Indoor Dual-Streaming CCD Network Camera

UNC7702-Series User's Manual

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Chapter 1

Introduction

1. What is Dual Streaming Network Camera/Video Server?

The UNC7702 (Network Camera, hereinafter called UNC7702) is professional MPEG-4/MJPEG dual streaming surveillance products. Dual streaming allows seamless remote video monitoring using MPEG-4 concurrently with transmission of high quality JPEG images to an optional storage. The audio stream can also be compressed and distributed over Intranet/Internet as the result of capable being recorded. UNC7702 has 2 USB 2.0 host ports; with external storage connected the video/audio can be recorded locally. For power solution, while normal adapter is applied for both devices the UNC7702 also comes with an optional PoE model. The UNC7702 successfully provides the solution of remote monitoring and quality recording in surveillance.

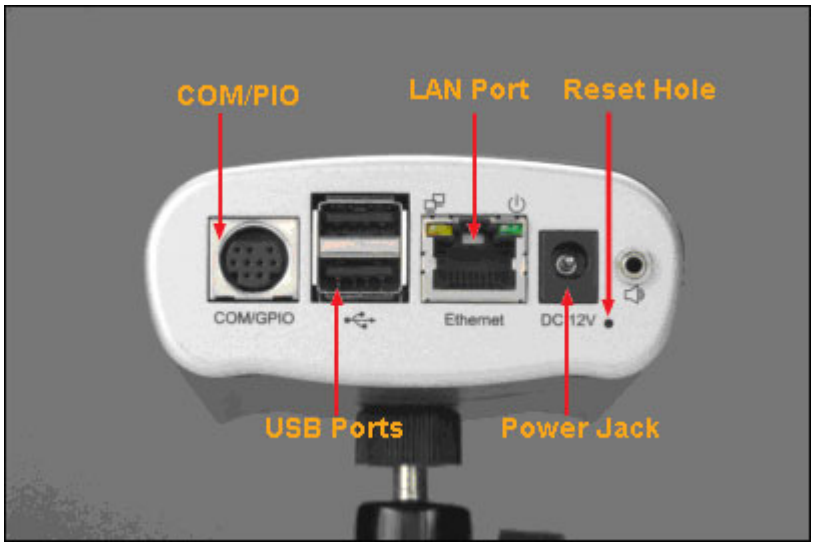
2. Features

- Self-Contained Web Server providing Internet capability for remote access
- MPEG-4/MJPEG dual compression formats
- Simultaneous MPEG-4 and MJPEG stream for multiple clients
- Supports up to 30/25 FPS at Full D1 resolution
- More than 540 TV lines resolution
- Built-in internal microphone
- Event handling trigger by alarm/motion and action to send video clip by Email / FTP
- Two USB 2.0 Host ports support external storage connection for local recording
- Wireless USB dongle (IEEE 802.11b/g) compliant (to be upgraded)
- IP setup by easy IP Installer / DHCP / Static IP
- Supports DDNS for dynamic IP application
- NTP (network time server) with DST supported which provide accurate unify system time
- Hardware watchdog providing robustness system in critical environment

Chapter 2

Physical Images

UNC7702 Network Camera



Chapter 3

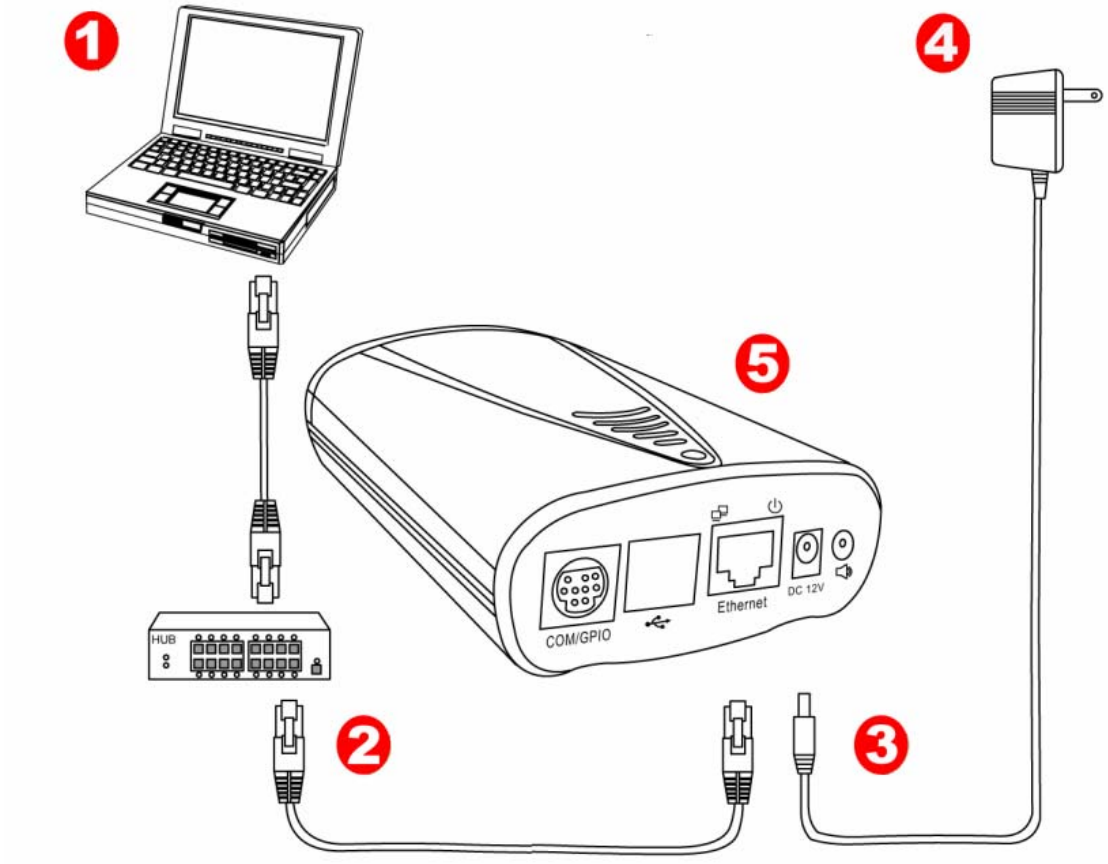
Installation

1. Hardware connection

1. Prepare a PC with Ethernet link to the network
2. Connect UNC7702 device to the network hub/switch with standard pass through (CAT5) cable, or connect directly to PC with a cross over cable.
3. Connect power jack
4. Ensure the power adapter specification matches the power system (110V or 220V). Connect the adapter to the outlet.
5. Check both LEDs (Power/Network); ensure they are light on after the steps above.

Follow the above steps to perform the UNC7702 connections.

Physical connection of UNC7702 Camera



2. Software Installation

The following software is necessary for the proper display and use of the UNC7702 from the Web site. The software will be taken from the Software Package CD.

IP Installer

The IP Installer is used to locate and configure network cameras and video servers on the LAN. This utility is useful for conveniently configuring the network settings of the device, or for finding a device once the network settings have been modified.

To install the IP Installer, from the Software Package CD UI, select IP installer, then follow the on screen instructions.

Component Installer

The ActiveX component is used by our devices for video display and device configuration. Usually, when you connect to the UNC7702 via IE browser, the ActiveX component will be installed automatically. If the components can not be installed, install this software from the Software Package CD.

XVID Codec

An MPEG-4 codec is applied for displaying the video stream and playing the recoded AVI files. If the video stream can’t be displayed or the recorded AVI files can be play on PC, install this software from the Software Package CD.

VLC

Though not necessary, this can be used for viewing the streaming without a Web browser.

3. Network Configuration

IP Installer is a utility that provides an easier, more efficient way to configure the IP address and network settings of the devices. It even provides a convenient way to set the network settings for multiple devices simultaneously using the batch setting function. Moreover, IP Installer can save the network settings for all devices as a backup and restore them when necessary.

Preparation before IP Assignment

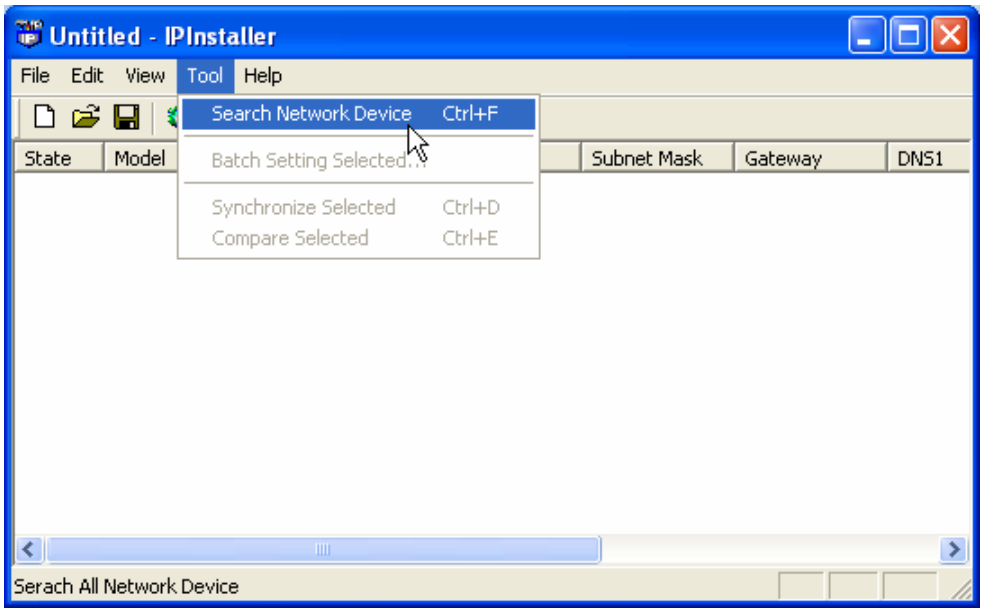
1. Always consult your network administrator before assigning an IP address to your server in order to avoid using a previously assigned IP address.
2. Ensure the UNC7702 is powered on and correctly connected to the network.
3. MAC Address: Each device has a unique Ethernet address (MAC address) shown on the label of the device as the serial number (S/N) with 12 digits (e.g. 000429-XXXXXX).

4. Although the IP Installer is able to find and configure any UNC7702 on the LAN except those that are behind a router, it is a good idea to set the host PC to the same subnet. In order to connect to the Web-based user interface of UNC7702, the host PC must be in the same subnet. For more information about subnets, please consult your network administrator.

Using IP Installer to Assign an IP Address to UNC7702

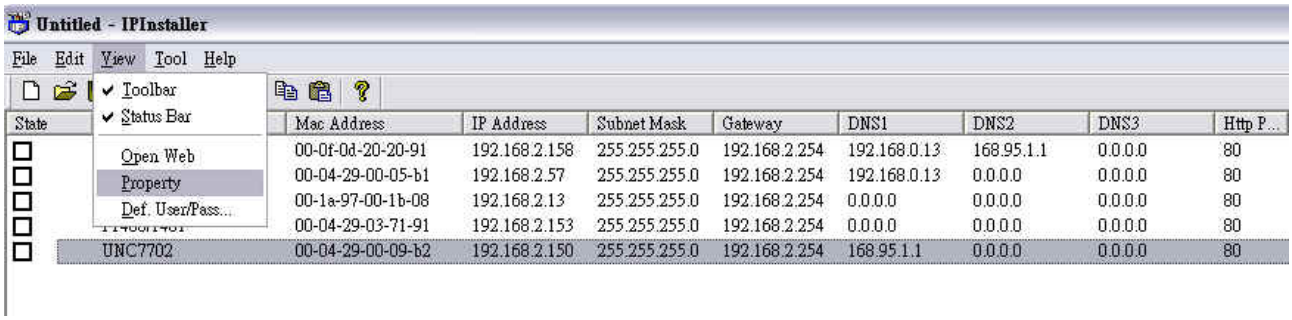
1. Once IP Installer has been successfully installed on the PC, double click the IP Installer icon on the desktop, or select it from Start > Programs > IP Installer > IP Installer > Launch IP Installer.

