

# **Network Camera**

# **User Manual**

V3.0.0



Hangzhou Hikvision Digital Technology Co., Ltd.

http://www.hikvision.com

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Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

This manual applies to Network Camera.

This manual may contain several technical incorrect places or printing errors, and the content is subject to change without notice. The updates will be added to the new version of this manual. We will readily improve or update the products or procedures described in the manual.

# DISCLAIMER STATEMENT

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# **Safety Instruction**

These instructions are intended to ensure that the 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 be caused if any of these warnings are neglected.

Cautions: Injury or equipment damage may be caused if any of these cautions are neglected.

Warnings preve	Follow nt seriou	these ıs injury	safeguards or death.	to	Cautions preve dama	Follow ent pote age.	these ntial in	precautions jury or mate	to rial
-									



- 1. In the use of the product, you must strictly comply with the electrical safety regulations of the nation and region.
- 2. Source with DC 12V or AC 24V (Whether supporting AC 24V lies on the specific camera model) according to the IEC60950-1 standard. Please refer to technical specifications for more details.
- 3. Do not connect several devices to one power adapter as an adapter overload may cause over-heating and can be a fire hazard. If use the POE as the power supply, please make sure that the POE Switch have the sufficient power .(Whether supporting PoE power supply lies on the specific camera model)
- 4. Please make sure that the plug is firmly inserted into the power socket.
- 5. When the product is installed on a wall or ceiling, the device should be firmly fixed.
- 6. If smoke, odor, or noise rise from the device, turn off the power at once and unplug the power cable, then contact the service center.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the camera yourself. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)



- 1. Make sure the power supply voltage is correct before using the camera.
- 2. Do not drop the camera or subject it to physical shock.
- 3. Do not touch sensor modules with fingers. If cleaning is necessary, use a clean cloth with a bit of ethanol and wipe it gently. If the camera will not be used for an extended period of time, put on the lens cap to protect the sensor from dirt.
- 4. Do not aim the camera at the sun or extra bright places. A blooming or smear may occur otherwise (which is not a malfunction however), and affecting the endurance of sensor at the same time.
- 5. The sensor may be burned out by a laser beam, so when any laser equipment is being used, make sure that the surface of the sensor will not be exposed to the laser beam.
- 6. Do not place the camera in extremely hot or cold temperatures (the operating temperature should be between -10°C ~ +60°C, dusty or damp locations, and do not expose it to high electromagnetic radiation.
- 7. To avoid heat accumulation, good ventilation is required for a proper operating environment.
- 8. While shipping, the camera should be packed in its original packing, or packing of the same texture.
- 9. Regular part replacement: a few parts (e.g. electrolytic capacitor) of the equipment should be replaced regularly according to their average life time. The average time varies because of differences between operating environment and usage history, so regular checking is recommended for all users. Please contact with your dealer for more details.



# **Table of Contents**

Chapter 1 Network Camera Connection1
Chapter 2 Network Access
2.1 Access over IE Browser3
2.1.1 Live View
2.1.2 Parameters Configuration7
2.2 Access over Client Software19
2.2.1 Client Software Installation19
2.2.2 Live View
2.2.3 Sensor Parameters Configuration24
Chapter 3 Access over Internet
3.1 Access network camera with static IP28
3.2 Access network camera with dynamic IP
Appendix 1 SADP Introduction
Appendix 2 Port Map35
Appendix 3 Pin Definition

# **Chapter 1 Network Camera Connection**

Two methods can be used to connect between network camera and PC, shown as below:



Fig. 1.2 Direct Line Connection

Before visiting network camera over network, user should acquire its IP address first. SADP is a software tool which can automatically detect Hikvision's network device in the LAN and give the device's information like IP address, mask, port number, device serial number, software version, etc., shown as Fig. 1.3.



	Device type	IP address	Port number	Device Serial No. 🔺	Device Serial Number
001	SERIES	192.0.0.64	8000	DS6104HCl00200707	
002	SERIES	192.0.7.15	8000	DS7104H0120071224	D36104HC0020070624BCCH10
003	SERIES	192.0.7.51	8000	DS7204H0120071130	version
004	SERIES	192.0.3.58	8000	DS6104HC-A0020070	VEBSION
005	SERIES	192.0.2.57	8000	DS7204H0120070828	JACHOION
006	SERIES	192.0.7.202	8000	DS2-DF1-6130020070	subnet mask
007	SERIES	192.0.4.85	8000	DS6101HF002007072	255 255 248 0
800	SERIES	192.0.1.179	8000	DS2-DF1-6130020070	
009	SERIES	192.0.7.23	8000	DS7204H0120070902	IP address
010	SERIES	192.0.7.39	8000	DS6104HC002007082	192 . 0 . 7 . 39
011	SERIES	192.0.4.237	8000	DS6102HF-A0020071	
012	SERIES	192.0.7.2	8000	DS6804HC-A0020070	device port
013	SERIES	192.0.1.89	8000	DS6102HF002007101	8000
014	SERIES	192.0.7.243	8000	DS2-DF1-6130020071	10000
015	SERIES	192.0.3.59	8000	DS6101HF-A0020070	MAC Address
016	SERIES	192.0.3.214	8000	DS2CD852F00200712	00.40.36.35.43.55
017	SERIES	192.0.3.211	8000	DS2CD852F00200707	00.40.00.00.00.00
018	SERIES	192.0.0.64	8000	DS2CD852F00200712	
019	SERIES	192.0.1.101	8000	DS6104HC002007032	picase input password
020	SERIES	192.0.6.220	8000	DS7108H0120071226	
021	SERIES	192.0.7.200	8000	DS6104HCI-SD00200	
022	SERIES	192.0.3.57	8000	DS6104HC002007093	modify cancel save
023	SERIES	192.0.3.206	8000	DS2CD852F00200705	
024	SERIES	192.0.7.192	8000	DS2-DF1-6130020071	
025	SERIES	192.0.7.135	8000	DS6101HF002007111	-Besume default password-
026	SERIES	192.168.6.29	8000	DS2CD802PF002007(	
027	SERIES	192.0.7.253	8000	NVEC0402200708244	0K
028	SERIES	192.0.4.98	8000	DS8016HC022007121	
029	SERIES	192.0.7.155	8000	DS7104H0120071217	
•					



