IP 99 Series

EVS110 1CH Video Server

EIP220 Network Camera

User's Manual

EverFocus®

Copyright © EverFocus Electronics Corp,

Version Release: Dec. 2008

Product Name: IP99 EverFocus Network Cameras
Model Number(s): EVS110, EIP220
FCC Notice "Declaration of Conformity Information"

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential Installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: Changes or modifications made to this equipment, not expressly approved by EverFocus or parties authorized by EverFocus could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

EverFocus Electronics Corp.
12F, No. 79, Sec. 1, Shin-Tai Wu Rd., His-Chi,
Taipei Hsien, Taiwan, R.O.C.

IP99 complies with FCC.

About this document

All the safety and operating instructions should be read and followed before the unit is operated. This manual should be retained for future reference. The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

Safety Notice

-These limits are designed to provide reasonable protection. This equipment generates, uses and can radiated radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: -Reorient or relocate the receiving antenna.
-Increase these separations between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To reduce risk of fire or electric shock, do not expose this appliance to rain or moisture.

Do not attempt to disassemble the appliance. To prevent electric shock, do not remove screws or covers. There are no user-serviceable parts inside. Contact qualified service personnel for maintenance. Handle the appliance with care. Do not strike or shake, as this may damage the appliance.

Do not use strong or abrasive detergents when cleaning the appliance body. Use a dry cloth to clean the appliance when it is dirty. When the dirt is hard to remove, use a mild detergent and wipe gently.

Do not operate the appliance beyond its specified temperature, humidity or

power source ratings. Do not use the appliance in an extreme environment where high temperature or high humidity exists. Use the appliance at temperature within -10℃ ~ 50℃ / 14℉ ~ 122℉ and a humidity below 90%. The input power source for this appliance is 12VDC.

⚠ Use only the recommended power supplies. Power supplies must comply with the requirement of the latest version of IEC60950-1. Substitutions may damage the unit or cause a fire or shock hazard.

⚠ Electrostatic-sensitive device. Use proper CMOS/MOSFET handing precautions to avoid electrostatic discharge.

⚠ Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

Terms and Trademark

Ethernet, Internet Explorer, Linux, Microsoft, Windows, WWW are registered trademarks of the respective holders. Other product names appearing in this User's Guide may be trademarks or registered trademarks of their respective holders. Java™ and all Java-related logos and trademarks are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

Support

If the unit ever needs repair service, the customer should contact the nearest EverFocus Electronics Corp. Service Center for return authorization and shipping instruction.

Minimum Computer Requirements:

-CPU: PC Pentium IV (2.0 GHz or higher) / AMD Athlon (or higher)
-VGA card: 32 MB min, 16,7 million colours, with DirectX9.0c support
-Memory: 512 MB RAM min., 1 GB HD space or above
Additional HD space depends on required local storage of video files,
-Ethernet: 100 Mbps
-Operating System: Windows XP, service pack 2 or higher, Windows 2000, Windows Vista (turn off User Account Control)
-Software: DirectX9,0c, Microsoft IE 4.X or higher
Note: Please connect to Microsoft's Web Site for downloading:

For example: (This web site may change without notices.)
http://www.microsoft.com/downloads

TABLE OF CONTENTS

1. STARTING THE CAMERA OR VIDEO SERVER 7

1.1 INSTALL IP99 SEARCHER IN PC 7
1.2 ASSIGN NEW IP ADDRESS (OPTIONAL) 7
1.3 ACCESSING THE CAMERA 8
1.4 RESET AND FACTORY DEFAULT 9

2. IP99 SYSTEM OPERATION 9

2.1 ADD MORE VIDEOS 10
2.2 CHANGE VIDEO RESOURCE 10
2.3. EDIT AND CHANGE DISPLAY LAYOUT 11
2.3.1 Edit layout 11
2.3.2 Save layout setting 11
2.4 ZOOM IN/ZOOM OUT 12
2.4.1 Integer zoom in/zoom out 12
2.3.2 Single display zoom in/zoom out 12
2.4 OPERATING BUTTONS 12
2.4.1 Record 12
2.4.2 Stop recording 13
2.4.3 Snapshot 13
2.4.4 Playback 13
2.4.5 PTZ control panel (for Video Server only) 14
2.4.7 System setting 15
2.4.8 Right-click functions 15

3. SYSTEM SETTING 17

3.1 STATUS INFORMATION 17
3.2 VIDEO/AUDIO SETTING 18
3.3 DEVICE SETTING 19
3.4 ALARM EVENT 20
3.5 NETWORKING 22
3.6 WIRELESS LAN 23
3.7 PPPOE SETTING 23
3.8 DDNS SETTING 24
3.9 SMTP SETTING 24
3.10 FTP SETTING 25
3.11 DATE & TIME SETTING 26

3.12 PTZ SETTING....26
3.13 ADMINISTRATOR....27
3.14 CHANGE PASSWORD....28
3.15 SPECIAL SETTING....28
3.16 MAINTENANCE....29
4. FREQUENTLY ASKED QUESTIONS....30
4.1 I HAVE PROBLEM RECORDING AND PLAYBACK ON WINDOWS VISTA....30

1. Starting the camera or video server

1.1 Install IP99 searcher in PC

Though you can simply enter 192.168.1.99 in IP address bar to access camera when you connect to only one IP99 device.(**Default IP address is: 192.168.1.99 Port is: 80)**. However, it is recommended that you use IP search to manage IP camera and encoder. Please insert CD to install IP99 searcher tool. After finishing installation, click "IP searcher" icon to find IP99 encoders and cameras. Click "Search Again" to refresh list as shown in diagram 1.1

