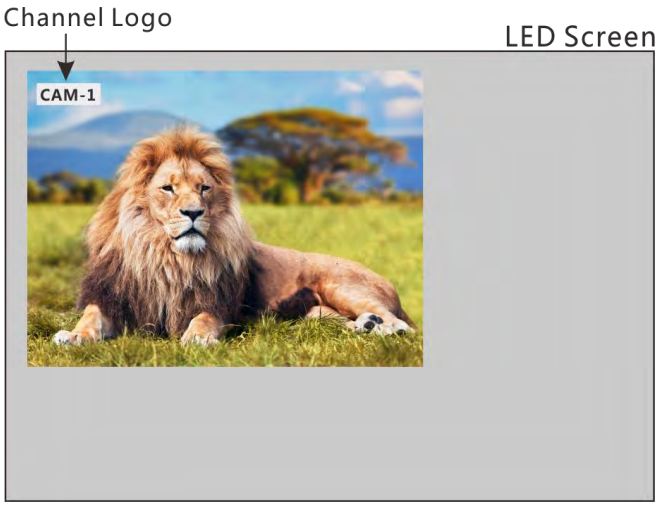
Step 9 Select or unselect **Enable Third-Party Emitter** according to your actual setup.

Step 10 Adjust the signal delay time to make left and right eye images of the 3D glasses in sync with the images on the display.

4.11 Set Channel Logos

The channel logo function allows you to set a logo for each input source, which is displayed on the top left of the layer. By using this function, you can quickly locate and identify the input source of the layer.

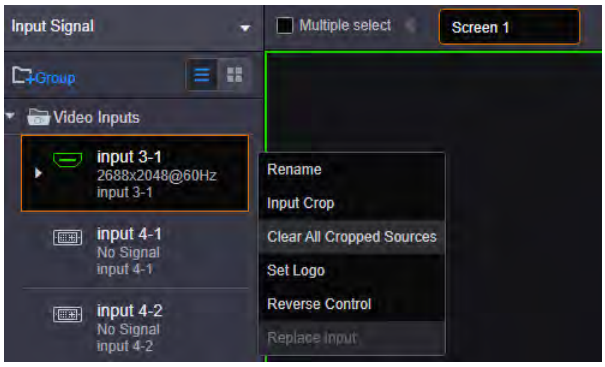
Figure 4-40 Channel logo



Step 1 Select an input source and **...** appears next to the input source name.

Step 2 Click **...** to open the input source operations menu.

Figure 4-41 Input source operations menu



Step 3 Select **Set Logo** to open the channel logo settings window.

Figure 4-42 Set logo



Step 4 Enable the logo function.

The H series supports text or image channel logos.

- Text logo
  a. Enter the logo text in the **Content** text box.
  b. Enter the values in the **X** and **Y** text boxes to set the position of the logo upon the input source.
  c. Enter the values in the **Width** and **Height** text boxes to set the logo size.
  d. Set the text font, size and color for the logo text.
  e. Select **Enable BKG** and select a color for the logo background.
- Image logo

  Click **Browse** to import an image as the channel logo, and then set the **X** and **Y** values to set the logo position.

  The maximum width and height of the logo image can be up to 512 and 64 pixels respectively.

4.12 Set Reverse Control

When the signal source is a local signal source output by the computer, the H series supports reverse control of the signal source.

Prerequisites

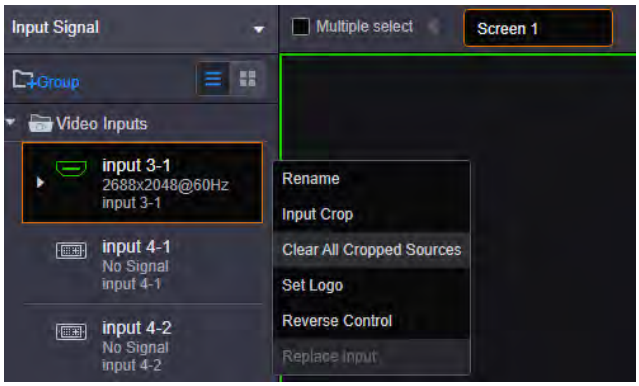
The signal source to be controlled reversely must be the local source provided by the computer running the Windows operating system.

Operating Procedure

Step 1 On the **Programming** page, select an input source and **…** appears next to the input source name.