Select the device, and set its IP address and mask at the same network segment with the PC.

For the detailed introduction of SADP, please refer to Appendix 1.

*Note:* The network camera is set with the factory default IP address of "192.0.0.64", the port of "8000", the super user name of "admin" and the password of "12345".



# **Chapter 2 Network Access**

After hardware installation, user can view live video and configure parameters for the network camera, including IP address, subnet mask and port number, etc. The following two methods can be used to access the camera:

- 1. View live video and configure parameters over IE browser.
- 2. View live video and configure parameters over client software.

# 2.1 Access over IE Browser

Before access to the camera over IE browser, user should adjust the security level.

Open the IE browser, and set the security level to [Low] in [Tools/ InternetOptions/Security/Custom Level...], and enable or prompt Activex Control and Plug-in directly as well.

ternet options	Security Settings - Internet Zone
Ceneral Security Privacy Content Connections Programs Advance Select a zone to view or change security settings. Intervet Local informer treated sites Restricted Select access is for Intervet vebsites, restricted zones. Security level for this zone Custom settings. - 10 durage the settings, dok Custom level. - 10 use the restormed settings, dok Custom level. - 20 dances the restormed settings, dok Custom level. - 20 dances the restormed settings, dok Custom level. - 20 dances to default level. - 20 dances to default level.	ed  Fecurity Settings - Internet Zone  Fecurity Settings - Internet Zone  Fecurity Settings - Internet Zone  Mere previously unused ActiveX controls to run without pror  Adver Sorpticts Dauble Enable Enabl

Fig. 2.1.1 Adjust the Security Level



# 2.1.1 Live View

Step 1: Install Active-X Control and Plug-in.

Input the IP address of the network camera and press [Enter], then click the mention box that pop up.



Figure 2.1.2 Tips of ActiveX Control Installation

# Step 2:

Click [Run] to install the ActiveX control.



Fig. 2.1.3 Install the ActiveX Control

#### Step 3:

Input the "Username" (default: "Password" admin), (default: 12345) and "Port" (default: 8000) of the camera, and then click [Login].



Fig. 2.1.4 Login Interface



# Step 4:

After successful login, user is allowed to view the live video. Refer to Figure 2.1.5.



Fig. 2.1.5 Live View Page

Icon	Description
* *	Full-screen display mode
3 K 7 K	Exit full-screen display mode
	Start Preview
	Stop Preview
.0	Capture Picture
Ū	Start/Stop Record
¢	Digital Zoom
	Video Parameters

Icons on Live View Page:

# **Digital Zoom**:

Click mouse in the desired position of live video image and scroll the mouse to realize zoom in and zoom out function.



## **Video Parameters:**

lcon	Description
۲	Brightness: 0~100 configurable
$\bullet$	Contrast: 0~100 configurable
(II)	Saturation: 0~100 configurable
\$	Hue: 0~100 configurable
, Č	Gain: 0~100 configurable
Ċ	Exposure time: 0~40000 configurable
-	Restore default



Fig. 2.1.6 Video Parameters

# **PTZ Control:**

Click *PTZ* tag in the main interface of the live view page to enter the PTZ control panel shown in Fig. 2.1.7, and re-clicking *PTZ* tag again will hide the panel.

Use the directional buttons to control the pan/tilt movement, and drag the slide bar to adjust the speed from level 1 to 7, with the default speed of level 4.

Click 😡 button to start auto scan, and

re-click it to stop scan.

Click the functional buttons to realize zoom, focus and iris control.

Select a preset number and click button to call preset.



Fig. 2.1.7 PTZ Control



# 2.1.2 Parameters Configuration

Click **Configuration** to enter the Parameters Configuration interface.

# 2.1.2.1 Local Configuration

Preview Lo	g Configuration		
🚱 Parameters configuration			
<b>in the second configuration</b>	Protocol type:	TCP -	
Basic information	Stream type:	Main stream 👻	
📮 🚞 Channel parameters	Display mode:	Full -	
🖶 💼 Network parameters 🖬 💼 Alarm parameters	Package file size:	256M -	
Deployment time	Transmission performance:	Normal real-time and fluency -	
···· <mark>·····</mark> Nser management ····· <b>·····</b> Remotely upgrade	Save record file as:	C:\OCXRecordFiles	Preview
	Save captured picture as:	C:\OCXBMPCaptureFiles	Preview
		Save	

Fig. 2.1.8 Local Configuration

# Local Configuration:

Parameters	Description
Protocol type	TCP and UTP selectable
Stream type Main stream and Sub stream selectable	
Display mode	Full-screen, 4:3 mode, 16:9 mode or adjustable to resolution
Package file size 128M, 256M, 512M selectable	
Transmission	Shortest delay mode, good real-time, normal real-time and fluency and good
performance	fluency options selectable
Save record file as	The default directory for saving record files is C: \OCXRecordFiles, which can be
	modified by user
Save captured picture as	The default directory for saving captured files is C:\OCXBMPCaptureFiles, which
	can be modified by user

# 2.1.2.2 Remote Configuration

#### **Basic Information:**

In the Basic Information interface, user is settings allowed to set the Device Name and Device ID, as well as view the information of IP camera, including Device Description, Device Location, MAC address, Device Type, Device SN, Firmware Version, and U-boot Version.

