

# Pages from IPw-TX4 User Manual

IPw-Tx4 is a 4 channel MPEG4 Video Server and is IE browser compatible.

It encodes analogue signals of traditional cameras to digital signals; user can monitor real-time video via IE browser. MPEG4 compression format supports smooth video quality. Also, it supports USB backup. 2-way audio supports the user to have a video conference. In addition, the user can control IPw-TX4 with an easy-control user interface via IE browser.

## I. Product Specifications

- MPEG4 compression format.
- USB backup.
- Wireless network connection (802.11 b/ g).
- 2-way audio.
- Online firmware upgrade.
- Support dynamic IP and PPPoE through free DDNS.
- Support AVI video backup via IE browser

Hardware	
CPU	ARM 9 ,32 bit RISC
RAM	64MB
ROM	8MB
Video Input	BNC x 4
Input Video Looping	BNC x 4
Audio Input	RCA x 1
Audio Output	RCA x 1
Alarm Input	X4
Relay Output	X1
Network	
Ethernet	10/ 100 Base-T
Wireless	802.11b/g

WEP	64/128 bit
Network Protocol	HTTP, TCP/ IP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP
<b>System</b>	
Video Resolution	VGA CIF QCIF
Video adjust	Brightness, Contrast, Saturation, Hue
Image snapshot	Yes
Full screen monitoring	Yes
Compression format	MPEG-4
Video bit rate adjust	CBR, VBR
Motion Detection	Yes, 4 Areas(1 Area per CH)
Triggered action	Mail, FTP, Save to USB USB Storage
Security	Password protection
Firmware upgrade	HTTP mode, can be upgraded remotely
Simultaneous connection	Up to 10
Audio	Yes, 2-way
<b>SD card management</b>	
Recording trigger	Motion Detection
Video format	AVI/ MPEG4
Video playback	AVI File Download
File Management	Yes, can be deleted or overwrite
<b>Web browsing requirement</b>	
OS	Windows 2000, XP, 2003
Browser	IE 6.0 or above

## II. Product Installation

### A. Hardware Installation

- i. Connect the power adapter and Ethernet cable.
- ii. Set up the network configuration based on different environments. For further information, please refer to chapter IV Network Configuration.

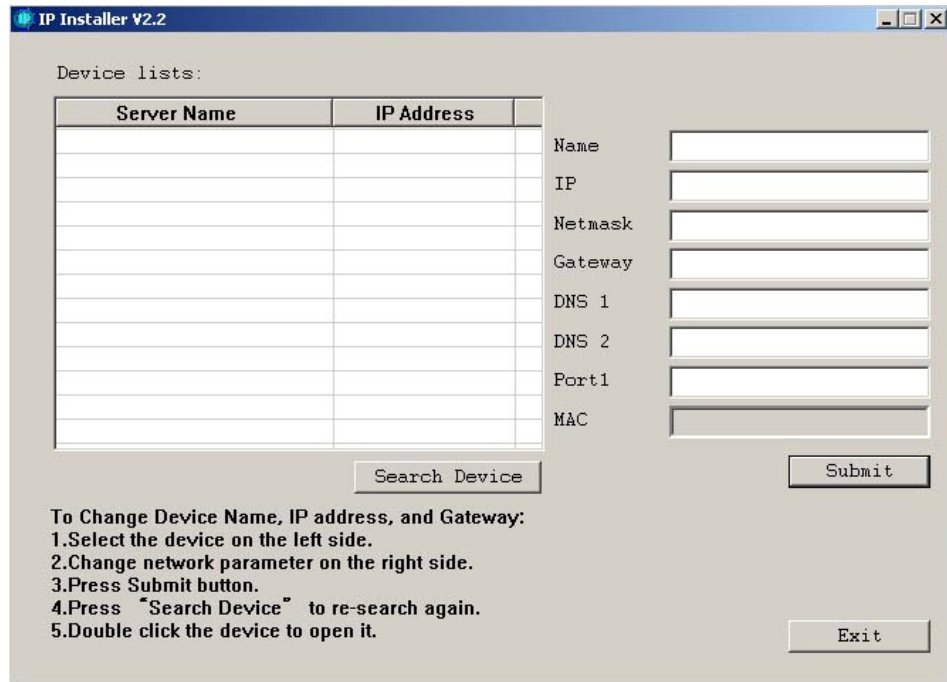
### B. IP Assignment

- i. Use "IP Installer", comes with CD, to assign the IP address of IPw-TX4.

