



DS-6900UDI(B) Series
HD Video and Audio Decoder

User Manual

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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 LVD Directive 2014/35/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: 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: www.recyclethis.info

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Applicable Model




Series	Model
DS-6900UDI Decoder	DS-6901UDI(B)
	DS-6904UDI(B)
	DS-6908UDI(B)
	DS-6910UDI(B)
	DS-6912UDI(B)
	DS-6916UDI(B)

About the Default

Item	Default Value
User name	admin
Device IP address	192.0.0.64
SSH login	User name: admin Password: same as the device

Symbol Conventions

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

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

Safety Instructions

WARNING

- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region.
- Use the power adapter delivered with the device only.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- Please make sure that the plug is firmly connected to the power socket.
- The equipment must be connected to an earthed mains socket-outlet.
- The equipment has been designed, when required, modified for connection to an IT power distribution system.
- This equipment is not suitable for use in locations where children are likely to be present.
- **CAUTION:** Risk of explosion if the battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
ATTENTION: Risque d'explosion si la batterie est remplacée par un type incorrect. Mettre au rebut les batteries usagées selon les instructions.
- Improper replacement of the battery with an incorrect type may defeat a safeguard (for example, in the case of some lithium battery types).
- Do not dispose of the battery into fire or a hot oven, or mechanically crush or cut the battery, which may result in an explosion.
- Do not leave the battery in an extremely high temperature surrounding environment, which may result in an explosion or the leakage of flammable liquid or gas.
- Do not subject the battery to extremely low air pressure, which may result in an explosion or the leakage of flammable liquid or gas.


-  identifies the battery holder itself and identifies the positioning of the cell(s) inside the battery holder. + identifies the positive terminal(s) of equipment which is used with, or generates direct current. - identifies the negative terminal(s) of equipment which is used with, or generates direct current.
- 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.
- The USB port of the equipment is used for connecting to a mouse, a keyboard, or a USB flash drive only.
- 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.
- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- 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.

Table of Contents

Chapter 1 Introduction.....	1
1.1 Description	1
1.2 Features.....	1
Chapter 2 Panels and Connections.....	3
2.1 Front Panel	3
2.2 Rear Panel	6
Chapter 3 Device Activation.....	10
3.1 Activating via SADP Software	10
3.2 Activating via Web Browser	11
Chapter 4 Network Configuration	13
4.1 Configuring Basic Network Settings	15
4.2 Configuring Security Control	15
Chapter 5 Decoding Parameters Configuration	17
5.1 Configuring Stream Settings.....	17
5.2 Configuring Transparent Channel.....	17
5.3 Configuring Synchronous Output Settings.....	18
5.4 Configuring Personalized Settings.....	19
Chapter 6 Decoding Operation	21
6.1 Configuring Encoding Devices	21
6.1.1 Adding an Encoding Device	21
6.1.2 Modifying an Encoding Device.....	24
6.1.3 Deleting an Encoding Device.....	25
6.2 Configuring Video Wall.....	25
6.3 Configuring Decoding Output	26
6.3.1 Configuring BNC Output.....	27
6.3.2 Configuring HDMI Output	28
6.4 Decoding Video on Video Wall.....	30
6.4.1 Interface Description.....	30
6.4.2 Dragging Channels to the Video Wall	31
6.4.3 Opening Window via Coordinate.....	32
6.4.4 Managing Decoding	34

6.4.5 Switching Encoding Channel	36
6.4.6 Configuring Auto-Switch of Cameras	37
6.4.7 Roaming Window	37
6.4.8 Zooming in/out Roaming Windows	38
6.4.9 Configuring Scene	40
Chapter 7 User Management.....	42
Chapter 8 System Configuration	44
8.1 Checking Device Information	44
8.2 Configuring Time Settings	44
8.3 Configuring RS-232 Serial Port	46
8.4 Configure RS-485 Serial Port	47
Chapter 9 System Maintenance.....	48
9.1 Importing Configuration Files	48
9.2 Exporting Configuration Files	48
9.3 Upgrading the Device	49
9.4 Restoring the Default Settings	49
9.5 Rebooting the Device	49
Chapter 10 Decoder Configuration and Operation by Client Software.....	50
10.1 Decode and Display Directly	50
10.2 View Settings.....	52
10.2.1 Add View Group	52
10.2.2 Add View	53
10.2.3 Set Schedule for Displaying Views on Smart Wall.....	53
10.3 Perform View Auto-Switch	54
10.4 Auto-Switch Cameras in One Window	55
10.5 Create a Roaming Window.....	55
10.6 View Alarm's Related Video on Smart Wall	56
10.7 View and Export Window No. and Camera ID	57
Chapter 11 Appendix	58
11.1 FAQ.....	58
11.2 List of Third-Party IP Cameras Access	59

Chapter 1 Introduction

1.1 Description

Designed for the high-definition video monitoring system, DS-6900UDI(B) Decoder is developed on the basis of embedded hardware platform, ensuring high reliability and stability of system running.

DS-6900UDI(B) Decoder is capable of simultaneous decoding video for 8-ch@24MP, 16-ch@12MP, 32-ch@8MP, 48-ch@5MP, 80-ch@3MP, 128-ch@1080p simultaneous decoding, and outputting decoded video via BNC, VGA, or HDMI interfaces, and it also supports multiple video stream formats like H.265, H.264+, Hik264, H.264 and MPEG4. The decoded video can be displayed on video wall or large screen.

1.2 Features

Powerful Decoding Capability

- DS-6901UDI(B) provides HDMI, VGA, and BNC output interfaces.
- Up to 8-ch decoding at 24 MP resolution (DS-6916UDI(B)).
- DS-6904UDI(B), DS-6908UDI(B), DS-6910UDI(B), DS-6912UDI(B), DS-6916UDI(B) provide HDMI (adaptable to DVI-D) and BNC output interfaces.
- Up to 4K (3840 × 2160@30 Hz) via HDMI interface (only for even interface), and up to 1080p@60 Hz via VGA interface.
- H.265+/H.265, H.264+/Hik264/H.264, MPEG4 and MJPEG video stream formats.
- PS, RTP, TS, ES, HIK encapsulation formats.
- Supports window opening and window roaming.
- Supports two-window division mode.
- You can double click the roaming window to zoom in or out for one roaming window or divided roaming sub-window.
- Three encoding levels: baseline, main, and high-profile.
- G.722, G711A, G726, G711U, MPEG2-L2, and AAC audio stream formats.
- Accessible by panoVu network camera.
- Accessible by 2.4 MP DeepinView camera.
- Accessible by thermal network camera and you can view the temperature measurement, dynamic fire source detection, ship detection and VCA information in live view and playback.
- You can enable or disable the smart information for the thermal network camera.

Multiple Decoding Control Modes

- Two decoding modes: active decoding and passive decoding.
- Decoding output of remote video files.
- Decoding on video wall by directly linking cameras or by stream media forwarding.
- Gets stream and decodes via URL.
- Remotely controls PTZ of DVR or DVS via transparent channel.
- Two-way audio via client software.
- Supports multi-screen control with PC installed with RSC server.
- Supports Wi-Fi module access to display the signal from iOS/Android mobile phone or pad on video wall.
- Wi-Fi can be enabled via the Web browser or client software. You can get stream and decode the video on the video wall when Wi-Fi is enabled if no wired network can be accessed.
- Configurable LED width and height parameters when the LED is connected.
- Regular and irregular virtual screen configurable to display multiple signal sources and get rid of the restriction of physical screen.
- LCD output type configurable for the BNC and VGA outputs; LCD and LED output types configurable for HDMI outputs.
- You can configure what the video wall show when decoding ends and streaming fails via the Web browser and client software.
- Auto-switch of sub-stream configurable via the Web browser and client software.

Integrated Capability

- Decoding video/audio stream accessed by ONIVF, RTP/RTSP protocols.
- Provides complete software development kit (SDK) for third-party developers.
- Port link aggregation technology (Ethernet Channel).

Maintenance Management

- Remotely get, configure, export and import parameters.
- Remotely reboot, restore default settings and upgrading via web browser or client software.

Chapter 2 Panels and Connections

2.1 Front Panel

- Front panel of DS-6901UDI(B)

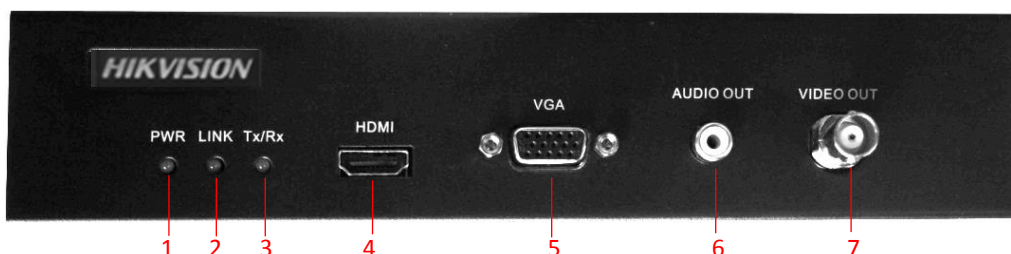


Figure 2-1 Front Panel of DS-6901UDI(B)

Table 2-1 Description of DS-6901UDI(B) Front Panel

No.	LED Indicator & Interface	Description
1	POWER	Power LED indicator
2	LINK	Network connection LED indicator
3	Tx/Rx	Data transmitting/receiving status LED indicator
4	HDMI	HDMI video output
5	VGA	VGA video output
6	AUDIO OUT	Audio output, 3.5mm connector
7	VIDEO OUT	Video output, BNC connector

- Front Panel of DS-6904UDI(B)

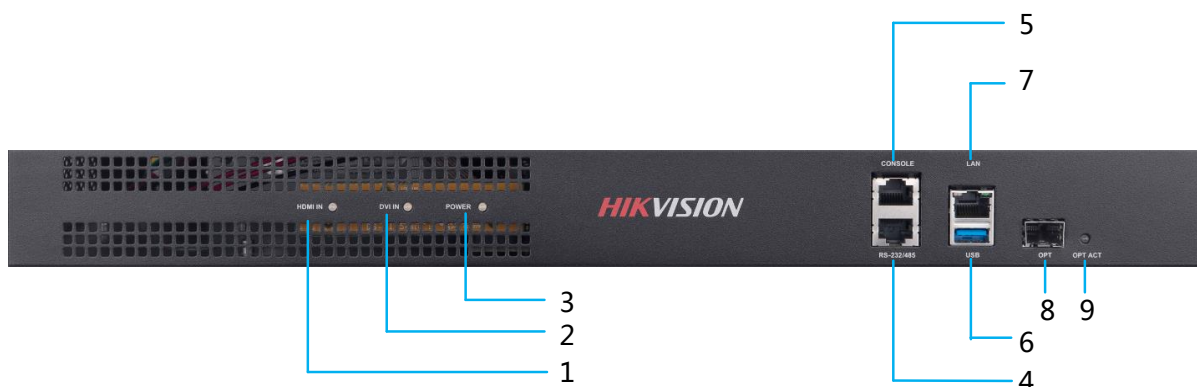


Figure 2-2 Front Panel of DS-6904UDI(B)

Table 2-2 Description of DS-6904UDI(B) Front Panel

No.	LED Indicator & Interface	Description
1	HDMI IN	HDMI input indicator
2	DVI IN	DVI input indicator
3	Power	Power indicator
4	RS-232/485	Connect to RS-232/485 devices, e.g., PC , etc.
5	CONSOLE	Debugging interface
6	USB	USB 2.0 interface
7	LAN	10/100/1000 Mbps Ethernet interface
8	OPT	10/100/1000 Mbps optical interface
9	OPT ACT	Optical interface indicator

● Front Panel of DS-6908UDI(B)

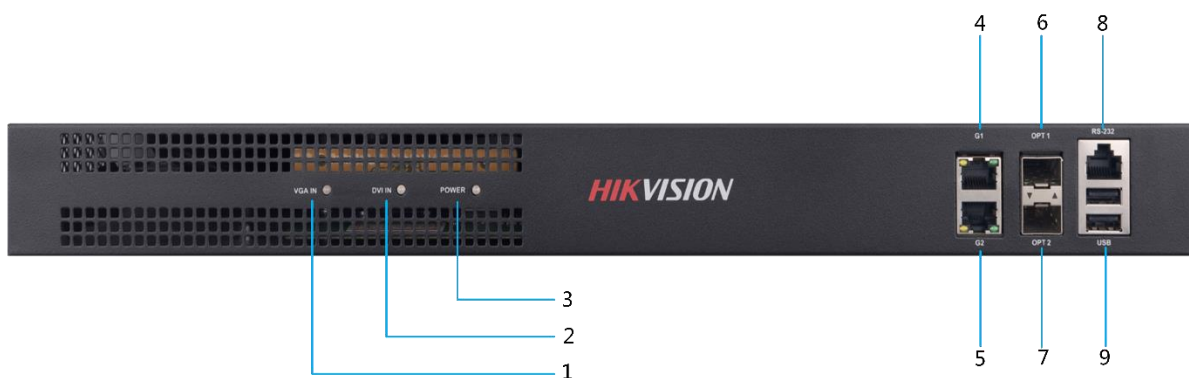


Figure 2-3 Front Panel of DS-6908UDI(B)

Table 2-3 Description of DS-6908UDI(B) Front Panel

No.	LED Indicator & Interface	Description
1	VGA IN	VGA input indicator
2	DVI IN	DVI input indicator
3	POWER	Power indicator
4	G1	10/100/1000 Mbps Ethernet interface 1
5	G2	10/100/1000 Mbps Ethernet interface 2
6	OPT1	10/100/1000 Mbps optical interface 1
7	OPT2	10/100/1000 Mbps optical interface 2
8	RS-232	Connect to RS-232 devices, e.g., PC, etc.
9	USB	USB 2.0 interface

● Front Panel of DS-6910/6912/6916UDI(B)



Figure 2-4 Front Panel of DS-6916UDI(B)

Table 2-4 Description of DS-6916UDI(B) Front Panel

No.	LED Indicator & Interface	Description
1	VGA IN	VGA input signal indicator
2	DVI IN	DVI input signal indicator
3	POWER	Power indicator
4	G2	10/100/1000 Mbps Ethernet interface 2
5	OPT2	10/100/1000 Mbps optical interface 2
6	USB	USB 2.0 interface
7	G1	10/100/1000 Mbps Ethernet interface 1
8	OPT1	10/100/1000 Mbps optical interface 1
9	RS-232	Connect to RS-232 devices, e.g., PC, etc.