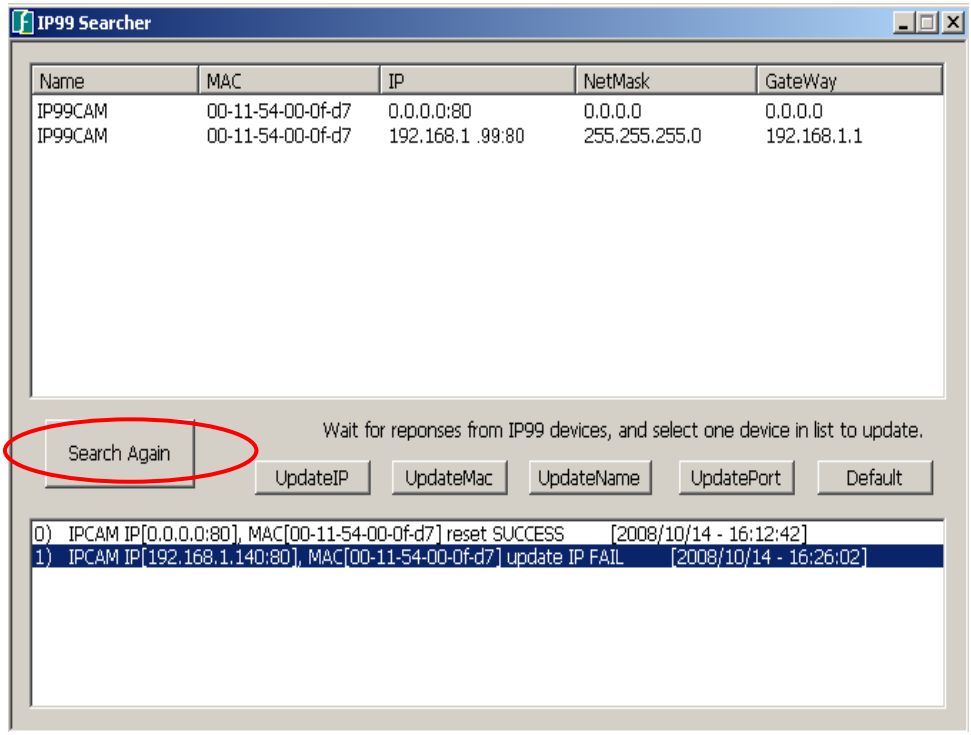


Diagram 1.1 Search IP device

1.2 Assign New IP address (optional)

The Default IP address is 192.168.1.99. You can change IP address through IP searcher. You don't need to change IP address if you connect only one IP device. If you are connecting to multiplies of IP99 devices, please assign different IP address for different cameras For example, if you have 2 IP cameras, click "UpdateIP" to show old and new IP address. Then change to the IP address you want. Type **default user name: admin, password: 11111111 then click "OK". See diagram 1.2**

Otherwise, you can set camera as DHCP. Please refer to 3.6 network setting.

Note: Please consult your network administrator for avoiding IP address conflict

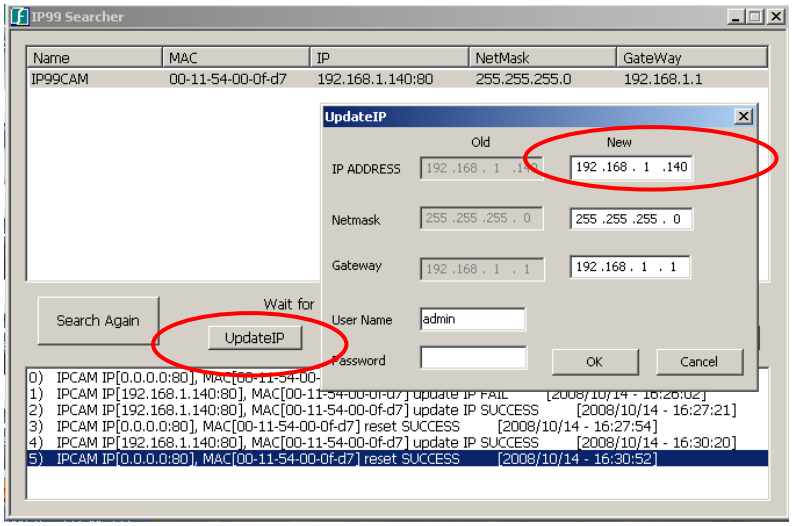


Diagram 1.2 Assign new IP address

1.3 Accessing the camera

Double click selected camera in IP99 searcher or Enter IP address in IP address bar, as shown in diagram 1.3:

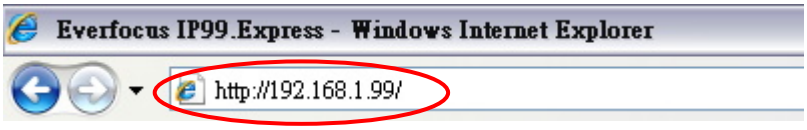


Diagram 1.3 enter IP address

Enter IP address and click Enter to confirm, login window will pop up as shown in diagram 1.4:

Diagram 1.4 login window

In login window, enter user name and password, （**default user name is admin, password is 11111111**）. Click “Confirm” button to enter web window, as shown in diagram 1.5:

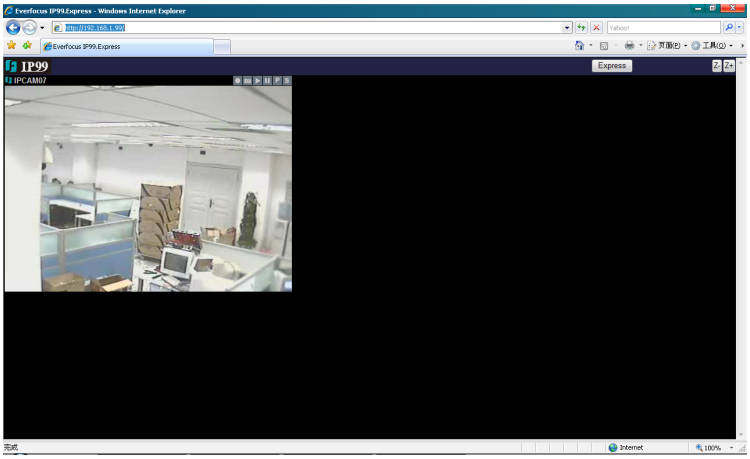


Diagram 1.5 Camera Web page

1.4 Reset and Factory Default

You can physically push” RST” button on IP99 camera or click “Default” on IP searcher to back to factory default.

2. IP99 system operation

After entering to web window, a Express button shows on top right corner, click this button enter to an easy to operate window, as shown in diagram 2.1:

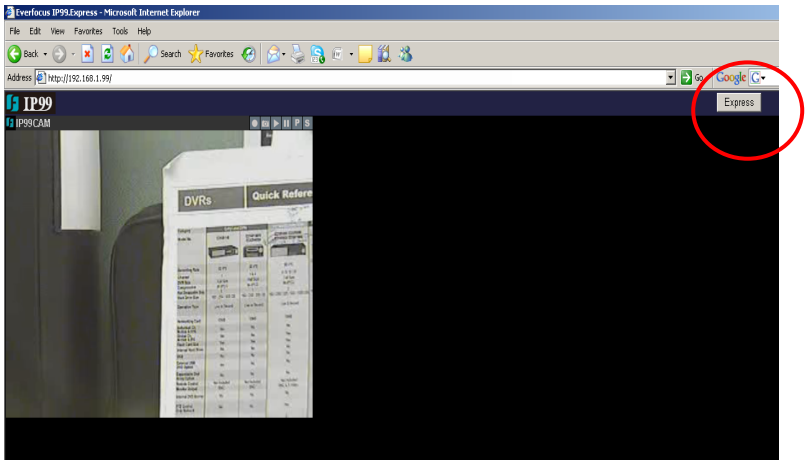


Diagram 2.1 Express operation page

2.1 Add more videos

If you wish to add one video display in the same web page, click “Add New” button, as shown in diagram 2.2:

