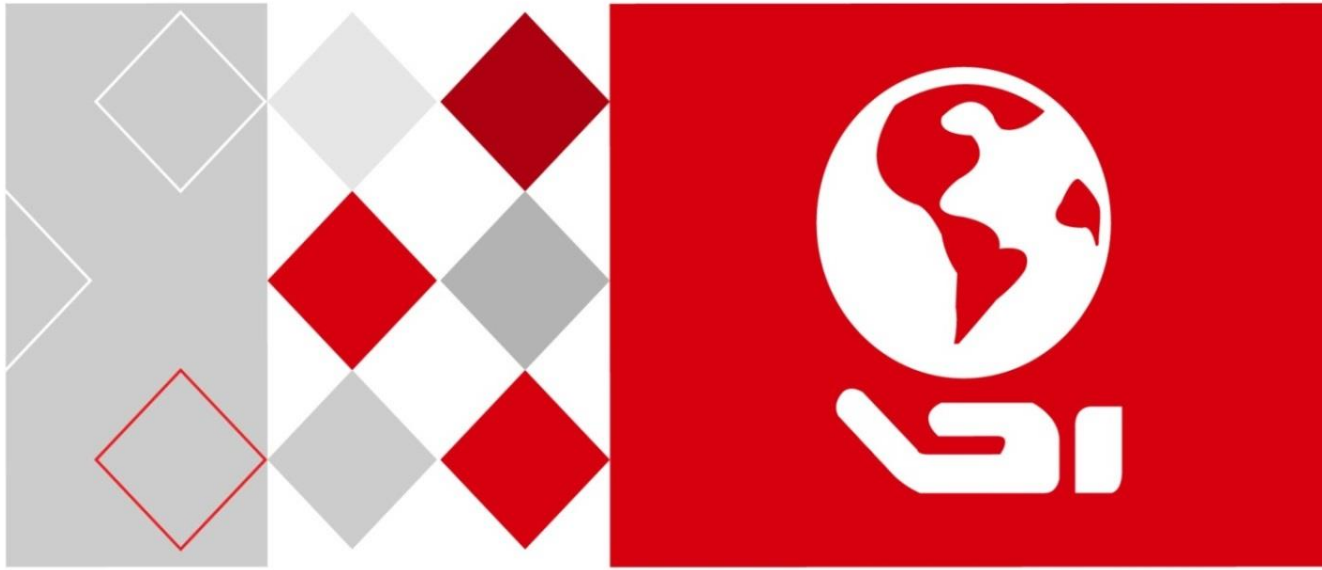


HIKVISION



HD Video and Audio Decoder

User Manual

UD01111B

Audio and Video Decoder • User Manual

User Manual

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About this Manual

This Manual is applicable to DS-6900UDI Decoder.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (<http://overseas.hikvision.com/en/>).

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FCC information

FCC compliance: This equipment has been tested and found to comply with the limits for 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

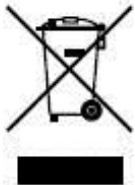
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

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 Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, 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.



Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into “Warnings” and “Cautions”

Warnings: Serious injury or death may occur if any of the warnings are neglected.

Cautions: Injury or equipment damage may occur if any of the cautions are neglected.

	
Warnings Follow these safeguards to prevent serious injury or death.	Cautions Follow these precautions to prevent potential injury or material damage.



WARNING

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.

Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100~240 VAC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.

Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.

Please make sure that the plug is firmly connected to the power socket.

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.

Preventive and Cautionary Tips

Before connecting and operating your device, be advised of the following tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device in conjunction with an UPS if possible.
- Power down the unit before connecting and disconnecting accessories and peripherals.
- 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.

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Chapter 1 Introduction

1.1 Description

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

DS-6900UDI Decoder is capable of simultaneous decoding video for 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+, H.264 and MPEG4. The decoded video can be displayed on video wall or large screen.

1.2 Features

Powerful Decoding Capability

- DS-6901UDI provides HDMI, VGA, and BNC output interfaces.
- Up to 16-ch decoding at 12 MP resolution (DS-6916UDI).
- DS-6904UDI, DS-6908UDI, DS-6910UDI, DS-6912UDI, DS-6916UDI provide HDMI (adaptable to DVI-D) and BNC output interfaces
- Up to 4K (3840 × 2160@30HZ) via HDMI interface (only for even interface), and up to 1080p@60HZ via VGA interface.
- H.265+/H.265, H.264+/H.264, MPEG4 and MJPEG video stream formats.
- PS, RTP, TS, ES, HIK encapsulation formats.
- Supports window opening and window roaming
- Three encoding levels: baseline, main, and high-profile.
- G.722, G711A, G726, G711U, MPEG2-L2, and AAC audio stream formats.
- Access by panoVu network camera.

Multiple Decoding Control Modes

- Two decoding modes: active decoding and passive decoding.
- Decoding output of remote video files.
- Supports HiDDNS.
- Decoding on video wall by directly linking cameras or by stream media forwarding.
- Gets stream and decodes via URL.
- Remotely controls DVR's or DVS's PTZ via transparent channel.
- Two-way audio.
- Supports multi-screen control with PC installed with RSC server.

- Supports Wi-Fi module access to display the signal from ISO/Android mobile phone or pad on video wall.
- Configurable LED width and height parameters when the LED is connected.

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

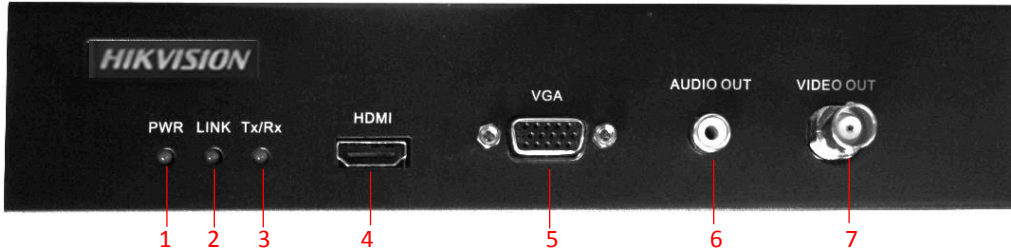


Figure 2-1 Front Panel of DS-6901UDI

Table 2-1 Description of DS-6901UDI Front Panel

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

- Front Panel of DS-6904/6908UDI

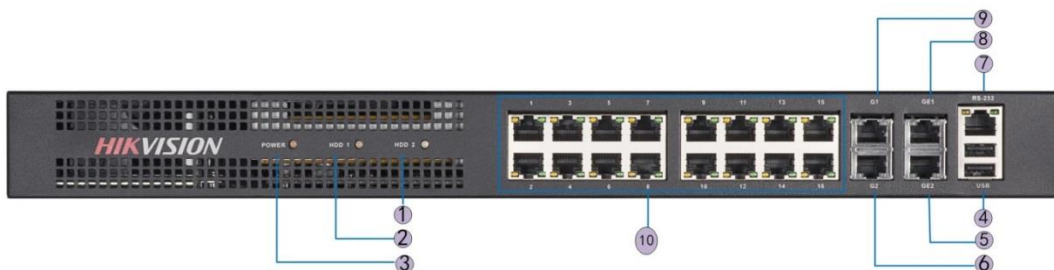


Figure 2-2 Front Panel of DS-6904/6908UDI

Table 2-2 Description of DS-6904/6908UDI Front Panel

	LED Indicator & Interface	Connections
1	Power	Power indicator
2	HDD1	Hard disk 1 indicator (Reserved)
3	HDD2	Hard disk 2 indicator (Reserved)
4	USB	USB 2.0 interface
5	GE2	Local management network interface 2
6	G2	10/100/1000 Mbps Ethernet interface 2
7	RS-232 serial interface	Connect to RS-232 devices, e.g., PC etc.
8	GE1	Local management network interface
9	G1	10/100/1000 Mbps Ethernet interface
10	LAN	LAN 10/100 Mbps Ethernet interface

NOTE

DS-6904UDI provides 4-ch HDMI output interfaces and other interfaces are the same with DS-6908UDI.

● Front Panel of DS-6910/6912/6916UDI

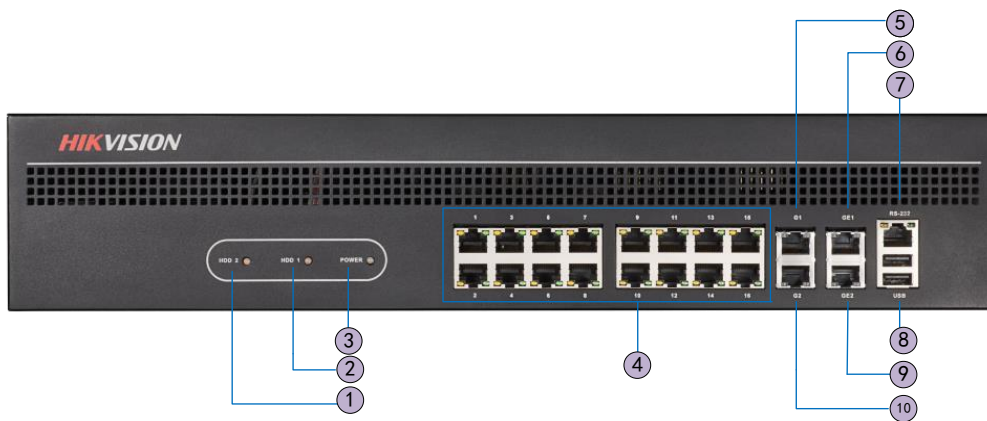


Figure 2-3 Front Panel of DS-6916UDI

Table 2-3 Description of DS-6916UDI Front Panel

	LED Indicator & Interface	Connections
1	HDD1	Hard disk 1 indicator (Reserved)
2	HDD2	Hard disk 2 indicator (Reserved)
3	POWER	Power indicator
4	LAN	10/100 Mbps Ethernet interface
5	G1	10/100/1000 Mbps Ethernet interface
6	GE1	Local management network interface
7	RS-232 serial interface	Connect to RS-232 devices, e.g., PC etc.
8	USB	USB 2.0 interface
9	GE2	Local management network interface 2
10	G2	10/100/1000 Mbps Ethernet interface 2

2.2 Rear Panel

- Rear Panel of DS-6901UDI

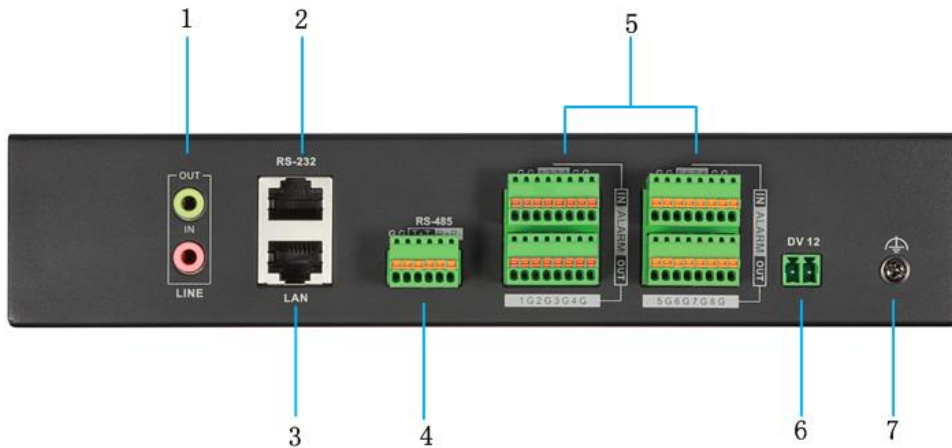



Figure 2-4 Rear Panel of DS-6901UDI

Table 2-5 Description of DS-6901UDI Rear Panel

	Interface	Connections
1	LINE IN/OUT	Two-way audio input/output, 3.5mm connector
2	RS-232 serial interface	Connect to RS-232 devices, e.g., PC.

3	LAN	10/100/1000 Mbps Ethernet interface
4	RS-485 serial interface	Connect to RS-485 devices, e.g., keyboard.
5	Alarm in	8 alarm inputs
	Alarm out	8 alarm outputs
6	Power supply	12 VDC power input
7		GND

● Rear Panel of DS-6908UDI

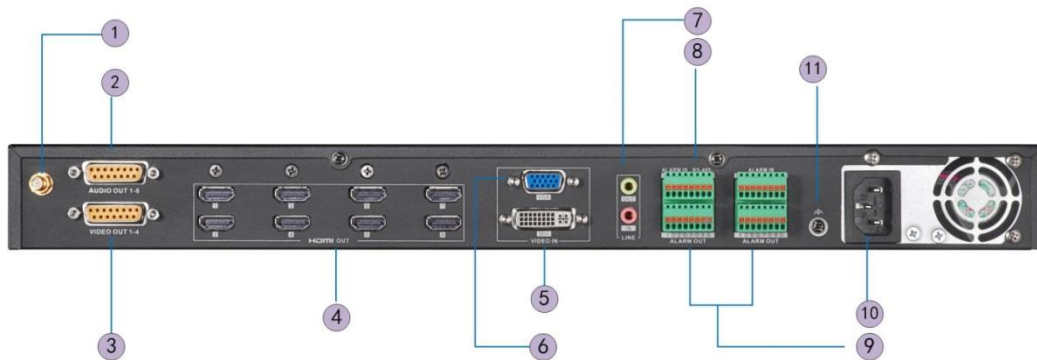



Figure 2-5 Rear Panel of DS-6908UDI

Table 2-6 Description of DS-6908UDI

	Interface	Connections
1	Wi-Fi	Reserved
2	Audio output	BNC connector
3	Video output	BNC connector
4	HDMI video output	HDMI output of decoded video
5	DVI video input	DVI input of decoded video
6	VGA video input	VGA input of decoded video
7	LINE IN/OUT	Two-way audio input/output, 3.5mm connector
8	RS-485 serial interface	Connect to RS-485 devices, e.g., keyboard.
	Alarm in	8 alarm inputs
9	Alarm out	8 alarm outputs
	Power	Power indicator

11		GND
----	---	-----

● Rear Panel of DS-6916UDI

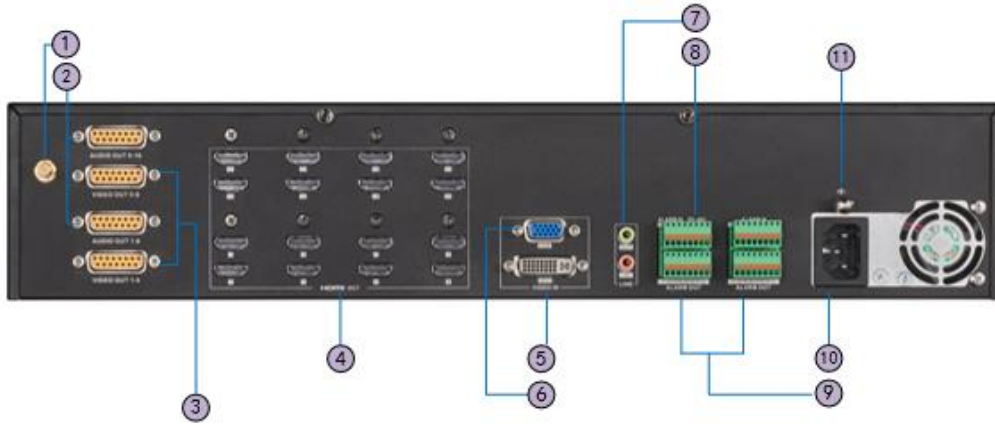



Figure 2-6 Rear Panel of DS-6916UDI

Table 2-7 Description of DS-6916UDI Rear Panel

	Interface	Connections
1	WiFi	Reserved
2	Audio output	BNC connector
3	Video output	BNC connector
4	HDMI video output	HDMI output of decoded video
5	DVI video input	DVI input of decoded video
6	VGA video input	VGA input of decoded video
7	LINE IN/OUT	Two-way audio input/output, 3.5mm connector
8	RS-485 serial interface	Connect to RS-485 devices, e.g., keyboard, etc.
9	Alarm in	8 alarm inputs
	Alarm out	8 alarm outputs
10	Power	Power indicator
11		GND

 **NOTE**

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

Chapter 3 Getting Started

Purpose

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

Activation via Web Browser and Client Software are all supported.