2. Click the menu bar Tool > Search Network Device to search the device in the LAN.

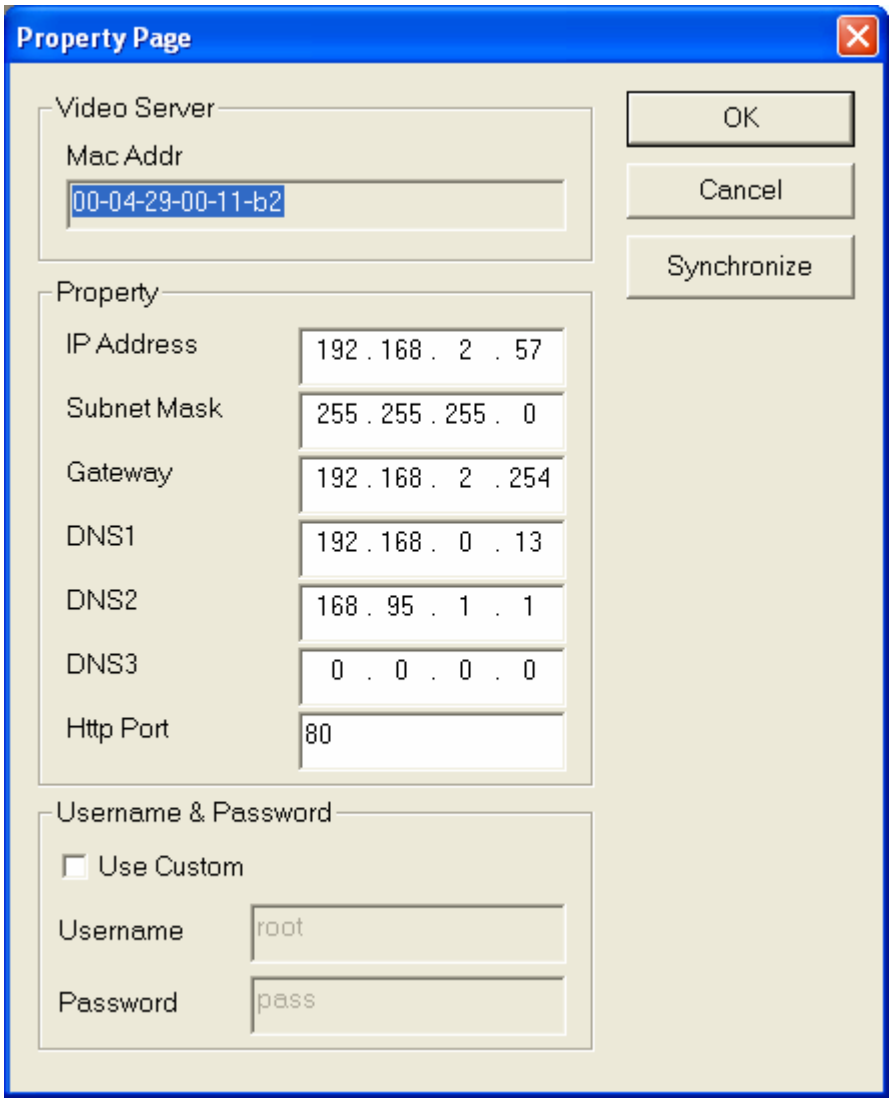


3. From the list, select the device with the MAC Address that corresponds to the UNC7702 that is to be configured. The MAC Address is identical to the unit's S/N (Serial Number).

4. Double click the item to open the Property Page for the selected device or click the menu bar View > Property.



5. After filling in the properties, click [Synchronize] button to complete the configuration settings in the remote UNC7702 while saving configuration in the PC. If click [OK] button, the configuration is only be saved in the PC.



Open the Web-based UI of the Selected UNC7702

1. To access the Web-based UI of the selected unit, run the View > Open Web on the menu bar.
2. If the device has been configured correctly, the default Web browser will open to the home page of the selected device.
3. If you find your browser is opened and automatically connected to the UNC7702 Home Page, it means you've assigned an IP Address to the unit successfully. Now you can close the IP Installer and start to use your UNC7702.

Verify and Complete the Installation from Your Browser

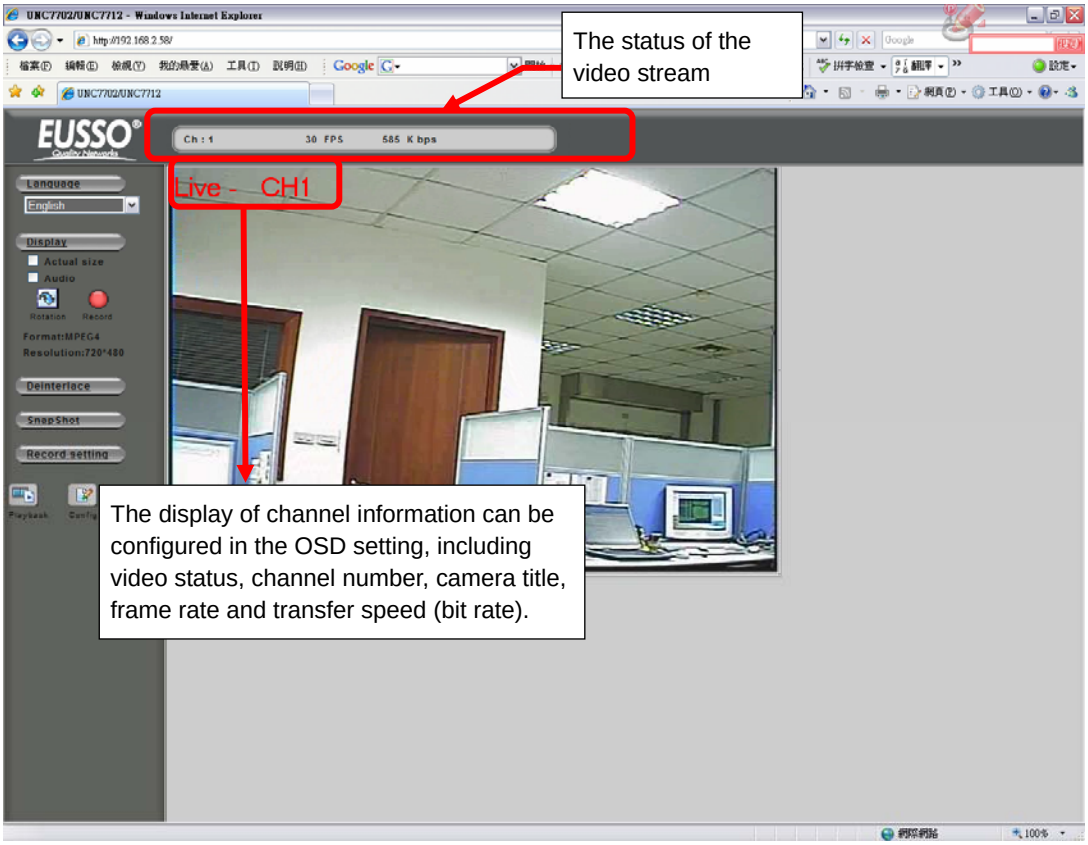
When browsing the Home Page at the first time with the Microsoft Internet Explorer ™, you must temporarily lower your security settings to perform a one-time-only installation of the ActiveX component onto your workstation, as described below:

1. From the Tools menu, select [Internet Options]
2. Click the [Security] tab and then click [Custom Level] button to see your current security settings.
3. Set the security level to Low and click [OK].
4. Type the URL or IP address of your UNC7702 into the Address field.
5. A dialog box will pop up asking if the ActiveX control should be installed. Click [Yes] to start the installation.
6. Once the ActiveX installation is complete, return the security settings to their original value, as noted above.

Chapter 4

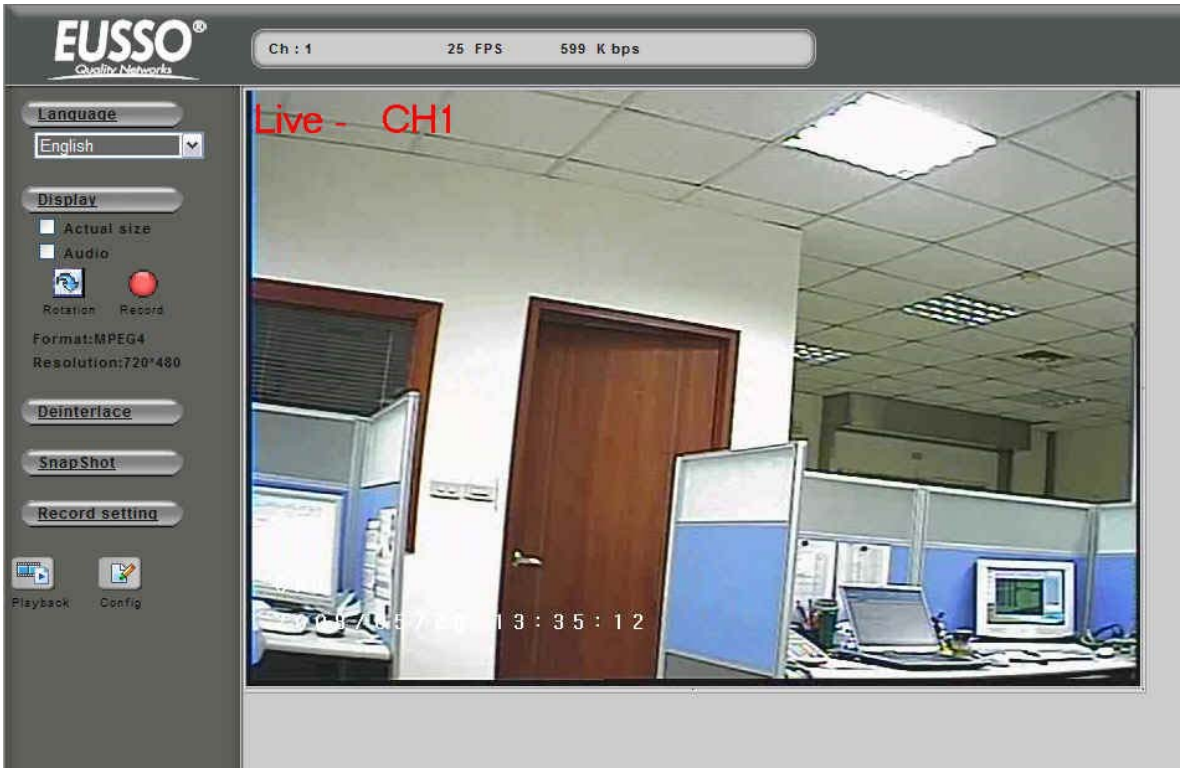
Using the Web UI

Start your Web browser and enter the URL or IP address in the Address field. The Home page of the UNC7702 is now displayed.



Note: Please notice to install the version of XVID codec and recommends V1.1 above, it can be found in the CD package.

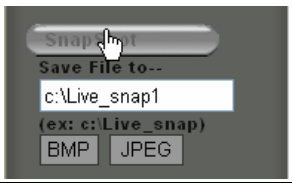
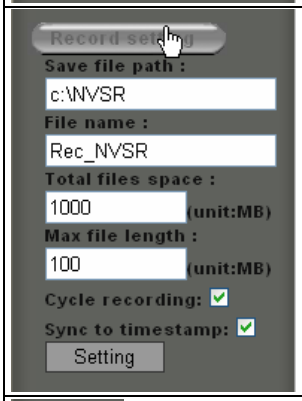
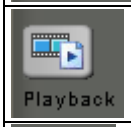
1. Live View



Functions in live view page

The following are the available keys in the Live View mode:

Button	Description
	Select the display language for web user interface
	Check “Actual Size” to display the video stream at the actual resolution Check “Audio” to enable audio recording. Click “Rotation” to rotate the selected video on 90 degrees clockwise direction. Click “Record” to start/stop recording. Click “PTZ” to show up a panel for the PTZ operation.
	Click “Deinterlace” to expend the option of deinterlace.

	Users need to set the file path before taking the snapshot. Click on [BMP] or [JPEG] to take an image with the bmp or jpeg file format respectively.
	Set the recording parameters including the recording path, file name, total file space, maximum file length, enabling/disabling cycle recording and synchronize to timestamp. Click on “Setting” to apply the change.
	Go to the Playback page for search and play back recorded video file ***Note:*** *The user that log in with user account* can’t use the Playback function*
	Go to the Configuration page for setup ***Note:*** *The user that log in with user account* won’t have an access to this page*

* UNC7702 user setting can be categorized in three groups, the **Admin**, **operator** and **user**. Detail description can be found in Configuration page > System > User.

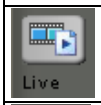
P/T/Z Control for Dome Camera

The following are the available keys to control the PTZ dome camera:

Button	Description
	Select the preset point for quick view or setup
	Click on the arrow buttons to move the camera to that direction Click on the rectangle button to stop the movement
Zoom	Zoom out the video Zoom in the video Stop the adjustment
Iris	Open the iris and reduce glare Open the iris and brighten the picture Stop the adjustment
Focus	The target will become farther The target will become nearer Stop the adjustment
Zoom scan	Activate the zoom pan function Stop the zoom pan function
Save	Click this button will save the current data as a preset point

2. Playback

To play back the recorded file, click the button in Home page.

Button	Description
	This will be displaying playback status include the speed of playing, playing mode and name of the controlling user.
	Select “Record HDD” or “Backup HDD” to search for the recorded file. Click [Search] button to open the Search panel, see Figure 1.
	Click this button to expand a setting panel for recording the playback stream to the client PC, see Figure 3.
	Click this button back to the Live View mode
	Go to the Configuration page for setup

Note: only 1 user can control play back streaming in a meantime. Other than the first user will be able to see the playing only (not to control) and who is controlling.