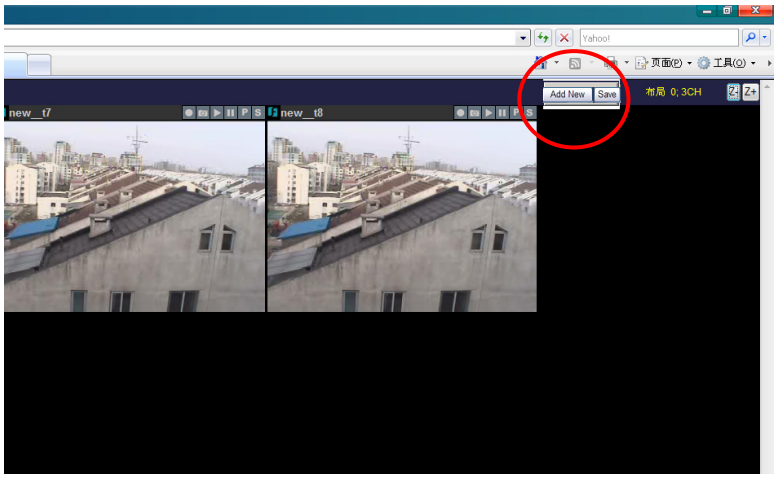


Diagram 2.2 Add video display

2.2 Change video resource

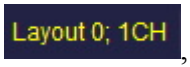
You can change video resource and simultaneously view multiplies cameras and encoders at same time.

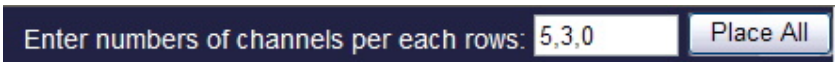
Right click mouse on **display center point** and go to “**Change Resource**”. Then you would see the login page. Enter IP address, user name, password for the camera you want to add. Default username is admin, NO password. Now you can add more cameras. See Diagram 2.3

Diagram 2.3 Change video resource

2.3. Edit and Change Display Layout

2.3.1 Edit layout

If you wish to add more video displays, please click 

, then interface changes to 

, you can freely set the layout of video display in this window.

Enter the number of channels you want for each row. Use comma to separate them. And click

to make the actual layout change. For example,"5，3，0", "shows the following layout. As shown in diagram 2.4:

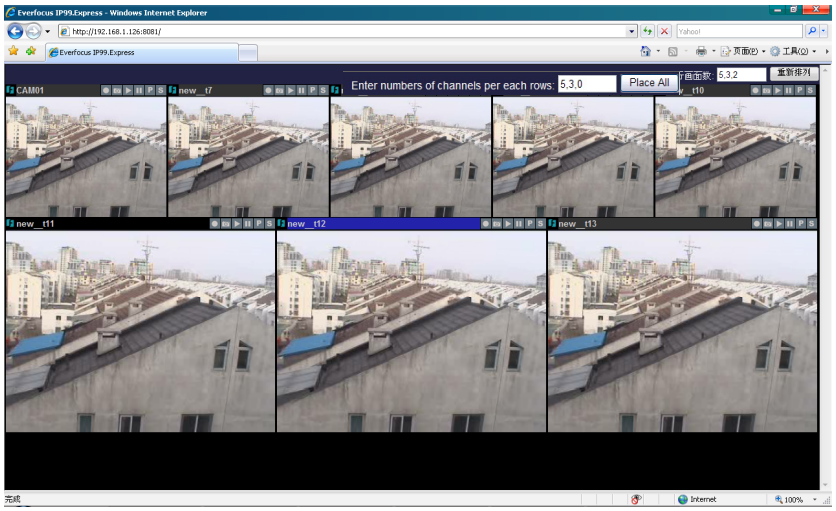
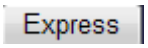


Diagram 2.4 Display re-layout

After editing layout, click "Save" button to save settings.

Note： When you open IP browser again, click 

button, IE interface will return to the layout order that you lastly saved.

2.3.2 Save layout setting

You can save in preset layouts from layout0~layout10 for using it in the future. Total 10 preset layouts are supported by IP99 express. To save and load the wanted layout, click icon

at the left top corner, a layout list will pop up; click the needed layout to change. See diagram 2.5.

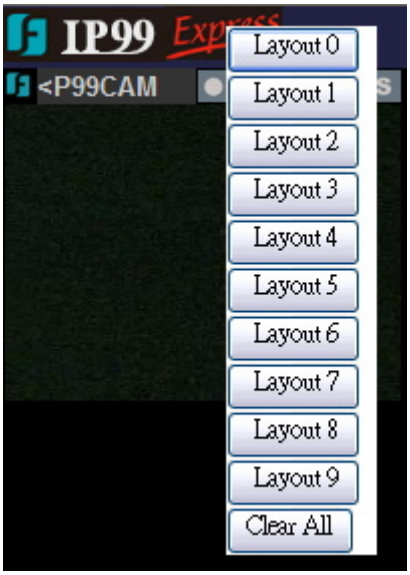


Diagram 2.5 Layout selection

2.4 Zoom in/zoom out

2.4.1 Integer zoom in/zoom out

Click Z- Z+ buttons at top right side of the page to zoom in or zoom out the entire screen.

2.3.2 Single display zoom in/zoom out

To zoom in/zoom out single channel screen, direct the mouse to IPCAM at top of that channel display, and click on , slide the tilt wheel of mouse to zoom in or zoom out video images.

2.4 Operating buttons

There are 6 operating buttons at top right corner of every camera display , their functions are described as follows:

2.4.1 Record

Method 1: Click on button located at top right corner of the image. Record function is activated, button changes to .