NOTE

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

3.1 Activation 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.

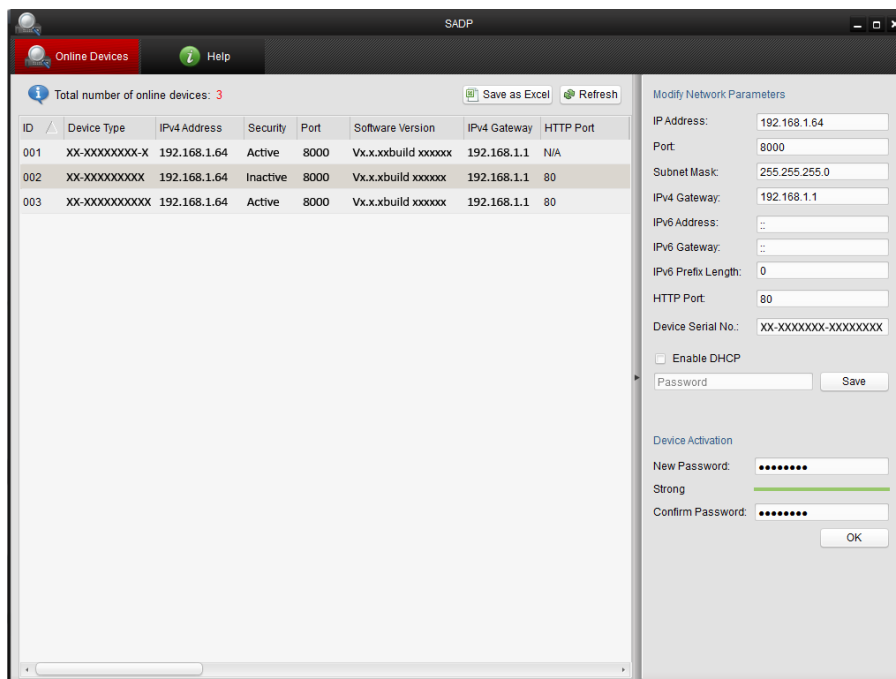


Figure 3-1 SADP Interface

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

Step 4 Click **OK** to save the password.



STRONG PASSWORD RECOMMENDED—We highly recommend that 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 that you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

You can check whether the activation is completed on the popup window. If activation failed, please make sure that the password meets the requirement and try again.

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.

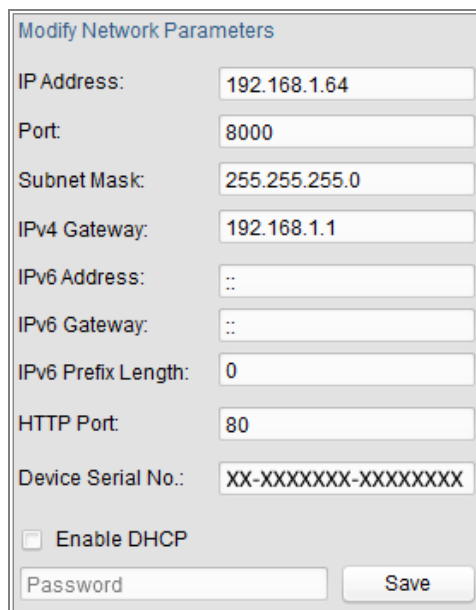


Figure 3-2 Modify the IP Address

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

3.2 Activation 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.

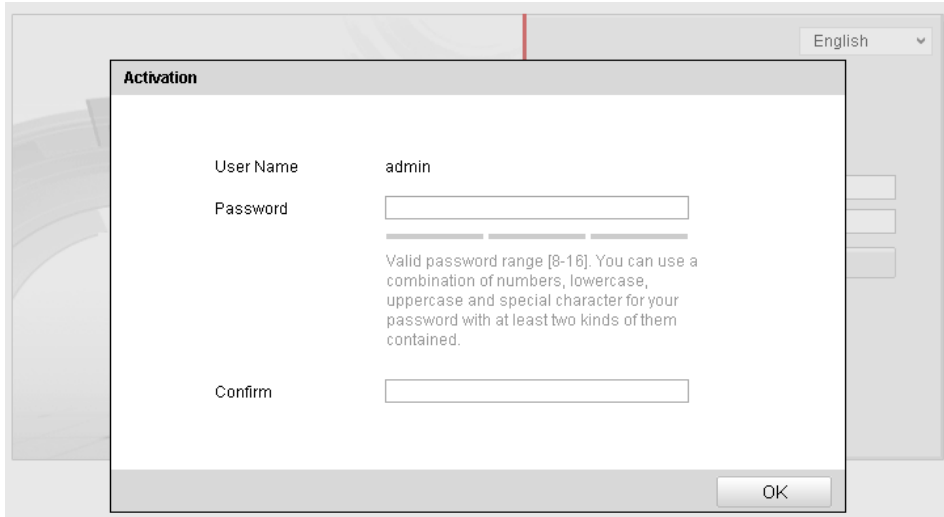


Figure 3-3 Activation Interface

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



STRONG PASSWORD RECOMMENDED—We highly recommend that 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 that 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.

3.3 Activation via Client Software

The client software is versatile video management software for multiple kinds of devices.

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

Step 1 Run the client software and the Video Wall interface pops up, as shown in the figure below.

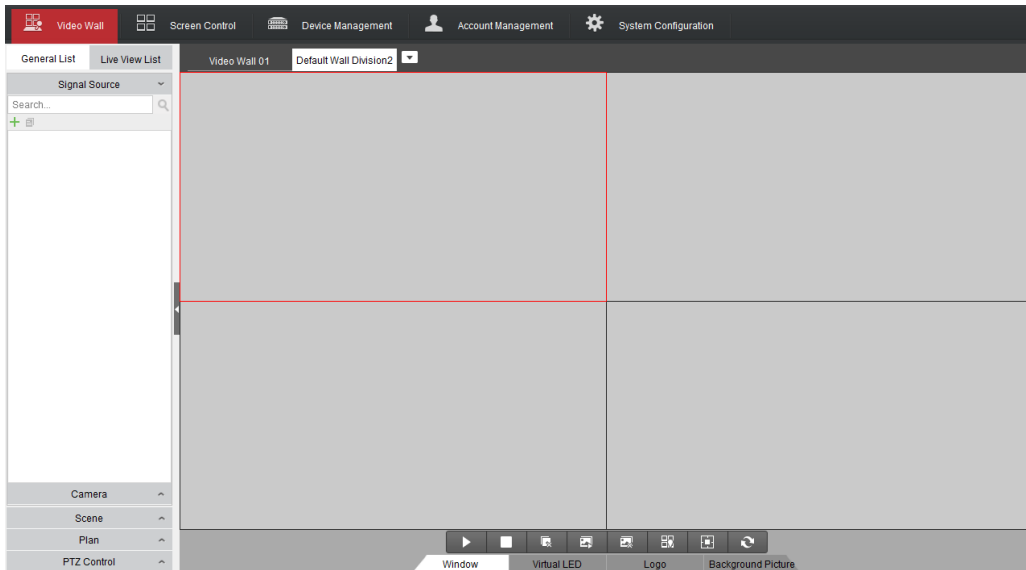


Figure 3-4 Control Panel

Step 2 Click the **Device Management** icon to enter the Device Management interface, as shown in the figure below.

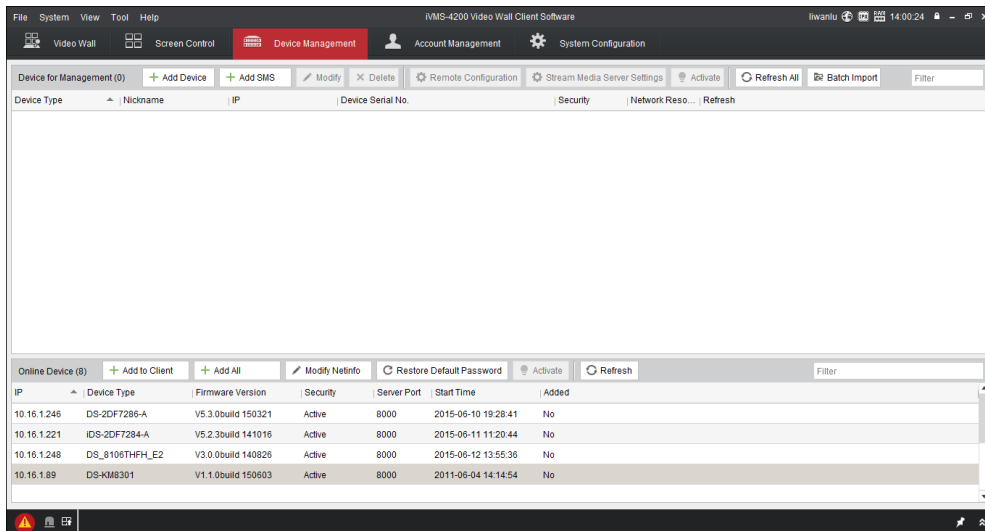


Figure 3-5 Control Panel

Step 3 Check the device status from the device list, and select an inactive device.

Step 4 Click the **Activate** button to pop up the Activation interface.

Step 5 Create a password and input the password in the password field, and confirm the password.



WARNING

STRONG PASSWORD RECOMMENDED—We highly recommend that 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. We recommend that you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.



Figure 3-6 Activation Interface (Client Software)

Step 6 Click **OK** button to start activation.

Step 7 Click the **Modify Netinfo** button to pop up the Network Parameter Modification interface, as shown in the figure below.

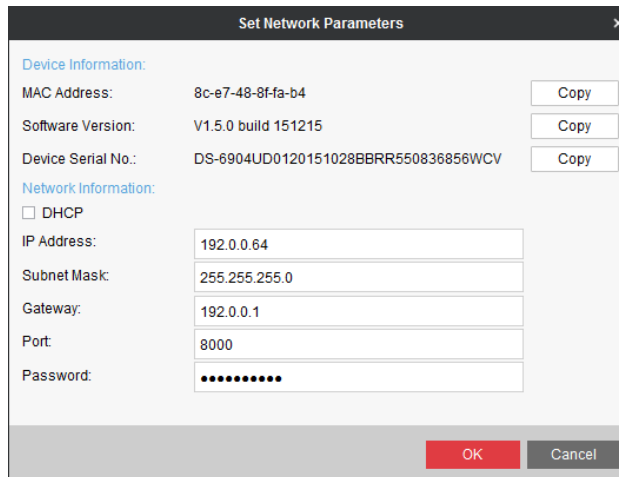


Figure 3-7 Modifying the Network Parameters

Step 8 Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the **DHCP** checkbox.

Step 9 Input the password to activate your IP address modification.

Chapter 4 Decoder Configuration and Operation by Web Browser

 **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

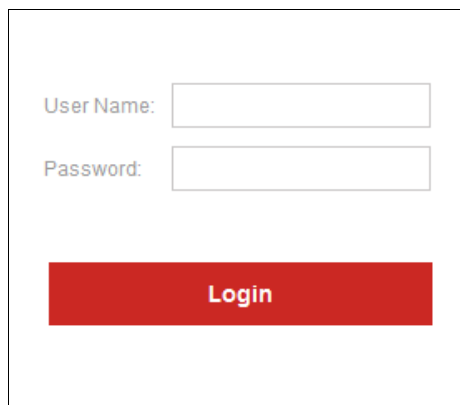
You can configure and operate the device by Web browser or the iVMS-4200 Video Wall Client Software. In this chapter, the operation and management of the decoder by the Web browser is provided.

 **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 Login to the device.



The image shows a login interface with two input fields: 'User Name:' and 'Password:'. Below the fields is a red button labeled 'Login'.

Figure 4-1 Login Interface

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

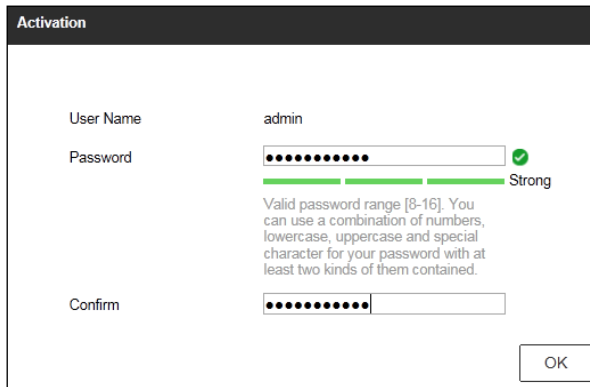


Figure 4-2 Activation Interface

1. Set the password for admin user account.
2. Click **OK** to login 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 upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. 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, enter the user name and password in the login interface, and click the Login button.

The following interface is shown after successful login.

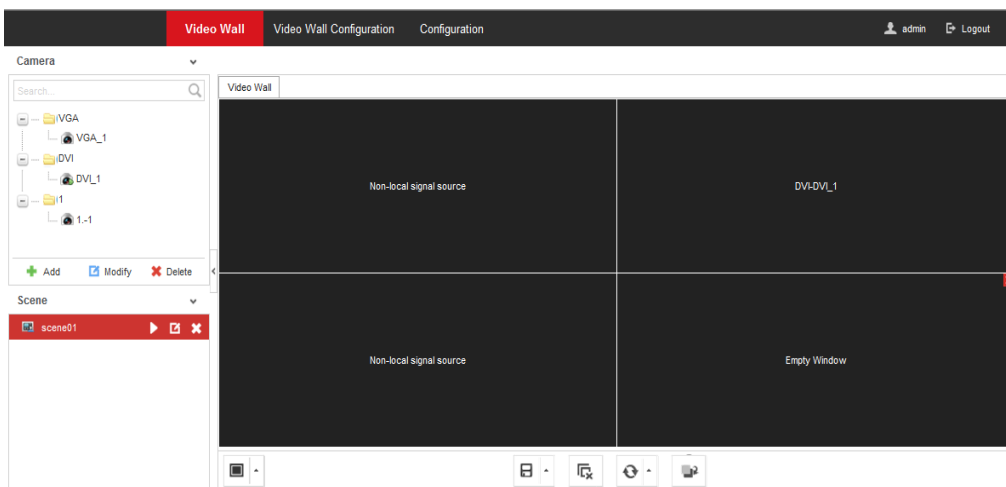


Figure 4-3 Enter Web Page

4.1 Decoder Configuration

4.1.1 Checking Device Information

Purpose

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

Click **Configuration > System > System Settings > Basic Information** to view Device Type, Device Serial No., Firmware Version, DSP Version, etc.



NOTE

The device name can be edited.

A screenshot of a web interface for configuring a device. The interface has a top navigation bar with tabs: 'Basic Information' (selected), 'Time Settings', 'RS232', and 'RS485'. Below the tabs, there is a list of fields for device information, each with a text input box. The fields and their values are: Device Name (Embedded multiDecoder), Physical Address (00:40:65:e4:a3:f5), Device Type (DS-6908UDI), Device Serial No. (DS-6908UDI0120151214BBRR900000037WCV), Firmware Version (V0.0.0 build 0 0'0:0 0), Decoding Version (V0.0.0 build 0 0 0 0 0), Web Version (V0.0.0 build 0 0 0 0 0), and Plugin Version (V0.0.0.0). At the bottom of the form is a red 'Save' button with a floppy disk icon.

Figure 4-4 Checking Device Information

4.1.2 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:

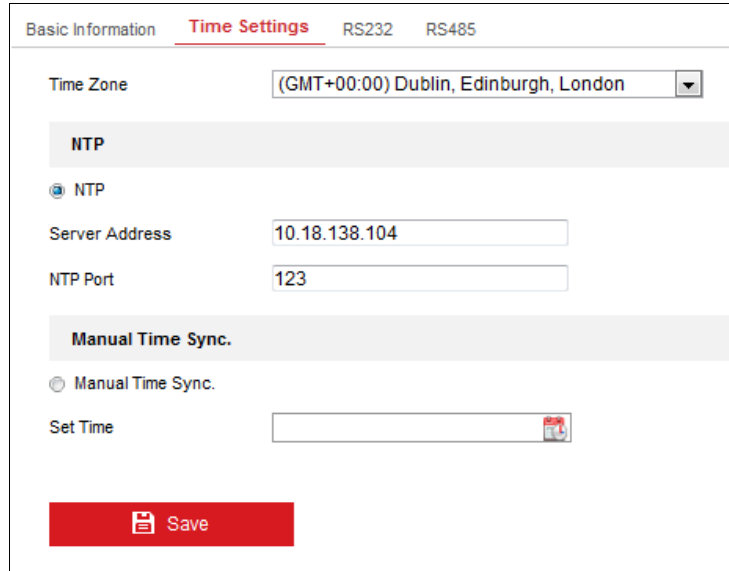


Figure 4-5 Configure Time Settings

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

- **Configuring Time Sync 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 checking the checkbox, and configure the following settings:

NTP Server: IP address of NTP server.

