Video Server

User's Guide

Table of Contents

Chapter 1

Introduction

1

This Chapter provides details of the Video Server's features, components and capabilities.

Overview

The Video Server digitizes analog video signals and transmits digital images directly to your wired LAN or the Internet. The Video Server is a device that used to turn an analog video system into high performance IP-based solutions. The Video Server comes with the RS-485 interface, which can be used for external PTZ devices. It also supports Digital I/O (4-IN, 4-OUT) for external sensors and alarms. Up to 10 authorized viewers from different locations can view the H.264, MPEG-4 and M-JPEG streams simultaneously.

H.264 uses the new innovations in video compression technology to provide excellent video quality from the low video data. Bit rate can be saved up more with nearly lossless coding while using H.264. The intent of the H.264 project was to create a standard capable of providing good video quality at lower bit rates than previous standards, without increasing the complexity of design which would be impractical or expensive to implement.

A convenient and user-friendly Windows program is provided for both viewing and recording video. If necessary, you can even view video using your Web Browser, on a variety of software platforms.

Features

- *Triple Stream Live Video to Multiple Users.* The H.264, MPEG4 and JPEG encoders built into the video server generate a ready-to-view video stream. Just connect to the video server using your Web browser or the provided Windows utility to view live video.

- *Suitable for Home, Business or Public Facilities*. Whether for Home, Business or Public Facility surveillance, the Video Server has the features you need.

- *Multi-Protocol Support.* Supporting TCP/IP networking, SMTP (E-mail), HTTP and other Internet related protocols, the Video Server can be easily integrated into your existing network.

- *Easy Configuration.* A Windows-based Wizard is provided for initial setup. Subsequent administration and management can be performed using a standard web browser. The administrator can configure and manage the Video Server via the LAN or Internet.

- *SD Card Slot*. With the slot, you can insert the SD card to store recording files.

- *Viewing/Recording Utility.* A user-friendly Windows utility is provided for viewing live video. For periods when you are absent, or for scheduled recording, this application also allows you to record video on your PC. Use the Playback function of the supplied Windows utility to view the recorded files.

- *3D-Deinterlace Support.* It can provide clearer image when movement speed of the view is moderate. It provides high quality edge preserving deinterlacing with the 4th generation motion adaptive 3D-Deinterlacing algorithm and performs proper processing for fast motion and film video sources.

- *Motion Detection.* This feature can detect motion in the field of view. The Video Server will compare consecutive frames to detect changes caused by the movement of large objects. Motion detection alarm can be triggered via e-mail, FTP, instant messaging and/or an external alarm device.

- *Flexible Scheduling.* You can limit access to the video stream to specified times using a flexible scheduling system. The Motion Detection feature can also have its own schedule, so it is active only when required.

- *Syslog Support.* If you have a Syslog Server, the Video Server can send its log data to your Syslog Server.

- *Audio Support.* You can listen as well as look! Audio is encoded with the video if desired. You can connect an external microphone to the video server.

- *IP Filter.* Use the IP Filter to block/accept access to the IP addresses.

- *User-definable HTTP/ HTTPS port number*. This allows Internet Gateways to use "port mapping" so the Video Server and a Web Server can share the same Internet IP address.

- *DDNS Support.* In order to view video over the Internet, users must know the Internet IP address of the gateway used by the Video Server. But if the Gateway has a dynamic IP address, DDNS (Dynamic DNS) is required. Since many existing Gateways do not support DDNS, this function is incorporated into the Video Server.

- *NTP (Network-Time-Protocol) Support.* NTP allows the Video Server to calibrate its internal clock from an Internet Time-Server. This ensures that the time stamp on Video from the Video Server will be correct.

- *PoE Support. (Wired Model Only)* You can use IEEE 802.3af PoE (Power over Ethernet) to provide power to the Video Server, so only a single cable connection is required.