Preview Log	Configuration	
🕼 Parameters configuration		
Local configuration	Device Name:	IP CAMERA
Basic information	Device ID:	88
🖬 🚞 Channel parameters	Device Description:	IPCamera
Alarm parameters	Device Location:	hangzhou
	MAC Address:	00:40:48:1b:e1:3a
Remotely upgrade	Device Type:	DS-2CD753F-E
	Device SN.:	DS-2CD753F-E 0120100326CCRR4
	Firmware Version:	V2.0 100407
	V-Boot Version:	V1.3.4 100316
		Save

Fig. 2.1.9 Basic Information

# Channel Parameters→Display Setting:

According to different requirements, enable the display of Date&Time and Week by clicking the checkbox. Different date formats can be selected.

The OSD Status can be set to transparent & flickering, transparent & unflickering, nontransparent & flickering, or nontransparent & unflickering.



Fig. 2.1.10 Display Settings

# Channel Parameters→Video Settings:

Preview Log	Configuration				
A Parameters configuration					
Local configuration	Stream type:	Main stream	•		
Basic information	Resolution:	UXGA	•		
📮 🚞 Channel parameters	Image Quality:	Highest	•		
Y Display setting	Stroop trmo:	Constant BitDate	_		
Y Video setting	Stream type.				
T Motion detection	Max.Bitrate:	Custom	-	3072	Kbps
🖬 💼 Network parameters	Multicast Address:	0.0.0.0			
🖬 🚞 Alarm parameters	RTSP Port:	554			
- 💼 Deployment time					
					ļ
		Save			
Default					ļ
🦾 🚞 Reboot device					

# Fig. 2.1.11 Video Settings

Parameter	Description	
Stream type	Select stream type to Main stream or Sub stream	
Resolution	Select the resolution for your need,	
Image Quality	Select image quality to Highest, High, Medium, Low, Lower or Lowest	
Stream Type	Select the bitrate type to Constant bitrate or Variable bitrate	
Max. Bitrate	Select or custom bitrate according to the resolution	
Multicast	Set the multicast address, with the default multicast of 0.0.0.0	
RTSP Port	Set the RTSP port, with the default RTSP port of 554	



# Channel Parameters→Motion Detection Setting:

Select the checkbox of *Enable motion detection* to enable this function.

#### Zone Settings:

Click *Start draw* button to draw motion detection zone by clicking and dragging the mouse in the live video image. User is allowed to draw multiple motion detection zones in the same picture. When all zones have been set, click *Stop draw* to finish drawing.

#### Sensitivity:

The sensitivity level can be set to 0, 1, 2, 3, 4 and 5. When it is set to 0, the sensitivity is disabled.

#### Linkage:

The Linkage method can be selected to either *Email link* or *Trigger alarm output*.

Parameters configuration Local configuration Remote configuration	Motion detectio ☑ Enable motion	1 detection	
Basic information	Zone settings	Linkage	
Y Display setting Y Video setting Y Motion detection Y Text Overlay		04-20-2010 Tue 20	:52:05
<ul> <li>Fetwork parameters</li> <li>Alarm parameters</li> <li>Deployment time</li> <li>User management</li> <li>Remotely upgrade</li> <li>Default</li> </ul>			
🖵 💼 Reboot device			Camera 01

Fig. 2.1.12 Motion Detection Zone Settings

Preview Log	Configuration
🚱 Parameters configuration	
Local configuration	🔽 Enable motion detection
Basic information	Zone settings Linkage
Channel parameters Y Display setting	🔲 Email link 📄 Trigger alarm output
Motion detection	
Network parameters	Save
🖬 🚞 Alarm parameters 	
Default	
"" 🔁 Keboot device	

Fig. 2.1.13 Motion Detection Linkage Settings

# Channel Parameters→Text Overlay Setting:

Input the characters in the *Text Information* box and define the OSD location in the image by setting the *XPosition* and *YPosition*, and then select the checkbox of *OSD Text*. After clicking *Save* to finish the settings, the defined title will be displayed on the image.

## Note:

The values of XPosition and YPosition refer to the position relative to the origin as the upper left corner of the image.



Fig. 2.1.14 Text Overlay Settings

## Network

#### Parameters → Network Setting:

Set the IP Address, Subnet Mask, Gateway and DNS Server of the network camera.



Fig. 2.1.15 Network Settings

# Network Parameters→PPPOE Setting:

Click the checkbox of *Enable PPPOE* to enable this function.

Input the PPPOE user name and password in the text box and then click *Save* to finish settings. After reboot, the camera will obtain a public IP address.