NTP Port: Port of NTP server.

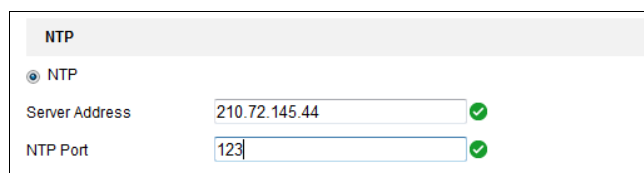



Figure 4-6 Configure Time by NTP

 **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 Correction** function and then click icon  to set the system time from the pop-up calendar.

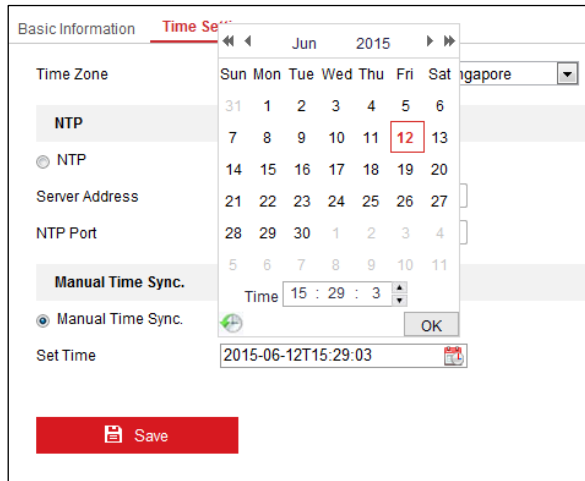


Figure 4-7 Configure Time Manually

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.

4.1.3 Configuring RS-485/RS-232 Serial Port

Configure RS-232 Parameters

Step 1 Click **Configuration > System Settings > RS232** to enter the following interface:

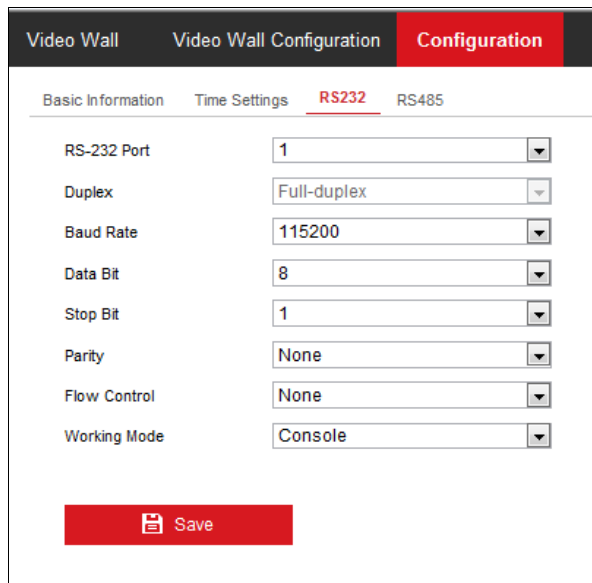


Figure 4-8 Configure RS-232 Settings

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.

Configure RS-485 Parameters

Step 1 Click **Configuration > System Settings > RS485** to enter the following interface:

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

Figure 4-9 Configure RS-485 Settings

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

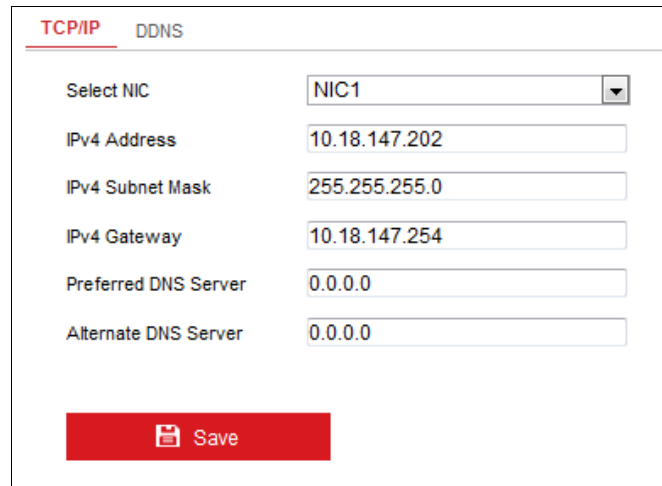
Step 3 Click **Save** to save the settings.

4.1.4 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.



The screenshot shows a network configuration window with two tabs: 'TCP/IP' (selected) and 'DDNS'. Under the 'TCP/IP' tab, there are six input fields: 'Select NIC' (a dropdown menu showing 'NIC1'), 'IPv4 Address' (10.18.147.202), 'IPv4 Subnet Mask' (255.255.255.0), 'IPv4 Gateway' (10.18.147.254), 'Preferred DNS Server' (0.0.0.0), and 'Alternate DNS Server' (0.0.0.0). At the bottom of the form is a red 'Save' button with a floppy disk icon.

Figure 4-10 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.

4.1.5 Configuring DDNS Settings

Purpose

If your device is set to use PPPoE as its default network connection, you may set Dynamic DNS (DDNS) to be used for network access.

Prior registration with your DDNS Provider is required before configuring the system to use DDNS.

Step 1 Click **Configuration > Network > DDNS** to enter the DDNS Settings interface:

Step 2 Check the **Enable DDNS** checkbox to enable this feature.

Step 3 Select **DDNS Type**. Five different DDNS types are selectable: IPServer, DynDNS, PeanutHull, HiDDNS and NO-IP.

- **DynDNS**

3. Enter **Server Address** for DynDNS (e.g., members.dyndns.org).
4. Enter the **User Name** and **Password** registered in the DynDNS website.
5. In the **Domain** text field, enter the domain obtained from the DynDNS website.
6. Click **Save** to save the settings.

TCP/IP **DDNS**

Enable DDNS

DDNS Type: DynDNS

Server Address: members.dyndns.org ✓

Port: 0 ✓

Domain: test.dyndns.com ✓

Username: test ✓

Password: •••••••• ✓

Confirm: •••••••• ✓

Save

Figure 4-11 DynDNS Settings

● IPServer

1. Enter server address for IPServer.
2. Click **Save** to save the settings.

NOTE

For the IP Server, you have to apply a static IP, subnet mask, gateway and primary DNS from the ISP. The **Server Address** should be entered with the static IP address of the PC that runs IP Server software.

TCP/IP **DDNS**

Enable DDNS

DDNS Type: IPServer

Server Address: 210.11.3.45 ✓

Port: 0

Domain:

Username:

Password: ✓

Confirm: ✓

Save

Figure 4-12 IPServer Settings

● PeanutHull

1. Enter User Name and Password obtained from the PeanutHull website.
2. Click **Save** to save the settings.

TCP/IP **DDNS**

Enable DDNS

DDNS Type: PeanutHull

Server Address:

Port:

Domain: ✓

Username: test.gicp.net ✓

Password: ✓

Confirm: ✓

Figure 4-13 PeanutHull Settings

● HiDDNS

1. Enter the **Server Address** of the HiDDNS server: www.hik-online.com.
2. Enter the **Domain** Name of the device. You can register the alias of the device domain name in the HiDDNS server first and then enter the alias to the domain name in the decoder; you can also enter the domain name directly on the decoder to create a new one.

 **NOTE**

If a new alias of the device domain name is defined in the decoder, it will replace the old one registered on the server.

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

TCP/IP **DDNS**

Enable DDNS

DDNS Type: HiDDNS

Server Address: www.hik-online.com ✓

Port:

Domain: ✓

Username:

Password:

Confirm:

Figure 4-14 HiDDNS Settings

 **NOTE**

After having successfully registered the device on the HiDDNS server, you can access your device via Web browser or client software with the Device Domain Name (device name).

4.1.6 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.

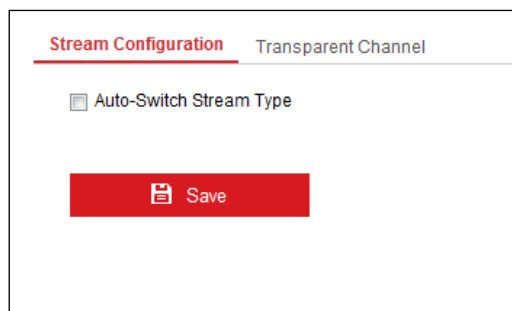


Figure 4-15 Stream Configuration Interface

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.

 **NOTE**

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

4.1.7 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.

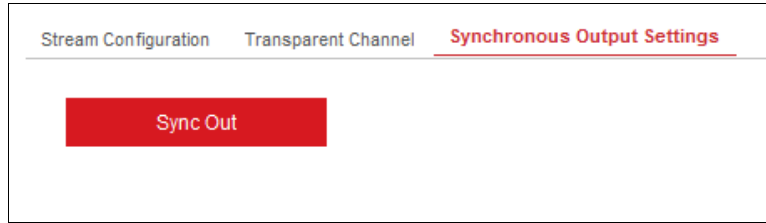


Figure 4-16 Synchronous Output Settings

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

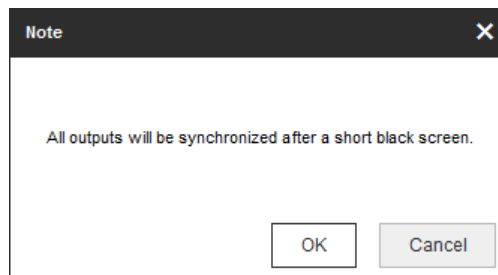


Figure 4-17 Enable Synchronous Output

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

4.1.8 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 interface.

The screenshot shows a window titled "Transparent Channel" with a "Camera List" table. The table has columns for No., Local Serial Port, Remote Serial Port, IP Address, Port, and Connection Status. All 13 rows show "RS232_1" for the local serial port, "0.0.0.0" for the IP address, and "0" for the port. The connection status for all is "Not connected". There are "Modify" and "Delete" buttons at the top right of the table.

No.	Local Serial Port	Remote Serial Port	IP Address	Port	Connection Status
1	RS232_1		0.0.0.0	0	Not connected
2	RS232_1		0.0.0.0	0	Not connected
3	RS232_1		0.0.0.0	0	Not connected
4	RS232_1		0.0.0.0	0	Not connected
5	RS232_1		0.0.0.0	0	Not connected
6	RS232_1		0.0.0.0	0	Not connected
7	RS232_1		0.0.0.0	0	Not connected
8	RS232_1		0.0.0.0	0	Not connected
9	RS232_1		0.0.0.0	0	Not connected
10	RS232_1		0.0.0.0	0	Not connected
11	RS232_1		0.0.0.0	0	Not connected
12	RS232_1		0.0.0.0	0	Not connected
13	RS232_1		0.0.0.0	0	Not connected

Figure 4-18 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.

The screenshot shows a "Modify" dialog box with the following fields: Local Serial Port (dropdown menu with "RS232_1" selected), Remote Serial Port (dropdown menu), IP Address (text field with "0.0.0.0"), Port (text field with "0"), Username (text field), Password (text field), and Confirm (text field). There are "OK" and "Cancel" buttons at the bottom right.

Figure 4-19 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.

NOTE

You can click Delete to pop up the following dialog box and click OK to delete the selected channel.

4.1.9 Managing User Account

The user accounts can be managed in this interface.

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

User List		Add	Modify	Delete
No.	User Name			
1	admin			
2	pro303			

Figure 4-20 Configure User Account

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

Add

User Name: example 01 ✓

Password: [masked] ✓
 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: [masked] ✓

- 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

OK Cancel

Figure 4-21 Add User Account and Set Permission

NOTE

For the admin user, only the password can be modified.



WARNING

STRONG PASSWORD RECOMMENDED—We highly recommend that 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. We recommend that you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

4.1.10 Importing/Exporting Configuration Files

Purpose

The configuration files of the device can be imported from or exported to local device for backup, which maintains convenient parameters configuration.

Step 1 Click **Configuration > System > Maintenance** to enter the parameters import/export interface:

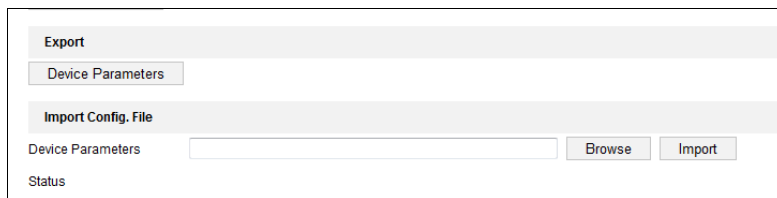


Figure 4-22 Import/Export Configuration File

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.

4.1.11 Maintenance

Click **Configuration > System > Maintenance** to perform Reboot, Upgrade, and Default operations .

Upgrading the Device

Step 1 Click **Browse** to search the upgrading files.

Step 2 Click **Upgrade** to upgrade it.

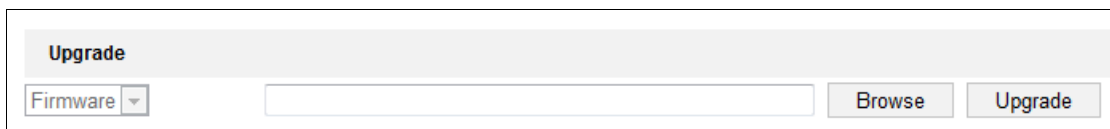


Figure 4-23 Device Management

 **NOTE**

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

Restoring the Default Settings

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.

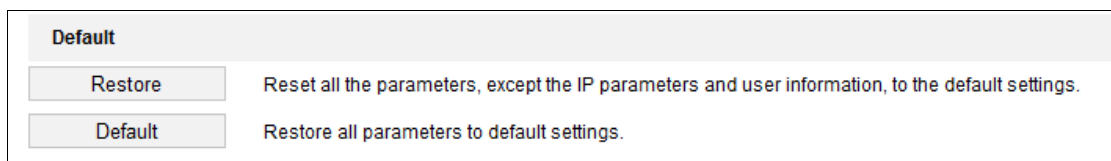


Figure 4-24 Default Settings

Rebooting the Device:

Click **Reboot** to reboot the device.

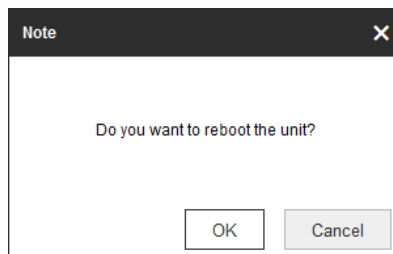


Figure 4-25 Reboot the Device

4.2 Setting Video Wall Layout

Purpose

To realize the display of the decoded video on the video wall, you must set the Video Wall Configuration in the first place so as to link the video output with video wall.

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

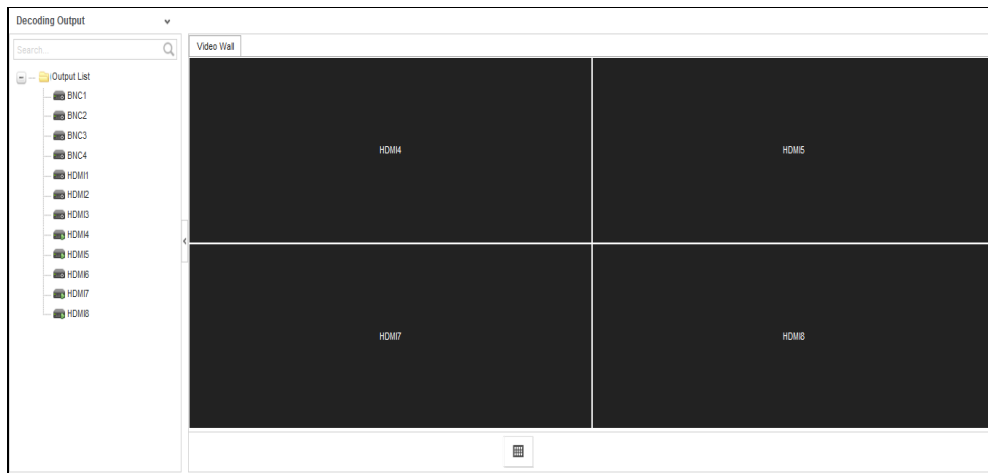



Figure 4-26 Enter Video Wall Configuration Interface

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

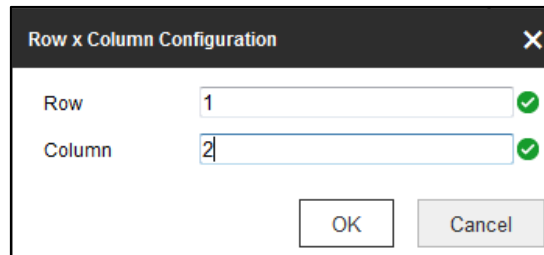




Figure 4-27 Split Screen Configuration

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

Step 4 Click and drag the output channels from the left-side list to the display screen.