For the first user (must at least have an operator authority) going to start playback:

1. Select the hard disk that will be searched for.
2. Click Search button to open the Date/Time panel for choosing.
3. Select by Date/Time in the calendar. To know the usage of the calendar, just move the cursor on the button, the tips for the button will appear.
4. After select the Date/Time, click on [Begin Playback] button to playback all recorded video from the selected time or [Event list] button to choose the recorded video files from events list, see figure 1& 2.

For other clients (even logged in as an administrator)

As one user is controlling the playback, the other clients must wait until the user stops the playback function. During the waiting time these clients can only view the streaming of playback.

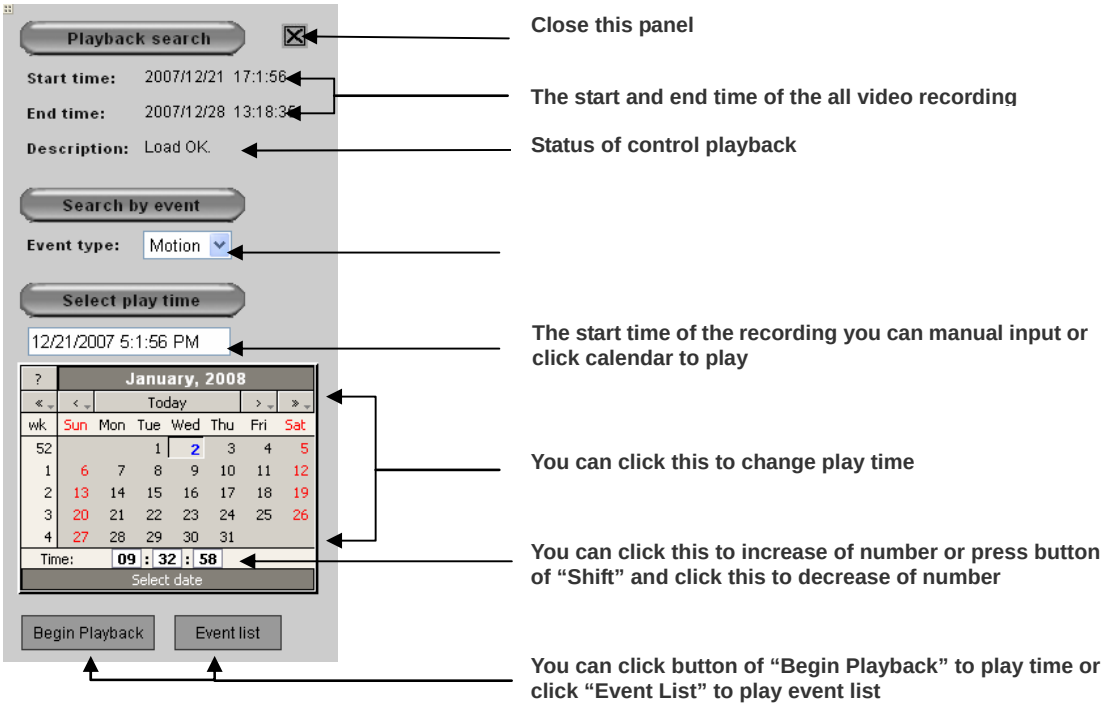


Figure 1

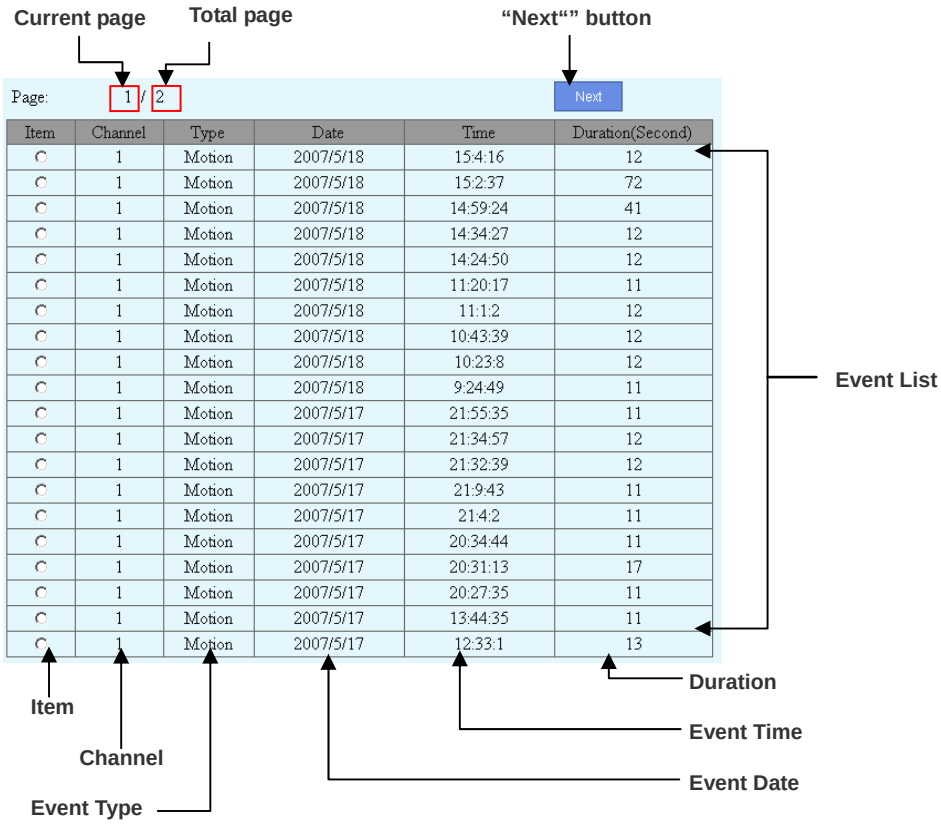
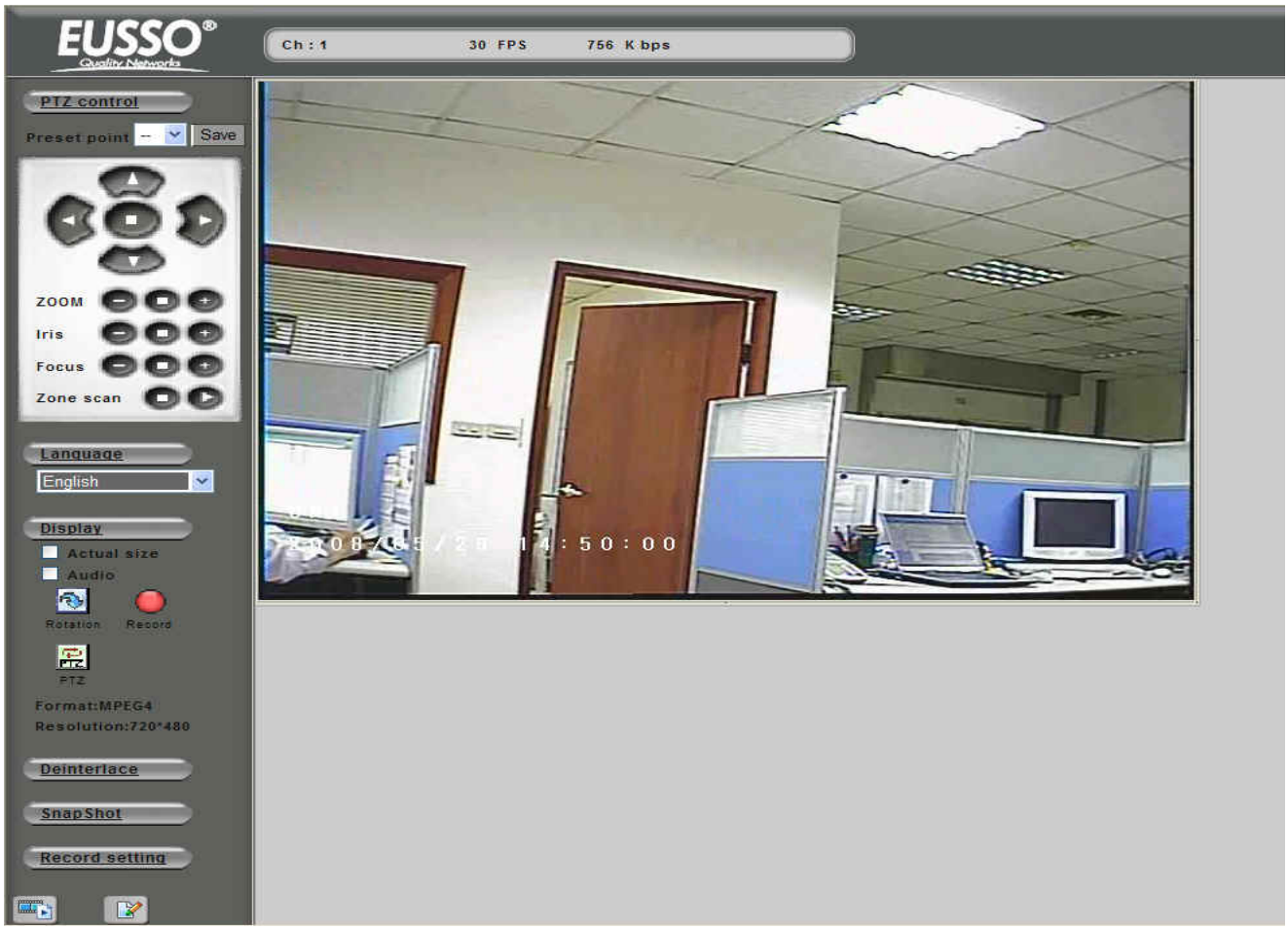


Figure 2

Playback Screen

Controller's View



Other clients' View

Remote Record Playback Stream

The playback stream can also be saved to a client PC while viewing. This is a handy function for that when a user is far away from UNC7702 but needs an actual copy of recorded video file.

1. Set a path to store the video. Click on [Record setting] button. A setting panel will be expanded and shown. See below figure.

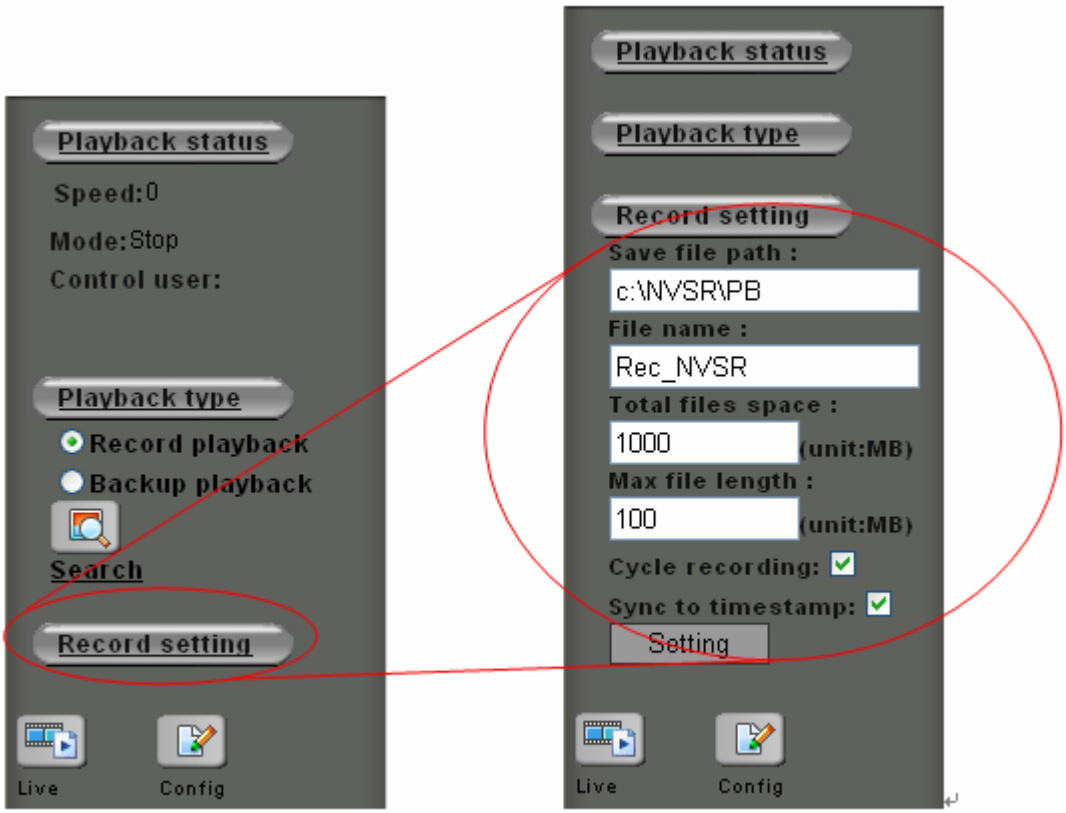
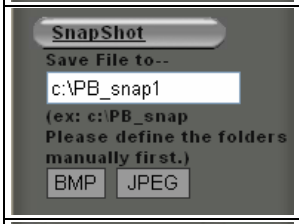
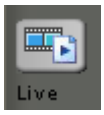


