User Manual
(Observer IP NetCam: VIPN-1100)

Introduction

Observer IP NetCam is a color camera with built-in IP address, Ethernet software stacks and protocols. Plug Observer IP NetCam directly to a RJ45 Ethernet port and watch the camera site from anywhere around the world. Connecting directly to Ethernet networks, the Observer IP NetCam is a standalone digital network camera requiring no extra server at the camera site. With the motion detection trigger function, Observer IP NetCam will provide you with the necessary security with the easiest installation.

Plug the Observer IP NetCam into your network and you're ready to see what's happening even when you're not there! Accessing the camera is as simple as surfing the web, just point your browser to the camera's onboard home page. You'll find everything you need to view, and do video recording from the camera from anywhere on your network or even over the Internet!

The Observer IP NetCam is accessed with the IP address directly and the images are viewed by standard Web browsers.

1. System Features

1-1. Package Contents

1. **Observer IP NetCam (VIPN1100)**
2. **Power Adapter**
3. **Red Color 10/100 Mbps Ethernet LAN Cable (MDI / X, Cross over LAN cable)**
4. **Blue Color 10/100 Mbps Ethernet LAN Cable (MDI)**
5. **Observer IP NetCam installation CD-ROM**
6. **User's Manual**

1-2. System Requirements

To view the camera web page

- Web Browser – Internet Explorer for Windows 5.0 or higher
- PC with Windows 98, Me, 2000, or XP connected to LAN

To run the included software (IPEDIT) applications

- PC - Intel Pentium II or equivalent, 300MHz or above, 64MB RAM, 150 MB Hard Disk Space, 800x600 resolution with 16- bit color
- Windows 98, Me, 2000, or XP

To access cameras from the Internet

- Broadband Internet Connection (DSL, Cable Modem) with min. 128k upload speed

1-3. Hardware Description and Features

- Stand-alone network camera for flexible installation.
- Simple installation and multiple mounting methods.
- Embedded Web Server Supported.
- No computer is needed at the monitored site.
- Access live video via web browser at anytime and any place for remote surveillance and management.
- 2 default HTTP ports supported, they can be changed to fit different network environments.
- Built-in Motion Detection for security at no extra cost.
- Standard JPEG Image Format.
- Record AVI (Video) or Motion JPEG images onto hard disk for future viewing.
- Capture snapshots and video to your PC.
- Password protection, Supervisor password system for you to decide who has authority to access the cameras.
- Real-Time Motion Detection for E-mail and FTP alert.
- E-Mail the Detected Images to preset e-Mail address.
- FTP the Detected Images to preset FTP server.
- Directly connect to ADSL by Pope, mail the IP setting to preset mail address.
- 5 different resolutions, 5 different image quality.
- 3 different Light Frequencies: Outdoor, Indoor 50Hz and Indoor 60Hz.
- Unlimited number of users concurrently browsing the same camera.
- E-Mail notification for sharing or notifying information actively to the connected party.
- Support Multi camera windows
- Camera Naming Support.
- Web console configuration interface.
- LAN/WAN interface supported.
- Support Fixed IP or Dynamic IP by DHCP.
- Log List report.
- Built-in Microphone

Network

- Fixed IP.
- Dynamic IP by DHCP.
- Directly connect to ADSL by Pope, mail the IP setting to preset mail address.

User Management

- User Management for Add User, Delete User, and Change Password.
- Administrator, privileged user to change any settings.
- General users, view images only.

Camera Control

- Layout 1x1, 2x2, 3x3, 4x4.
- Resolution: 160x120, 176x144, 320x240, 352x288, 640x480.
- Quality: Low, High, Medium, Clarity, Motion

- Image Rotate / Flip.
- Video Adjustment: Brightness, Contrast, Saturation, Hue, Sharpness

Motion Detection
- Software Real-Time Motion Detection.
- Selected Region Provided.
- E-Mail the Detected Images to preset e-Mail address.
- FTP the Detected Images to preset FTP server.

Browser Support
- IE only (ActiveX Control) Save the current image local PC.
- ActiveX controls : ActiveX controls support full functions, including the Right Mouse Button Menu control.

Utility
- IPEDIT.EXE to scan the Installed Observer IP NetCams and change the Camera Name and IP Address

1-4. Observer IP NetCam Hardware Specification

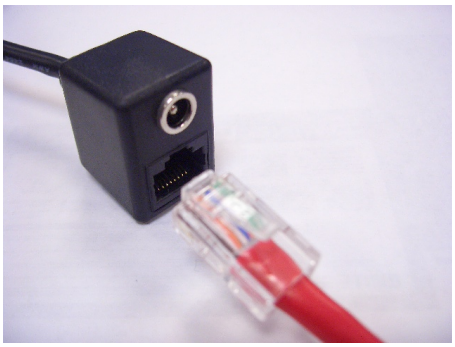
- Built-in web server allows camera to be accessed by standard Internet browser
- Network, RJ-45: 10Base-T/100Base-TX Ethernet networks
- Network ready, IP addressable (no PC required.)
- Motion-JPEG based compression
- Size: 91 mm x 65 mm x 53 mm
- Weight: 163 g
- Power Supply: 5.1 VDC/2A

2. Installation

Before installing the Observer IP NetCam, you should have an available Ethernet LAN connection (RJ-45 port). To view the camera's image or make any manual configuration changes, you will need a Windows PC with Internet Explorer 5.0 or higher and connection to the LAN.

2-1. Observer IP NetCam Hardware Setup

1. Insert the power-cord to Observer IP NetCam.
2. Insert the Network Line to Observer IP NetCam and Computer LAN Card RJ-45 port (Red color LAN Cable).
3. Power-On the Computer for IP setup.
4. Use the IPEdit.exe tools to find the Observer IP NetCam.
5. Use IE to view the Observer IP NetCam image.



Step 1. Plug the Ethernet cable into Observer IP NetCam
Plug the included RED Color Ethernet cable into the RJ- 45 connector at the back of the camera as shown.