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

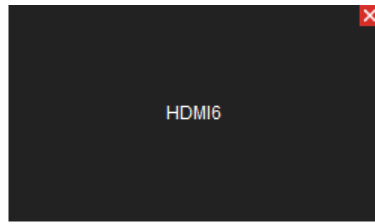


Figure 4-28 Delete the Window

4.3 Decoding Output Configuration

Purpose

Decoding Output Configuration includes resolution configuration and output mode configuration.

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

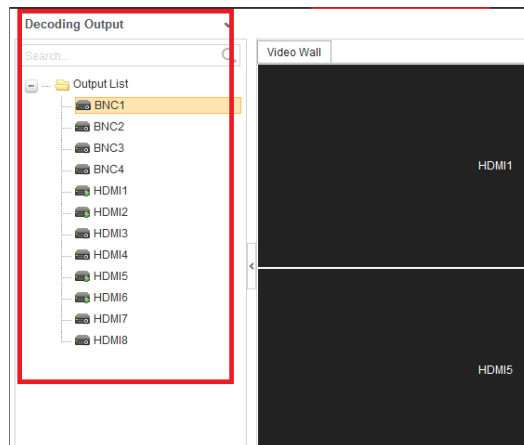


Figure 4-29 Decoding Output

Step 2 In the output list, there are two kinds of video output signals, respectively BNC and HDMI. Right click one of BNC signal sources and select **Resolution Configuration** to pop up the interface as Figure 4.30.

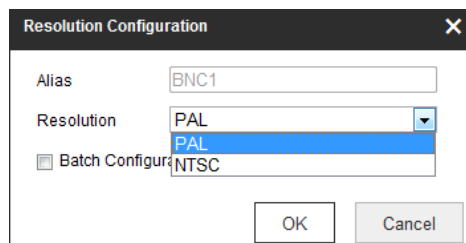


Figure 4-30 Resolution Configuration

Step 3 Choose one of the resolutions from the drop down list. Check the checkbox of **Batch Configuration** to set the same configuration for other outputs with same signal source.

Step 4 Right click one of the HDMI signal sources.

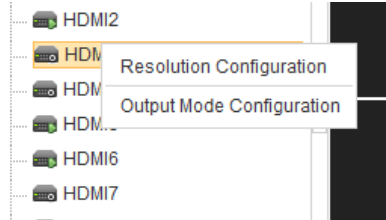


Figure 4-31 Decoding Output Configuration

Step 5 Select **Output Mode Configuration** to pop up the interface as Figure 4.32. The output mode is with HDMI and DVI available. Check the checkbox of **Batch Configuration** to set the same configuration for other HDMI outputs.

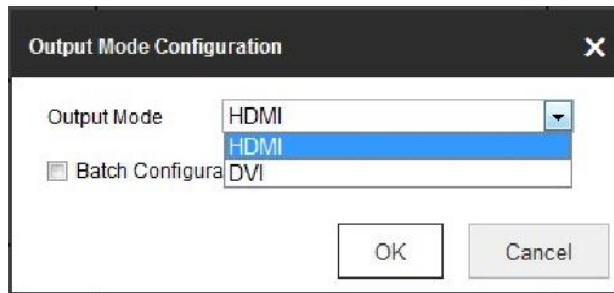


Figure 4-32 Output Mode Configuration

4.4 Decoding Operation

Purpose

After configuration has done according to 4.2 Setting Video Wall Layout, the decoding video on the video wall can be realized in this section.

Step 1 Click **Video Wall** to enter video wall interface.



Figure 4-33 Video Wall Interface

Table 4-1 Description of Video Wall

No.	Description
1	Camera: the camera added in the Web
2	Scene: the Web supports up to 8 scenes by default, capable of independent scene configuration and fast switching
3	TV Wall: TV Wall operation interface
4	Shortcut toolbar: decoding screen layout, save the scene, delete all windows, refresh all windows, at bottom

4.4.2 Adding a Encoding Device

Step 1 Click **Add** to add new encoding devices.

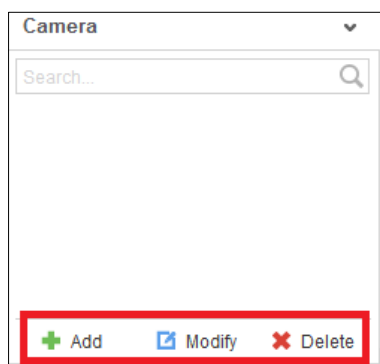
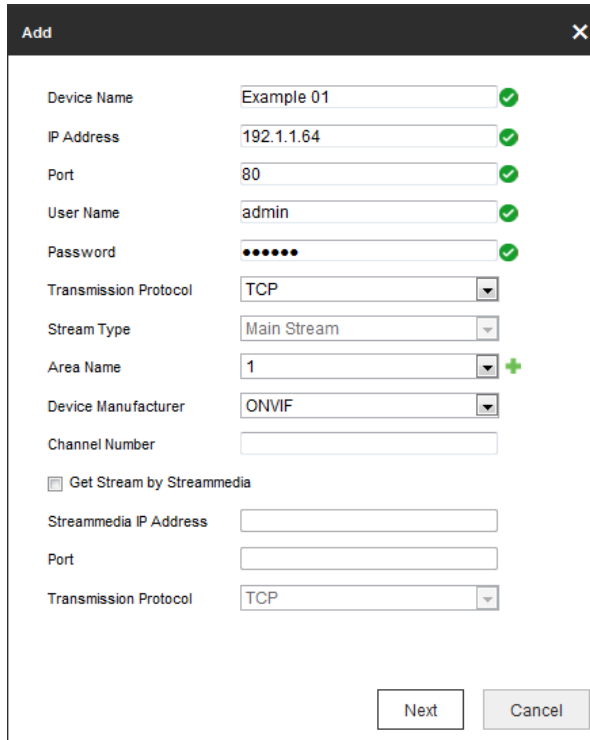


Figure 4-34 Encoding Device List

Step 2 Input **Device Name**, **IP Address**, **Port**, **Password**, **Area Name** and **Channel Number**. Check the checkbox of **Get Stream by Stream Media** to lower the network load of the device.



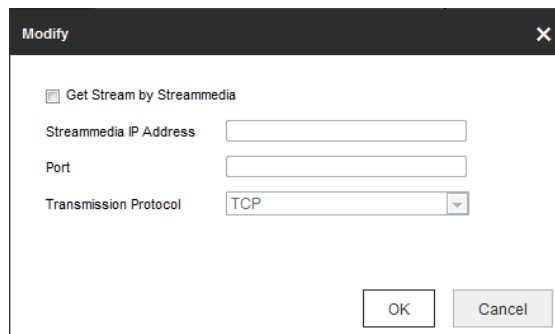
The 'Add' dialog box contains the following fields and options:

- Device Name: Example 01 (with a green checkmark)
- IP Address: 192.1.1.64 (with a green checkmark)
- Port: 80 (with a green checkmark)
- User Name: admin (with a green checkmark)
- Password: masked with dots (with a green checkmark)
- Transmission Protocol: TCP (dropdown menu)
- Stream Type: Main Stream (dropdown menu)
- Area Name: 1 (dropdown menu with a green plus sign)
- Device Manufacturer: ONVIF (dropdown menu)
- Channel Number: (empty text box)
- Get Stream by Streammedia
- Streammedia IP Address: (empty text box)
- Port: (empty text box)
- Transmission Protocol: TCP (dropdown menu)

Buttons: Next, Cancel

Figure 4-35 Add Camera Interface

Step 3 Select one of the areas or one channel of the encoding device, and click **Modify** to modify corresponding parameters.



The 'Modify' dialog box contains the following fields and options:

- Get Stream by Streammedia
- Streammedia IP Address: (empty text box)
- Port: (empty text box)
- Transmission Protocol: TCP (dropdown menu)

Buttons: OK, Cancel

Figure 4-36 Modify Area



Figure 4-37 Modify Encoding Device

Step 4 Select one area or one channel of encoding device and click **Delete** to delete the encoding device.

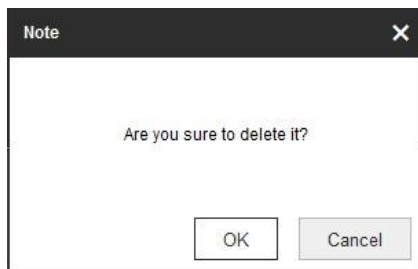


Figure 4-38 Delete Camera Interface

4.4.3 Decoding on the Video Wall

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

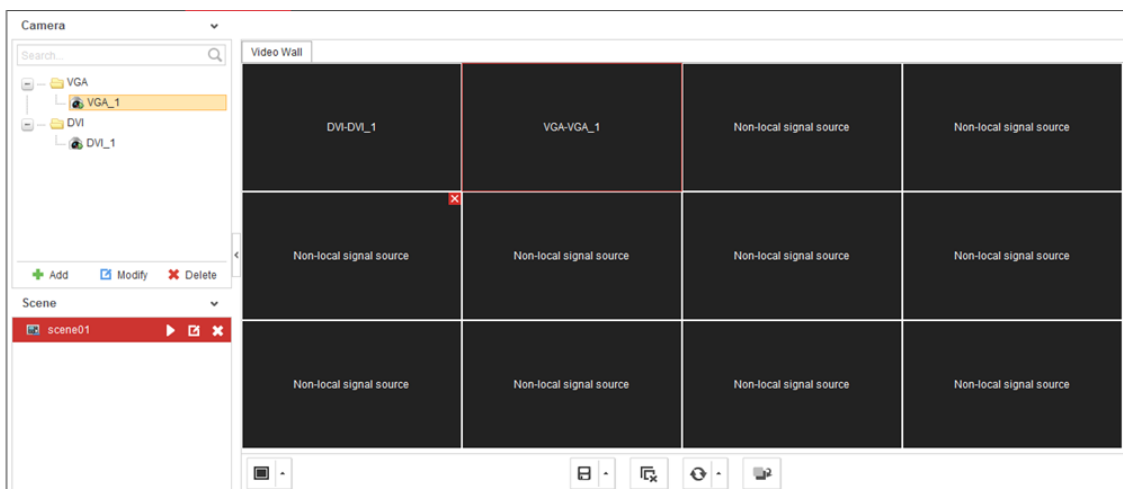



Figure 4-39 Decode the Video on the Wall

Step 2 Select one decoding window and click  to set the decoding screen layout with 1/4/6/8/9/12/16/25/36 split screen available.

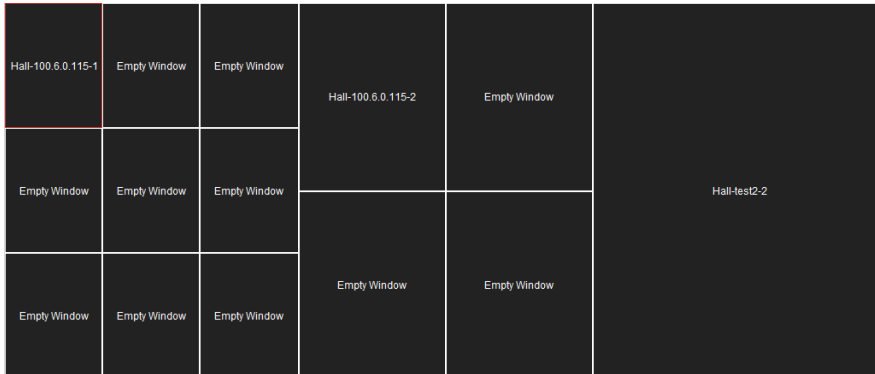


Figure 4-40 Split Screen Interface

Step 3 Right click the selected window and the following interface shows up.

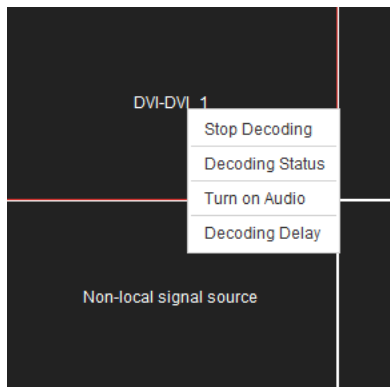


Figure 4-41 Decoding Channel Interface

- **Stop Decoding:** stop decoding
- **Decoding Status:** check the decoding status.

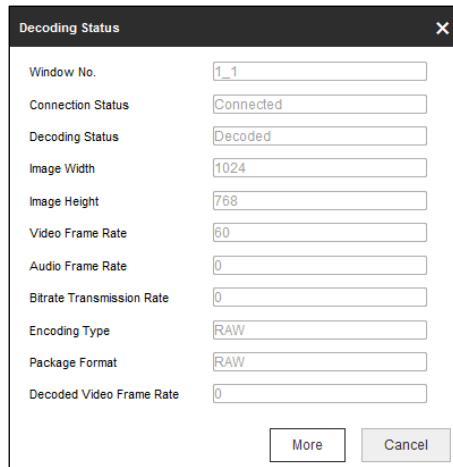


Figure 4-42 Decoding Channel Status

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 4-43 Checking More Decoding Status

- **Turn on Audio:** enable the audio in the corresponding window.
- **Decoding Delay:** choose the type of decoding delay. The default mode is the same with medium real time and fluency.

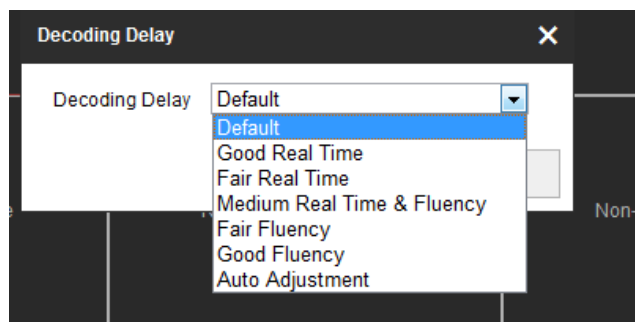


Figure 4-44 Decoding Delay

4.4.4 Video Wall Roaming

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.

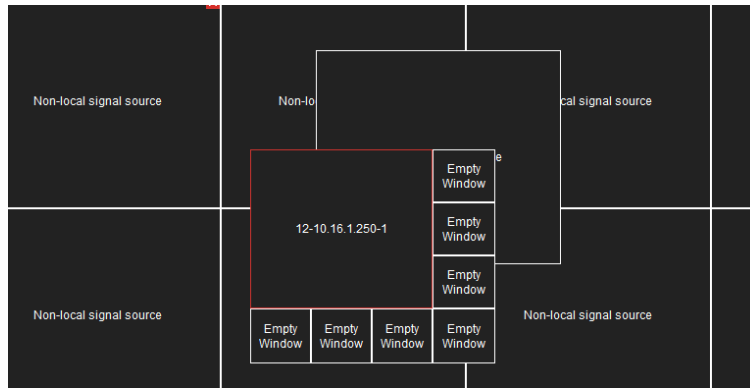




Figure 4-45 Video Wall Roaming Interface

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

Step 4 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 outputted via BNC interfaces.

4.4.5 Setting Scene

Purpose

Different video wall layouts are 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.