2.2 Rear Panel

- Rear Panel of DS-6901UDI(B)

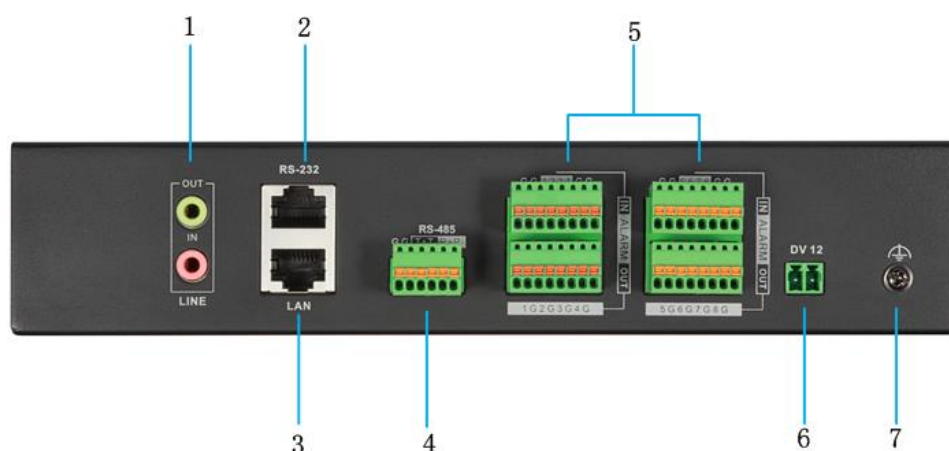



Figure 2-5 Rear Panel of DS-6901UDI(B)

Table 2-5 Description of DS-6901UDI(B) Rear Panel

No.	Interface	Description
1	LINE IN/OUT	Two-way audio input/output, 3.5 mm connector
2	RS-232	Connect to RS-232 devices, e.g., PC, etc.
3	LAN	10/100/1000 Mbps Ethernet interface
4	RS-485	Connect to RS-485 devices, e.g., keyboard, etc.

5	ALARM IN	8 alarm inputs
	ALARM OUT	8 alarm outputs
6	DV 12	Power supply (12 VDC)
7		GND

● Rear Panel of DS-6904UDI(B)

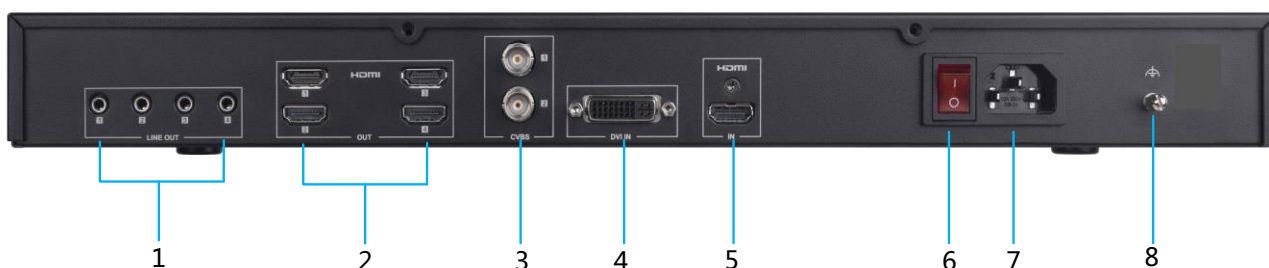



Figure 2-6 Rear Panel of DS-6904UDI(B)

Table 2-6 Description of DS-6904UDI(B)

No.	Interface	Description
1	LINE OUT	BNC connector
2	HDMI OUT	HDMI video output interface
3	CVBS	CVBS video output interface
4	DVI IN	DVI video input interface
5	HDMI IN	HDMI video input interface
6	Power switch	Power on or power off the device
7	Power	Power indicator
8		GND

● Rear Panel of DS-6908UDI(B)

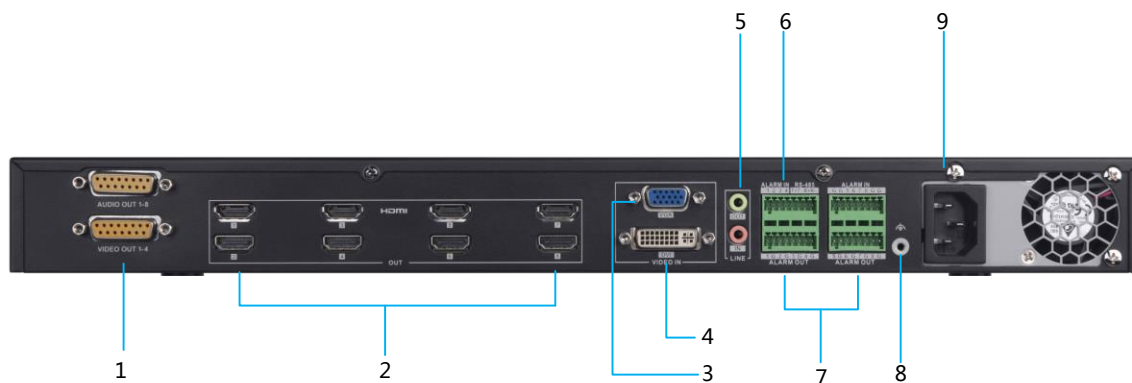



Figure 2-7 Rear Panel of DS-6908UDI(B)

Table 2-7 Description of DS-6908UDI(B) Rear Panel

No.	Interface	Description
1	AUDIO/VIDEO OUT	BNC connector
2	HDMI OUT	HDMI video output interface
3	VGA VIDEO IN	VGA video input interface
4	DVI VIDEO IN	DVI video input interface
5	LINE IN/OUT	Two-way audio input/output, 3.5mm connector
6	RS-485	Connect to RS-485 devices, e.g., keyboard, etc.
7	ALARM IN	8 alarm inputs
	ALARM OUT	8 alarm outputs
8		GND
9	Power	Power input

● Rear Panel of DS-6916UDI(B)

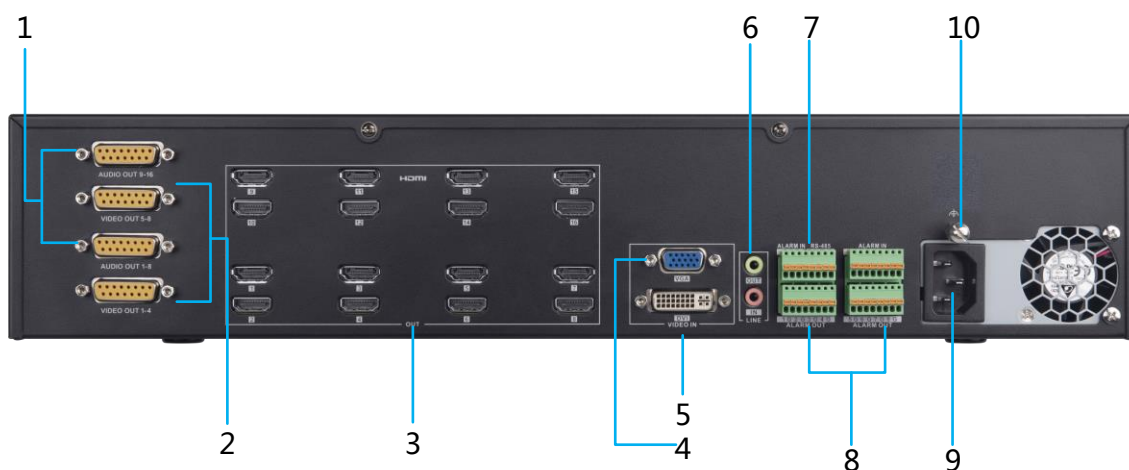



Figure 2-8 Rear Panel of DS-6916UDI(B)

Table 2-8 Description of DS-6916UDI(B) Rear Panel

No.	Interface	Description
1	AUDIO OUT	BNC connector
2	VIDEO OUT	BNC connector
3	HDMI OUT	HDMI video output interface
4	VGA VIDEO IN	VGA video input interface
5	DVI VIDEO IN	DVI video input interface
6	LINE IN/OUT	Two-way audio input/output, 3.5mm connector
7	RS-485	Connect to RS-485 devices, e.g., keyboard, etc.
8	ALARM IN	8 alarm inputs
	ALARM OUT	8 alarm outputs
9	Power	Power input
10		GND

 NOTE

DS-6910UDI(B) provides 10 HDMI output interfaces, DS-6912UDI(B) provides 12 HDMI output interfaces and other interfaces are the same with DS-6916UDI(B).

Chapter 3 Device Activation

Purpose

You are required to activate the decoder first by setting a strong password for it before you can use the device. You can configure the basic network parameters.

Activation via Web Browser and Client Software are all supported.



For the first-time user, the default user name of DS-6900UDI(B) is *admin*, and the default IP address is 192.0.0.64.

3.1 Activating via SADP Software

SADP software is used for detecting the online device, activating the camera, and resetting the password.

Get the SADP software from the supplied disk or the official website, and install the SADP according to the prompts. Follow the steps to activate the camera.

Step 1 Run the SADP software to search the online devices.

Step 2 Check the device status from the device list, and select the inactive device.

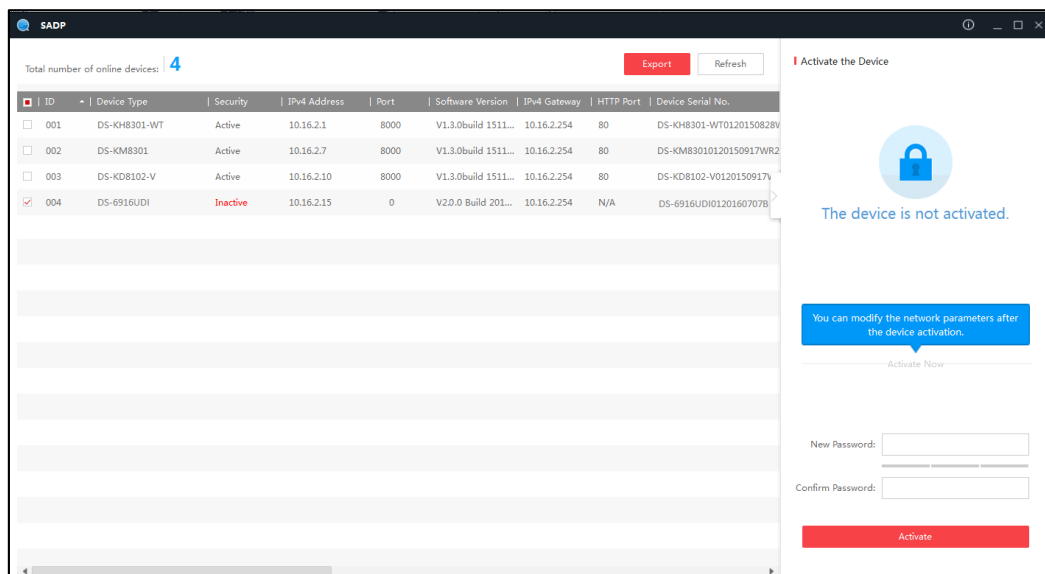


Figure 3-1 SADP Interface

Step 3 Create a password and input it in the password field, and confirm the password.

Step 4 Click **Activate** to activate the device.

**WARNING**

STRONG PASSWORD RECOMMENDED—We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the 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.

Step 5 Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the checkbox of Enable DHCP.

Modify Network Parameters

Enable DHCP

Device Serial No.: DS-6916UDI0120160707BBRR25

IP Address: 10.16.2.15

Port: 0

Subnet Mask: 255.255.255.0

Gateway: 10.16.2.254

IPv6 Address:

IPv6 Gateway:

IPv6 Prefix Length: 0

HTTP Port: 0

Security Verification

Admin Password: ●●●●●●●

Modify

[Forgot Password](#)

Figure 3-2 Modify the IP Address

Step 6 Input the password and click the **Modify** button to activate your IP address modification.

3.2 Activating via Web Browser

Step 1 Power on the decoder, and connect the decoder to the network.

Step 2 Input the IP address into the address bar of the web browser, and click Enter to enter the activation interface.

The screenshot shows a web-based 'Activation' form. It has three input fields: 'User Name' with the value 'admin', 'Password' (masked with 10 dots), and 'Confirm' (masked with 10 dots). To the right of the password field is a green checkmark and the word 'Strong'. Below the password field is a green progress bar and a text box that reads: 'Valid password range [8-16]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained.' An 'OK' button is located at the bottom right of the form.

Figure 3-3 Activation Interface

Step 3 Create a password and input the password into the password field.



WARNING

STRONG PASSWORD RECOMMENDED—We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the 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.

Step 4 Confirm the password.

Step 5 Click **OK** to save the password and enter the live view interface.

Chapter 4 Network Configuration

 **NOTE**

You shall acknowledge that the use of the product with the Internet access might be under network security risks. For avoidance of any network attacks and information leakage, please strengthen your own protection. If the product does not work properly, contact with your dealer or the nearest service center.

Purpose

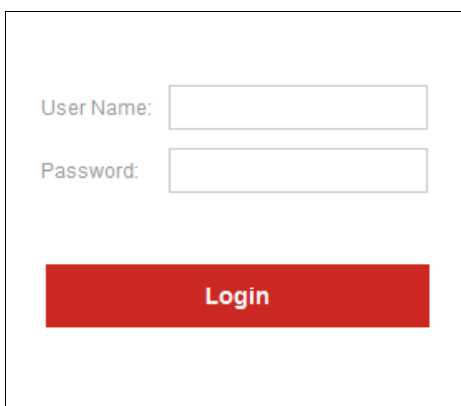
You shall configure the basic network, DDNS, and Wi-Fi settings before other operations. In this chapter, the network configuration of the decoder by the Web browser is provided.

 **NOTE**

The tested Web browsers include: IE 8.0+, Chrome 18.0+, Firefox 5.0+, and Safari 5.02+.

Step 1 Open the Web browser and input the IP address of Decoder (e.g., <http://192.168.0.0>).

Step 2 Log in to the device.



The image shows a login interface with two input fields. The first field is labeled "User Name:" and the second is labeled "Password:". Below these fields is a red button with the text "Login" in white.

