

USER MANUAL

SN-1SD (COD. KUNS1S)



Camera Server

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I. Preface

SN-1SD is a 1 channel video server. It builds in web server. User views real-time video via IE browser. SN-1SD supports MPEG-4 and M-JPEG video compression which provides smooth and high quality video. The video can be stored in the SD card, and can be playback remotely.

SN-1SD is an easy-to-use video server which can connect any kind of analogue camera to fit the customer's need.

II. Product Specifications

- MPEG4/ M-JPEG compression
- Supports SD card for local recording
- Wireless network connection [Optional]
- 2-way audio
- Support PTZ control
- Online firmware upgrade
- Real-time video recording
- Compatible with Microsoft Windows Media Player

Product Specifications

Hardware	
CPU	ARM 9 ,32 bit RISC
RAM	64MB
ROM	8MB
Video in/ out	1 in/ 1 out, BNC connector
Audio in/ out	1 in/ 1 out
I/O	2 in/ 2 Relay out (COM. & N.O. & N.C.)
RS-485	1, for PTZ control
RS-232	Yes
Power Consumption	DC 12V, 1A, 4W
Dimensions	134mm (W) x 42mm (L) x 107mm (D)
Network	
Ethernet	10/ 100 Base-T
Wireless (Optional)	802.11b/g
WEP	64/ 128 bit
Network Protocol	HTTP, TCP/ IP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP
System	
Video Resolution	NTSC: 720x480, 352x240, 176x120 PAL: 720x576, 352x288, 176x144
Image snapshot	Yes
Full screen monitoring	Yes
Compression format	MPEG-4/ M-JPEG
Video bitrate adjust	CBR, VBR
Motion Detection	Yes, 3 different areas
Triggered action	Mail, FTP, Save to SD card
Pre/ Post alarm	Yes, configurable
Remote PTZ control	Yes
Security	Password protection
Firmware upgrade	HTTP mode, can be upgraded remotely
Simultaneous connection	Up to 10
Audio	Yes, 2-way
SD card management	
Recording trigger	Motion Detection, IP check, Network down (Wire connection only)
Video format	AVI, JPEG
Video playback	Yes
File Management	Yes, can be deleted or overwrite
Web browsing requirement	

HESAVISION IP

OS		Windows 2000, XP, 2003, IE 6 or above
Hardware	Suggested	Intel-C 2.0G, RAM: 512MB, Graphic card: 64MB
	Minimum	Intel-C 1.6G, RAM: 256MB, Graphic card: 32MB

III. Product Installation

A. Hardware Installation

- i. Connect power adaptor



- ii. Connect Ethernet cable



- iii. Set up the network configurations according to the network environment. For further explanation, please refer to chapter VI, "Network Configuration for SN-1SD".

