

# HD Video/Audio Decoder

## User Manual (V2.2.0)

UD.6L0203D1036A01



Hikvision Network Digital Video Server User's Manual

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### **Regulatory information 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: <a href="https://www.recyclethis.info">www.recyclethis.info</a>.



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: <a href="https://www.recyclethis.info">www.recyclethis.info</a>.

### **Preventive and Cautionary Tips**

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

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Keep all liquids away from the decoder.
- Please check the power supply to avoid the damage caused by voltage mismatch.
- Please make sure the decoder work in the allowed range of temperature and humidity.
- Please keep the device horizontal and avoid the installation under severe vibration environment.
- The dust board will cause a short circuit after damping; Please remove dust regularly for the board, connector, chassis fan and other parts of the device with brush.
- Improper use or replacement of the battery may result in hazard of 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-6400HDI-T Series HD Video/Audio Decoder is developed on the basis of TI platform, Linux operating system and Netra processor, ensuring high reliability and stability of system running.

DS-6400HDI-T Series HD Video/Audio Decoder is capable of decoding video at 5MP resolution and outputting decoded video via BNC, VGA and HDMI interfaces, and it also supports multiple network protocols and multiple stream transmission mode. The decoded video can be displayed on video wall or large screen.

## **1.2 Features**

### **Decoding Video and Audio**

Private H.264, standard H.264, MPEG2 and MPEG4 video stream formats are supported.

Support PS, RTP and private customized data encapsulation formats.

PAL and NTSC image standards supported.

Decode video stream at resolution of 5MP, 3MP, 1080P, 720P, SVGA, VGA, 4CIF, DCIF, 2CIF, CIF and QCIF.

G.722, G.711A, G.711U, MPEG2-L2 and ACC audio stream formats are supported.

Support of obtaining stream and decoding by URL method.

High-definition video output via VGA/HDMI connector and standard-definition video output via BNC connector.

Window jointing for video wall display.

### **Decoding Capacity**

Refer to the following table for the decoding capacity of different models:

Resolution		Reso	olution		Window-	
Model	5MP	1080P	720P	4CIF	video Output	division Mode
					1 HDMI,	
DS-6401HDI-T	2 channels	4 channels	8 channels	16 channels	1 VGA and	1/4/9/16
					1 BNC outputs	
					4 HDMI,	
DS-6404HDI-T	4 channels	8 channels	16 channels	32 channels	4 VGA and 2 BNC	1/4/9/16
					outputs	
DS 6408HDI T	8 channels	16 channels	32 channels	61 channels	8 HDMI, 8 VGA	1/4/9/16
D3-0408HDI-1	o chalineis	10 challiels	52 challiers	04 challiels	and 4 BNC outputs	1/4/9/10

#### **Decoding Mode**

**Dynamic decoding**: Log on the remote encoder or remote stream media server to select a channel of video source to acquire video stream, and then decode and output the video for local display.

**Cycle decoding**: Set multiple remote monitoring channels on a decoding channel, and the decoder is capable of performing cycle decoding according to the configured sequence and time. The stream sources can be obtained via remote access to the encoder or stream media server and decoded for local output. A maximum of 64 channels are allowed for cycle decoding.

**Obtain stream from stream media server**: The decoder can receive real-time data by access to stream media server, and then decode the video stream and output them on the TV Wall. The private RTSP is adopted as the control protocol, and the TCP/UDP is used for receiving the data stream.

Remote playback of record files: By remote access to the encoding devices with storage capability, and

directly obtain the record files from the encoder, and finally decode for local output.

### Network

One 10/100/1000Mbps self-adaptive Ethernet interface.

Support TCP, UDP and Multicast network protocols.

Multiple DDNS settings: Peanut Hull, Dyndns, IPServer, NO-IP and HiDDNS.

Support SADP software to automatically search and discover the online devices in local network area.

Automatically get IP address by DHCP protocol.

Remote upgrading and maintenance can be done via web browser or client software.

### **User Administration**

A maximum of 32 user accounts can be created by the system, including 1 administrator and 31 normal users. The user name of the administrator is admin, which cannot be modified, and the password is allowable to be modified by the administrator only; no deletion of the administrator is allowed, and the administrator is authorized to set the operation permissions for other users.

### **Transparent Channel**

The decoder adopts the RS-232/RS-485 serial interface to realize transparent transmission, and the transparent channel of the decoder supports multicast transparent transmission as well. Multiple transparent channels can be established simultaneously.

### **Two-way Audio**

The decoder is capable of realizing two-way audio with the remote client.

# CHAPTER 2 Panels and Connections

## **2.1 Front Panel**



Figure 2.1 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

Table 2.1 Description of Front Panel

## 2.2 Rear Panel



Figure 2.2 Rear Panel of DS-6408HDI-T

### Table 2.2 Description of DS-6408HDI-T Rear Panel

	Interface	Connections
1	VAG 1~ VGA8	VGA output of decoded video
2	HDMI Video Output	HDMI output of decoded video
3	VIDEO OUT	DB15 connector for video output, connecting to video output device (e.g., monitor) with the DB15-to-BNC adapter.
4	LINE IN/OUT	Two-way audio input/output, 3.5mm connector.
5	AUDIO OUT	DB15 connector for audio out, connecting to audio output device with the DB15-to-BNC adapter.
6	LAN	10/100/1000 Mbps Ethernet interface
7	RS-485 Serial Interface	Connect to RS-485 devices, e.g., keyboard, etc.
0	Alarm In	4 alarm inputs
8	Alarm Out	4 alarm outputs
9	RS-232 Serial Interface	Connect to RS-232 devices, e.g., PC, etc.
10	GND	Grounding
11	Power Supply	Power input interface
12	Power Switch	Power On/Off Switch

# 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-6400HDI-T is *admin*, and password is *12345*. And the default IP address is 192.0.0.64.

## 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. will be displayed.

					SADP			_ 0 ×
0	nline Devices	🕡 About						
😲 Th	e total devices nu	mber: <b>18</b>				Refresh >>	Modify Network param	eters
	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	IP Address:	
002	DS_6504HF_B10	172.6.24.16	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809	Port:	
003	DS_6504HF_B10	172.6.24.11	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809	Subnet Mask:	
004	DS_6504HF_B10	192.0.0.76	8000	V2.0.0build 120608	0.0.00	DS_6504HF_B100120101230.	Gateway:	
005	DS_6504HF_B10	192.0.0.73	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230.	IPv6 Address:	
006	DS_6504HF_B10	172.6.24.14	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809.	IPv6 Gateway:	
007	DS_6504HF_B10	172.6.24.15	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809	IPv6 Prefix Length:	
008	DS_6504HF_B10	192.0.0.80	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230.	Device Serial:	
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	Password	Modify
011	DS_6504HF_B10	172.6.24.18	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809	Tipoloput pacawar	d to modify the network
012	DS_6504HF_B10	172.6.24.13	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809.	parmeters.	a to modily the network
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.	Reset Default Passwo	ord
016	DS_6504HF_B10	192.0.0.77	8000	V2.0.0build 120608	0.0.00	DS_6504HF_B100120101230.		
017	DS_6504HF_B10	192.0.0.78	8000	V2.0.0build 120608	0.0.00	DS_6504HF_B100120101230.	Serial code	Comeback
018	DS_B10_40	172.6.24.10	8000	V2.0.0build 120608	172.6.24.1	DS_B10_400020101117AARR		
							Tips:Serial Number serial and start time	is produced by device
4						•		

Figure 3.1 Search Online Device by SADP

*Note:* 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  $\triangle$  or  $\bigtriangledown$  on each column heading to order the information; you can click  $\bowtie$  to expand the device table and hide the network parameter panel on the right side, or click  $\backsim$  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.

