Video Wall Controller

User Manual

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FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
FCC compliance: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the EMC Directive 2014/30/EU, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: ***http://www.recyclethis.info*** .

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: ***http://www.recyclethis.info*** .

Preface

Applicable Model

This manual is applicable to C12L series video wall controllers.

About the Default

This device has the following defaults:

Parameter	Default Value
User name	admin
IP address	192.0.0.64

Symbol Conventions

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

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

Safety Instructions

Danger

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- This is a class A product and may cause radio interference in which case the user may be required to take adequate measures.
- Use the power adapter delivered with the device only.

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- The power socket or power plug is used to disconnect power. Do not cover the power socket or power plug so that it can be easily moved.
- The device contains a button battery, so place the waste battery out of sight and out of reach of small children. Swallowing the button battery may cause death in two hours.
- The device contains a button battery, so place the waste battery out of sight and out of reach of small children. Swallowing the button battery may cause death in two hours.
- Improper use or replacement of the battery may result in explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the product yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
- Please enhance the protection for personal information and data security as the device may be confronted with the network security problems when it is connected to the Internet. Please contact your dealer or the nearest service center once you find that there may be the network security problems.

Caution

- Do not drop the device or subject it to physical shock, and do not expose it to high electromagnetism radiation. Avoid the equipment installation on vibrations surface or places subject to shock (ignorance can cause equipment damage).
- Do not expose the device to the explosive situation.
- Keep clean and dry on the surface of the device.
- Do not touch the exposed connection points or components when the device is powered on.
- Do not place any naked flame sources, such as lit candles, on the device.
- Do not place any objects containing water or liquids on the device. Prevent the device from water dropping or splashing.
- Place the device in a well-ventilated, dust-free environment. Ensure that the air vents are not covered by any objects such as newspapers, tablecloths, or curtains.

Contents

Chapter 1 Product Introduction

1.1 Overview

The video wall controller is a pure hardware image processing device based on Field Programmable Gate Array (FPGA), which supports multi-channel splicing and multi-channel signal switching display. With high processing performance, the device supports 4K@60 Hz signal input and output and multiple-device cascading for larger-scale splicing. Due to its good compatibility, LCD, DLP, and LED screens can be spliced into one virtual screen, which helps apply to various video wall application scenarios such as shopping malls, conference rooms and lecture halls.

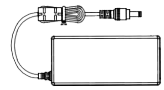
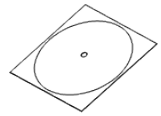
1.2 Key Feature

- Two HDMI inputs and signal switching by button, customizable input resolution
- Four HDMI outputs, and customizable output resolution
- Up to 4K@60 Hz input
- Up to 4-device cascading and 16-screen splicing
- Multi-channel fusion input for ultra-high resolution signals

1.3 Packing List

Before using the product, check whether the following items are included in the package. If any items are found damaged or missing, please contact our technical support engineers.

Table 1-1 Packing List

No.	Item	Picture	Quantity
1	Device		1
2	Power adapter		1
3	Rubber foot		4
4	CD-ROM		1

1.4 Device Appearance

Figure 1-1 Device Appearance

1.4.1 Front Panel

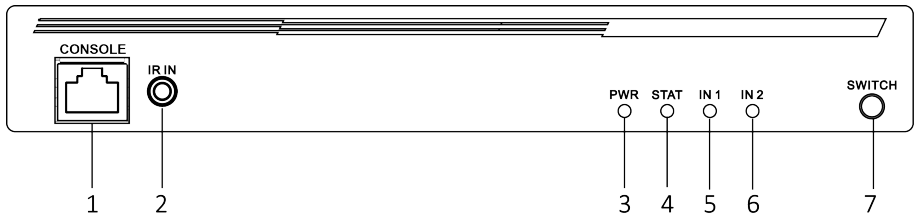


Figure 1-2 Front Panel

Table 1-2 Front Panel Interface Description

No.	Name	Description
1	CONSOLE	Debugging serial interface built in with an RS232-to-UART interface
2	IR IN	Reserved
3	PWR	Power indicator Turns steady red after power-on
4	STAT	System status indicator • Unlit during startup or in the faulty state • Turns green after startup
5	IN1	Indicator for the HDMI IN 1 interface

No.	Name	Description
		• Turns red when signals are inputting • Turns yellow after the signals are decoded and displays on the video wall
6	IN2	Indicator for the HDMI IN 2 interface • Turns red when signals are inputting • Turns yellow after the signals are decoded and displayed on the video wall
7	SWITCH	Used for switching signals between the HDMI IN 1 interface and the HDMI IN 2 interface

1.4.2 Rear Panel

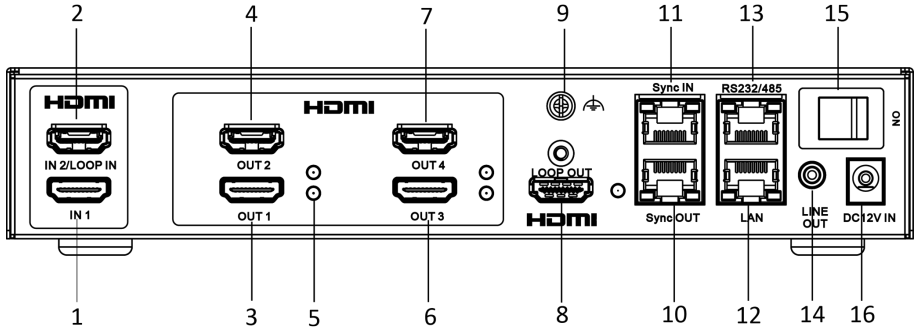


Figure 1-3 Rear Panel

Table 1-3 Rear Panel Interface Description

No.	Name	Description
1	HDMI IN 1	HDMI input interface 1, up to 4K@60 Hz input
2	HDMI IN 2	• HDMI input interface 2, up to 4K@60 Hz input • Used for Loop input when multiple devices are cascaded. **Note** When devices are cascaded, you can only use the two HDMI input interfaces of the master device to input signals.
3	HDMI OUT 1	HDMI output interface 1, up to 4K@60 Hz output **Note** When HDMI OUT 1 is inputting signals of 4K@60 Hz, HDMI OUT 2, 3, and 4 are unavailable.

No.	Name	Description
4	HDMI OUT 2	HDMI output interface 2, up to 4K@60 Hz output
5	HDMI Interface Indicator	Status indicator of HDMI OUT 1 interface • Normal operating: green • No signal output but displayed on the video wall: green • No signal output and not displayed on the video wall: unlit • Signal outputting but not displayed on the video wall: red • Signal outputting and displayed on the video wall: yellow
6	HDMI OUT 3	HDMI output interface 3
7	HDMI OUT 4	HDMI output interface 4
8	HDMI LOOP OUT	HDMI loop output interface for device cascading, up to 4K@60 Hz output
9	Grounding terminal	Used for device grounding
10	Sync OUT	Sync output interface for synchronizing signals between devices
11	Sync IN	Sync input interface for synchronizing signals between devices
12	LAN	10/100/1000 Mbps adaptive network interface, IEEE 802.3at PoE
13	RS-232/RS485	RS232 and RS485 multiplexing port, configurable on the client
14	LINE OUT	Audio output interface **Note** When devices are cascaded, you can only use the line output interface of the master device to output audio signals.
15	DC 12 V Switch	Switch of 12 V/2 A power input, alternative to the PoE power supply method
16	DC 12 V IN	Interface for 12 V/2 A power input, alternative to the PoE power supply method

1.5 Client Management Software

DS-C12L series video wall controllers can be managed on the Video Wall Client, including activation, adding, configuration, management and maintenance.