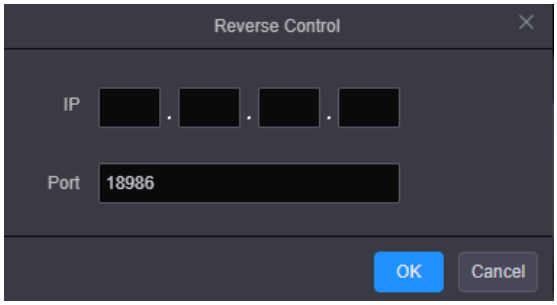
Step 2 Click **…** to open the input source operations menu.

Figure 4-43 Input source operations menu



Step 3 Click **Reverse Control** to open the reverse control settings window.

Figure 4-44 Set reverse control

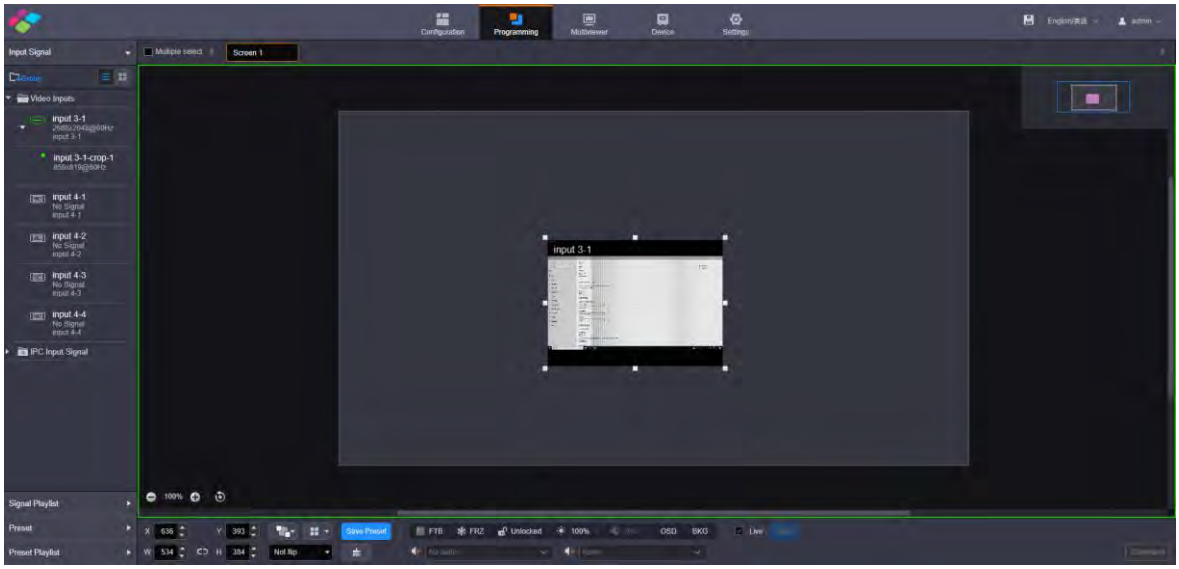


Step 4 Enter the IP address of the input source PC and use the default port number **18986**.

Step 5 Click **OK** to complete the settings.

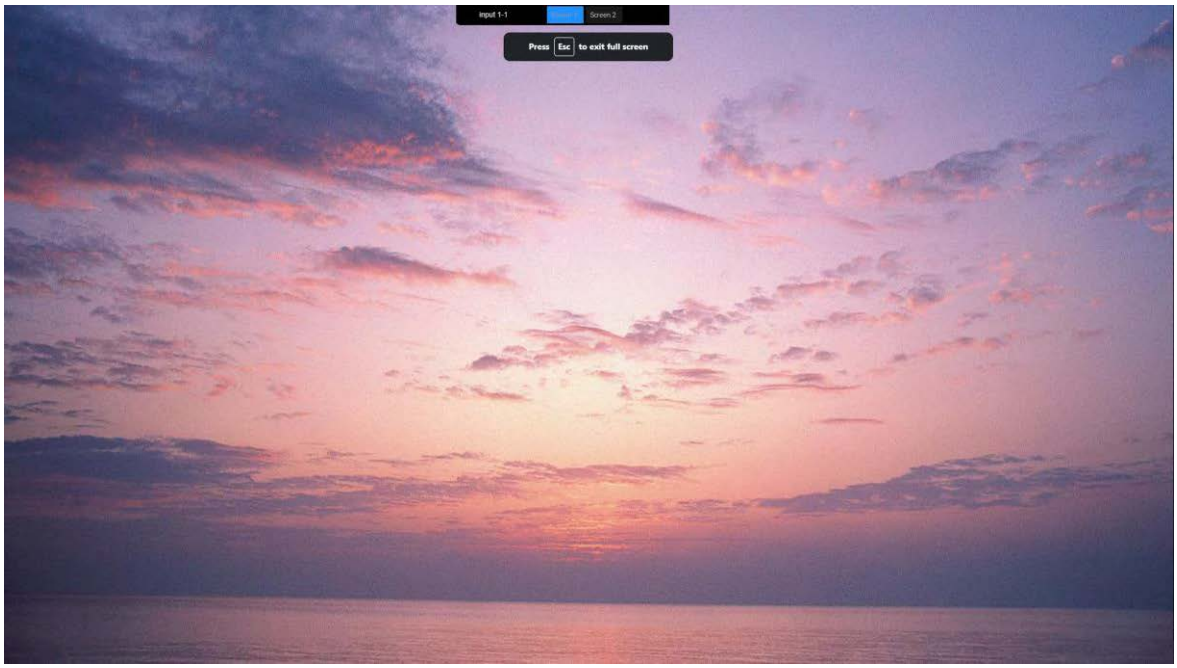
Step 6 Use the signal source configured for reverse control to add a layer.