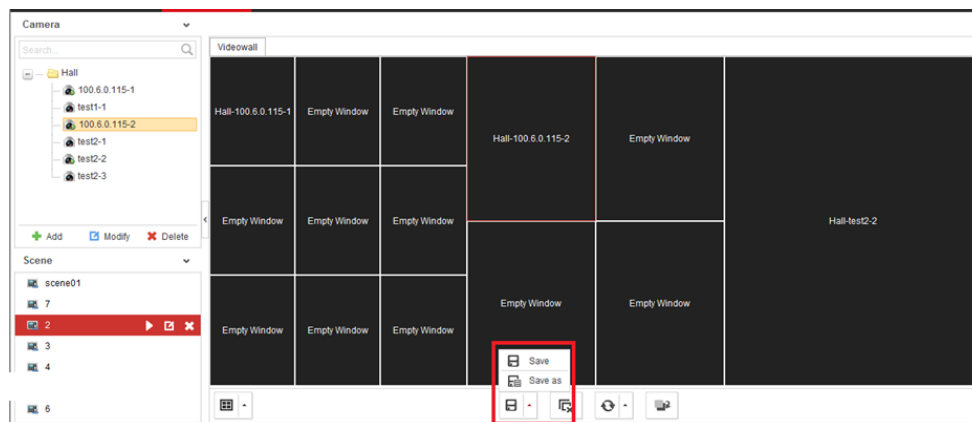


Figure 4-46 Saving the Scene Interface

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

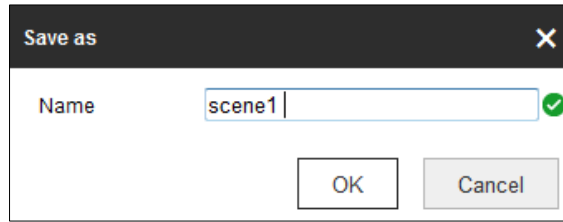


Figure 4-47 Save as Interface

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

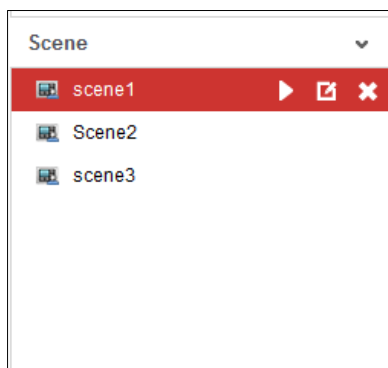





Figure 4-48 Scene List

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

You can also click  to rename the scene, or click  to delete the scene.

Chapter 5 Decoder Configuration and Operation by Client Software

Run the disk of iVMS-4200 Video Wall Client Software, and double click the icon to install it in your PC. In this chapter, the basic procedure of operating the decoder by the software is described.

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

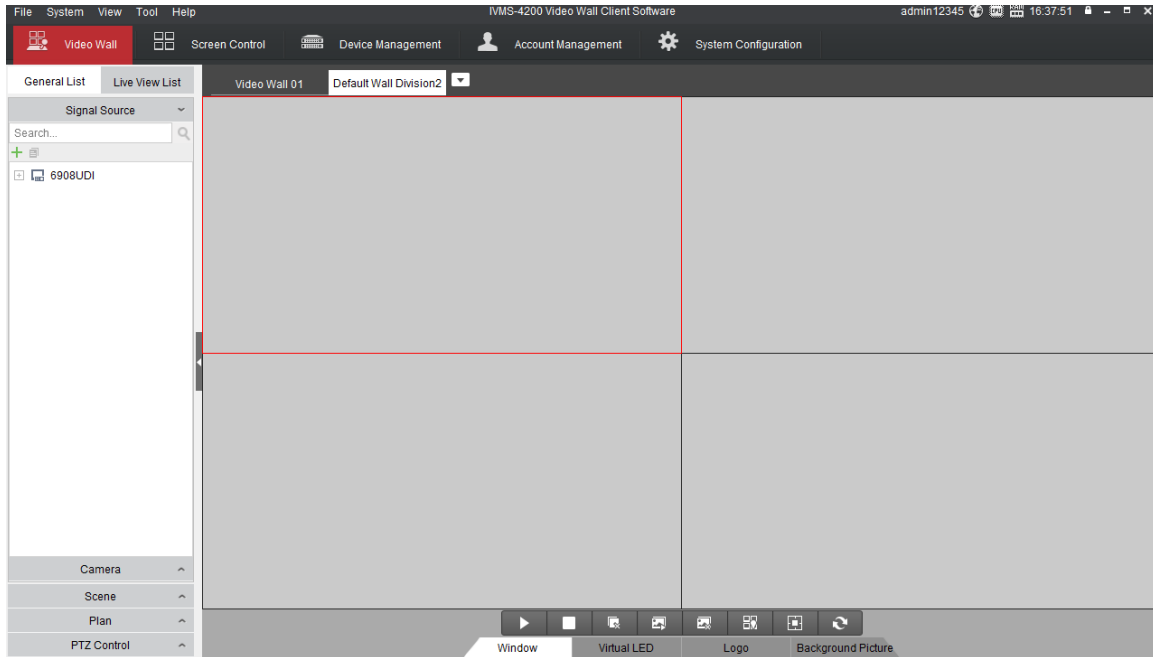


Figure 5-1 Main Interface

NOTE

The software is capable of many functions for controlling and managing many devices. In this manual, only the operation related to the decoder is introduced.

5.1 Adding an Encoding/Decoding Device

Step 1 Click **Device Management** tab to enter the Device Management interface.

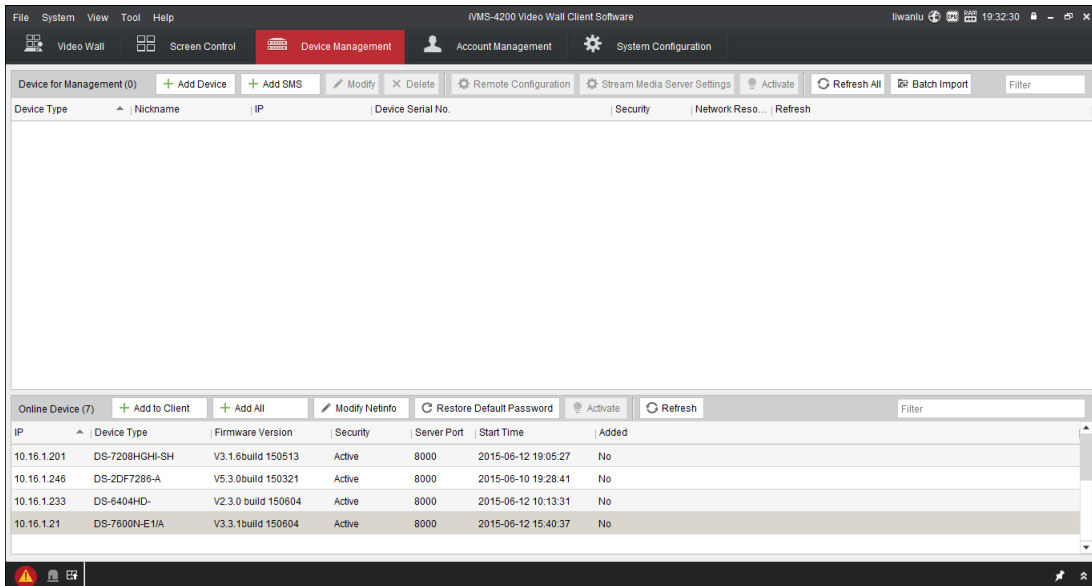


Figure 5-2 Device Management Interface

Step 2 Click the **Add Device** and you can add device manually by means of IP address/domain, IP segment and HiDDNS.

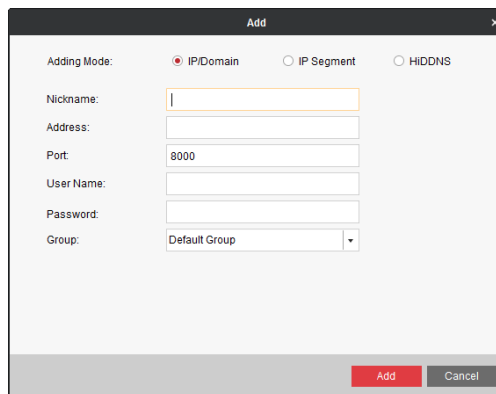


Figure 5-3 Add Device by IP/Domain

Step 3 You can add the device by detecting the online devices. The active online decoding devices in the same local subnet with the software are displayed on the list. Select the decoder and click **Add to Client** to add the decoder.

Online Device (6)						
IP	Device Type	Firmware Version	Security	Server Port	Start Time	Added
10.16.1.233	DS-6404HD-	V2.3.0 build 150604	Active	8000	2015-06-18 08:55:58	No
10.16.1.246	DS-2DF7286-A	V5.3.0 build 150321	Active	8000	2015-06-10 19:28:41	No
10.16.1.22	TS-5012-F	V4.1.0 build 150610	Active	8000	2015-06-19 13:40:27	No
10.16.1.221	iDS-2DF7284-A	V5.2.3 build 140828	Active	8000	2015-06-18 15:51:18	No
10.16.1.89	DS-KM8301	V1.1.0 build 150603	Active	8000	2011-06-04 14:14:54	No

Figure 5-4 Add Device by Detecting the Online Device

The successfully added encoding/decoding device can be viewed in the list.

Managed Device (15)						
Device Type	Nickname	IP	Device Serial No.	Security	Network Reso...	Refresh
Decoding Device	6904	10.11.1.153	DS_6904UD0120151028BBRR550836860WCV			
Decoding Device	6908	10.11.1.154	DS_6908UD0120151028BBRR550836755WCV			
Decoding Device	10.11.1.230	10.11.1.230	DS-6908UDI0120151214BBRR900000037WCV	Weak		

Figure 5-5 List of Added Decoders

5.2 Configuring Video Wall Settings

5.2.1 Configuring Video Wall Layout

Adding a Video Wall Layout

Step 1 Click **Video Wall** tab to enter the **Video Wall** setting interface.

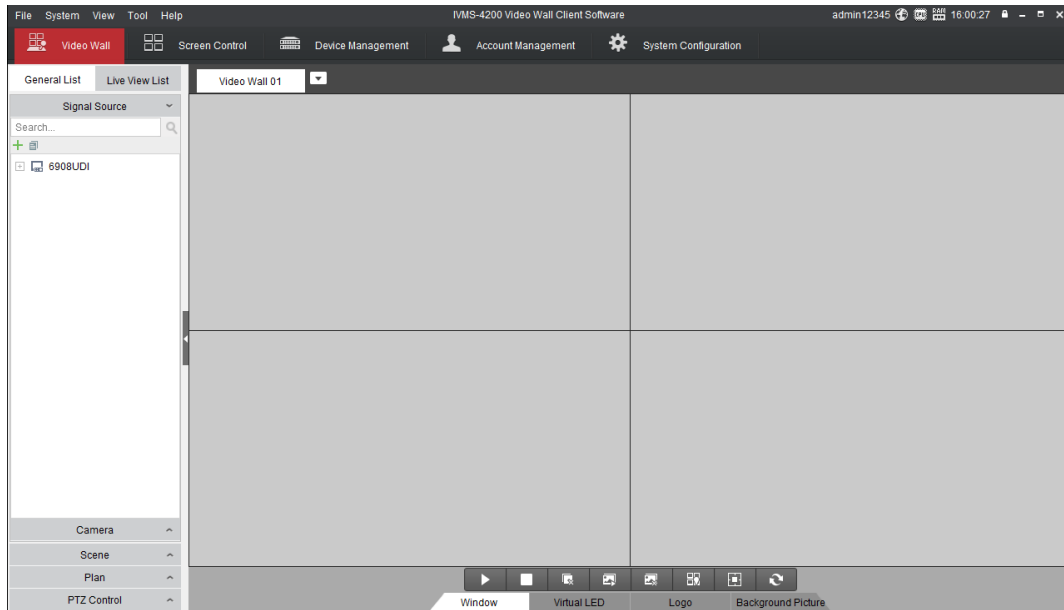



Figure 5-6 Video Wall Layout Settings

Step 2 You can use the default video wall layout or click  and select Add Video Wall to a new video wall layout.

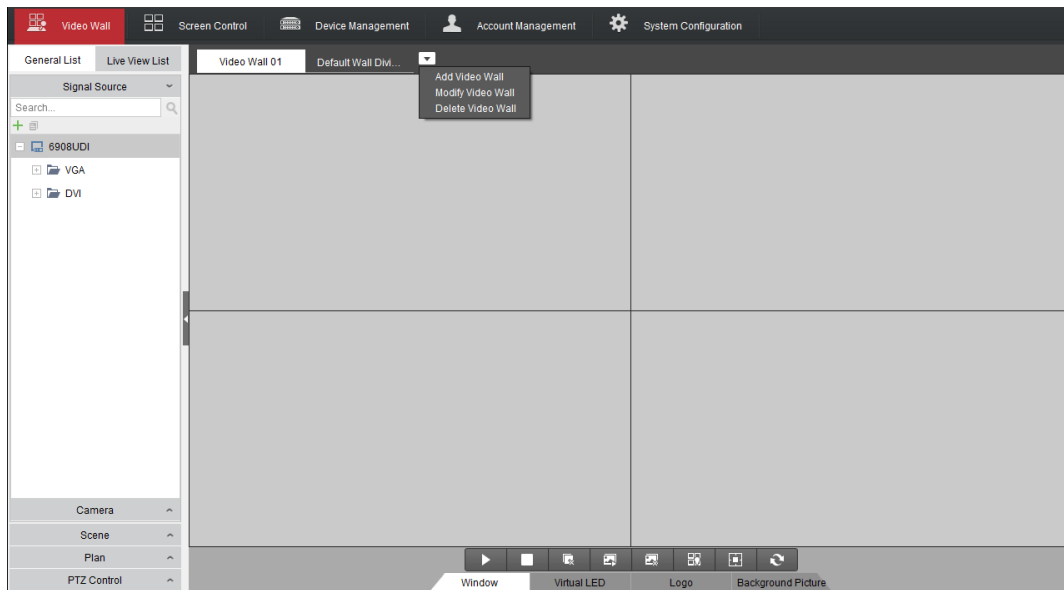


Figure 5-7 Add Screen Information

 **NOTE**

You can modify the default video wall, but not allowed to delete it.

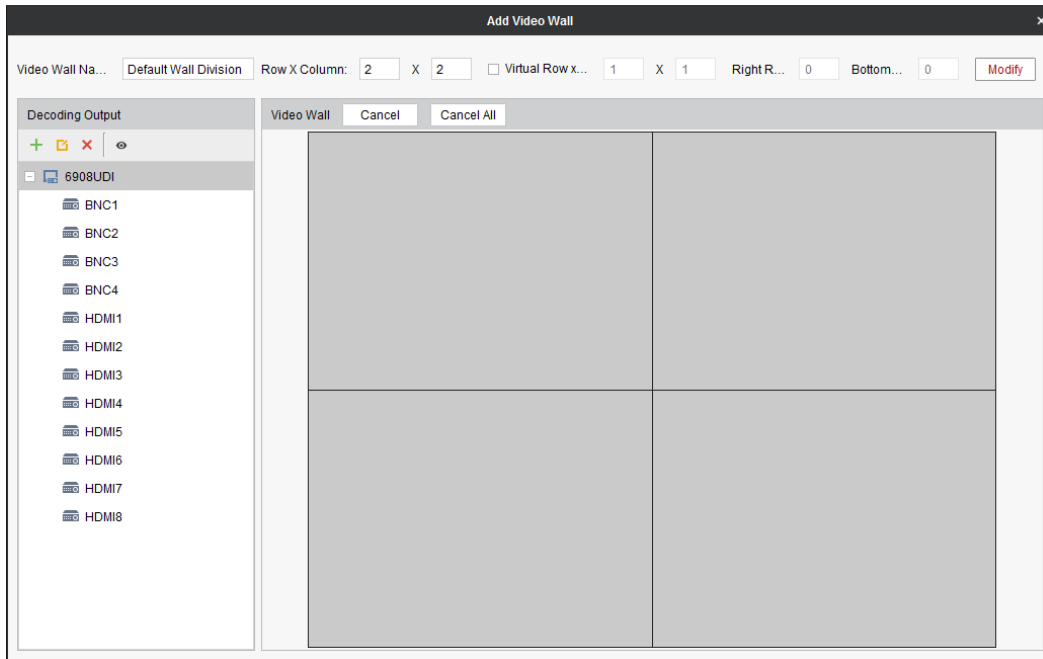


Figure 5-8 Add Video Wall

Step 3 Edit the video wall name, and the number of screens in row and column.

Step 4 Click **Add** to finish video wall adding.

 **NOTE**

- Up to 5 video walls can be added to the client software.
- The total number of display windows of the video wall is 16 × 20.
- The range of the row number is between 1 and 16, and column number between 1 and 20.

Step 5 Click and drag the output channels from the left-side list to the display window on the right.