Method 2: Double click on IP99CAM, this area will turn to green color, and the device starts to record immediately, as shown in diagram 2.6:

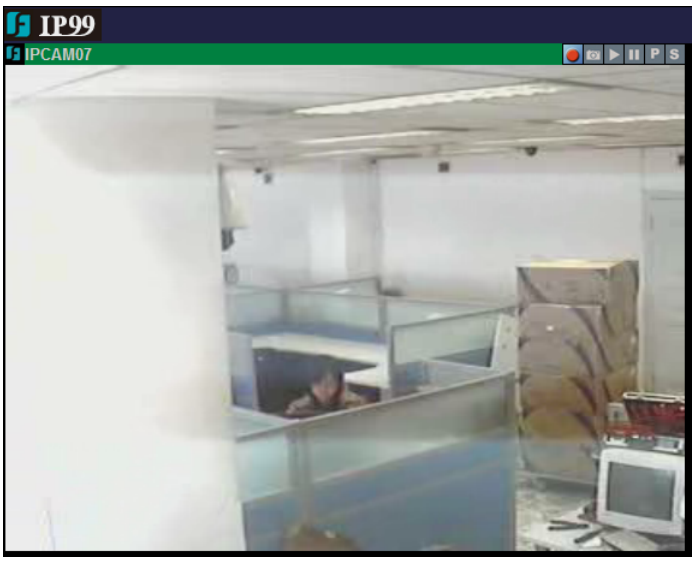


Diagram 2.6 Record

2.4.2 Stop recording

Method 1: Click on button located at top right corner of the image, it will stop recording immediately, button changes to .

Method 2：Double click on the green area of , it returns to original color meaning that recording is stopped.

2.4.3 Snapshot

Click button to snapshot the image，default file path for the snapshot is：C:\image99\...

2.4.4 Playback

Click button，playback window pops up as shown in diagram 2.7:

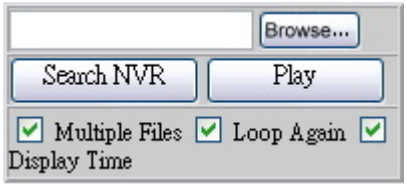


Diagram 2.7 Playback

Click “Browse” button to search file to be played. Default file path for the image recorded is：C:\rec99\06-05\IP99CAM.

Click “Search NVR” button to search the NVR device used for archiving recording files. If you do not have NVR device, please ignore this selection.

Open the file to be played, click “Play” to play recorded video.

- Click fast forward button , to adjust playback speed.
- Click fast reverse button , to adjust reverse speed.
- Click pause button , to pause the video.
- Click play button , to stop playback, returning to normal page.

Note: If you have problem when use windows vista, please refer to 4.Frequesntly ask question.

2.4.5 PTZ control panel (for Video Server only)

PTZ function is available when you connect PTZ to IP99 video server or use IP99 PTZ. IP99 supports Pelco-D, Pelco-P protocol PTZ control

Click button, a PTZ control panel pops up, as shown in diagram 2.8:

Diagram 2.8 PTZ control panel

1）Zoom：Click “T” button to zoom in. Click “W” button to zoom out.
Right click the mouse at the top right corner of video display to zoom in.
Right click the mouse at the bottom right corner of video display to zoom out.
2）Focus: Click “F” or “N” button to control the focus.
Right click the mouse at the left side of video display to adjust the focus.
3）Iris: Click “O” or “C” button to control iris.
4）Set preset position：Direct the camera to preset position, select preset number, click “S” button to save preset position setting.
5）Go to preset position: Select preset position and click “GO” button.
6）Delete preset position：select the preset position number and click “C” button to delete it.
Note 1：Left click the mouse around the video display to freely control the PTZ.

Note 2：PTZ control can also be preformed by using PC's keyboard, please refer to section 5 of 2.4.7 for more details.

Note3: PTZ control is functioning only if PTZ Function is set On in PTZ Setting, please refer to section 3.12.

2.4.6 On-Screen PTZ Control (for Video Server only)

On Screen PTZ function is available when you connect PTZ to IP99 video server or use IP99 PTZ.

a) Left click mouse in the view to move PTZ to the clicked direction

b) Zoom in/out: Right click mouse at top right corner to zoom in and right click mouse in lower right corner to zoom out

Zoom in Zoom out Focus

c) Focus: Right click mouse at left top and bottom corner to adjust focus.

2.4.7 System setting

Click button to make system setting. Plaese refer to Chapter 3 for more details.

2.4.8 Right-click functions

Right click the mouse at the center part of screen, a function window pops up as shown in diagram 2.9:

Diagram 2.9 right-click functions

1） Display size: Click "Display size" option to set display size.

Diagram 2.10 Display size

2）Change source: Click “Change source” to fill out information for the IP camera to be controlled, as shown in diagram 2.11:

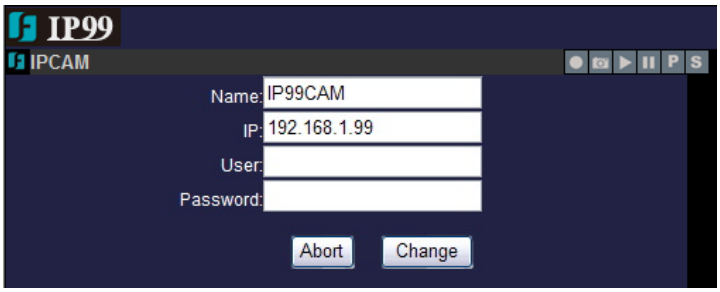


Diagram 2.11 Change source

First row: Camera name

Second row: IP address of camera to be connected

Third row: User name

Fourth row: Login password

When you finish filling out, click on “Change” button to enter video display with setting changed. If you do not need to change those settings, please click “Abort” to exit from this page.

3）Alarm setting：Click “Alarm setting” to enter alarm setting as shown in diagram 2.12 window:

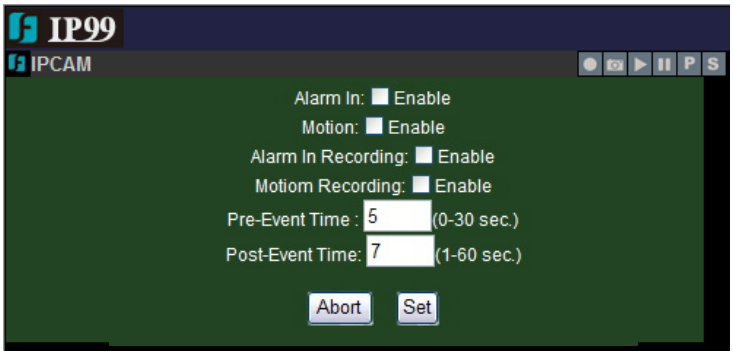


Diagram 2.12 Alarm setting

4）Sound ON：used to enable/disable sound transmission.