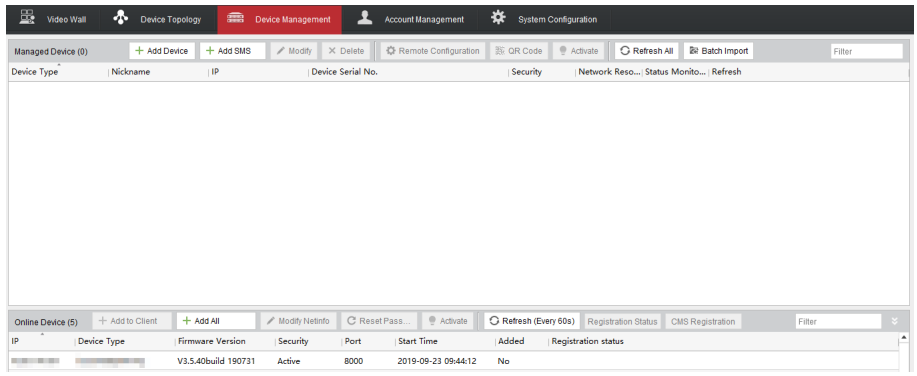


Figure 1-4 Client Manamgment Software

Chapter 2 Installation and Configuration

Before using your C12L device, you need to complete installation and basic configuration.

The following figure shows the basic installation and configuration process. Decide your procedure based on the actual scenario. The operation details are described in later sections.

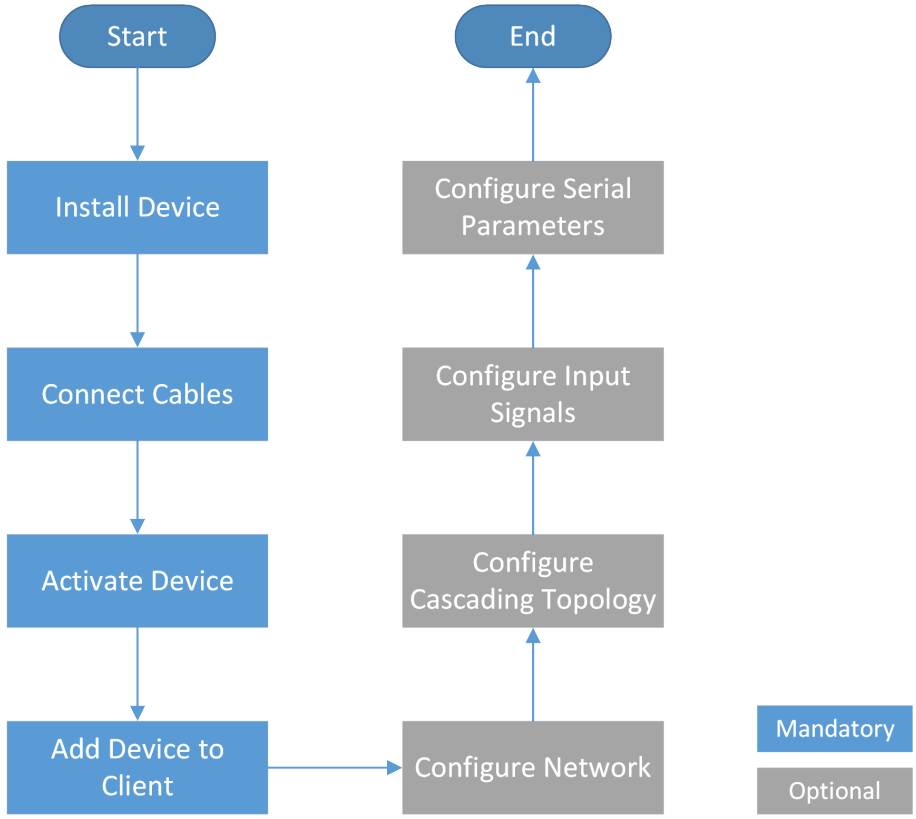


Figure 2-1 Installation and Configuration Process

2.1 Install Your Device

Devices can be installed in three ways: stacking, wall mount, and magnet mount. Decide your installation way based on the actual scenario.

Caution

- Do not operate the device with power. Power down the device during installation, wiring, dismantling, or maintenance.
- Use the power adapter delivered with the device.
- Place the device in a dry and well-ventilated environment.

- Do not drop the device or subject it to physical shock. Do not install the device on vibratory surface or places.
- Ensure that the device is installed at a temperature of -10°C to 45°C and a humidity of 10% to 90% RH.

2.1.1 Stacking

If the installation place has limited space, you can choose stacking installation. Stacking means that devices are placed one on the top of another.

Before You Start
You have left space for wiring and ventilation.

Steps
1. Take out the four rubber feet from the package, and stick them onto the bottom of your device. Repeat this step to complete the installation of rubber feet of the other devices.

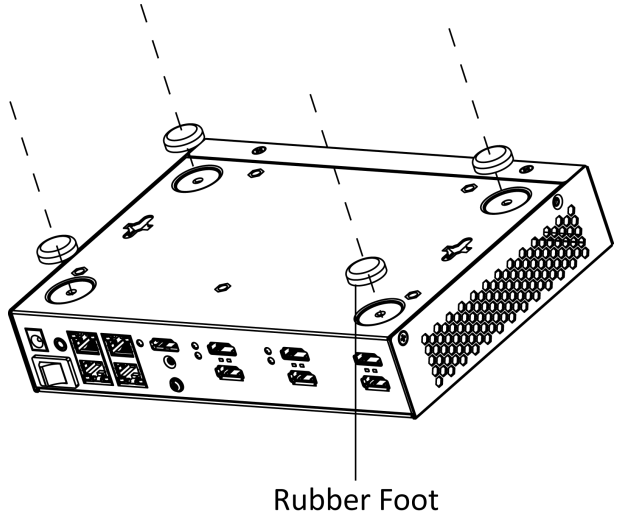


Figure 2-2 Stick Rubber Feet

2. Place one of the device on a flat surface and stack the rest on the top of the device one by one.

Caution
- Ensure that the devices are aligned horizontally and vertically.
- Ensure that the air vents on the sides of the devices are not blocked.

2.1.2 Wall Mount

If you want to mount your device on the wall, you can choose wall-mount installation.

Before You Start

- You have determined and marked the mounting locations on the wall. The recommended distance between the two mounting holes is 186 mm.
- You have left space for wiring and ventilation.

Steps

1. Drill two mounting screws into the marked locations on the wall.

   Note

   M4 pan head screws are recommended for mounting, and the head diameter should be greater than 5 mm but smaller than 9 mm.