Figure 4-1 Login Interface

- If the device has not been activated, you need to activate the device first before login.

Activation

User Name admin

Password Strong

Valid password range [8-16]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained.

Confirm

OK

Figure 4-2 Activation Interface

 **WARNING**

STRONG PASSWORD RECOMMENDED—We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the 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.

- If the device is already activated, input the user name and password in the login interface, and click the **Login** button.

The following interface is shown after successful login.

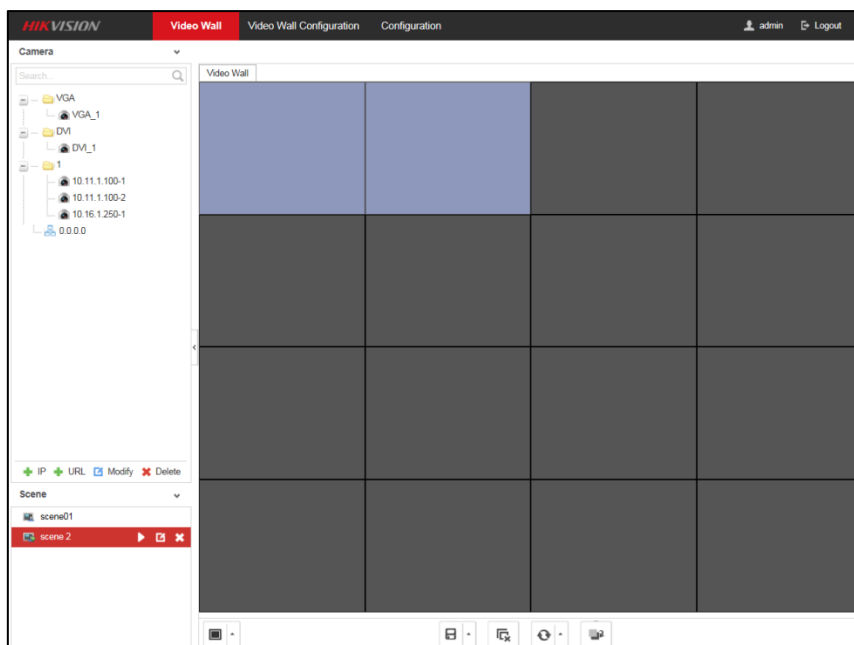


Figure 4-3 Enter Web Page

4.1 Configuring Basic Network Settings

Purpose

You can set the network parameters for the decoder in the parameter configuration interface.

Step 1 Click **Configuration** > **Network** > **TCP/IP** to enter the general network settings interface.

TCP/IP	DDNS	Wi-Fi
Select NIC		GE1
IPv4 Address		10.66.72.188
IPv4 Subnet Mask		255.255.255.0
IPv4 Gateway		10.66.72.254
Preferred DNS Server		0.0.0.0
Alternate DNS Server		0.0.0.0


 Save

Figure 4-4 Configure Basic Network Settings

Step 2 Set the network parameters, including the NIC, IP Address, Subnet Mask, Gateway, and DNS Server.

NOTE

The DS-6904/6908/6910/6912/6916UDI provides multiple NICs for selection.

Step 3 Click **Save** to save the settings.

4.2 Configuring Security Control

Purpose

You can disable SSH, SADP, or HTTPS to enhance the access security, e.g., when you are in the untrusted network environment.

Step 1 Go to **Configuration** > **Security Control**.

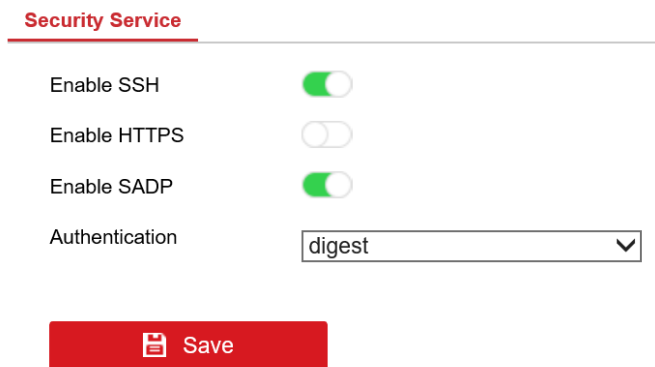


Figure 4-5 Security Service

Step 2 Uncheck **Enable SSH**, **Enable SADP**, or **Enable HTTPS** to disable the services.

 **NOTE**

- By default, SSH is disabled, and SADP and HTTPS are enabled.
- The login user name for SSH is *root*, and the password is the same with that of the admin.

Step 3 Select **Authentication** as **digest** or **digest/basic**. **Digest** is an encryption transmission mechanism, and **basic** is not. Select **digest** to enable the encryption mechanism, and select **digest/basic** to enable both the two mechanism.

Step 4 Click **Save**.

Chapter 5 Decoding Parameters Configuration

5.1 Configuring Stream Settings

Purpose

The stream configuration refers to the auto stream switch between main stream and sub-stream.

Step 1 Click **Configuration** > **Decoding Configuration** > **Stream Configuration** to enter stream configuration interface.

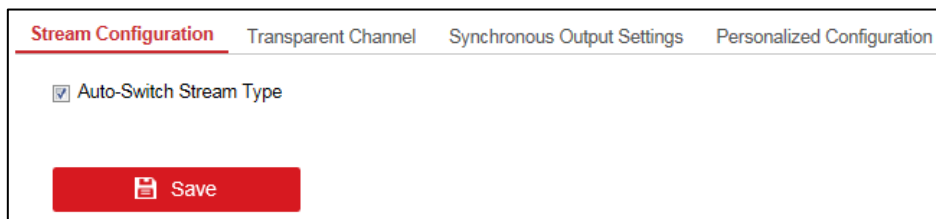


Figure 5-1 Stream Configuration Interface

Step 2 Check the check box of **Auto-Switch Stream Type** to enable auto switch between main stream and sub-stream.

Step 3 Click **Save** button to save the settings.



When a screen is split into more than 16 windows, the main stream will automatically switch to sub-stream to lower the bandwidth.

5.2 Configuring Transparent Channel

Purpose

The Transparent Channel refers to the transmission channel used for forwarding data between the decoder and the encoder without operating on the data.

Step 1 Click **Configuration** > **Decoding Configuration** > **Transparent Channel** to enter transparent channel settings interface.

Stream Configuration Transparent Channel Synchronous Output Settings Personalized Configuration					
Camera List					
No.	Local Serial Port	Remote Serial Port	IP Address	Port	Connection Status
1	RS-232		0.0.0.0	0	Not connected
2	RS-232		0.0.0.0	0	Not connected
3	RS-232		0.0.0.0	0	Not connected
4	RS-232		0.0.0.0	0	Not connected
5	RS-232		0.0.0.0	0	Not connected
6	RS-232		0.0.0.0	0	Not connected
7	RS-232		0.0.0.0	0	Not connected
8	RS-232		0.0.0.0	0	Not connected
9	RS-232		0.0.0.0	0	Not connected
10	RS-232		0.0.0.0	0	Not connected
11	RS-232		0.0.0.0	0	Not connected
12	RS-232		0.0.0.0	0	Not connected
13	RS-232		0.0.0.0	0	Not connected

Figure 5-2 Transparent Channel Interface

Step 2 Select a transparent channel from the list to configure.

Step 3 Click **Modify** to modify the parameters of the selected transparent channel.

Modify ✕

Local Serial Port

Remote Serial Port

IP Address

Port

User Name

Password

Figure 5-3 Modifying Interface

Step 4 Select the **Local Serial Port** and the **Remote Serial Port** to RS-485 or RS-232.

Local Serial Port: The serial port used as the transparent channel by the decoder.

Remote Serial Port: The serial port used as the transparent channel by the encoding device.



You can click **Delete** to delete the selected channel.

5.3 Configuring Synchronous Output Settings

Purpose

All video outputs of the device can be configured to be synchronous.

Step 1 Click **Configuration > Decoding Configuration > Synchronous Output Settings** to enter the Synchronous Output Settings interface.



Figure 5-4 Synchronous Output Settings

Step 2 Click the **Enable Sync Out** button to enable the synchronization of all outputs. The following message box pops up.

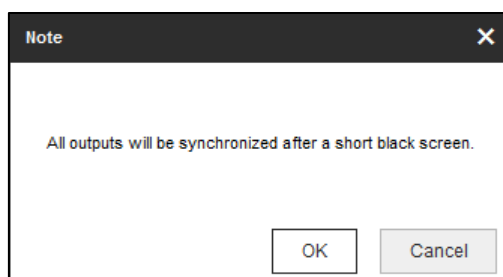


Figure 5-5 Enable Synchronous Output

Step 3 Click **OK** to confirm the settings.

5.4 Configuring Personalized Settings

Purpose

You can set the stopped decoding image and failed streaming image for the personalized configuration.

Step 1 Click **Configuration > Decoding Configuration > Personalized Configuration** to enter the personalized configuration interface.

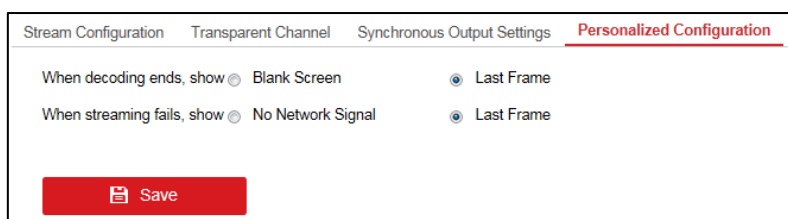


Figure 5-6 Personalized Configuration

Step 2 Select **Blank Screen** or **Last Frame** when decoding ends. If you select **Blank Screen**, the screen will change blank when the decoding ends. If you select **Last Frame**, the screen will show the last frame when the decoding ends.

Step 3 Select **No Network Signal** or **Last Frame** when streaming fails. If you select **No Network Signal**, the screen will show the cause of the failure when streaming fails. If you select **Last Frame**, the screen will show the last frame when streaming fails.

Step 4 Click **Save** to save the settings.

Chapter 6 Decoding Operation

6.1 Configuring Encoding Devices

6.1.1 Adding an Encoding Device

Purpose

You can add an encoding device via IP address or URL.

● **Adding an Encoding Device via IP Address**

Step 1 Click **IP** to add encoding devices.

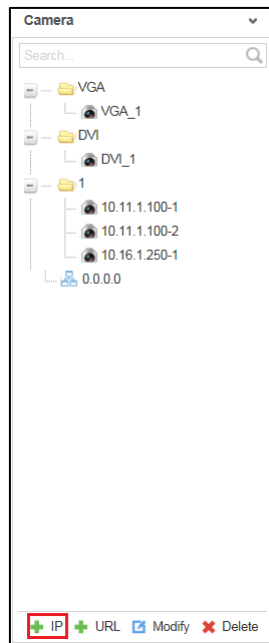


Figure 6-1 Encoding Device List

Step 2 Input **Device Name**, **Type**, **Port**, **User Name**, **Password** and **Channel Number** and select the **Transmission Protocol**, **Area Name**, and **Device Manufacturer**. Decide whether to enable **Stream Encryption** and input the encryption password. Check the checkbox of **Get Stream by Stream Media** to lower the network load of the device.

NOTE

- You can add device by IP or DDNS. If you select DDNS, you need to enter the domain name and ensure that you have configured the DNS server. For details, see section 4.1 Configuring Basic Network Settings.
- If **Stream Encryption** is enabled, you need to input the encryption password so you can remotely watch live videos of encrypted camera streams.

The screenshot shows a dialog box titled "Add" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- type: IP (dropdown menu, green checkmark)
- IP Address: (text input field)
- Port: (text input field)
- User Name: (text input field)
- Password: (text input field)
- Transmission Protocol: TCP (dropdown menu)
- Stream Type: Main Stream (dropdown menu)
- Stream encryption: (toggle switch, currently off)
- The secret key: (text input field)
- Area Name: 1 (dropdown menu, green plus sign)
- Device Manufacturer: HIKVISION (dropdown menu)
- Channel Number: (text input field)
- Get Stream by Streammedia
- Streammedia IP Address: (text input field)
- Port: (text input field)
- Transmission Protocol: TCP (dropdown menu)

At the bottom of the dialog, there are two buttons: "Next" (highlighted) and "Cancel".

Figure 6-2 Add Device via IP Address

Step 3 (Optional) You can also click **+** to add a new area and click **Save** to save the area.

Step 4 Click **Next** to select the channel. The channel(s) displayed here depend(s) on the **Channel Number** you input on the previous page.

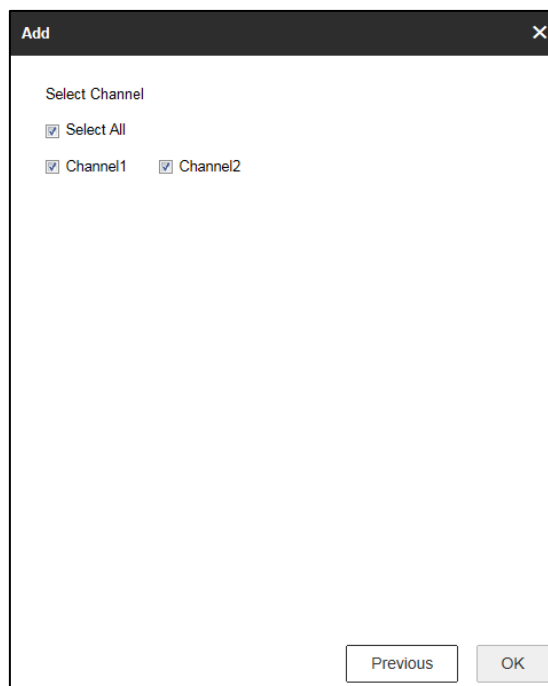


Figure 6-3 Select the Channel

Step 5 Click **OK** to save the settings and add the device.

● **Adding an Encoding Device via URL**

Step 1 Click **URL** to add encoding devices.