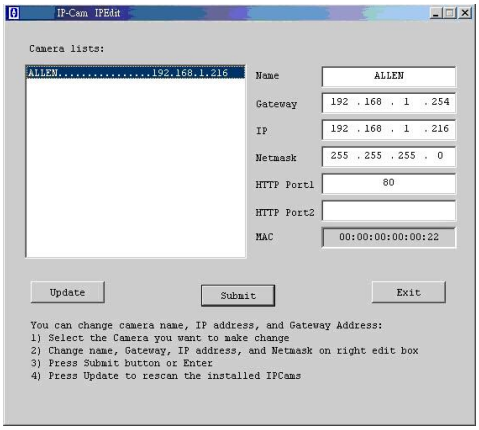
Step 2. Plug the Ethernet cable into PC
1. Temporarily disconnect the existing network cable from the PC.

2. Plug the other end of the Ethernet cable into any available LAN port. A typical home router/gateway connection is shown on the left.

Step3.Connect the Power Supply to the Observer IP Net Cam
Connect the power supply to the back of the Observer IP Net Cam as shown, and then plug the supply into an available power outlet.

Step 4. Ensure the Observer IP NetCam power light is lit

When the Observer IP NetCam is connected with power, the LED light on top of the Observer IP NetCam will light up. This indicates that the Observer IP NetCam is powered on.



Step 5. Using IPEdit.exe to test the Observer IP NetCam

1. Use IPEDIT.EXE to find the installed Observer IP NetCam.

2. The Observer IP NetCam without IP allocated by DHCP will have a default IP Address of 169.254.xx.xx.

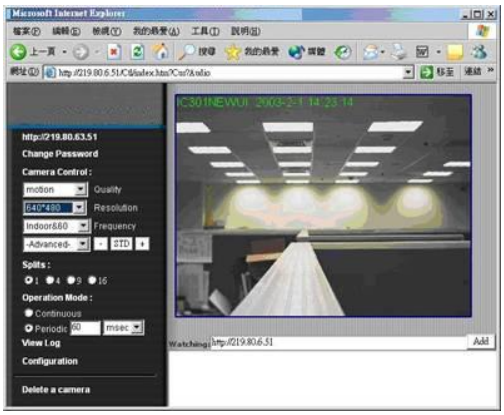
3. Select this Observer IP NetCam on Camera List Window.

4. The default configuration will be shown on the right window.

5. Change Observer IP NetCam network settings.

- Update the Camera Name (Fixed IP).
- Update the Gateway Address (192.168.0.1).
- Update the IP address of this Observer IP NetCam. (192.168.0.30).
- Update the Network Mask (255.255.255.0).
- 'Submit' it.

After the 'Submit' button is clicked, the IP information of this Observer IP NetCam will be updated.



Step 6. Using IE to view Observer IP NetCam image

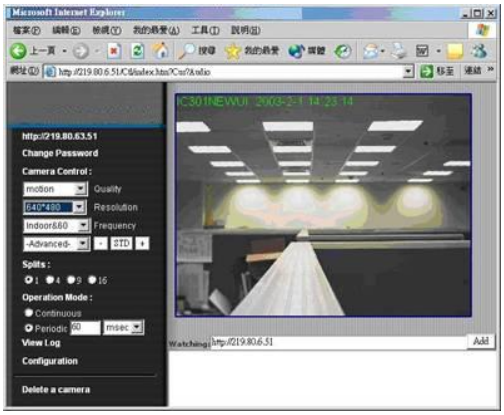
1. Start the Internet Explorer, key in the IP Address of Observer IP NetCam into the Address field, such as 192.168.0.245.

Step 7. Connect Observer IP NetCam to the ADSL Modem or LAN Hub

1. Remove the red network cable from the PC when all the settings are completed.

2. Reconnect the existing network cable to the PC.

3. Using the blue network cable provided, connect one end to the Observer IP NetCam, and the other, to the ADSL model of LAN hub.

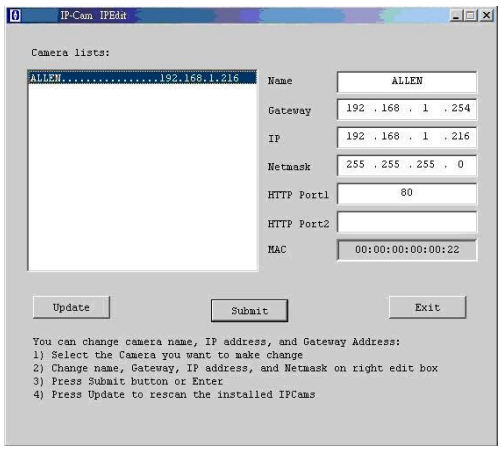


Step 8. View Observer IP NetCam Image Remotely

When all settings are completed, you will be able to enter the Observer IP NetCam's IP address through the remote PC's IE and view the real-time Observer IP NetCam image.

3. Accessing the Camera

3-1. Change the Observer IP NetCam IP Status



- Using the IP-Edit, you could select the different network options.
- The PC network options will display the Gateway and Netmask network settings, which you can edit with IP-Edit.
- Alternatively, you may contact your network system administrator to provide you with the details of your network Gateway and Netmask settings.
- Enter the Camera's IP number.
  If you allow outsiders to see the Observer IP NetCam, please enter another IP address.
  If you only want the Observer IP NetCam to be viewed in the internal network, you could enter a local IP number Example: 192.168.0.99.
- Clicking "Submit" will update all the changes made to the Observer IP NetCamera settings.