2. Align the mounting holes on the bottom of your device and mount your device onto the screws.

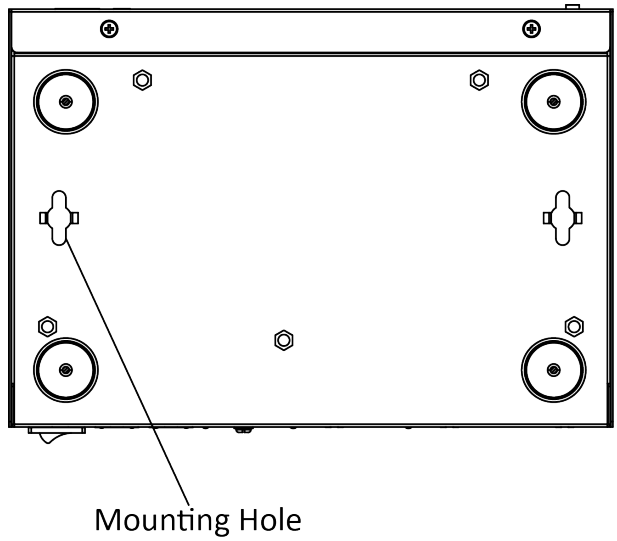


Figure 2-3 Mounting Hole Position

3. Repeat the above steps to complete the installation of the rest of your devices.

2.1.3 Magnetic Mount

If you want to mount your device on metal surfaces such as a video wall bracket or the rear of an LCD screen, you can choose magnetic-mount installation.

Before You Start

- You have determined the mounting locations.
- You have left space for wiring and ventilation.
- You have prepared four magnetic feet and four M3 countersink screws.

Steps

1. Use the four M3 countersink screws to mount the magnetic feet on the bottom of your device.

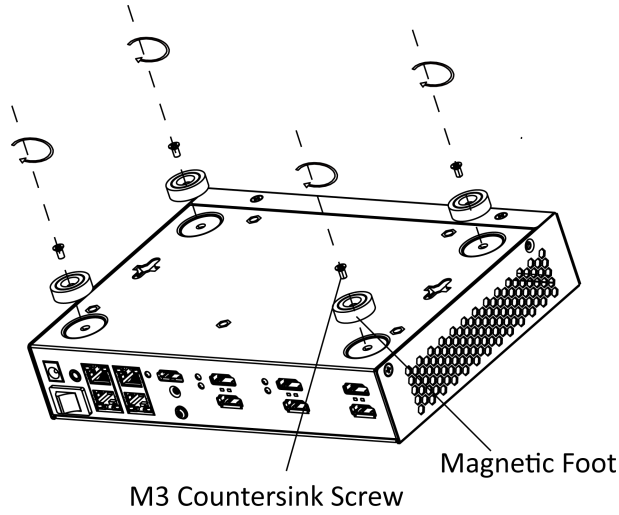


Figure 2-4 Mount Magnetic Feet

2. Stick your device onto the flat metal surface, such as the video wall bracket or the rear of the LCD screen.
3. Repeat the above steps to complete the installation of the rest of your devices.

2.2 Connect Cables

After installation is complete, you need to connect cables for your device, including the grounding cables, network cables, video and audio cables, serial cables, cascading cables, sync cables, and power cables.

2.2.1 Cable Connection Requirements

Different application scenarios require different cable connection. See the following table for reference.

Note

The keyboard scenario can be combined with the other three scenarios.

Table 2-1 Cable Connection Requirements

No.	Application Scenario	Cables Required
1	Signal splicing on video wall	• Grounding cable • Network cable

No.	Application Scenario	Cables Required
		• Video and audio cables • Power cable
2	Multi-channel fusion input for ultra-high resolution signals	• Grounding cable • Network cable • Video and audio cables • Sync cable • Power cable
3	Cascading splicing of single signal	• Grounding cable • Network cable • Video and audio cables • Loop cable • Sync cable • Power cable
4	Keyboard control	• Grounding cable • Network cable • Video and audio cables • Serial cable • Power cable

2.2.2 Cable Connection Description

See the following table for details about how to connect cables.

Note

All cables mentioned in the following table require you to purchase separately.

Table 2-2 Cable Connection Description

No.	Application Scenario	How to Connect Cable
1	Grounding cable	1. Use a Phillips screwdriver to remove the grounding screw on your device. 2. Use the Phillips screwdriver to connect one end of the grounding cable to the grounding terminal of your device and the other end to the grounding system.
2	Network cable	Connect the LAN interface of your device to the network using a network cable.

No.	Application Scenario	How to Connect Cable
3	Video and audio cables	1. Connect the HDMI input interfaces to input signal sources and the HDMI input interfaces to the video wall with HDMI cables. **Note** - Only HDMI 2.0 cables are supported by C12L devices. - If your site requires signal conversion cables, choose cables based on your actual needs. For C12L devices, DP-HDMI cables support up to 4K@60 Hz input, DVI-HDMI cables support up to 4K@60 Hz input, and VGA-HDMI cables support up to 1080P@60 Hz. 2. Connect the line out interface to the audio device such as a loudspeaker with an audio cable.
4	Loop cable	1. Connect the loop out interface of the master device to the loop in interface of one of the slave devices with an HDMI cable. 2. Connect the loop out interface of the slave device to the loop in interface of the next slave device with an HDMI cable. The rest can be done in the same manner.
5	Sync cable	1. Connect the sync out interface of the first device to the sync in interface of the next device with a network cable. 2. Connect the sync out interface of the device to the sync in interface of the next device with a network cable. The rest can be done in the same manner.
6	Serial cable	1. Determine the serial cable order of the serial interface of your C12L device and keyboard. The RS-232/485 serial interface of the C12L device is an RJ45 type with eight feet, and feet 2 and 3 corresponds to RX and TX of an RS-232 interface, and feet 4 and 5 corresponds to RS-485+ and RS-485- of an RS-485 interface. 2. Connect the serial interface of your C12L device with that of the keyboard with a serial cable.
7	Power cable	Choose either of the following ways to supply power to your device:

No.	Application Scenario	How to Connect Cable
		• Connect the LAN interface of your device to the network with a network cable for power supply over PoE. • Turn on the power switch, and use the power adapter to connect the DC 12 V input interface to a socket.

2.3 Activate Your Device

You are required to activate your device first before using it. Choose either of the following two ways for activation:

- Activate on SADP
- Activate on Client

2.3.1 Activate on Client

You can install and log in to the Video Wall Client to activate your device.

Before You Start

- You have installed the Video Wall Client.
- The computer running the client software is on the same network segment with your device.

Steps

1. Run and log in to the client.
2. Click **Device Management**. Online devices on the same network segment are searched out and displayed in the lower area.
3. In the device list, select the desired device in **Inactive** status, and click **Activate**.
4. Set a password and confirm it.

Caution

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

After being activated, the device turns into **Active**.

2.3.2 Activate on SADP

You can use SADP (Search Active Device Protocol) software to activate one device or activate multiple devices in batches. The SADP software can automatically search out online inactivated devices.

Before You Start
You have obtained and installed the SADP software.

Steps
1. Run SADP software to search the online devices.
2. Check **Device Status** from the device list, and select **Inactive** device.
3. Set a password and confirm it.

Caution

We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

4. Click **Activate**.

   Device Status changes into **Active**.
5. **Optional:** Change the network parameters of the device in **Modify Network Parameters**.

2.4 Add Your Device to Client

After activation, you need to add your device to the client for configuration, management, and maintenance.

- If you have activated your device on the client, your device has already been added to the client automatically and then skip this section.
- If you have activated your device on SADP, you need to add it to the client. For details, see the later sections.