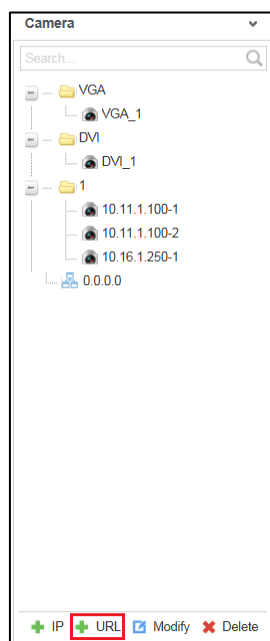


Figure 6-4 Encoding Device List

Step 2 Input the **Device Name** and **URL**. Select the **Area Name** from the dropdown list or click **+** to add a new area. Decide whether to enable **Stream Encryption** and input the encryption password.

 **NOTE**

- An example of the URL format is as follows:
rtsp://10.9.1.233:554/h264/ch1/main/av_stream/?username=admin?password=hik12345?lnkmode=tcp
In the above URL, **10.9.1.233** indicates the device IP, **admin** indicates the user name, **hik12345** indicates the password, and **tcp** indicates the stream transport protocol. The transport protocol can be set as tcp, udp, and mcast.
- If **Stream Encryption** is enabled, you need to input the encryption password so you can remotely watch live videos of encrypted camera streams.

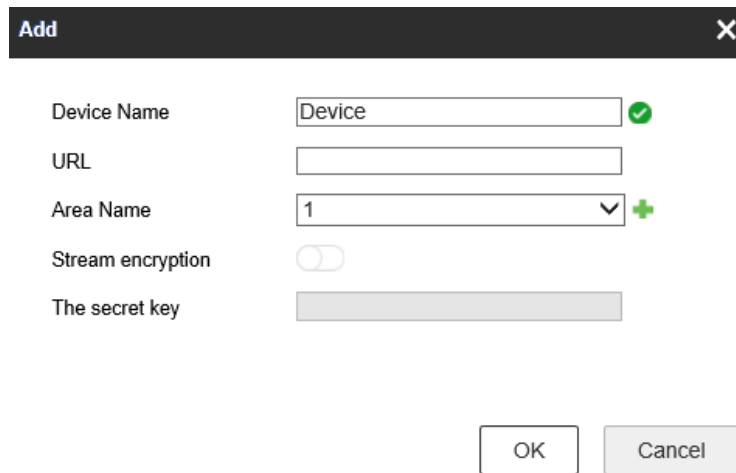


Figure 6-5 Add Device via URL

Step 3 Click **OK** to save the settings.

6.1.2 Modifying an Encoding Device

Step 1 Select one area or one encoding device, and click **Modify** to modify corresponding parameters.

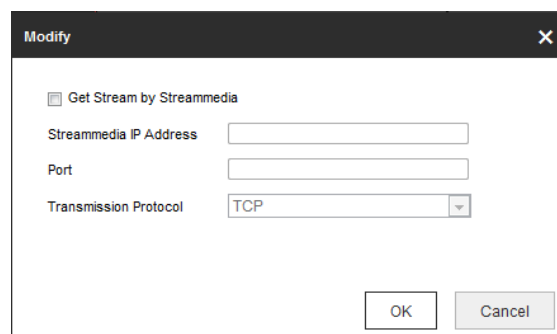


Figure 6-6 Modify Area

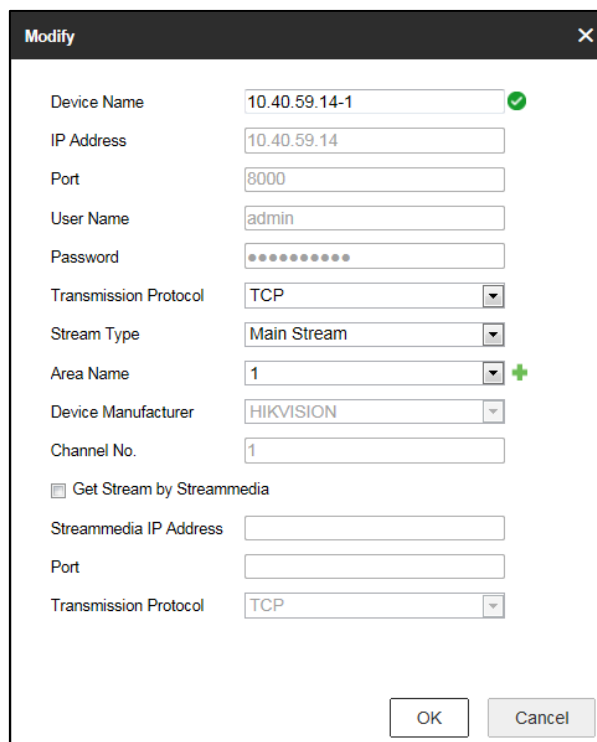


Figure 6-7 Modify Encoding Device

Step 2 Click **OK** to save the new settings.

6.1.3 Deleting an Encoding Device

Step 1 Select one area or one encoding device and click **Delete** to pop up the note interface below.

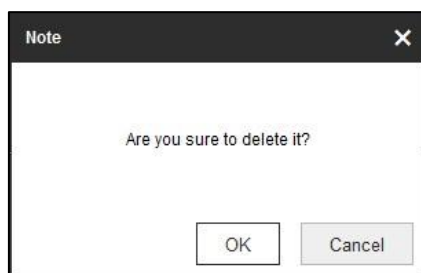


Figure 6-8 Deleting Note

Step 2 Click **OK** to delete it.

6.2 Configuring Video Wall


Purpose

To realize the display of the decoded video on the video wall, you must set the video wall configuration first so as to link the video output with video wall.

Step 1 Click **Video Wall Configuration** to enter the corresponding interface.



Figure 6-9 Video Wall Configuration

Step 2 You can use the default video wall layout or click  to add a new layout. Input the number of screens in row and column and up to 16 × 20 split screens are available.

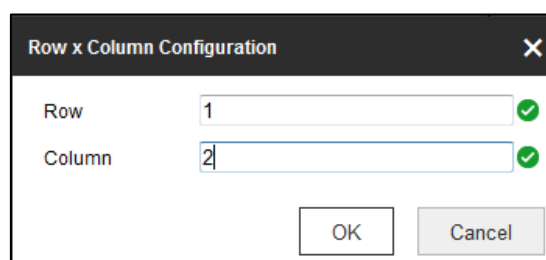




Figure 6-10 Screen Layout Configuration

Step 3 Click **OK** to finish the adding of the video wall information.

Step 4 Drag the output channels from the left-side list to the display screen.

Step 5 Move the cursor to the window, and the icon  automatically appears in the upper-right corner of the window. Click  to close the window.

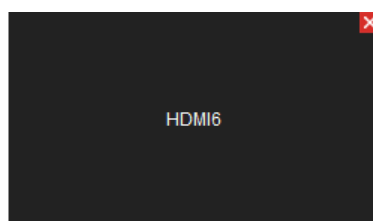


Figure 6-11 Close the Window

6.3 Configuring Decoding Output

Purpose

In the output list, there are two kinds of video output signals, respectively BNC and HDMI. You can configure the resolution and output mode.

6.3.1 Configuring BNC Output

Step 1 Click **Video Wall Configuration** to enter the corresponding interface. Right click one of the BNC signal sources.

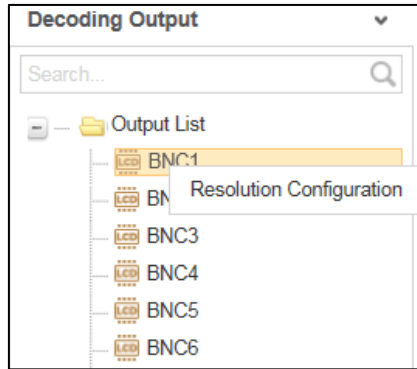


Figure 6-12 BNC Decoding Output

Step 2 Right click one of BNC signal sources and select **Resolution Configuration** to pop up the interface as below.

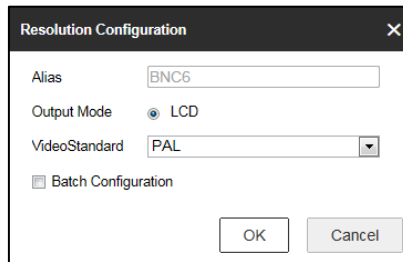


Figure 6-13 Resolution Configuration

Step 3 Select the resolution from the **LCD Resolution** drop-down list. PAL and NTSC are selectable.

Step 4 Check the checkbox of **Batch Configuration** to set the same configuration for other outputs with same signal source.

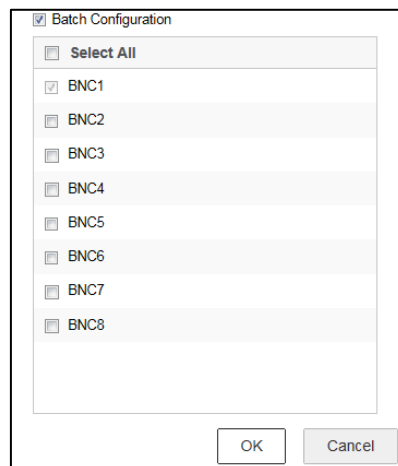


Figure 6-14 Batch Configuration

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

6.3.2 Configuring HDMI Output

Step 1 Right click one of the HDMI signal sources.

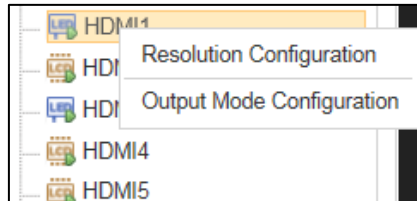


Figure 6-15 HDMI Decoding Output

Step 2 Click **Resolution Configuration** to enter the interface below.

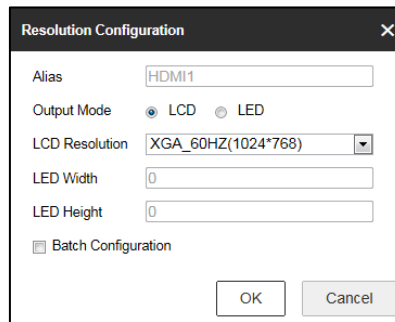


Figure 6-16 Resolution Configuration

Step 3 Select the **Output Mode** and set the corresponding parameters. You can select LCD and LED.

● LCD

1. Select the **Output Mode** to LCD.
1. Select the resolution from the **LCD Resolution** drop-down list.

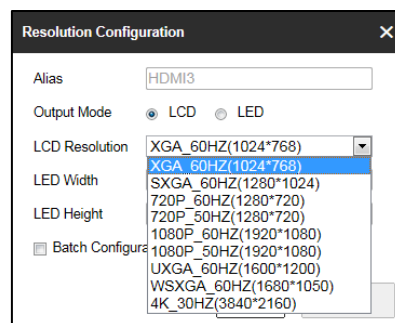


Figure 6-17 Set LCD Resolution

● LED

1. Select the **Output Mode** to LED.
1. Input the **LED Width** and **LED Height** in the corresponding text fields.

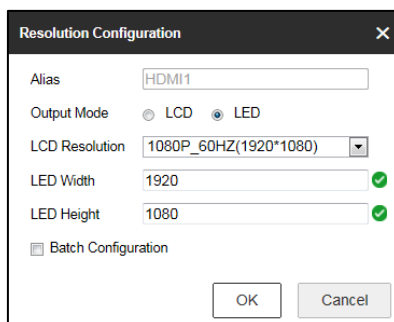


Figure 6-18 Set LED Resolution

NOTE

- The value of LED width and height cannot exceed the output resolution you select.
- The supported min. value of LED width × height of HDMI output is 288 × 288 and the max. value is 1920 × 1080.

Step 4 Check the checkbox of **Batch Configuration** to set the same configuration for other outputs with same signal source.

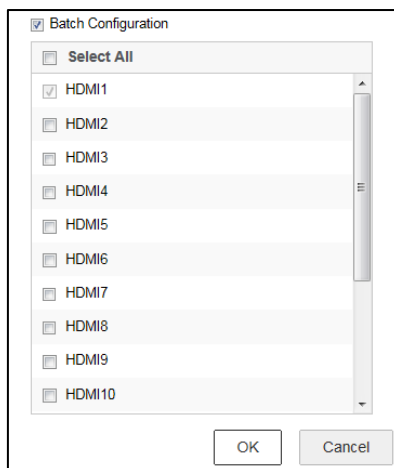


Figure 6-19 Batch Configuration

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

Step 6 Right click one of the HDMI signal sources and click **Output Mode Configuration** to pop up the interface below.

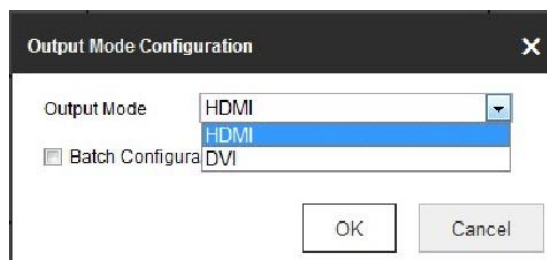


Figure 6-20 Output Mode Configuration

Step 7 Select the output mode to HDMI or DVI.

Step 8 Check the checkbox of **Batch Configuration** to set the same configuration for other HDMI outputs.

Step 9 Click **OK** to save the settings.

6.4 Decoding Video on Video Wall

Purpose

You can decode the video of the encoding devices on the video wall by dragging the channel directly or opening window via coordinate.

6.4.1 Interface Description

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

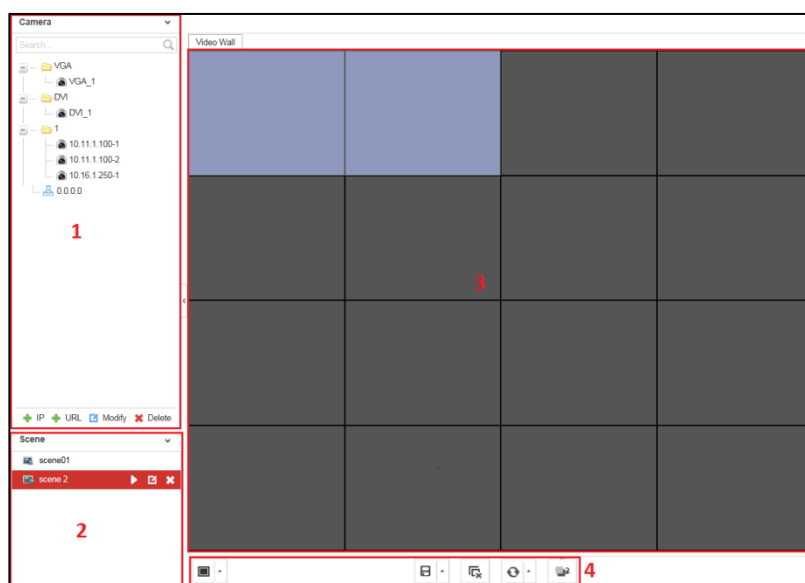







Figure 6-21 Video Wall Interface

Refer to the following figure for the video wall description.