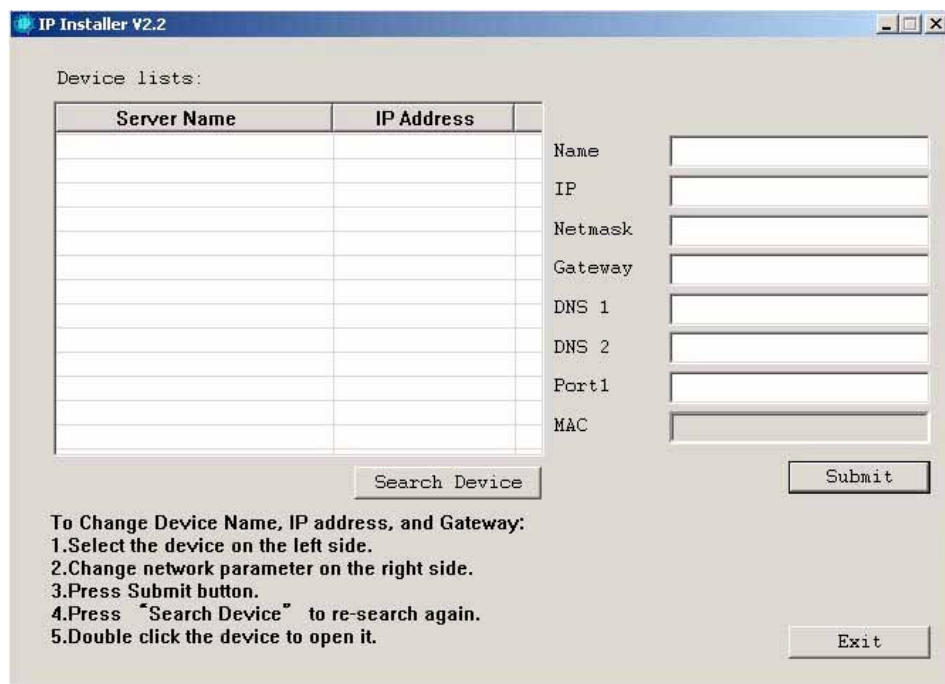
B. IP Assignment

- i. Use the software, "IP Installer" to assign the IP address of SN-1SD . The

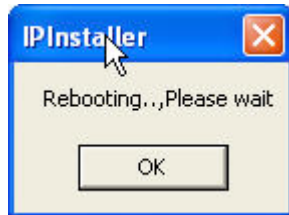
- software is in the attached software CD.
- ii. There are two languages for the IP installer
 - a. IPInstallerCht.exe: Chinese version
 - b. IPInstallerEng.exe: English version
- iii. There are 3 kinds of IP configuration.
 - a. Fixed IP (Public IP or Virtual IP)
 - b. DHCP (Dynamic IP)
 - c. Dial-up (PPPoE)
- iv. Execute IP Installer
- v. For Windows XP SP2 user, it may popup the following message box. Please click “Unblock”.



- vi. The GUI of the IP Installer:



- vii. IP Installer searches all the IP cameras which connect to the intranet and lists on the left side of the IP Installer. Just click the “Search Device” to re-search again.
- viii. Click one of the IP camera listed on the left side. The network configuration of this IP camera will show on the right side. Change the parameter and click “Submit”. The following dialogue box will show. Just click “OK”. It will the change the IP and reboot the camera.



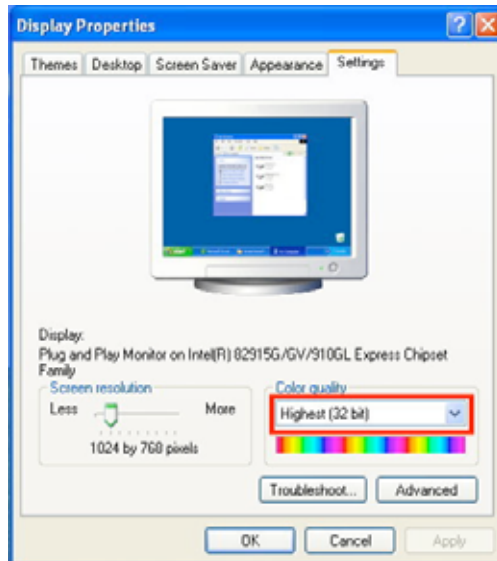
- ix. Click “Search Device” to research the IP camera. Double click the IP camera listed on the left side. It will open an IE browser and connect to this IP camera directly.

C. Monitor Setting

- i. Right-Click on the desktop. Select “ Properties”



- ii. Change color quality to highest (32bit).



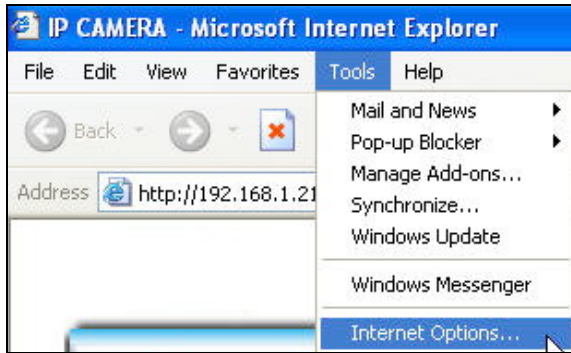
D. Install ActiveX control:

For the first time to view the camera video via IE, it will ask you to install the ActiveX component.

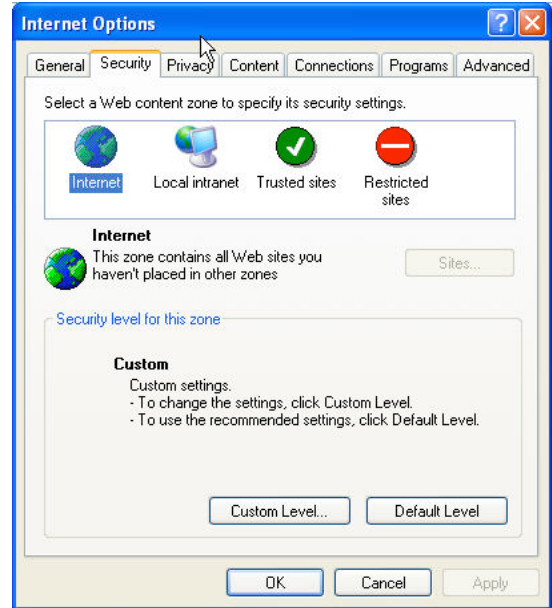
If the installation failed, please check the security setting for the IE browser.