Figure 4-45 Add layers



Step 7 In the layer menu, click  to enter the desktop of the input source PC and then you can reversely control the PC.

Figure 4-46 Reverse control desktop



After you enter the desktop of the input source PC, you can operate the files and programs on the PC. If the input source PC is configured with multiple output desktops, the system will display the desktop names. You can click the name to switch to the target desktop.

You can exit the reverse control desktop in the following ways.

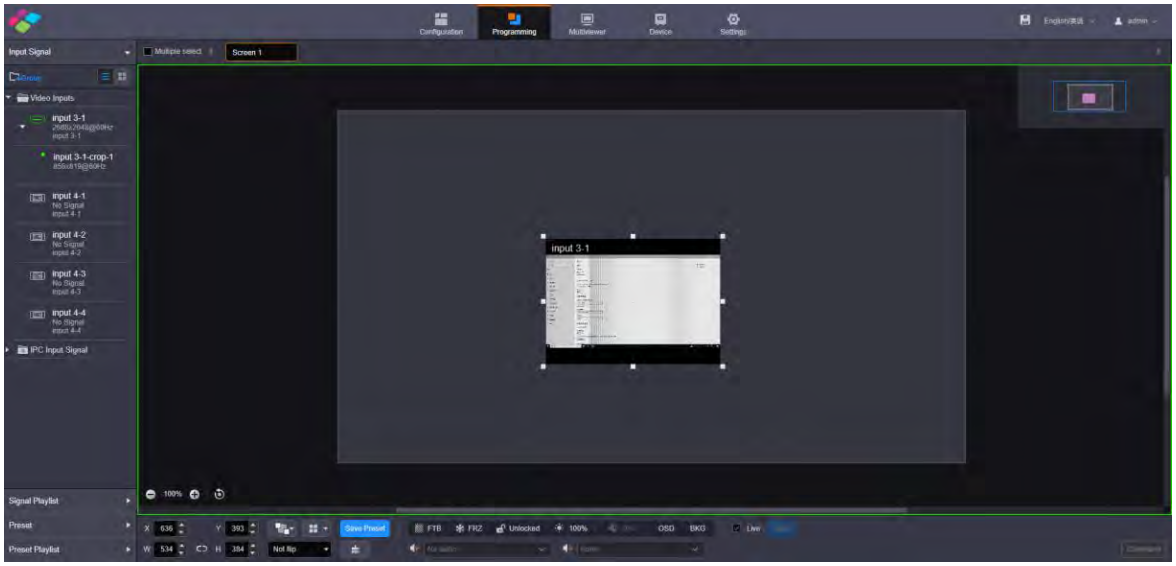
- Press **ESC**.
- Hover the mouse over the desktop name area at the top and will appear. Click this icon to exit the reverse control desktop.
- Click the input source name displayed in the desktop name area.

4.13 Set Output Audio

When an H series device is installed with an H_2xAudio input+2xAudio output card, the audio output is supported.

Step 1 Click **Programming** to enter the programming page.

Figure 4-47 Set input and output audio



Step 2 Set the input audio.

Click the drop-down list next to  at the bottom right corner, and then select the input source audio. The options include the audio coming with an input connector on the audio card and the accompanied audio coming with an HDMI input connector.

Step 3 Set the output audio.

Click the drop-down list next to  at the bottom right corner, and then select the audio output connector. The audio can be output via an output connector on the audio card.