2.4.1 Add an Online Device

If your device is activated with its default IP address kept, the client will automatically search out your device for you to add it to the client.

Before You Start
- You have installed the Video Wall Client.
- The computer running the client software is on the same network segment with your device.

Steps

1. Run and log in to the client.
2. Click **Device Management**. Online devices on the same network segment are searched out and displayed in the lower area.
3. Select the desired device and click **Add to Client**.
4. Set the nickname, enter the IP address, user name, and password, and click **Add**.

2.4.2 Add a Device Using Its IP Address

If your device is activated with its default IP address changed, you can use the new IP address to add it to the client.

Before You Start

- Your device has been activated.
- You have installed the Video Wall Client.

Steps

1. Run and log in to the client.
2. Click **Device Management**.
3. In the **Managed Device** area, click **Add Device**.
4. Enter the nickname, IP address, user name, and password, and click **Add**.

2.5 Configure Network Parameters

After your device is added to the client, you can configure network parameters of your device as needed, including the IP address, subnet mask, and gateway.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **Network → General** .
3. Configure the network parameter, including the IP address, subnet mask, and gateway.
4. Click **Save**.

2.6 Configure Cascading Topology

A single device supports a maximum four signal output interfaces at most which are used to connect to a four-screen video wall. If the video wall has more than four screens, you can cascade multiple devices and configure their cascading topology on the client. Firstly connect loop cables and sync cables for the devices physically, and then configure the cascading topology on the client accordingly. A maximum four devices can be cascaded.

Before You Start

- You have connected the loop cables and sync cables for the devices physically.
- You have added the devices to be cascaded to the client.

Steps

1. Click **Device Topology** to enter the device cascading topology configuration interface.

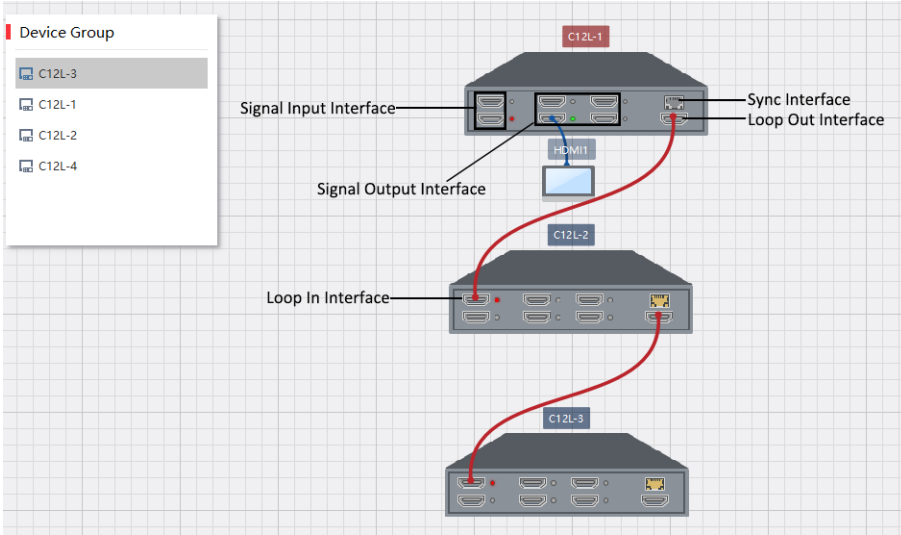


Figure 2-5 Configure Cascading Topology

2. In the device list on the left, drag the desired devices to the topology area on the middle. You can drag to change the positions or press the mouse wheel to change the size of the topology area.
3. Draw the loop lines according to the physical cable connections.
   1) Move your mouse on the loop out interface of the master device, and left-click and hold your mouse.
   2) When the interface is circled in red and a red point appears in the middle, hold and move the mouse to draw a connection line to the loop in interface of one of the slave devices.
   3) Repeat the above steps to complete the rest of devices.

Note

- The cascading topology relationship must be consistent with the actual device relationship.
- You can view device information such as the IP address and serial number by double clicking the device.
- If you want to change the cascading relationship, press the Delete key to delete the lines and draw them again.

4. Click **Save**.

Result

After the cascading topology is configured, only the two HDMI input interfaces of the master device can be used to input signals.

2.7 Configure Signal Source Parameters

Signal sources indicate the video or audio signals transmitted through the HDMI input interfaces of your device. You can configure the resolution and OSD display of the signal sources as needed.

2.7.1 Customize Signal Source Resolution

If the resolution of the input signal source does not match that of the on-site video wall, you can customize the resolution of the input signal sources so that they are matched.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **Video Display → Signal Source Resolution** .

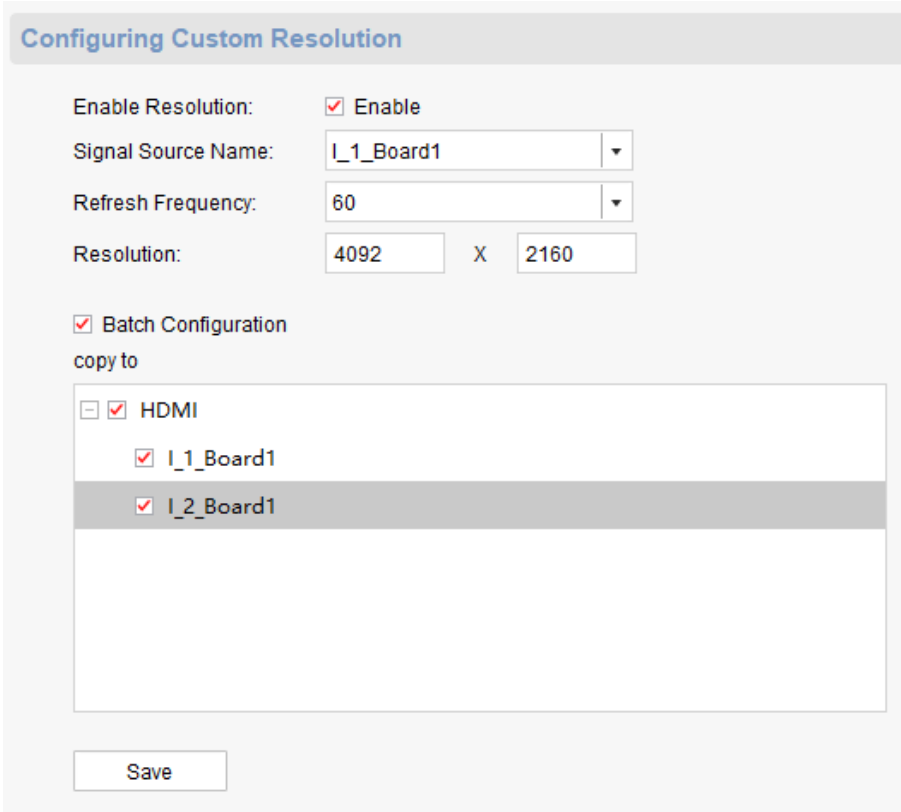


Figure 2-6 Customize Input Signal Resolution

3. Customize the resolution of input signal sources.
   1) Check **Enable** of **Enable Resolution**.
   2) Select the desired **Signal Source Name**. The signal source name such as 1_1_Board 1 indicates the name of the HDMI input interface 1.
   3) Set the **Refresh Frequency** and **Resolution**.