Table 6-1 Description of Video Wall

No.	Description
1	Encoding Device List: The encoding devices added in the Web
2	Scene: The Web supports up to 8 scenes by default, capable of independent scene configuration and fast switching.
3	Video Wall: Video wall operation interface
4	<p>Shortcut Toolbar:</p> <p> Select decoding screen layout.</p> <p> Save the scene</p> <p> Delete all windows</p> <p> Refresh all windows</p> <p> If two decoding windows overlap with each other, click the icon to switch the upper window to the bottom.</p>

6.4.2 Dragging Channels to the Video Wall

Step 1 Drag the channel from the left side list to realize the decoding in the selected window.

You can also drag an area file to the video wall to decode the added encoding devices in the area file on the video wall.

NOTE

- You cannot drag an area file to the video wall across the LCD and LED outputs.
- If there are more than 3 encoding devices in an area, when you drag the area file to the video wall, the note pops up to remind you that no more window can be opened or the total area of layers in single-screen has reached the limit. Only the first 3 encoding devices in the area file can be decoded on the video wall.

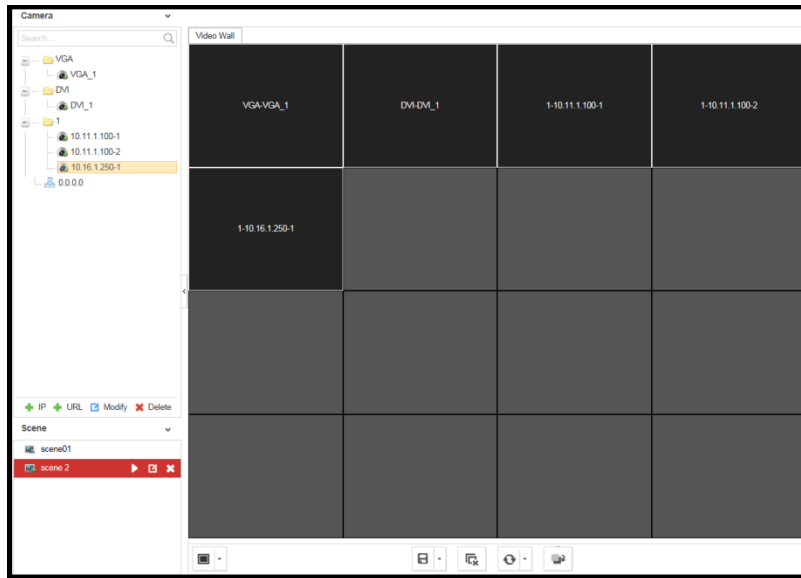


Figure 6-22 Decode the Video on the Wall

Step 2 Select one decoding window and click  to set the decoding screen layout.

1/2/4/6/8/9/12/16/25/36 window division modes are available.

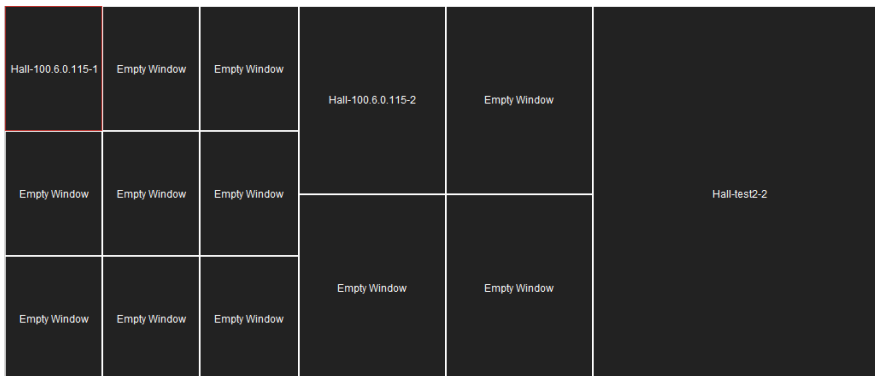


Figure 6-23 Window Division

6.4.3 Opening Window via Coordinate

Step 1 Select one encoding device and right-click it to pop up the interface below.

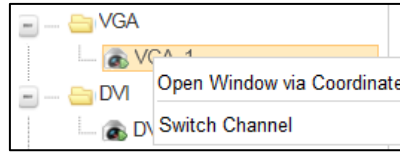


Figure 6-24 Right-Click Menu

Step 2 Click **Open Window via Coordinate**.

Step 3 Select the **Window Opening Mode**. LCD and LED are selectable.

- **Opening Window via Coordinate for LCD Output**

- 1) Select the **Window Opening Mode** as **LCD**.
- 2) Enter the **Left Margin**, **Right Margin**, **Width** and **Height** in the corresponding text fields.
- 3) Click **OK** to save the settings.

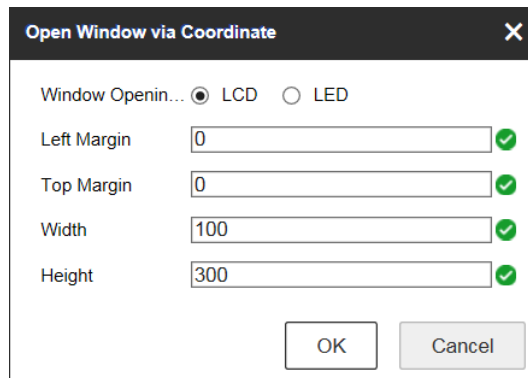


Figure 6-25 Open Window via Coordinate for LCD Output

- 4) The window will be opened in the LCD area.

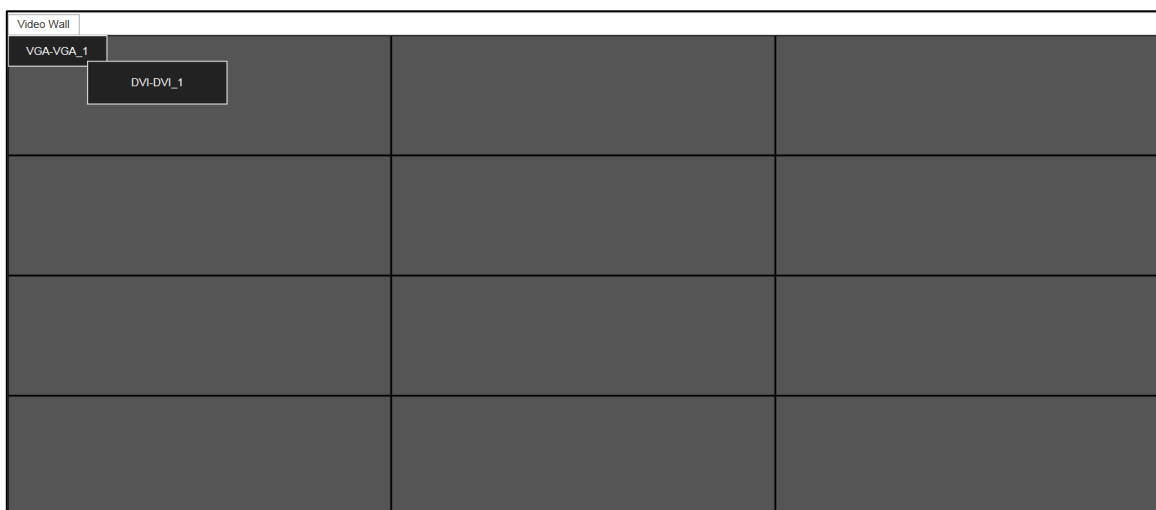


Figure 6-26 Window Opened in LCD Area

- **Opening Window via Coordinate for LED Output**

- 1) Select the **Window Opening Mode** as **LED**.
- 2) Select the **LED** area.

The area number depends on the HDMI decoding output configuration. For the adjacent HDMI outputs, if the resolution is configured to be LED, and the LED width or height is same, they can be seen as one area. You can refer to *Chapter 6.3.2 Configuring HDMI Output*.

- 3) Enter the **Left Margin**, **Right Margin**, **Width** and **Height** in the corresponding text fields.
- 4) Click **OK** to save the settings.

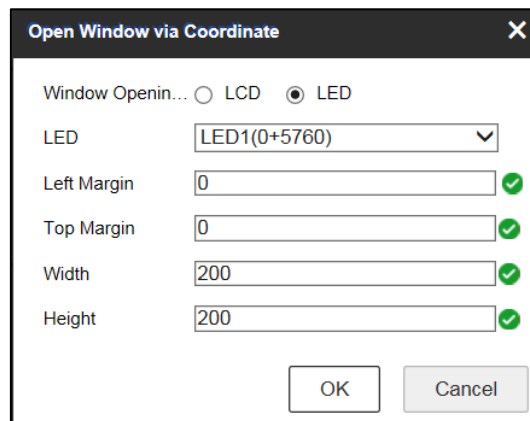


Figure 6-27 Open Window via Coordinate for LED Output

- 5) The window will be opened in the LED area.

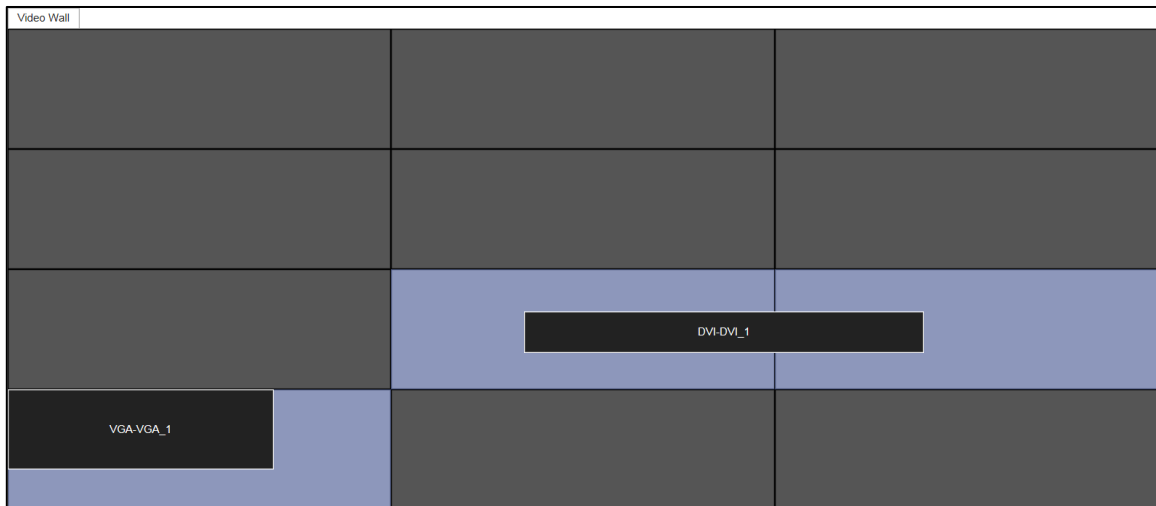


Figure 6-28 Window Opened in LED Area

6.4.4 Managing Decoding

Right-click the selected window and the Decoding Management interface pops up.

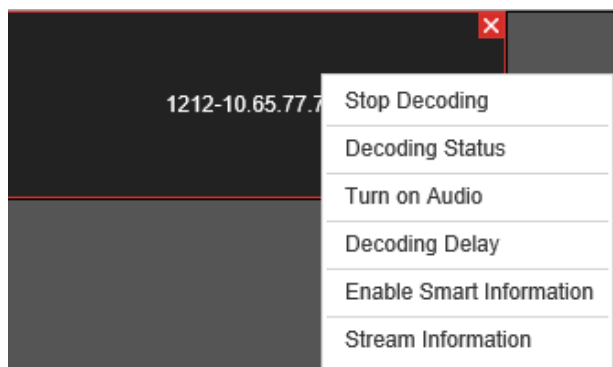


Figure 6-29 Decoding Management

● **Stop Decoding**

Click the button to stop decoding.

● **Decoding Status**

1. Click the button to enter the decoding status interface.
2. View the decoding status.

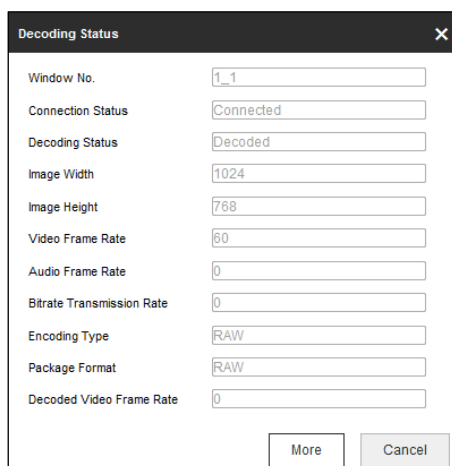


Figure 6-30 Decoding Status

3. Click **More** to check the decoding information of each channel.

Window..	Connection Status	Decoding Status	Image Width	Image Height	Video Frame Rate	Audio Frame Rate	Bitrate Transmission...	Encoding Type	Package Format	Decoded Video Fram...
1_1	Connected	Decoded	1280	720	59	0	0	RAW	RAW	10864
2_1	Connected	Decoded	1280	720	59	0	0	RAW	RAW	10446
3_1	Not connected	Not decoded	0	0	0	0	0	UNKNOWN	UNKNOWN	0
4_1	Not connected	Not decoded	0	0	0	0	0	UNKNOWN	UNKNOWN	0

Figure 6-31 Check More Decoding Status Information

● **Turn on Audio**

1. Click the button to enter the interface below.



Figure 6-32 Turn on Audio

2. Select from the dropdown list to enable the audio in the corresponding window.
3. Click **OK** to save the settings.

● Decoding Delay

1. Click the button to enter the decoding delay interface.
2. Select the type of decoding delay. The default mode is the same with medium real time and fluency.