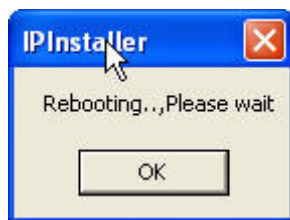
- ii. 2 languages supported for IP Installer :
  - a. IPInstallerCht.exe: Chinese version
  - b. IPInstallerEng.exe: English version
- iii. 3 different IP configurations based on different environments.
  - a. Fixed IP (Public IP or Virtual IP)
  - b. DHCP (Dynamic IP)
  - c. Dial-up (PPPoE)
- iv. Execute IP Installer
- v. Use Windows XP SP2 or newer version. If the following message popup, please click “Unblock.”



- vi. The GUI of IP Installer :



- vii. IP Installer searches all IP devices which connect with the internet and it lists all of them on the left side or the user can click "Search Device" to search again.
- viii. When the user clicks on each IP device listed on the left side of IP Installer, the network configuration of the IP device will show on the right side. The user can change the parameter and click on "Submit". And, then, the following message will popup. Click on "OK" to reboot.



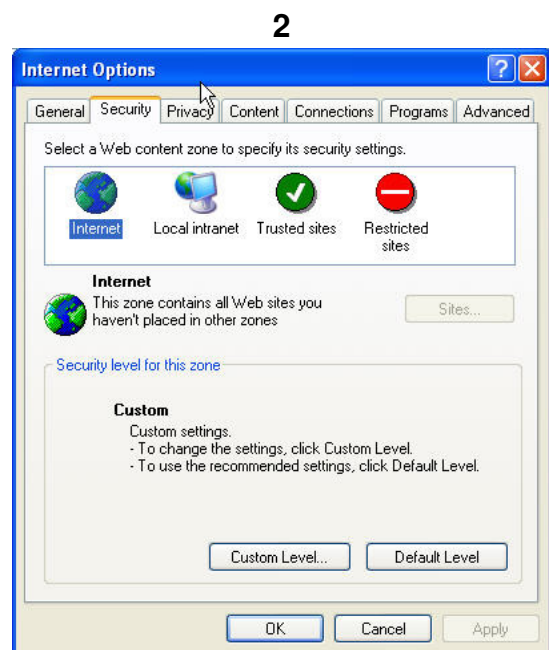
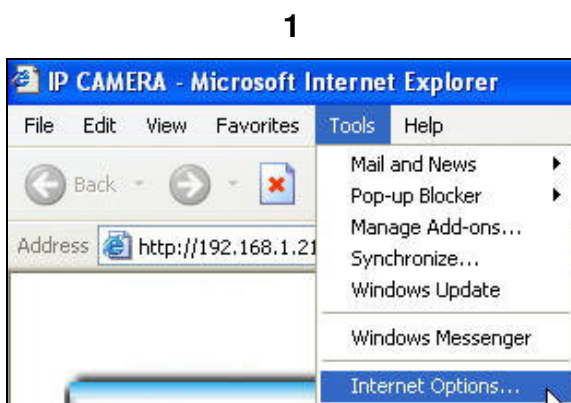
- ix. After IPw-TX4 reboot, click "Search Device" to search. And use IE Browser for live viewing.

## C. Install ActiveX control (setup once only):

For the first time to view via IE browser, it will request the user to install ActiveX.