Figure 3

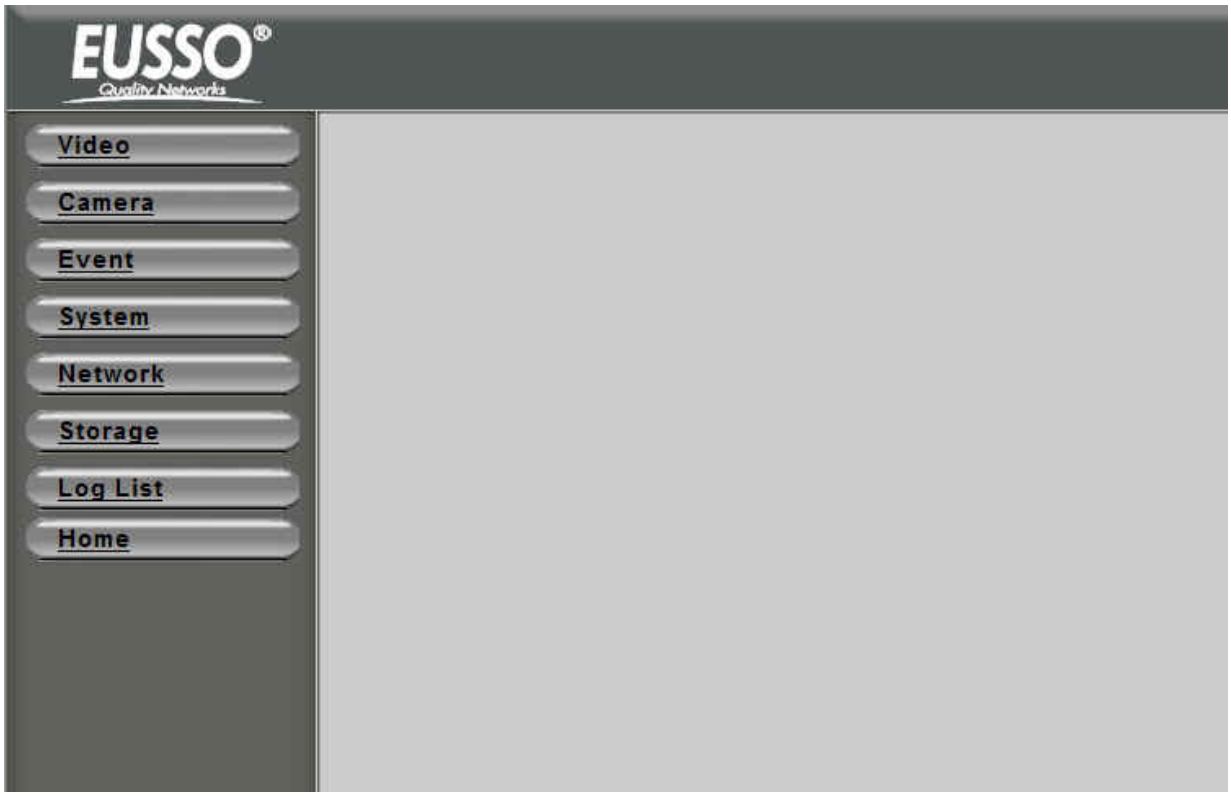
2. Press on the red button [Record], the playback video will be saving to the path set previously.
3. Besides save playback video, user can also snapshot an image from the video. The operation is identical to operating in the live page.

The following are the available keys to control the playback:

Button	Description
	Rotation: Rotate the playback images. Record: Record the playback video while viewing.
	Same operation as in live page. Snapshot the playback video.
	Play / Pause / Resume the playback Back to 1X speed for playback
	Stop the playback and exit the Playback function
	Fast forward / Rewind the playback. 1X ~ 32X speeds selectable.
	Playback in slow motion. After pause, select the speed from 1X ~ 1/32X.
	Show the status of playback.
	Click [Search] button to search and play back another time of recorded file
	Click this button back to the Live View mode
	Go to the Configuration page for setup

3. Configuration page

Click “Config” icon to open the Configure Page.



- **Video:** Set up the resolution and quality for recording and live view, and the schedule recording
- **Camera:** Setup video parameters, PTZ settings for cameras
- **Event:** Setup for event trigger
- **System:** Setup for system including date/time, user, COM port and commands etc.
- **Network:** Setup for network
- **Storage:** Setup for recording storage and schedule.
- **Log List:** Display the log
- **Home:** Back to the Home Page

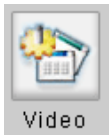
The detail descriptions / configurations are in the following chapter.

Chapter 5

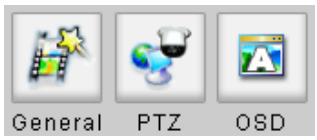
Configure the Settings with Web UI

1. Sub items

Video:



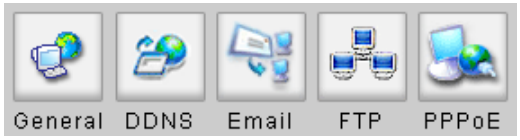
Camera:



Event:

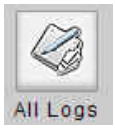
System:

Network:



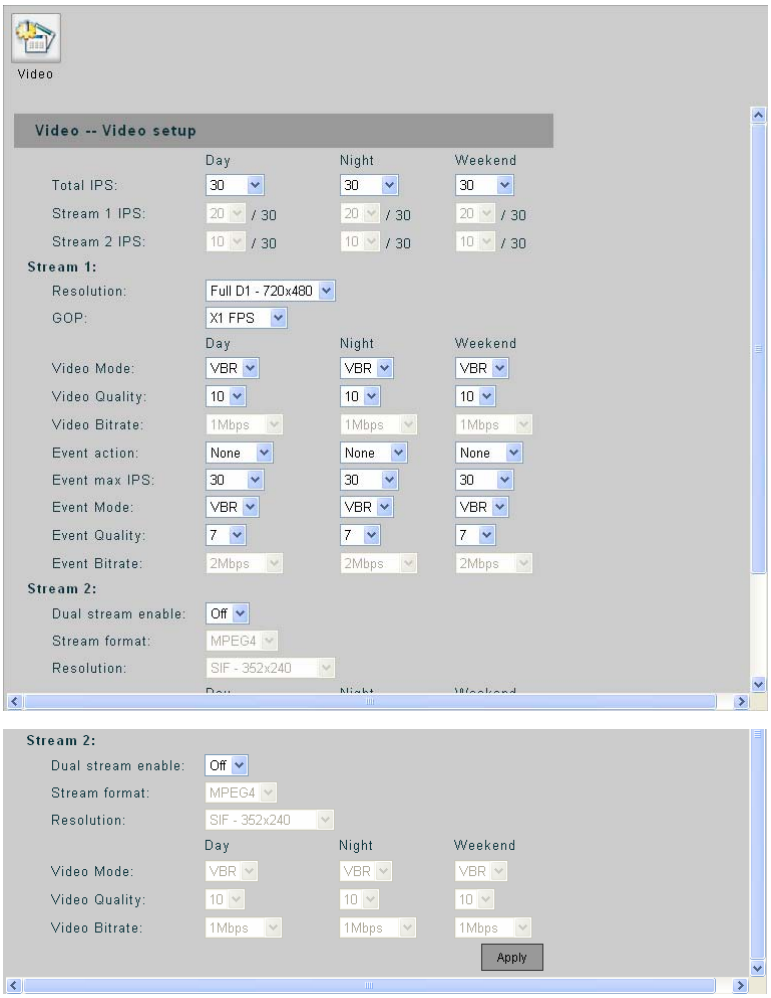
Storage:

Log List:



2. Video Setup (Available for Administrator only)

Video Setup



Total IPS: Set Total IPS in the daytime, nighttime and on weekends, up to 30 for each time period. When stream 2 is enabled, the IPS for stream 1 and 2 can be configured.

Stream 1 IPS: Set IPS for Stream 1 out of 30.

Stream 2 IPS: Set IPS for Stream 2 out of a number the rest IPS after occupied by Stream 1.

Stream 1:

- **Resolution:** Streaming / Recording resolution can be selected from 352X240 (SIF), 720X240 (Half D1) and 720X480 (Full D1).
- **GOP:** Set the GOP size
- **Video Mode:** Choose video encoding mode between VBR (Variable Bit Rate) and CBR (Constant Bit Rate)
- **Video Quality:** Video quality is divided into levels(1-31), a better video quality is presented in

choosing lower number..

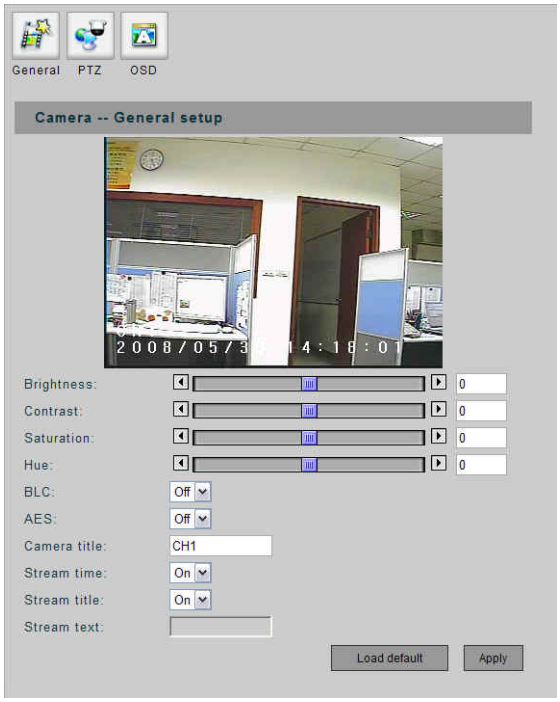
- **Video Bitrate:** When choosing CBR for the video mode, video bitrate can be selected among 64 Kbps, 128 Kbps, 256 Kbps, 512 Kbps, 768 Kbps, 1 Mbps, 1.5 Mbps, 2 Mbps, 3 Mbps and 4 Mbps.
- **Event action:** Choose **Motion** (motion detection), **Sensor** (sensor triggering) or **Both** (enable both types) for the event action. The configurations hereafter titled with “Event” will take effects when any event action is selected; no effects when **None** is selected.
- **Event max IPS:** Select the maximum IPS that will be applied when there is an event.
- **Event Mode:** Choose encoding mode (VBR/CBR) when there is an event.
- **Event Quality:** Choose image quality when there is an event.
- **Event Bitrate:** Select the video bitrate when there is an event. The CBR must be selected for event mode to enable this selection.

Stream 2:

- **Dual stream enable:** Set the second stream On/Off.
- **Stream format:** The stream format can be set to “MJPEG” or “MPEG4”.
- **Resolution:** Streaming resolution can be selected from 352X240 (SIF), 720X240 (Half D1) and 720X480 (Full D1).
- **Video Mode:** Choose VBR or CBR for stream 2 video encoding mode.
- **Video Quality:** Choose stream 2 video quality from 31 levels (1~31).
- **Video Bitrate:** Choose Stream 2 video bitrate when video mode is CBR.

3. Camera Setup

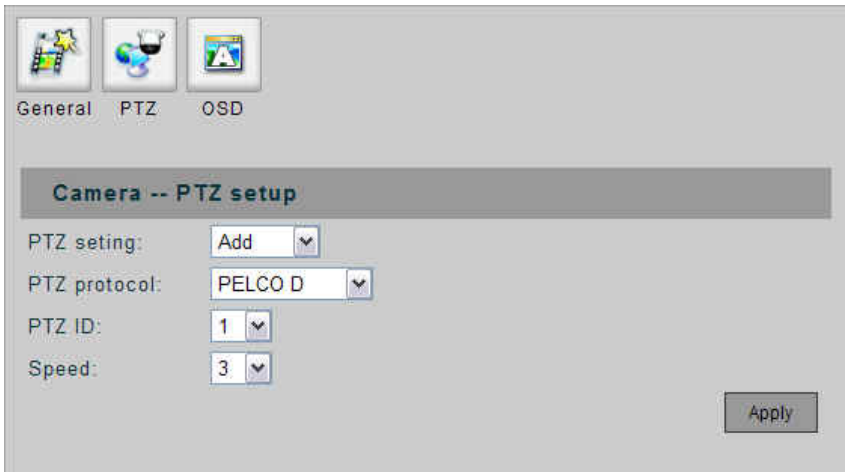
General Setup



- **Brightness:** Adjust the brightness for each channel from -100 to +100.
- **Contrast:** Adjust the contrast for each channel from -100 to +100.
- **Saturation:** Adjust the saturation for each channel from -100 to +100.
- **HUE:** Adjust the hue for each channel from -100 to +100.
- **BLC:** Enable/disable BLC (Back Light Compensation) function.
- **AES:** Enable/disable AES (Auto Electronic shutter) function.

