HD Video/Audio Decoder

User Manual

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User Manual

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This Manual is applicable to DS-6901UD 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

CE

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.

Warnings

- 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-6901UD Decoder is developed on the basis of embedded hardware platform, ensuring high reliability and stability of system running.

DS-6901UD Decoder is capable of simultaneous decoding video for 4-ch@8MP, 16-ch@1080p, and 1-ch@4K resolution, and outputting decoded video via BNC, VGA, or HDMI interfaces, and it also supports multiple video stream formats like H.265, H.264 and MPEG4. The decoded video can be displayed on video wall or large screen.

1.2 Features

Decoding Capability

Provides HDMI, VGA, and BNC output interfaces.

Up to 4K (3840 × 2160@30HZ) via HDMI interface, and up to 1080p@60HZ via VGA interface.

H.265, H.264 and MPEG4 video stream formats.

PS, RTP, TS, ES encapsulation formats.

Three encoding levels: baseline, main, and high-profile.

G.722, G711A, G726, G711U, MPEG2-L2, and AAC audio stream formats.

Supports 4-ch@800MP, 6-ch@500MP, 10-ch@300MP, 16-ch@1080p simultaneous decoding.

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.

Getting stream and decoding via URL.

Remotely controls DVR's or DVS's PTZ via transparent channel.

Two-way audio.

Integrated Capability

Decodes video/audio stream accessed by ONIVF, RTP/RTSP protocols.

Provides complete software development kit (SDK) for third-party developers.

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-6901UD

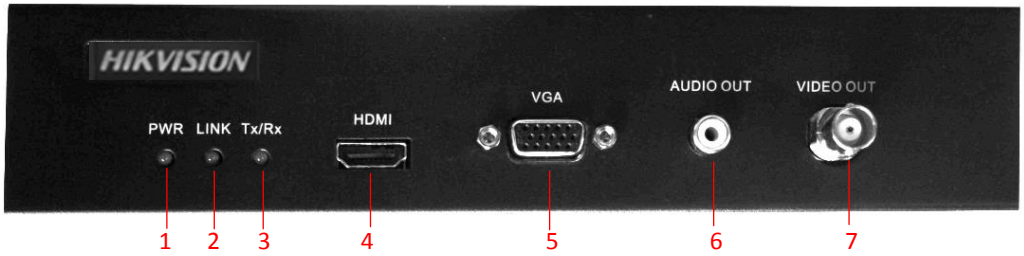


Figure 2.1 Front Panel of DS-6901UD

Table 2.1 Description of Front Panel

	LED Indicator & Interface	Connections
1	POWER	Power LED indicator
2	LINK	Network connection LED indicator
3	Tx/Rx	Data transmitting/receiving status LED indicator
4	HDMI Video Output	HDMI output of 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

2.2 Rear Panel

Rear panel of DS-6901UD

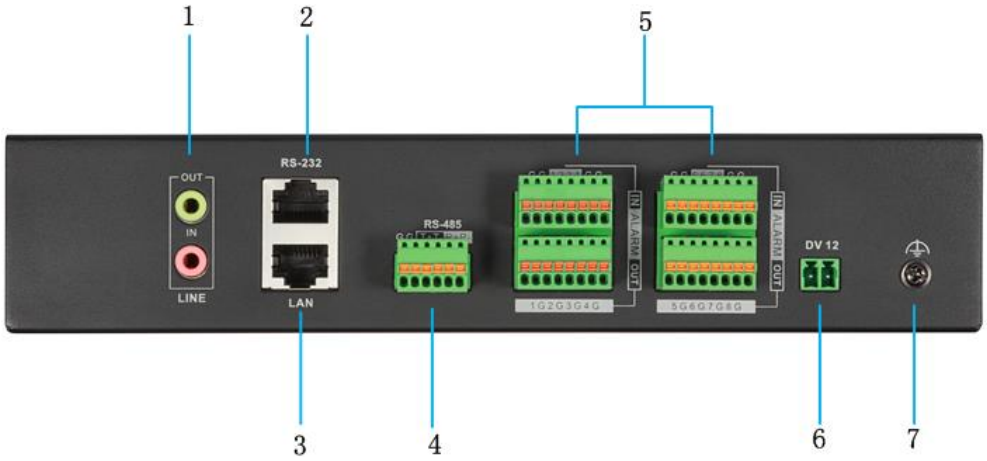


Figure 2.2 Rear Panel of DS-6901UD

Table 2.2 Description of DS-6901UD 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, etc.
3	LAN	10/100/1000 Mbps Ethernet interface

	Interface	Connections
4	RS-485 Serial Interface	Connect to RS-485 devices, e.g., keyboard, etc.
5	Alarm In	8 alarm inputs
	Alarm Out	8 alarm outputs
6	Power Supply	12 VDC power input
7		GND

Chapter 3 Initial Network Parameters Configuration

Purpose:

If you don't know the IP address of the decoder and this is not the first time you use the decoder, you can use SADP (IP finder) software or the Serial port tools to find out the IP address of the decoder and to configure the IP address or other network parameters of it. It is recommended to change the default IP address for the first time to use it.

This chapter aims to tell the procedures of using the SADP software to find and configure the IP address and other parameters of the device.

NOTE

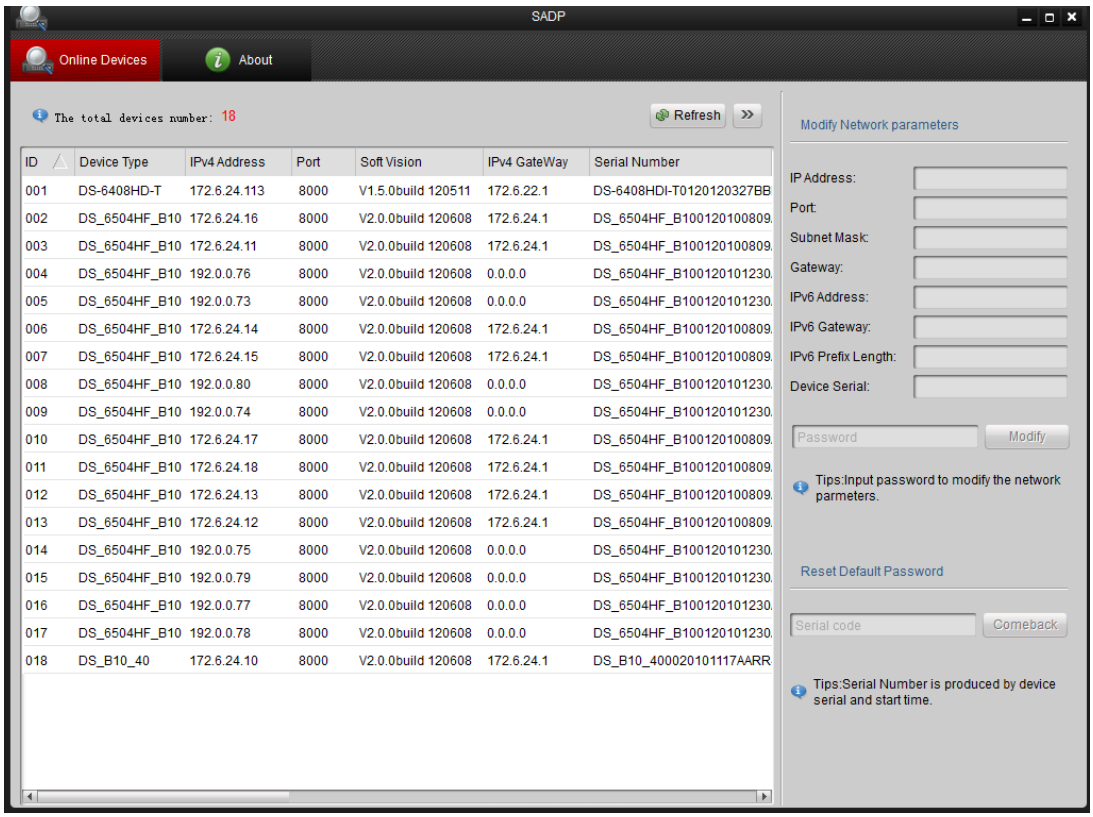
For the first-time user, the default user name of DS-6901UD is *admin*, and the default IP address is 192.0.0.64.

It is highly recommended to change the default user name and password after initial use.

3.1 Searching Active Devices Online

- **Search online devices automatically**

Click APT-SADP to run the SADP software and it will automatically search the online devices every 15 seconds from the subnet where your computer locates. It displays the total number and information of the searched devices in the **Online Devices** interface. Device information including the device type, IP address, port number, gateway, etc. is displayed.



ID	Device Type	IPv4 Address	Port	Soft Vision	IPv4 GateWay	Serial Number
001	DS-6408HD-T	172.6.24.113	8000	V1.5.0build 120511	172.6.22.1	DS-6408HDI-T0120120327BB
002	DS_6504HF_B10	172.6.24.16	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
003	DS_6504HF_B10	172.6.24.11	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
004	DS_6504HF_B10	192.0.0.76	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
005	DS_6504HF_B10	192.0.0.73	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
006	DS_6504HF_B10	172.6.24.14	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
007	DS_6504HF_B10	172.6.24.15	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
008	DS_6504HF_B10	192.0.0.80	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
009	DS_6504HF_B10	192.0.0.74	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
010	DS_6504HF_B10	172.6.24.17	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
011	DS_6504HF_B10	172.6.24.18	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
012	DS_6504HF_B10	172.6.24.13	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
013	DS_6504HF_B10	172.6.24.12	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
014	DS_6504HF_B10	192.0.0.75	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
015	DS_6504HF_B10	192.0.0.79	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
016	DS_6504HF_B10	192.0.0.77	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
017	DS_6504HF_B10	192.0.0.78	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
018	DS_B10_40	172.6.24.10	8000	V2.0.0build 120608	172.6.24.1	DS_B10_400020101117AARR

Figure 3.1 Search Online Device by SADP

Device can be searched and displayed in the list in 15 seconds after it went online; it will be removed from the list in 45 seconds after it went offline.

- **Search online devices manually**

You can also click Refresh to refresh the online device list manually. The newly searched devices will be added to the list.