4.14 Control Multiple Screens

The H series supports control of multiple screens at the same time and you can perform the following operations, including FTB, freezing, locking, brightness adjustment, preset group loading, preset playback.

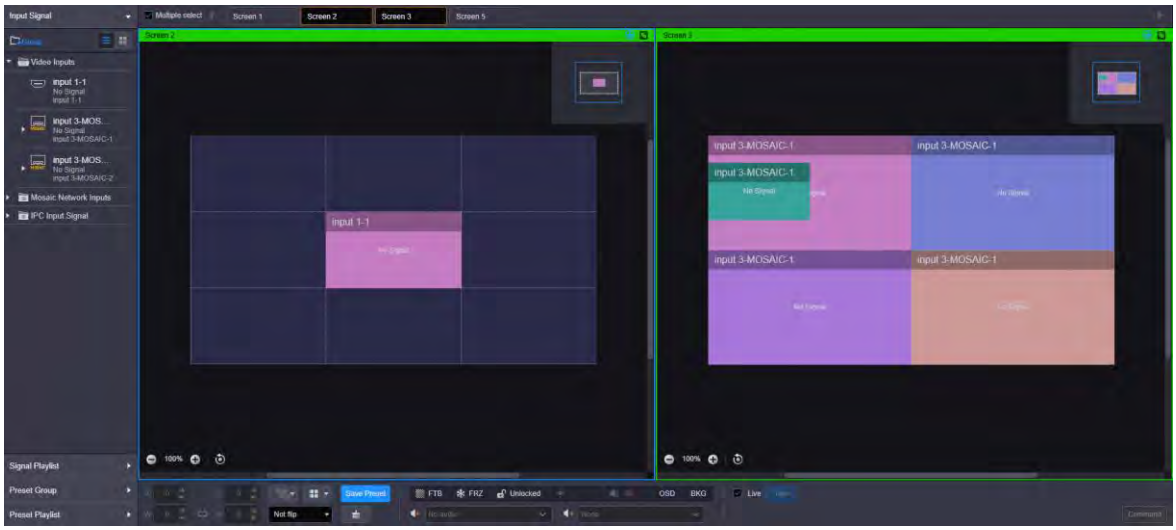
4.14.1 Add Preset Groups

Before adding a preset group, you need to add presets for each screen.

Step 1 In the screen list, check the box next to **Multiple select** to enter the multiple screen control page.

Step 2 Select the desired screens.

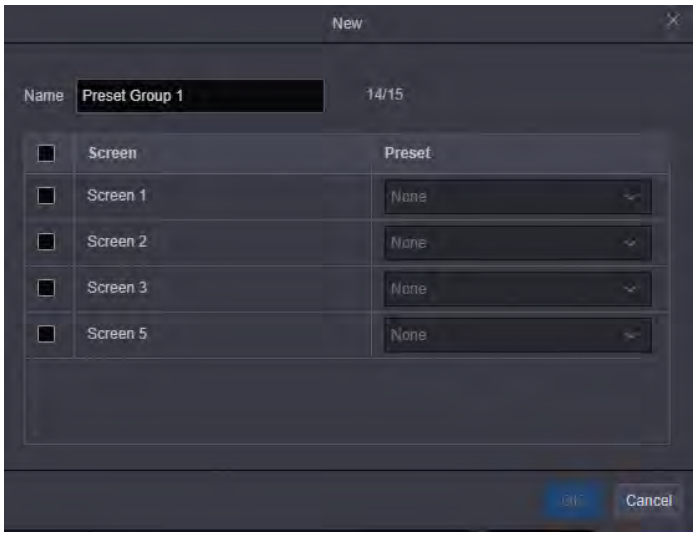
Figure 4-48 Control multiple screens



Step 3 Click **Preset Group** on the left to expand the preset group settings pane.

Step 4 Click **New** to open the preset group adding window.

Figure 4-49 Add preset groups



Step 5 Enter a name for the added preset group.

Step 6 Check the boxes next to the desired screens.

Step 7 Select the added preset for each selected screen.

Step 8 Click **OK** to complete the adding.

4.14.2 Load Preset Groups

Step 1 In the screen list, check the box next to **Multiple select** to enter the multiple screen control page.

Step 2 Click **Preset Group** to expand the preset group settings pane.

Step 3 Hover the mouse over the desired preset group and click that appears to load the selected preset group.

4.14.3 Other Preset Group Operations

Hover the mouse over the desired preset group and click ••• that appears, and then you can perform the following operations.

- View: View the screens and the corresponding presets in the preset group.
- Edit: Change the screen and the corresponding preset in the preset group.
- Delete: Delete the selected preset group.