					SADP			_ o ×
0	nline Devices	🕡 About						
💶 Th	e total devices nu	mber: 18				Refresh >>	Modify Network pa	rameters
	Device Type	IPv4 Address	Port	Soft Vision	IPv4 GateWay	Serial Number	12.4.4	[
001	DS-6408HD-T	172.6.24.113	8000	V1.5.0build 120511	172.6.22.1	DS-6408HDI-T0120120327BB	IP Address:	1/2.6.24.113
002	DS_6504HF_B10	172.6.24.16	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809.	Port	8000
003	DS_6504HF_B10	172.6.24.11	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809.	Subnet Mask:	255.255.255.0
004	DS_6504HF_B10	192.0.0.76	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230.	Gateway:	172.6.24.1
005	DS_6504HF_B10	192.0.0.73	8000	V2.0.0build 120608	0.0.00	DS_6504HF_B100120101230.	IPv6 Address:	::
006	DS_6504HF_B10	172.6.24.14	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809.	IPv6 Gateway:	
007	DS_6504HF_B10	172.6.24.15	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809.	IPv6 Prefix Length:	0
008	DS_6504HF_B10	192.0.0.80	8000	V2.0.0build 120608	0.0.0.0	DS_6504HF_B100120101230.	Device Serial:	DS-6408HDI-T01201203
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.	•••••	Modify
011	DS_6504HF_B10	172.6.24.18	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809.	Tine Input nase	word to modify the network
012	DS_6504HF_B10	172.6.24.13	8000	V2.0.0build 120608	172.6.24.1	DS_6504HF_B100120100809.	parmeters.	word to modify the network
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.	Reset Default Pas	sword
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.	Serial code	Comeback
018	DS_B10_40	172.6.24.10	8000	V2.0.0build 120608	172.6.24.1	DS_B10_400020101117AARR		
							Tips:Serial Nun serial and start	nber is produced by device time.
						•		

Figure 3.2 Add Searched Online Device

## **CHAPTER 4**

# **Decoder Configuration and Operation by Web Browser**

#### Purpose:

Since there is no local operation GUI provided for the decoder, you can manage and configure it by web browser or the iVMS-4200 client software. In this chapter, the operation and management of the decoder by the web browser is provided.

Note: The tested Web browsers include: IE7 and IE8, chrome, safari and firefox4.

Open the Web browser and input the IP address of Decoder (e.g., http://172.9.22.84) to enter the login page:



Figure 4.1 Login Interface

Enter the user name and password of the device in the dialog box and then click **Login** to log into the system. By default, the user name for login is *admin* and the password is *12345*.

The main interface of the control panel of the decoder is showed after successful login.

	Decode Operation	Parameter Configure	Device Manag	ement				
P Decede O	norotion							
E Decode 0	Mode	Decode Channel: Chann	nel1	<b>-</b>				
→ Dyna		IPmode						
► Cycle	Decode	Manufacturer:		PRIVATE	-			
> Rem > Disp	ote Playback lav Configure	Remote Host IP Addre	ss:	172.6.22.252				
Larg	e Screen	Remote Host Port		8000		🛛 🗹 Enable Stream Media Server		
■ ► Decode	Control	Remote Host Channe		1		Stream Media Server IP Address:	172.9.101.101	
► Glob	al Switch re Overlay	User Name:		admin		Stream Media Server Port:	554	
📮 🕨 Decode	Status	Password:		••••		Stream Media Server Protocol:	TCP 👻	
> Conr	ection Status	Transmission Protoco	l:	ТСР	-			
Disp	ay Channel Status	Stream Type:		Main Stream	-			
Transparent Channel		O URLmode						
		URL:						
		Start Dec Stop	Dec					

Figure 4.2 Enter WEB Page of Decoder

## **Decoding Operation**

### 4.1.1 Configuring Decoded Video Display

#### Purpose:

To realize the display of the decoded video on the TV wall, you must set the decoding operation parameters.

#### Before you start:

Check the cabling of the decoder, and ensure that the decoder is connected to the TV wall or monitor via the video output interfaces.

To set the video output of the decoder, the first step is to choose the video output interfaces. There are 3 types of

video output interfaces, the VGA, BNC and HDMI outputs.

### Steps:

1. Click Decode Operation > Decode Mode > Display Control to enter the display control interface:

Display Cor								
VGA Dis	play BNC	Display HI	OMI Display					
Display C	Display Channel No.: VGA1							
Output Re	Output Resolution: XGA_60HZ(1024*768)							
Display M	lode:	4		•				
Sub-wind								
Serial No.	Related Dec	oding Channel	Audio On	Window Enlarged	Audio On	Full Screen		
1	Decoding Ch	annel1 ·	×	×	<b>4</b> ))	К Л 1 2		
2	Decoding Ch	annel3	×	×	<b>≼</b> ))	к я к я		
3	Decoding Ch	annel4 ·	×	×	■))	K N K N		
4	Decoding Ch	annel5	×	×	∢))	к х х		
Save								

Figure 4.3 Display Configure

 In the display control interface, you can configure the Display Channel, Video Format (BNC), BNC Output Scaling (BNC), Output Resolution (VGA, HDMI) and Display Mode.

			VGA Display	BNC Display	HDMI Display	
VGA Display BNC	Display HDMI Display		Display Channel N	o.: BNC1		-
Display Channel No.:	HDMI1	•	Video Format:	NTSC	•	-
Output Resolution:	1080P_50HZ(1920*1080)	-	BNC Output Scaling	g: Original	· •	-
Display Mode:	4	•	Display Mode:	4		-

Figure 4.4 Configure Display Parameters

- Select the window-division display mode. The DS-6400HDI-T series supports 1/4/9/16-division display mode.
- 4. Select the decoding channel from the drop-down list for each sub-window.
- 5. Click **Save** to save the settings and the prompt Settings saved pops out.

After having configured the window-division display, the sub-window information can be viewed on the interface. *Example:* If you select the display mode as 4, the sub-window configuration field shows the status of the four sub-windows.