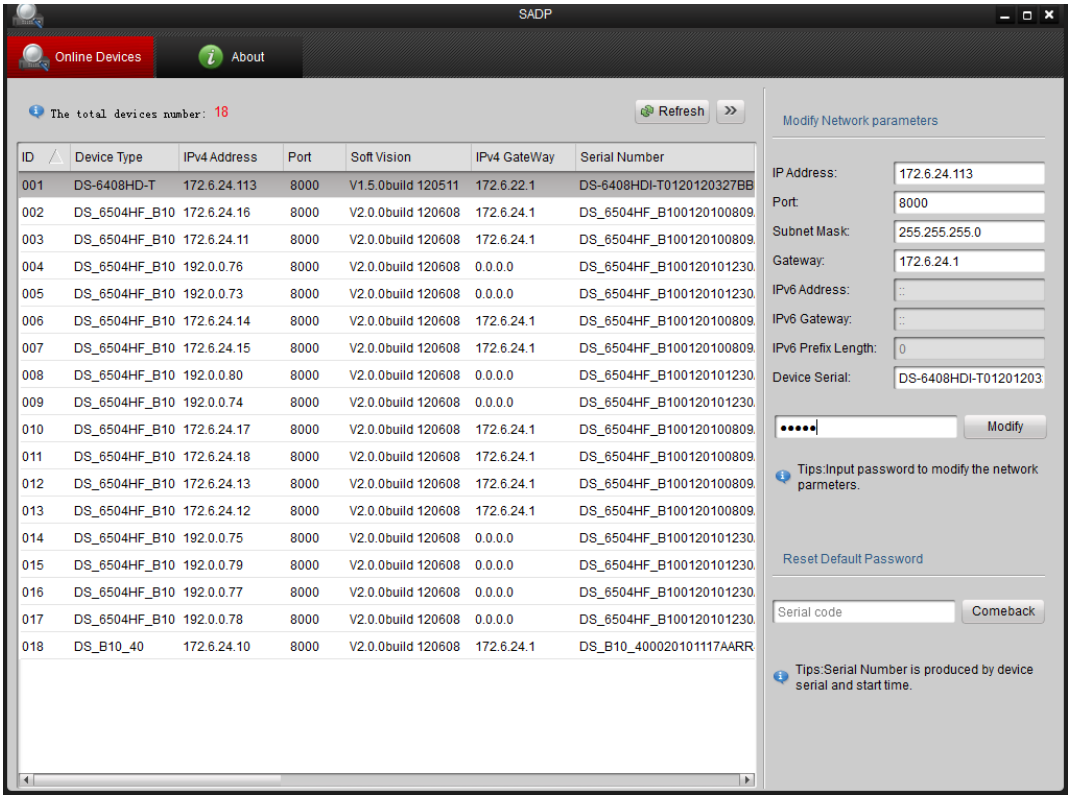
NOTE

You can click ▲ or ▼ on each column heading to order the information; you can click » to expand the device table and hide the network parameter panel on the right side, or click « to show the network parameter panel.

3.2 Modifying Network Parameters

Steps:

1. Select the device to be modified in the device list and the network parameters of the device will be displayed in the **Modify Network Parameters** panel on the right side.
2. Edit the modifiable network parameters, e.g., IP address, port number and gateway.
3. Enter the password of the admin account of the device in the **Password** field and click Modify to save the changes.



ID	Device Type	IPv4 Address	Port	Soft Vision	IPv4 GateWay	Serial Number
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003	DS_6504HF_B10	172.6.24.11	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
004	DS_6504HF_B10	192.0.0.76	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
005	DS_6504HF_B10	192.0.0.73	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
006	DS_6504HF_B10	172.6.24.14	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
007	DS_6504HF_B10	172.6.24.15	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
008	DS_6504HF_B10	192.0.0.80	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
009	DS_6504HF_B10	192.0.0.74	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
010	DS_6504HF_B10	172.6.24.17	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
011	DS_6504HF_B10	172.6.24.18	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
012	DS_6504HF_B10	172.6.24.13	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
013	DS_6504HF_B10	172.6.24.12	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809
014	DS_6504HF_B10	192.0.0.75	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
015	DS_6504HF_B10	192.0.0.79	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
016	DS_6504HF_B10	192.0.0.77	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
017	DS_6504HF_B10	192.0.0.78	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230
018	DS_B10_40	172.6.24.10	8000	V2.0.0build 120608	172.6.24.1	DS_B10_400020101117AARR

Figure 3.2 Add Searched Online Device

3.3 Setting Admin Password for the Decoder

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

Activation via Web Browser and Client Software are all supported.

❖ Activation via Web Browser

Steps:

1. Power on the decoder, and connect the decoder to the network.
2. Input the IP address into the address bar of the web browser, and click Enter to enter the activation interface.

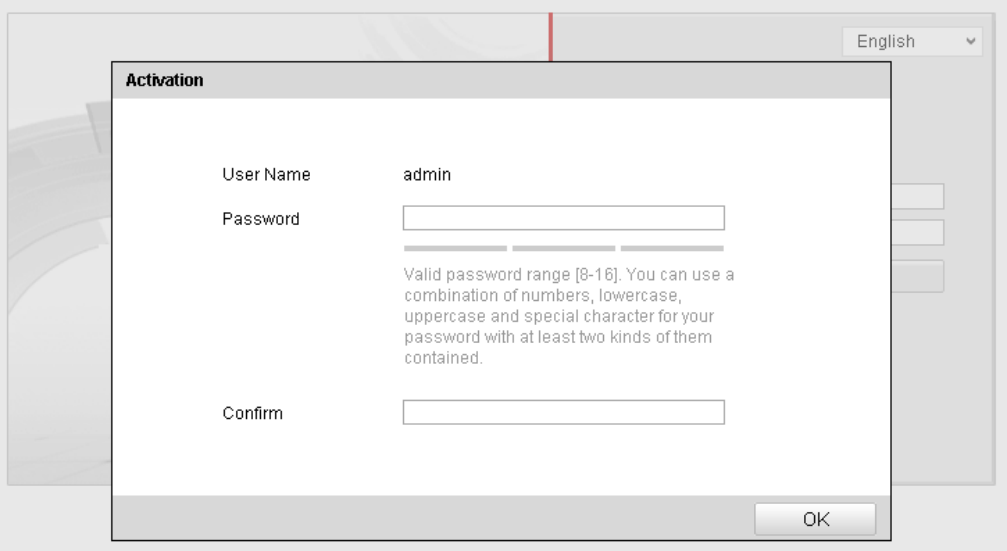

Figure 3.3 Activation Interface

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.

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

❖ 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.

Steps:

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

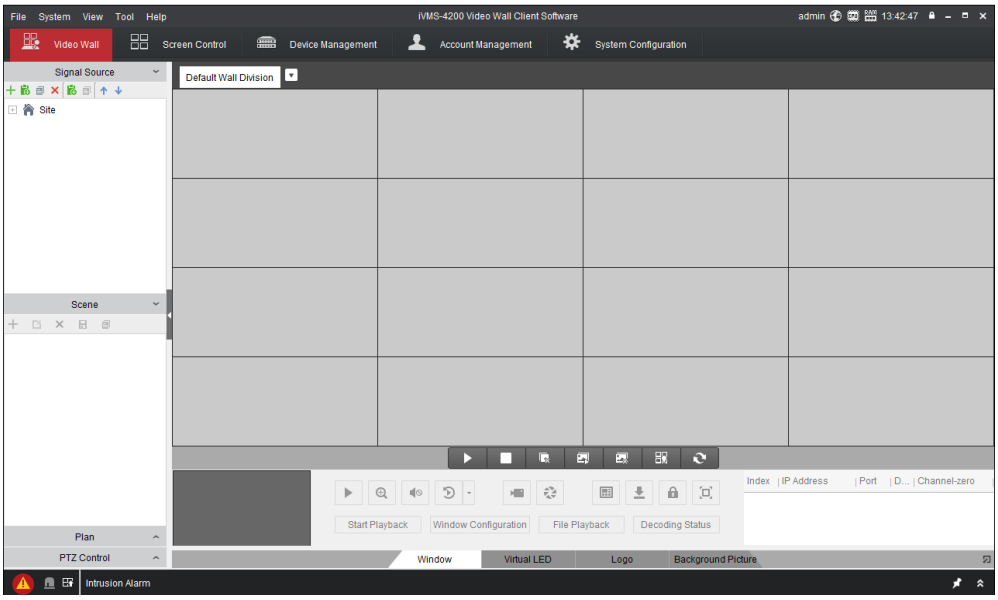

Figure 3.4 Control Panel

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

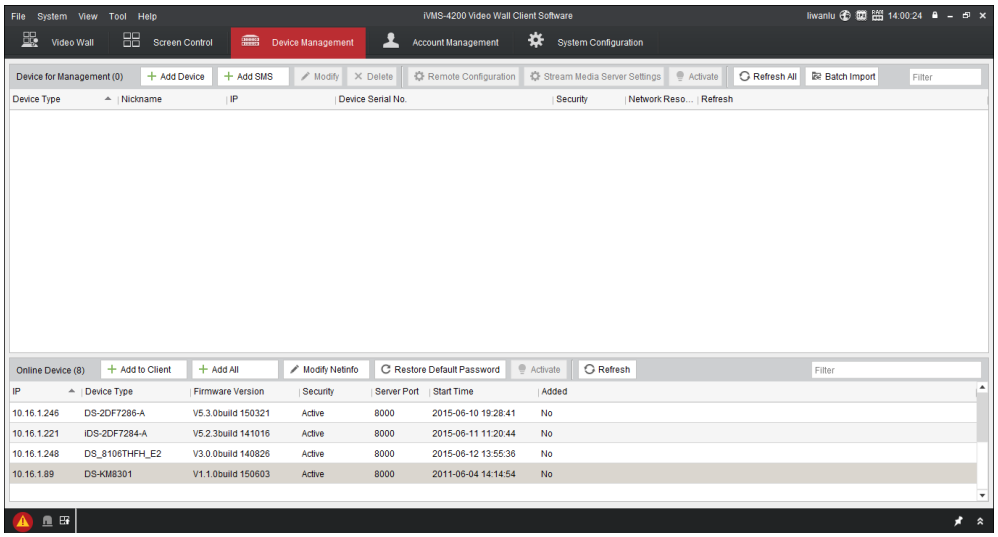

Figure 3.5 Control Panel

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

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

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

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

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

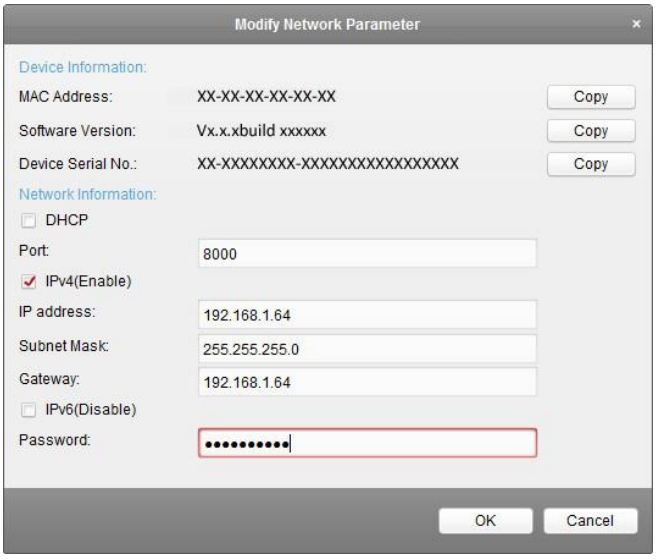

Figure 3.7 Modifying the Network Parameters

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

Chapter 4 Decoder Configuration and Operation by Web Browser

Purpose:

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.

Since there is no local operation GUI provided for the decoder, you can manage and configure it 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.