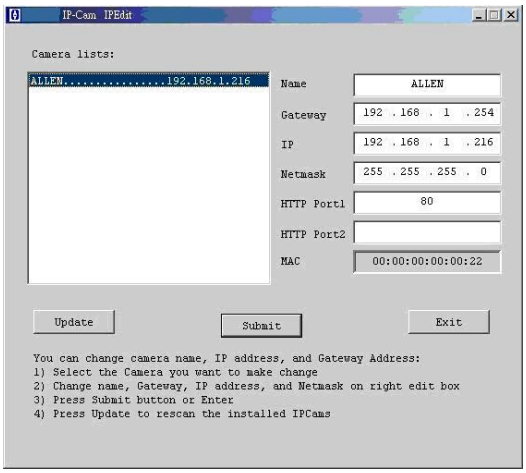
Option Labels	Translations	Functions
Name:	Name of the Camera	Options for the name of the camera
Gateway	Gateway	Reviews through your network options
IP	Network Address	
Netmask	Network	Reviews through your network options
HTTP Port 1	HTTP Port 1	80
HTTP Port 2	HTTP Port 2	IP address given by the administrator, refrain from changing it
MAC	MAC Address	

Example:
Hinet uses the IP address number:
Use IPEDIT to enter Hinet assigned IP address.

Launch IE Browser.
Go to Observer IP NetCam → Network Setup → PPPoE.
Set ADSL User ID and Password provided by Hinet.
Click Submit and restart the PC.

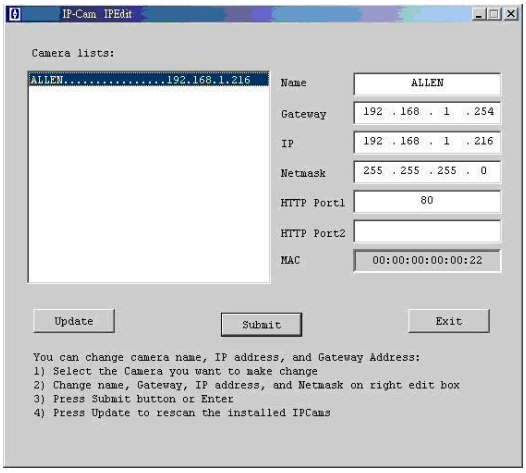
3-2. On the LAN with DHCP Server

1. Use IPEDIT.EXE to find the installed Observer IP NetCam.
2. Select this Observer IP NetCam in the Camera Lists Window.
3. The default configurations will be shown in the right window.
4. Update the Camera's IP status.



3-3. On the LAN without DHCP Server

1. Use IPEDIT.EXE to find the installed Observer IP NetCam.
2. The Observer IP NetCam without IP allocated by DHCP will have a default IP Address of 169.254.xx.xx.
3. Select this Observer IP NetCam in the Camera Lists Window.
4. The default configurations will be shown in the right window.



1. Update the Camera Name (Fixed IP)
2. Update the Gateway Address (192.168.0.1).
3. Update the IP address of this Observer IP NetCam (192.168.0.30).
4. Update the Network Mask (255.255.255.0).
5. 'Submit' it.

After the button 'Submit' is clicked, the IP information of this Observer IP NetCam will be updated.

Access this Observer IP NetCam by this IP address; on the Configuration -> Network, the Fixed IP address was assigned.

3-4. On the LAN use with the ADSL Router

If the Observer IP NetCam was installed on the ADSL router, the Observer IP NetCam will dynamically be allocated an IP address from the DHCP server. However, if the Observer IP NetCam wants to be accessed from the WAN, the Observer IP NetCam IP address needs to be setup as fixed IP. Same goes for the Virtual Server function of ADSL router, which needs to be setup as well.

1. Setup the Observer IP NetCam as Fixed IP, such as 192.168.0.49.

2. Enter the administrator page of +ADSL router. (Use sonnet ASDL router as an example).

3. Enter the Virtual Server Page.

    A. Setup the mapping of HTTP Port (80) to 192.168.0.49.

    B. Restart the ADSL router.

Then the Observer IP NetCam can be accessed from WAN, by the ADSL WAN IP Address.

3-5. Access the Observer IP NetCam by ordinary user login.

If the user accesses the Observer IP NetCam by an ordinary user account, the Observer IP NetCam would not allow the user to access the privileged functions. From the following screen, the Camera Control, Resolution, Quality, and Configuration are disabled.

4. Camera Control

On the IE Browser, right mouse click on the video to activate a pop-up menu. You can then change the camera settings accordingly.

4-1. Quality Setting

The Observer IP NetCam provides 5 image quality settings. The user can select the Quality setting from the Quality list box.

- Low
- High
- Medium
- Clarity
- Motion

Note: The value in the list box displays the current setting of the current image. When you make a new selection, the value on the list box will be changed to the new image quality settings.

4-2. Resolution Setting

Observer IP NetCam provides 5 resolutions,

- 640 X 480
- 320 X 240
- 352 X 288
- 176 X 144
- 160 X 120

User can select the desired new setting from the “Resolution” list box.

Note: The value in the list box displays the current setting of the current image. When you make a new selection, the value on the list box will be changed to the new image quality settings.

4-3. Frequency Setting

IP Cam provide the Frequency setting for

- Outdoor
- Indoor & 50
- Indoor & 60

4-4. Camera Advanced Adjust

Observer IP NetCam provide the advanced setting for

- Brightness
- Contrast
- Saturation
- Hue
- Sharpness

To control the camera, use the *"+"* to increase, "-" to decrease it, or *"***STD***"* to return to default value.

4-5. Split Setting

Observer IP NetCam provides 4 settings for split windows. It can display different time frame images of the selected Observer IP NetCam. The time string with green characters is the current displayed image.

4 types of Split window,

- 1 x 1 (Default)
- 2 x 2
- 3 x 3
- 4 x 4

Note: The images on the split window are on the same camera, but with different time. It is useful on the low frame rate condition, and then user can check the images that are the recently got.

4-6. Rotate Setting

The Observer IP NetCam provides 4 image rotate settings. Use mouse right key click video than you can see setup menu, The user can select the Rotate setting from the Rotate list box.

- "Rotate 0": Default state
- "Rotate 180": Rotate the image by 180 degrees. This setting is applicable only on the camera, which is mounted up side down.
- "Flip horizontal": Image Flip horizontal
- "Flip vertical" : Image Flip vertical

4-7. Operation Mode

Continuous Mode: The Observer IP NetCam will always try to capture the image as fast as possible. This is the default setting.