Sub-wind	ow Conliguration				
Serial No.	Related Decoding Channel	Audio On	Window Enlarged	Audio On	Full Screen
1	Decoding Channel10 -	×	×	<b>4</b> ))	K N N
2	Decoding Channel11 -	×	×	<b>4</b> ))	K 3 2 3
3	Decoding Channel12 -	×	×	<b>4</b> ))	5 A 8 3
4	Decoding Channel13 -	×	×	<b>≼</b> ))	5 N

Figure 4.5 Sub-window Information

• Enlarge/Restore the Sub-window

Task 1: Enlarge the Sub-window

### Steps:

1. Select the 🔯 button to enlarge the selected sub-window and display in full-screen mode. The following prompt will pop up:

Hint		
Enlarge the sub-wine	dow?	A T
	OK	

Figure 4.6 Enlarge the Sub-window

2. Click **OK** to enlarge the selected sub-window, and the Window Enlarged in the Sub-window Configuration field will be displayed in  $\sqrt{}$ .

#### Task 2: Restore the Sub-window

### Steps:

1. Click the 🔝 button again and the following prompt will pop up:

Restore the sub-window?	۸ ۳
ОК	Cancel

Figure 4.7 Restore the Sub-window

2. Click **OK** to exit the full-screen mode of the selected sub-window, and the Window Enlarged in the Sub-window Configuration field will be displayed in **×**.

### 4.1.2 Configuring Dynamic Decoding

After you have configured the decoded video display mode, you can enable the dynamic decoding now.

Dynamic decoding means that you decode one channel for one decoding window.

Steps:

3.

- Click Decode Operation > Decode Mode > Dynamic Decoding to enter the dynamic decode settings interface.
- 2. Select a decoding channel from the drop-down list which has been configured for the sub-window in Display Control Configuration interface.
  - Configure the dynamic decoding mode for the selected channel.

Two decoding modes are selectable: IP Mode and URL Mode.

### Task1: Set Encoding Device by IP Mode

Set the remote encoding device to be decoded.

Dynamic Decoding			
Decoding Channel No.: Decoding C	hannel1 🔻		
IP Mode			
Manufacturer:	PRIVATE -		
Remote Host Address:	224.0.0.1		
Remote Host Port:	8890	📃 Use Stream Media	
Remote Host Channel No.:	1	Stream Media Server Address:	0.0.0.0
User Name:	admin	Stream Media Server Port:	0
Password:	••••	Stream Media Server Protocol:	TCP 🔻
Transmission Protocol:	MCAST -		
Stream Type:	Main Stream 👻		
URL Mode			
URL:			
Start Dec Stop Dec			

Figure 4.8 Set Encoding Device by IP Mode

Configure the following settings:

- Manufacturer: Select the Manufacturer of encoding device connected to be decoded. Encoding devices from the following manufactures are supported: PRIVATE, PANASONIC, SONY, AXIS, SANYO, BOSCH, ZAVIO, ARECONT, PELCO, SAMSUNG and ONVIF.
- Remote Host Address: Enter the IP address of the encoding device to be decoded.
- Remote Host Port: Enter the port of the encoding device to be decoded.
- Remote Host Channel No.: Enter the channel No. of the encoding device for decoding.
- User Name/Password: Enter the user name and password used for login to the encoding device.
- Transmission Protocol: Select the network transmission protocol and the default protocol is TCP.
- Stream Type: Set the stream type to be decoded and the default type is main stream. The sub-stream is supported for decoding when the encoding device supports dual-stream.
- Enable Stream Media Server (optional): Enable the stream media server if required.
  - Stream Media Server IP Address: Enter the IP address of the server.
  - Stream Media Server Port: Enter the port No. of the server and the default port is 554.
  - Stream Media Server Protocol: Select the protocol of the server and the default protocol is TCP.

### Task 2: Set Encoding Device by URL Mode

Set the URL of the remote encoding device to be decoded.

	Lmode	
URL:	rtsp://172.6.22.125/hikvision://172.6.23.22:8000:2:0?username=admin?	
Start De	ec Stop Dec	

Figure 4.9 Set Encoding Device by URL Mode

#### **URL format:**

rtsp://{ip1}[:port1]/hikvision://{ip2:port2:chan:type?username=xxxx?password=xxxx?linkmode=xxx}.
Note: { } is required value and [ ] is optional value.

#### Example:

rtsp://172.6.22.125/hikvision://172.6.22.144:8000:2:0?username=admin?password=12345?linkmode=TCP

- ip1: Set the IP address of the stream media server.
- port1: Set the port No. of the stream media server. It is 554 be default if you do not configure it.
- hikvision: The identifier of the Hikvision SMS (stream media server) 4.0.

- ip2: Enter the IP address of the encoding device to be decoded.
- **port2:** Enter the port No. of the encoding device to be decoded.
- chan: Enter the channel No. of the encoding device for decoding.
- type: Set the stream type. 0 means main stream and 1 means sub-stream.
- username: Enter the user name of the encoding device. Max. length: 32 bytes.
- password: Enter the password used for login to the encoding device. Max. length: 16 bytes.
- linkmode: Set the protocol to TCP or UDP which is case-insensitive.

#### Notes:

1) The length of URL should be less than 240 bytes.

2) The URL mode can only be activated when using with the SMS 4.0 or above version of iVMS-4200 client software.

 Click Start Dec to start decoding, and the decoding status can be viewed in the Connection Status or the Decoding Channel status interface. And you can view the image from the remote encoding device that is decoded and displayed on the screen.

### 4.1.3 Configuring Cycle Decoding

#### Purpose:

Comparing with the dynamic decoding, the cycle decoding means that you can configure multiple input streams (the remote encoding devices) to one output (the channel displayed on the screen).

### Steps:

- 1. Click **Decode Operation** > **Decode Mode** > **Cycle Decoding** to enter the Cycle Decoding interface.
- 2. Select a decoding channel from the drop-down list which has been configured for the sub-window in Display Control Configuration interface.
- 3. Enter the Cycle Time  $(1 \sim 1000 \text{ sec})$ .

The cycle time refers to the time duration for decoding each input signal to the defined channel and displaying on the screen.

Decoding Channel No.: Decoding Channel 1 -											
Cycle	Time:	5			s						
Connecting Channel Edit Delete											
IP Mo	de		Camera Inf	ormation				Stream Media	a Information		
Seria No.	<sup>al</sup> Manufactur	er Remote IP Address	Remote Port	Camera No.	Protocol	Stream Type	Use Stream Media	Stream Media IP	Stream Media Port	Stream Media Protoco	n DI I
1	PRIVATE 1	72.9.25.123	8000	1	tcp	main		0.0.0.0			-
2	PRIVATE	0.0.0.0	0	0	tcp	main		0.0.0.0	0	tcp	
3	PRIVATE	0.0.00	0	0	tcp	main		0.0.0.0	0	tcp	
4	PRIVATE	0.0.0.0	0	0	tcp	main		0.0.0.0	0	tcp	
5	PRIVATE	0.0.00	0	0	tcp	main		0.0.0.0	0	tcp	-
URL Sei	Mode rial No.					URL					

Figure 4.10 Configure Cycle Decoding

4. In the IP mode or URL mode area, select an item from the list and click **Edit** to enter the following interface to add a new input stream for decoding or edit the existed input stream.