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

Steps:

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

2. Login to the device.

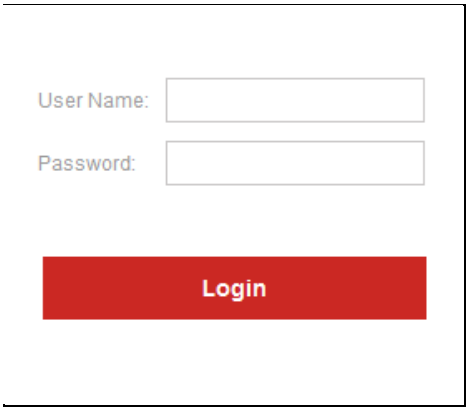

Figure 4. 1 Figure 4.1 Login Interface

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

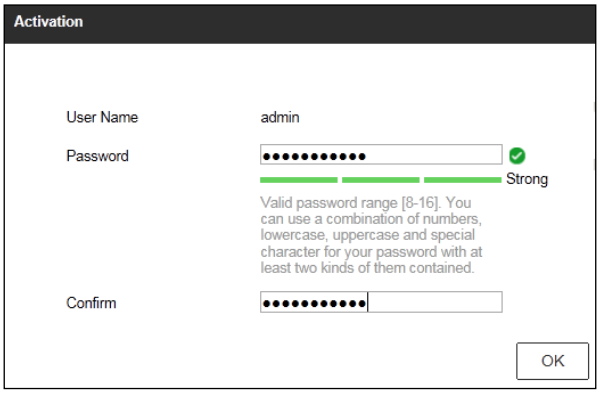

Figure 4. 2 Figure 4.2 Activation Interface

1) Set the password for admin user account.
2) Click **OK** to login the device.

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.

3. The following interface is showed after successful login.

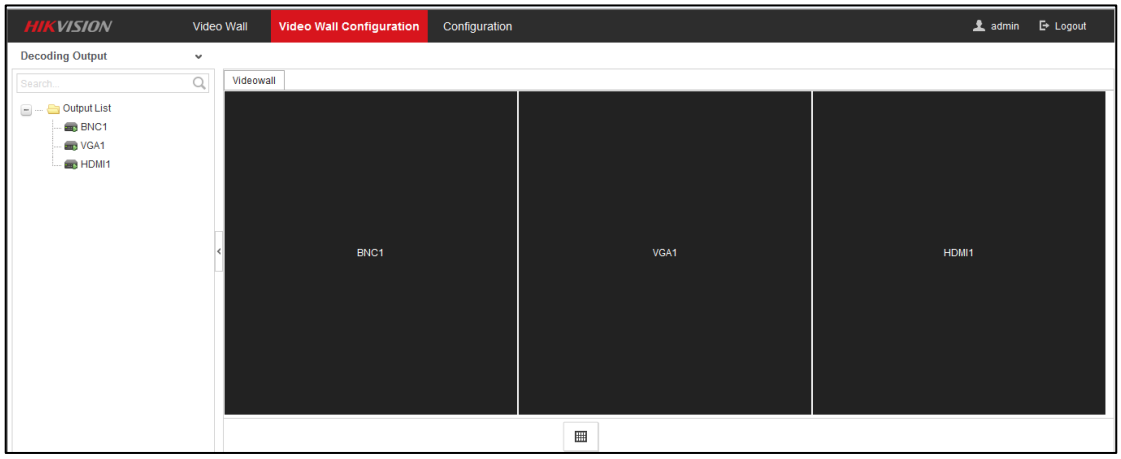

Figure 4.3 Enter WEB Page

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.

Step:

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.

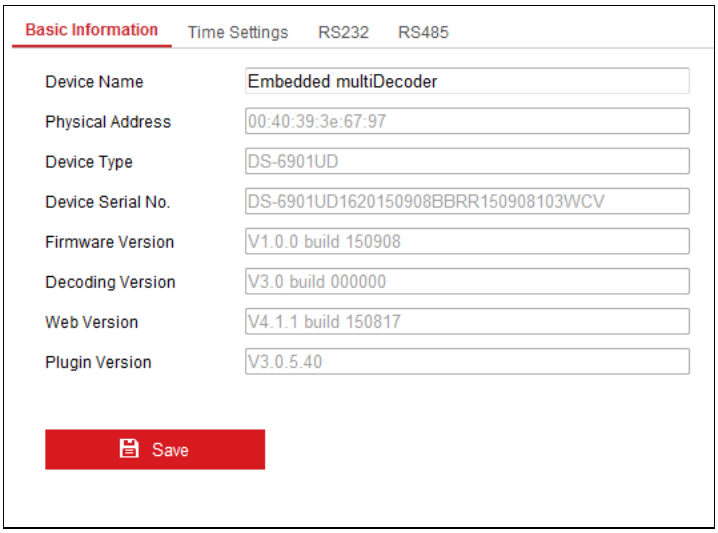

Figure 4.9 Checking Device Information

4.1.2 Configuring Time Settings

Purpose:

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

Steps:

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

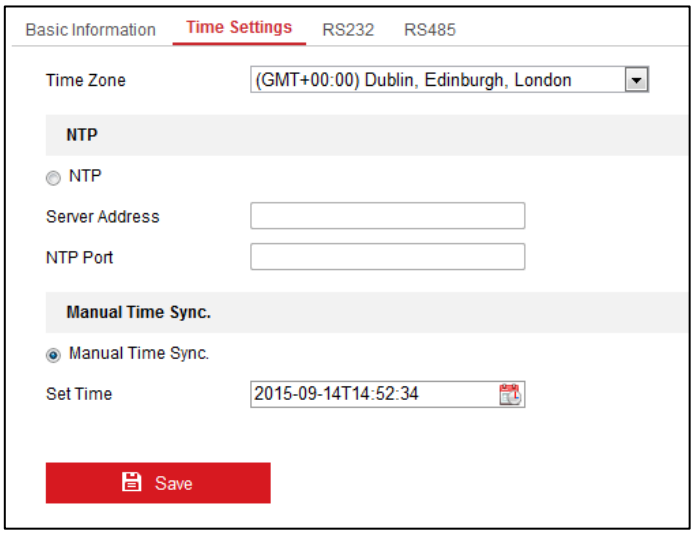

Figure 4. 4 Figure 4.10 Configure Time Settings

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.

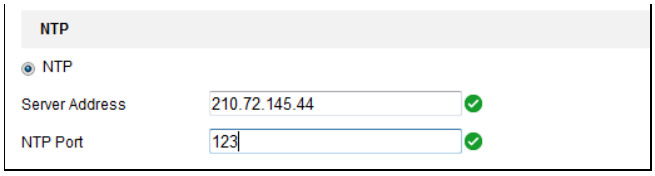

Figure 4.11 Configure Time by NTP

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.

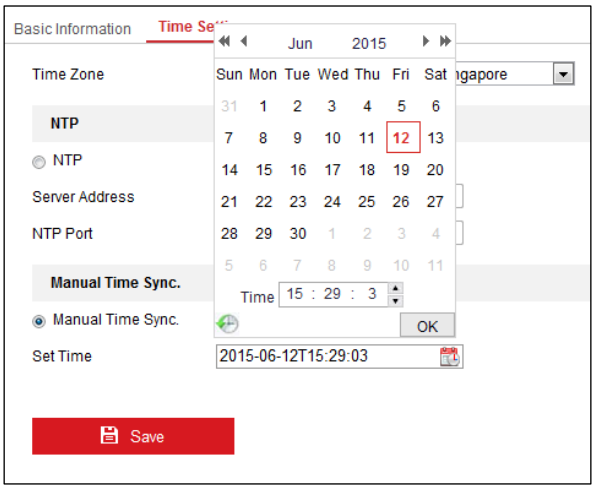

Figure 4.12 Configure Time Manually

3. Select the time zone that is closest to the device's location from the drop-down list.
4. Click **Save** to save the settings.

4.1.3 Configuring RS485/RS232 Serial Port

Configure RS232 Parameters

Steps:

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

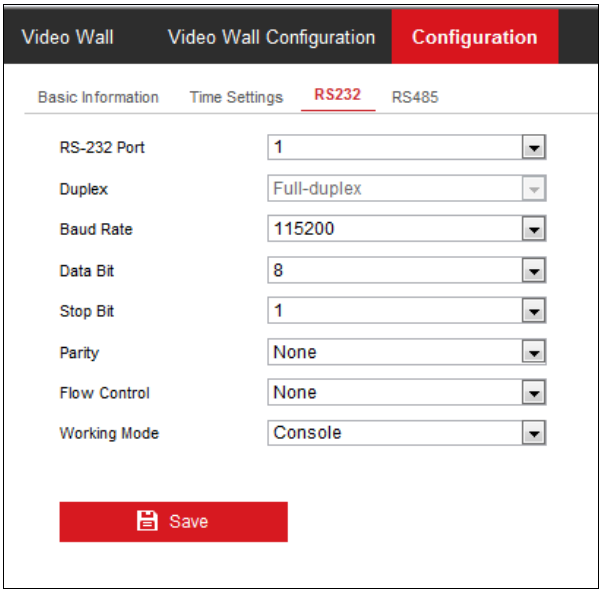

Figure 4.13 Configure RS-232 Settings

2. Configure the RS232 parameters, including the baud rate, data bit, stop bit and parity type.
3. Select the Operating Mode of RS232 as Console or Transparent Channel.

   Console: use the RS232 serial port for debugging the decoder.

   Transparent Channel: use the RS232 serial port as the transparent channel.
4. Click **Save** to save the settings.

Configure RS485 Parameters

Steps:

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

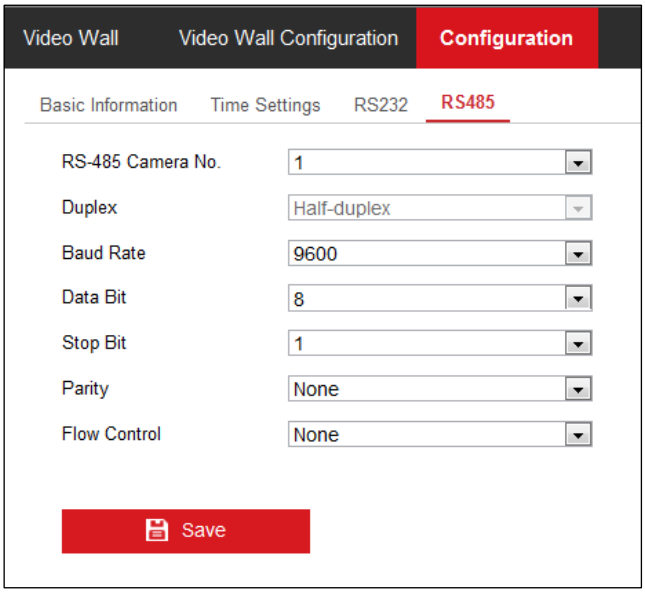

Figure 4.14 Configure RS-485 Settings

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

Steps:

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

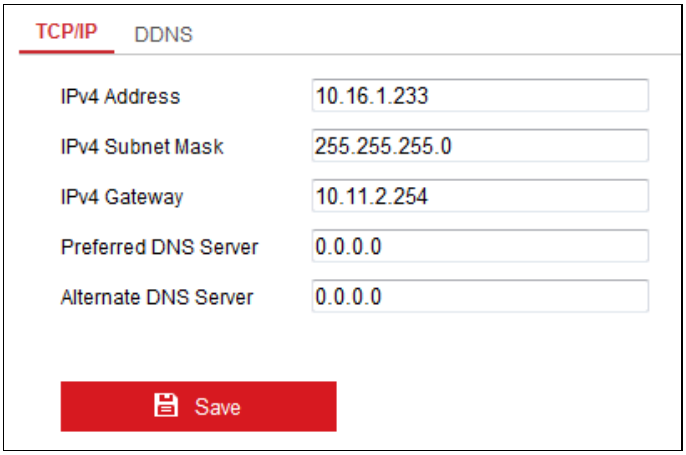

Figure 4.15 Configure Basic Network Settings

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

Steps:

1. Click **Configuration** > **Network** > **DDNS** to enter the DDNS Settings interface:
2. Check the **Enable DDNS** checkbox to enable this feature.
3. Select **DDNS Type**. Five different DDNS types are selectable: IPServer, DynDNS, PeanutHull, HiDDNS and NO-IP.