- i. IE → Tools → Internet Options... → Security Tab → Custom Level... → Security Settings → Download unsigned ActiveX controls → Select "Enable" or Prompt.
- ii. IE → Tools → Internet Options... → Security Tab → Custom Level... → Initialize and script ActiveX controls not marked as safe → Select "Enable" or Prompt.

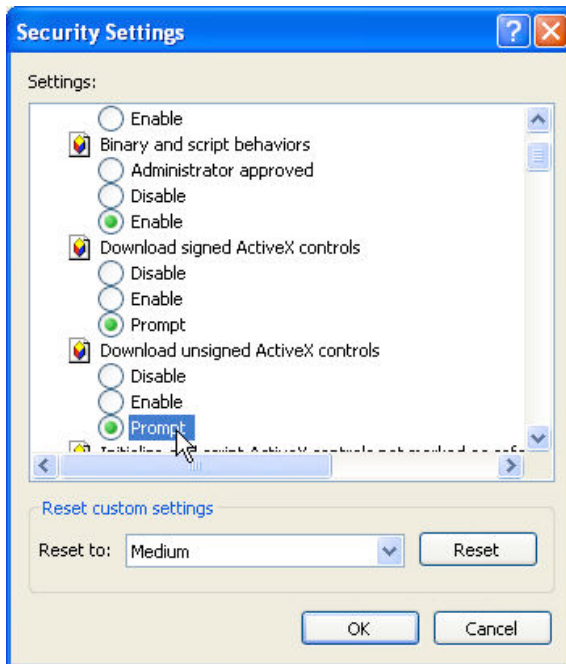
1



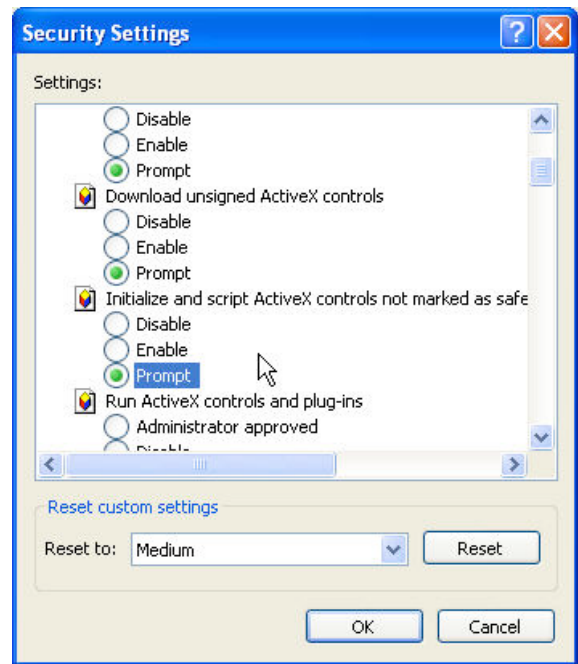
2



3

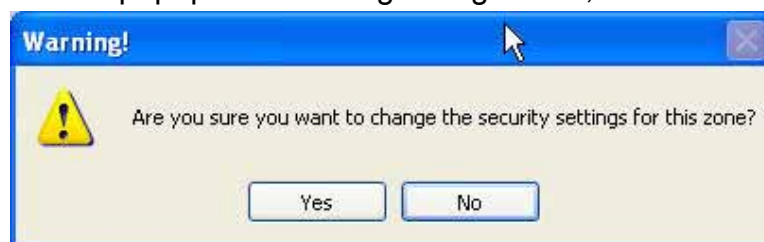


4



5

When popup the following dialogue box, click "Yes".





IV. Live Video

Start a IE browser, type the IP address of the IP camera in the address field. It will show the following dialogue box. Key-in the user name and password. The default user name and password are “admin” and “admin”.



When connect to the SN-1SD ◦ The following GUI shows.





1.  : Get into the administration page
2.  : Video Snapshot
3. Show system time, video resolution, and video refreshing rate
4. SN-1SD supports 2-way audio. Click the “Chatting” check box. The you can use microphone which connect to the PC to talk to server side, which is SN-1SD side.
5. Control the relay which is connected to this video server.
6. Select PTZ protocol to control the PTZ camera which it connected to this video server. The PTZ function will be slightly different depends on which protocol to use.

Right-Click the mouse on the video, it will show a pop-up menu.



1. Snapshot: Save a jpg picture
2. Record Start: Record the video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again. Select “Record Stop”. The video format is AVI. Use Microsoft Media Player to play the recorded file.
3. Mute: Turn of the audio. Click again to turn on it.
4. Full Screen: Full-screen mode.

V. SN-1SD Configuration

Click  to get into the administration page. Click  to back to the live video page.