Periodic Mode: ms (mill-second) or s (second) can be set. The value set here must be greater than 0.
Setting the periodic mode to 5 seconds will update the image every 5 seconds. The time interval can be checked by the time displayed on the image.

4-8 Delete a camera

Observer IP NetCamera can support view of multiple Observer IP NetCams, you can add a new IPCam into this WebPage by input such as http://192.168.0.50/ on the *Watching* field. Also a viewed IPCam can be removed by select this IPCam, then press *"Delete a camera"* to remove it from the WebPage.

5. Configuration

Only the administrator can select the “Configuration”; the ordinary user account does not have this privilege to access this function.

The screen is the main menu for configuration setting, when the administrator selects the “Configuration” in the main window.

Observer IP NetCam provides 4 types of configurations:

- System Settings
- Password Settings
  - Change of Password
- User
  – To add/delete user, change password; enable/disable user check.
  - Add User.
  - Change Password.
  - Delete User Account.
- Motion Detection
  - Enable/Disable motion detection.
  - Motion detected mail setting.
  - Motion detected FTP setting.
- Network – Observer IP NetCam Network connection setting.
  - DHCP – setting the IP dynamically.
  - Fixed IP – setting the IP manually.
  - Connect to ADSL by PPPoE.
- DDns

5-1. System Setting

5-1-1. Camera Name

The camera name can be set on the “Camera Name” field , and select “ change “ to summit it .

5-1-2. Camera"s time

Select "NTP" button
Key in the Sever IP address Like : http://www.org.ntp.org
Press"adjust" to activate

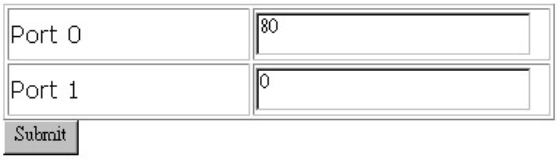
After Observer IP NetCam get the time from NTP sever , It will update the Camera"s time field.

Select "Input new time" button and click on " Synchronize with PC"s time "
Key in "mm/dd/yyyy" format into " Date " field , and "hh:mm:ss" by 24hours format into " Time " Filed, then Select the "Adjust" button to adjust the time !

5-1-3. Web Server Port Number

The implementation supports 2 HTTP port settings. The HTTP "Port 1" is set to 80, the HTTP "Port 2" is set to 8080. The user can access the Observer IP NetCam by

http://xx.xx.xx.xx/



or

http://xx.xx.xx.xx:8080/

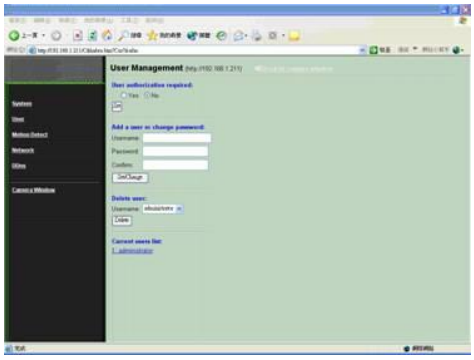
to access the Observer IP NetCam.

It is recommended to keep the HTTP "Port 1" as 80 to make sure the Observer IP NetCam can be accessed by the default HTTP port setting access on the LAN. http://xx.xx.xx.xx/

If multiple Observer IP NetCams are installed on the LAN, also required to be accessed from the WAN, the HTTP "Port 2" can be changed as the virtual server port mapping to support multiple Observer IP NetCams. The following table lists example configurations.

Observer IP NetCam IP	HTTP port.1	HTTP port.2	Virtual Server Port Setting	Access Observer IP NetCam on LAN	Access Observer IP NetCam on WAN IP: 68.68.68.68
192.168.1.1	80	8080	8080 ➔ 192.168.1.1	http://192.168.1.1 http://192.168.1.1:8080	http://68.68.68.68:8080
192.168.1.2	80	8081	8080 ➔ 192.168.1.1	http://192.168.1.2 http://192.168.1.1:8081	http://68.68.68.68:8081
192.168.1.3	80	8082	8080 ➔ 192.168.1.1	http://192.168.1.3 http://192.168.1.1:8082	http://68.68.68.68:8082

5-2. User Management



5-2-1. Current User

If you are logging in for the first-time, the user name in the “Current User” section should display “administrator”.

5-2-2. Account Management

User authorization required:
Checking the “Enable use check” check box will enable the user check when the users want to access the Observer IP NetCam. The Login window will prompt for the User name and Password.

If the check box is not checked, then the user check will not be enabled. All users can access the Observer IP NetCam directly, with the administrator’s permission. A Login window is not required.

Note: Before you select “Enable user check” check button, please remember to change the administrator password.

Add a user or change password:
Enter a new user name and password information to create a new user account, or enter an existing user account, then set a new password to replace the old password.

Confirm by clicking on the [Change/Create] button to create the account or change password.

After submitting, the “Current User List:” would display the newly created user account. In this example: “newuser”.

5-2-3. Delete Account

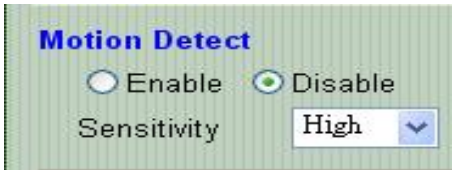
Select the user account from the “Username” list box.

Click the [Delete] button to delete the selected user account. A confirmation window will prompt the user to select “OK” or “Cancel”.

After selecting the “OK” button, the selected user account will be deleted from the “Current User List”. In this example, the “newuser” account will be removed.

5-3. Motion Detection

5-3-1. Motion Detection Enabling / Disabling



Check the “Enable motion detection” check box to activate the motion detection.

If the check box is not checked, the motion detection send mail function will not be enabled.
Move the mouse cursor to the motion detection field and press the mouse right button then drag the cursor from A to B to define the area which you would like to apply for motion detection.