Note

- The resolution can be customized from 1600 × 1080 to 4092 × 2160. The width must be a multiple of 4, and the height must be a multiple of 2.
- If your customized resolution equals to or smaller than 2560 × 1440, the refresh rate can only be set to 60 Hz. If the resolution is greater than 2560 × 1440, the refresh rate can only be set to 25, 30, or 60 Hz.

4. **Optional:** Check **Batch Configuration** to copy the configuration to other HDMI input interfaces.
5. Click **Save**.

2.7.2 Configure OSD Display

If you want to add OSD information on input signals, you can configure OSD display.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **Video Display → OSD Display** .

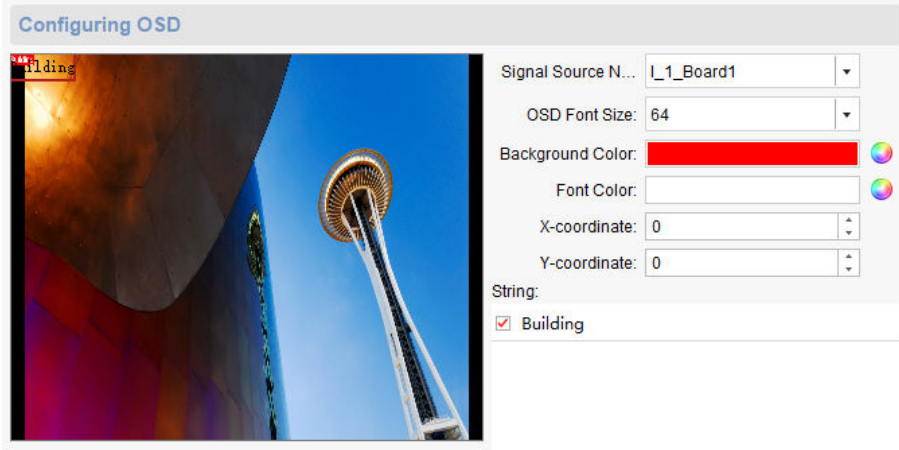


Figure 2-7 Configure OSD Display

3. Select **Signal Source Name**, and set **OSD Font Size**, **Background Color** and **Font Color**.
4. Enable **String**, and enter the characters you want to add on the input signal.
5. Click **Save**.

2.8 Configure Serial Parameters

If you want to use a keyboard device to control video wall operations over the RS-232/485 serial port, you can configure serial parameters on the client as needed. The default serial port type is RS-232, and you can change it to RS-485 as needed.

Before You Start

You have connected the keyboard to your C12L device with a serial cable.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → Serial Port Configuration** .

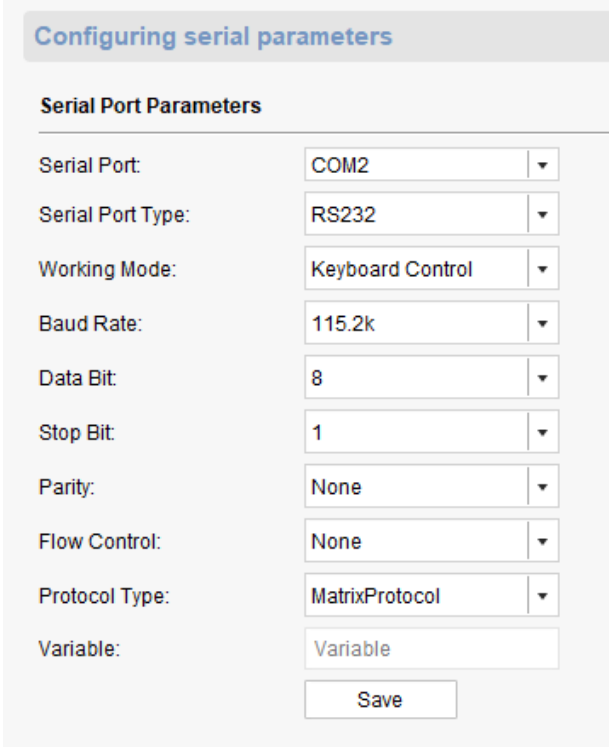


Figure 2-8 Configure Serial Parameters

3. Configure serial parameters, including **Serial Port Type**, **Baud Rate**, **Data Bit**, **Stop Bit**, **Parity**, and **Flow Control**.
4. Click **Save**.

Note

Ensure that the serial parameter configuration is the same as that of the keyboard device.

Chapter 3 Video Wall Operations

This section describes common video wall operations, such as video wall configuration and signal displaying on the video wall. The decoding outputs of your devices are automatically spliced into one when you drag an input signal source to the video wall on the client.

3.1 Configure a Video Wall

To control and manage the physical video wall, you need to add a virtual video wall and link the decoding outputs of your devices with the video wall on the client.

3.1.1 Add a Video Wall

Add a virtual video wall on the client according to the physical video wall for control and management.

Steps

1. Click **Video Wall** to enter the video wall management interface.

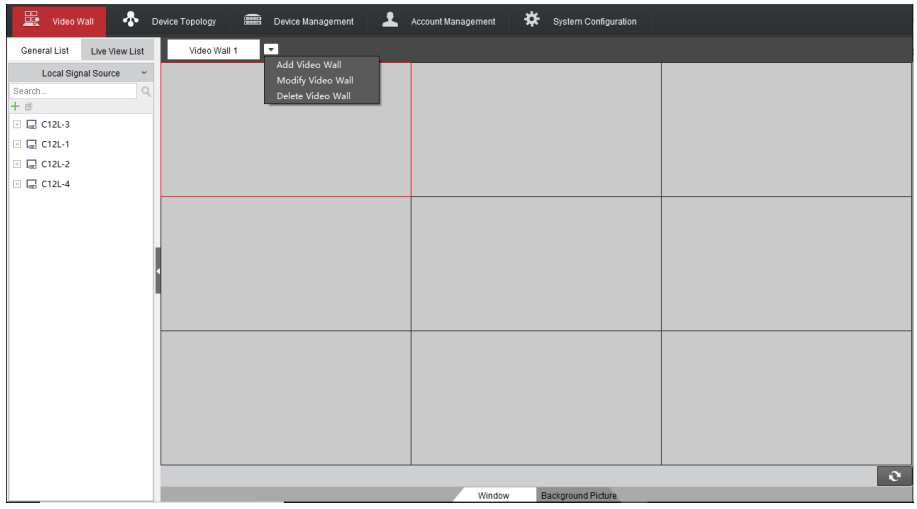


Figure 3-1 Add a Video Wall

2. Click the drop-down button on the upper part of the video wall and select **Add Video Wall**. You can also select **Modify Video Wall** to change the configuration of a video wall or select **Delete Video Wall** to delete a video wall.
3. Enter the **Video Wall Name**, and set the **Row** and **Column**.

Note

- The name of the video wall must be unique.
- The maximum scale is 16 rows and 20 columns.

4. Click **Add**.

3.1.2 Configure Decoding Output Parameters

You can configure the decoding output parameters based on the screen type and resolution of the physical video wall to achieve the optimal display effect.

Steps

1. In the **Decoding Output** list on the left, select the desired decoding output and click to enter the configuration interface.
2. Set **Output Type** to **LCD** or **LED**.
   - If your video wall is an LCD type, set the output type to LCD.
   - If your video wall is a LED type, set the output type to LED.
3. If your video wall is an LCD type, configure the resolution. You are recommended to configure a resolution the same as that of the video wall to achieve the optimal image effect.