Preview Lo	og Configuration	
<ul> <li>Parameters configuration</li> <li>Local configuration</li> <li>Remote configuration</li> <li>Basic information</li> <li>Channel parameters</li> <li>Channel parameters</li> <li>Network parameters</li> <li>Network setting</li> <li>FFFOE setting</li> <li>DDNS setting</li> <li>Y TPsetting</li> <li>Alarm parameters</li> <li>Deployment time</li> <li>User management</li> <li>Remotely upgrade</li> <li>Default</li> <li>Babast davice</li> </ul>	PPPOE setting  Enable PPPOE  PPPOE Vser Name:  PPFOE Password:	Save



# Network Parameters→DDNS Setting:

Click the checkbox of *Enable DDNS* to enable this function. The protocol type can be set to DynDNS or IPServer.



Fig. 2.1.17 DDNS Settings



If the protocol type is selected to DynDNS, please input the *Server Address*, e.g., members.dyn dns. org.

The User Name and Password refer to the user name and password registered in the DynDNS website.

The *Device Name* refers to the domain name applied in the DynDNS website.

Preview Lo	g Configuration	
	DDNS setting	
■ 📄 Remote configuration ── 🚞 Basic information	Protocol Type:	DynDNS -
🖸 💼 Channel parameters	Server Address:	members.dyndns.org
Retwork parameters	Port:	0
PPPOE setting	User Name:	test
Y NTPsetting	Password:	•••••
🔤 🍟 E-mailsetting 🖬 💼 Alarm parameters	Domain Name:	test.dynlias.org
		Save
Reboot device		

Fig. 2.1.18 DynDNS Settings

If the protocol type is selected to IPServer, please input the *Server Address* of the IPServer.

Preview Log	Configuration	
<ul> <li>Parameters configuration</li> <li>Local configuration</li> <li>Remote configuration</li> <li>Basic information</li> <li>Channel parameters</li> <li>Channel parameters</li> <li>Network parameters</li> <li>Y Network setting</li> <li>Y PFPOE setting</li> <li>Y DDRS setting</li> <li>Y E-mailsetting</li> <li>Alarm parameters</li> <li>Deployment time</li> <li>User management</li> <li>Remotely upgrade</li> <li>Default</li> <li>Reboot device</li> </ul>	DDNS setting Enable DDNS Protocol Type: Server Address: Port: User Name: Password: Domain Name:	IPServer   10.11.12.13 7070 Save

Fig. 2.1.19 IPServer Settings

# Network Parameters→DDNS Setting:

Click the checkbox of *Enable NTP* to enable this function. Input the *Server Address* and *Port* of NTP.

If the public network is applied, please input the NTP *Server Address* with provision of time sync service, e.g., 210.72.145.44.

In the private network is applied, the NTP software can be used to establish NTP server to achieve time synchronization.





# Network Parameters→E-mail Setting:

Through E-mail settings, the alarm message can be sent to the designated E-mail address when alarm event occurs.

Input the SMTP server, SMTP port, user name, password, E-mail sender and receiver, and finally click *Save* to finish E-mail settings.

Preview	Log	Configuration	
<ul> <li>Parameters configuration</li> <li>Local configuration</li> <li>Remote configuration</li> <li>Basic information</li> <li>Channel parameters</li> <li>Network parameters</li> <li>Network setting</li> <li>PFPOE setting</li> <li>DDNS setting</li> <li>MTPsetting</li> <li>Alarn parameters</li> <li>Deployment time</li> <li>User management</li> <li>Remotely upgrade</li> <li>Default</li> <li>Reboot device</li> </ul>	Er	mail setting SMTP Server: SMTP Port: User Name: Password: E-mail Sender: E-mail Receiver:	Save

Fig. 2.1.21 E-mail Settings

# Alarm Parameters→Alarm Input Setting:

Set the type of *Relay Status* to NC or NO.

The *Linkage* method can be selected to *E-mail link* or *Trigger alarm output*.





# Alarm Output→Alarm Output Setting:

The Output Delay refers to the length of time that the relay remains in effect after alarm occurs. The output delay time can be set to 5sec, 10sec, 30sec, 1min, 2min, 5min, 10min or Manual (manually disable).



Fig. 2.1.23 Alarm Output Delay Settings

#### Alarm Deployment Time:

The *Deployment time* can be set to a day of the week or to all week, with a period configurable for each day. *Note:* The alarm deployment time setting is valid only when the camera has already been configured with the motion detection, alarm input and alarm output functions.



Fig. 2.1.24 Alarm Deployment Time Settings

#### **User Management:**

Preview Log	Configuration				Current user:admin Exit
🕅 Parameters configuration					
					Add Modify Delete
🗖 🚞 Remote configuration	SN.	User Name	Vser Type	IP Address Binding	MAC Address Binding
Basic information	Basic information 1 admin Administrator 0.0.0.0 00:00:		00:00:00:00:00:00		
🖬 🚞 Channel parameters					
Retwork parameters					
Deployment time					
Default					

#### Fig. 2.1.25 User Management

When the current login user is *admin*, it is allowed to create other users. Up to 15 users can be created. Refer to Fig. 2.1.25.

#### Add User:

Click *Add* to enter the settings interface as shown in Fig. 2.1.26.

Input the user name, password, IP address, MAC address, and then select user type. Finally, click *OK* to finish the user addition.



Fig. 2.1.26 Add User

#### Modify User:

Click *Modify* to enter the settings interface as shown in Fig. 2.1.27.

It is allowed to modify the user name, password, IP address, MAC address, and then select user type. Finally, click *OK* to finish the user modification.

*Note:* The user *admin* can only be modified with its password.





## **Remote Upgrade:**

Click *Browse* to select the local update file and then click *Upgrade* to finish remote upgrade.