Note: Refer to Chapter 4.1.2	for configuring the	ne input stream	assigned to t	he cycle de	coding channel
------------------------------	---------------------	-----------------	---------------	-------------	----------------

◎ IP Mode			
Manufacturer:	PRIVATE -		
Remote Host Address:	172.9.25.123		
Remote Host Port:	8000	🔲 Use Stream Media	
Remote Host Channel No.:	1	Stream Media Server Address:	0.0.0.0
User Name:	admin	Stream Media Server Port:	0
Password:	•••••	Stream Media Server Protocol:	TCP 🔻
Transmission Protocol:	TCP 🔹		
Stream Type:	Main Stream 👻		
O URL Mode			
URL:			
ОК	Back		

Figure 4.11 Edit Cycle Decoding of a Channel

- Click OK to save the settings and back to the Cycle Decoding interface, or click Back to back to the Cycle Decoding interface without saving.
- Repeat Step4 and Step5 to edit other input streams for cycle decoding. You can also click **Delete** to remove the configured input stream from the list. *Note:* Up to 64 input streams can be configured for each cycle decoding channel.

IP Mod										
			Camera Inf	ormation				Stream Media	a Information	
Serial No.	Manufacture	Remote IP Address	Remote Port	Camera No.	Protocol	Stream Type	Use Stream Media	Stream Media IP	Stream Media Port	Stream Media Protocol
1	PRIVATE 17	2.9.25.123	8000	16	tcp	main		0.0.0.0		*
2	PRIVATE 17	2.6.23.20	8000	1	tcp	main		0.0.00		(=)
3	PRIVATE 17	2.6.23.123	8000	2	tcp	main		0.0.0.0		
4	PRIVATE	0.0.0.0	0	0	tcp	main		0.0.0.0	0	tcp
5	PRIVATE	0.0.0.0	0	0	tcp	main		0.0.0.0	0	tcp 👻

Figure 4.12 Configure Input Streams for Decoding

7. Click **Save** to save the configuration of input streams for the cycle decoding.

Example:

**Configuration**: Decoding Channel: Channel 1, Cycle Time: 10 seconds, input streams configured for decoding: 10.

**Result**: the video streams from these 10 input channels will be decoded by decoding channel 1 and displayed on the screen in sequence with the duration of 10 seconds for each.

### 4.1.4 Configuring Video Wall Display

The DS-6404HDI-T and DS-6408HDI-T support the configuration for the multi-screen video wall display of the decoded video.

### Steps:

1. Click **Decode Operation** > **Video Wall** to enter the following interface:

Video Wall						
Screen No.:		Video Wall1 🗸				
Screen Jointin	g Mode:	2*2		•		
Related Decoding Channel:		8 🗸				
Output Resolution:		720P_60HZ(1	280*720)	•		
Video Output						
Serial No.	Screen Ser	rial No.	Display Ch	annel		
1	Screen 1	•	VGA1	-		
2	Screen 2	-	VGA2	•		
3	Screen 3	•	VGA3	•		
4	Screen 4	-	VGA4	•		
Save						

Figure 4.13 Configure Video Wall

- 2. Select the Screen No. from the drop-down list.
- Select the Screen Jointing Mode. Different modes are selectable based on models: DS-6404HDI-T: 1\*2, 2\*1, 2\*2.

DS-6408HDI-T: 1\*2, 2\*1, 2\*2, 2\*3, 3\*2, 2\*4 and 4\*2.

- 4. Select the Related Decoding Channel for the selected video wall.
- 5. Set the Output Resolution.

*Note:* You can select the *NOT\_AVAILABLE* option in the Output Resolution to clear the current video wall configuration.

- 6. In the Video Output Configuration area, select the Display Channel for each screen.
- 7. Click **Save to save the settings**.

### Notes:

- 1. The BNC video output does not support large screen display currently.
- 2. It is recommended to configure the display channels with the same video output type for each large screen, e.g., VGA1, VGA2, VGA3...; or HDMI1, HDMI2, HDMI3....

The display sequence of sub-screens in different screen modes is shown below:



Figure 4.14 Multi-screen Video Wall Display

### 4.1.5 Enabling/Disabling the Decoding Channel

### Purpose:

The Channel On/Off function enables you to start or stop the decoding and displaying for certain channels. *Steps:* 

1. Click Decode Operation > Decode Control > Channel On/Off to enter the following interface:

Decoding Channel No.:	Decoding Channel1 -
On/Off:	On 👻
Save	
Figure 4.15 Co	nfigure Channel On/Off

- 2. Select a decode channel in the drop-down list in the Decode Channel field.
- 3. Set the decoding channel to On or Off.
- 4. Click **Save** to save the settings.

### 4.1.6 Configuring Picture Overlay

### Purpose:

The Picture Overlay function can overlay a picture on the screen for the selected decode channel, and the position of the picture overlaid on the screen can also be set here.

### Steps:

1. Click Decode Operation > Decode Control > Picture Overlay to enter the following interface:



Figure 4.16 Configure Picture Overlay

- 2. Select the decode channel in the drop-down list in the Decoding Channel No. field.
- 3. Click **Browse** to choose a picture from the local directory, and then upload it by clicking the **Upload** button.
- 4. Set the X coordinate and the Y coordinate of the picture displayed on the screen to move the picture up and down and left and right.

*Note:* The picture must be in 24-bit BMP format and its width and height must be 32X pixel, with up to 128×128 resolution and 24 bits depth.

- 5. You can check the checkbox of Flash to set the display style of the picture.
- 6. Set the picture to show or hide.
- 7. Click Save to save the settings.

### 4.1.7 Checking the Connection Status

### Purpose:

The connection status shows the status of the decoding status and the network connection status of the decoding channel.

Click **Decode Operation** > **Decoding Status** > **Connection Status** to view the connection status of the current decoding channel.

Connection Status					
Decoding Channel No.:	Decoding Channel1	•			
Connection Status:	Decoding	Ψ.			
Bitrate Transmission Rate:	210	kb/s			
Streaming Mode:	Active	Ψ.			
Active Streaming					
Decoding Mode: Cycle De	ecoding 🔻				
IP Mode					
Camera Information					
Remote Host Address:	172.6.23.20		Stream Media Server Address:		
Remote Host Port:	8000		Stream Media Server Port:		
Remote Host Channel N	No.: 1		Stream Media Server Protocol:		
Transmission Protocol:	TCP				
Stream Type:	Main Stream	~	File Name:		
User Name:	admin		Start Time:		
Password:			End Time:		
Manufacturer:	PRIVATE				
🗇 URL Mode					
URL:					
Passiva Straamina					
Disuise Made				D-+t	
Playing Mode:		Transmission Protoco		Port:	

Figure 4.17 Check Connecting Status of Device

You can view the status of the network connection displayed on the interface. *Note:* The connection status of device will be refreshed regularly.