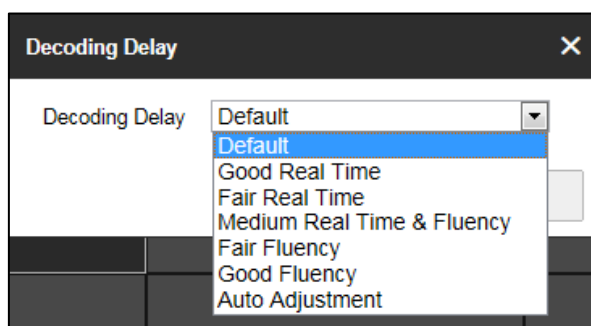


Figure 6-33 Decoding Delay

3. Click **OK** to save the settings.

● Enable Smart Information

1. Click the button to enable smart information.
2. (Optional) Click **Disable Smart Information** to disable the function.



NOTE

For the normal IP camera, the smart information refers to the VCA information. For the thermal network camera, the smart information refers to the VCA and the temperature, dynamic fire source detection and ship detection information.

● Stream Information

Click the button to view stream information such as host name and transport protocol.

6.4.5 Switching Encoding Channel

Purpose

You can switch the encoding channel to display on the selected decoding window.

Step 1 Select a decoding window and select an encoding channel from the left side list.

Step 2 Click **Switch Channel** from the right-click menu to switch the selected channel to the decoding window.

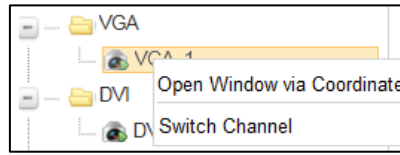


Figure 6-34 Right-Click Menu

6.4.6 Configuring Auto-Switch of Cameras

Purpose

You can enable auto-switch of the added cameras in one area.

Step 1 Select a camera area and click **Start Auto-Switch** from the right-click menu.

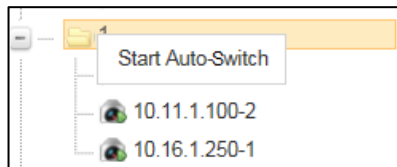


Figure 6-35 Right-Click Menu

Step 2 On the Start Auto-Switch interface, input the **Interval** for auto-switch.

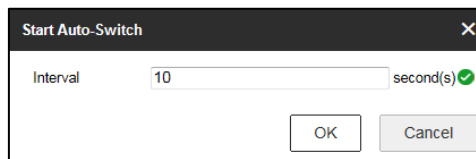


Figure 6-36 Start Auto-Switch

Step 3 Click **OK** to save the settings.

6.4.7 Roaming Window

Step 1 Drag one camera from the left side list to the video wall layout to enable decoding in the corresponding window automatically.

Step 2 Drag the decoding window randomly to realize the window roaming on the video wall.

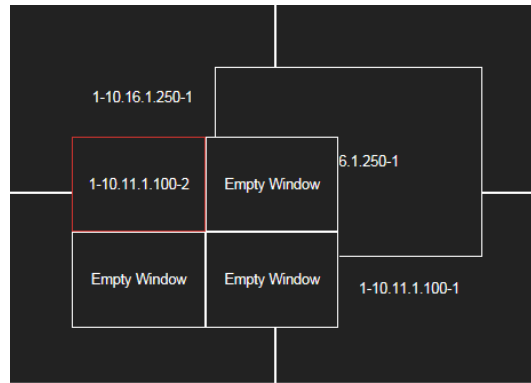



Figure 6-37 Window Roaming

Step 3 Select one of the roaming windows, and click  to realize window division in the selected roaming window with 1/2/4/6/8/9/12/16/25/36 available.

Step 4 (Optional) Generally the selected window is at top by default. Click  to place the selected window at bottom.

NOTE

- Roaming and fluent video cannot be realized in the window with the signal output via BNC interfaces.
- The roaming window cannot cross the output window of different resolution. For example, you cannot move the roaming window across the LCD and LED window.

6.4.8 Zooming in/out Roaming Windows

Purpose

You can double click the roaming window to zoom in or out.

- **For one roaming window:**

Step 1 Double click the roaming window to zoom in. Then the window will occupy the area with the same output.

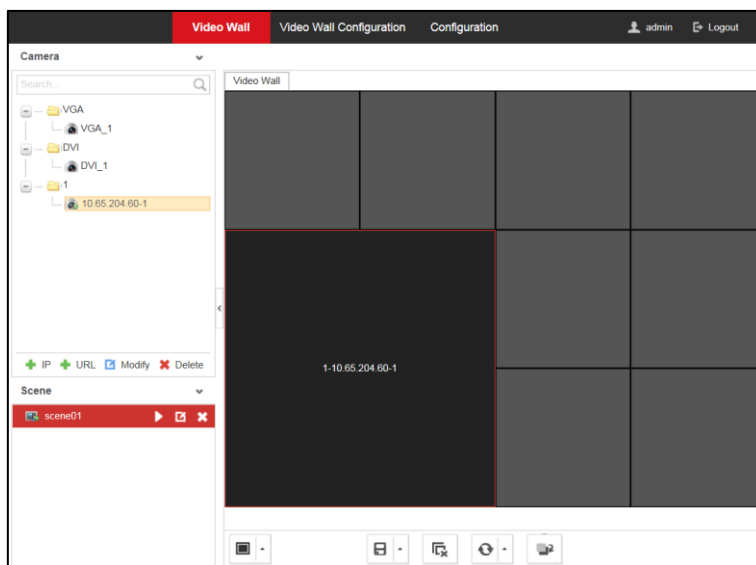


Figure 6-38 Zoom in

Step 2 Double click the window again to zoom out. Then the window will restore to the original size.

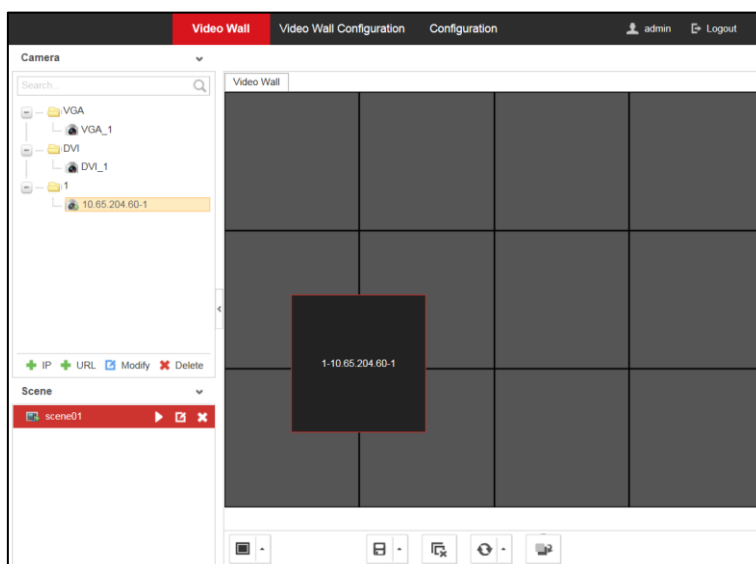


Figure 6-39 Zoom out

- **For divided roaming sub-window:**

Step 1 Double click the divided roaming sub-window to zoom in. Then the sub-window will occupy the whole window before being divided.

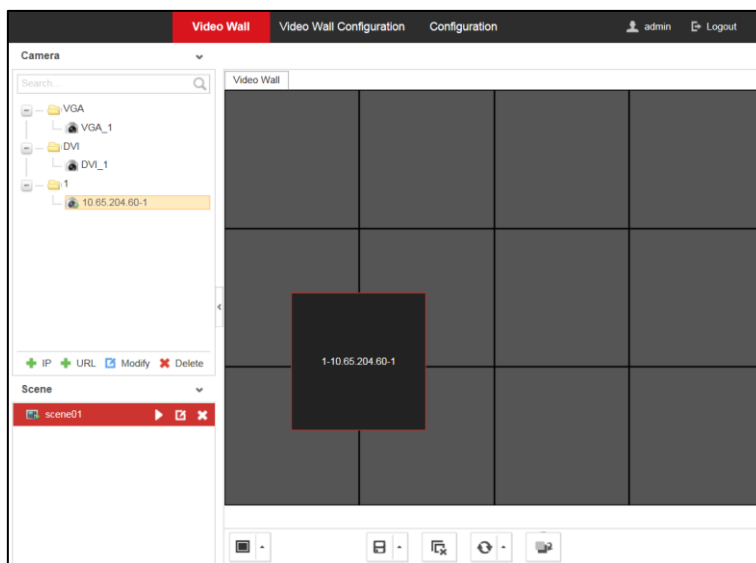


Figure 6-40 Zoom in

Step 2 Double click the divided roaming sub-window again to zoom out. Then the sub-window will restore to the original size.

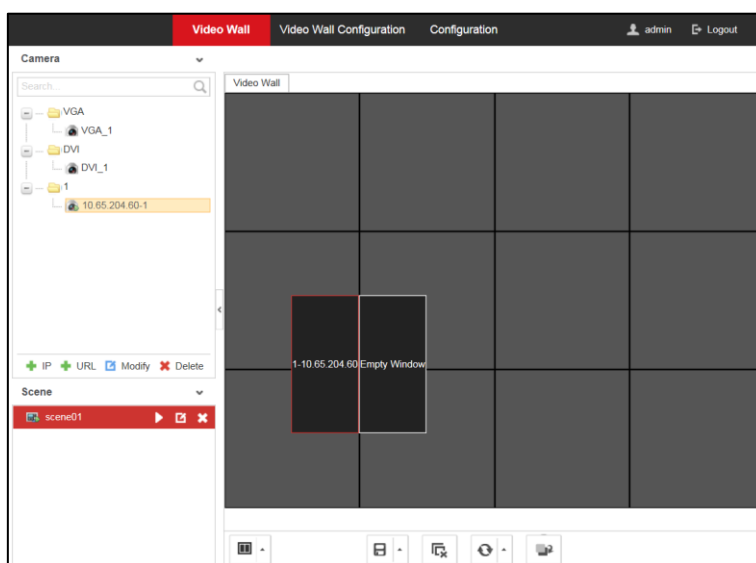


Figure 6-41 Zoom out

6.4.9 Configuring Scene

Purpose

Different video wall layouts can be saved as different scenes and up to 8 scenes can be added. You can easily view the required live videos on the video wall by calling the scene.

Step 1 In the Video Wall interface drag the channel from the left side list to realize the decoding in the selected window.

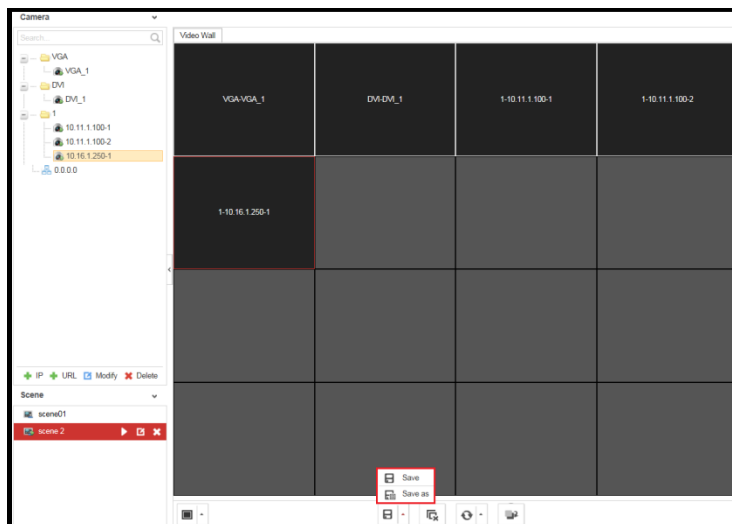


Figure 6-42 Save the Scene

Step 2 Click **Save** to save the scene directly or click **Save as** to pop up the following dialog box.

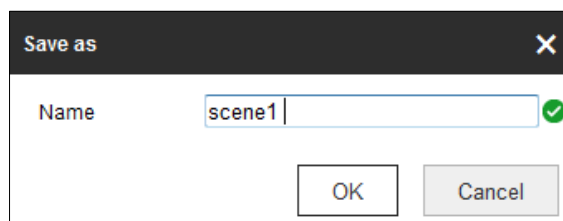


Figure 6-43 Save as Interface

Step 3 Input the **Name** and click **OK** to save the scene.

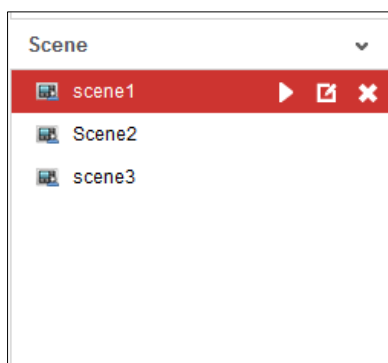




Figure 6-44 Scene List

Step 4 Select one of the scenes you have configured. Click  to call the scene.

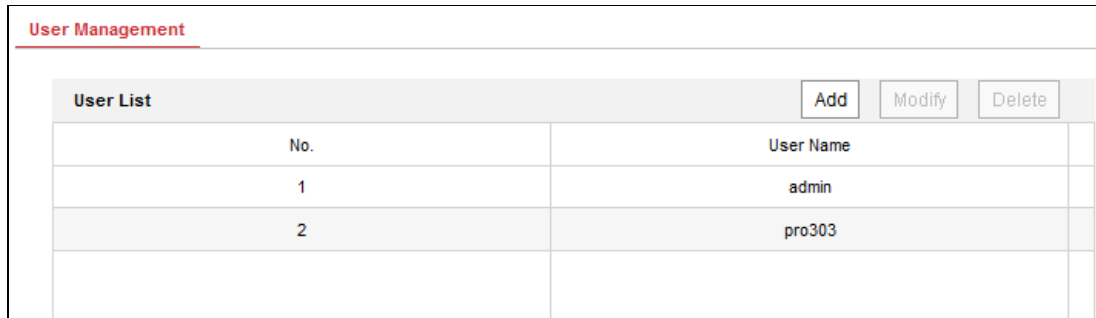
Step 5 (Optional) You can also click  to rename the scene, or click  to delete the scene.

Chapter 7 User Management

Purpose

You can add, modify, delete, and set the permissions of the user accounts on the User Management interface.

Step 1 Click **Configuration > System > User Management** to enter the user management interface.