Preview L	.og Configuration		
A Parameters configuration → Local configuration			
Remote configuration           Basic information           Channel parameters	Update file:		Browse
# 💼 Network parameters # 💼 Alarm parameters	Vpdate status:		Update
Default Reboot device			
	Fig. 2.1.28 Rei	note Upgrade	

## **Restore Default:**

Select *Full Mode* or *Basic Mode* to restore the default settings. *Note:* 

The *Full Mode* refers to restore all parameters to the factory default settings.

The *Basic Mode* refers to restore the parameters to factory default settings except IP address, subnet mask, gateway and port.

#### Preview Log 🚰 Parameters configuration Local configuration 🚊 🚞 Remote configuration 1 Restore the default settings? 🗃 Basic information 🖬 🚞 Channel parameters Full Mode Basic Mode 😐 🚞 Network parameters 🗎 Alarm parameters Deployment time 📄 User management Remotely upgrade 📄 Defaul t 🚞 Reboot device

Fig. 2.1.29 Restore Default





# 2.1.2.3 Advanced Configuration

*Note:* This chapter is applicable to professional configuration.



 Input the IP address of the network camera and "config".
 (Such as http://192.0.0.64/config)

**2:** Input the "Username" (default: admin), "Password" (default: 12345) and "Port" (default: 8000) of the camera, and then click [Login].

**3:** The "Remote config" dialog will pop up, which has more advanced settings including schedule record , HDD settings and so on.



Please refer to "Client Software-4000(v2.0)\_ENG.pdf" for a more detailed parameters configuration. You can find the document in the PC Operating System after the installation of client software 4000 v. 2.0 by selecting "Start"-> "All Programs"-> "client software 4000 v. 2.0".



# 2.2 Access over Client Software

# 2.2.1 Client Software Installation

## Note:

It is recommended to use the computer adopting INTEL P3, P4, C4, Core4 CPU, and the Intel chipset motherboard of well-known brands (Asus, Gigabyte, MSI, ECS, and INTEL etc.) to ensure the stability of the system. After testing, the following models of the current graphics cards support the installation of the client software: ATIRadeonX1650, X1600, X1550, X1300, X800, X600, X550, HD2400, HD2600, NVIDIA GeForce 8600GT, 8500GT, 8400GS, 7600, 7300LE, 6600LE, 6200LE, and INTEL915/945G. And the graphics driver must support hardware scaling function.

# Step 1:

Double click 'Client Software Setup.exe' in the Windows Operating System. The 'Preparing Setup' dialog box will automatically pop up as shown n Fig.2.6.



#### Fig. 2.6 Client Software Installation

iVMS-4000(v2.0)	
Customer Information Please enter your information.	X
Please enter your name and the name of the company for which you work.	
hik Company Name:	
hik	
nstallShield	Cancel

#### Fig.2.7 Customer Information

Step 2: Input the User Name and Company Name, and then click *Next*.



19

# Step 3:

Select the destination folder and click *Next* to enter the next step.



# Step 4:

Click *Install* to start installation till finishing the installation.



# iVMS-4000(v2.0) InstallShield Wizard Complete The InstallShield Wizard has successfully installed VMS-4000(v2.0) Click Finish to exit the wizard. Image: State of the image of

Fig. 2.10 Done

# Step 5:

Click *Finish* to close the dialog box.



After the client software has been installed, you can find the remote client software through Start-> Programs from your PC.

# 2.2.2 Live View

After the installation of client software-iVMS-4000(v2.0), there is a short-cut icon named "iVMS -

4000(v2.0)" on computer's desktop. Please double click "iVMS-4000(v2.0)" to run the software.

# Step 1:

Used for the first time: User needs to register an *administrator* if the software is used for the first time.

Input "User name", "Password", "Verification", and click *OK*, then user can log in as the administrator.

Register administator	×
Please create an administator for login! User name: Password: Verification:	
ОК	ancel

Fig. 2.11 Register Administrator

# User login:

Input "User", "Password" and click *Login* to enter the GUI window of the software.

User Login	×
👃 User 🙆 Password	<b></b>
	Automatic Login
Modify	Login Quit

Fig. 2.12 User Login



iVMS-40	000							2 m - ×
Preview	Playback	- Map	Logs	Setup	Help			Userhikvision
List	Sort by group					Preview		
		1						
9. 8	3							
TAT	1 M							
< 23 >	00							
× × 4	0 0							
	+							
Đ,	9 00				1	(a) (A)	66200	a (a
E-Zoom Li	ght Wiper							
Terr					Alarm Free	nte		40
100					Politin Lite			

Fig. 2.13 GUI window of the software

# Step 2:

Step 3:

Add Area.

Click *Setup* to enter the configure mode, and then click *Device Management*.

Right click the left area, and then click

Input "Area Name" for your need, and

then click OK to add area.



#### Fig. 2.14 Device Management

Add Area
Add Stream Media Server
Add Device
Remote Settings
Delete Node

Add Area	
Area Information ——	
Area Name	
Upper Area Name	
	OK Cancel

# Fig. 2.15 Add Area



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## Step 4:

Right click the area that you add, and then click *Add Device* to add network camera.

Preview Playback <del>-</del>			Мар	Logs
Right-click to	o add are	a, add stream media, a	dd device	
<b>3</b> R0	Add A Add S Add C	rea Itream Media Server Device t all device config files		
	Impor Delet	t config files to all devic e Node	e	

Input "Device Name" for your need. Select "Normal IP" from Register Mode. Input network camera's IP in *Device IP*, e.g. 192.0.0.64, *Port*: 8000, *User Name*: admin, *Password*: 12345.