### 4.1.8 Checking the Decoding Channel Status

Click **Decode Operation** > **Decoding Status** > **Decoding Channel** to view the status information of the current decoding channel, including the channel No., decoding status, encoding type, etc. Refer to the following interface:

Camera No.	Decoding Status	Encoding Type	Package Format	CPU Usage	lmage Width	lmage Height	Video Format	Video Frame Rate	Audio eFrame Rate	Decoded Video Frame Rate	Decoded Aud
1	Not decoded	Standard 264	RTP	0	1920	1080	Unknown	0	0	0	0
2	Not decoded	UNKNOWN	UNKNOWN	0	0	0	Unknown	0	0	0	0
3	Not decoded	UNKNOWN	UNKNOWN	0	0	0	Unknown	0	0	0	0
4	Not decoded	UNKNOWN	UNKNOWN	0	0	0	Unknown	0	0	0	0
5	Not decoded	UNKNOWN	UNKNOWN	0	0	0	Unknown	0	0	0	0

Figure 4.18 Check Decoding Channel Status

### 4.1.9 Checking the Display Channel Status

### Purpose:

The display channel status interface shows the video output status of the decoder, including the status for the VGA output, BNC output, HDMI output, and the sub-window information.

Click **Decode Operation** > **Decoding Status** > **Display Channel** to view the working status of the display channel.

VGA Display	BNC Display	HDMI Displa		
Display Channel I	No. Display St	tatus (	Display Mode	Screen Mode
VGA1	Display	ed		Normal
VGA2	Display	ed	9	Normal
VGA3	Display	ed	4	Normal
VGA4	Display	ed	1	Normal
Sub-window				
Sub-windov	w No. Rela	ted Decoding C	hannel	Video Frame Rate
1		1		25
2		2		24
3		3		25
4		4		24
5		5		25
6		6		25
7		7		25
8		8		25
9		9		24
10		10		24
11		11		24
12		12		24
13		13		25
14		14		24
15		15		25
16		16		24

Figure 4.19 Check Display Channel Status

Note: The Display Channel Status of device will be refreshed regularly.

### 4.1.10 Configuring Transparent Channel

The Transparent Channel refers to the transmission channel used for forwarding data between the Decoder and the Encoder without operating on the data transferred.

### Steps:

- 1. Click Decode Operation > Transparent Channel to enter the Transparent Channel settings interface.
- 2. Click to select a transparent channel from the list to configure.

Local Serial Port:	RS232	•	Remote Serial Port:	RS485	•	
Remote Host Addr	ess: 0.0.0.0		Remote Host Port:	0		
User Name:			Password:			
Edit De	elete					
Serial No.	Local Port No.	Remote IP Address	Remote Port	Remote Port No.	Connection Status	
1	RS232	0.0.0.0	0		Disconnected	<b>^</b>
2	RS232	0.0.0.0	0		Disconnected	=
3	RS232	0.0.0.0	0		Disconnected	
4	RS232	0.0.0.0	0		Disconnected	
5	RS232	0.0.0	0		Disconnected	
6	RS232	0.0.0.0	0		Disconnected	
7	RS232	0.0.0.0	0		Disconnected	
8	RS232	0.0.0.0	0		Disconnected	
9	RS232	0.0.0.0	0		Disconnected	
10	RS232	0.0.0.0	0		Disconnected	
11	RS232	0.0.0.0	0		Disconnected	Ŧ
•			m			F

Figure 4.20 Configure Transparent Channel

3. 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:* When the RS-232 port is used as the Local Serial Port, you must select the operating mode to Transparent Channel by entering the Configuration > Serial Port Settings > RS-232 Port interface.

4. Enter the device information in the Remote Host IP Address, Remote Host Port, and the login User Name and Password of the encoding device.

Transparent Cha	innel					
Local Serial Port	RS232	<b>~</b>	Remote Serial Port:	RS485	-	
Remote Host Add	dress: 172.6.23.123		Remote Host Port:	8000		
User Name:	admin		Password:	••••		
Edit	Delete					
Serial No.	Local Port No.	Remote IP Address	Remote Port	Remote Port No.	Connection Status	
1	RS232	172.6.23.123	8000	RS485	Connected	
2	RS232	0.0.0.0	0		Disconnected	=
3	RS232	0.0.0.0	0		Disconnected	1
4	RS232	0.0.0.0	0		Disconnected	
5	RS232	0.0.0.0	0		Disconnected	
6	RS232	0.0.0.0	0		Disconnected	
7	RS232	0.0.0.0	0		Disconnected	
8	RS232	0.0.0.0	0		Disconnected	
9	RS232	0.0.00	0		Disconnected	
10	RS232	0.0.0.0	0		Disconnected	
11	RS232	0.0.00	0		Disconnected	Ŧ
•						Þ.
Refresh						

Figure 4.21 Check Connecting Status of Transparent Channel

Note: Up to 64 encoding devices are allowed to establish transparent channel transmission with a decoder.

- 5. Click **Edit** to finish the settings.
- 6. Click **Refresh** and the status in the Connection Status will be displayed if the connection is successful.

## **4.2 Decoder Configuration**

### **4.2.1 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, etc.

### Steps:

Click **Configuration** > **Device Information** to view the device information, including the Device Type, Device Serial No., Firmware Version, DSP Version, etc.

Note: The device name can be edited.

Device Name:	Embedded multiDecoder
Physical Address:	00:40:48:8b:b2:67
Device Type:	DS-6404HD-T
Device Serial No.:	DS-6404HD-T0120120329BBRR407631767W0
Firmware Version:	V2.2.0 build 130727
DSP Version:	V2.1 build 130723
Save	

Figure 4.22 Check Device Information

### 4.2.2 Configuring Time Settings

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

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

Time Settings						
O NTP						
NTP Server:						
NTP Port:						
Manual Time Sync						
Time:	2013-07-24T15:50:17	<b>.</b>				
Time Zone Settings						
Time Zone:	(GMT+08:00) Beijing,	Hongkong,	Shanghai.	Taipei,	Singapore	•
Save						
Save						

Figure 4.23 Configure Time Settings

2. Configure the time synchronization by NTP server or by 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 4.24 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 by Manually

Enable the **Manual Correction** function and then click the **system** time from the pop-up calendar.

		-	J	ul	20	13	Þ	₩
		Sun	Mon	Tue	Wed	Thu	Fri	Sat
		30	1	2	3	4	5	6
		7	8	9	10	11	12	13
		14	15	16	17	18	19	20
		21	22	23	24	25	26	27
		28	29	30	31	1	2	3
		4	5	6	7	8	9	10
20	)13-07-24T15:50:17	Time	16:	1 :	39 🕻		Ð	€
ľ			CI	ear	Tod	ау	O	< .