5）PTZ(for Video Server only)：Click “PTZ” option which allows you to check keyboard keys of PC used to control speed dome, as shown in diagram 2.13:

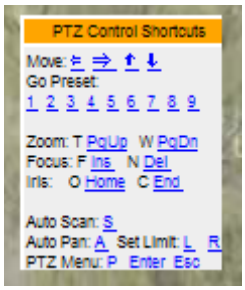


Diagram 2.13 PTZ contraol keys and functions

6）File .av to AVI：Click “File .av to AVI” option, select .av file to be converted and click “Confirm” to save it as AVI format.

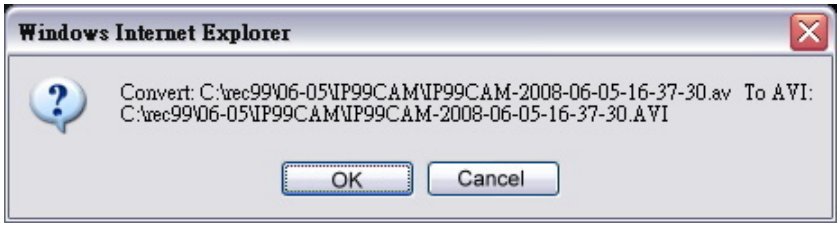


Diagram 2.14 File .av to AVI confirmation dialogue box

Note：AVI is the most widely used playback format.

3. System setting

3.1 Status information

Click button to enter setup menu, the screen shows camera’s current status, as shown in diagram 3.1:

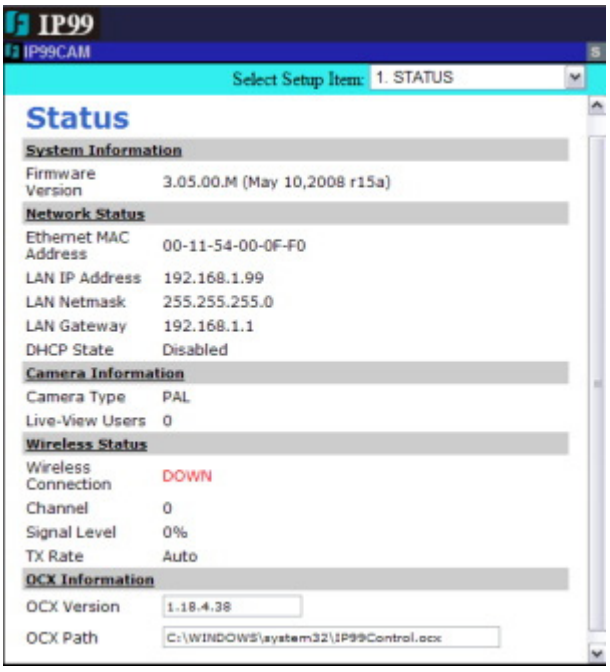


Diagram 3.1 status information

3.2 Video/audio setting

Select 2. Video & Audio from the drop-down menu at top right corner, as shown in diagram 3.2:

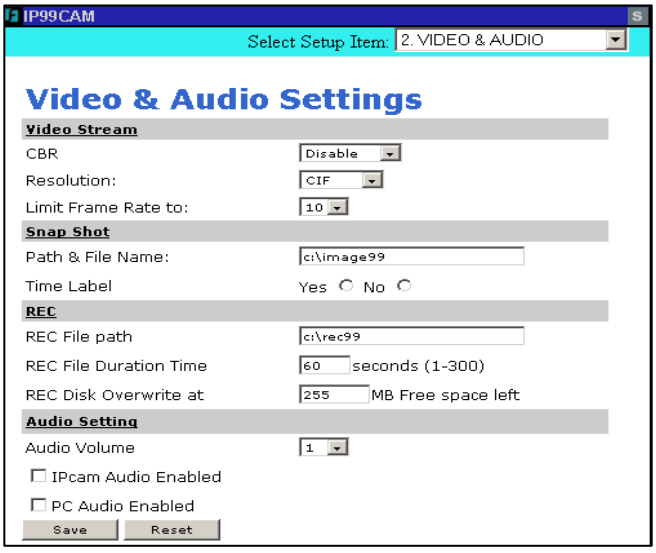


Diagram 3.2 Video & Audio settings

Enable settings for video stream, snapshot, OSD, Record and Audio.

1）CBR setting: Set CBR enabled or disabled, default value is Disable.

Note: CBR is fixed ratio.

2）Resolution: Set record resolution

D1: 720x480 (NTSC) / 720x576 (PAL)

Half D1: 720x240 (NTSC) / 720x288 (PAL)

CIF: 352x240 (NTSC) / 352x288 (PAL)

QCIF: 176x120 (NTSC) / 176x144 (PAL)

3）Limit frame rate to: Set frame rate according o resolution.

4）OSD setting: Set OSD text and font size.

5）Record: Set REC File path, REC file Duration Time and REC Disk Overwrite at.

"REC Disk Overwrite at" means that when HDD remaining storage is less than the value you set, IP99 will deleted previous recording data, in order to keep the newest information.

6）Audio: Set audio volume, enable IP cam audio and enable PC audio.

Note：When settings are completed, click "Save" button to save settings.

3.3 Device setting

User can adjust video screen according to status of real environment.

Diagram 3.3（a） Device setting

Diagram 3.3（a）shows all functions that all IP99 series have. User can set Brightness, Contrast and Color.

Brightness: Adjust image's brightness level.

Contrast: Adjust contrast to make image clearer.

Color: Adjust color of the screen.

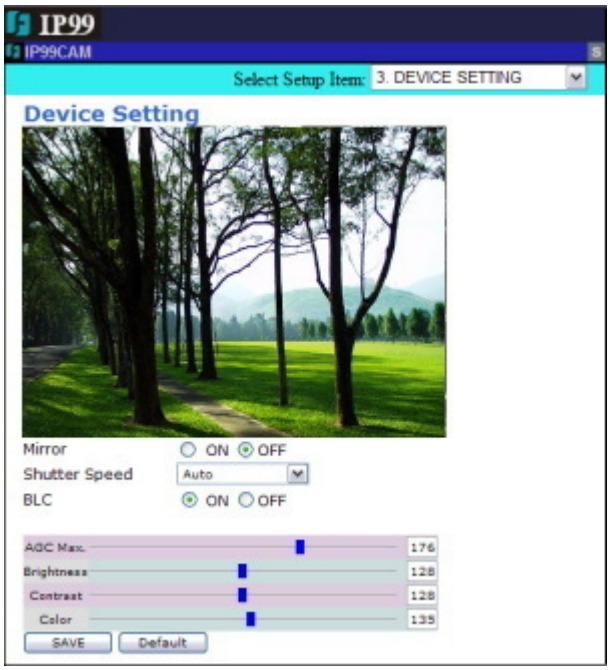


Diagram 3.3（b）Device setting

Diagram 3.3（b）shows the functions of IP camera, it is for IP camera NOT for Video Server. It has some additional functions compared to other cameras, as shown in diagram 3.3 (c):

Diagram 3.3（c）Extension functions of device setting

Mirror: Enable or Disable Mirror function by selecting ON/OFF.