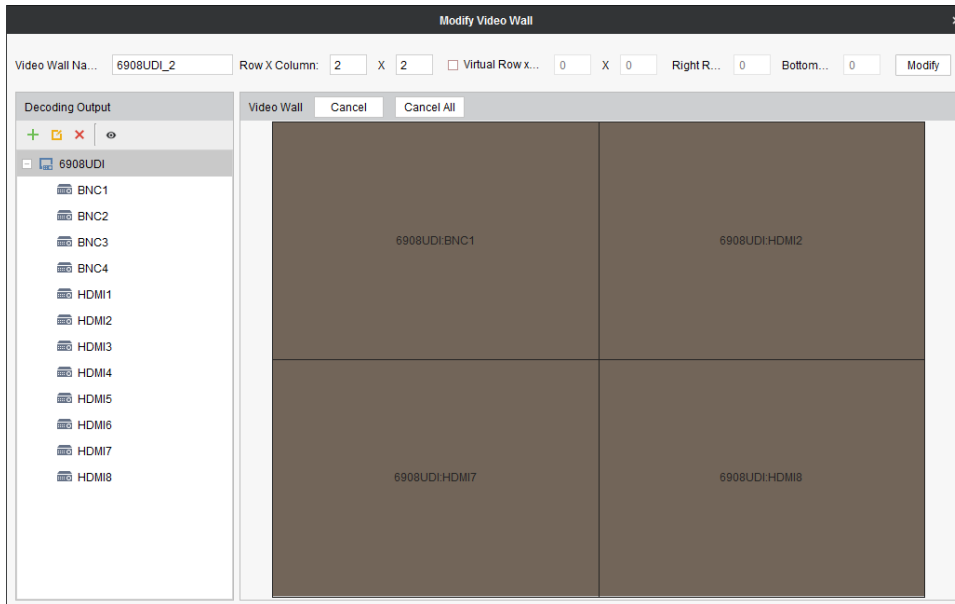


Figure 5-9 Link Decoding Output to Video Wall Window

NOTE

You can select a linked display window and click **Cancel** to release the linkage, or click **Cancel All** to release all the linked windows.

Modifying a Video Wall Layout

Choose **Modify Video Wall** to edit current video wall's layout, name and decoding outputs

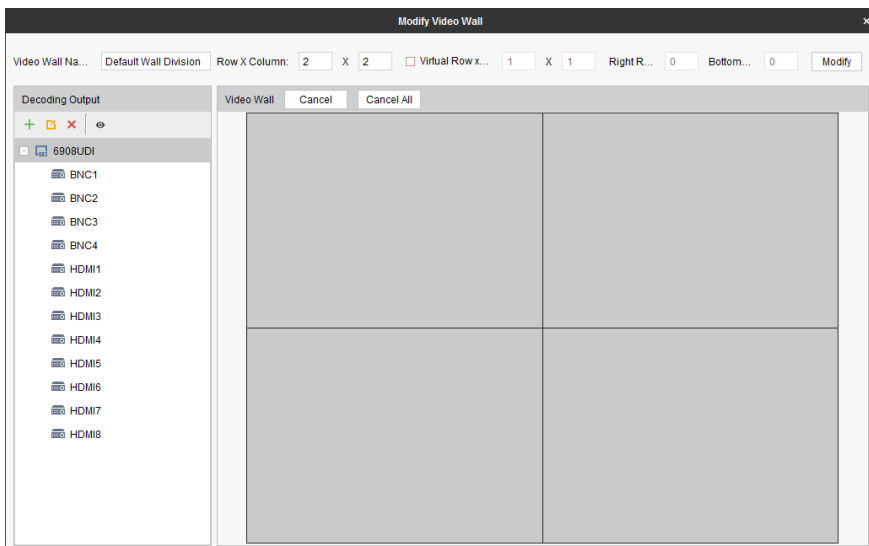


Figure 5-10 Modify Video Wall

Deleting a Video Wall Layout

Choose **Delete Video Wall** and the information dialog box pops up. Click **OK** to delete the selected video wall.

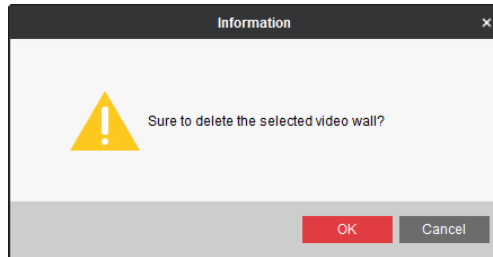



Figure 5-11 Delete Video Wall

5.2.2 Modifying the Decoding Output

Step 1 In the Add/Modify Video Wall interface, select a decoding output and click the  to edit the video output parameters.

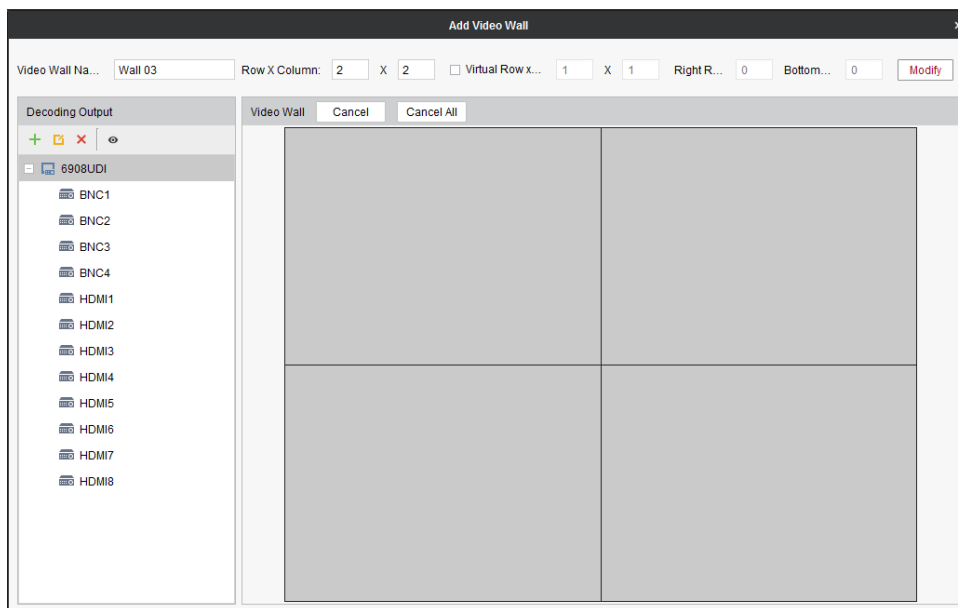


Figure 5-12 Add/Modify Video Wall Interface

Step 2 Select the resolution from the drop-down list.

Step 3 Edit the width and height (pixel) of LED display when the LED is connected.

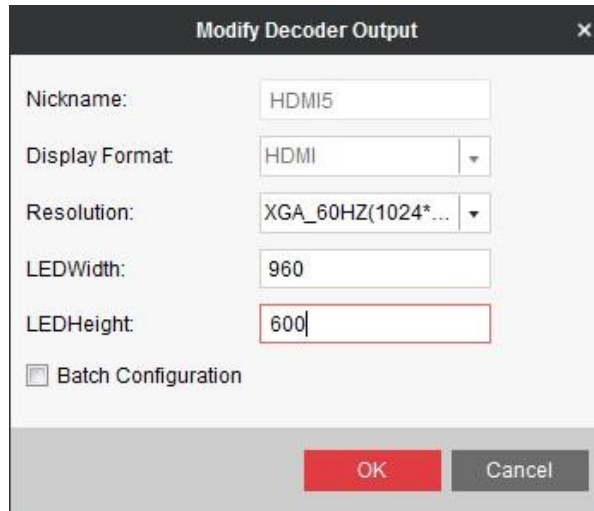


Figure 5-13 Modify Decoder Output

NOTE

- The value of LED width and height cannot exceed the resolution you selected.
- The supported min. value of LED width and height is 288*288.
- When the value of LED width or height is set to 0, the LED resolution is not enabled.

5.3 Displaying Video on Video Wall

Purpose

After the settings of the encoding device, decoding device and video wall, the video stream from the encoding devices can be decoded and displayed on the Video Wall.

NOTE

After enable decoding and displaying, the captured picture of the video from the encoding device displays on the Video Wall interface. And the real-time live view is shown on the physical video wall.

5.3.1 Decoding and Displaying Video

Step 1 Enter the Video Wall interface.

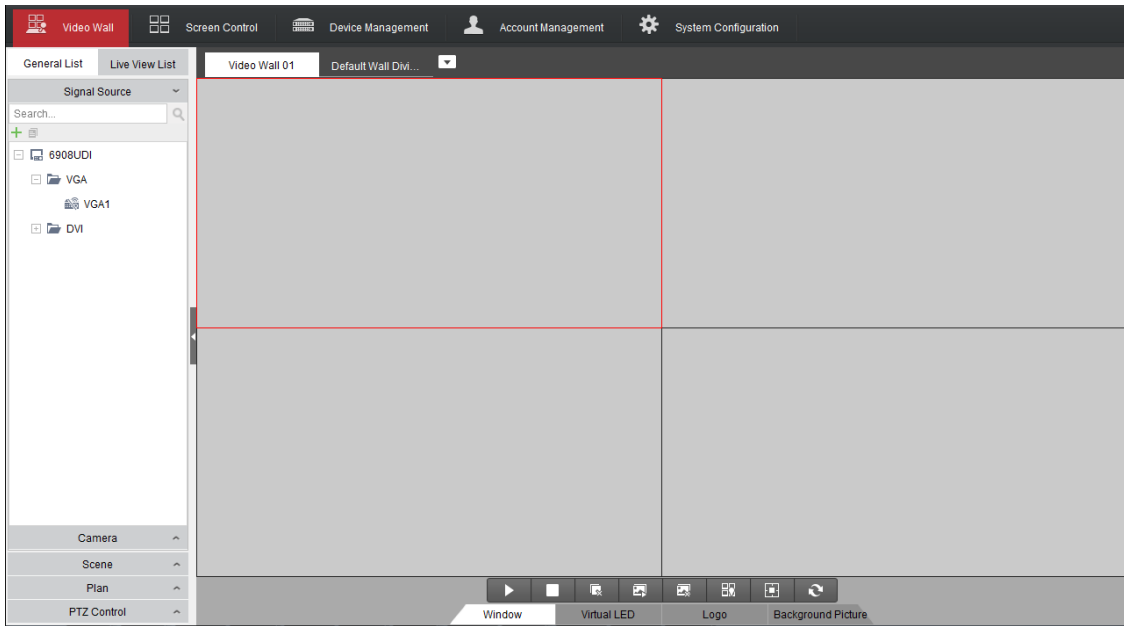


Figure 5-14 Video Wall Operation Page

Step 2 Click scene to display the scene interface. Click to add a new scene, click to edit the name for the scene, and click to delete the scene.

NOTE

Up to 8 scenes can be added.

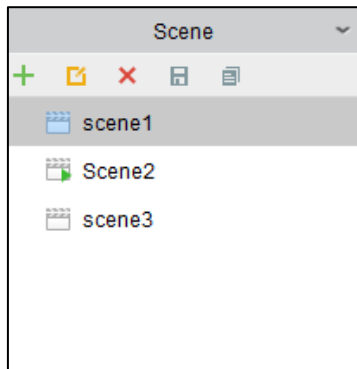




Figure 5-15 Video Wall Operation Page


Step 3 Click and drag the camera from the left side list to the display window of video wall. The video stream from the camera will be decoded and displayed on the Video Wall.

You can select a decoding window and then double click a camera to decode and display the video. You can also click and hold the *Ctrl* or *Shift* key to select multiple cameras and then drag them to the video wall.

 **NOTE**

You can move the cursor to the preview window and click  in the lower-left corner to stop decoding.

Step 4 Select a decoding window and click  to set the split screen with 1/4/6/8/9/12/16/25/36 available.

Step 5 If the decoded camera supports PTZ control, you can click  beside **PTZ** to activate the PTZ control panel.

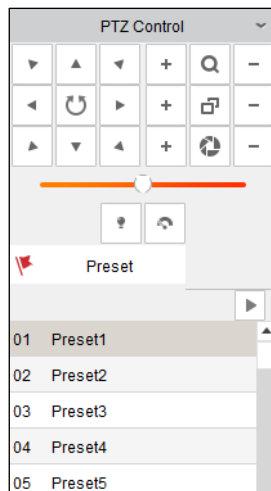


Figure 5-16 PTZ Interface

Step 6 Right-click on a playing window to activate the decoding management menu, as shown below:

 **NOTE**

The menu differs depending on the devices.

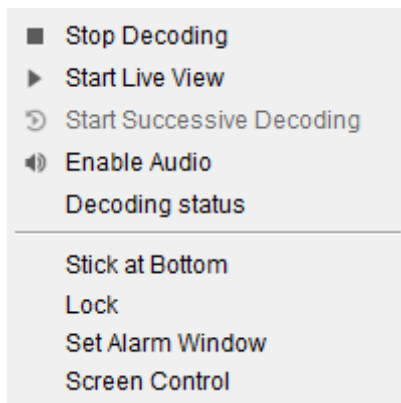


Figure 5-17 Right-click Menu

- **Stop/Start Decoding:** stop/start the decoding.
- **Start/Stop Live View:** stop/start the live view of the decoded video.
- **Start/Pause Successive Decoding:** start/pause the cycle decoding. This function is only supported by decoder.
- **Enable Audio:** turn on/off the audio of the decoding video.
- **Decoding Status:** view the status of the decoding channel, like decoding status and stream type.
- **Stick at Bottom:** generally the selected window is at top by default. Click **Stick at Bottom** to place the selected window at bottom.
- **Lock/Unlock:** the locked decoding window is unable to do any operation.
- **Set Alarm Window:** display the video triggered by event or alarm input on Video Wall.
- **Screen Control:** enter the screen control when the RSC server is added. Please refer to Chapter 5.5 for details.

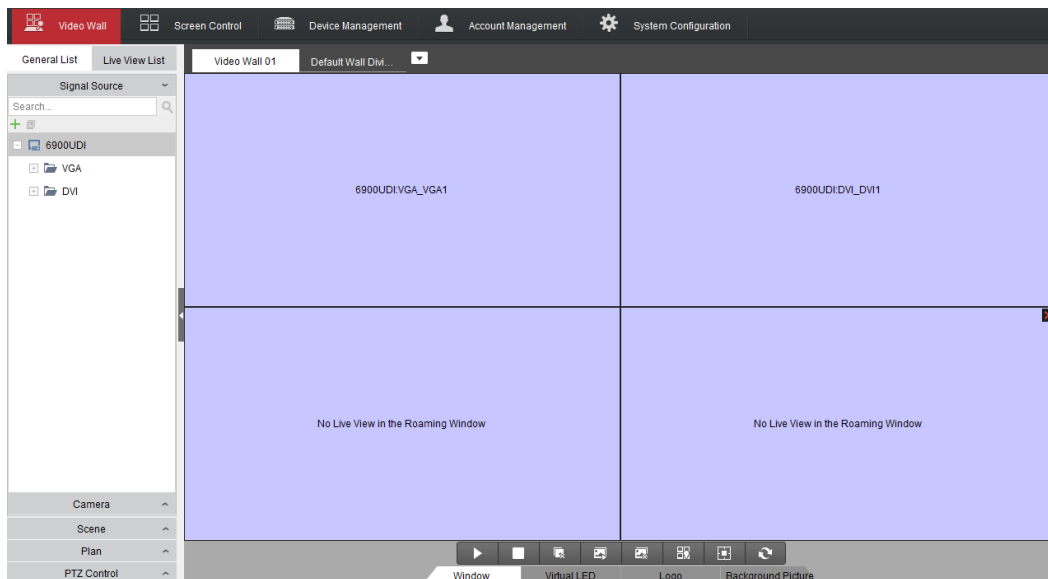










Figure 5-18 Video Wall Display

Table 5-1 Decoding Toolbar

Icon	Description
	Start Decoding
	Stop Decoding
	Stop All Window
	Enable All VCA Decoding
	Disable All VCA Decoding
	Open Roaming Window
	Open the Window via Coordinate
	Refresh

 **NOTE**

The bottom bar lists several functions, but the decoder only supports **Window** and **Log**, since the iVMS-4200 Video Client Software is not only available for decoder but also for other devices.

5.3.2 Configuring Playback

Purpose

The video file is supported to be played back on the video wall.

 **NOTE**

Playback function is only supported by decoder.

Step 1 Click and drag the camera on the left-side list to the display window of video wall, or you can open a window if supported.

Step 2 Click **Window** at the bottom to unfold more configuration and operation toolbar.

Step 3 Click **Start Playback** to start searching the video files of the camera.