Figure 4.25 Configure Time by 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.

### 4.2.3 Configuring Basic Network Settings

### Purpose:

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

Steps:

1. Click Configuration > Network Settings > General to enter the general network settings interface.

General	
IP Address:	172.9.22.163
Subnet Mask:	255.255.255.0
Gateway:	172.9.22.1
DNS Server:	0.0.0.0
Save	

Figure 4.26 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.

### 4.2.4 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 Settings > DDNS to enter the DDNS Settings interface:

DONS	
🗹 Enable DDNS	
DDNS Type:	IPServer -
Server Address:	
Port:	0
User Name:	
Password:	•••••
Domain Name:	
Save	

Figure 4.27 Configure DDNS Settings

- 2. Check the Enable DDNS checkbox to enable this feature.
- 3. Select **DDNS Type**. Four different DDNS types are selectable: IPServer, DynDNS, PeanutHull and HiDDNS.
- 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 Device Domain Name text field, enter the domain obtained from the DynDNS website.
- (4) Click **Save** to save the settings.

C Enable DDNS	
DDNS Type:	DynDNS 👻
Server Address:	members.dyndns.org
Port:	0
User Name:	test
Password:	•••••
Domain Name:	test.dyndns.com
Save	

Figure 4.28 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 IPServer software.

Enable DDNS	
DDNS Type:	IPServer
Server Address:	212.15.10.211
Port:	0
User Name:	
Password:	
Domain Name:	
0	
Save	

Figure 4.29 IPServer Settings

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

Enable DDNS	
DDNS Type:	PeanutHull -
Server Address:	
Port:	0
User Name:	test.gicp.net
Password:	•••••
Domain Name:	
Save	

Figure 4.30 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.

🗹 Enable DDNS	
DDNS Type:	Hiddns -
Server Address:	www.hik-online.com
Port:	0
User Name:	
Password:	
Domain Name:	
Save	



*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).

### 4.2.5 Configuring RS-485/RS-232 Serial Port

### **Configuring RS-232 Parameters**

Steps:

1. Click Configuration > Serial Port Settings > RS-232 Port to enter the following interface:

RS-232 Port	
RS-232 Port:	1 🔹
Duplex:	Half-duplex 🔻
Baud Rate:	115.2k 👻
Data Bit:	8 🗸
Stop Bit:	1 🔹
Stop Bit: Parity:	1 -
Stop Bit: Parity: Operating Mode:	1  Vone Console

Figure 4.32 Configure RS-232 Settings

- 2. Configure the RS-232 parameters, including the baud rate, data bit, stop bit and parity type.
- Select the Operating Mode of RS-232 to 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.
- 4. Click **Save** to save the settings.

### **Configuring RS-485 Parameters**

### Steps:

1. Click Configuration > Serial Port Settings > RS-485 Port to enter the following interface:

RS-485 Port	
RS-485 Channel No.:	1 -
Duplex:	Half-duplex 💌
Baud Rate:	9600 👻
Data Bit:	8 🗸
Stop Bit:	1 -
Parity:	None 🔽
Save	

Figure 4.33 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.

### 4.2.6 Configuring Alarm Input / Output Settings

### Purpose:

As the Decoder is unable to obtain the alarm signal over network, it must be connected with external alarm input/output.

### Steps:

### **Alarm Input Settings**

- 1. Click Configuration > Alarm Settings > Alarm Input to enter the alarm setting interface.
- 2. Set the Alarm Sensor Type for the selected alarm input and configure the Alarm Input Handling actions. By default, the Alarm Mode is in NO (Normally Open).

Alarm Input				
Alarm Input:	A->1	•		
Alarm Sensor Type:	NO	-		
Alarm Input Handling				
Trigger Alarm Output	🔲 Alarm Output1	Alarm Output2	Alarm Output3	🔲 Alarm Output4
Save				

Figure 4.34 Configure Alarm Input Settings

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

### **Alarm Output Settings**

- 1. Click Configuration > Alarm Settings > Alarm Output to enter the alarm setting interface.
- Select the alarm output, you can also customize the output delay time. Output delay time refers to the duration of the alarm after the alarm output, for example, when you set the alarm output delay time as 10 seconds, when an alarm occurs the alarming time lasts 10 seconds later than the time of the alarm stopped.
- 3. Click Save to save your settings.

Alarm Output	
Alarm Output:	A->1 •
Default:	Low TTL 👻
Triggering Status:	Pulse 👻
Output Delay:	10s 🔻
Save	

Figure 4.35 Configure Alarm Output Settings

### 4.2.7 Configuring Arming Time

### Purpose:

Set the time schedule for alarm input and alarm output.

Steps:

1. Click **Configuration** > **Arming Time** to enter the following interface.

Arming Time		
	Start Time	End Time
Monday:	00 - : 00 -	23 💌 : 59 💌
Tuesday:	00 - : 00 -	23 🔻 : 59 💌
Wednesday:	00 - : 00 -	23 🔻 : 59 💌
Thursday:	00 🕶 : 00 🕶	23 🔻 : 59 👻
Friday:	00 🔻 : 00 💌	23 🔻 : 59 👻
Saturday:	00 🕶 : 00 💌	23 🔻 : 59 👻
Sunday:	00 🕶 : 00 💌	23 🔻 : 59 👻
Description: Se		
Save		

Figure 4.36 Configure Arming Time

- 2. Choose the Start Time and the End Time.
- 3. Click **Save** to save the schedule.

### 4.2.8 Managing User Account

The user accounts can be managed in this interface.

### Steps:

- 1. Click Configuration > 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 4.37 Configure User Account

*Note:* For the admin user, only the password can be modified.

### 4.2.9 Importing/Exporting Parameters

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

### Steps:

1. Click Configuration > Config File Import/Export to enter the parameters import/export interface:

Config File Import/Export	
Config File:	Browse
Importing Progress:	Import
Exporting Progress:	Export

Figure 4.38 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.

Or click the **Export** button to export configuration files to the local backup device.

## 4.3 Configuring Remote Playback

### Purpose:

You can play back the record files stored in the remote encoding devices. *Steps:* 

1. Click Decode Operation >Remote Playback to enter the remote playback interface:



Figure 4.39 Configure Remote Playback

- 5. Select a Decoding Channel from the drop-down list for playback.
- Enter the device information in the Remote Host IP Address, Remote Host Port, Remote Host Channel No., and login User Name and Password of the encoding device.

Connected Device Information	
Remote Host Address:	72.6.23.123
Remote Host Port:	8000
Remote Host Channel No.:	3
User Name:	admin
Password:	•••••

Figure 4.40 Enter Device Information

- 3. Select the playback mode to Playback by File or Playback by Time.
  - Playback by file: enter the file name searched on the encoding device.
  - Playback by time: click where the start time and end time of the record file.