  Note: *The **BLC** and **AES** functions will not appear in this page when connecting to a video server (show only in camera setting page)*
- **Camera Title:** Input the camera title to shown on the screen.
- **Stream time:** on/off the time displaying on the live video.
- **Stream title:** on/off the title displaying on the live video.
- **Stream text:** when stream title is set off, this filed can be input some texts for displaying on the video.
- **Load Default:** Restore to the default settings.
- **Apply:** Confirm the settings.

PTZ Setup

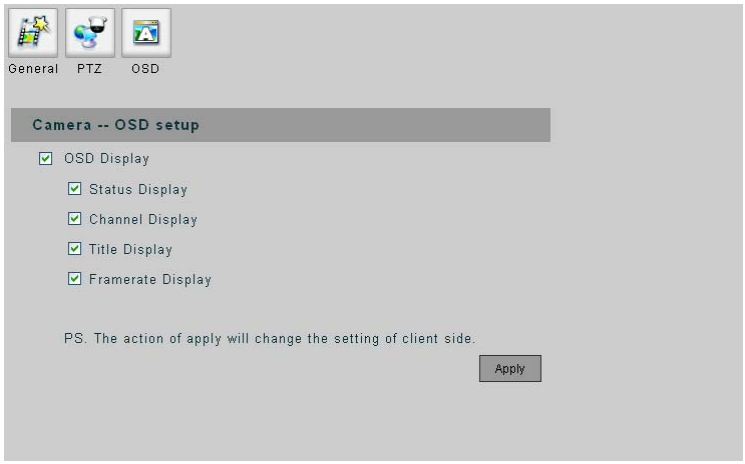


- **PTZ Setting:**

  Remove: No dome camera is connected to this channel.

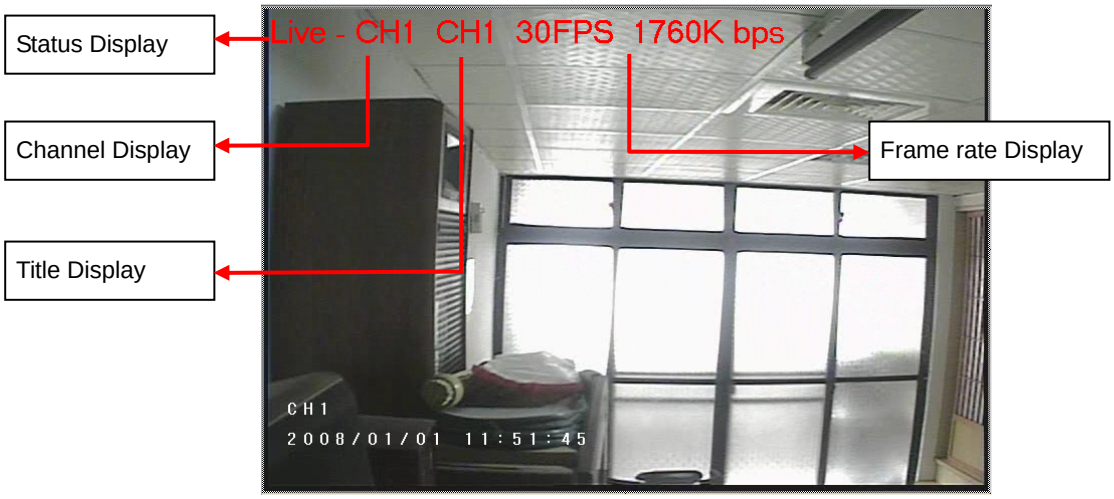
  Add: A dome camera is connected to this channel.
- **PTZ Protocol:** Various protocols can be selected, including PELCO P, PELCO D, LI-LIN and Dynacolor.
- **PTZ ID:** The ID number must match the ID address set by the dome camera.
- **Speed:** Select the control speed from 1 ~ 10.
- **Apply:** Confirm the settings.

OSD Setup



- **OSD Display:** Check the check box to display the following messages on the video of each channel.

  Note: *The settings work with this client PC only; it won't affect the other PC and the video device.*
- **Status Display:** Display the video status (Live or Playback video).
- **Channel Display:** Display the channel number of each channel.
- **Title Display:** Display the camera title of each channel.
- **Frame rate Display:** Display the frame rate and bit rate of each channel.
- **Apply:** Confirm the settings.



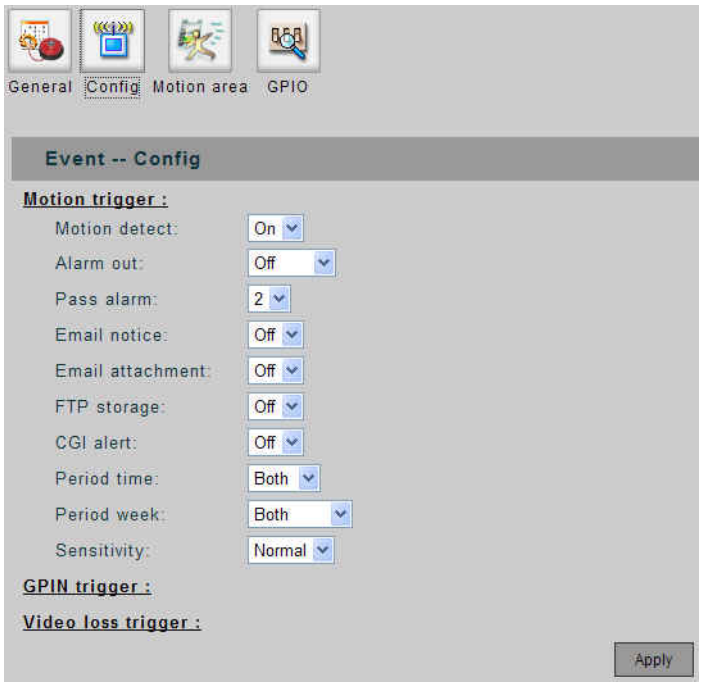
4. Event Setup

General Setup

- **Event Icon:** When set to “ON”, an M icon will be displayed on the screen when the Motion Detection is triggered; an S icon will be displayed on the screen when the Alarm IN is triggered. The event icon will be displayed on the video output of UNC7702; it won’t be displayed on the web UI.
- **Event Duration:** Set the duration time for recording after the event goes away. Available selections are 5, 10, 15, 20, 25 and 30 seconds.
- **Pre Alarm:** When an event is triggered, a video clip will be sent with Email or saved to FTP site. You can adjust this option to determine the beginning time of video clip before the event is triggered. The unit is in second.
- **Apply:** Confirm the settings.

Motion Setup

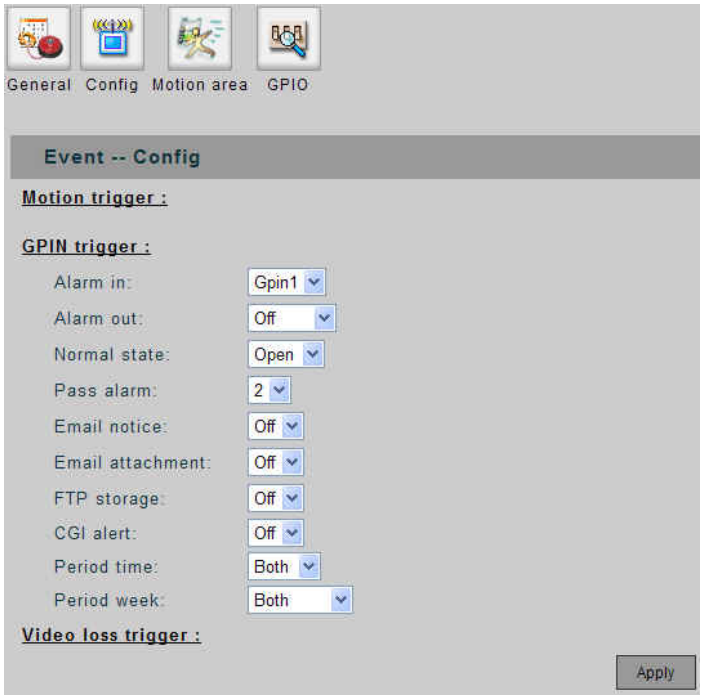
Motion config:



Define parameters for actions responding to detected motion.

- **Motion Detect:** Set the Motion Detect feature for each channel to “ON” or “OFF”.
- **Pass Alarm:** Adjust this option to determine the ending time of video clip after the event goes away. The unit is in second.
- **Email Notice:** Enable or disable the Email notice when motion detection is triggered.
- **Email Attachment:** Set whether attach the video clip with the Email notice when motion detection is triggered.
- **FTP Storage:** Enable or disable whether send the video clip to FTP site when motion detection is triggered.
- **CGI Alert:** Enable or disable to send CGI alert when motion detection is triggered.
- **Period Time / Week:** Select the period that the motion detection should be activated. Day、 night、 weekday、 weekend or all the time.
- **Sensitivity:** Set the sensitivity of motion detection.

Sensor config:



Apply the sensor relays as trigger. Define the actions/parameters responding to sensed event.

- **Alarm in:** select one of the four GPINs as a sensor for the event triggering.
- **Normal state:** set the relays' initial status.
- **Pass alarm:** as described in motion config.
- **Email notice:** send email responding to a sensed event
- **Email attachment:** send email with attached video file.
- **FTP storage:** send video file to FTP server responding to a sensed event.
- **CGI alert:** enable the CGI alert responding to a sensed event.
- **Period time / week:** select the period of time/day in a week that the sensor will be activated.

Video loss config:

Set actions responding to the event that video is missing, such as line has been cut or camera has been crashed.

- **Video loss detect:** on/off this function.
- **Email notice:** as described in previous two items.
- **CGI alert:** as described in previous two items.

Motion Area Setup

- **Select All:** Clear all areas for motion detection.
- **Clear All:** Select all areas for motion detection.
- **Set:** Confirm the settings.

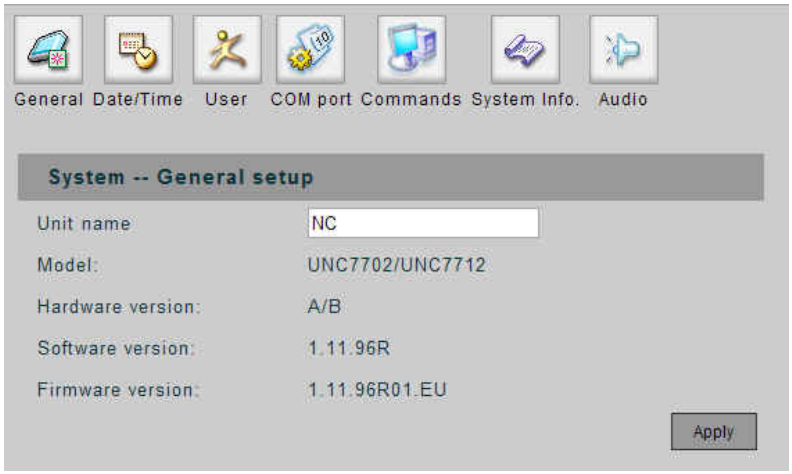
Move mouse to point the area, left-click mouse to set the area for motion detection; left-click the selected area again will clear the area for detection.

GPIO Setup

- Displays the GPIO input/output statues. Can manually adjust the statues of GPIO output by clicking on the check box.

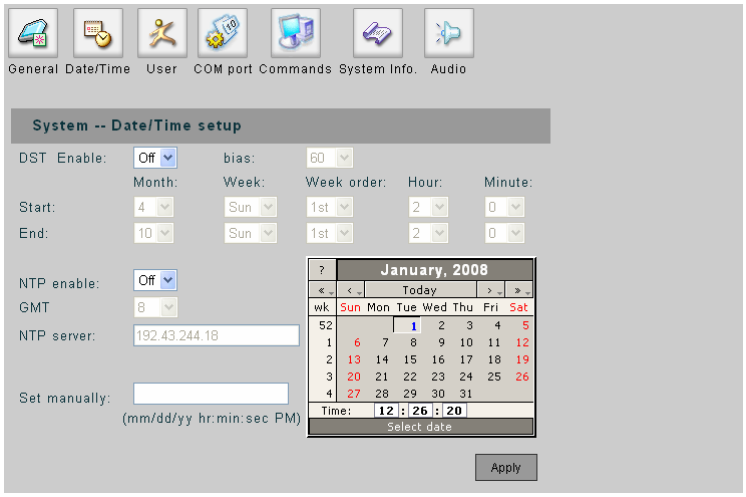
5. System Setup

General Setup



- **Unit Name:** Assign a name for the device.
- **Model:** The model name of the device.
- **Hardware Version:** The version of the hardware.
- **Software Version:** The version of the software.
- **Firmware Version:** The version of the firmware.
- **Apply:** Confirm the settings.