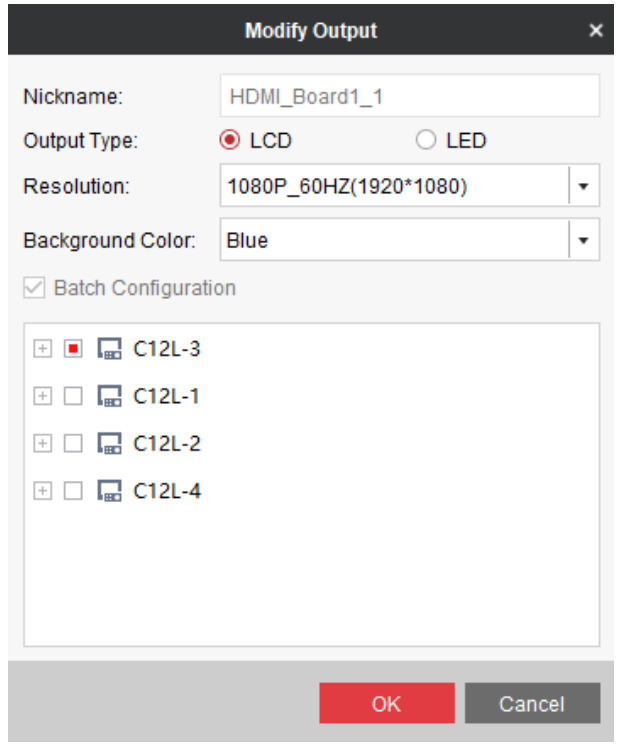


Figure 3-2 Configure LCD Output Parameters

Note

If multiple devices are cascaded, the LCD resolutions of all the devices must be the same.

4. If your video wall is a LED type, configure the width and height in the text fields. A LED display is dot-matrix, and the width and height are the dots.

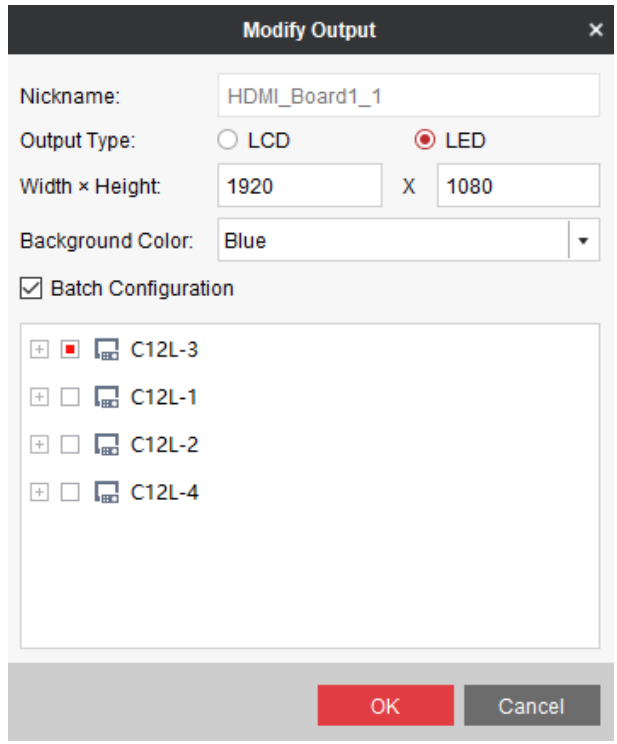


Figure 3-3 Configure LED Output Parameters

Note

- To customize the LED resolution, select a standard LCD resolution first and then customize the resolution within the standard pixels. For example, if you have selected the standard 1080P LCD resolution, the customized LED resolution cannot exceed 1920 × 1080.
- To change customized resolutions, change the resolutions in the same row or column simultaneously. Otherwise, an error may occur.
- If multiple devices are cascaded, ensure that your video wall has the same height in the same row and the same width in the same column.

5. **Optional:** Configure **Background** as needed.
6. **Optional:** Check **Batch Configuration** to copy the configuration to other decoding outputs.
7. Click **OK**.

3.1.3 Link Decoding Output to the Video Wall

You must link decoding outputs of your devices to the video wall so that signals can be displayed on the video wall. All decoding outputs of your devices are displayed on the video wall configuration interface.

Steps

1. In the **Decoding Output** list on the left, select the desired decoding outputs and drag them to the virtual video wall on the right.

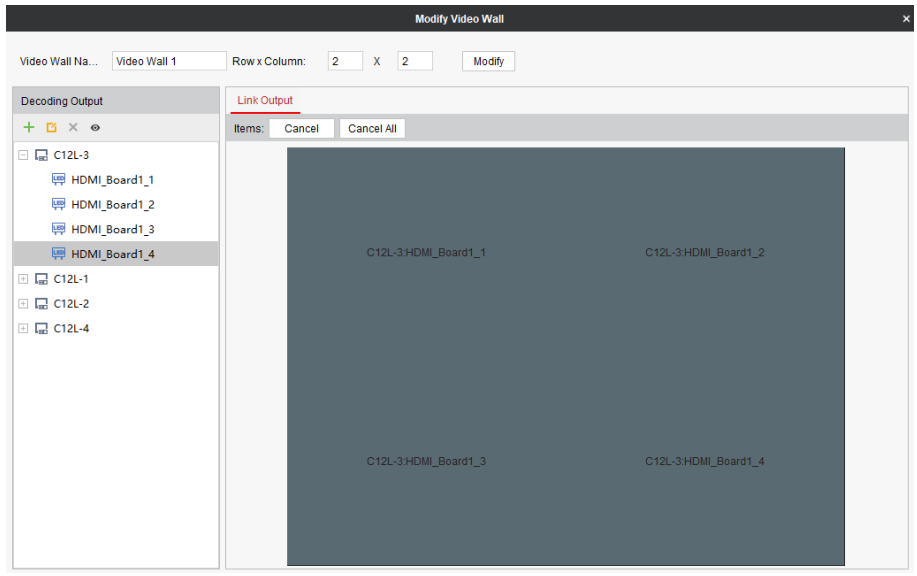


Figure 3-4 Link Decoding Outputs

2. **Optional:** To change the linking relationship, click the desired window and click **Cancel** to cancel the linking relationship in the window, or click **Cancel All** to cancel all linking relationships of the video wall.

Note

- The decoding outputs of the same device must be linked to the same video wall.
- If your devices are cascaded, the first window on the upper left must be used to link the decoding output of the master device. Otherwise, an error may occur.

3.2 Display Signal Sources on the Video Wall

After the video wall is created and configured, you can display the signal sources onto the video wall. Only local signals are supported.

3.2.1 Preview Signal Sources

Before displaying signal sources onto the video wall, you can preview the signal sources and check if the signal sources are desired.

Steps

1. Click **Video Wall** to enter the video wall management interface.
2. Click **Live View List**, select the desired device from **Device Group** and view the signals.