O Playback by Time		
Start Time:	2013-07-22 10:41:15	<b>.</b>
End Time:	2013-07-23 10:41:20	III]

Figure 4.41 Playback by Time

- 4. Click Save to finish the settings.
- 5. You can click **D** to start playback.



### Notes:

- The speed of slow forward can be set to 1/2X, 1/4X and 1/8X; and the speed of fast forward can be set to 2X, 4X and 8X.
- During decoding the playback on the screen, if you change the resolution of the video output, the decoding stops.

# 4.4 Rebooting, Upgrading and Restoring the Default Settings for the Decoder

### Steps:

- 1. To reboot, upgrade or restore the default settings of the decoder, go to the **Device Management** interface.
- 2. Choose the configuration items in the left part of the page.

### To upgrade the decoder:

- 1) Click the Upgrade icon to enter the interface, see the following figure.
- 2) Click **Browse** to search the upgrading files.
- 3) Click **Upgrade** to upgrade it.

	Upgrade	
Upgrade	Upgrade File:	 Browse
	Upgrade Progress:	Upgrade
Restore Default		
Reboot		

Figure 4.43 Device Management

#### Notes:

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

### To restore the default settings of the decoder:



- 1) Click Restore Default icon to enter the Restore Default interface.
- Click Complete to restore the completed factory settings of the decoder. Or

Click **Simple** to restore just a part of the factory settings of the decoder.



Figure 4.44 Restore Default Settings

### To reboot the decoder:

- 1) Click icon to enter the rebooting interface.
- 2) Click **OK** if you are sure to reboot the device.



Figure 4.45 Reboot the Device

## CHAPTER 5

# **Decoder Configuration and Operation by Client Software**

Run the disk of iVMS-4200 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:



*Note:* The software is capable of many functions as the controlling and managing for many devices, such as the DVR, NVR, etc. In this manual, only the operation related to the decoder is introduced.

## 5.1 Adding an Encoder

Steps:

Steps:



- 1. Click Management in the control panel to enter the decoding device management interfaces.
- 2. Click Add to enter the Add Device interface.
- 3. Add the device by IP address or private domain name (IP server/HiDDNS). You can also add the thirdparty encoding device.

Task1: Add the device by IP address.

- 1) Edit the nickname of the encoding device.
- 2) Enter the IP address, port, login user name and password.
- 3) Click Add to add the device.

A	dd Device 🗙
Private Domain Mode	Add Third-Party IPC
Nickname:	Camera01
Address:	172.6.23.5
Port:	8000
User Name:	admin
Password:	•••••
Export To Group	
Show Online Devices	Add Cancel

Figure 5.2 Add Device by IP Address

Task2: Add the device by IP server or HiDDNS.

- 1) Check the checkbox of Private Domain Mode
- 2) Edit the nickname of the encoding device.
- 3) Select the DDNS type to IP Server or HiDDNS by checking the checkbox.
- 4) Enter the server address, server port, device ID (IP server) or device domain name (HiDDNS).
- 5) Enter the login user name and password.
- 6) Click **Add** to add the device.

	Add Device 🛛			Add Device	×
Private Domain Mode Nickname:	Add Third-Party IPC		Private Domain Mode Nickname:	Add Third-P	arty IPC
Protocol Type:	IP Server     HIDDNS	ш	Protocol Type:	IP Server	• HIDDNS
Server Address:		Ш	Server Address:	www.hik-online	.com
Server Port:		11	Server Port:	80	
Device ID:	Device Name / Serial No.	11	Device Domain Name:		
User Name:	admin	11	User Name:		
Password:	•••••	11	Password:		
Export To Group			Export To Group		
Show Online Devices	Add Cancel		Show Online Devices	Add	Cancel

Figure 5.3 Add Device by Private Domain Mode

Task3: Add the third-party device.

- 1) Check the checkbox of Add Third-Party IPC
- 2) Edit the nickname of the encoding device.
- 3) Enter the IP address, port, login user name and password.
- 4) Select the factory type of the encoding device from the dropdown list.
- 5) Click Add to add the device.
- 6) Enter the channel number.
- 7) Click Add to add the device.

A	dd Device 🗙
Private Domain Mode	Add Third-Party IPC
Nickname:	IP Camera
Address:	172.6.23.178
Port:	8000
User Name:	admin
Password:	••••
Factroy Type:	YAAN
Channel Number:	1
Multicast Address:	
Export To Group	
Show Online Devices	Add Cancel

Figure 5.4 Add Third-party Device

*Note:* The added third-party encoding device is only a virtual node, and the live view and parameters configuration cannot be realized via the iVMS-4200 client software.

4. You can check the successfully added device on the Device Management interface.

		Device Management	012-08-15	CPU Network
🔂 Add	🖉 Modify	To Delete & Remote Configuration Show Online Devices	Search	
Nickname 🛛 IP		Serial No.		
Camera 17:	2.6.23.178	DS-2DZ2160120111227BBRR406478081		

Figure 5.5 List of Added Devices

### • Add Device Searched Online

You can also click Show Online Devices to search the online devices in the same network segment. The online devices available are listed on the field.

		Sho	w onlin	e devices		×
Serial No.	$\nabla$	IP	Port	Device Type	Device Information	
DS-6308D-TI0120120924AARR0090	9	172.9.22.84	8000	DS-6308D-T	MAC Address:	00-40-30-11-11-7f
DS-6408HD-T0120120618BBRR409	92	172.9.22.159	8000	DS-6408HD-T	Software Version:	V1.0.0build 120914
DS-6408HD-T0120120618BBRR409	92	172.9.22.42	8000	DS-6408HD-T	Device Serial No.:	
DS-6408HD-T0120111230BBRR406	5	172.9.22.78	8000	DS-6408HD-T	080-70120120924	
DS-6401HD0120120528CCRR4087	7	172.9.22.87	8000	DS-6401HD	080-110120120924/	ARR003033034WCV
TVE-DEC100120120725CCRR4100	3	172.9.22.54	8000	DS-6401HD	Network Information	
DS-6408HD-S0120120922BBRR234	46	172.9.22.251	8000	DS-6408HD-S	IP Address:	172.9.22.84
DS-6401HD0120120528CCRR4087	7	172.9.22.55	8000	DS-6401HD	Subnet Mask:	255 255 255 0
					Bud.	233.233.233.0
					Port	8000
					Please InputAdminis	strator Password:
						Modify
					Recover Default Pas	sword:
						Restore
Refresh every 15s				Select device	Exit	

Figure 5.6 Add Device Searched Online

Select a device from the list and click the Select Device icon to add the selected device.

## 5.2 Adding a Decoder

Steps:

- 1. Click Decoding in the control panel to enter the decoding device management interface.
- 2. Click Add to add the decoder to the management list of the software.
- Enter the Nickname, IP address and port number of the device, and input the user name and password to get access to it. The nickname is the name you customized and give to the decoder in the client software.