Select "TCP", "UTP", "MCAST" or "RTP" in [Protocol] for your need.

Select "Main Stream" or "Sub Stream" in *Protocol* for your need.

Finally, click OK to finish settings.

Add Device			
Device Information			
Device Name		Register Mode	e Normal IP 🗾
Device IP		. Port	8000
Username		Password	
Protocol	TCP	💌 Stream	Main Stream 🗾
DNS Address		. Multicast	
Serial Number			
Online Device			OK Cancel

Fig. 2.16 Add Device



Fig. 2.17 Camera Adding Completed

**Step 5:** Click the *Preview*, and then double click the device name in the left tree to view the live video.



Fig. 2.18 Preview

# 2.2.3 Sensor Parameters Configuration

For viewing better image, you can set the parameters of the camera, and operate as following:

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## Step 1:

Right click in the preview window, and click [Config Sensor Parameters...], then the [Config Sensor Parameters...] box will pop up.





Config CCD Paramet	ers
Video parameters White Balance	Video Parameters
Exposure	Brightness
P Other	Contrast
	Sharpness
	Gain
	Save Exit

#### Fig. 2.20 Video Parameters

Config CCD Parameters 😿						
<ul> <li>Video parameters</li> <li>White Balance</li> <li>Exposure</li> <li>Day Night</li> <li>Other</li> </ul>	White Balance Mode Auto1					
	Save Exit					

Fig. 2.21 White Balance

**Step 2:** Video Parameters Configuration Adjust the value of "Brightness", "Contrast", "Saturation", "Hue", "Sharpness" and "Gain" for your need, which can be set from 1 to 100.

**Step 3:** White Balance Configuration Select the mode to *Auto1* or *Off* for your need.

# **Step 4:** Exposure Configuration Select "Exposure time" and "Iris mode" for your need.

Video parameters	Exposure
White Balance Exposure	Exposure time 1/50(20000µs)
<ul> <li>Day Night</li> <li>Other</li> </ul>	Iris mode Manual Iris



Step 5: Day/Night Mode Configuration Select "Day", "Night" or "Auto" mode in *Mode* and adjust the value of "Day->Night", "Night->Day", and "Filter time" for your need.

Config CCD Paramet	ers	×
<ul> <li>Video parameters</li> <li>White Balance</li> <li>Exposure</li> <li>Day Night</li> <li>Other</li> </ul>	Day Night Mode       Mode     Day       Day->Night     ▼       Night>Day     ▼       Filter time     ▼	
		_

# Fig. 2.23 Day/ Night Mode

**Step 6:** Other Parameters Configuration Select the value of "Power Line", "Mirror", "E-PTZ" and "Local Output".



# NOTE:Different models of the cameras' maybe have different menus.

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Please refer to "iVMS-4000(v2.0) introductor.pdf" for more detailed parameters configuration. You can find the document in the PC Operating System after the installation of client software 4000 v. 2.0 by selecting "Start"-> "All Programs"-> "iVMS 4000( v. 2.0)" -> "iVMS 4000( v. 2.0)".



# **Chapter 3 Access over Internet**

# 3.1 Access network camera with static IP

When there is a static IP from an ISP, open some ports (such as 80 and 8000 ports) in the router. Then a user can visit it through a web browser or client software via the internet. The steps for port forwarding are different for each model of router. Please call the router manufacturer for assistance with port forwarding or visit www.portforward.com.

# Note: Refer to Appendix 2 for a detailed explanation about Port Map.

Users can directly connect the network camera to the internet without using a router.



Fig.3. 2 Access IPC with Static IP directly

For the client software to view the camera, in the adding equipment column, select the normal model, and then fill in the IP info.





Fig. 3.3 Selecting Normal Mode

# 3.2 Access network camera with dynamic IP



Fig. 3.4 Access IPC through PPPoE Dail-up

This camera supports the PPPoE auto dial-up function, connecting the camera to a Modem for dial-up access to an ADSL network to get a public IP address; First, through local network access to the network camera, select "Configure"  $\rightarrow$  "Right Click the Device", "Remote Configuration", and finally select "PPPoE Settings" under "Network Paramters" to fill in the PPPoE user name and password and confirm the password. Please restart the network camera after completion of configuration. Then the network camera can obtain a dynamic IP from an ISP operation business. However, the obtained IP address is dynamically assigned via PPPoE, so the IP address always changes accompanied with modem rebooting.

iVMS-400	00					2 er - X
Preview	Playback <del>-</del>	Мар	Logs Se	tup Help		Userhikvision
Right-click to add are	a, add stream media, a	dd device	Remote setting Device Parameters Device Parameters Channel Farameters Channel Farameters Display Settings Video Lost Video Lost Vi	FFPOE Settings Faable FFF DENS IF: User name: Passeord: Confirm New	Sort by camera Sort by group	Device Management

Fig. 3.5 PPPoE configuration Dialog box

It is inconvenient to view a network camera with a dynamic IP, therefore, users should register with a dynamic DNS service provider. (Such as DynDns.com)

Domain name resolution contains normal domain name resolution and private domain name resolution. First, we will introduce normal domain name resolution.



# 1. Normal Domain Name Resolution

Fig. 3.6 Normal Domain Name Resolution

Apply a domain name from a domain name provider, then view the camera via the applied domain name. If the camera connects to the internet via a router, users should port forward the router. Please refer to Appendix 2.