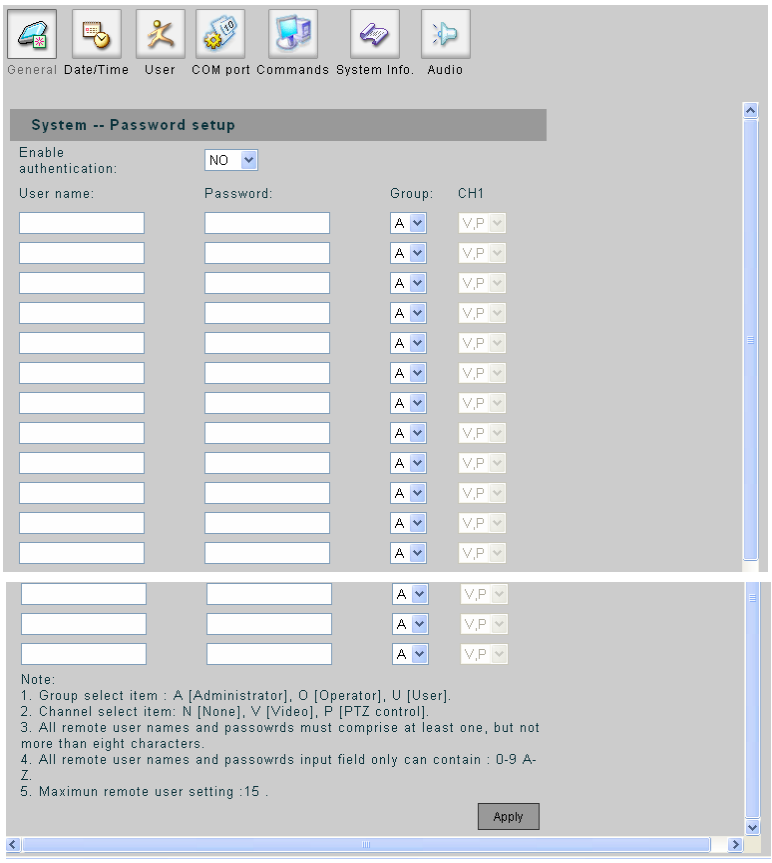
Date/Time Setup



Set the year, date and time for the device.

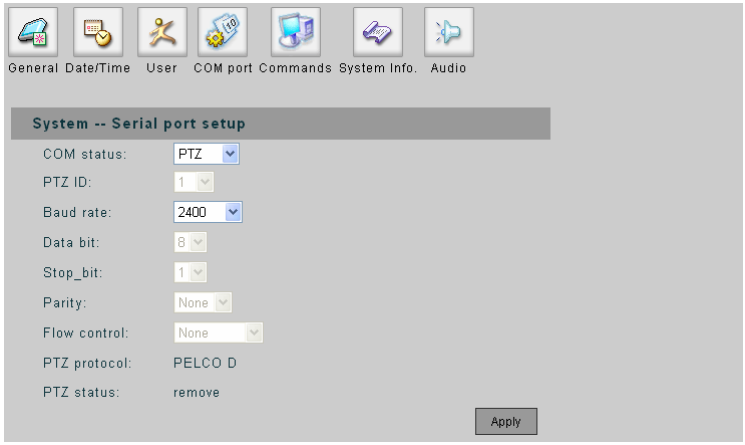
- **DST Enable:** If your region use daylight saving time, set the item to “ON”.
- **Bias:** Set the amount of time to move forward from the standard time for daylight saving time.
- **Start:** Set the beginning date/time of the daylight saving.
- **End:** Set the ending date/time of the daylight saving.
- **NTP Enable:** Set to “ON” if you wish to connect to a NTP server, this will synchronize the time with the time server via network.
- **GMT:** Set the time zone.
- **NTP Server:** Input the IP address of the NTP server.
- **Set Manually:** Set the time manually. You can select the time from the calendar.
- **Apply:** Confirm the settings.

User Setup (Available for Administrator only)



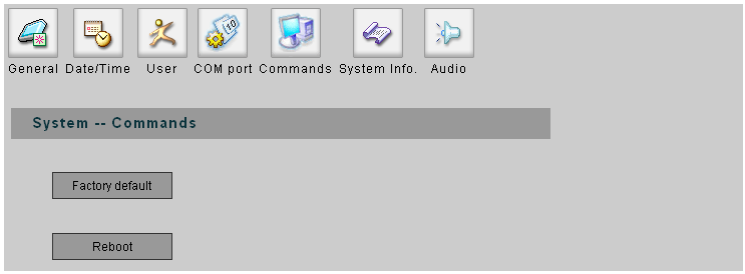
- **Enable Authentication:** Select “YES” to enable the password authentication.
- **User name / Password:** Up to 15 accounts can be added for accessing this device. The account name and password can be flexible (but restricted in 8 characters long of any combination of 0-9 and A-Z).
- **Group:** A user should also be configured into a group (Administrator, Operator, User) for different level of authority, in addition, the rights on access to the device (the capabilities of viewing live video, controlling PTZ cameras or none/both of them) if it is not set to the administrator group.
- **Apply:** Confirm the settings.

COM Port Setup



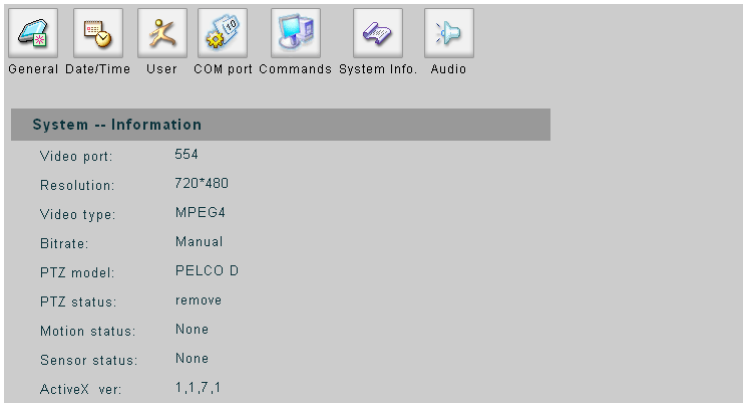
- **COM Status:** Set COM port for PTZ, RS-232 or RS-485.
- **PTZ ID:** The number must match the ID address set by the dome camera.
- **Baud Rate:** Set the value if necessary.
- **Data Bit:** Set the value if necessary.
- **Stop Bit:** Set the value if necessary.
- **Parity:** Set the value if necessary.
- **Flow Control:** Set the value if necessary.
- **PTZ Protocol / Status:** Display the PTZ protocol and the status of the connected dome camera.
- **Apply:** Confirm the settings.

System Commands (Available for Administrator only)



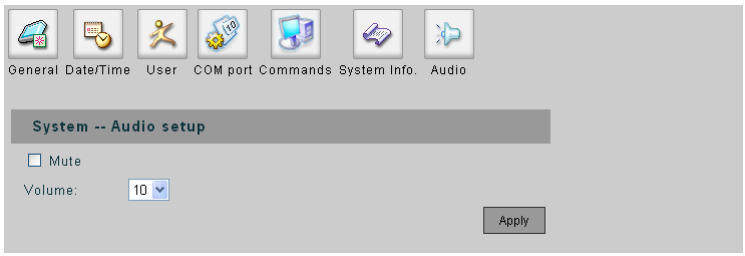
- **Factory Default:** Restore the settings to the factory defaults.
- **Reboot:** Restart the device.

System Information



- Display the information of this device. Information includes video port, resolution video type, bit rate, PTZ model/status, motion status, sensor status and ActiveX version.

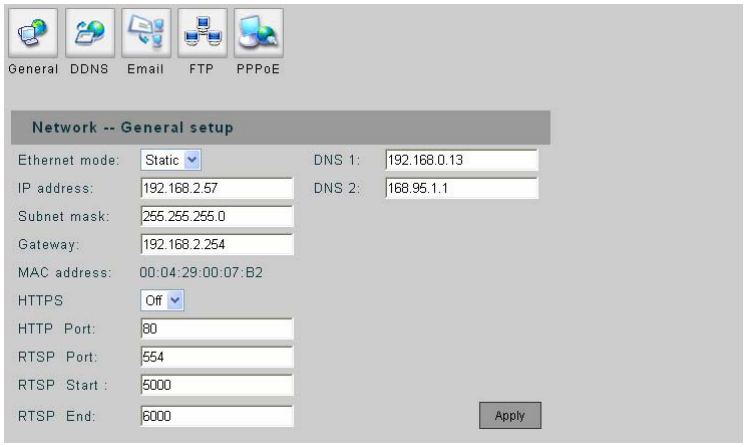
System Audio



- System audio enable and adjustment; **Mute** check box to silencing, **Volume** for the sound volume adjustment.

6. Network Setup

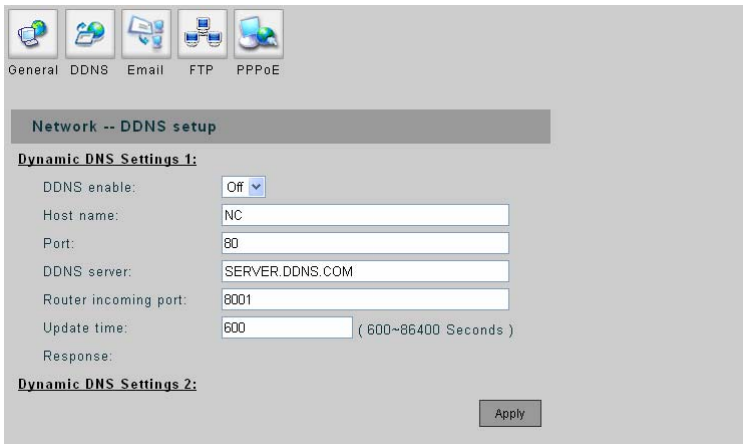
General Setup



- **Ethernet Mode:** If using static IP, set to “Static” and then setup the following settings. If there is a DHCP server on the network, set to “DHCP”, the device will get the following settings from the server automatically.
- **IP Address:** Set the IP address of the device.
- **Subnet Mask:** Set the subnet mask.
- **Gateway:** Set the IP address of the gateway on the network.
- **MAC Address:** Shows the MAC address of the device.
- **HTTPS:** on/off the HTTPS option.
- **HTTP Port:** Change the port if necessary.
- **RTSP Port:** Change the port if necessary. Default port is recommended.
- **RTSP Start:** Change the port if necessary. Default port is recommended.
- **RTSP End:** Change the port if necessary. Default port is recommended.
- **DNS1 / DNS2:** Set the IP address of the DNS server.
- **Apply:** Confirm the settings.

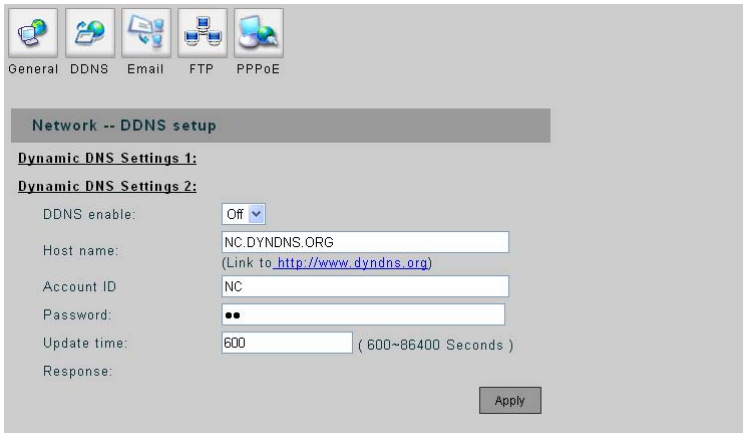
DDNS Setup

Dynamic DNS Settings 1:



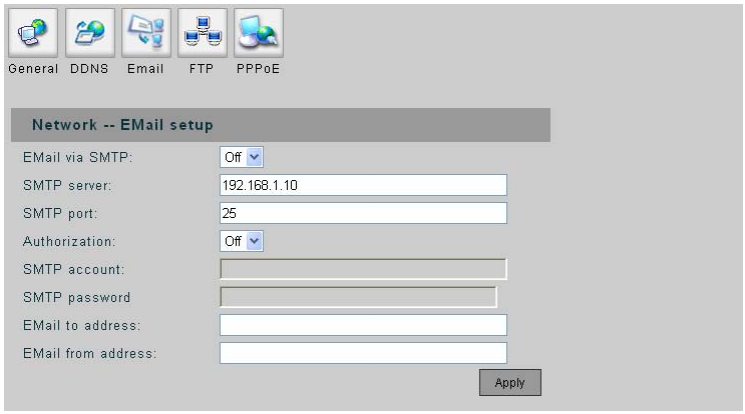
- **DDNS Enable:** DDNS allows the dynamic IP address to be registered so others can connect to it by a domain name. If you wish to use DDNS service and set to “ON”.
- **Host Name:** Assign a host name for the device, this name will be the domain name.
- **Port:** Change the port if necessary.
- **DDNS Server:** Input the domain name of the DDNS server.
- **Router Incoming Port:** If the device is connected to a router, change the port to match the Port Forwarding setting in the router.
- **Update Time:** Set the interval time to detect the IP address and update to the DDNS server. The time setting must be in the range 600~86400 seconds.
- **Response:** After confirm the settings; a message will appear for check the DDNS status.
- **Apply:** Confirm the settings.