Add Decoder Device				
Private Domain Mod	e			
Nickname:	Decoder 1			
Address:	172.6.23.165			
Port:	8000			
Name:	admin			
Password:	•••••			
Show Online Devices	Add Cancel			

Figure 5.7 Add a Decoder by IP Address

0r

If you add the decoder with a private domain name, you can check the checkbox before **Private Domain Mode** and enter the needed information.

Add Decoding Device				
Private Domain Mode				
Nickname:				
DNS Address:				
Port:	8000			
Device Serial No.:				
User Name:	admin			
Password:	••••			
Show online devices	Add Cancel			

Figure 5.8 Add a Decoder by DNS Address

4. The successfully added decoder device can be viewed in the list.

File System	View Tool H	telp ïVMS-4200		- • ×
Control Panel	De	coding Device Management	<b>17:16:05</b> 2012-05-28	CPU Network
🔂 Add	📝 Modify	To Delete		
Nickname	IP	Serial No.		
Decoder01	172.6.24.113	DS-6408HDI-T0120120327BBRR407291504WCV		

Figure 5.9 List of Added Decoders

You can also click **Show online devices** to add the decoder. Please refer to *Section 0 Adding an Encoder* for operating instructions.

## 5.3 Setting TV Wall Layout

Steps:



- 1. In the control panel, click Management to enter the TV Wall setting interface.
- 2. Click Add to add the screen information.

Ac	dd Screen Info	×
Nickname:	D01	_
Row:	2	
Column:	2	
Input Config		
	Add	ancel

Figure 5.10 Add Screen Information

- 3. Edit the nickname, and enter the number of screens in row and column.
- 4. Check the checkbox of Input Config to input the screen settings to TV wall.
- 5. Click Add to finish the adding of the screen information and enter the following interface:



Figure 5.11 Screen Configuration Interface

6. Click and drag the channels on the list of the decoding devices to the display screens.



Figure 5.12 Configure Screen Layout

You can double click a decode channel on the list to modify its nickname and video standard (BNC) or resolution (VGA and HDMI).

Modify Decoder Output Info			
Nickname:	VGA02		
Output Mode:	VGA		
Resolution:	SVGA(800*600)60HZ		
	Modify Cancel		

Figure 5.13 Modify Output Information

## **5.4 Decoding Operation**

Steps:

1.



In the control panel, click TVWall to enter the TV Wall interface.



Figure 5.14 TV Wall Interface

In this configuration interface, the left bar lists the encoding devices which has been added to the client software, and the bottom bar with the configuration of the decoding action.

Table 5.1 Description of Buttons on the Toolbar

Button	Description	Button	Description
	Single-division display mode		4-division display mode
	9-division display mode		16-division display mode
ĿĢ	Live view		Alarm mode
	PTZ control		Start decoding

0	Stop decoding	Ð	Start cycle decoding
6	Stop cycle decoding		

- 2. Click and drag the encoding channels from the left list to the screen on the TV Wall.
- 3. Select the screen and click the **b**utton on the bottom or select **Start Decoding** from the right-click menu to start decoding.

Start Decoding
Stop Decoding
Start Cycle Decoding
Stop Cycle Decoding
Audio On
Mute
Decoder Status
Enlarge
Restore

Figure 5.15 Start Decoding

4. Use the other functional buttons on the bottom or right-click menu to start/stop cycle decoding, display in multi-division mode, view decode status, PTZ control, etc.

## **5.5 Configuring Remote Setting for the Decoder**

### Steps:

File System	View Tool H	leip iVMS-4200		- • ×
Control Panel	і <u>33</u> тv	Wall Decoding Device Management	17:35:09 2012-05-28	CPU Network
🕀 Add	Modify	Tolete		
Nickname	IP	Serial No.		
Decoder01	172.6.24.113	DS-6408HDI-T0120120327BBRR407291504WCV		
		Figure 5.16 Decoder List		

2. You can view the device information, and configure the parameters for the device.

	Decoder Parameters	×
Information	Set basic parameters of the device (e.g. device name, device No., etc.).	
Network     Alarm     User	Device Information Device Name: Embedded multiDecoder Device Name: Case	
Exception		
Reboot	e Factory Settings Import Configuration File Export Configuration File Sa	ive

Figure 5.17 Remote Settings of the Decoder

*Note:* The RS-485 parameters of the decoder cannot be configured through the remote settings. For detailed information, please refer to the *User Manual of the iVMS-4200 Client Software*.

# CHAPTER 6 Appendix

## **Appendix A. Specifications**

Model		DS-6401HDI-T	DS-6404HDI-T	DS-6408HDI-T	
		1-ch	4-ch	8-ch	
	VGA Output	1920×1080@60/50Hz, 1600×1200@60Hz, 1280×1024@60Hz, 1280×720@50/60Hz, 1024×768@60Hz			
A 3• /		1-ch	4-ch	8-ch	
Audio/ Video Output	HDMI Output	1920×1080@60/50HZ, 1600×1200@60Hz, 1280×1024@60Hz, 1280×720@50/60Hz, 1024×768@60Hz			
	CVBS Output (without audio)	1-ch	2-ch	4-ch	
	Audio Output	1-ch, RCA connector	4-ch, DB15 connector	8-ch, DB15 connector	
	Video Stream Format Supported	H.264 /MPEG4/MPEG	2/Private		
	Audio Stream Format Supported	G.722/G.711A/G.711U/MPEG2-L2/ACC			
Audio/		5MP: 2-ch;	5MP: 4-ch;	5MP: 8-ch;	
Video	Decoding Capability	1080P: 4-ch; 720P: 8-ch:	1080P: 8-ch; 720P: 16-ch;	1080P: 16-ch; 720P: 32-ch:	
Decoding		4CIF: 16-ch	4CIF: 32-ch	4CIF: 64-ch	
	Multi-division Display	1/4/9/16	1/4/9/16	1/4/9/16	
	Screen Jointing Mode		1×2, 2×1, 2×2	1×2, 2×1, 2×2, 2×3, 3×2, 2×4, 4×2	
	Network Interface	1; 10/100/1000 Mbps self-adaptive Ethernet interface			
	Serial Interface	1 RS-232 (DB9), 1 RS-485			
External Interface	Two-way Audio In	1-ch, 3.5 mm connector (2.0 Vp-p, 1 kΩ)			
	Two-way Audio Out	1-ch, 3.5 mm connector (2.0 Vp-p, 1 kΩ)			
	Alarm In	4			
	Alarm Out	4			
	Power Supply	12 VDC	100~240VAC	100~240VAC	
	Power Consumption	Max. 15W	Max. 70W	Max. 70W	
Comonal	Working Temperature	-10°C ~ 55°C			
General	Working Humidity	10% ~ 90%	I		
	Dimensions (W×D×H)	220×180×45 mm	440×340×70 mm	440×340×70 mm	
	Weight	≤1.2 kg	≤5.2 kg	≤5.2 kg	

## **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.

## **Appendix C. List of Third-party IP Cameras Access**

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