4.14.4 Set Preset Playlists

When you control multiple screens, you can create a preset playlist for each screen and play the presets.

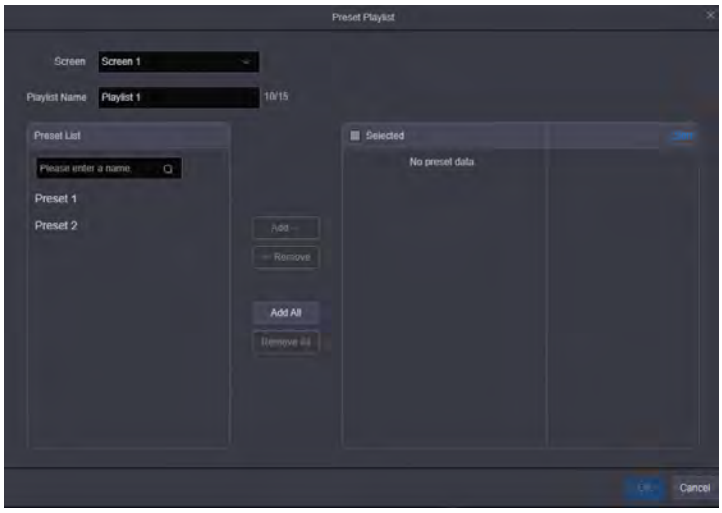
Add Preset Playlists

Step 1 In the screen list, check the box next to **Multiple select** to enter the multiple screen control page.

Step 2 Select the desired screens.

Step 3 Click **Preset Playlist** on the left to enter the preset playlist settings page, and then click **New Preset Playlist** to open the preset playlist adding window.

Figure 4-50 Add preset playlists



Step 4 Select the desired screen from the drop-down list next to **Screen**.

Step 5 Enter a name for the new playlist.

Step 6 Select the desired presets in the **Preset List** area on the left, and then click **Add** to add the selected presets to the **Selected** area.

Double click the desired preset to quickly add it to the **Selected** area.

Step 7 Set the playback duration that specifies the time length each preset lasts.

The default playback duration is 5s. You can change the playback duration as follows.

1. Check the box next to the desired preset in the **Selected** area.
2. Enter the playback duration in the text box on the right.
3. Press **Enter** or click somewhere else on the Web page to complete the settings.

   When you want to set the same playback duration for all the selected presets, check the boxes next to the desired presets and then click **Uniform Duration**. In the popup text box, enter the desired playback duration and then press **Enter** to complete the settings.

Step 8 Click **OK** to complete the settings.

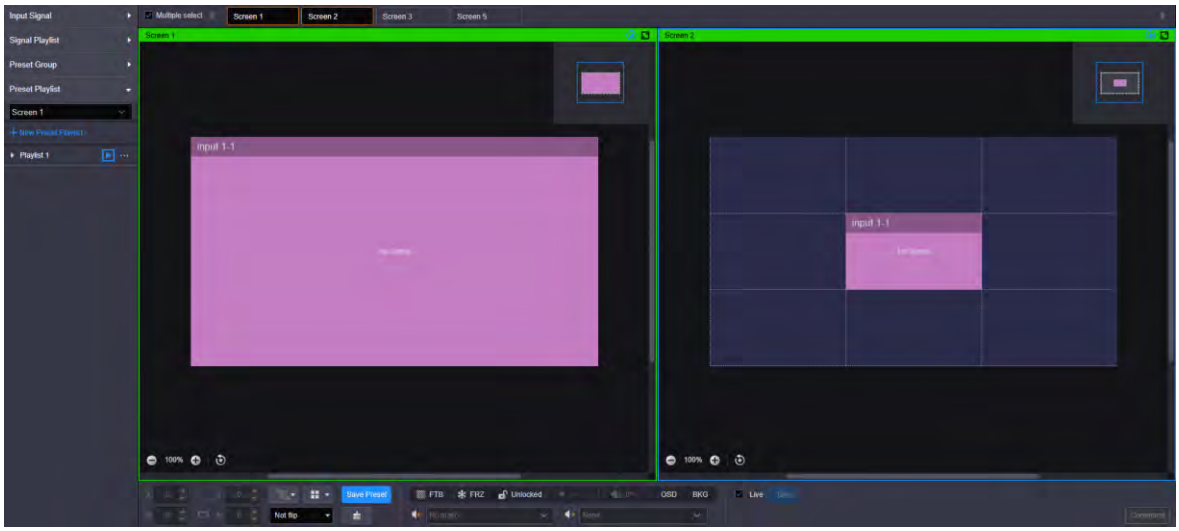
Play Presets

Step 1 In the screen list, check the box next to **Multiple select** to enter the multiple screen control page.