Security Features

- *User Authentication.* If desired, access to live video can be restricted to known users. Users will have to enter their username and password before being able to view the video stream. User authentication is not required if the Multicast feature is enabled.

- *Password-Protected Configuration*. Configuration data can be password protected, so that it only can be changed by the Video Server Administrator.

Wireless Features (Wireless Model Only)

- *Supports 802.11b, 802.11g and 802.11n Standards.* The 802.11n standard provides for backward compatibility with the 802.11b standard, so 802.11n, 802.11b and 802.11g Wireless stations can be used simultaneously.

- *Wired and Wireless Network Support.* The Video Server supports either wired or wireless transmission.

- *WEP Support*. Full WEP support (64/128 Bit) on the Wireless interface is provided.

- *WPA/WPA2 Support*. The WPA Personal/WPA2 Personal standard is also supported, allowing advanced encryption of wireless data.

- *WPS Support.* WPS (Wi-Fi Protected Setup) can simplify the process of connecting any device to the wireless network by using the push button configuration (PBC) on the Wireless Access Point, or entering a PIN code if there's no button.

Physical Details - Video Server
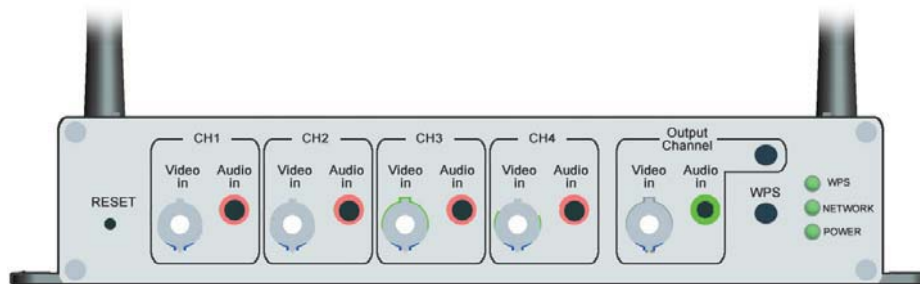
Front - Video Server

Figure 1: Front Panel

RESET button	This button is recessed; you need a pin or paper clip to press it. It can be activated at any time the video server is in the "ready" mode.
	• **Reset to manufacturer default value and reboot**. When pressed and held over 10 seconds, the settings of Video Server will be set to their default values.
	Note:
	After this procedure is completed, the *Power* LED will blink three times to confirm that the reset was completed successfully.
CH1~CH4	Each channel includes a video in port and an audio in port.
	• Video in: It supports a single composite video source by using a BNC connector.
	• Audio in: If required, an external microphone can be attached here. Microphones designed to be used with PCs are usually compatible with this microphone input.
Output Channel	This channel includes a video in port and an audio in port.
	• Video in: Loop-through connection to the video signal from the Video In connector. It allows direct connection to an external monitor.
	• Audio in: If required, an external microphone can be attached here.
	• Video Channel Switch: Push this button to switch the monitor between the 4 input channels (CH1, CH2, CH3, CH4, CH1~4).
WPS Button	Push the WPS button on the device and on your other wireless device to perform WPS function that easily creates an encryption-secured wireless connection automatically.
	• **WPS PBC Mode**. When pressed and released (less then 3 seconds), the Network Camera will be in the WPS PBC mode (Auto link mode).
	• **WPS Pin Code Mode**. When pressed and held for over 3 seconds, the Network Camera will be in the WPS Pin Code mode.

WPS LED (Green)	**On** - Wireless security is On.
	Off - Wireless security is Off.
	Flashing - WPS sync is in progress.
Network LED (Green)	**On** - LAN connection is detected.
	Off - LAN connection is not detected
	Blinking - Data is being transmitted or received via the LAN connection.
POWER LED (Green)	**On** - Power on.
	Off - No power.
	Blinking - The *POWER* LED will blink during start up. This will take 15 to 20 seconds.