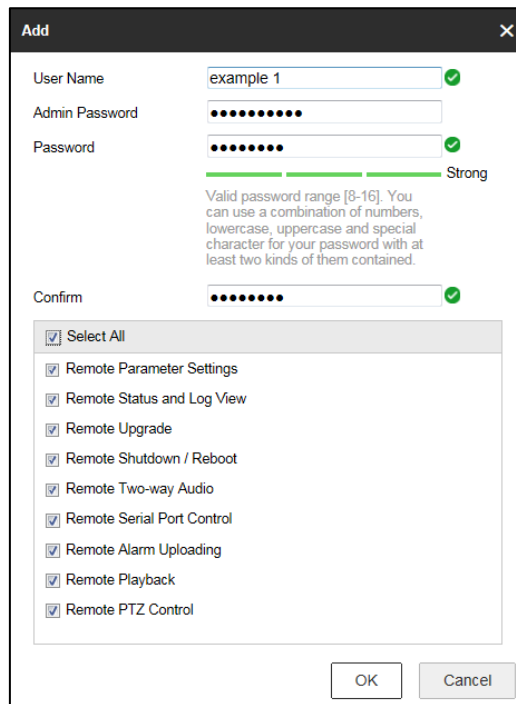


The screenshot shows the 'User Management' interface. At the top, there is a 'User List' table with columns 'No.' and 'User Name'. Below the table are three buttons: 'Add', 'Modify', and 'Delete'. The table contains two rows of data:

No.	User Name
1	admin
2	pro303

Figure 7-1 Configure User Account

Step 2 You can add, modify or delete the user account, as well as configure operating permissions for each user account.



The 'Add' dialog box is shown with the following fields and options:

- User Name: example 1 (with a green checkmark)
- Admin Password: (masked with dots)
- Password: (masked with dots, with a green checkmark and a 'Strong' indicator)
- Confirm: (masked with dots, with a green checkmark)
- Permissions list (all checked):
 - Select All
 - Remote Parameter Settings
 - Remote Status and Log View
 - Remote Upgrade
 - Remote Shutdown / Reboot
 - Remote Two-way Audio
 - Remote Serial Port Control
 - Remote Alarm Uploading
 - Remote Playback
 - Remote PTZ Control

Buttons: OK, Cancel

Figure 7-2 Add User Account and Set Permissions

 NOTE

- Up to 32 user accounts can be added including the *admin*.
 - For the admin user, only the password can be modified.
 - You must input the admin password if you want to modify the user account except the *admin*.
-

 WARNING

STRONG PASSWORD RECOMMENDED—We highly recommend you create a strong password of your own choosing (Using a minimum of 8 characters, including at least three of the 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.

Chapter 8 System Configuration

8.1 Checking Device Information

Purpose

You can check the information of the device in the device information interface, such as the Physical Address, Device Type, Device Serial No., Firmware Version, Decoding Version, Web Version, Plugin Version, etc., and modify the Device Name.

Step 1 Click **Configuration** > **System** > **System Settings** > **Basic Information**.

Step 2 (Optional) Modify **Device Name**.

The default device name is *Embedded multiDecoder*. If you want to modify the device name to the model of the device, enter *Embedded multiDecoder + # + device model* in the text field.

Step 3 View other device information.



NOTE

The description about the decoder configuration and operation by web browser below is based on the firmware, decoding, web and plugin version shown in the following figure.

The screenshot shows a web interface with a navigation bar at the top containing 'Basic Information', 'Time Settings', 'RS-232', and 'RS-485'. The 'Basic Information' tab is selected. Below the navigation bar, there is a list of configuration items, each with a label and a corresponding text input field:

Device Name	Embedded multiDecoder
Physical Address	8c:e7:48:9a:2d:02
Device Type	DS-6908UDI
Device Serial No.	DS-6908UDI0120171207CCRR785480060WCV
Firmware Version	V2.2.0 build 171212
Decoding Version	V2.2 build 171201
Web Version	V4.1.1 build 171208
Plugin Version	V3.0.5.40

At the bottom of the form, there is a red button with a white floppy disk icon and the text 'Save'.

Figure 8-1 Check Device Information

8.2 Configuring Time Settings

Purpose

You can set the time for the decoder in the **Time Settings** interface.

Step 1 Click **Configuration** > **System Settings** > **Time Settings** to enter the following interface:

Basic Information **Time Settings** RS-232 RS-485

Time Zone (GMT+00:00) Dublin, Edinburgh, London

NTP

NTP

Server Address

NTP Port

Manual Time Sync.

Manual Time Sync.

Set Time 2016-08-26T09:56:14

Save

Figure 8-2 Configure Time Settings

Step 2 Configure the time synchronization by NTP server or manually.

● Configuring Time Synchronization by NTP Server

A Network Time Protocol (NTP) Server can be configured on your device to ensure the accuracy of system date/time.

If the device is connected to a Dynamic Host Configuration Protocol (DHCP) network that has time server properties configured, the camera will synchronize automatically with the time server.

Enable the **NTP** function by selecting the radio button, and configure the following settings:

NTP Server: IP address of NTP server.

NTP Port: Port of NTP server.

NTP

NTP

Server Address 210.72.145.44 ✓


NTP Port 123 ✓

Figure 8-3 Configure Time by NTP

NOTE

If the device is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the device is set up in a more customized network, NTP software can be used to establish a NTP server used for time synchronization.

● Configuring Time Synchronization Manually

Enable the **Manual Time Sync.** function by selecting the radio button and then click icon  to set the system time from the pop-up calendar.

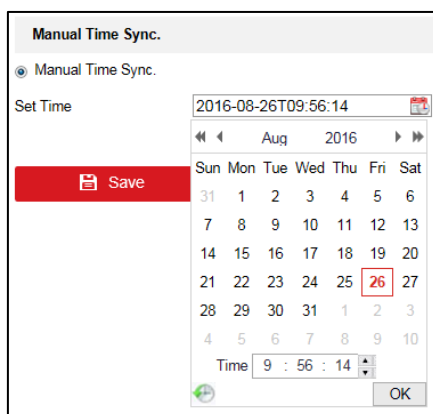


Figure 8-4 Configure Time Manually

Step 3 Select the time zone that is closest to the device’s location from the drop-down list.

Step 4 Click **Save** to save the settings.

8.3 Configuring RS-232 Serial Port

Step 1 Click **Configuration > System Settings > RS-232** to enter the following interface:

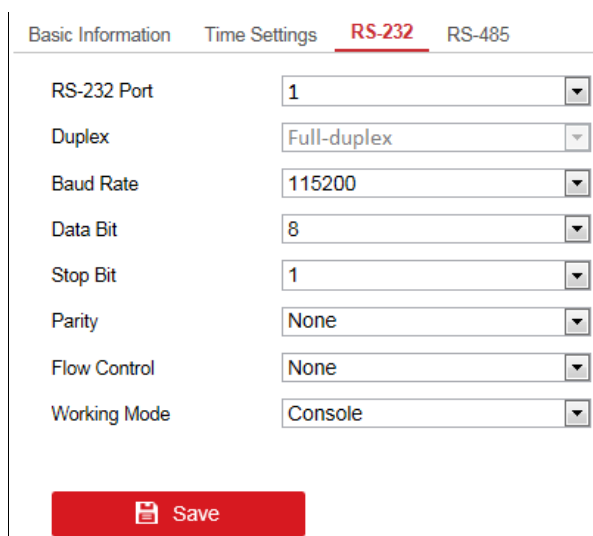


Figure 8-5 Configure RS-232 Settings

Step 2 Configure the RS-232 parameters, including the baud rate, data bit, stop bit and parity type.

Step 3 Select the Operating Mode of RS-232 as Console or Transparent Channel.

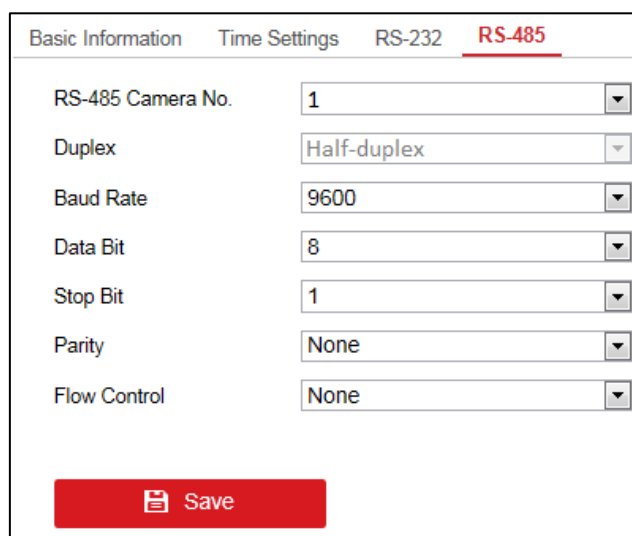
Console: Use the RS-232 serial port for debugging the decoder.

Transparent Channel: Use the RS-232 serial port as the transparent channel.

Step 4 Click **Save** to save the settings.

8.4 Configure RS-485 Serial Port

Step 1 Click **Configuration** > **System Settings** > **RS-485** to enter the following interface.



The screenshot displays the RS-485 configuration interface. At the top, there are four tabs: 'Basic Information', 'Time Settings', 'RS-232', and 'RS-485'. The 'RS-485' tab is selected and highlighted in red. Below the tabs, there are seven configuration items, each with a label and a dropdown menu:

Parameter	Value
RS-485 Camera No.	1
Duplex	Half-duplex
Baud Rate	9600
Data Bit	8
Stop Bit	1
Parity	None
Flow Control	None

At the bottom of the interface, there is a red button with a floppy disk icon and the text 'Save'.

Figure 8-6 Configure RS-485 Settings

Step 2 Configure the RS-485 parameters, including the baud rate, data bit, stop bit and parity type.

Step 3 Click **Save** to save the settings.

Chapter 9 System Maintenance

Purpose

You can click **Configuration > System > Maintenance** to perform configuration files import/export, reboot, upgrade, and default operations.

9.1 Importing Configuration Files

Purpose

The configuration files of the device can be imported from the local device, which maintains convenient parameters configuration.

Step 1 Enter the parameters import interface.

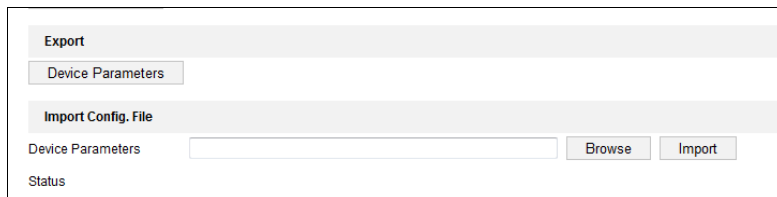


Figure 9-1 Import Configuration File

Step 2 Click **Browse** to select the file from the local directory and then click the **Import** button to import a configuration file. Click **Device Parameters** to export parameters.

9.2 Exporting Configuration Files

Purpose

The configuration files of the device can be exported to the local device, which maintains convenient parameters configuration.

Step 1 Enter the parameters export interface.

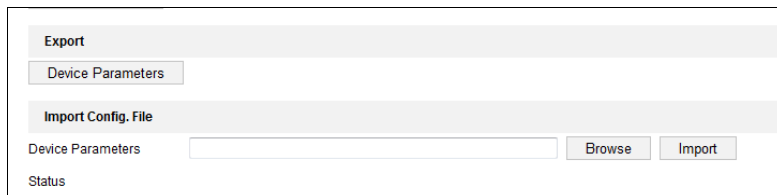


Figure 9-2 Export Configuration File

Step 2 Click **Device Parameters** to export parameters.

9.3 Upgrading the Device

Step 1 Enter the Upgrade interface.

Step 2 Click **Browse** to search the upgrading files.

Step 3 Click **Upgrade** to upgrade it.

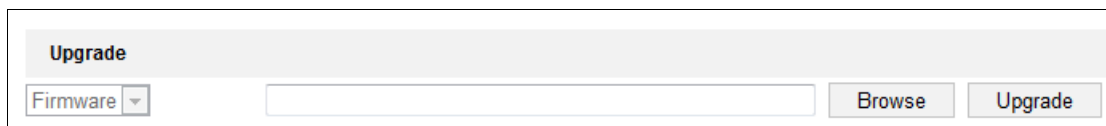


Figure 9-3 Upgrade the Device

NOTE

- When logging in to the device for the first time, install the plug-in according to the prompt on the screen.
- The device will restart after completing the upgrade.

9.4 Restoring the Default Settings

Step 1 Enter the Default Settings interface.

Step 2 Click **Default** to restore the completed factory settings of the decoder.

Or click **Restore** to restore a part of the factory settings of the decoder.

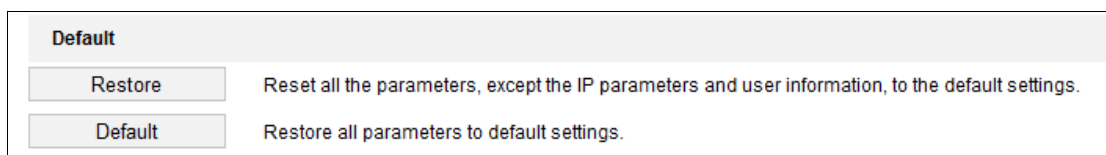


Figure 9-4 Restore Default Settings

9.5 Rebooting the Device

Step 1 Enter the Reboot Device interface.

Step 2 Click **Reboot** to reboot the device.



Figure 9-5 Reboot the Device

Chapter 10 Decoder Configuration and Operation by Client Software

Double click the icon to run the HikCentral Professional Control Client it in your PC. In this chapter, the basic procedure of operating the decoder by the software is described.

10.1 Decode and Display Directly

Purpose

After setting the smart wall via Web Client, the video streams from the camera can be decoded by the configured decoding outputs, and then you can display the decoded videos on the smart wall.

Before You Start

Add the smart wall via Web Client.

The following figure shows the main interface after accessing to the software.

Step 1 Click Smart Wall on the control panel to enter the Smart Wall page.

Step 2 Click  in the upper-right corner of the smart wall window to select a window division mode.

Step 3 Display resources on smart wall.

- **Display Camera on Smart Wall:** Select Camera and site from the drop-down list, and double-click a camera name or drag the camera to the layout area of smart wall to display the camera on the smart wall.




It is only available for the central system with Remote Site Management module (based on the license you purchased).