- **DynDNS:**

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

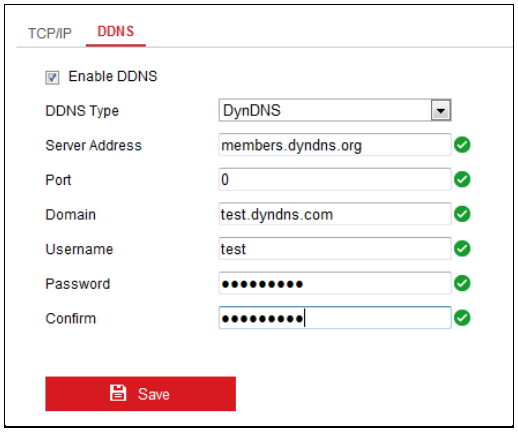

Figure 4.16 DynDNS Settings

- **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.

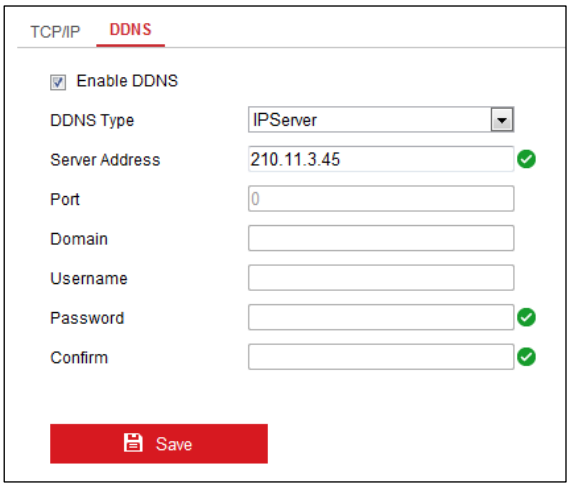

Figure 4.17 IPServer Settings

- **PeanutHull:**

  (1) Enter User Name and Password obtained from the PeanutHull website.

  (2) Click **Save** to save the settings.

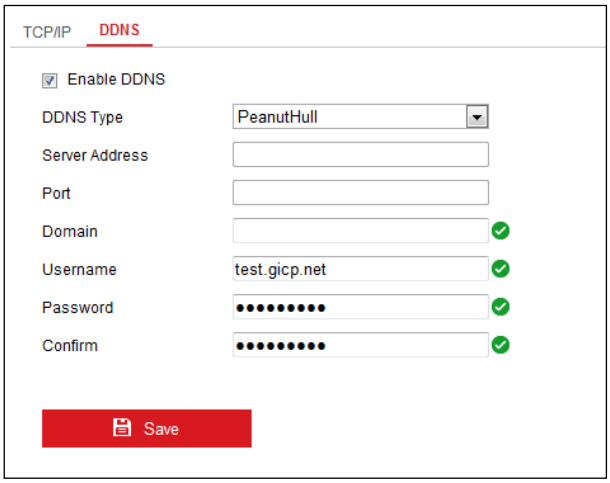

Figure 4.18 PeanutHull Settings

- **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.

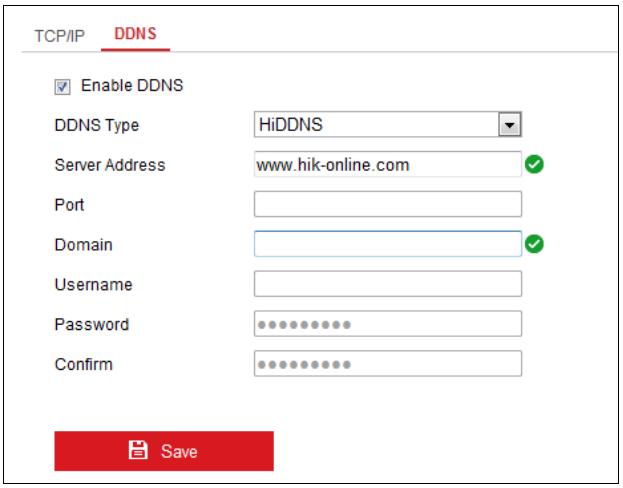

Figure 4.19 HiDDNS Settings

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 Managing User Account

The user accounts can be managed in this interface.

Steps:

1. Click **Configuration** > **System** > **User Management** to enter the account management interface.
2. You can add, modify or delete the user account, as well as configure operating permissions for each user account.

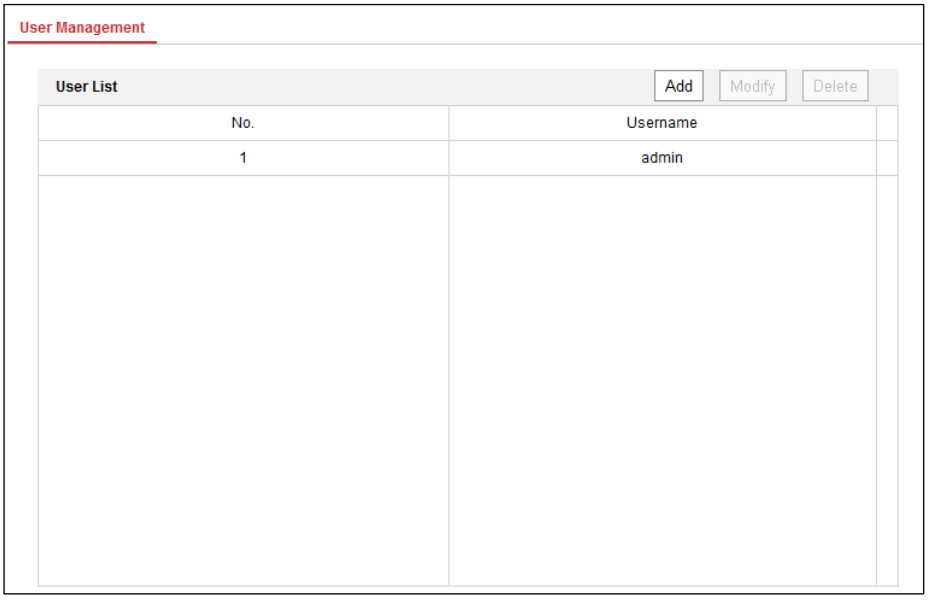

Figure 4.20 Configure User Account

NOTE

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

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.

4.1.7 Importing/Exporting Parameters

Purpose:

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

Steps:

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

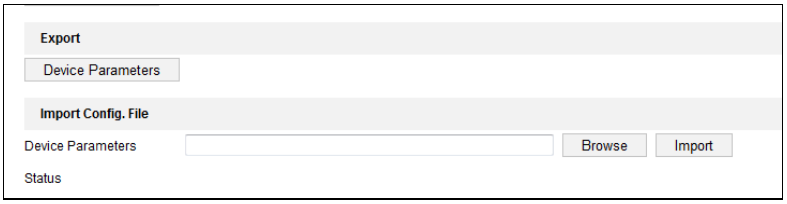

Figure 4.21 Import/Export Config File

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.

4.1.8 Upgrading, Restoring the Default Settings, and Rebooting the Decoder

Steps:

1. Click **Configuration** > **System** > **Maintenance** to do Reboot, Upgrade, and Default configurations.

Upgrade the decoder

1) Click **Browse** to search the upgrading files.
2) Click **Upgrade** to upgrade it.

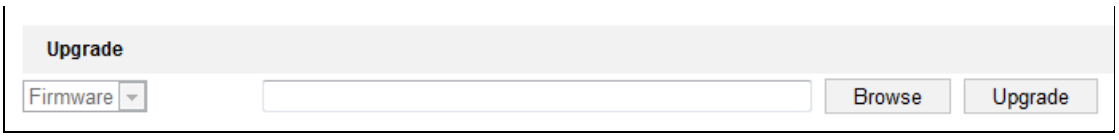

Figure 4.22 Device Management

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

Restore the default settings of the decoder:

1) 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.

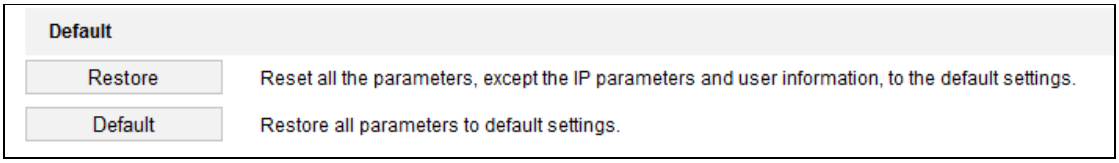

Figure 4.23 Default Settings

Reboot the decoder:

1) Click **Reboot** if you are sure to reboot the device.

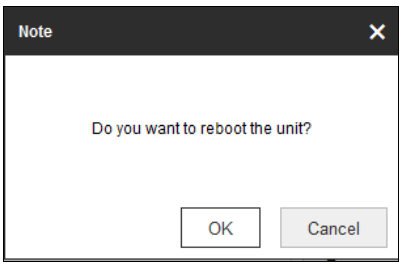

Figure 4.24 Reboot the Device

4.1.9 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.

Steps:

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

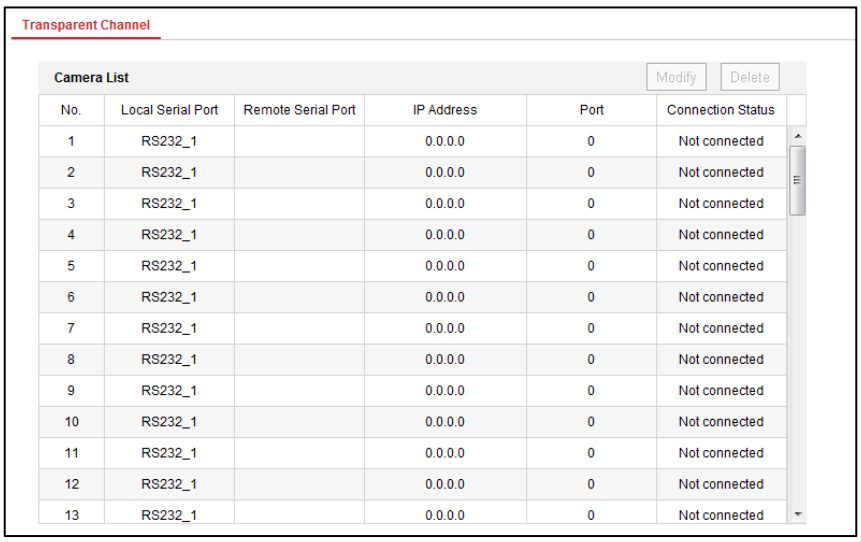

Figure 4.25 Transparent Channel Interface

2. Select a transparent channel from the list to configure.
3. Click **Modify** to modify the parameters of the selected transparent channel.