Rear - Video Server
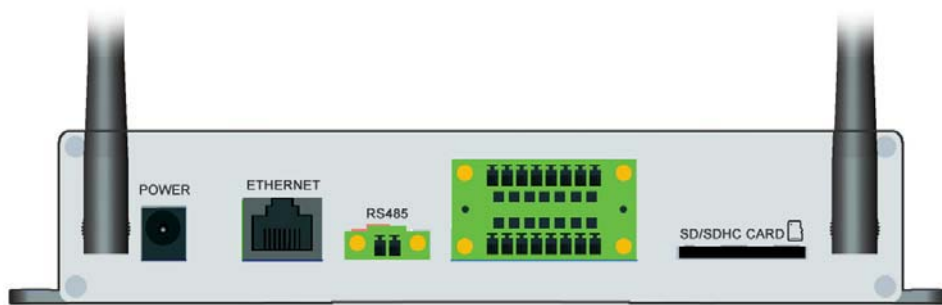
Figure 2: Rear Panel

POWER	Connect the supplied 12V power adapter here. Do not use other power adapters; doing so may damage the video server.
ETHERNET port	Use a standard LAN cable to connect your Video Server to a 10/100BaseT hub or switch.
RS485	The terminal block includes 1 RS-485 port (2 pins)
IO Ports	The terminal block includes 8 GND ports, 4 input ports and 4 output ports.
SD/SDHC Card slot	Insert the SD card into the slot, if required.

Package Contents

The following items should be included: If any of these items are damaged or missing, please contact your dealer immediately.

1. Video Server
2. Power adapter
3. Antennae (Wireless Model Only)
4. Installation CD-ROM

5. Quick Installation Guide
6. GPIO 8 pin x 2
7. RS-485 2 pin x 1

Chapter 2

Basic Setup

This Chapter provides details of installing and configuring the Video Server.

System Requirements

To use the wired LAN interface, a standard 10/100BaseT hub or switch and network cable is required.

Installation - Video Server

1. Assemble the Video Server

For Wireless model, screw the supplied antennae to the mounting points on the rear.

2. Connect the LAN Cable

Connect the Video Server to a 10/100BaseT hub or switch, using a standard LAN cable.

	For Wireless model, this will disable the Wireless Interface. The Wireless and LAN interfaces cannot be used simultaneously. Using the LAN interface is recommended for initial configuration. After the Wireless settings are correct, the Wireless interface can be used.
Note!	**The first time you connect to the camera, you should connect the LAN cable and configure the Network Camera with appropriate settings. Then you can unplug the LAN cable and power off the camera. The Network Camera will be in wireless interface when you power on the camera again.**

3. Connect the Camera

Connect the video output of the camera to the video in of the Video Server, using a standard video cable with BNC connectors.

4. Power Up

Connect the supplied 12Vpower adapter to the Video Server and power up. Use only the power adapter provided. Using a different one may cause hardware damage.

5. Check the LEDs

- The *Power* LED will turn on briefly, then start blinking. It will blink during startup, which takes 15 to 20 seconds. After startup is completed, the *Power* LED should remain ON.
- The *Network* LED should be ON.

For more information, refer to *Physical Details - Video Server* in Chapter 1.

Setup using the Windows Wizard

Initial setup should be performed using the supplied Windows-based setup Wizard. This program can locate the Video Server even if its IP address is invalid for your network. You can then configure the Video Server with appropriate TCP/IP settings for your LAN.

Subsequent administration can be performed with your Web browser, as explained in *Chapter 5 - Web-based Management*.

Setup Procedure

1. Insert the supplied CD-ROM into your drive. If the setup program does not start automatically, run **NetworkCamera.exe** in the root folder.
   - You will see the *Welcome* screen shown below.
   - Click the *Setup* button to start the setup Wizard.