Step 2 Select the desired screens.

Step 3 Click **Preset Playlist** on the left to enter the preset playlist settings page.

Figure 4-51 Preset playback



Step 4 In the preset playlist, select the desired screen from the drop-down list.

Step 5 Click the icon to play the selected preset playlist.

Step 6 Repeat Step 4 and Step 5 to play presets for other screens.

4.14.5 Other Multi-Screen Control Operations

Step 1 In the screen list, check the box next to **Multiple select** to enter the multiple screen control page.

Step 2 Select the desired screens.

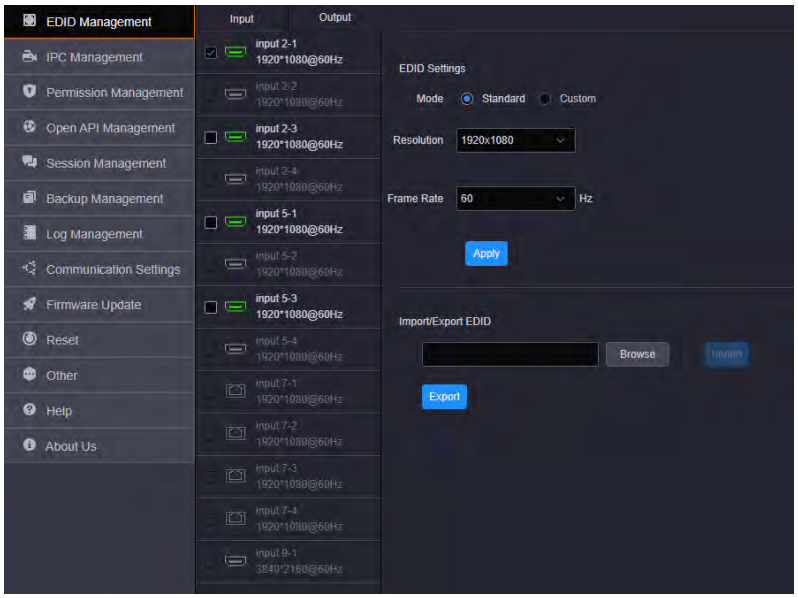
Below the layer editing area, you can perform the following operations.

- FTB: Make the output images displayed on the selected screens fade to black.
- FRZ: Freeze the output images displayed on the selected screens.
- Unlocked: Lock all the selected screens.
- 100% : Adjust the brightness of the output images displayed on the selected screens. If the selected screen does not support brightness adjustment, this parameter is unavailable.

4.15 Set Input and Output EDID

Step 1 Go to **Settings** > **EDID Management** to enter the EDID settings page.

Figure 4-52 EDID management



Step 2 Click the **Input** or **Output** tab to view the input or output connector resolution.

Step 3 Select the desired input or output connectors.

- Standard Resolution

  Select a standard resolution from the drop-down list.

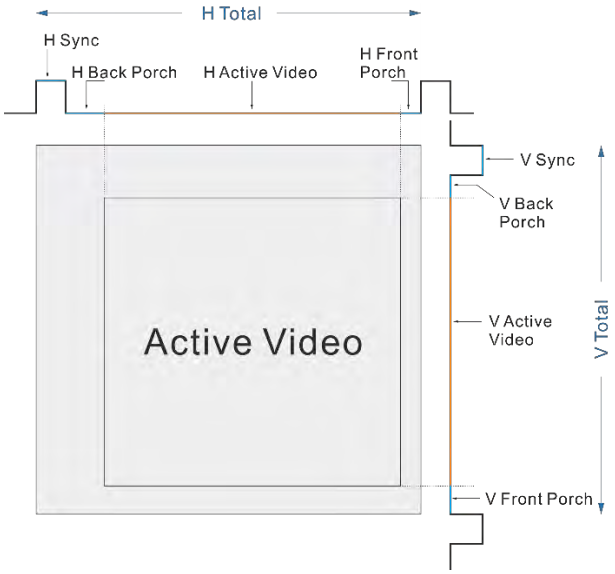
- Custom Resolution

  Set the width, height and frame rate for the input or output connectors, and then click **Apply** to complete and apply the settings.

- Advanced

  Under custom mode, you can select **Advanced** to enable the advanced EDID settings function. It is recommended personnel who are familiar with the EDID settings adopt this method. The parameters for advanced EDID settings are shown as follows.