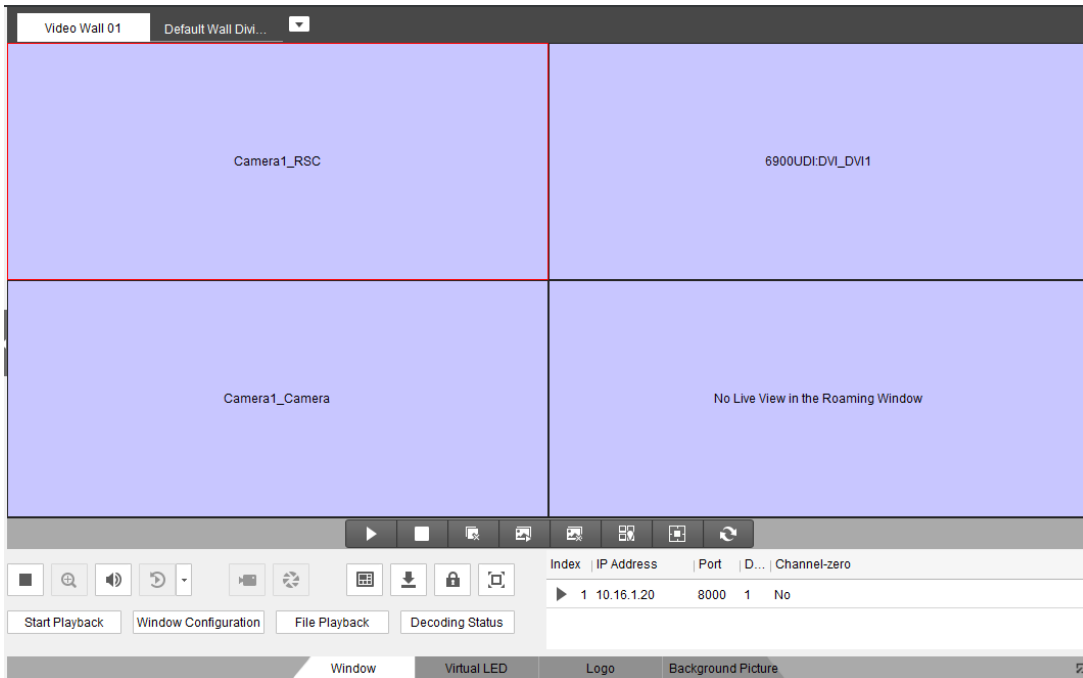









Figure 5-19

Step 4 If the record file is of current day, the video file can be played back automatically. If not, you can set the search condition on the search panel (click  to show the date and click **More Search Conditions** to specify more conditions), and click **Search** to find the video file.

The following icons are available for controlling the playback

Table 5-2 Playback Toolbar

Icon	Function
	Pause/Start the playback
	Delete View
	Slow Forward
	Fast Forward
	Start/Stop Clipping
	Capture




5.3.3 Configuring Cycle Decoding

Purpose:

Cycle decoding refers to you can configure multiple video streams in a video output and the interval time in switching video streams.

Step 1 Click and drag the camera from the left-side list to the display window of video wall, or you can open a window if supported.

Step 2 Click and drag a group to the window.

Step 3 Click  to set the switching interval for the cycle decoding and click  to start decoding. You can view the cycle decoding on the physical video wall. You can click  to stop cycle decoding.

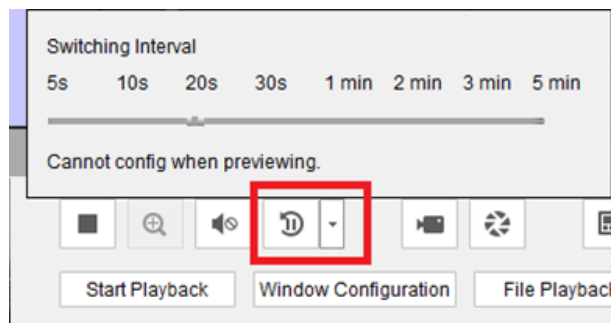


Figure 5-20 Cycle Decoding

5.3.4 Window Configuration

Purpose:

You can set the window as the alarm window to display the video triggered by event or alarm input on the video wall, you can also set the decoding delay and image parameters.

Step 1 Click and drag the camera from the left-side list to the display window of the video wall, or you can open a window if supported.

Step 2 Click **Window Configuration** to pop up the configuration dialog box.

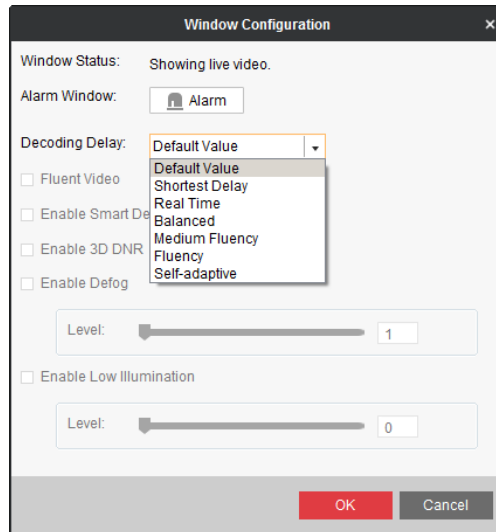


Figure 5-21 Window Configuration

Step 3 Configure the parameters as needed. The window status shows the current status of the selected window.

- **Alarm Window:** display the video triggered by the event or alarm input on the selected window of the video wall.
- **Decoding Delay:** set the delay status of the decoding according to the actual needs.

 **NOTE**

Functions like Fluent Video, Smart Decoding, 3D DNR, Defog, and Low Illumination are not supported by DS-6900UDI.


5.4 Remote Screen Control

Purpose

Installed with the RSC Server, it allows you to show your PC screen on the Video Wall. Perform the following procedure to configure the RSC server and get your screen shown on the Video Wall.

5.4.1 Configuring the RSC Server

Step 1 Install the RSE Server, which enables the PC screen to be displayed on the Video Wall, and

double-click  to run it.

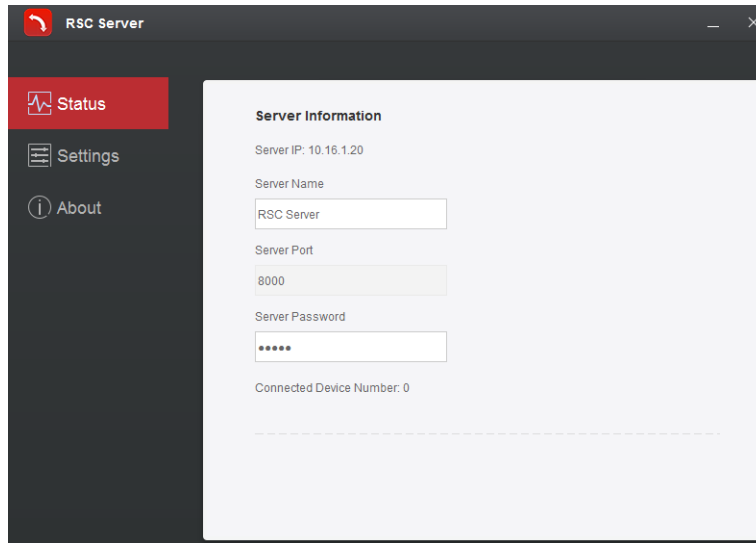


Figure 5-22 Run the RSC Server

Step 2 You can click the **Status** to check the server information, including the IP address, name, port, password of the server, and the connected device number.

Step 3 Click the **Settings** to check the directory of saving the program files, enable or disable the feature of Auto-Run when OS starts, and select the language (Chinese/English).

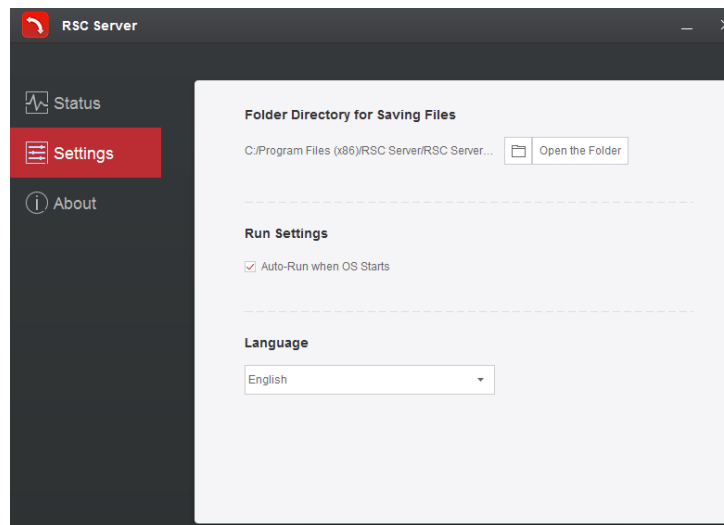


Figure 5-23 Local Configuration of RSC Server

5.4.2 Remote Screen Control via RSC Server

Step 1 Enter the Video Wall page and click **+** in the Camera list area, or click **+ Add Device** to add it on Device Management page, to add the RSC server.

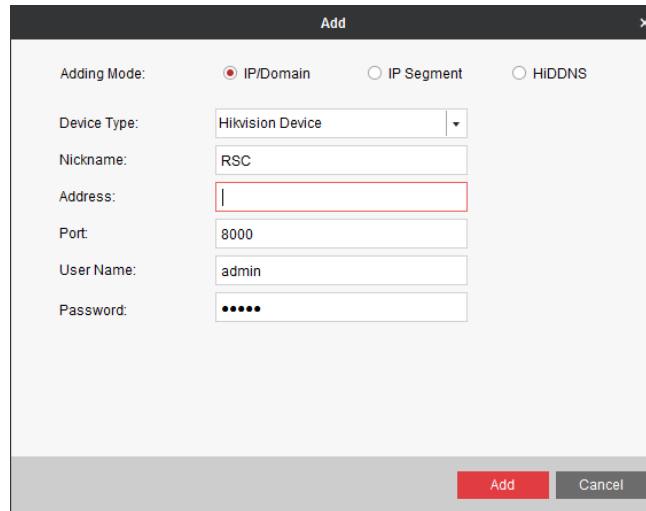


Figure 5-24 Add RSC Server

Step 2 Enter the parameters to add the RSC server. Please refer to Chapter 5.1 Adding an Encoding/Decoding Device to add the RSC server.

 **NOTE**

The default user name is admin and the server password is 12345 and we highly recommend you to change the default password to avoid the security problem.

Step 3 The successfully added RSC server is listed in the camera list.

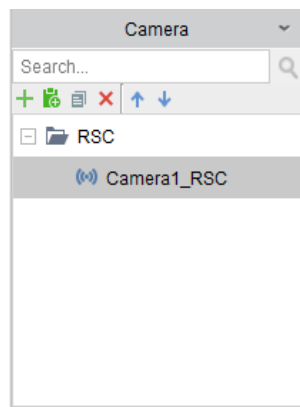


Figure 5-25 Add RSC Server

Step 4 On the camera list, click and drag the RSC server to the video output window.

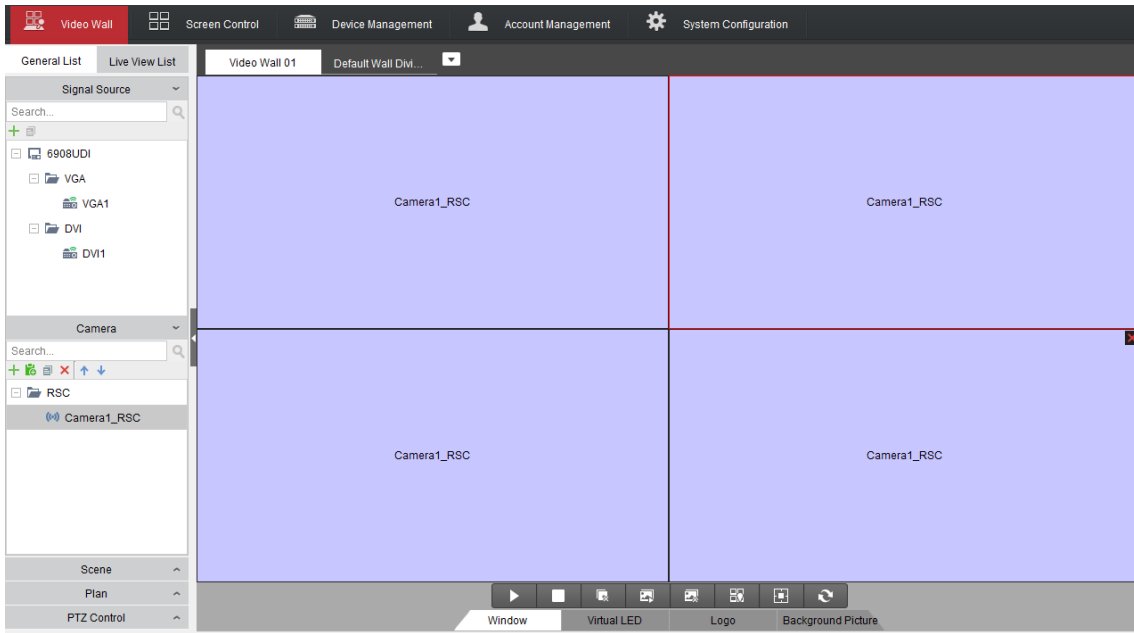


Figure 5-26 Link RSC to Video Wall

Step 5 Right click on the window and select **Screen Control** to remotely control the signal source.

 **NOTE**

The RSC server supports the screen control for 1-channel video output only.

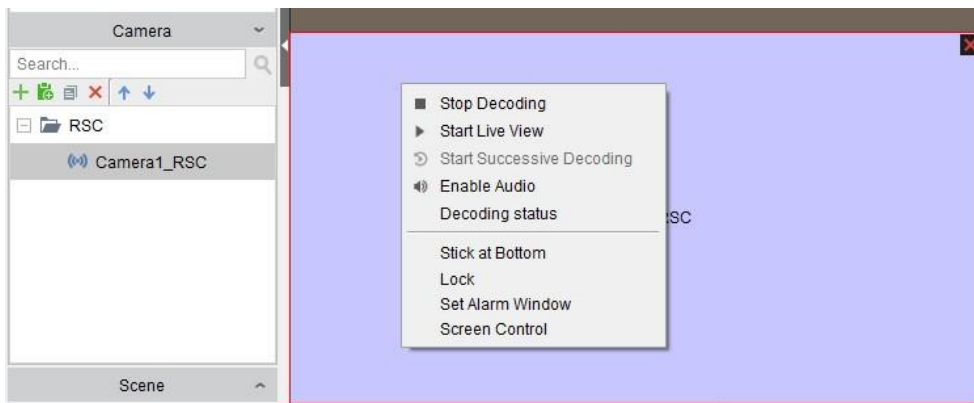


Figure 5-27 Right-click Menu

Step 6 You can use the toolbar on the window's upper right corner to realize the operations for image, video, PPT and remark.

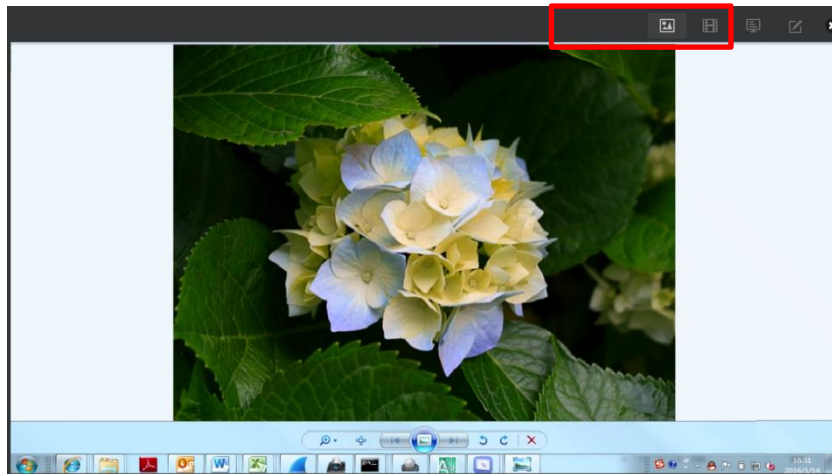


Figure 5-28 Screen Control Interface

- Click  to display all the image files in the directory set in the RSC Sever.