Shutter Speed: Control exposure time by changing shutter speed value. If lighting source is sufficient enough, the exposure time required is less. By contrast, if lighting source is insufficient, the exposure time required is more.

Set Shutter Speed to Auto if a manual iris lens is used. When a DD auto iris lens is connected, set Shutter Speed to 1/60 and can adjust IRIS Level Control remotely.

BLC: Enable or Disable Back Light Compensation function by selecting ON/OFF.

AGC Max: Maximum value of Auto Gain Control. Set lower AGC Max in order to prevent recording noisy video of huge data size at night.

Note: Funtions shown in Diagram 3.3（c）are only available for IP camera.

3.4 Alarm Event

Select motion detection area, click “Edit Region” then keep left clicking to drag the area to be detected on the screen. Click “End Edit” to save change. To delete the

selected area, click “Remove region”. Please refer to diagram 3.4:

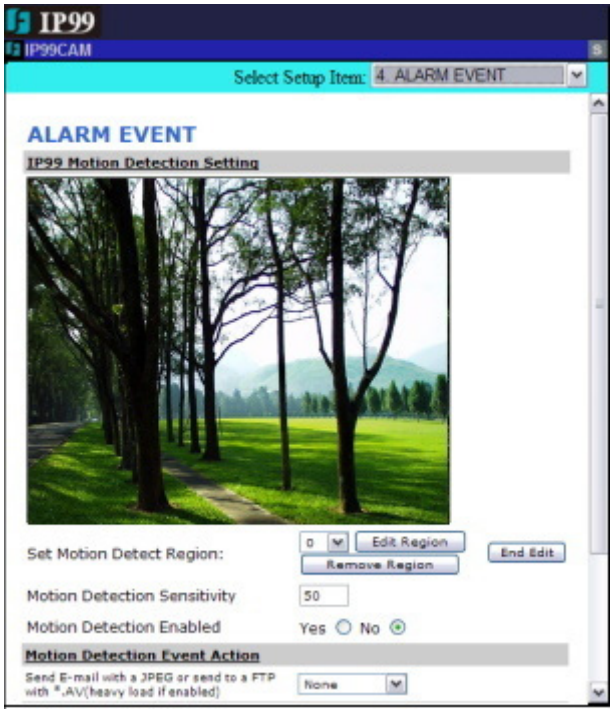


Diagram 3.4 Alarm event

1）Motion detection event: No event, send JPEG file by e-mail or upload to FTP. Note: When sending JPEG by e-mail or upload to FTP, file will be sent to the assigned e-mail adress.

2）Alarm I/O setting: Set Alarm Input/Output setting and status, as shown in diagram 3.5: Select Alarm input level high, low or no alarm for each AI alarm inputs. Different alarm actions: send JPEG file by e-mail, load to FTP or no action can be selected. In Alarm Output table, the current status of AO1 and AO2 are shown. The output of AO1 and AO2 can be changed remotely by clicking High or Low button and do Save. AO1/AO2 will output 3.3V or 0V TTL level to the terminal.

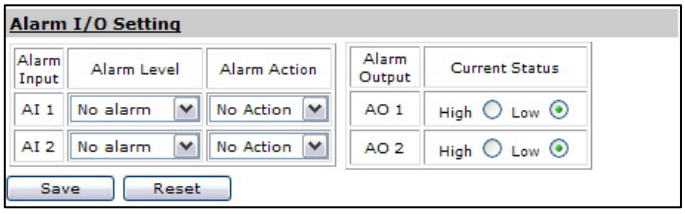
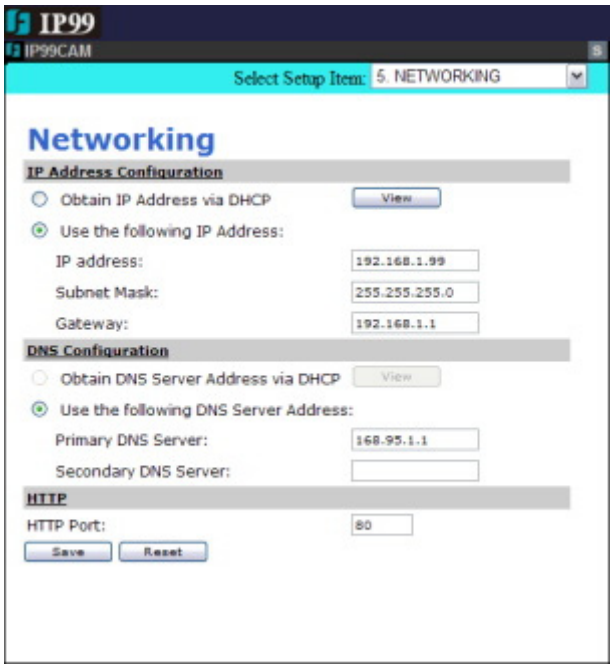


Diagram 3.5 Alarm I/O setting

3.5 Networking

Set camera's IP address, DNS setting, HTTP port information, as shown in diagram 3.6:



Diagaram 3.6 Networking

DHCP will automatically get the IP address. If you are not using DHCP, you can manually assign IP address and port.
Primary DNS server has to be the same as HTTP port set in IP address. Default HTTP port is 80.

3.6 Wireless LAN

Assignment will be made according to local wireless router, as shown in diagram 3.7:

Diagram 3.7 Wireless settings

3.7 PPPOE setting

Select whether to enable PPPoE function. If PPPoE function is enabled, please enter user name and password:

Diagram 3.8 PPPOE setting

When network is connected, it will show IP address, default router and DNS server after connection in status section.

Enable "Email notification when IP is changed" function, so when the system re-connects to network, it will automatically notify the IP address to user by e-mail.