Dynamic DNS Settings 2:



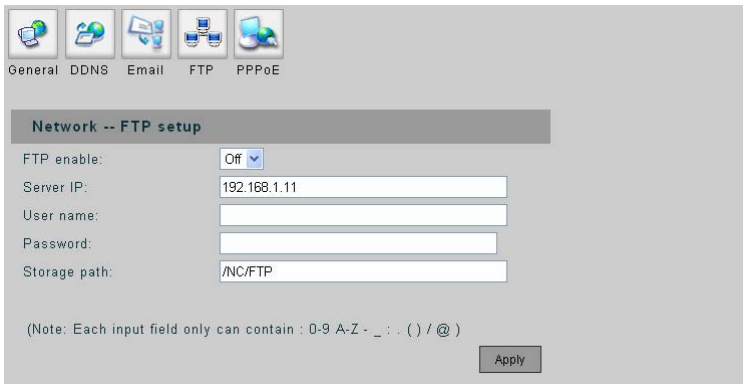
- **DDNS Enable:** As in settings 1 mentioned.
- **Host Name:** As in settings 1 mentioned.
- **Account ID:** For the server needs an account to log in, the field here is then for the account identification.
- **Password:** password for the account to log in.
- **Update Time:** As in settings 1 mentioned.
- **Response:** As in settings 1 mentioned.
- **Apply:** Confirm the settings.

Email Setup



- **Email via SMTP:** Set to “ON” if use a SMTP server to send the Email.
- **SMTP Server:** SMTP server IP address.
- **SMTP Port:** Change the port if necessary. Default is recommended.
- **Authorization:** Set to “ON” if the Email service needs account and password.
- **SMTP Account / Password:** If the SMTP server has enabled authentication function. You have to fill up the Account and Password to pass through the authentication.
- **Email to Address:** The Email address to receive the Email.
- **Email from Address:** The Email address that send the Email.
- **Apply:** Confirm the settings.

FTP Setup



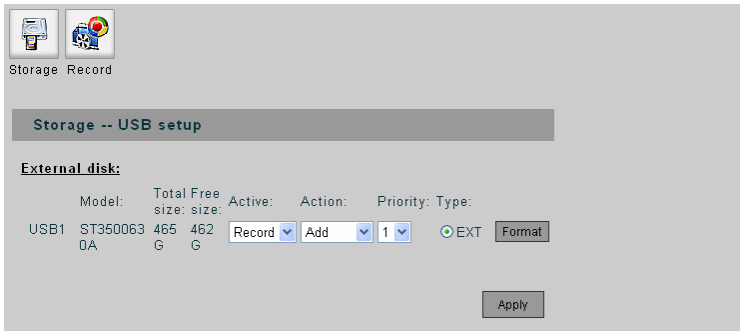
- **FTP enable:** Set to “ON” if use a FTP server to receive the event notification.
- **Server IP:** Enter the IP address of the FTP server.
- **User Name / Password:** The account name and password to login the FTP server.
- **Storage Path:** Path of the FTP site to put the file.
- **Apply:** Confirm the settings.

PPPoE Setup

- **PPPoE enable:** Enable/disable PPPoE function.
- **User name / Password:** Account authentication; enter user name and password for the PPPoE account.
- **Apply:** Confirm the settings.

7. Storage Setup

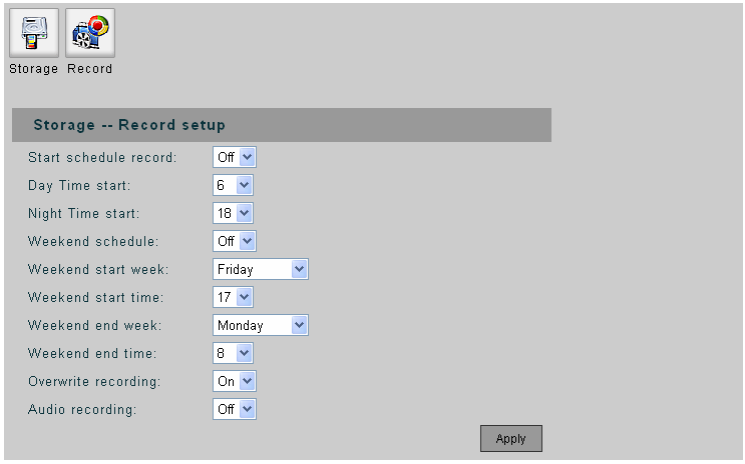
Storage USB Setup



Display the information and status of the storage devices that connected to UNC7702.

- **Active:** represents the disk will act as a “Record” or “Backup”, or “Off” as taking no action.
- **Action:** shows the disk’s mount status.
- **Priority:** Set the priority of the disk. The highest priority disk will always be taken to act unless it is full.
- **Type:** the disk will be formatted with EXT file system if “Record” is taken active, while EXT or FAT file system can be applied for “Backup” activity
- **Format:** Format the disk with these conditions.

Storage Record Setup

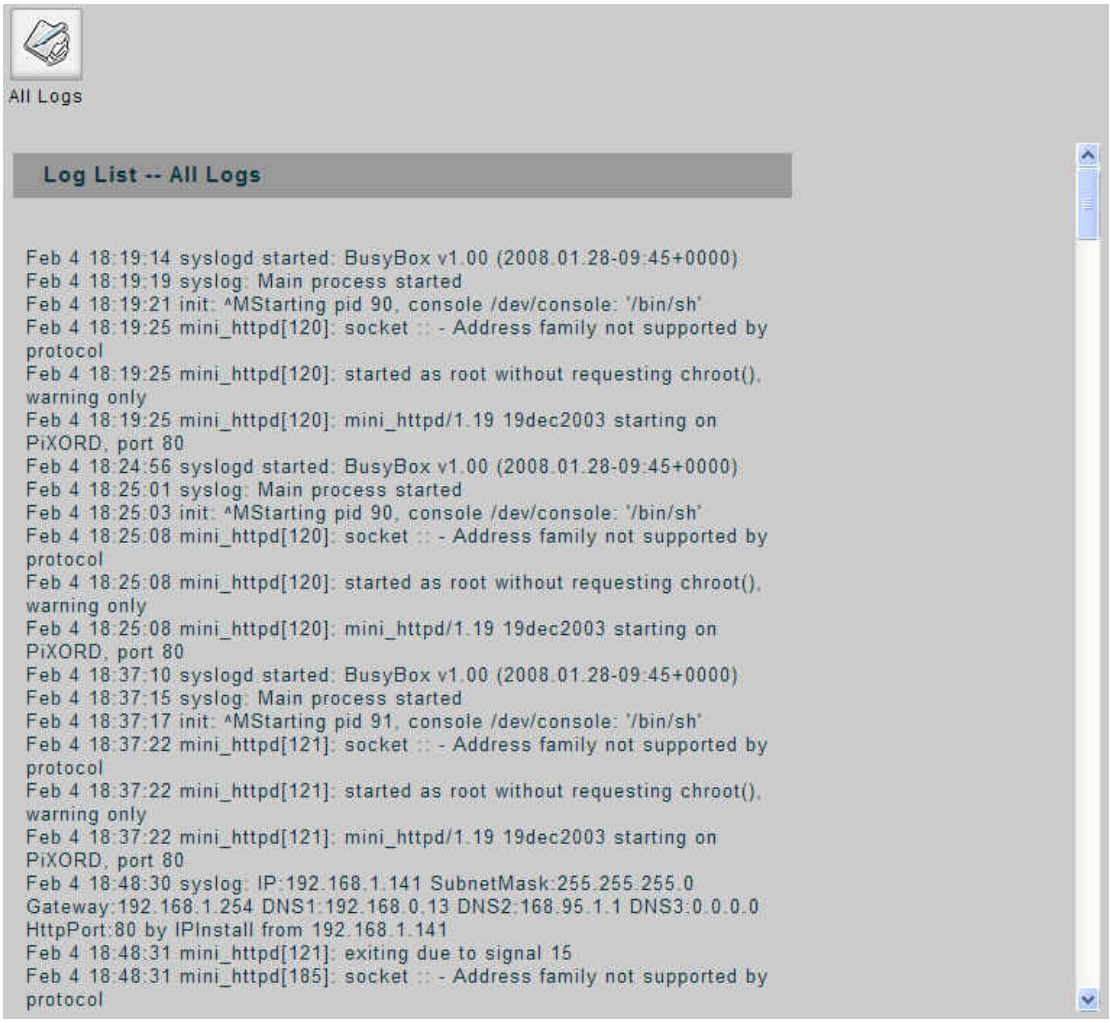


- **Start Schedule Record:** When set to “ON”, the recording will depend on the set day and night time, or weekend time.
- **Day Time Start:** Set the beginning time of the day.
- **Night Time Start:** Set the beginning time of the night.

- **Weekend Schedule:** When set to “ON”, the weekend schedule will be enabled.
- **Weekend Start Week / Time:** Set the beginning day and time of the weekend.
- **Weekend End Week / Time:** Set the ending day and time of the weekend.
- **Overwrite Recording:** When set to “ON”, if the record HDD is full, the recording will overwrite the earliest recorded file in the HDD.
- **Audio Recording:** When set to “ON”, both video and audio will be recorded.
- **Apply:** Confirm the settings.
- **“Record Hard Disk setting error!”** This message shows when there is no storage to be set active.

8. Log List

Log List



Appendix A

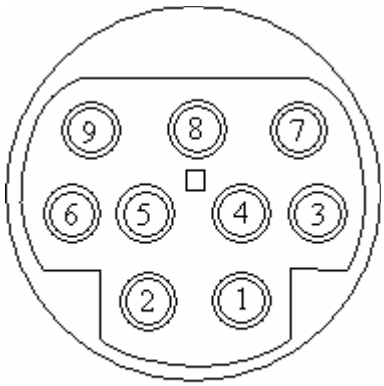
Specifications

		UNC7702
System		Embedded Linux, 32-Bit RISC Processor, 8MB Flash ROM, 64MB SDRAM
Video Compression		MPEG-4 / MJPEG, Dual streaming
Video Resolution		Full D1: NTSC = 720 x 480; PAL = 720 x 576 Half D1: NTSC = 720 x 240; PAL = 720 x 288 CIF: NTSC = 352 x 240; PAL = 352 x 288
Frame Rate		Up to 30(NTSC) / 25(PAL)
Image Device		1/3” Sony SuperHAD CCD
Lens Type		Fixed Lens, Focal Length 6.0mm, F1.6
Horizontal Resolution		More than 540 TV Lines
Minimum Illumination		0.1 Lux at F2.0
White Balance		Auto
Backlight Compensation		ON / OFF selectable
Auto Electronic Shutter		ON / OFF selectable
Event System	Alarm In / Out	1 Input / 1 Output
	Motion Detection	Yes
	FTP & Email Alert Message	Yes
Network Interface		10/100 Base-T Ethernet Optional IEEE 802.11b/g wireless LAN via USB (to be upgraded)
Protocols		TCP(UDP)/IP, HTTP, FTP, Telnet, SMTP, DHCP, NTP, DDNS, RTSP, RTP/TCP(UDP)
Audio Capability		1 Built-in Microphone / 1 3.5mm Line out jack
Power Supply		ACDC power adapter, output: DC 12V Optional built-in PoE IEEE 802.3af
Operation Temperature		5°C ~ 45°C
Operation Humidity		20% ~ 80% RHG
Dimension (L x W x H)		135mm x 85mm x 40mm
Net Weight		600 g (approximately)
I/O Connectors		Two USB 2.0 Host ports for external storage or USB wireless LAN One Mini-DIN for RS-485/RS-232/GPIN/GPOUT/Video loopback out One Reset hole to restore factory defaults One RJ-45 Ethernet connector One DC In connector
Package Contents		• CD (manual and software) • One Ethernet cable • Stand for mount • ACDC Power Adapter (Not included with PoE model)

Appendix B

The Mini-din Connector

The mini-din connector provides control signal input and output, which including GPIO input, GPIO output as Relay connection and one RS-485 port multiplex with COM port. It also provides connection of PTZ device and external console to control the device.