Enter the “ Sensitivity “ button for select “High” or “Middle “ and “Low “ mode .

5-3-2. Motion detected mail function (mail setting)

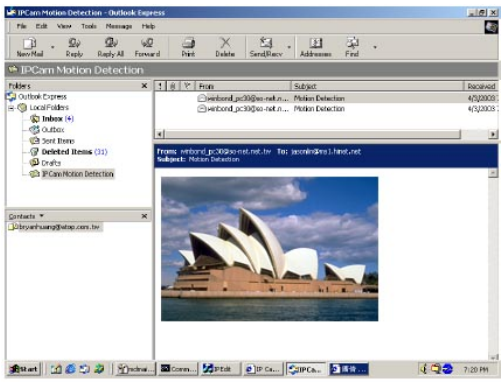
When motion detection is enabled, the user can setup the mail function to send the motion-detected images to the preset mail address. The procedures are as follow:

1. Motion Detect set to “Enable” state.
2. Setup the “SMTP Mail Server” and e-Mail address. (password use or not)
3. Enter the sender’s email address in “Sender” field and the recipient’s email address in the “Receiver” field.
4. The user can change the “Subject” field.
5. If the mail server needs authentication, check the “Password” check box. Also, enter the password; otherwise the “Password” field does not need to be filled in.
6. Check the “Send mail when motion detected” check box to enable the operation. If the check box is not checked, the motion detected send mail function will not be enabled.
7. Confirm by selecting [Send Setting] option to save the settings.

Note:
If all of the items are enabled resulting in a motion event detection, the Observer IP NetCam will send the motion-detected images to the preset email address. The maximum number of images allowed is 6 images per mail.

5-3-3. Motion detected mail

The received mail will be displayed in a motion picture form. It can also be displayed as separated images with a selection of the circle button on the left side of the Image Viewer.



5-3-4. Motion detected message on the main window.

When the motion detection function is enabled, and a motion detected, a message will be displayed at the bottom.

Motion detection disabled or **Motion detection enabled**

5-3-5. FTP uploads when motion detected.

The motion-detected images can also be uploaded to FTP server. The procedures are as follow:

1. Enter the IP address or domain name of the “FTP Server”.
2. Enter the “Username” and “Password” of the FTP server.
3. Certain FTP servers need an “Account” field. Leave it blank if it is not needed.
4. Enter the “Remote folder” upload path information for saving the images.
5. Confirm by selecting the [Send Setting] option to save the settings.

5-4. Network Setup

5-4-1. Manual Setup

For fixed IP address users:

On the network environment, the administrator can assign a unique IP address to each Observer IP NetCam. The procedures are as follow:

1. Check the “Manually” radio button.

2. Enter the “IP Address”, “Network Mask (Subnet mask)”, “Default gateway”, and the “DNS1”, “DNS2”, as well as ‘DNS3” in formations.

3. Select “Reboot immediately” to reboot the Observer IP NetCam to allow these settings to take effect.

DHCP

The “DHCP” is automatically set as the default network setting of Observer IP NetCam. When an Observer IP NetCam is joined into the LAN, it will issue the DHCP packets to request an IP address that is dynamically assigned by the DHCP server. If it is unable to get a DHCP

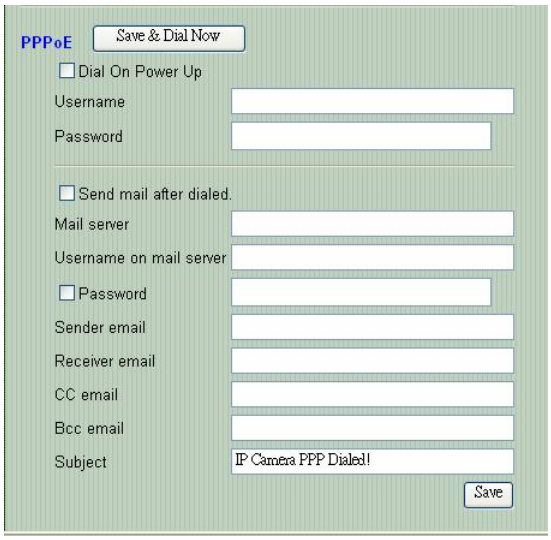
address on a limited tries, the Observer IP NetCam will assign a default IP address such as “169.254.xx.xx”.

5-4-2. Connect to ADSL by PPPoE mode.

The Observer IP NetCam can directly connect to the ADSL. However, it should be setup on the LAN environment to setup the PPPoE information before connecting to the ADSL modem. Power on the Observer IP NetCam and it will dial in to the ISP connection to the WAN via the ADSL modem.

The procedures are as follow:

1. Connect to the LAN by DHCP or Fixed IP
2. Access the Observer IP NetCam and enter [Configuration] ➔ [Network Setup]
3. PPPoE Configuration
4. select the “Dial on power Up” check box.
5. If the ADSL Modem and Observer IP NetCam are connected on a hub and after the PPPoE in formations are entered, you can then select the “ Save and Dial Now” option to do the PPPoE dial.
6. Enter the “User” and “Password” fields with the account and password provided by the ISP. If the “Mail after dialed” check box is checked, the mail will be automatically sent when connected automatically to the ISP.
7. If the mail server needs authentication, the “Password” check box needs to be checked and password information, entered.
8. Enter the sender’s email address in the “Sender email” field and recipient’s email address in the “Receiver email” field.
9. The “Subject” field can be modified.
10. Confirm by clicking on the “Save” button to save the settings.