3.8 DDNS setting

Dynamic DNS setting as shown in diagram 3.9:

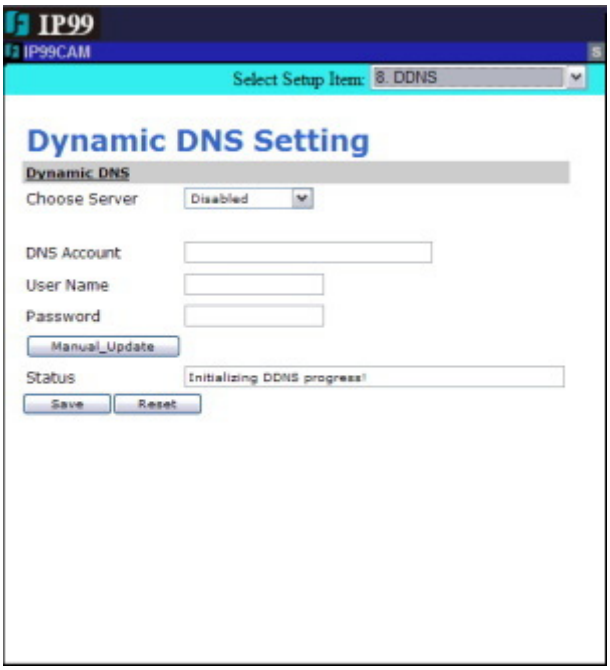


Diagram 3.9 DDNS setting

IP99 series cameras support 3 DDNS servers: DynDNS, PeanutHull and Perfecteyes.cn

Apply DDNS account to the above DDNS servers, and enter DDNS account, user name and password.

3.9 SMTP setting

Assign a mail server, sender's e-mail address and receiver's e-mail address, as shown in diagram 3.10:

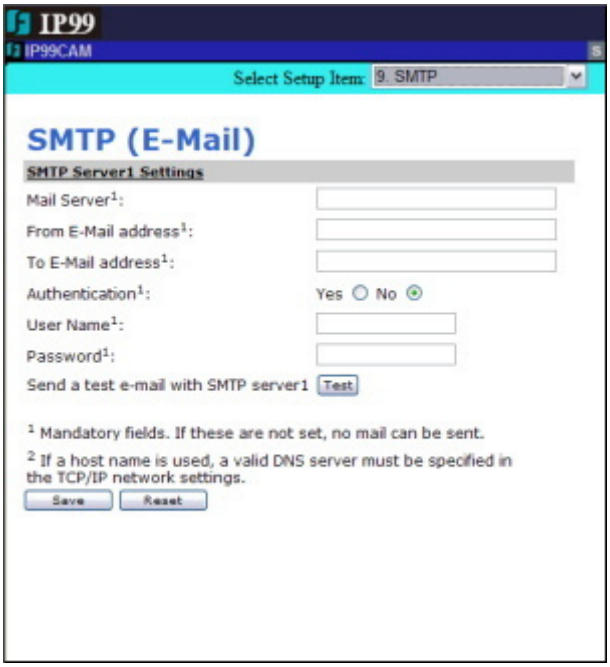


Diagram 3.10 SMTP setting

Enter user name and password of login mail server. Once SMTP is set, it can be used when snapshot, alarm and PPPoE are enabled.

3.10 FTP setting

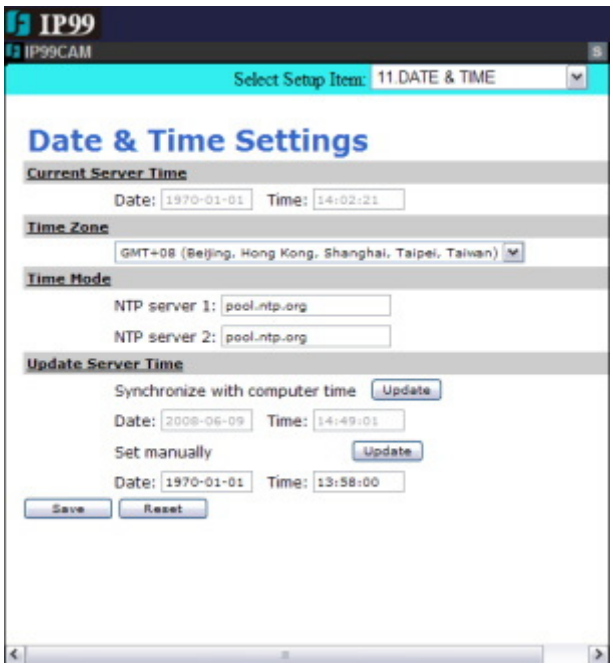
Select “FTP server setting” page, as shown in diagram 3.11：

Diagram 3.11 FTP setting

Set FTP server, user name, password, FTP command port and path & file name. User can upload recorded video and event file to FTP server.

3.11 Date & Time setting

Set camera's current date, time and time zone, as shown in diagram 3.12:



Dirgram 3.12 Date & Time settings

3.12 PTZ setting

Define PTZ protocol, PTZ baud rate and PTZ address, as shown in diagram 3.13:

Diagram 3.13 PTZ settings

Since IP address is the only fixed one, therefore PTZ address is set as “1”. Protocols are Pelco-D and Pelco-P which are in common use.
Note: When using Everfocus speed dome, user only needs to set the protocol as AUTO in order to control the speed dome.

3.13 Administrator

Add user, set user’s right, set maximum number of simultaneous viewers and change camera name, as shown in diagram 3.14:

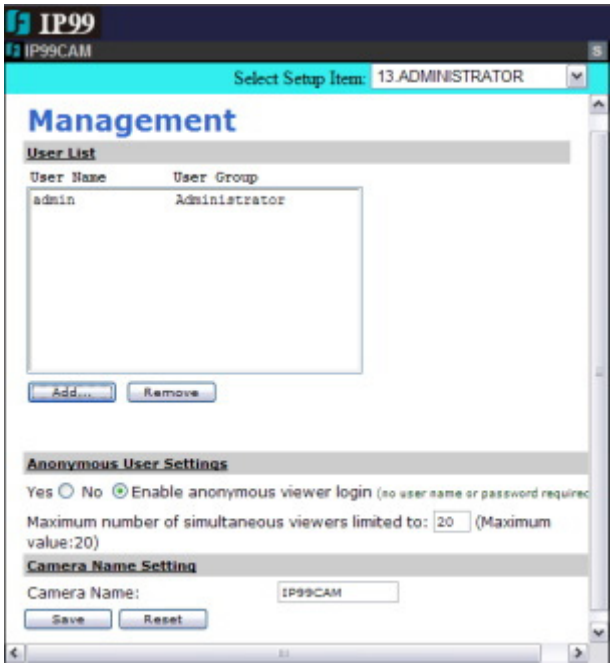


Diagram 3.14 Management

3.14 Change password

Change user's login password, as shown in diagram 3.15:

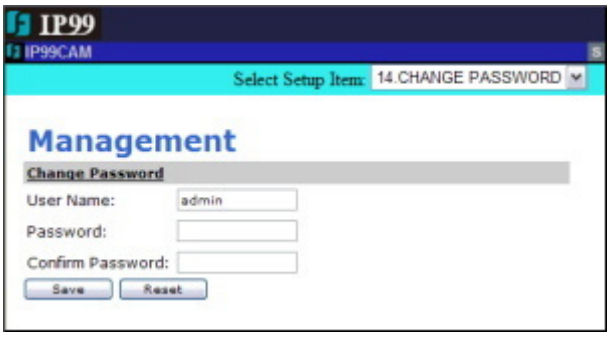


Diagram 3.15 change password

3.15 Special setting

Set compression, set camera type and transform to AVI format, as shown in diagram 3.16:

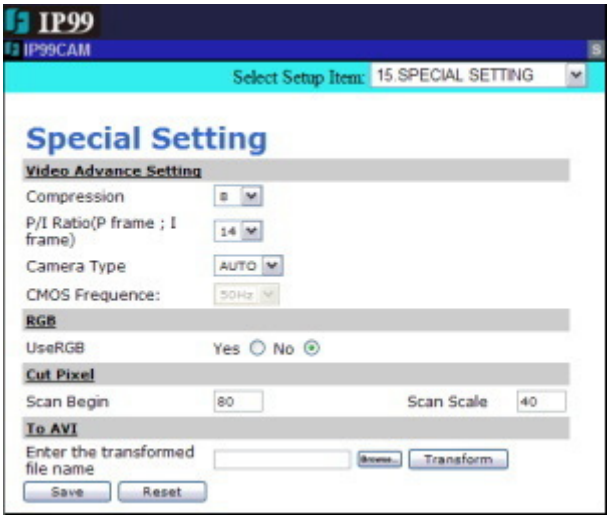


Diagram 3.16 Special setting

Default compression rate is 8. The lowest compression rate is 5 for clearer image. compression 15 is the highest rate for smoother image.

3.16 Maintenance

Maintenance and system upgrade, as shown in diagram 3.17:

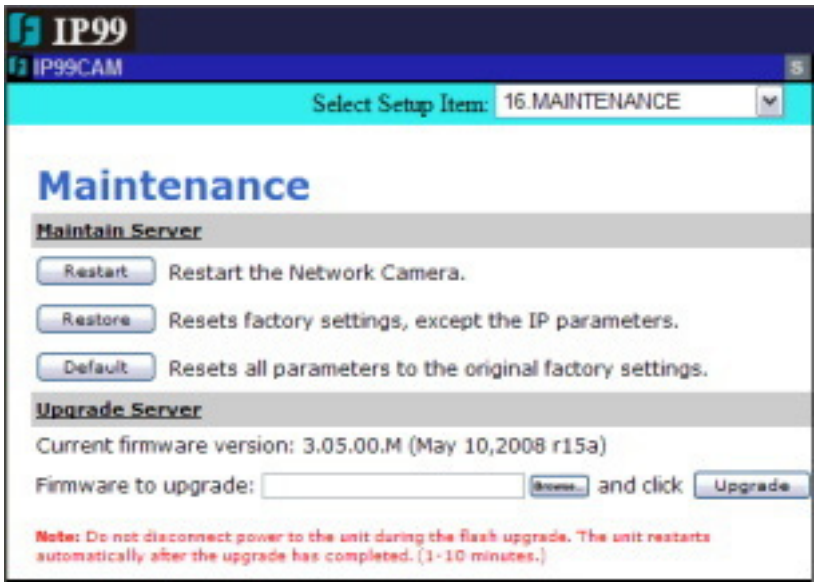


Diagram 3.17 Maintenance server and Upgrade server

Note: Please only use *.img file provided by Everfocus to upgrade firmware. Everfocus will not be responsible for any damage or loss caused by usage of firmware provided by the third party.

4. Frequently Asked Questions

4.1 I have problem recording and playback on Windows Vista.

Answer: You need to turn off User Account Control (UAC)

1. Open Control Panel.
2. Under User Account and Family settings click on the "Add or remove user account".

3. Click on one of the user accounts, for example you can use the Guest account.
4. Under the user account click on the "Go to the main User Account page" link.

5. Under "Make changes to your user account" click on the "Change security settings" link.

6. In the "Turn on User Account Control (UAC) to make your computer more secure" click to unselect the "Use User Account Control (UAC) to help protect your computer". Click on the Ok button.

7. You will be prompted to reboot your computer. Do so when ready.

EverFocus Electronics Corp.

Head Office:
12F, No.79 Sec. 1 Shin-Tai Wu Road,
Hsi-Chi, Taipei, Taiwan
TEL: 886-2-26982334
FAX: 886-2-26982380
www.everfocus.com.tw

USA Office:
1801 Highland Ave. Unit A
Duarte, CA 91010, U.S.A.
TEL: +1-626-844-8888
FAX: +1-626-844-8838
www.everfocus.com

USA N.Y. Office:
415 Oser Avenue Unit S
Hauppauge, NY 11788
Tel: 631-436-5070
FAX: 631-436-5027
www.everfocus.com

China Office:
Room B-05D-1, KESHI PLAZA, Shangdi
Information Industry Base,Haidian
District, Beijing China
100085
TEL: +86-10-62973336/37/38/39
FAX: +86-10-62971423
www.everfocus.com.cn

Europe Office:
Albert-Einstein-Strasse 1
D-46446 Emmerich, Germany
TEL: 49-2822-9394-0
FAX: 49-2822-939495
www.everfocus.de

Japan Office:
1809 WBG Maribu East 18F,
2-6 Nakase.Mihama-ku.
Chiba city 261-7118, Japan
TEL: 81-43-212-8188
FAX: 81-43-297-0081
www.everfocus.com

Your EverFocus product is designed and manufactured with high quality materials and components which can be recycled and reused.
This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.
Please, dispose of this equipment at your local community waste collection/recycling centre.
In the European Union there are separate collection systems for used electrical and electronic product.
Please, help us to conserve the environment we live in!

Ihr EverFocus Produkt wurde entwickelt und hergestellt mit qualitativ hochwertigen Materialien und Komponenten, die recycelt und wieder verwendet werden können.
Dieses Symbol bedeutet, dass elektrische und elektronische Geräte am Ende ihrer Nutzungsdauer vom Hausmüll getrennt entsorgt werden sollen.
Bitte entsorgen Sie dieses Gerät bei Ihrer örtlichen kommunalen Sammelstelle oder im Recycling Centre.
Helfen Sie uns bitte, die Umwelt zu erhalten, in der wir leben!

EverFocus®