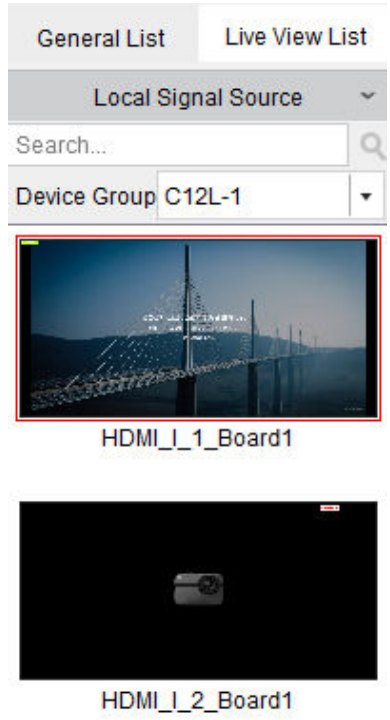


Figure 3-5 Preview Signals

3.2.2 Open a Window

Drag signal sources to the video wall to open a decoding window automatically. The window is a splicing window and spans over all the decoding outputs by default.

Steps

1. Click **Video Wall** to enter the video wall management interface.

Figure 3-6 Open a Window

2. In the **Local Signal Source** list, select the desired signal and drag it to the video wall on the right.
   A splicing window is created and starts decoding the signal automatically.
3. **Optional:** Right-click anywhere in the window and you can start the live view on the client, disable or enable audio, or view the decoding status.

Note

- When your devices are cascaded, only the signals from the master device can be displayed on the video wall.
- The decoding window spans the whole screen by default, and window roaming or zooming is not supported.

3.2.3 Switch Signal Sources on the Video Wall

A single device supports two input signal sources. You can switch signal inputs in either of the following ways:

- Client: On the video wall interface of the client, simply drag a signal source to the virtual video wall to turn off the currently displayed signal input and start to display the latter one.
- Front panel: Press the SWITCH button on the front panel of the device to switch between the two signal inputs.
- RS-232/485 serial interface: Connect with an external keyboard device to switch signal inputs on the video wall. For operation details, refer to the related keyboard manual.

3.2.4 Turn Off Audio on the Video Wall

To turn off audio of signals on the video wall, you need to disable audio on the client. Audio indicates the audio signals transmitted over the line output interface of the device and only the line output interface is used to transmit audio signals.

Steps

1. Click **Video Wall** to enter the video wall management interface.
2. Right-click anywhere in the splicing window, select **Disable Audio**. The audio is enabled by default.

3.2.5 Change the Name of a Signal Source

You can customize a name for signal sources as needed.

Steps

1. Click **Video Wall** to enter the video wall management interface.
2. Click above the signal source list, enter the desired name and click **Configure**.

3.3 Configure a Background Picture

You can configure a background picture for your video wall so that the video wall displays the picture when no signals are input. You can choose to use or not to use the default background picture of the system but not import other pictures.

Steps

1. Click **Video Wall** to enter the video wall management interface.

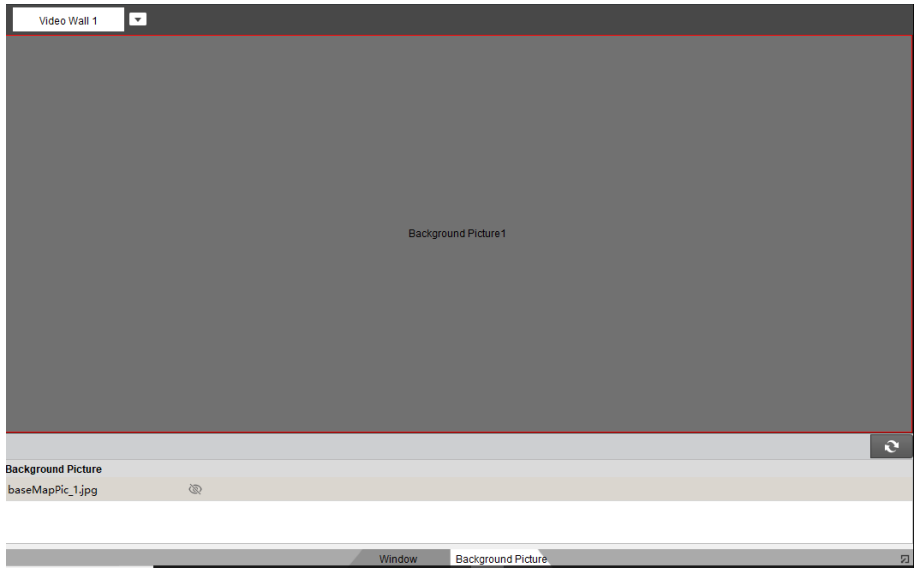


Figure 3-7 Configure a Background Picture

2. Click **Background Picture** on the lower right of the interface.
3. Drag the default picture to the window above, and choose to show or hide the picture by clicking .

Chapter 4 Device Maintenance

You can check device information and topology status, change the device password, or reset the device password on the client.

4.1 Check Device Topology Status

You can check device information and topology status on the client, such as the device cascading relationship, cable connection status, and status of signal input and output interfaces.

Steps

1. Click **Device Topology**.

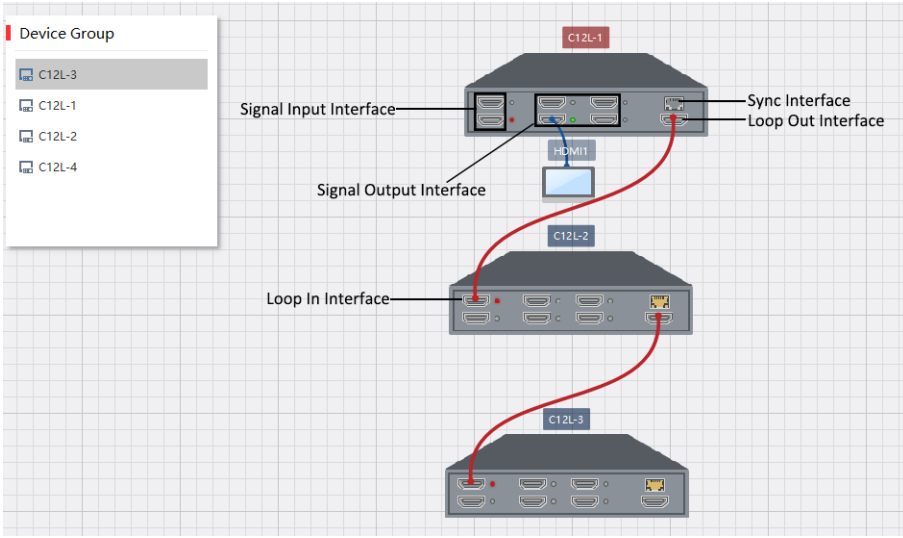


Figure 4-1 View Topology Status

2. Click **Refresh** to update to the latest status.
3. Check the device cascading relationship, cable connection status, and status of signal input and output interfaces. Device names are displayed above device pictures. The name in red indicates the corresponding device is the master device, and the names in gray indicate the devices are slave devices. The following table describes the connection lines and indicators.

Table 4-1 Description of Connection Lines and Indicators

Name	Color Description
Connection line	• Loop connection line: red • Signal output connection line: blue
Signal input indicators (the leftmost two)	• Signals are not inputting and not displayed on the video wall: gray • Signals are displayed on the video wall but not inputting: green

Name	Color Description
	• Signals are inputting but not displayed on the video wall: red • Signals are inputting and displayed on the video wall: blinking red and green alternately
Signal output indicators (the middle four)	• Signal output interface connected with the video wall: green (a monitor icon displayed below) • Signal output interface disconnected with the video wall: gray
Sync interface	• Master device connected in cascading relationship: gray • Slave device connected in cascading relationship: yellow • Device connected in non-cascading relationship: yellow • Device disconnected in non-cascading relationship: gray

4.2 Change Device Password

You can change the password used to log in to your device on the client.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → User** .