If the Observer IP NetCam and ADSL modem are c
by a hub, the administrator can select ”Dial Now”
to perform the connect operation. On the contrary,
if the Observer IP NetCam and ADSL modem are co
directly, then there is a need:

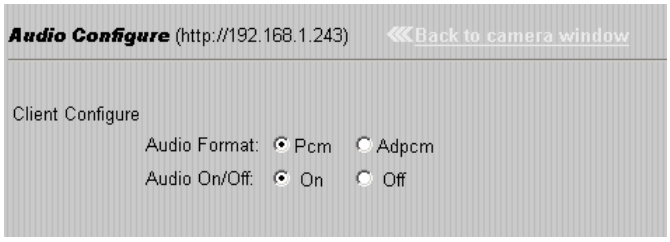
- To power off the Observer IP NetCam,
- To connect to the ADSL modem,
- To power-up the Observer IP NetCam,
- For the Observer IP NetCam to start dialing.
- Once connected, mail the IP address information to the preset e-mail address.

- After 10 times of failed try connections, it aborts the dialing operation and the administrator can reconnect it to the LAN, access it, to find the cause.

Note:
If the PPPoE option "Mail after dialed" is selected, and when PPPoE dials in to the ISP, a mail that contains the Dial Up ISP Address / Netmask / Gateway address / DNS Server address will be mailed to preset the e-Mail address.

5-5. Audio Setup

5-5-1 Audio Configure



For fixed Audio option users:

check the "Audio format " check box to select "PCM" or "Adpcm"

If the check box is not checked, default setting will be "PCM"!

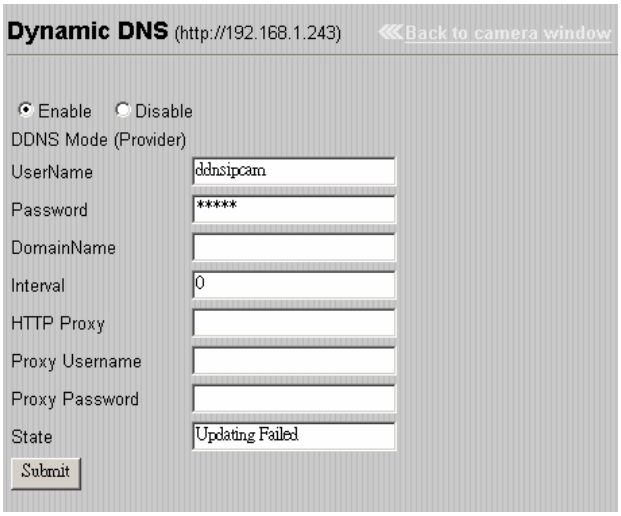
Check the "Audio On/Off " button for select "On" or "Off "mode for audio enabled.

5-6. DDNS Setup

5-6-1. DynDns

Check the "Enable" button

Enter in "UserName" and "password" with "DomainName", setup that all information before connecting to the DDns Sever (http://www.DynDNS.org), Confirm by clicking on the "Submit" button to save the settings.



6. Image Recording

6-1. Save as JPEG

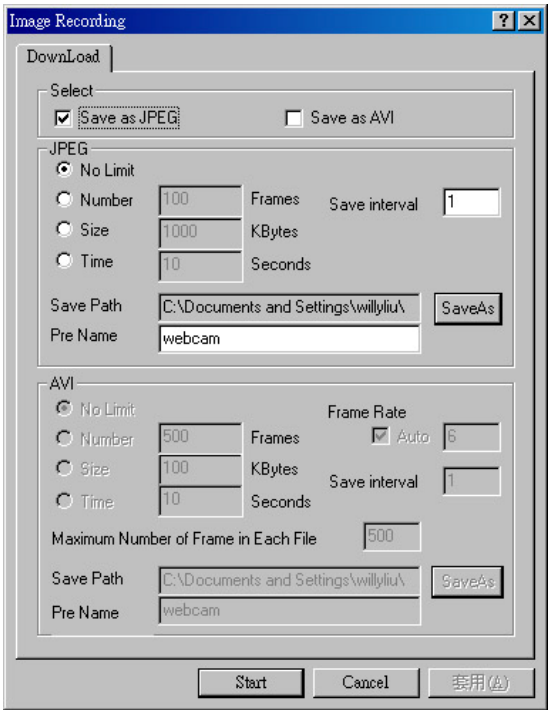
1. Select "Image Recording…"

2. The "Image Recording" pop-up window displays. Check the "Save as JPEG" check box option.

3. Enter the "*Download Number*" to save the desired number of images, or "*Download No Limit*" to save the images continuously, until the "*Stop Image Recording*" is selected.

4. Click on the *"Save As*" button and a pop-up window displays to select the save path and file name prefix. Select *"Save*" to continue.

5. Click on the "*Start*" button to perform the image download process and save the JPEG files onto the local PC.



Note:

- *During the downloading and saving process, a yellow mark will be displayed on the right-down position to indicate the saving process.*

- *Before the "Download Number" of images is reached, or if you may have selected "Download No Limit", click on "Stop Image Recording" to stop the image recording process.*
- *After the "Stop Image Recording", list the files on the selected saved directory. These files are named as file_name_prefixed_yyyy_mm_dd_hh_mm_ss_ms.jpg*

6-2. Save as AVI

1. Select “Image Recording…”

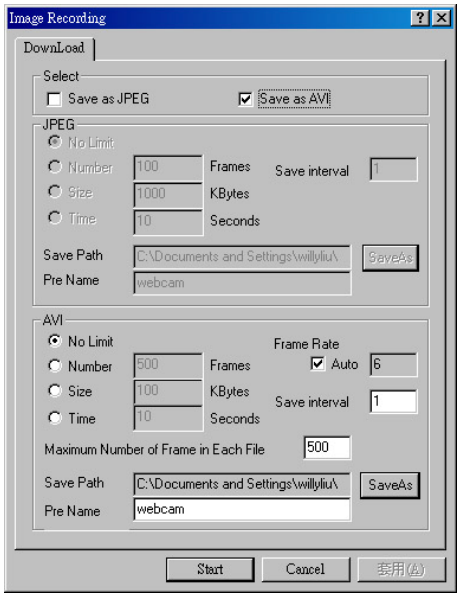
2. The “Image Recording” pop-up window displays. Check the “Save as JPEG” check box option.