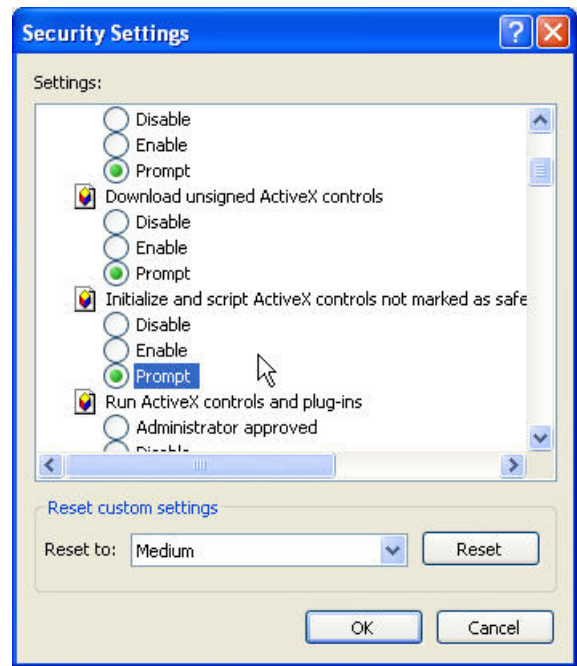
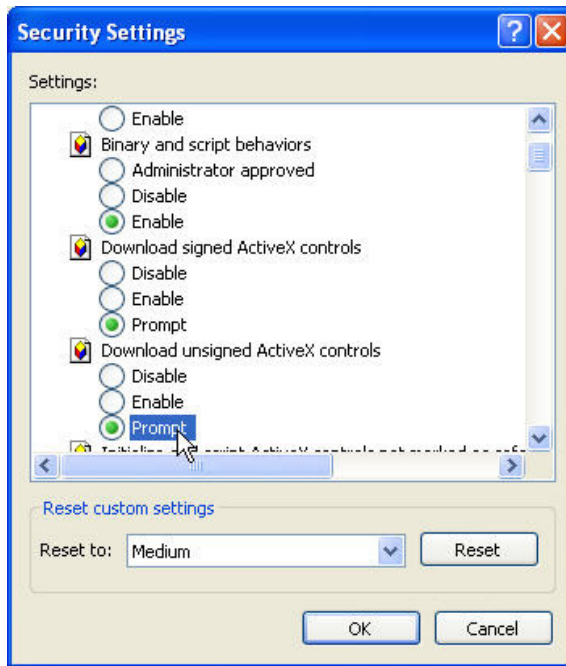
Also, check the security setting as follows.

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



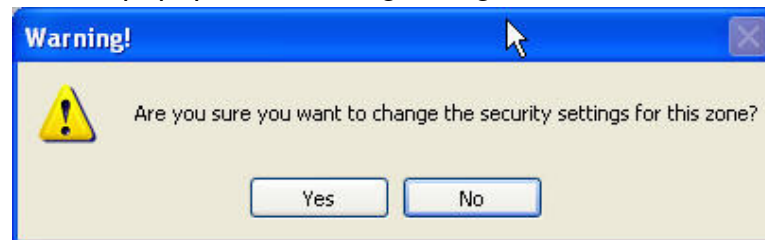
**3**

**4**








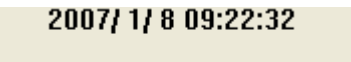
5

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



### III. Live Video

After executing IE browser and typing the IP address of IPw-TX4, the following message will popup and request the user to input the user name and password. The default user name and password are "admin" and "admin."

2.  : Video Snapshot.
3. Live Video. The user can click on each channel for single channel format.
4. -supports 2-way audio. After click on “Chatting”, the user can use the microphone which connects with the PC to talk to the server side.
5. Status and Function keys :
  - A .  Monitor with full screen. Click on  again to return normal mode.
  - B .  Record with AVI file.
  - C .  Select each channel to control.
  - E .  Date and Time displayed.
6. Relay Output Control.
7. PTZ control. When the user click on a certain channel and if it connects with PTZ camera, the user can click on “Model” to select protocols and use PTZ function to control the camera.