A. System

i. System Information

Set up the camera name, select language, and set up the camera time.

- a. Server Name: This is the Camera name. This name will show on the IP Installer.
- b. Select language: There are English, Traditional Chinese, and Simple Chinese to select. When change, it will show the following dialogue box for the confirmation of changing language.



- c. Server time setting: Use NTP or Input Date & Time manually.

Server Information

Server Name:

MAC Address:

Language : 繁體中文 简体中文

Time Setting

Server Time: Time Zone: GMT+08:00

Time zone:

NTP :

NTP Server :

Input Date & Time Synchronize with PC's time

Date :

Time :

- ii. User Management

SN-1SD supports three different users, administrator, general user, and anonymous user.

The screenshot shows the 'User Management' section of the web interface. It includes a sub-section for 'Anonymous User Login' with radio buttons for 'YES' and 'NO' (selected), and a 'Setting' button. Below this is the 'Add User' section with input fields for 'Username:', 'Password:', and 'Confirm:', followed by an 'Add/Set' button. At the bottom is a 'User List' table.

Username	User Group	Modify	Remove
admin	Administrator	Edit	

- a. Anonymous User Login:
Yes: Allow anonymous login
No: Need user name & password to access this IP camera
- b. Add user:
Type the user name and password, then click "Add/Set".
- c. Click "edit" or "delete" to modify the user.

The screenshot shows a 'User Setup' dialog box within a Microsoft Internet Explorer window. The dialog has input fields for 'Username:' (containing 'admin'), 'Password:', and 'Confirm:', and an 'OK' button.

- iii. System update:

The screenshot shows the 'System Update' section of the web interface. It includes a 'Firmware Upgrade' section with 'Firmware Version: V2.00', a 'New Firmware:' input field with a 'Browse...' button, and an 'Upgrade' button. Below this is a 'Reboot System' section with a 'Start' button, and a 'Factory Default' section with a 'Start' button.

To update the firmware online, click “Browse...” to select the firmware.
Then click “Upgrade” to the procedure.

Reboot system: re-start the IP camera

Factory default: delete all the settings in this IP camera.

B.Network

i. IP Setting

SN-1SD supports DHCP and static IP.

IP Setting	
IP Assignment	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
IP Address:	192.168.1.217
Subnet Mask:	255.255.255.0
Gateway:	192.168.1.254
DNS 0:	168.95.1.1
DNS 1:	168.95.192.1
Port Assignment	
Web Page Port:	80
Video Port :	7070
Audio In Port :	7071
Audio Out Port :	7072
<input type="button" value="Apply"/>	

- a. Static IP : Type IP address, subnet mask, gateway, and DNS manually.
- b. DHCP : Using DHCP, SN-1SD will get all the network parameters automatically.

1.1.1 PPPoE:

PPPoE Setting

Enabled Disabled

Username:

Password:

Send mail after dialed

Enabled

Subject:

Select “Enabled” to use PPPoE.

Key-in Username and password for the ADSL connection.

Send mail after dialed: When connect to the internet, it will send a mail to a specific mail account. For the mail setting, please refer to “Mail and FTP” settings.

ii \ DDNS:

SN-1SD supports DDNS (Dynamic DNS) service.

a. DynDNS :

DDNS Setting

Enabled Disabled

Provider:

Hostname:

Username:

Password:

Schedule Update: Minutes

State:

Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.

1. Enable this service
2. Key-in the DynDNS server name, user name, and password.
3. Set up the IP refreshing rate.
4. Click “Apply”

b. Camddns service:

DDNS

DDNS Setting

Enabled Disabled

Provider:

Username:

Schedule Update: **Minutes**

State

Idle

Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.

1. Key-in user name.
 2. Click "Apply".
- c. DDNS Status
1. Updating: Information update
 2. Idle: Stop service
 3. DDNS registration successful, can now log by
<http://<username>.ddns.camddns.com>: Register successfully.
 4. Update Failed, the name is already registered: The user name has already been used. Please change it.
 5. Update Failed, please check your internet connection: Network connection failed.
 6. Update Failed, please check the account information you provide: The server, user name, and password may be wrong.
- iii 、 Wireless Setting (This section is for SN-1SD / wireless only)
SN-1SD / wireless supports 802.11 b/g wireless connection.

Wireless Setting

Wireless Setting

Enabled **Disabled**

MAC Address: 00:11:E2:03:36:B4

Mode: Infrastructure

Operation Mode: Auto

SSID: Video Server

DHCP : **Enabled** **Disabled**

IP Address: 192.168.0.200

Subnet Mask: 255.255.255.0

Gateway: 192.168.0.254

Security : None

- a. Click “Enabled” to enable wireless connection
- b. Follow the wireless AP you use to set up the parameter in this page.
- c. For operation mode, it will detect the wireless mode, or you can select by yourself.
- d. To use static IP, disable the DHCP.
- e. SN-1SD W supports “WEP” and “WPA-PSK” security encryption.