MINI-DIN

COM / GPIO MINI-DIN	
PIN	FUNCTION
1	GPIN
2	RXD (Receive Data)
3	TXD (Transmit Data)
4	RS-485A
5	GND (System Ground)
6	GPOUT-Automatic Relay
7	GPOUT-Automatic Relay
8	RS-485B
9	Video Out

- **GPIN:** Input high when opening the connection; input low when sinking more than 10mA or shorting to pin 5 (GND).
- **RXD** (COM Port Receive Data)
  TXD (COM Port Transmit Data)
- **RS485A/RS485B:** To connect with external PTZ devices, please contact your dealer/distributor to get the information of the supported PTZ models.

- **GND (System Ground):** System Ground is also connected to chassis as frame ground.
  GPOUT-Automatic Relay: When enable to use the GPIN or motion detection to trigger some alarm devices, the “Relay” must be turned on.
- **Video Out:** Use the especial cable in the product package to connect this pin that it can output the video to the monitor.

Appendix C

FAQ

1. How can I set factory default?

ANS:

1. Unplug the power jack to turn off the power of UNC7702.
2. Insert a pin into the reset hole as circled with red in the below figures. Sense a button and keep it pressed until instructed to release.
3. Plug in the power jack to turn on UNC7702, count 25 seconds (at least 20 seconds) and release the button (remove the pin from the reset hole).
4. The UNC7702 should now be back to factory default. Have an access to the device by changing to the attempt IP address from the default 192.168.0.200.

UNC7702

Note:

1. When UNC7702 can be scanned by IPInstaller with this IP “192.168.0.200” after factory setting, it means the reset process is successful.
2. Within the 20~25 seconds, the reset progress will be launched. If the inserted pin is removed before 20 seconds or after 25 seconds, the system wouldn’t take any effect; the reset will be unsuccessful. Redo from step 1 for another chance.
3. Do not remove power any time in the reset process, the flash memory inside the device can be damaged otherwise.

2. How to upgrade firmware for the device?

ANS:

Download the newest software and unzip it into your local driver, for example "C:\temp". Then, confirm the "flash.bin" file exists in this directory.

Restart the device by clicking on the <Reboot> button on Configuration page -> System -> Commands.

> **Caution:** You must reboot the device before doing the following procedures; otherwise, some occasional internal conflicts may endanger the Flash devices.

Start the FTP session and log in to the UNC7702.

For example, in our case for Windows XP:

Enter DOS by " **Start > All Programs > Command Prompt**."

Change to the directory where the latest flash.bin exists.

Start ftp session by enter “ftp <Device IP Address>

Enter "root" for USERNAME, "pass" for PASSWORD as default administrator; you will have to use your administrator's USERNAME and PASSWORD to login if you ever added a user with administrator authority.

Set FTP to binary mode using the command "bin".

In FTP session window, enter "bin"

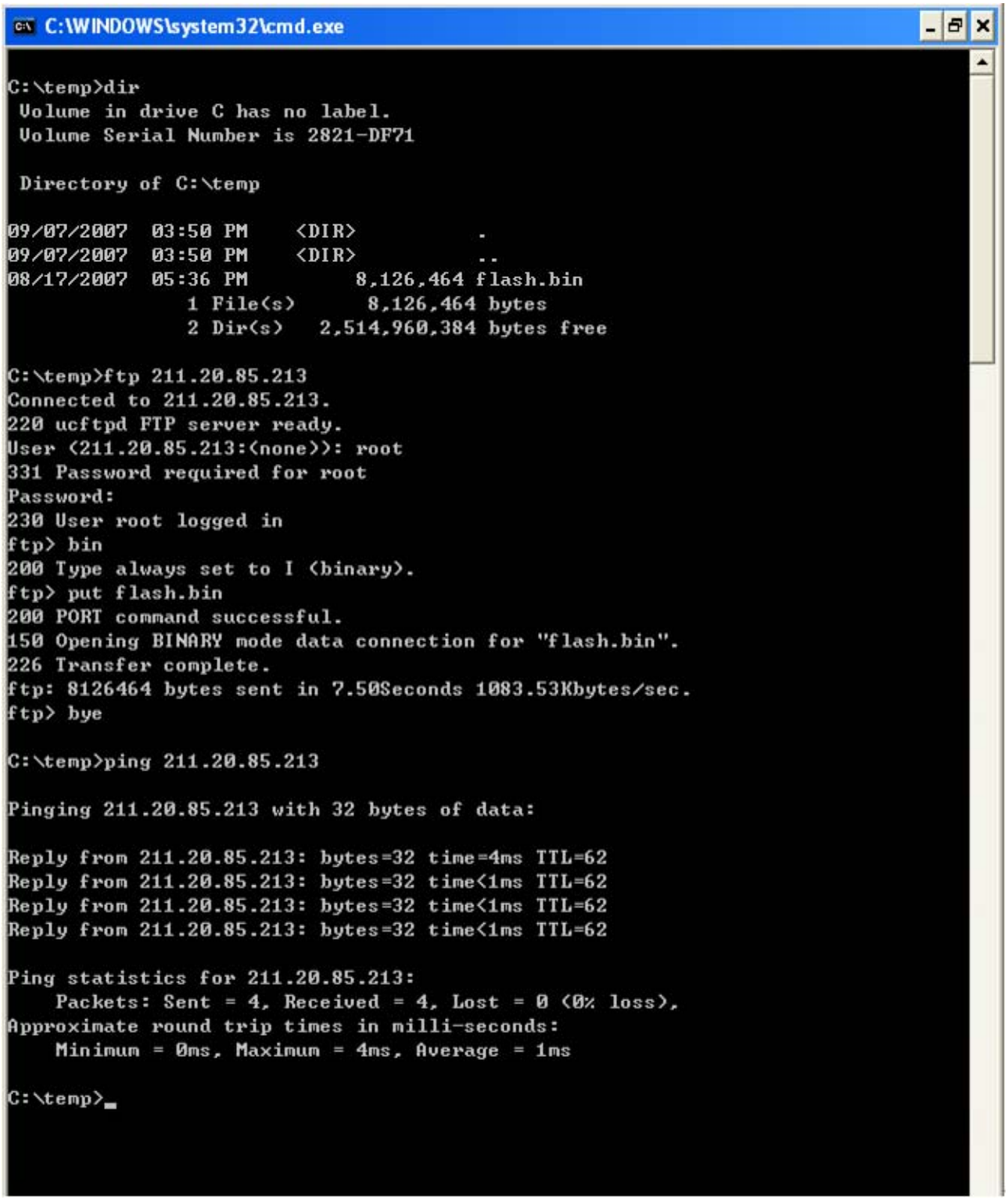
Upload the software into the device by FTP "put" command.

In FTP session window, enter "put flash.bin"

In FTP session window, enter "bye" to quit FTP session.

FTP session may freeze for around 1~2 minute to transfer and automatically upgrade the software.

Use “ping” to check whether the device is accessible. If you get replies after pinging, you then should be able to access the device via Web interface. The figure of Command Prompt below shows an example of the whole operation.

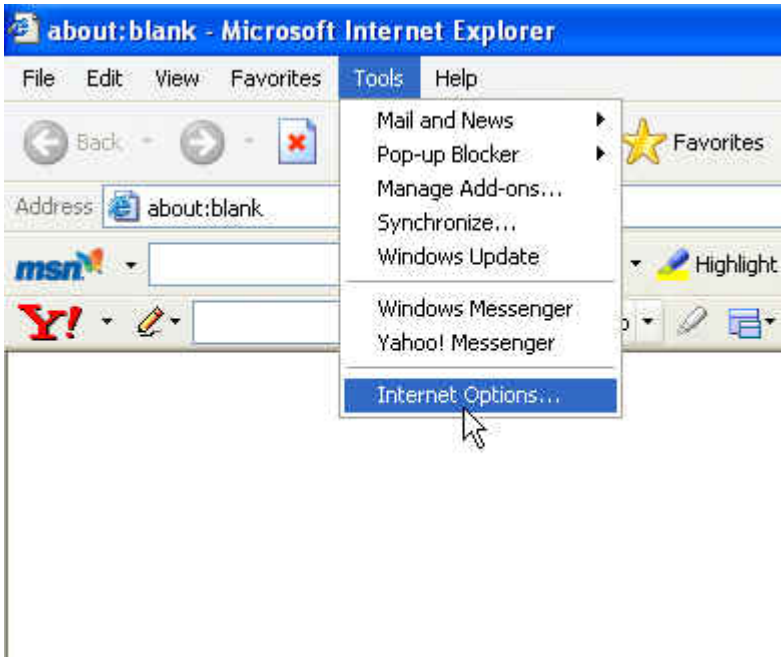


Note: Flash products can become damaged if the updating operation is not performed correctly. So please follow up above procedures carefully.

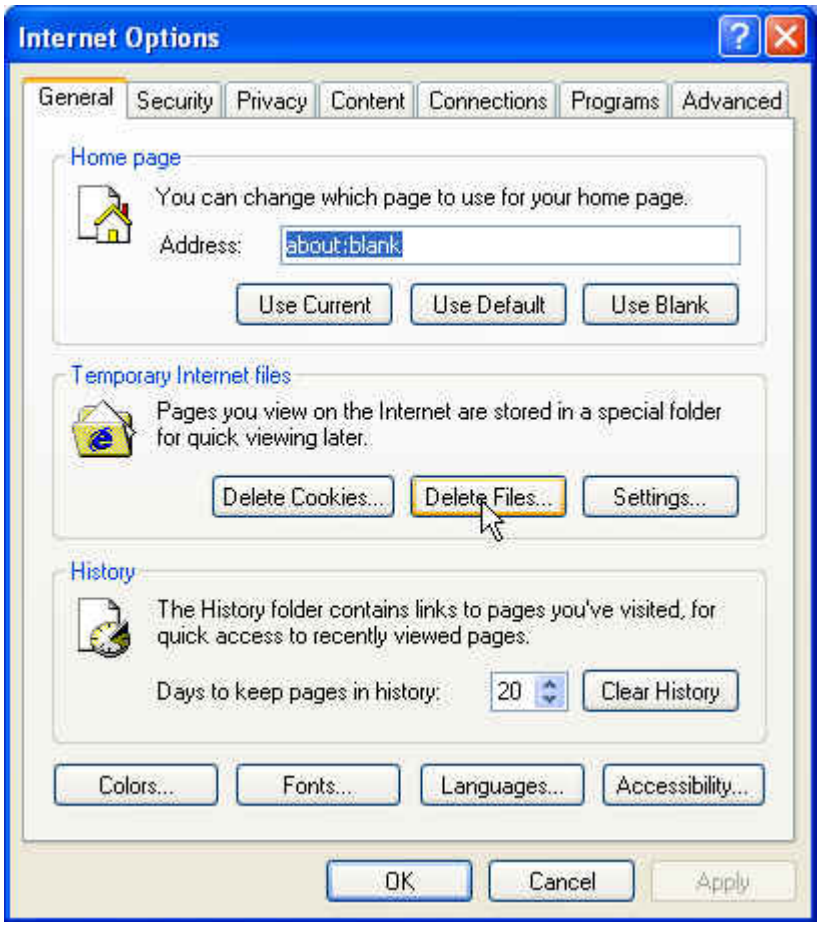
3. Why ActiveX remains in old version after upgrading to new version firmware?

ANS:

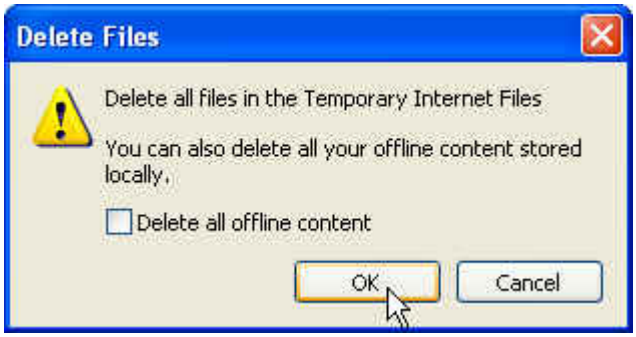
Launch an IE browser and click on “Tools” -> “Internet Options”. The Internet Options window then shows up.



In Temporary Internet files, click on Delete Files.



Press “OK” to confirm deletion.



Re-open IE browser and access to the device. You will this time be prompt to install newer version of ActiveX control. After installation, you should see the new version installed.

Internet Explorer - Security Warning
Do you want to install this software?
Name: ActiveX control for Video push04.cab (ver 1,1,2,1)
Publisher: EUSSO Technologies, Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?