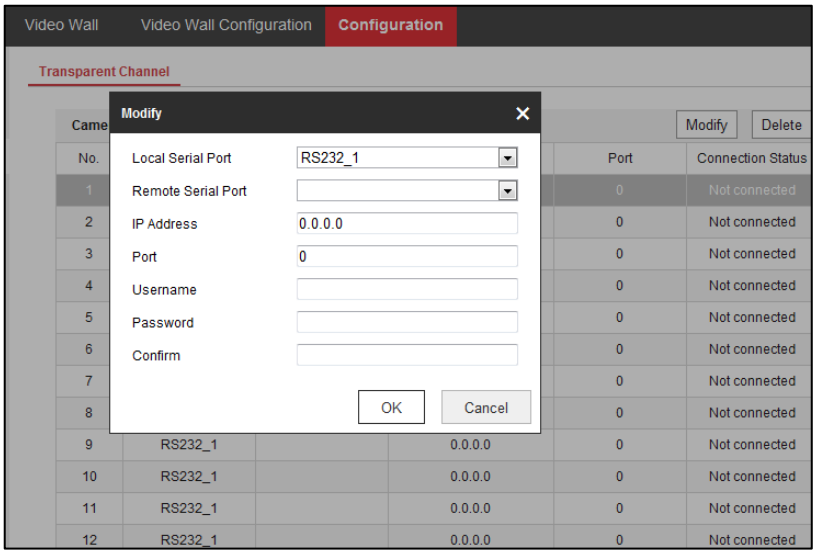

Figure 4.26 Modifying Interface

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.
5. Click **Delete** to pop up the following dialog box and click **OK** to delete the selected channel.

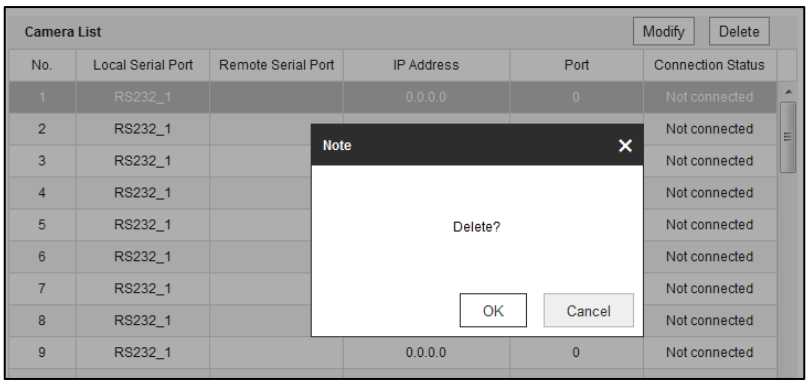

Figure 4.27 Deleting Interface

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.

Steps:

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

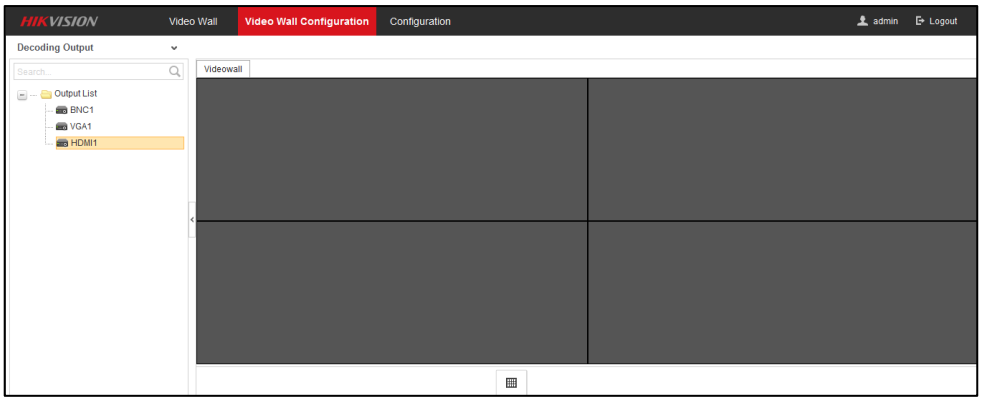

Figure 4.28 Enter Video Wall Configuration Interface

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 screen is available.

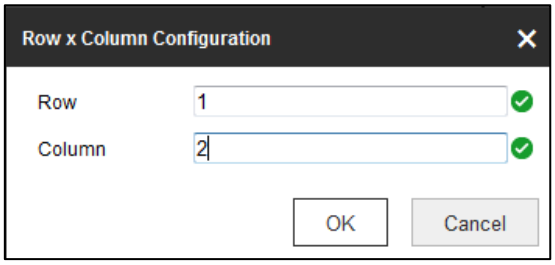

Figure 4.29 Split Screen Configuration

3. Click **OK** to finish the adding of the video wall information.
4. Click and drag the output channels from the left-side list to the display screen.

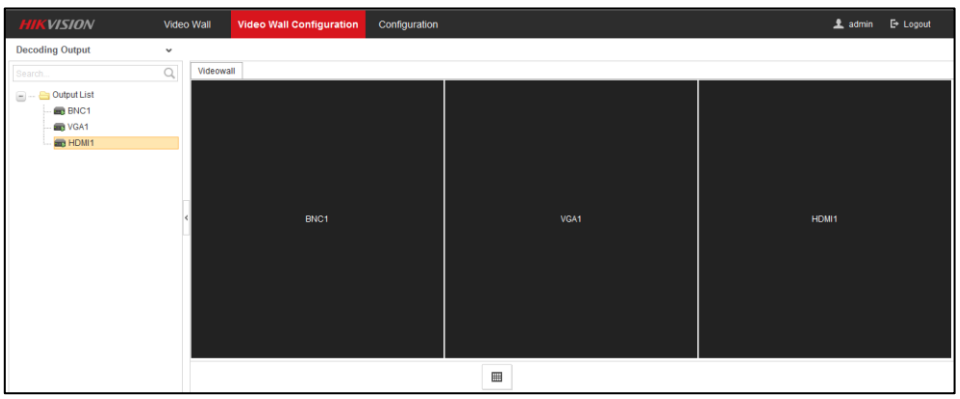

Figure 4.30 Video Wall Configuration Interface

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

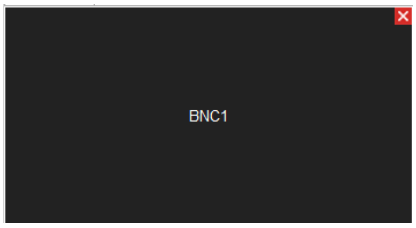

Figure 4.31 Delete the Window

4.3 Decoding Operation

Purpose:

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

Steps:

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

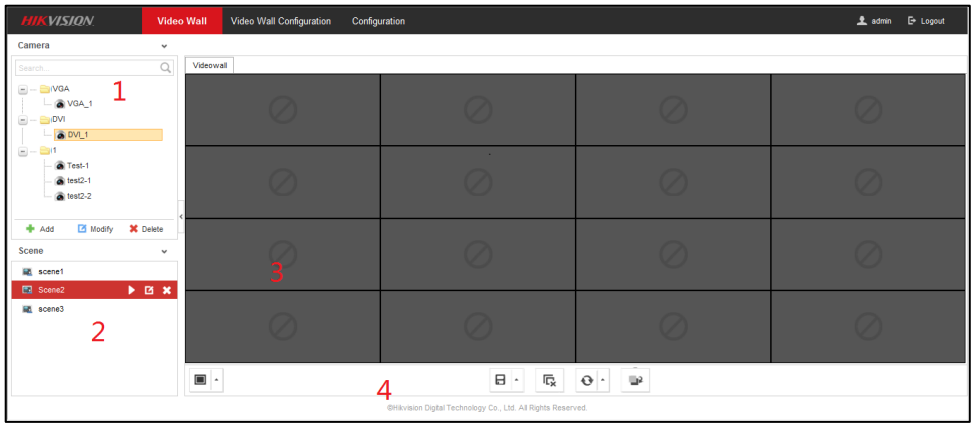

Figure 4.32 Video Wall Interface

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

4.3.1 Adding Encoding Device

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

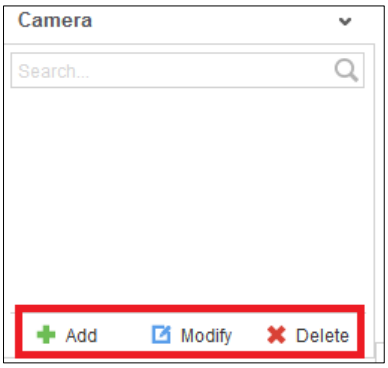

Figure 4.33 Encoding Device List

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.