Figure 4-53 Parameters for advanced EDID settings



- Import/Export EDID

  Export the configured resolution parameters file for future use, or import an existing EDID configuration file.

Note:

The H_16xRJ45+2xfiber sending card and H_20xRJ45 sending card support custom resolution settings only.

4.16 Control Backend Devices

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

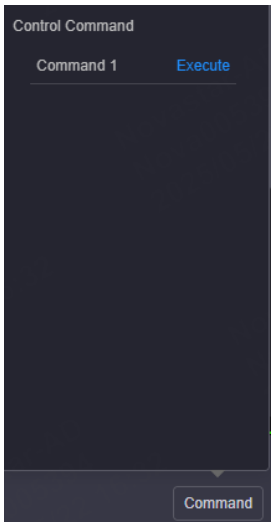
Prerequisites

- The controlled device is connected to an H series device via a serial cable.
- You have added the control commands as described in 6.5.9.4 Add Commands.

Operating Procedure

Step 1 On the **Programming** page, click **Command** at the bottom right corner to show the command list.

Figure 4-54 Command list



Step 2 Select the desired control command and click **Execute** to execute the selected one.

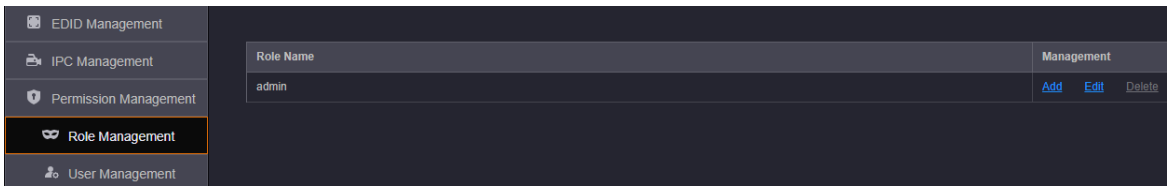
4.17 Manage Roles

You can add new roles as needed and grant them different operation permissions. When a user is associated with a role, the user obtains the permissions that the role has.

Add Roles

Step 1 Go to **Settings** > **Permission Management** > **Role Management** to enter the role management page.

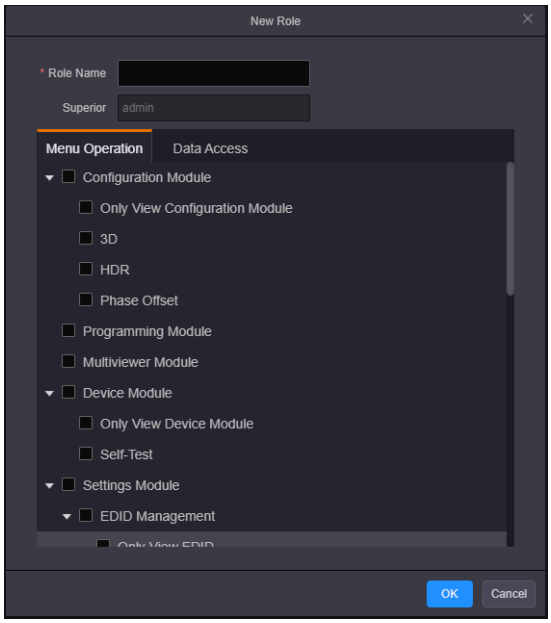
Figure 4-55 Role management



The user (admin) is created by default with all the operation permissions and data accesses.

Step 2 Click **Add** in the column of **Management** to add a new sub-role.

Figure 4-56 Add new roles



Step 3 Enter a name for the new role.

Step 4 Select the permissions below the **Menu Operation** tab.

Check the boxes in front of the desired modules, and then the role will obtain all the permissions below the selected modules.

Step 5 Below the **Data Access** tab, select the desired data accesses. The options include **Input**, **Output**, **Screen** and **Multiviewer**.

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

On the role management page, click **Add** in the column of **Management** to create a new sub-role for the target role. The permissions granted to the sub-role are less than or equal to those of the superior role.

Change Role Information

Step 1 On the role management page, select the desired role.

Step 2 Click **Edit** in the column of **Management** to open the role editing window where you can change the role name, menu operations and data accesses.

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

4.18 Manage Users

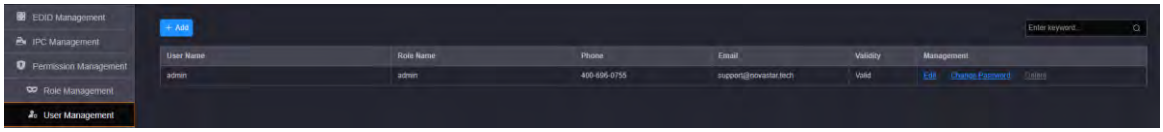
The H series supports multi-user collaboration at the same time. You can add new users as needed and manage their permissions.