Wireless Setting

Wireless Setting

Enabled **Disabled**

MAC Address: 00:11:E2:03:37:00

Mode: Infrastructure

Operation Mode: Auto

SSID: HUNT

DHCP : **Enabled** **Disabled**

IP Address: 192.168.2.120

Subnet Mask: 255.255.255.0

Gateway: 192.168.2.1

Security : WEP

WEP Setting

Authentication: Open System

Encryption: 64 bit

Key Type: HEX (18 character max)

Key 1: 8224652565

Key 2:

Key 3:

Key 4:

Wireless Setting

Wireless Setting

Enabled **Disabled**

MAC Address: 00:11:E2:03:37:00

Mode: Infrastructure

Operation Mode: Auto

SSID: HUNT

DHCP : **Enabled** **Disabled**

IP Address: 192.168.2.120

Subnet Mask: 255.255.255.0

Gateway: 192.168.2.1

Security : WPA-PSK

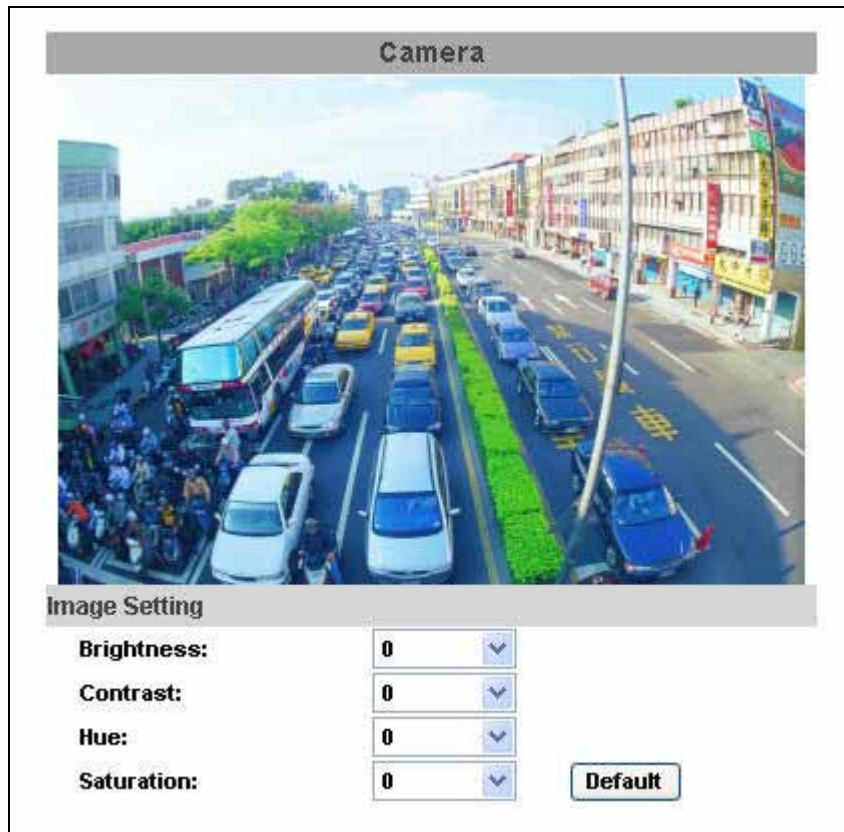
WPA-PSK Setting

Encryption: TKIP

Pre-Shared Key: (ASCII format, 8-63)

C.Multimedia

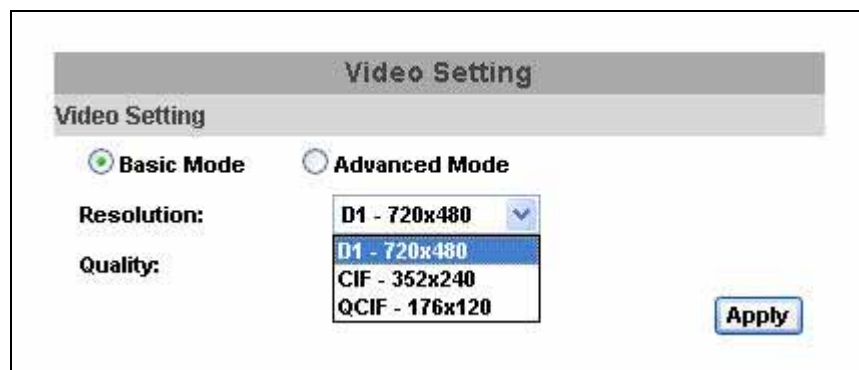
i \ Image Setting



Adjust “Brightness”, “Contrast”, “Hue”, “Saturation” and “AE Reference” to get clear video.

ii \ Video Setting

a. Basic Mode:



1. Resoultion:

There are 3 resolutions to choose.