- **Batch Display Cameras on Smart Wall:** Hold the Ctrl key and select multiple cameras in an area or different areas, and then drag them to the layout area of smart wall and click **Play in Batch** to display multiple cameras on the smart wall in a batch.
- **Display Signal Source on Smart Wall:** Select **Signal Source** from the drop-down list, and drag the signal source to display window of the smart wall.
- **Display Area on Smart Wall:** Select **Camera** and site from the drop-down list, and double-click the area or drag the area to the layout area of smart wall to display the resources in the area on the smart wall.



If there are multiple resources in the area, when you drag it to the layout area of smart wall, you need to select **Play in Batch** or **Single-Screen Auto-Switch** to display each resource in one

display window or display area auto-switch in one display window on the smart wall. For more details about area auto-switch, refer to **Auto-Switch Cameras in One Window**.

- **Display View on Smart Wall:** Click  on the left, and double-click the view name to display on smart wall.

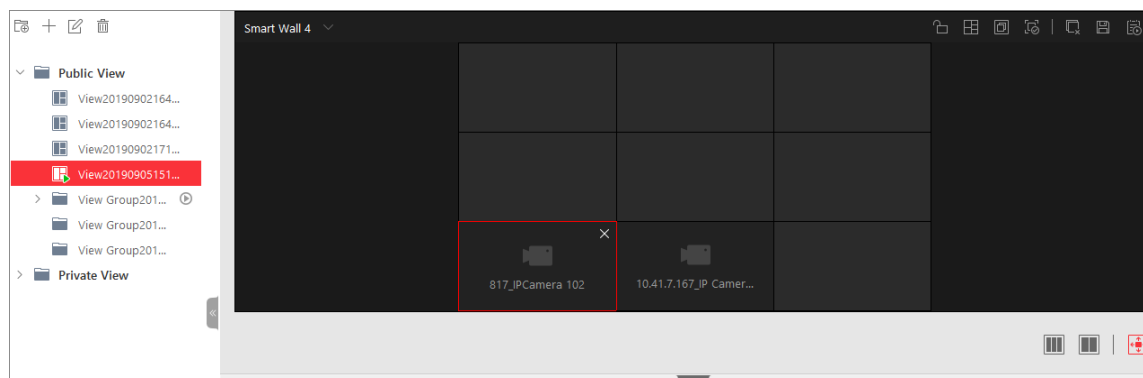





Figure 10-1 Display Live Video on Smart Wall

The decoded video stream is displayed on the smart wall.


Step 4 (Optional) Select a display window which is linked with the camera to display the live video on the large window at the bottom of the page, and then perform the following operation(s).

View Camera Status Click  to show the camera's frame rate, resolution, and stream format.

Switch Stream On the Web Client, you can set the default stream type of the live video of the cameras displaying on the smart wall. If you want to change the stream, such as changing to main stream to get better image quality, you can switch stream manually as follows.  or  to switch the live view stream to main stream, sub-stream, or smooth stream.



 **NOTE**

Smooth stream needs to be supported by device.

Enable PTZ Control Click  to enable PTZ (pan, tilt, zoom) control function on the display window. And then you can control PTZ and set preset, patrol, and pattern.

Switch to Playback Click  to switch to playback mode.

Stop Decoding and Displaying

Click  or  to stop the decoding and displaying for the specified window or all windows.



For the locked windows and alarm linked windows, you cannot stop the decoding and displaying.

10.2 View Settings

Purpose

You can set the view and organize the views into a group for displaying the video on smart wall conveniently. You can also perform the view auto-switch for the view group on the smart wall.

10.2.1 Add View Group

Purpose

A view group of a smart wall is to manage multiple views in a group for performing view auto-switch.

Step 1 Click **Smart Wall** on control panel to open the Smart Wall window.

Step 2 Click  to open the View window.

Step 3 Select **Public View** or **Private View** to add this view group.



- The view groups and views belonging to the public view can be seen by all the system users.
- The view groups and views belonging to the private view can only be seen by the user who add it.

Step 4 Click  to open Add View Group window.

Step 5 Edit the group name or use the default one.


Step 6 Click **Save** to add the group.

Step 7 (Optional) Perform the following operation(s) after adding the view group.

Edit View Group

Select the view group and click  to edit the view group name.

Delete View Group

Select the view group and click  to delete the group.

10.2.2 Add View

Purpose

View defines which cameras are displayed on the monitors of the smart wall. In this way, you can quickly access the frequently used cameras on smart wall for an excellent overview.

Step 1 Click **Smart Wall** on control panel to open the Smart Wall window.

Step 2 Display the videos of cameras on the smart wall.



NOTE

For more details, refer to ***Decode and Display Directly***.

Step 3 Click  to open the View window.

Step 4 Select a view group.

Step 5 Click + to open Add View window.

Step 6 Enter the view name or use the default one.

Step 7 (Optional) Set **Schedule Play** switch to on and set when to automatically display the view on smart wall.



NOTE

For more details about how to set view schedule, refer to ***Set Schedule for Displaying Views on Smart Wall***.

Step 8 Click **OK** to save the view.

Step 9 (Optional) Perform the following operation(s) after adding the view.

Start Decoding and Displaying Double-click the view to start decoding and displaying on smart wall conveniently.

Edit View Click  to edit the name of the view.

Delete View Click  to delete the view.

10.2.3 Set Schedule for Displaying Views on Smart Wall

Purpose

The view schedule is used to define when to automatically display the view on smart wall. According to the schedule, the view will play on the smart wall at the time point(s) or the fixed time point(s) on regular date(s) in one week repeatedly.

When adding a view, enable **Scheduled Play** and do one of the followings:

- Check **Repeated Play**, select the days in one week, and set time for displaying the view on smart wall at the regular time.
- Uncheck **Repeated Play**, and set the date and time for displaying the view on smart wall at the irregular time.

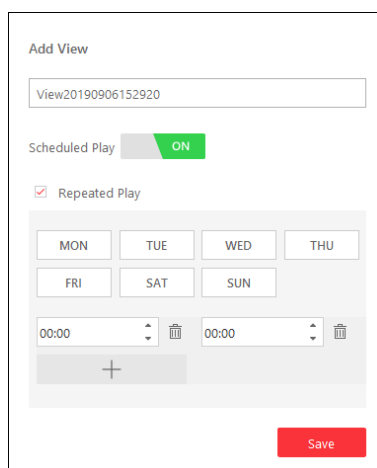


Figure 10-2 Set Schedule

Click  to view the view schedules of the current smart wall.

10.3 Perform View Auto-Switch

Purpose

View auto-switch is used for displaying the views of a view group one after the other. You can specify the interval between view changes.


Before You Start

Add at least two views into one view group, see **Add View** for details.

Step 1 Click **Smart Wall** on control panel to open the Smart Wall window.

Step 2 Click  to open the View window.

Step 3 Click  View2... 15s  beside the view name to set the auto-switch interval.

Step 4 Click  beside the view group name to start auto-switch.


The views in the selected view group starts switching automatically.

10.4 Auto-Switch Cameras in One Window

Purpose

Auto-switch in one window is used for displaying the videos from the cameras in an area or different areas, one after another, in a single window. You can specify the interval between camera changes.

Step 1 Click **Smart Wall** on control panel to open the Smart Wall window.

Step 2 Click  on the left to enter the Camera page.

Step 3 Select **Camera** from the drop-down list.

Step 4 Select area or cameras for auto-switch.

- Drag an area on the left panel to the window linked with a decoding output.



Make sure the cameras have been added to the area.

- Hold the Ctrl key and select multiple cameras in an area or different areas, and then drag them to the window linked with a decoding output.



Up to 32 cameras can selected for auto-switch in one window.

Step 5 Click **Single-Screen Auto-Switch** in the pop-up menu to display the videos of the cameras in one display window of the smart wall.

The cameras starts switching automatically on the smart wall.

Step 6 (Optional) Click << or >> in the toolbar of the video view to set the auto-switch interval.

10.5 Create a Roaming Window

Purpose

Windowing is to open a virtual window on the screen(s). The window can be within a screen or span multiple screens. You can move the window on the valid screens as desired and this function is called roaming. With windowing and roaming function, you can create custom window and the window size and position will not be limited by the actual screen(s).

Step 1 Click **Smart Wall** on control panel to open Smart Wall window.

Step 2 Click  and drag on the screens which are linked to decoding outputs to open a window.



Screens linked to BNC outputs are not available for opening a window.

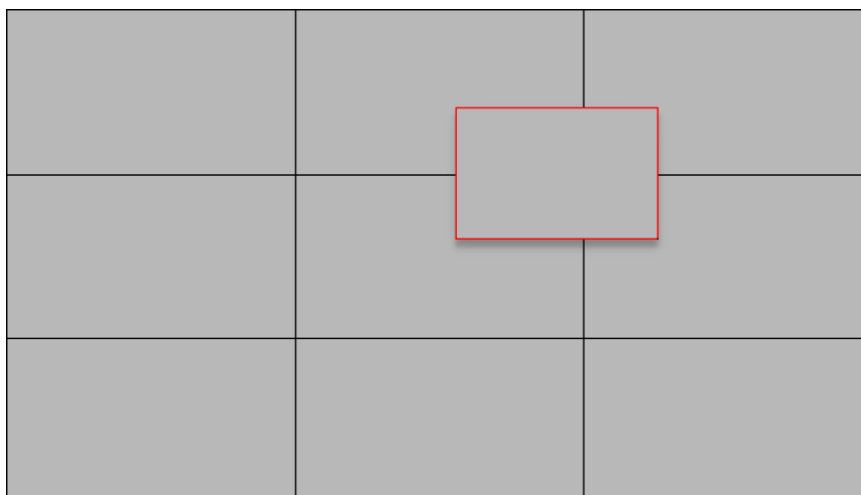


Figure 10-3 Open a Window

Step 3 (Optional) Perform the following operation(s) after opening a window.

Roam	Click on the window and hold the mouse to move the window on the valid screens.
Adjust Window Size	Move your cursor to the window edges and adjust the window size when the cursor becomes directional arrow.
Enlarge Window	Double-click the window and it will be enlarged to fill the spanned screens and display on the top layer. Double-click again to restore.
Display Window on Top Layer	Select one window when there're overlapped windows and right-click the window to display it on the top layer.

10.6 View Alarm's Related Video on Smart Wall

Purpose

If you have enabled the smart wall linkage for an alarm, the live view of cameras or public views related to the alarm will pop up on the chosen smart wall when the alarm is triggered. Therefore, you will know alarm details in a timely manner for further operations.

- When an alarm linked with multiple cameras in one display window is triggered, the window will be divided into an adaptive division mode and show the videos of all cameras.
- When multiple alarms linked with one display window are triggered, the window will be divided into an adaptive division mode and show the alarms' related videos.

- When each alarm linked with multiple display windows is triggered, every window will show one alarm's related video. If the alarms exceed the window limit, the window will be divided into an adaptive division mode and show the more alarms' related videos.

For example, there are alarm A, alarm B, alarm C and alarm D are linked with window 1, window 2 and window 3 of smart wall. When alarm A, alarm B, and alarm C are triggered, the display window of smart wall will show as the left figure below. When alarm D is also triggered, the display window will show as the right figure below.

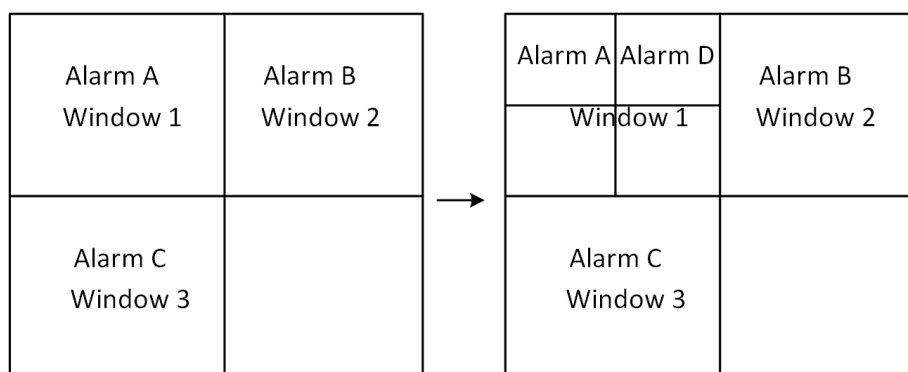



Figure 10-4 Multiple Alarms Displayed on Smart Wall


10.7 View and Export Window No. and Camera ID

Purpose

When displaying live view on smart wall, you can use a keyboard for convenient operations such as starting live view on smart wall, PTZ control, etc. If you want to display certain camera's live view in certain window on the smart wall, you should press the camera's identifier number and target window number on the keyboard, which are called **Camera ID** and **Window No.**

In the Web Client, you can set a unique ID for each camera added in the system.

In the Control Client, click **Smart Wall** on the control panel, and click  → **Window No. & Camera ID** → **Display Window No.** to show the number of each window.

If you want to export a document which contains the IDs of all the cameras and smart wall information (such as smart wall name, row and column, etc.) as a reference, click  → **Window No. & Camera ID** → **View Window No. and Camera ID** to generate a document.

Click **Download** to download this document and save it in local PC. You can print it if necessary.

NOTE

- The exported file is in PDF format.
- The exported document also contains smart wall No., which are used for selecting smart wall via network keyboard.

Chapter 11 Appendix

11.1 FAQ

- Why cannot ping the decoder?
 - Check the cable and the switch.
 - Please refer to *Chapter 4* to configure the IP address of the decoder.
- Why cannot connect the decoder with client software?
 - Check the decoder IP address.
 - Cable is connected.
 - User name and password of decoder are correct.
- Why cannot play back the record files in DVR with decoder?
 - Check the DVR network connection.
 - Check the parameters of the playback file.
 - Check if there are files existed in the selected time duration.
- Why cannot decode the stream transported by stream media server?
 - Check the network connection between decoder and stream media server.
 - Check if the stream media server port is connected with the port added on decoder.

11.2 List of Third-Party IP Cameras Access

IP Camera Manufacturer	Model	Supported Video Format
Panasonic	SP306H	H.265+. H.265, H.264, H.264+, MJPEG, MPEG4,
	SP336H	
Sony	SNC-CH220	
	SNC-RH124	
Axis	P5532	
	Q7404	
Sanyo	VCC-HD2500P	
SAMSUNG	SND-5080P	
Bosch	NBC265P	
Zavio	D5110	
Arecont	AC1305M	
Pelco	IX30DN-ACFZHB3	
Onvif	Supported	



See Far, Go Further