# A. System

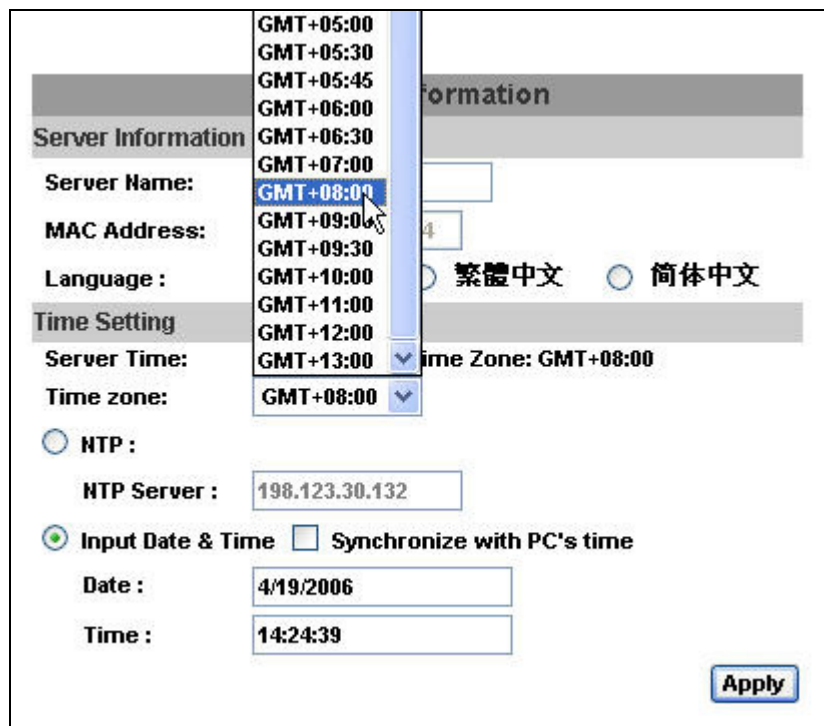
## i. System Setup

Set up the video server name, select language, and the time on this video server.

- a. Sever name : This is the video server name for the user to search on IP Installer.
- b. Select language : There are English, Traditional Chinese, and simplified Chinese. When a certain language is selected, the following message will popup and ask the user to confirm language changed.



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

A screenshot of a web-based configuration interface for a video server. The interface is divided into sections: "Server Information", "Time Setting", and "Language".  
- **Server Information**: Includes fields for "Server Name:" and "MAC Address:".  
- **Time Setting**: Includes a "Server Time:" dropdown menu (currently showing GMT+13:00), a "Time zone:" dropdown menu (currently showing GMT+08:00), and radio buttons for "NTP:" and "Input Date & Time".  
- **Language**: Includes radio buttons for "繁體中文" and "简体中文".  
- **NTP Settings**: Under "NTP:", there is an "NTP Server:" field with the value "198.123.30.132".  
- **Input Date & Time**: Under "Input Date & Time", there is a "Date:" field with "4/19/2006" and a "Time:" field with "14:24:39".  
- **Buttons**: An "Apply" button is located at the bottom right of the form.

ii. User Management

Support three authorities: administrator (the highest), user, and anonymous user.

Default Username and Password: admin/ admin

The screenshot shows a web interface titled "User Management". It has three main sections: "Anonymous User Login", "Add User", and "User List".

- Anonymous User Login:** Contains two radio buttons, "YES" and "NO". The "NO" button is selected. There is a "Setting" button to the right.
- Add User:** Contains three input fields labeled "Username:", "Password:", and "Confirm:". There is an "Add/Set" button to the right.
- User List:** Contains a table with the following data:

Username	User Group	Modify	Remove
admin	Administrator	Edit	

a. Anonymous User Login :

Yes : Allow anonymous login.

No : Require user name and password to login.

b. Add user :

Type the user name and password and then click on "Add/ Set".

c. Click on "Edit" or "Delete" to modify the user.

The screenshot shows a dialog box titled "User Setup" within a Microsoft Internet Explorer window. The dialog box has three input fields: "Username:" with the text "admin", "Password:", and "Confirm:". There is an "OK" button to the right of the "Confirm:" field.

iii. System update

System Update	
<b>Firmware Upgrade</b>	
<b>Firmware Version:</b>	V2.0.2
<b>New Firmware:</b>	<input type="text"/> <input type="button" value="浏览..."/>
	<input type="button" value="Upgrade"/>
<b>Reboot System</b>	
	<input type="button" value="Start"/>
<b>Factory Default</b>	
	<input type="button" value="Start"/>

Update the firmware online. Click on “Browse...” to select the firmware. And then, click on “Upgrade.”

Other settings :

Reboot system : Reboot the video server.