Full D1 – 720X480 (NTSC), 720X576 (PAL)

CIF – 352X240 (NTSC), 352X288 (PAL)

QCIF – 176X120 (NTSC), 176X144 (PAL)

2. Quality:

There are 5 levels to adjust, The higher the quality is, the bigger the file size is.

3. Video System:

Please select 60 (Hz) if you are in America, Taiwan...

Please select 50 (Hz) if you are in Europe, China...

b. Advanced Mode:

The screenshot shows a 'Video Setting' window with the following configuration:

- Mode:** Basic Mode, Advanced Mode
- Resolution:** D1 - 720x480
- Bitrate Control Mode:** CBR, VBR
- Video Quantitative:** Q=10
- Video Bitrate:** 1.5Mbps
- Video Frame Rate:** 30 FPS
- GOP Size:** 1 X FPS, GOP = 30

An 'Apply' button is located at the bottom right of the window.

1. Resolution:

There are 3 resolutions to choose.

Full D1 – 720X480 (NTSC), 720X576 (PAL)

CIF – 352X240 (NTSC), 352X288 (PAL)

QCIF – 176X120 (NTSC), 176X144 (PAL)

2. Bitrate Control Mode

There are CBR [Constant Bit Rate] and VBR [Variable Bit Rate] to use.

CBR : 64Kbps~4Mbps ◦

VBR : Q=3~30 ◦

3. Video Frame Rate

The video refreshing rate per second.

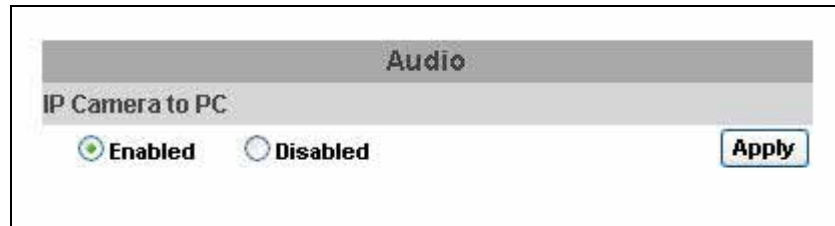
4. GOP

It means "Group of Pictures". The higher the GOP is, the better the quality is.

iii 、 Audio:

SN-1SD supports 2-way audio.

- a. For IP camera to local PC, select “Enable” to start this function.



- b. For local PC to IP camera, check “chatting” in the browsing page.



The Audio will not be smooth when enable SD card recording function simultaneously.

D.Event


SN-1SD provides multiple event settings.

i 、 Event Setting

- a. Motion Detection

Event Setting

Motion Detection



Area Setting: Area 1 Area 2 Area 3

Sensitivity: 5 5 5

Area 1: E-mail FTP Out1 Out2 Save to SD card

Area 2: E-mail FTP Out1 Out2 Save to SD card

Area 3: E-mail FTP Out1 Out2 Save to SD card

Subject:

Interval: 10 sec

Network Dis-connected

Dis-connected: Save to SD card

Network IP Check

IP Check: Enabled Disabled

IP Address:

Interval: 10 sec

IP Check: Save to SD card

SN-1SD allows 3 areas motion detection. When motion is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, and save video to local SD card. To set up the motion area, click "Area Setting". Using mouse to drag the area. The same operation for area 2 and 3.

b. Network Dis-connected

When the network is down, it will save the video to local SD card.

This function is only enabled in wire connection.

c. Network IP check

For the use of recording software, SN-1SD supports the detection of this connection. Whenever the connection is down, it records the video to SD card. Make sure the video recording is continuous. To use this function, key in the IP address of the PC which is installed the recording software, enable the function of "Save to SD card", then click "Apply".

ii - I/O Setting

HLC-830 supports 2 input/ 4 output. When input is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, trigger the relay, and save video to local SD card.

I/O Setting

Input Setting

Input 1 Action: E-mail FTP Out1 Out2 Out3 Out4 Save to SD card

Input 2 Action: E-mail FTP Out1 Out2 Out3 Out4 Save to SD card

Subject:

Interval:

Output Setting

Mode Setting: OnOff Switch Slide Switch

Interval:

Apply

iii 、 Mail & FTP

To send out the video via mail of ftp, please set up the configuration first.