Prerequisites

The role information is configured.

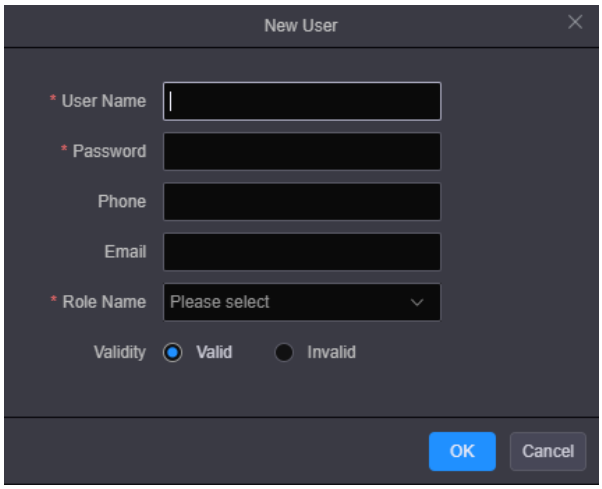
Step 1 Go to **Settings** > **Permission Management** > **User Management** to enter the user management page.

Figure 4-57 User management



Step 2 Click **Add** to open the new user adding window.

Figure 4-58 Add new users



Step 3 Enter a user name, password, phone number and email address.

Step 4 Click the drop-down arrow next to **Role Name** to select the target role.

Step 5 Select **Valid** to make the user account a valid one.

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

In the user list, click **Edit** in the column of **Management** to change the user password, phone number, email address and role. You can also set the user account to an invalid one and the invalid user cannot log in to the system.

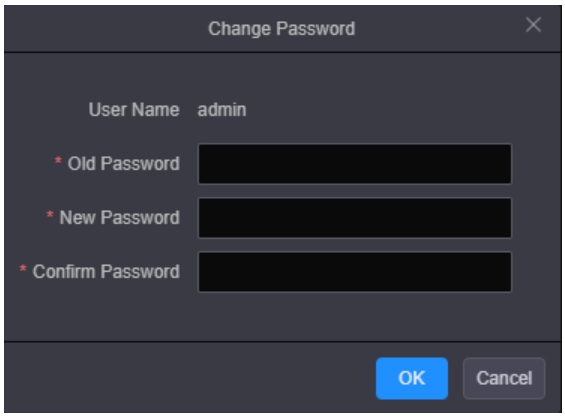
Click **Delete** in the column of **Management** to delete the desired user. After the user is deleted, it cannot log in to the system.

Change Password

Step 1 On the user management page, select the desired user.

Step 2 Click **Reset Password** in the column of **Management** to open the password changing window.

Figure 4-59 Change password



Step 3 Enter your current password in the **Old Password** text box.

Step 4 Enter your new password both in the **New Password** and **Confirm Password** text boxes.

Step 5 Click **OK** to apply the change.

Note:

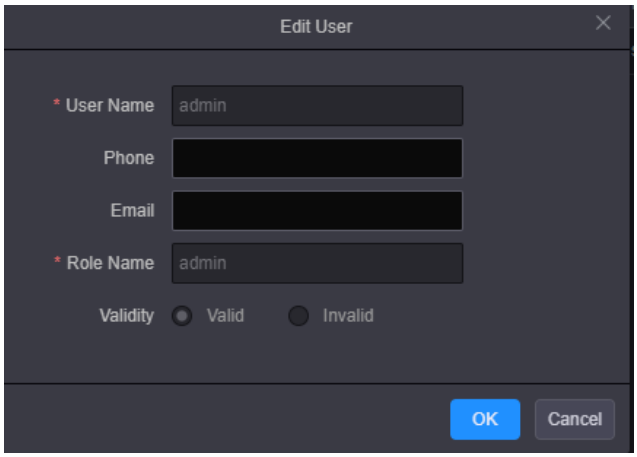
On the user management page, the user (admin) can reset the password for other users.

Change User Permissions

Step 1 On the user management page, select the desired user.

Step 2 Click **Edit** in the column of **Management** to open the user editing window.

Figure 4-60 Edit users



Step 3 Enter a new phone number and email address.

Step 4 In the **Role Name** text box, change the role for the current user.

Step 5 Click **OK** to apply the change.