Factory default : Recover all settings.

# B.Network

## i. IP Setting

supports static IP and DHCP.

IP Setting	
<b>IP Assignment</b>	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
IP Address:	192.168.3.236
Subnet Mask:	255.255.255.0
Gateway:	192.168.1.254
DNS 0:	168.95.1.1
DNS 1:	168.95.192.1
<b>Port Assignment</b>	
Web Page Port:	80

- a. DHCP : Use Dynamic Host Configuration Protocol to get all network parameters automatically.
- b. Static IP : Type IP address, subnet mask, gateway, and DNS.
- c. DNS :  
With DHCP, DNS will be assigned automatically.  
Static IP: Based on the network environment.
- d. Port : If the user uses the router, some ports have to be adjusted in case of conflict.

ii. PPPoE

The screenshot shows a web-based configuration page for PPPoE. At the top, there is a header 'PPPoE'. Below it, the section 'PPPoE Setting' contains two radio buttons: 'Enabled' (unselected) and 'Disabled' (selected). Underneath are two text input fields labeled 'Username:' and 'Password:'. A second section, 'Send mail after dialed', features an unchecked checkbox labeled 'Enabled'. Below this, there is a 'Subject:' label followed by a text input field containing the text 'PPPoE From IPcam'. To the right of this field is a button labeled 'Apply'.

If the user wants to use ADSL, please select “Enabled”.

Username: username for ADSL connection.

Password: password for ADSL connection.

Send mail after dialed : After this function is enabled, it will send an email to a specific mail account. For the mail setting, please refer to IV. “Mail and FTP” settings.

iii. DDNS

Supports DDNS. It uses dynamic IP to redirect IP and connect with the video sever.

Supports 3 kinds of DDNS severs, including dyndns.org, ddns.camddns.com, and ddns2.ydsdvr.com.

a. DynDNS :

**DDNS**

**DDNS Setting**

Enabled  Disabled

Provider:

Hostname:

Username:

Password:

Schedule Update:  Minutes

**State**

**Note:**

- 1. Schedule Update:** Feature of DDNS schedule update is designed for IP products which installed behind the ICS or IAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
- 2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.**

1. DDNS Setting: Enable or Disable DDNS setting.
2. Input the DynDNS's host name, user name, and password.
3. Schedule Update: Default 1440 minutes.  
\* dyndns.org: If the user's schedule update is too often, it will be blocked. Recommend the user to update once per day (1440 minutes per day).
4. Click on "Apply" to save.

b. Camddns :

**DDNS**

**DDNS Setting**

Enabled  Disabled

**Provider:** ddns.camddns.com

**Username:**

**Schedule Update:** 1440 **Minutes**

**State**

Idle

**Apply**

**Note:**

- 1. Schedule Update:** Feature of DDNS schedule update is designed for IP products which installed behind the ICS or IAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
- 2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.**

1. Input user name.
2. Schedule Update: Default 1440 minutes.
3. Click on “Apply” on save.

c. DDNS State :

1. Updating: Information updating.
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 another one.
5. Update Failed; please check your internet connection: Network connection failed.

iv. Wireless Setting

Supports 802.11b/g wireless connection. **(Notice: While using wireless setting, the user has to unplug Ethernet cable because both use the same IP. If the user doesn't unplug Ethernet cable, wireless setting can not be executed).**

Wireless Setting			
Status of Wireless Networks			
SSID	Mode	Security	Signal strength
RHOSON	Infrastructure	WEP	13
SinoStar	Infrastructure	WEP	12
Default	Infrastructure	WEP	73
3Com	Infrastructure	OFF	35
7F-2-2	Infrastructure	WEP	4

Wireless Setting	
MAC Address:	00:11:E2:03:37:48
Mode:	Infrastructure ▼
Operation Mode:	Auto ▼
SSID:	Default
Security:	None ▼

- a. Status of Wireless Networks ;  
it can scan all wireless services.
- b. Wireless Setting :
  1. **Mode** : There are Infrastructure and Ad-hoc. Infrastructure is for connecting with the router. Ad-hoc is for connecting with PC. When the user uses Ad-hoc mode, there is "Channel" to select. e.g. If one PC's channel is 1, the other's channel has to 1, too.