3. Enter the “Time”, “Number” or “Size” on each AVI file, until the “*Stop Image Recording*” is selected. “*Frame Rate*” is the frame rate setting of the recorded AVI file.

4. Selecting the “No Limit” radio button will save the video file until the “*Stop Image Recording*” is selected.

5. For each AVI file, the maximum number of images that can be saved in each file are specified in *“Max Jpeg Num”* Once the images that can be saved on each AVI file are reached by this number, a new AVI file will be created to save the remaining images, until the “*Stop Image Recording*” is selected.

6. Click on the *“Save As*” button and a pop-up window displays to select the save path and file name prefix. Select *“Save*” to continue.



Note:

- *During the AVI file recording, a red icon displays on right-down position of the image to indicate the AVI saving process.*
- *After the “Stop Image Recording”, list the files on the selected saved directory. These files are named as filename_prefix_date_time.avi.*
- *The AVI files can be played by any standard Windows Media Player program, but they require the DixectX 8.1 or higher version software driver to be installed.*

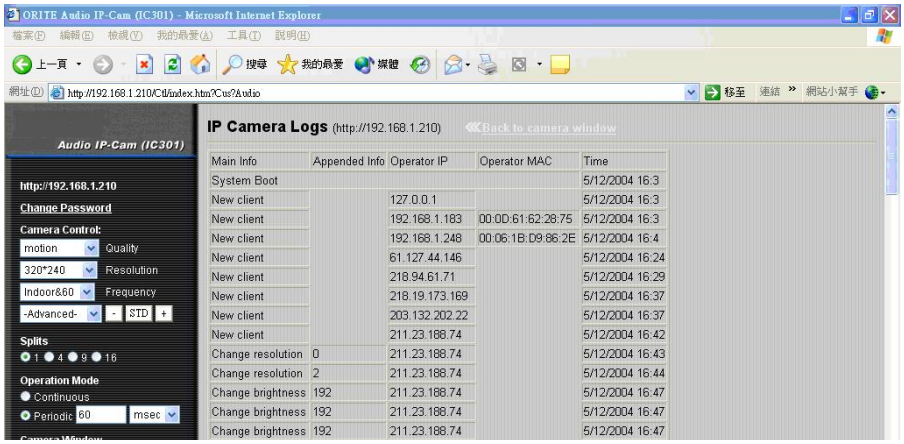
6-3. Save Current Picture As…

1. Click on the “Save Current Picture As …” option to save the current image display onto the local PC.

2. Enter the name you wish to save as into the “*File name*” field. Click on “*Save*”.

7. View Log File

The user can check the log information of the Observer IP NetCam, including the Main Info, Appended Info, Operator IP, Operator MAC, and Time.



Select the ”Camera Window” button to return to Camera mode.

8. On Line Help

Provides on-line assistance when clicked on the “HELP” button.

9.Hardware Reset

The Observer IP NetCam provides a hardware reset button when ever you need to reset the Observer IP NetCam due to

- Loss of administrator password
- Incorrect network configuration

To reset the Observer IP NetCam

- Make sure the Observer IP NetCam is on.
- There is a small reset hole at the side of the Observer IP NetCam
- Insert an object to depress the reset button inside the hole
- Depress the reset button for 5 seconds and the Observer IP NetCam will automatically reset itself back to the default factory setting.

10. Accessing Observer IP NetCam over the Internet

If your home or business LAN is connected to the Internet through a high speed (broadband) Internet connection, with at least 128 kbps upload bandwidth, you can access your cameras via the web browser from anywhere on the Internet. To do this you would need to:

1. Know your WAN (Internet) IP address. This is the IP address that your Internet Service Provider provides you to access the Internet. It may be static (always the same) or dynamic (can change from time to time).

2. Make sure the two ports used by the camera (80 & 1600) are forwarded by your router or gateway to the camera.

3. Make sure your camera default gateway is set to the LAN (local) IP address of your router/gateway.

10-1. WAN IP Address

The WAN (Wide Area Network) IP address that your Internet Service Provider provides you so that you can access the Internet is very different from the LAN or local IP address that your

PCs and cameras are using to connect to your local network. Your WAN or Internet IP address is visible to the outside world (Internet) whereas your local addresses are not. To find your home or business network from the Internet you must know your WAN IP address.

Your WAN IP address is stored by your gateway router, which uses it to connect to the Internet. All the devices on your network connect to the Internet via your gateway router. You can find your current WAN IP address by checking your router status page. There are also various websites such as www.whatismyip.com which, will tell you the IP address that you are currently using to access the Internet.

A word about terminology
The term gateway is used generically to define a device that connects a local network to the Internet. A gateway may be a router, a PC running software which allows it to act as a gateway such as a proxy server, or some other device. Most home networks use a NAT (Network Address Translation) router as a gateway. The term gateway router refers to such a device.

Static versus Dynamic IP address

The IP address (or addresses) your ISP has (have) provided you will either be static, which means it never changes, or dynamic, meaning it can change periodically. Dynamic addresses present an additional challenge when trying to locate your network from the Internet since your address may have changed since the last time you checked it. How often your dynamic address changes varies from one service provider to another. Also, any time you reboot your cable or DSL modem, you are likely to get a new address when reconnecting. The solution to the ever-changing IP address is known as DDNS or dynamic domain name service. A DDNS will allow you to find your network by a domain name, such as myNetCam.no-ip.com, rather than needing to know the IP address.

10-2. Network Address Translation (NAT)

Most home routers and business firewalls today perform something called NAT or Network Address Translation. NAT translates your external or WAN IP address into an internal address inside your gateway router. What this means is, you can think of your router as being divided into two halves, the LAN side (inside) and the WAN side (outside or Internet side). When a connection request arrives at your router from the Internet, it will not get any farther than the WAN side unless you have specifically instructed your router to pass this type of request to a specific device on your LAN. This process is know as port forwarding or port redirecting.