Mail & FTP

Mail Setting

Mail Server:

Username:

Password:

Sender's Mail:

Receiver's Mail:

Bcc Mail:

FTP Setting

FTP Server:

Username:

Password:

Port:

Path:

Apply

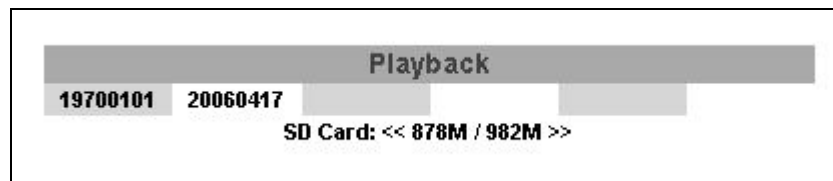
iv 、 SD card

Please Insert SD card before use it. Make sure pushing SD card into the slot completely.

Note: The use of the SD card will affect the operation of the HLC-830 slightly, such as affecting the frame rate of the video.



a. Playback:



1. It will show the capacity of the SD card. Click the date listed on this page. It will show the list of the video.

2006/04/17			Del
Time	Video	Event Type	<input type="checkbox"/>
09:05:22	090522f.avi	Network Dis-connected	<input type="checkbox"/>
09:05:52	090552f.avi	Network Dis-connected	<input type="checkbox"/>
09:06:22	090622f.avi	Network Dis-connected	<input type="checkbox"/>
09:06:52	090652f.avi	Network Dis-connected	<input type="checkbox"/>
09:07:22	090722f.avi	Network Dis-connected	<input type="checkbox"/>
09:07:52	090752f.avi	Network Dis-connected	<input type="checkbox"/>
09:08:22	090822f.avi	Network Dis-connected	<input type="checkbox"/>
09:08:51	090851f.avi	Network Dis-connected	<input type="checkbox"/>
09:09:21	090921f.avi	Network Dis-connected	<input type="checkbox"/>
09:09:51	090951f.avi	Network Dis-connected	<input type="checkbox"/>

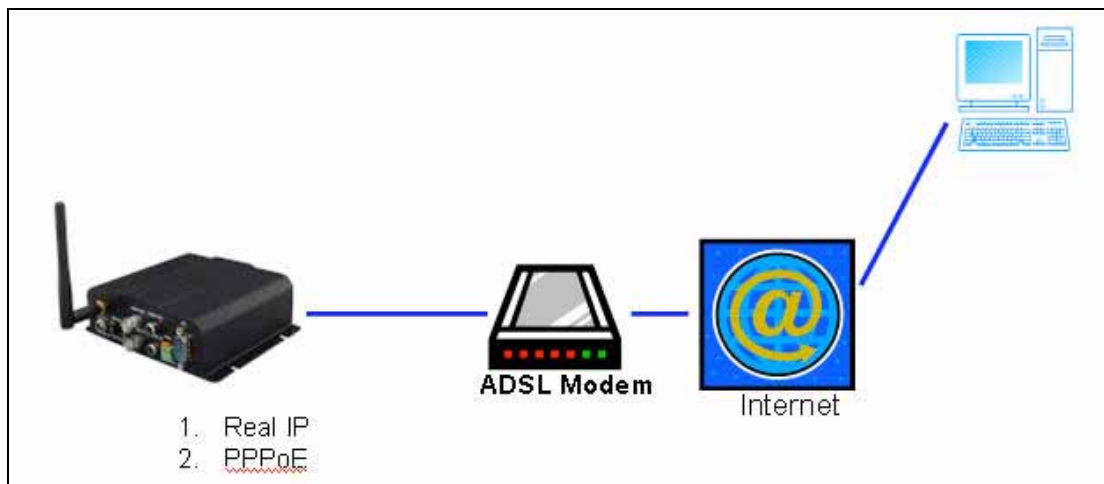
2. The video format is AVI. Click the video to start Microsoft Media Player to play it.
 3. To delete the video, check it, then click **Del**. When the SD card is full, it will remove the oldest video automatically.
- b. Record Setting



The Pre/ Post Alarm are adjustable in SN-1SD .