Wireless Setting	
MAC Address:	00:11:E2:03:37:48
Mode:	Ad-hoc ▼
Operation Mode:	Auto ▼
SSID:	Default
<b>Channel:</b>	6 ▼
Security:	None ▼

2. **SSID** : Based on AP setting.
3. **Channel** : This is only be used when the user selects Ad-hoc mode in order to avoid conflict.

4. **Security** : It supports “None”, “WEP”, “WPA-PSK” security encryption based on the setting of the Router.

『WEP』

- Authentication : There are Open System and Shared Keys, it is based on different encryptions. This has to be the same as the Router’s setting.
- Encryption : There are 64 bits and 128 bits. This is based on Key Type based on the Router’s setting.
- Key Type : There are HEX and ASCII. When selecting HEX, the user only can input 0~9 characters and use A, B, C, D, E, and F. And, when selecting ASCII, the user can input any character. (case [upper cases/ lower cases] sensitive).
- Key 1~4 : Based on Key Type to input characters.

Security:

**WEP Setting**

Authentication:

Encryption:

Key Type:  (10 character max)

Key 1:

Key 2:

Key 3:

Key 4:

『WPA-PSK』 :

- Encryption : There are TKIP and AES.
- Pre-Shared Key : Allow any characters (case [upper cases/ lower cases] sensitive).

Security:

**WPA-PSK Setting**


Encryption

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

# C.Multimedia

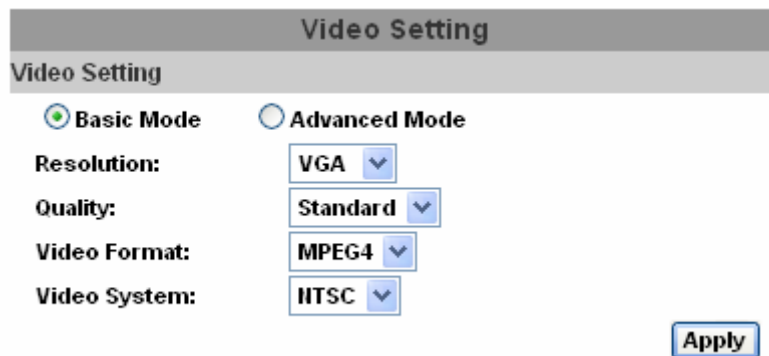
## i. Image Setting



- ii.  Select each channel to control.
- iii. Adjust "Brightness", "Contrast", "Hue", and "Saturation".

#### iv. Video Setting

##### a. Basic mode :



The screenshot shows a 'Video Setting' window with a title bar. Below the title bar, there are two radio buttons: 'Basic Mode' (selected) and 'Advanced Mode'. Under 'Basic Mode', there are four settings, each with a dropdown menu: 'Resolution' set to 'VGA', 'Quality' set to 'Standard', 'Video Format' set to 'MPEG4', and 'Video System' set to 'NTSC'. An 'Apply' button is located at the bottom right of the window.

##### 1. Resolution :

There are 3 resolutions to be adjusted.

VGA

CIF

QCIF

##### 2. Quality :

There are 5 qualities to be adjusted. The higher the quality is, the bigger the files size is.

##### 3. Video System :

It supports NTSC and PAL.

b. Advanced Mode :

**Video Setting**

Video Setting

Basic Mode  Advanced Mode

Resolution: VGA

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**

Video Format: MPEG4

Video System: NTSC

Apply

1. Resolution :  
There are 3 resolutions to be adjusted.  
VGA  
CIF  
QCIF
2. Bitrate Control Mode :  
There are CBR ( Constant Bit Rate ) and VBR ( Variable Bit Rate ) .  
CBR : 64Kbps~4Mbps ◦  
VBR : Q=4~30 ◦  
If the bandwidth is smaller than CBR or VBR setup, it will cause legging and incomplete images.
3. Video Frame Rate :  
The video refreshing rate per second. The highest Frame Rate is 30/ FPS.
4. GOP  
It means "Group of Pictures." The higher the GOP is, the better the quality is.
5. Video Format : It supports MPEG4.
6. Video System : It supports NTSC and PAL.