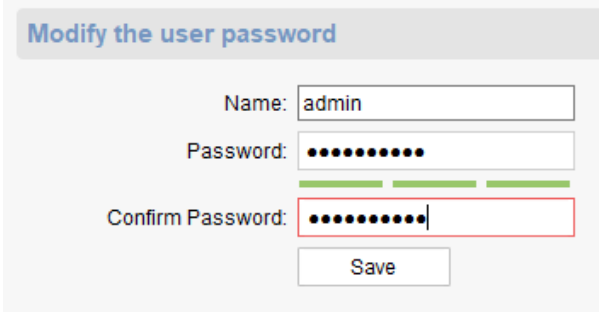


Figure 4-2 Change Password

3. Enter the new password and confirm the password.

Caution

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

4.3 Reset Device Password

If you forget your device password, just reset your password by exporting and importing a GUID file.

Steps

1. Click **Device Management**, and select the desired device from the online device list and click **Reset Password**.

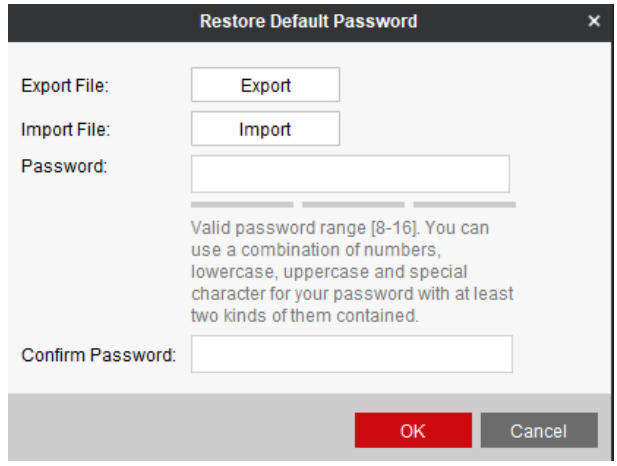


Figure 4-3 Reset Password

2. Click **Export** to export the GUID file in XML format to your local computer.
3. Provide the GUID file to your technical support engineer for generating a key file.
4. After receiving the key file, click **Import** to import the file into your device.

   Your device password is cleared for you to set a new one.
5. Enter a new password and confirm the password.

Caution

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

6. Click **OK**.

4.4 View Device Information

You can view device information such as the device type, serial No., or version No. on the client.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → Device Information** to view device information such as the device type, serial No., or version No.

Chapter 5 System Configuration

System configuration includes device time, security, device name and device No. configuration.

5.1 Configure the Device Name and Device No.

A device name or device No. identifies a device from other devices. You can customize the name or No. as needed.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → General** .
3. Change the **Device Name** or **Device No.** as needed.
4. Click **Save**.

5.2 Configure Device Time

If your device time is incorrect, set the time zone or manually synchronize time to correct the time.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → Time** .

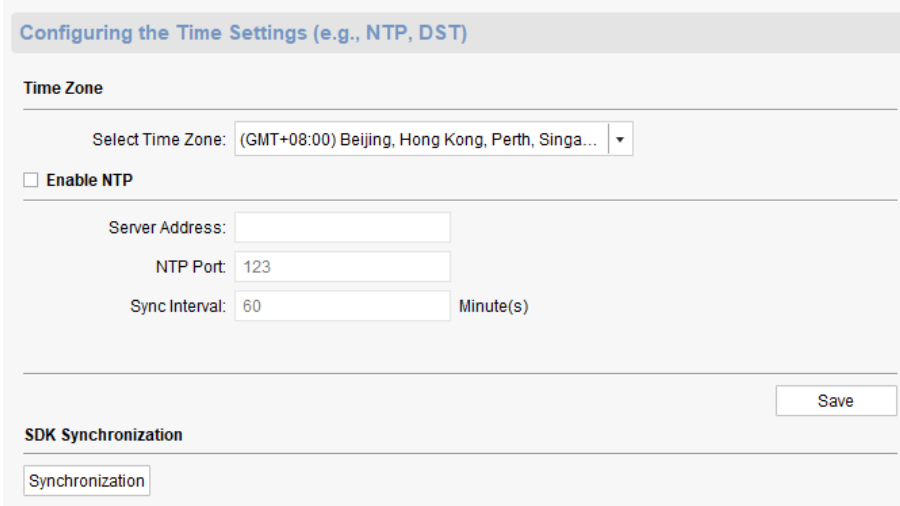


Figure 5-1 Configure Device Time

3. Select a time zone where your device is located.
4. **Optional:** To synchronize your device with other devices on the same network, enable **NTP** and configure **Server Address**, **NTP Port**, and **Sync Interval**.

5. Click **Save**.
6. **Optional:** To manually synchronize time, click **Synchronization**.

5.3 Configure SSH

SSH (Secure Shell) is a protocol to ensure security of remote login. You can change the SSH configuration as needed.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → Security** .
3. Click **Save**.

Chapter 6 System Maintenance

You can restart your device remotely, restore default parameters, import/export configuration file, or upgrade your device remotely on the client for troubleshooting.

6.1 Import and Export a Configuration File

If you have multiple devices on site, you can export the configuration file of a finished device and import the file to other devices to save time.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → System Maintenance** .
3. Choose to export or import a configuration file.
   - Click **Import Configuration File** to import a configuration file, enter the password, and click **OK**.
   - Click **Export Configuration File** to export the configuration file, set a password, and click **OK**.

Caution

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

6.2 Query and Back Up Logs

You can query or back up exception or operation logs for troubleshooting.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → Log** .
3. Set the **Search Mode**. **By Type**, **By Time** and **By Type&Time** are available.
   - **By Type**: Query logs based the types, including **Major Type** and **Minor Type**.
   - **By Time**: Query logs based on time. You need to set **Start Time** and **End Time**.
   - **By Type&Time**: Query logs based both on types and time.
4. Click **Search** to search logs. Click **Backup** to back up the logs as needed.

6.3 Restore Default Parameters

You can restore your device to factory default settings as needed, for example, when your device encounters a fault that is difficult to resolve.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → System Maintenance** .
3. Choose to restore partial default parameters or all default parameters by clicking **Restore Default Settings** or **Restore All**.

Caution

- Clicking **Restore Default Settings** will restore all parameters to factory settings except IP configuration.
- Click **Restore All** will clear all parameters and restore the parameters to factory settings.
- You are recommended to export the configuration file first before restoring parameters.

6.4 Restart a Device Remotely

You can restart your device remotely on the client for troubleshooting.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → System Maintenance** .
3. Click **Reboot**.

6.5 Upgrade a Device Remotely

You can upgrade your device remotely on the client.

Steps

1. On the **Device Management** interface, select the desired device in the list and click **Remote Configuration**.
2. Click **System → System Maintenance** .
3. Select and import the upgrade file and click **Upgrade** under the **Remote Upgrade** area.


See Far, Go Further