Figure 3: Welcome Screen

2. The next screen, shown below, will list all the Video Servers on your LAN.
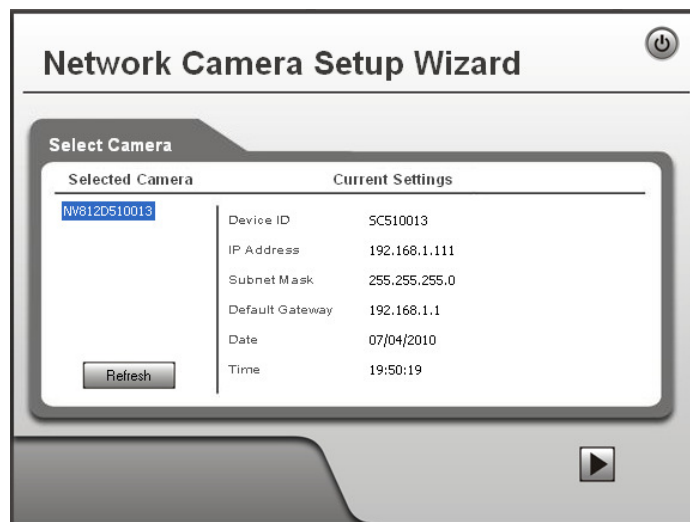

Figure 4: Camera List Screen

- Select the desired video server from the list on the left. The current settings for the selected video server will be displayed in the table on the right.
- Click *Next* to continue.

3. You will be prompted to enter the *Administrator Name* and *Administrator Password*, as shown below.
    - If using the default values, enter **administrator** for the name, and leave the password blank.
    - Otherwise, enter the *Administrator Name* and *Administrator Password* set on the *Maintenance* screen.

Figure 5: Password Dialog

4. This screen allows you to enter a suitable **Description**, and set the correct **Time Zone**, **Date**, and **Time**. Make any desired changes, then click *Next* to continue.

Figure 6: Camera Settings

5. On the following **IP Address Settings** screen, shown below, choose *Fixed IP Address*, *Dynamic IP Address* or *PPPoE*.
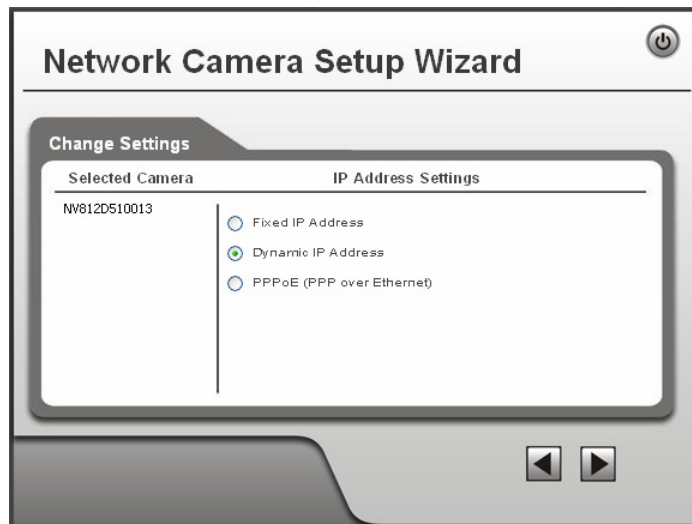
Figure 7: Fixed or Dynamic IP Selection

- *Fixed IP* is recommended, and can always be used.
- *Dynamic IP* can only be used if your LAN has a DCHP Server.
- *PPPoE (PPP over Ethernet)* is the most common login method, widely used with DSL modems.

    Click *Next* to continue.