10-3. Port Forwarding

All TCP/IP (Internet) networking uses software ports. Ports can be thought of as channels on your television. By default, all web page traffic is on channel (port) 80. By default, the

Observer IP NetCam uses port 80 to deliver its web page to your browser and port 1600 to send video. Therefore, both of these *channels* (ports) must be open (not blocked by your router/firewall) to incoming traffic in order for you to connect to the camera from the Internet.

Also, these two ports must be forwarded or redirected to the camera's LAN IP address by your gateway router. Your router's setup software should provide a utility for port forwarding or redirecting. Router configuration contains setup help for some popular home networking gateway routers currently on the market.

Note:
Forwarding ports to your camera does not pose any additional security risk to your LAN. Before setting up port forwarding, it is best to configure your camera to use a static LAN IP since your port forwarding setup will need to be updated if the camera's LAN IP address changes.

10-4. Default Gateway

Devices (PCs, cameras, etc.) on your network connect to the Internet via a gateway. For most home networks, a NAT type router serves as the gateway. For business LANs, the gateway may be a PC running gateway software. In order for any device on your network to get connected to the Internet, it must know the LAN IP address of your gateway. If your camera is set up to use DHCP, then it will retrieve this information automatically from your router.

However, if you have configured your camera to use a static IP address, you must also be sure that you have set the correct gateway IP address in order to connect your camera to the Internet. You camera is now live on the Internet. Browsing your camera from the Internet is the same as browsing on your LAN except that you must enter your WAN IP address instead of the LAN IP address.

11. Network Utilities

Microsoft Windows includes various network information utilities to determine various network configurations. To determine your IP address and network settings, follow the steps below, depending on your operating system.

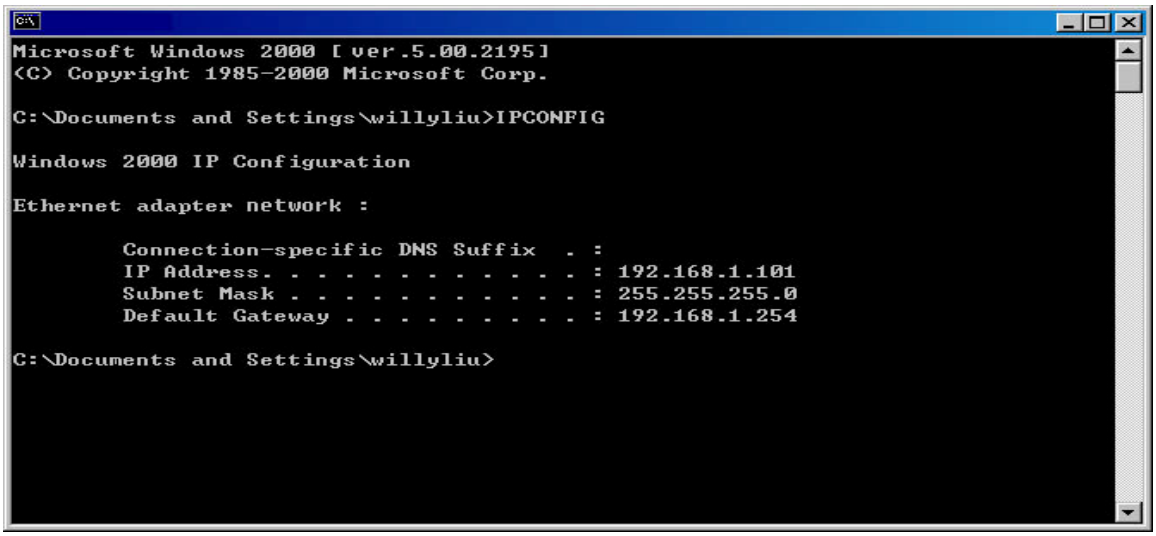
11-1. Determining your IP Address and Network Settings

Windows 98/Me:
1. Click on Start ➔ Run and type in: command and then press ENTER
2. In the MS- DOS window, type in: **winipcfg** and then press ENTER
3. 3. This will display your network card's Adapter Address, IP Address, Subnet Mask, and

Default Gateway.
More information regarding **WINIPCFG** can be obtained by typing in: winipcfg /? at the MS -DOS prompt.
WINIPCFG is located in the C: \Windows folder.

Windows 2000/XP:
1. Click on Start ➔ Run and type in: command and then press ENTER
2. In the MS- DOS window, type in: **ipconfig** and then press ENTER
3. This will display your network card's IP Address, Subnet Mask, and Default Gateway.

More information regarding **IPCONFIG** can be obtained by typing in: ipconfig /? at the MS -DOS prompt.
IPCONFIG is located in the C: \Windows \System32 folder.



11-2. Using PING

PING is a very useful utility for checking to see if a camera is responding or checking to see if an IP address is available. In Windows 98/Me, PING is located in C: \Windows. In Windows 2000/XP, PING is located in C: \Windows \System32.

Windows 98/Me/2000/XP:
1. Click on Start ->Run and type in: command and then press ENTER
2. In the MS- DOS window, type in: ping XXX.XXX.XXX.XXX and then press ENTER (where XXX.XXX.XXX.XXX is your IP address) For example, if your Camera uses the IP address of 123.123.123.1, you would type in: ping 123.123.123.1
3. If there is a camera, or a PC or other network device online and using this address you will see:

Pinging 123.123.123.1 with 32 bytes of data:
Reply from 123.123.123.1: bytes=32 time<1ms TTL=128
Reply from 123.123.123.1: bytes=32 time<1ms TTL=128

Reply from 123.123.123.1: bytes=32 time<1ms TTL=128
Reply from 123.123.123.1: bytes=32 time<1ms TTL=128

Ping statistics for 123.123.123.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms

If there is NO response on this address you'll see

Pinging 123.123.123.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 123.123.123.1:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

This indicates that the address is available for use. However, there could still be a device which is currently offline which is configured to use the add ress. To be certain, make sure all your network devices are on and connected to your network when checking for address availability.

11-3. IPEdit

IPEDIT.EXE is used to scan the Installed Observer IP NetCams and set the Camera Name and IP Address.