Input domain names in the client software or IE to view the network cameras. Take the client

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software configuration as an example.

iVMS-4000				1 🖬 🗕 🗙
Preview Playback <del>-</del> Map	Logs	Setup H	elp	User:hikvision
Right-click to add area, add stream media, add device	Add Device Device Information Device Name Domain Name Username Protocol DNS Address Serial Number Online Device	DS-7133-E ipe gicp net admin TCP	Sort by camera       Sort by group         Register Mode       Normal Domain         Port       8000         Password       *****         Stream       Main Stream         Multicast       ·         OK       Cancel	Cocel Settings Locel Settings Recording Feature Alarm Link User Management

Fig. 3.7 Selecting Normal Domain Mode



# 2. Private Domain Name Resolution



Fig. 3.8 Private Domain Name Resolution

A PC with a static IP which is running the domain name resolution service is necessary.

When the network camera connects to the internet through PPPoE and obtains an IP address, it will send its name and IP address to the resolution server. When the client software connects to the network camera, it will connect to the resolution server and tell the resolution server the expected camera's name. And the server will find the camera from all the registered cameras and send its IP address to the client software. Once the client software gets the IP address, it can connect the network camera.



Fig. 3.9 Selecting Private Domain Mode

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# **Appendix 1 SADP Introduction**

# 1. Brief introduction

SADP (Search Active Devices Protocol) is a kind of software which can automatically search network speed dome in LAN. User can modify the IP address, subnet mask and port of the device without visiting IP address of the device. Additionally, password of the super user in this device can be recovered as default.

SADP software needs to support SADP, so we should install WinPcap at first, which is placed at the directory of SADP software.

# 2. Search active devices online

After installing WinPcap, double click sadpdlg.exe. The software will start to search active devices in LAN, and device type, IP address, Port number, Device Serial No., subnet mask, MAC address, the number of channels, main control and encoding version and device initiating time are showed in the list, as following:

SAUP						<u>×</u>
	Device tupe	IP address	Port number	Device Serial No		
001	ecoice type	1020064	onno	Device Senarivo.	-	Device Serial Number
001	SERIES	102.0.0.64	8000	DS6104HCI00200707		DS6104HC0020070824BCCH10
002		102.0.7.10	0000	DS7104H0120071224		·
003		102.0.7.01	0000	DS7204H0120071130		version
004		102.0.3.00	0000	DS6104HC-A0020070 DC7204U0120070020		VERSION
005		102.0.2.07	0000	DS7204H0120070626		where the set
000	CEDIEC	102.0.7.202	0000	DS210114E002007075		
007	CEDIEC	192.0.4.03	0000	DS2.DE1.612002007072		255 . 255 . 248 . U
000	SERIES	192.0.7.22	2000	DS720/H0120070902		IP address
000	SERIES	192.0.7.23	8000	DSS10410120070302		
011	SEBIES	192.0.4.237	8000	DS6102HE-A0020071		192.0.7.39
012	SERIES	192.0.7.2	8000	DS6804HC-A0020070		device port
013	SERIES	192.0.1.89	8000	DS6102HF002007101		
014	SERIES	192.0.7.243	8000	DS2-DF1-6130020071		8000
015	SERIES	192.0.3.59	8000	DS6101HF-A0020070		MAC Address
016	SERIES	192.0.3.214	8000	DS2CD852F00200712		
017	SERIES	192.0.3.211	8000	DS2CD852F00200707		00-40-36-30-03-00
018	SERIES	192.0.0.64	8000	DS2CD852F00200712		places input password
019	SERIES	192.0.1.101	8000	DS6104HC002007032		piease input passworu
020	SERIES	192.0.6.220	8000	DS7108H012007122E		
021	SERIES	192.0.7.200	8000	DS6104HCI-SD00200		· · · · · · · · · · · · · · · · · · ·
022	SERIES	192.0.3.57	8000	DS6104HC002007093		modify cancel save
023	SERIES	192.0.3.206	8000	DS2CD852F00200705		
024	SERIES	192.0.7.192	8000	DS2-DF1-6130020071	Г	
025	SERIES	192.0.7.135	8000	DS6101HF002007111		-Besume default password-
026	SERIES	192.168.6.29	8000	DS2CD802PF002007(		
027	SERIES	192.0.7.253	8000	NVEC040220070824A		ОК
028	SERIES	192.0.4.98	8000	DS8016HC022007121		
029	SERIES	192.0.7.155	8000	DS/104H0120071217	<b>-</b>	
					-1	Exit

# 3. Modify device information

Select the device that needs modification in the device list, then basic information of the device will be demonstrated in the information column on the right. Click "modify" button to activate IP address, subnet mask, device port editing and password validating box, as follows:

Select the device that needs modification in the device list, then basic information of the device will be demonstrated in the information column on the right. Click "modify" button to activate IP address, subnet mask, device port editing and password validating box, as following:

SADP					X
	-	[			
	Device type	IP address	Port number	Device Serial No.	Device Serial Number
017	SERIES	192.0.3.57	8000	DS6104HC002007093	DS2CD852E0020070925AAWB:
018	SERIES	192.0.7.51	8000	DS7204H0120071130	
019	SERIES	192.0.1.179	8000	DS2-DF1-6130020070	version
020	SERIES	192.0.6.220	8000	DS7108H0120071226	VERSION
021	SERIES	192.168.6.29	8000	DS2CD802PF002007(	
022	SERIES	192.0.7.243	8000	DS2-DF1-6130020071	subnet mask
023	SERIES	192.0.7.155	8000	DS7104H0120071217	255 . 255 . 248 . 0
024	SERIES	192.0.7.81	8000	DS2CD802PF002007*	
025	SERIES	192.0.3.214	8000	DS2CD852F00200712	IP address
026	SERIES	192.0.7.44	8000	DS2-DF1-6130020071	192 . 0 . 2 . 232
027	SERIES	192.0.7.192	8000	DS2-DF1-6130020071	, ·
028	SERIES	192.0.2.57	8000	DS7204H0120070828	device port
029	SERIES	192.0.0.64	8000	DS2CD852F00200712	8000
031	SERIES	192.0.7.253	8000	NVEC040220070824/4	10000
033	SERIES	192.0.7.244	8000	DS2-DF1-6130020071	MAC Address
034	SERIES	192.0.4.98	8000	DS8016HC022007121	00-40-36-66-66
036	SERIES	192.0.3.58	8000	DS6104HC-A0020070	
037	SERIES	192.0.6.208	8000	DS6104HC-A0020070	
038	SERIES	192.0.7.45	8000	DS7108HI012007111:	
043	SERIES	192.0.2.232	8000	DS2CD852F00200705	
047	SERIES	192.0.6.252	8000	DS6001HC002007121	
050	SERIES	192.0.1.30	8000	DS8002AHL02200711	modify cancel save
053	SERIES	192.0.7.32	8000	DS6101HF002007111	
060	SERIES	192.0.7.2	8000	DS6804HC-A0020070	
061	SERIES	192.0.4.68	8000	DS8016HF-S0220071	-Resume default password-
063	SERIES	192.0.0.64	8000	DS8016HF-S0220071	
065	SERIES	192.0.7.33	8000	DS6101HC00200/100	OK OK
066	SERIES	192.0.0.64	8000	DS8008HC-S0220070	· · · · · · · · · · · · · · · · · · ·
067	SERIES	192.0.1.99	8000	DS8016HF-S0220070	
				•	
undate	a device modifu (	levice euccessfullul			Exit
Jupuan	s device, modily i	levice successfully:			

Input new IP address, subnet mask, and port number, and click "save" button. If a dialog pops up, showing "saved successfully", that means you have modified the configuration information; if "saving failed" turns up, click the "cancel" button to quit it.

# 4. Recover default password

You can reset the password of the super user as "12345" in the case of a lost password.

Input certain validation code into the 'Resume default password' box, and click 'OK' to finish the administrator's password initiating.

*Note:* Password reset code can be obtained by the technicians from Hikvision after you provide the device Serial NO.



# **Appendix 2 Port Map**

*Note:* The following setting is about TP-LINK router (TL-R410), which is maybe distinct from other router's setting.

1. Firstly, select the router's WAN connection Type. As the following Fig. shows:

108M Wireless Router Model No.: TL-WR641G / TL-WR642G	WAN	
Status	WAN Connection Type:	PPPoE 🗸
Quick Setup		Dynamic IP
Basic Settings - Network	User Name:	PPPoE
• LAN	Password:	802.1X + Dynamic IP 802.1X + Static IP
WAN     MAC Clone		BigPond Cable L2TP

2. Set the "network parameter" of the router as the below figure. The setting includes subnet mask and gateway.

108M Wireless Router Model No.: TL-WR641G / TL-WR642G	LAN		
Status     Quick Setup     Basic Settings     Network     LAN	MAC Address: IP Address:	00-14-78-6A-DB-0C	
	Subnet Mask:	255.255.255.0	
WAN     MAC Clone		Save	

3. Set the port map in the virtual severs of Forwarding. By default, camera uses port 80, 8000, 554 and 8200. You can change these ports value with IE or client software.

The following figure gives the illustration. One camera's ports are 80, 8000, 554, 8200 and its IP address is 192.168.1.23. The other camera's ports are 81, 8001, 555, 8201 and IP is 192.168.1.24. Afterwards, enable all or TCP protocols. Enable the port map after pressing the 'Save'.

108M Wireless Router Model No.: TL-WR641G / TL-WR642G	Virtual Servers					
Status	ID	Service Port	IP Address	Protocol	Enable	
Quick Setup	1	80	192.168.10. 23	ALL 🗸	~	
Basic Settings + Network	2	8000	192.168.10. 23	ALL 🗸	~	
+ Wireless	3	554	192.168.10. 23	ALL 🗸	~	
+ DHCP	4	8200	192.168.10. 23	ALL 🗸	~	
<ul> <li>Forwarding</li> <li>Virtual Servers</li> </ul>	5	81	192.168.10. 24	ALL 🗸	~	
Port Triggering	6	8001	192.168.10. 24	ALL 🔽	~	
• DMZ • UPnP	7	555	192.168.10. 24	ALL 🔽	~	
+ Security	8	8201	192.168.10. 24	ALL 🖌	~	
Static Routing     Dynamic DNS     Maintenance     System Tools	Common Service Port: DNS(53) Copy to ID 1					
Previous Next Clear All Save						

As the settings mentioned above, map the router's port 80 and 8000 to the network camera at 192.168.1.23; and port 81 and 8001 to the network camera at 192.168.1.24. In this way, user can access the 192.168.1.23 through accessing the router's port 80 and 8000.

*Note:* The port of the network camera cannot conflict with other ports. For example, some router's web management port is 80. User can amend the router's or the camera's port to solve this problem.

# **Appendix 3 Pin Definition**



(1)UTP between the network port of camera and HUB (Direct Cable)

(2)UTP between the network port of camera and PC (Cross Cable):



First Choice for Security Professionals