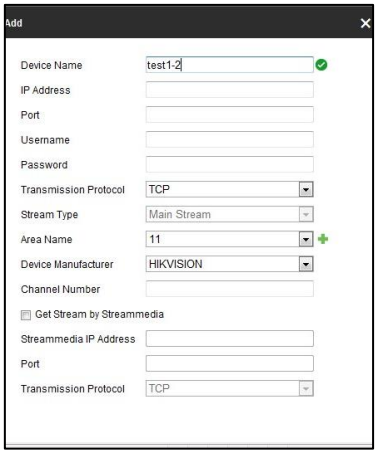

Figure 4.34 Adding Camera Interface

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

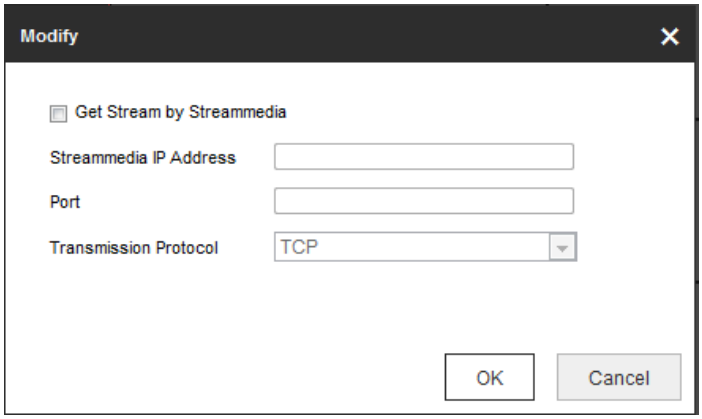

Figure 4.35 Modifying Area

Figure 4.36 Modifying Encoding Device

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

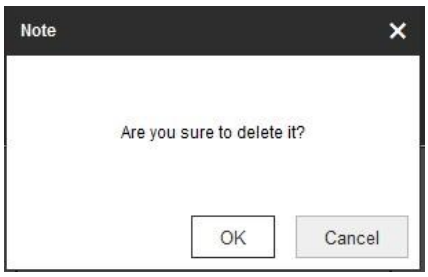

Figure 4.37 Deleting Camera Interface

4.3.2 Decoding on the Video Wall

***Steps*:**

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

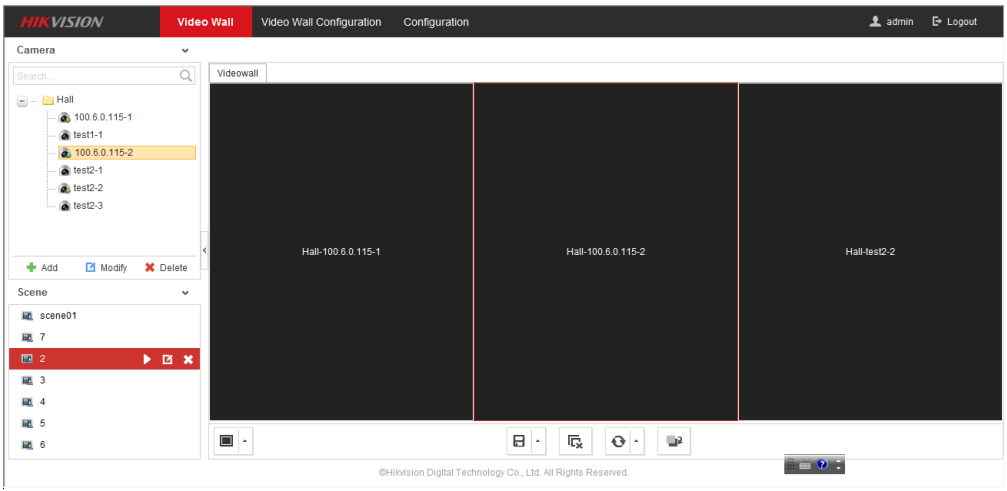

Figure 4.38 Decode the Video on the Wall

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

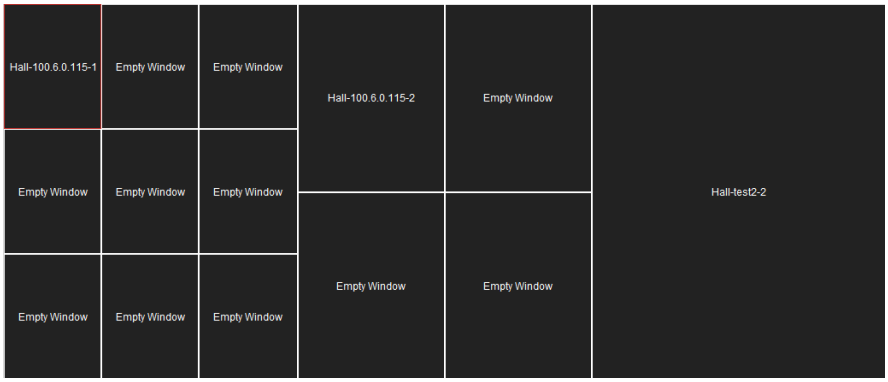

Figure 4.39 Split Screen Interface

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

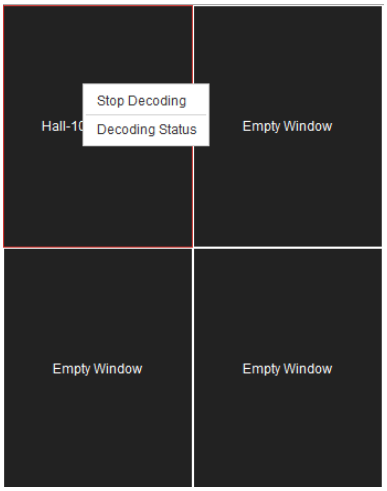

Figure 4.40 Decoding Channel Interface

4. Click **Stop Decoding** to stop decoding
5. Click **Decoding Status** to check the decoding status.

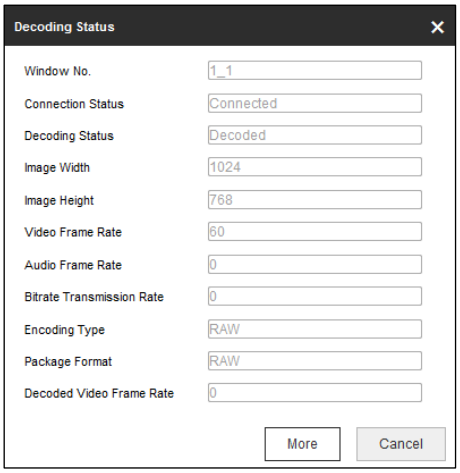

Figure 4.41 Decoding Channel Status

4.3.3 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.

Steps:

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

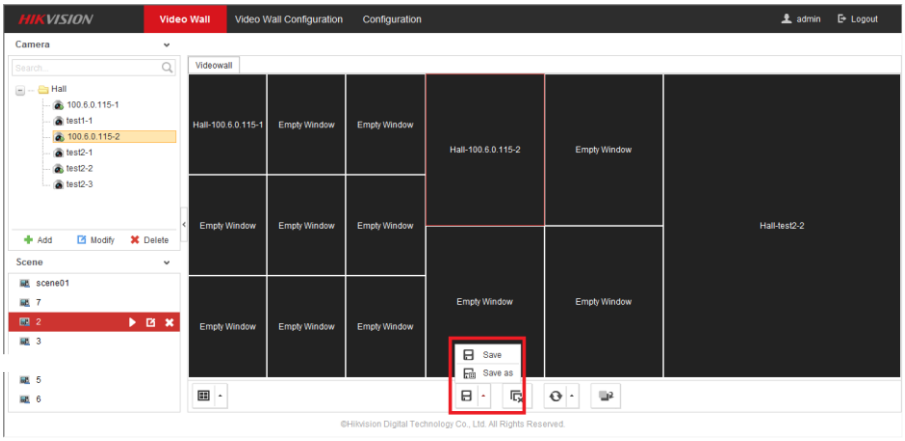

Figure 4.44 Saving the Scene Interface

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

Figure 4.45 Save as Interface

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

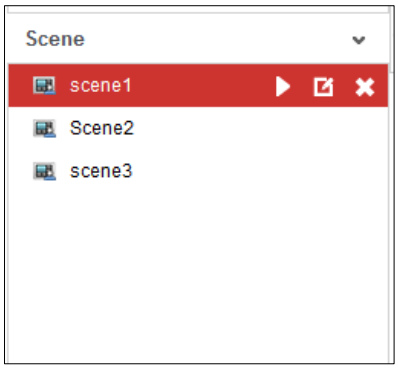

Figure 4.46 Scene List

4. Select one of the scenes you have set. Click to call the scene.
5. Click to rename the scene.

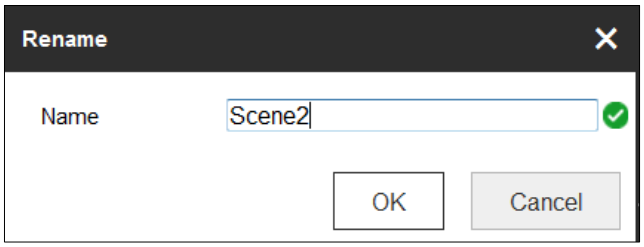

Figure 4.47 Rename the Scene

6. Click to delete the scene.

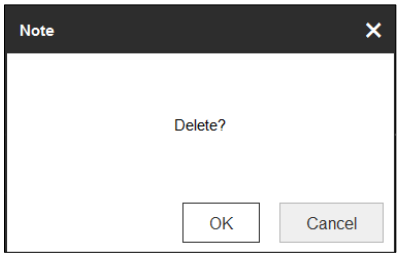

Figure 4.48 Delete the Scene

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.

Please refer to the user manual of iVMS-4200 for more detailed information.

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

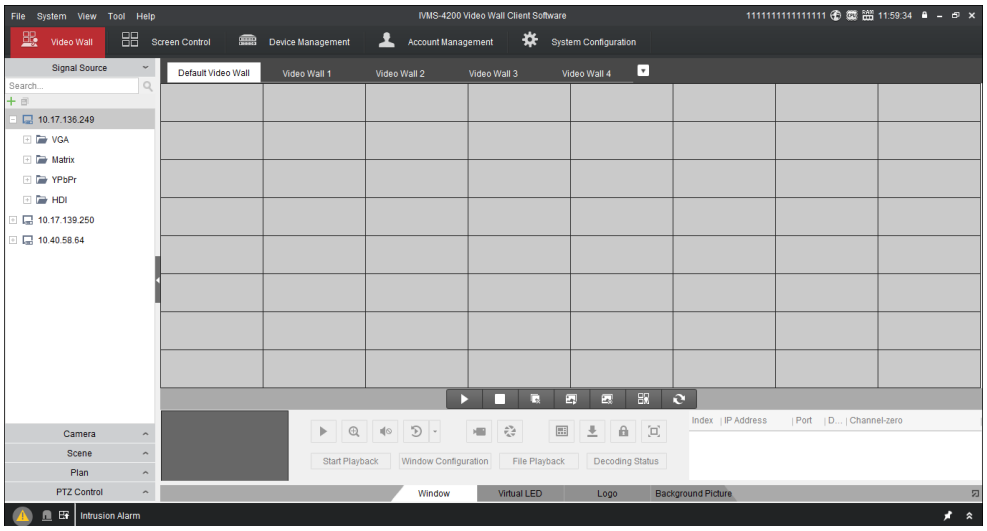

Figure 5.1 Main Interface

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

Steps:

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

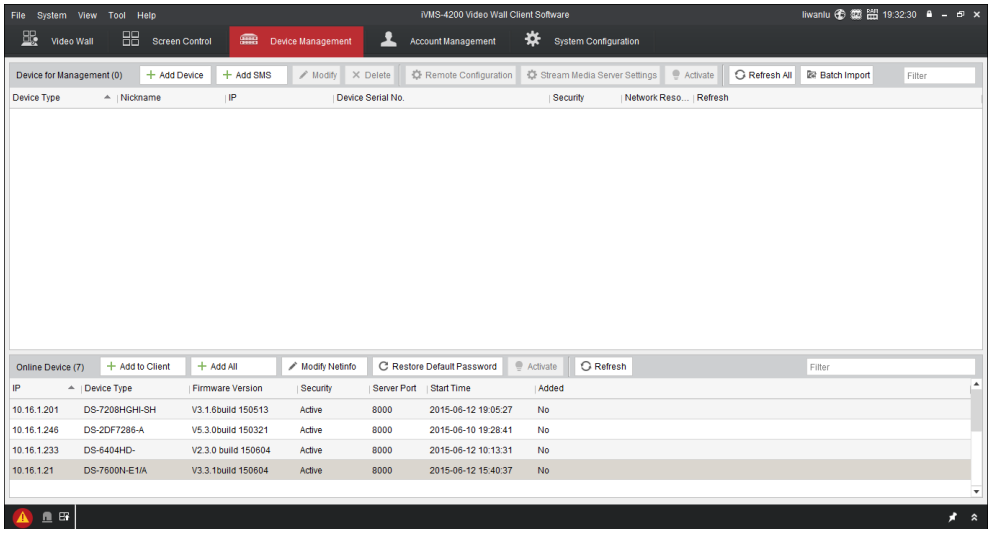

Figure 5.2Device Management Interface

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

and HiDDNS.