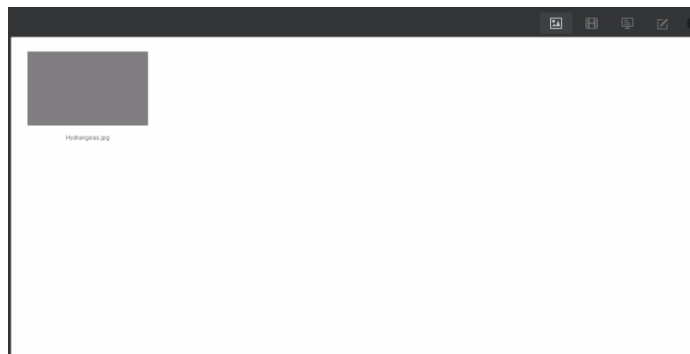



Figure 5-29 Screen Control Interface (1)

- Click  to display all the video files in the directory set in the RSC Sever.



Figure 5-30 Screen Control Interface (2)

- Click  to display all the PPT files in the directory set in the RSC Sever.

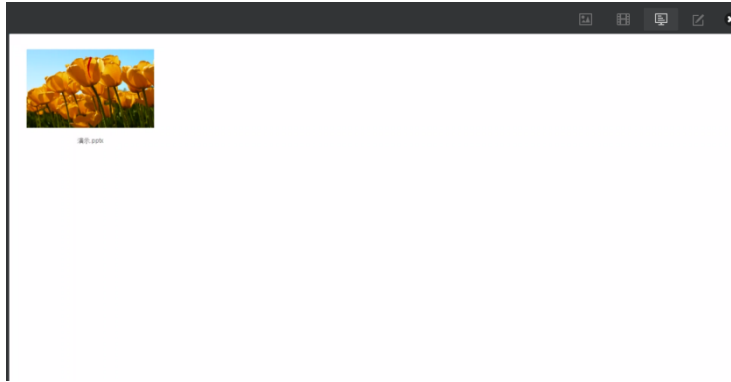


Figure 5-31 Screen Control Interface (3)


-
- Click  to pop up the following remark tool bar.



Figure 5-32 Remark Tool Bar

5.5 Remote Configuration

Purpose

In the remote configuration interface, you can configure the parameters of the added device, including the system, network, event, etc.

Step 1 On the Device Management interface, click to select an added device from the list and click **Remote Configuration** to enter Remote Configuration interface.

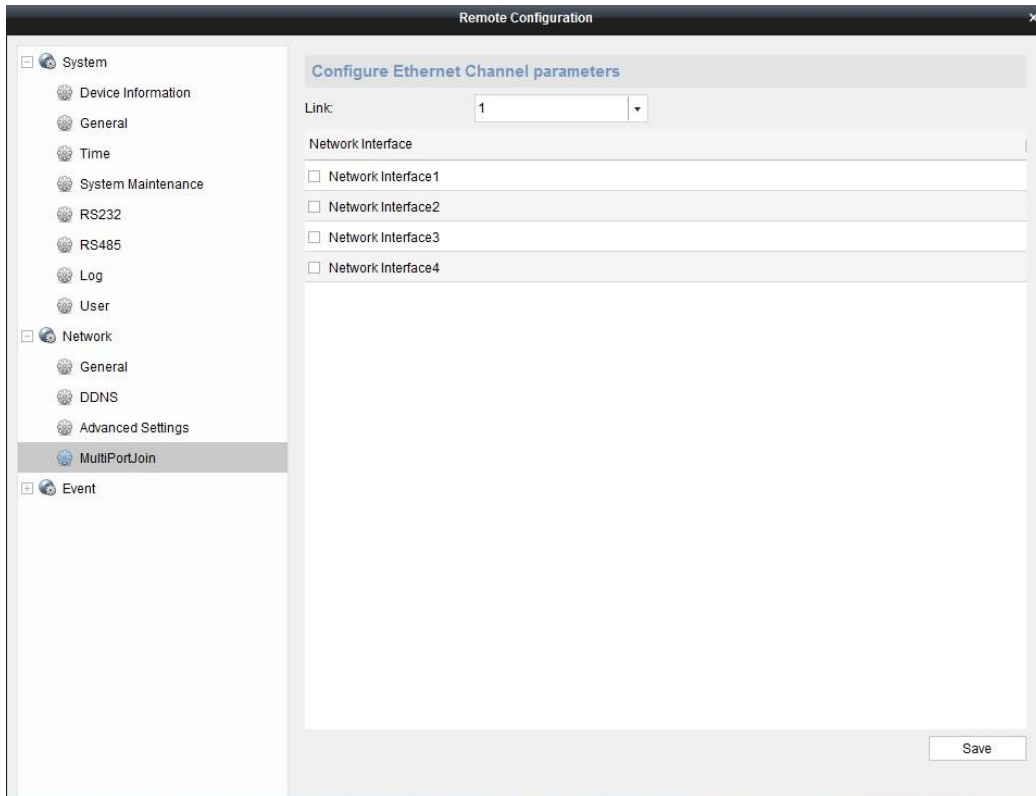


Figure 5-33 Remote Configuration

Step 2 Configure the system parameters, network parameters and event parameters on the Remote Configuration.

5.6 Configuring Multi-Port Link Aggregation

Purpose

The Multi-Port Aggregation (Ethernet Channel) is port link aggregation technology or port-channel architecture used for the connection between the switches.

Step 1 Click Remote Configuration>Network>MultiPortJoin to enter the Multi-Port Aggregation Settings interface.

Step 2 Select a link number from the list.

Step 3 Check the checkbox to select the network interfaces to form a channel-group link, which can effectively enhance the link transmission bandwidth.

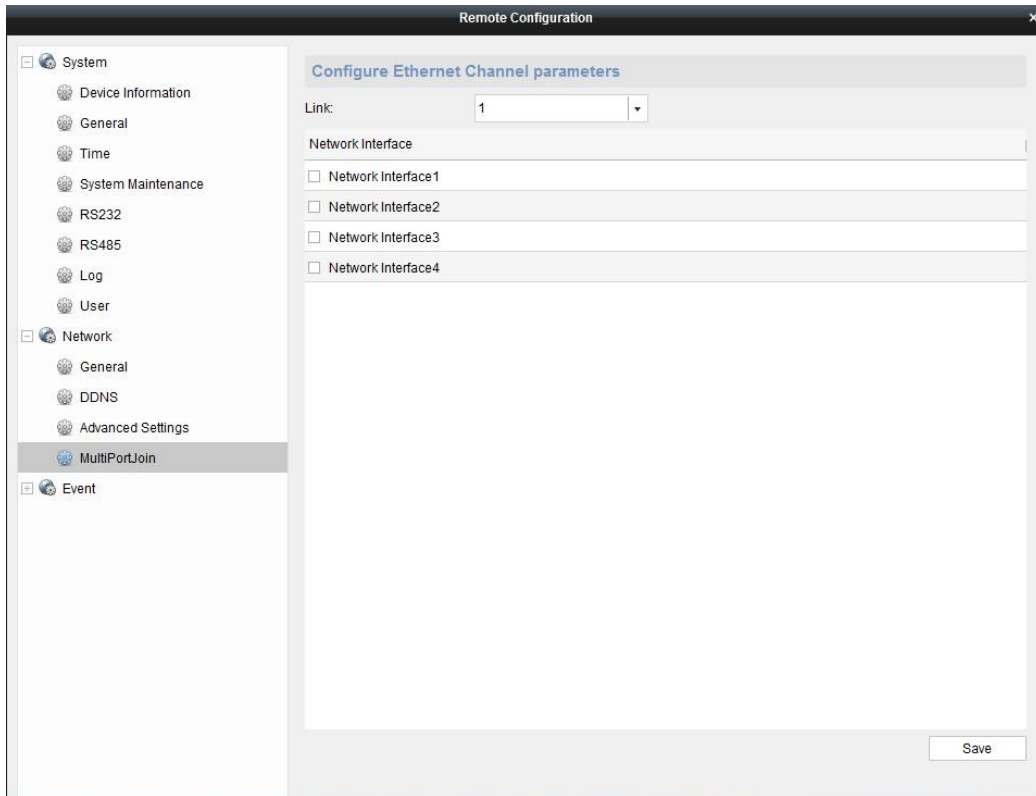


Figure 5-34 Multi-port Joint Settings

NOTE

- The port link aggregation is not supported by DS-6901UDI.
- The switch connected to DS-6900UDI must be configured with the port link aggregation as well.
- Two adjacent network interfaces cannot be selected to form a link. Example, you can select Network Interface 1 and Network Interface 3, or Network Interface 2 and Network Interface 4.
- The network interface 1 corresponds to the GE1 interface, network interface 2 to G1, network interface 3 to GE2, and network interface 3 to G2 on the rear panel.
- The G1 and G2 can be used as 2G switch when the network interface 2 and network interface 4 are configured in port link aggregation.

Chapter 6 Display via Wi-Fi Connection

Purpose

With the Wi-Fi module connected, the DS-6900UDI supports displaying the signal from mobile phone or pad via AirPlay (ISO) or DLNA (Android) to the video wall or other display units.

Step 1 Insert the Wi-Fi module to the DVI video input connector on the rear panel of the device.

Step 2 Use your phone or pad to search and connect the Wi-Fi network (default ID: DIRECT-TV-DONGLE-XXXXXX, default password: 12345678)

Step 3 Open the browser of your phone or pad and input *https://192.168.211.161* in the address field to enter the settings page.



Figure 6-1 Settings Page

Step 4 Configure the HDMI Dongle parameters, including the Name, Hotspot Password, Device Display Output and the Soft-Ap Frequency.

NOTE

The Soft-Ap Frequency parameter must be consistent to the phone or pad performance.

Step 5 Turn on the AirPlay (ISO) or DLNA (Android) to start playing the signal from the phone to the connected display unit. Please refer to the user manual of your phone for the details of AirPlay or DLNA instructions.

Chapter 7 Appendix

7.1 Specifications

Table 7-1 DS-6901/6904/6908 UDI Specification

Model		DS-6901UDI	DS-6904UDI	DS-6908UDI
Video/Audio Output	VGA and DVI-I Input	/	WSXGA: 1680×1050@60Hz WXGA: 1440×900@60Hz WXGA:1280×800@60Hz, 1366×768@60Hz, 1080p: 1920 × 1080@50/60Hz 1080I: 1920 × 1080@50/60Hz UXGA: 1600 × 1200@60Hz XVGA: 1280 × 960@60Hz 720p: 1280 × 720@50Hz/60Hz SXGA: 1280 × 1024@60Hz XGA: 1024 × 768@60Hz	
	Video/Audio Output	HDMI Output	1-ch	4-ch
VGA Output		4K: 3840 × 2160@30Hz (for even interface only) 1080p: 1920 × 1080@50/60Hz WSXGA: 1680×1050@60Hz UXGA: 1600 × 1200@60Hz (for even interface only) 720p: 1280 × 720@50Hz/60Hz SXGA: 1280 × 1024@60Hz XGA: 1024 × 768@60Hz		
		1080p: 1920 × 1080@50/60Hz WSXGA: 1680×1050@60Hz SXGA: 1280 × 1024@60Hz 720p: 1280 × 720@50Hz/60Hz XGA: 1024 × 768@60Hz		
BNC Output	1-ch	2-ch, 1 DB 15	4-ch, 1 DB 15	
Audio/Video Decoding	Decoding Resolution	Up to 12MP		
	Decoding Channel	16-ch	32-ch	64-ch

	Decoding Capability	12MP@20fps: 2-ch 8MP@30fps: 4-ch 5MP@30fps: 6-ch 3MP@30fps: 10-ch 1080p@30fps: 16-ch	12MP@20fps:4-ch 8MP@30fps: 8-ch 5MP@30fps: 12-ch 3MP@30fps: 20-ch 1080p@30fps: 32-ch	12MP@20fps:8-ch 8MP@30fps: 16-ch 5MP@30fps: 24-ch 3MP@30fps: 40-ch 1080p@30fps: 64-ch
	Split Screen	1/4/6/8/9/12/16	1/4/6/8/9/12/16/25	1/4/6/8/9/12/16/25/36
External Interface	Network Interface	1; 10/100/1000 Mbps self-adaptive Ethernet interface	2; 10/100/1000 Mbps self-adaptive management network interface 2; 10/100/1000 Mbps self-adaptive Ethernet interface 16; 10M/100Mbps self-adaptive Ethernet interface	
	Serial Interface	1 RS-232 (RJ 45), 1 RS-485		
	Two-Way Audio In	1-ch, 3.5 mm connector (2.0 Vp-p, 1 k Ω)		
	Two-Way Audio Out	1-ch, 3.5 mm connector (2.0 Vp-p, 1 k Ω)		
	Audio Output	1-ch	4-ch, 1 DB 15	8-ch, 1 DB 15
	Alarm In	8-ch		
	Alarm Out	8-ch		
General	Power Supply	12 VDC	100 to 240 VAC	
	Power Consumption	≤ 15 W	≤ 70 W	
	Working Temperature	-10° C to 55° C (14° F to 131° F)		
	Working Humidity	10% to 90%		
	Dimensions (W × D × H)	220 × 148 × 45 mm (8.66" × 5.83" × 1.77")	440 × 311 × 44.5 mm (17.32" × 12.24" × 1.75")	
	Weight	≤ 1.2 kg (2.65 lb)	≤ 5.2 kg (11.4 lb)	

Table 7-2 DS-6910/6912/6916 UDI Specification

Model		DS-6910UDI	DS-6912UDI	DS-6916UDI
Video/Audio Output	VGA and DVI-I Input	WSXGA: 1680×1050@60Hz WXGA: 1440×900@60Hz WXGA: 1280×800@60Hz, 1366×768@60Hz, 1080p: 1920 × 1080@50/60Hz 1080i: 1920 × 1080@50/60Hz UXGA: 1600 × 1200@60Hz XVGA: 1280 × 960@60Hz 720p: 1280 × 720@50Hz/60Hz SXGA: 1280 × 1024@60Hz XGA: 1024 × 768@60Hz		
	HDMI Output	10-ch	12-ch	16-ch
Video/Audio Output	HDMI Output	4K: 3840 × 2160@30Hz (for even interface only) 1080p: 1920 × 1080@50/60Hz WSXGA: 1680×1050@60Hz UXGA: 1600 × 1200@60Hz (for even interface only) 720p: 1280 × 720@50Hz/60Hz SXGA: 1280 × 1024@60Hz XGA: 1024 × 768@60Hz		
	BNC Output	5-ch, 2 DB 15	6-ch, 2 DB 15	8-ch, 2 DB 15
Audio/Video Decoding	Decoding Resolution	Up to 12MP		
	Decoding Channel	80-ch	96-ch	128-ch
	Decoding Capability	12MP@20fps: 10-ch 8MP@30fps: 20-ch 5MP@30fps: 30-ch 3MP@30fps: 50-ch 1080p@30fps: 80-ch	12MP@20fps: 12-ch 8MP@30fps: 24-ch 5MP@30fps: 36-ch 3MP@30fps: 60-ch 1080p@30fps: 96-ch	12MP@20fps:16-ch 8MP@30fps: 32-ch 5MP@30fps: 48-ch 3MP@30fps: 80-ch 1080p@30fps: 128-ch
	Split Screen	1/4/6/8/9/12/16/25/36		

External Interface	Network Interface	2; 10/100/1000 Mbps self-adaptive management network interface 2; 10/100/1000 Mbps self-adaptive Ethernet interface 16; 10M/100 Mbps self-adaptive Ethernet interface		
	Serial Interface	1 RS-232 (RJ 45), 1 RS-485		
	Two-Way Audio In	1-ch, 3.5 mm connector (2.0 Vp-p, 1 k Ω)		
	Two-Way Audio Out	1-ch, 3.5 mm connector (2.0 Vp-p, 1 k Ω)		
	Audio Output	10-ch, 2 DB 15	12-ch, 2DB 15	16-ch, 2 DB 15
	Alarm Input	8		
	Alarm Out	8		
General	Power Supply	100 to 240 VAC		
	Power Consumption	≤ 108 W		
	Working Temperature	-10° C to +55° C (+14° F to +131° F)		
	Working Humidity	10% to 90%		
	Dimensions (W × D × H)	440 × 311 × 80 mm (17.32" × 12.24" × 3.15")		
	Weight	≤ 6.4 kg (14.11 lb)		

7.2 FAQ

- Why cannot ping the decoder?
 - Check the cable and the switch.
 - Please refer to *Chapter 3* 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.

7.3 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	