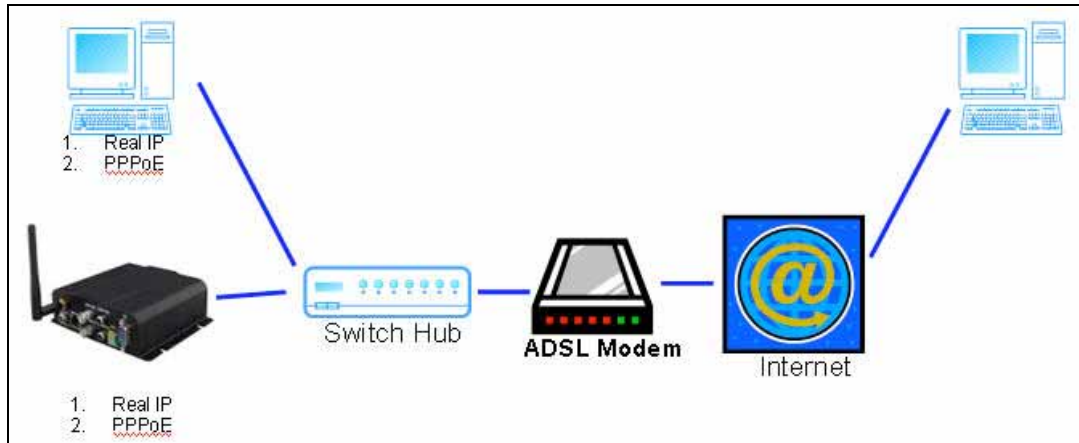
VI. Network Configuration

1. Configuration 1:

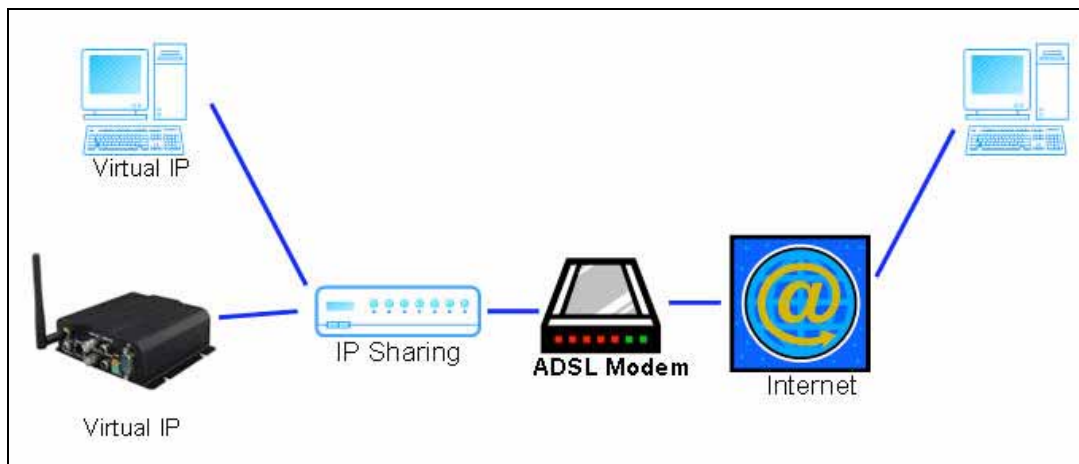


- A. Internet Access: ADSL or Cable Modem
- B. IP address: One real IP or one dynamic IP
- C. Only SN-1SD connects to the internet
- D. For fixed real IP, set up the IP into SN-1SD . For dynamic IP, start PPPoE.

2. Configuration 2:



- A. Internet Access: ADSL or Cable Modem
 - B. IP address: More than one real IP or one dynamic IP
 - C. SN-1SD and PC connect to the internet
 - D. Device needed: Switch Hub
 - E. For fixed real IP, set up the IP into SN-1SD and PC. For dynamic IP, start PPPoE.
3. Configuration 3:



- A. Internet Access: ADSL or Cable Modem
- B. IP address: one real IP or one dynamic IP
- C. SN-1SD and PC connect to the internet
- D. Device needed: IP sharing
- E. Use virtual IP, set up port forwarding in IP sharing.

VII. Factory Default

1. To recover the default IP address and password, please follow the following steps.

2. Press and hold the button in the back of SN-1SD .



3. Power on the camera. Don't release the button during the system booting.
4. It will take around 30 seconds to boot the camera.
5. Release the button when camera finishes proceed.
6. Re-login the camera using the default IP (<http://192.168.1.200>), and user name (admin), password (admin).

VIII. Package contents

1. SN-1SD Video Server
2. Adaptor
3. Ethernet Cable
4. CD title (User manual, IP installation Utility)

Appendix I

SD Card Recommended

SanDisk 128M	OK
Tracend 128M 80X	OK
SanDisk 256M	OK
SanDisk 512M	OK
SanDisk 1G	OK
SanDisk 2G	OK

SanDisk 4G	OK
Tracend 256M 80X	OK
Tracend 512M 80X	OK
Tracend 1G 80X	OK
Tracend 2G 80X	OK
Tracend 4G 80X	OK

AZIENDA CON SISTEMA DI
GESTIONE PER LA QUALITÀ
CERTIFICATO DA DNV
=UNI EN ISO 9001:2000=



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