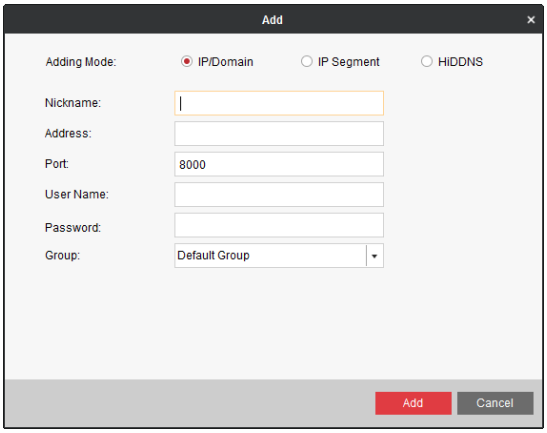

Figure 5.3 Add Device by IP/Domain

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.

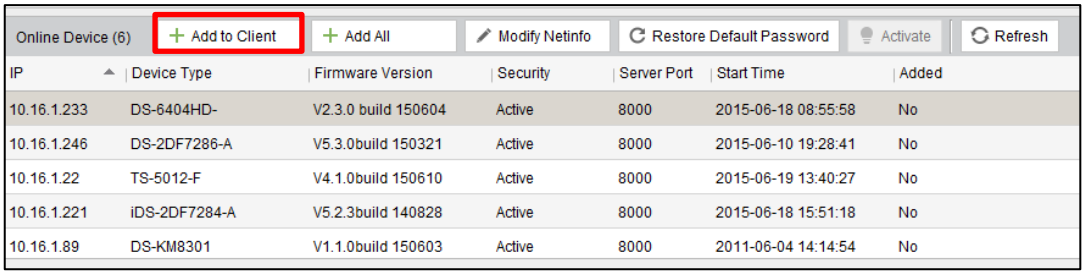

Figure 5.4 Add Device by Detecting the Online Device

NOTE

Please refer to the *User Manual of iVMS-4200 Video Wall Client Software* for detailed instructions of adding encoding/decoding device.

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

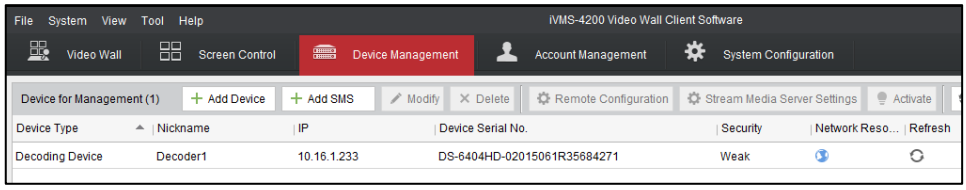

Figure 5.5 List of Added Decoders

5.2 Linking Video Output with Video Wall

Steps:

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

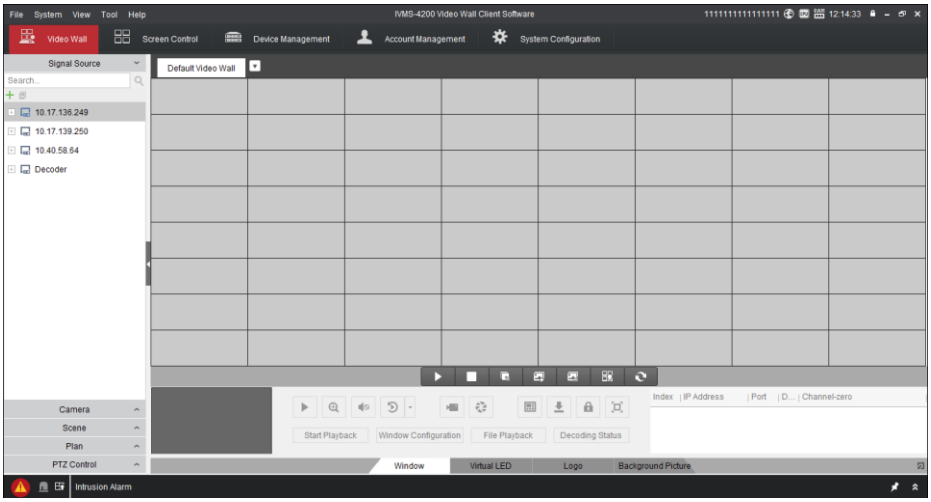

Figure 5.6 Video Wall Layout Settings

2. You can use the default video wall layout or click to choose one mode to edit **Video Wall** layout.

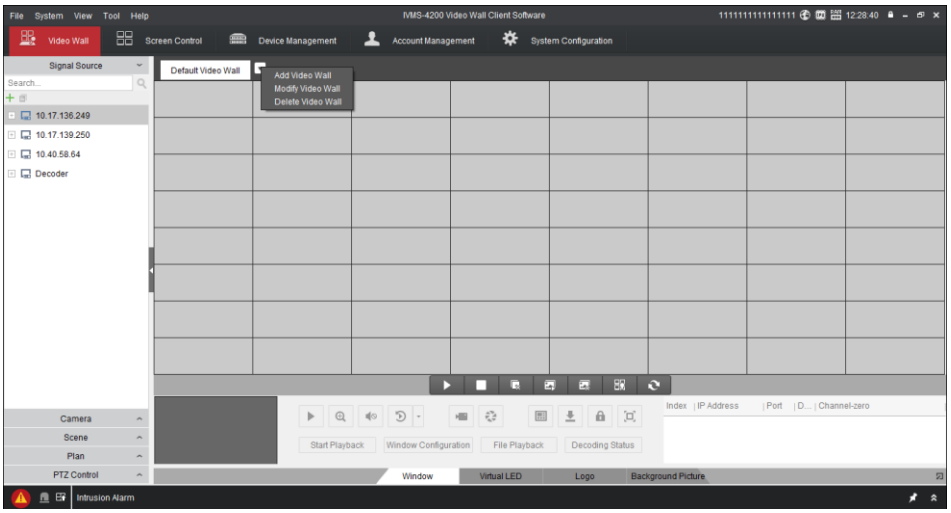

Figure 5.7 Add Screen Information

NOTE Three modes are available, respectively **Add Video Wall**, **Modify Video Wall**, and **Delete Video Wall**.

3. Choose **Add Video Wall** from the drop-down list to add a new Video Wall.

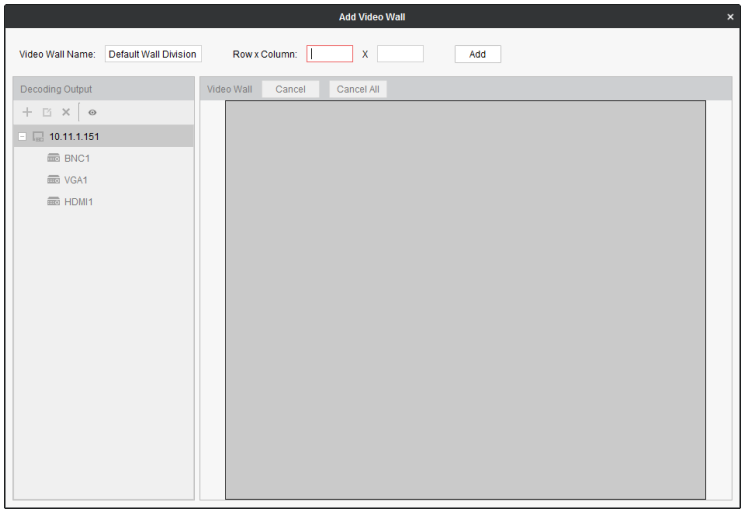

Figure 5.8 Add Video Wall

4. Edit the video wall name, and the number of screens in row and column.
5. Click **Add** to finish video wall adding.
6. Choose **Modify Video Wall** to edit current video wall's layout, name and decoding outputs

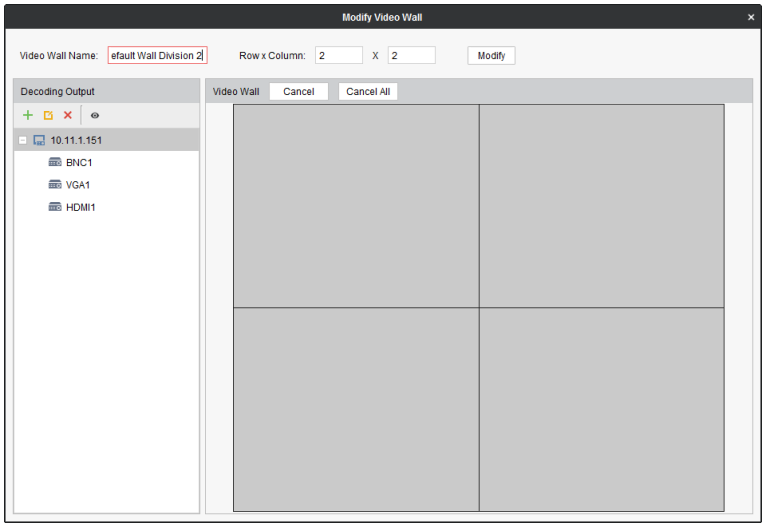

Figure 5.9 Modify Video Wall

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

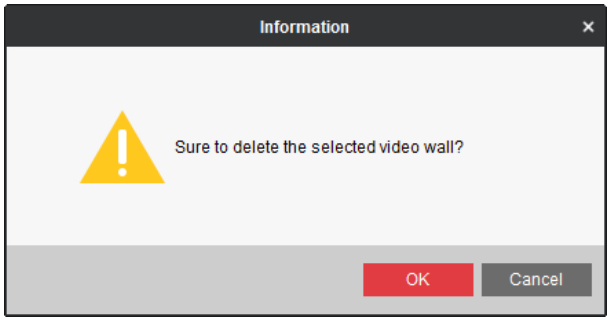

Figure 5.10 Delete Video Wall

- 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.

8. Click and drag the output channels from the left-side list to the display screens.

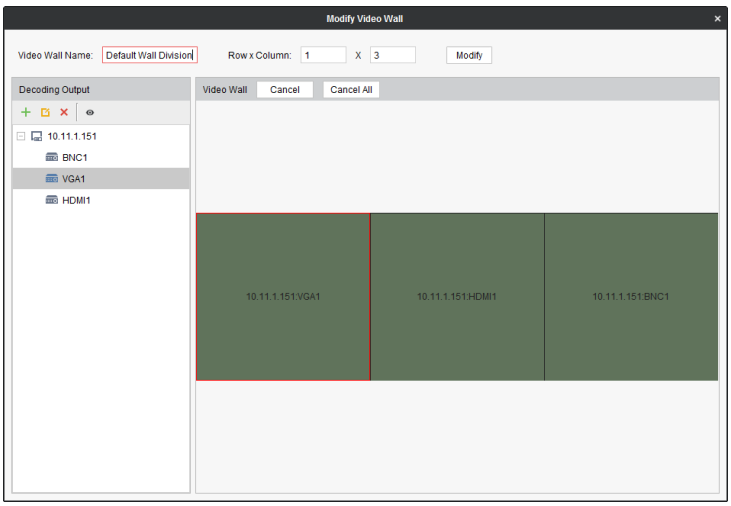

Figure 5.11 Video Wall Layouts

9. You can select a linked display window and click **Cancel** to release the linkage, or click **Cancel All** to release all the linked windows.
10. Click **Modify** to save the settings.
11. In the left-side list, you can select a device and click to edit the parameters for the device, click + to add decoding devices, or click ✕ to delete the device.