- v. Audio:
  - 2-way audio.
  - a. For the video server to local PC, select “Enabled” to enable this function.



- b. For local PC to the video server, click on “chatting” on IE browser.



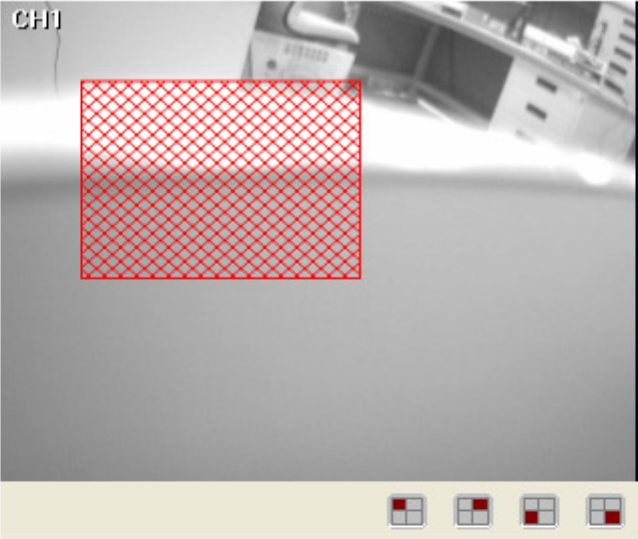
# D.Event

Multiple event settings.

i. Event Setting

**Event Setting**

**Motion Detection**



CHI

Channel: 1 CH    Sensitivity: 6    Clear    Setting

<input type="checkbox"/> Enable CH 1:	<input type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out1	<input type="checkbox"/> Save to USB Storage
<input type="checkbox"/> Enable CH 2:	<input type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out1	<input type="checkbox"/> Save to USB Storage
<input type="checkbox"/> Enable CH 3:	<input type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out1	<input type="checkbox"/> Save to USB Storage
<input type="checkbox"/> Enable CH 4:	<input type="checkbox"/> E-mail	<input type="checkbox"/> FTP	<input type="checkbox"/> Out1	<input type="checkbox"/> Save to USB Storage

Subject:

Interval:

**Network IP Check**

IP Check:     Enabled     Disabled

IP Address:

Interval:

IP Check:     Save to USB Storage    Apply

Mail & FTP	
<b>Mail Setting</b>	
Mail Server:	<input type="text"/>
Username:	<input type="text"/>
Password:	<input type="text"/>
Sender's Mail:	<input type="text"/>
Receiver's Mail:	<input type="text"/>
Bcc Mail:	<input type="text"/>
<b>FTP Setting</b>	
FTP Server:	<input type="text"/>
Username:	<input type="text"/>
Password:	<input type="text"/>
Port:	<input type="text" value="21"/>
Path:	<input type="text" value="/"/>
<input type="button" value="Apply"/>	

To send out the video via mail or FTP, please set up the configuration first.

- iv. USB Storage
  - a. Playback

Playback	
20080301	
USB: << 13053M / 58756M >>	

1. It will show the capacity of USB Device and the date of the video file. The user can choose a certain date to play back.

2007/01/08			Del
Time	Video	Event Type	<input type="checkbox"/>
10:38:06	103806m.avi	Motion Detection	<input type="checkbox"/>
10:39:35	103935m.avi	Motion Detection	<input type="checkbox"/>
10:40:28	104028m.avi	Motion Detection	<input type="checkbox"/>
10:41:08	104108m.avi	Motion Detection	<input type="checkbox"/>
10:42:00	104200m.avi	Motion Detection	<input type="checkbox"/>
10:43:05	104305m.avi	Motion Detection	<input type="checkbox"/>
10:44:02	104402m.avi	Motion Detection	<input type="checkbox"/>
14:34:02	143402m.avi	Motion Detection	<input type="checkbox"/>
18:01:52	180152m.avi	Motion Detection	<input type="checkbox"/>

2. The video file is with AVI format. On the video, it will display the date of the video file and the event. The user can click on the

video file to play back on Microsoft Media Player.

3. To delete the video, check the video file and click on  Del .  
When the USB device is full, it will remove the oldest video automatically.