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.

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

Steps:

1. Close **Modify Video Wall** interface to go back to the Video Wall interface.

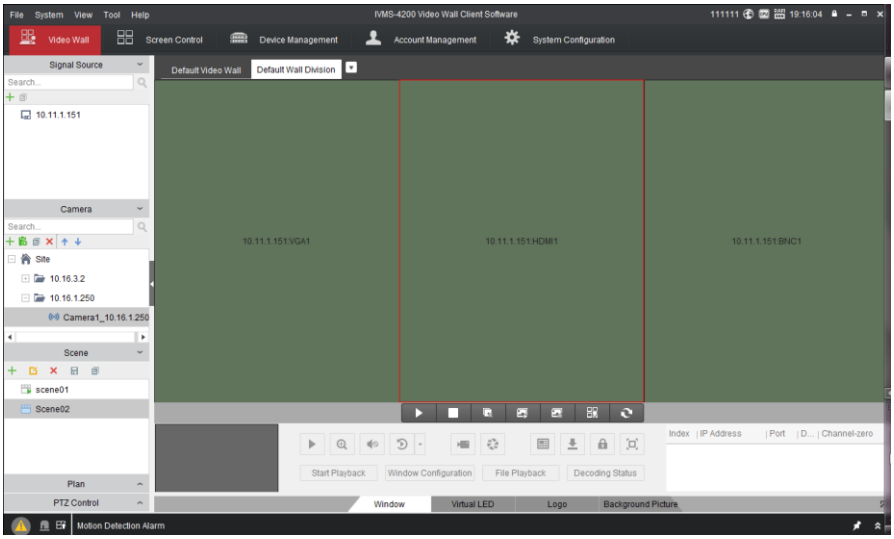

Figure 5.12 Video Wall Operation Page

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.

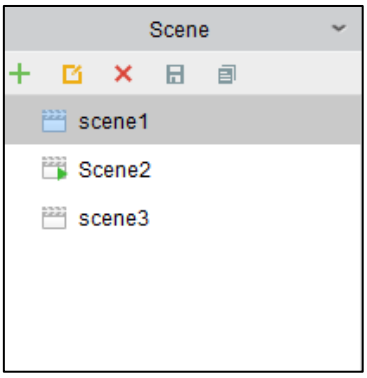

Figure 5.13 Video Wall Operation Page

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.
4. Select a playing window to get a preview of the video in the lower-left corner of the screen. Or you can directly drag a camera to the preview window for live view.

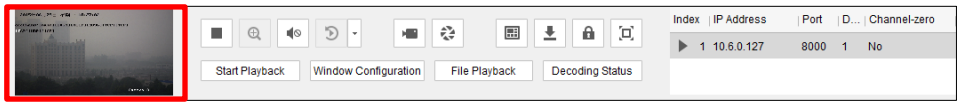

Figure 5.14 Preview Interface

NOTE

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

5. Select a decoding window and click to set the split screen with 1/4/6/8/9/12/16 available.
6. If the decoded camera supports PTZ control, you can click beside **PTZ** to activate the PTZ control panel.

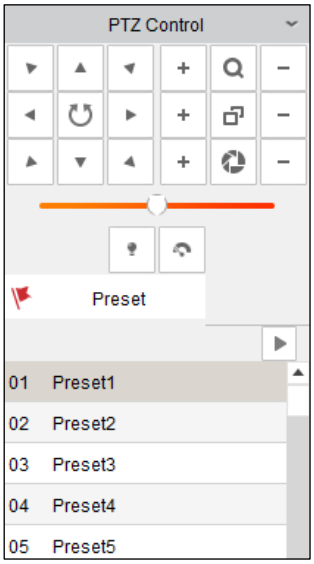

Figure 5.15 PTZ Interface

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

NOTE

The menu differs depending on the devices.

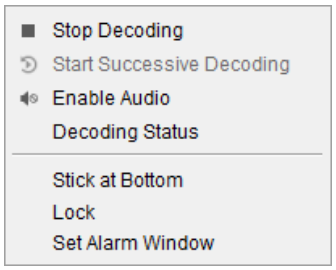

Figure 5.16 Right-click Menu

- **Stop/Start Decoding:** stop/start the decoding.
- **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.

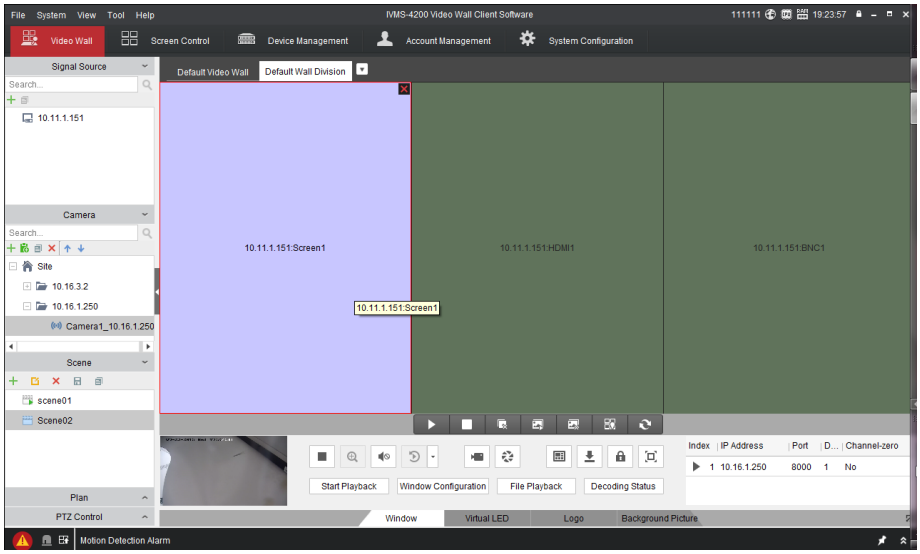

Figure 5.17 Video Wall Display

Icon	Description
	Start Decoding
	Stop Decoding
	Stop All Window
	Enable All VCA Decoding
	Disable All VCA Decoding
	Open Roaming Window
	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 record file is supported to be played back on the video wall.

NOTE

Playback function is only supported by decoder.

Steps:

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

/	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.

Steps:

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.
2. Click and drag a group to the window.
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.

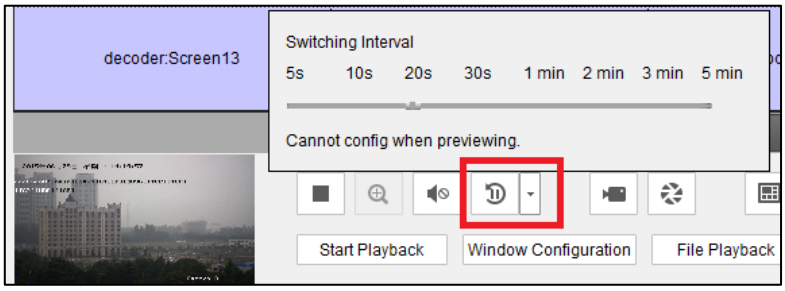

Figure 5.22 Cycle Decoding

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.

Steps:

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

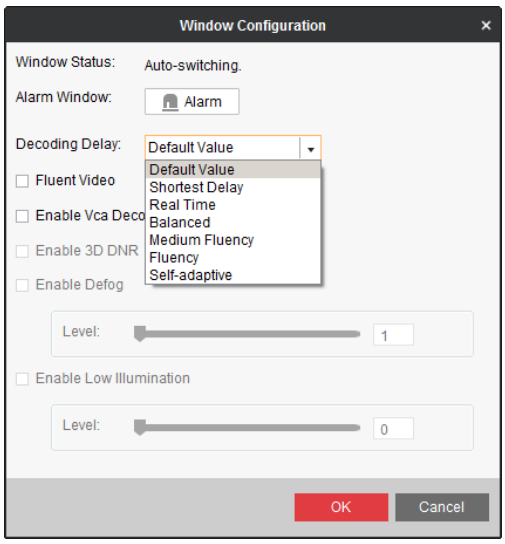

Figure 5.23 Window Configuration

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.
   - **Fluent Video:** check the **Fluent Video** checkbox to enable this function to increase the frame rate of the video for playing the video more fluently.
   - **Enable VCA Decode:** enable this function to display the smart lines set by the encoding device. This function is unsupported under Fluent Video mode.

NOTE

Functions like **3D DNR**, **Enable Defog**, and **Enable Low Illumination** are not supported by DS-6901UD..

Chapter 6 Appendix

6.1 Appendix A. Specification

Model		DS-6901UD
Audio/Video Output	HDMI Output	1-ch
		1080p: 1920 × 1080@50/60Hz, UXGA: 1600 × 1200@60Hz SXGA: 1280 × 1024@60Hz 720p: 1280 × 720@50Hz/60Hz XGA: 1024 × 768@60Hz 4K: 3840 × 2160@30Hz
	VGA Output	1-ch
		1080p: 1920 × 1080@50/60Hz SXGA: 1280 × 1024@60Hz 720p: 1280 × 720@50Hz/60Hz XGA: 1024 × 768@60Hz
	BNC Output	1-ch
Audio/ Video Decoding	Decoding Resolution	Up to 800MP
	Decoding Channel	16-ch
	Decoding Capability	8MP@30fps: up to 4-ch 5MP@30fps: up to 6-ch 3MP@30fps: up to 10-ch 1080p@30fps: up to 16-ch
	Split Screen	1/4/6/8/9/12/16
External Interface	Network Interface	1; 10/100/1000 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)
	Alarm In	8-ch
	Alarm Out	8-ch
General	Power Supply	12 VDC
	Power Consumption	≤ 15 W
	Working Temperature	-10° C to 55° C (14º F to 131º F)
	Working Humidity	10% to 90%
	Dimensions (W × D × H)	220 × 148 × 45 mm (8.66" × 5.83" × 1.77")
	Weight	≤1.2 kg (2.65 lb)

6.2 Appendix B. FAQ

- **Why cannot *ping* the decoder?**
    1. Check the cable and the switch.
    2. Please refer to *Chapter 3* to configure the IP address of the decoder.

- **Why cannot connect the decoder with client software?**
    1. Check the decoder IP address.
    2. Cable is connected.
    3. User name and password of decoder are correct.

- **Why cannot play back the record files in DVR with decoder?**
    1. Check the DVR network connection.
    2. Check the parameters of the playback file.
    3. Check if there are files existed in the selected time duration.

- **Why cannot decode the stream transported by stream media server?**
    1. Check the network connection between decoder and stream media server.
    2. Check if the stream media server port is connected with the port added on decoder.

6.3 Appendix C. List of Third-party IP Cameras Access

IP Camera Manufacturer	Model	Supported Video Format
Panasonic	SP306H	H.264, 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	