6. If you chose *Fixed IP Address*, the following **TCP/IP Settings** screen will be displayed.
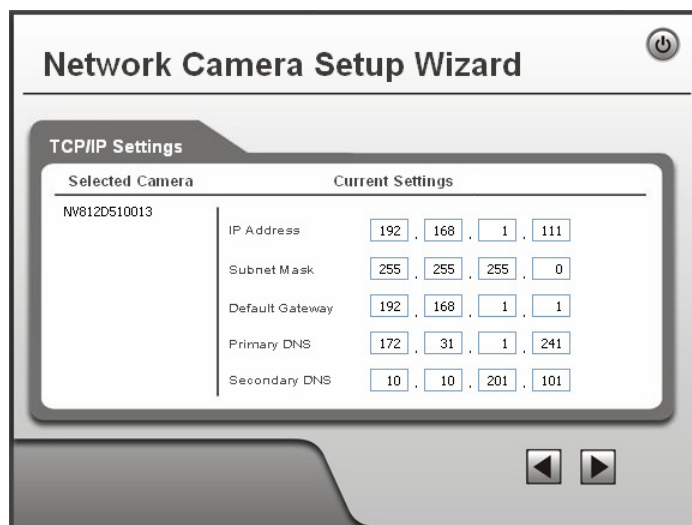
Figure 8: TCP/IP Settings

- Enter an unused **IP Address** from within the address range used on your LAN.
- The **Subnet Mask** and **Default Gateway** fields must match the values used by PCs on your LAN.
- The **Primary DNS** address is required in order to use the E-mail alert or Dynamic DNS features. Enter the DNS (Domain Name Server) address recommended by your ISP.
- The **Secondary DNS** is optional. If provided, it will be used if the Primary DNS is unavailable.

Click *Next* to continue.

7. If you chose *PPPoE*, the following **PPPoE Settings** screen will be displayed.

Figure 9: PPPoE Settings Screen

- Enter the **User Name** provided by your ISP.
- Enter the **Password** for the user name above.

Click *Next*.

8. The next screen, shown below, displays all details of the Video Server.
- Click *Next* if the settings are correct
- Click *Back* to modify any incorrect values.

Figure 10: Save Settings

9. Click *OK* to confirm that you want to save the new settings. If you want to cancel your changes, click *Cancel*.
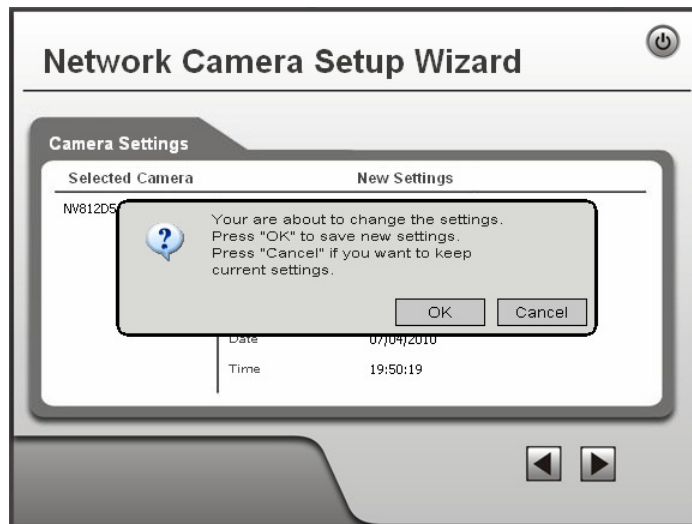
Figure 11: Confirm Screen

10. After clicking *OK*, you will see the screen below.

Figure 12: Final Screen

Clicking the *Install Utility* button will install the Viewing/Recording utility described in *Chapter 6 - Windows Viewing/Recording Utility*.

11. Click *Exit* to end the Wizard.
    Setup is now complete.

Chapter 3

Viewing Live Video

3

This Chapter provides basic information about viewing live video.

Overview

After finishing setup via the Windows-based Wizard, all LAN users can view live video using Internet Explorer on Windows.

This Chapter has details of viewing live video using Internet Explorer.

But many other powerful features and options are available:

• To view multiple video servers simultaneously, or record video (either interactively or by schedule), you should install the Windows Viewing/Recording utility. Refer to *Chapter 6 - Windows Viewing/Recording Utility* for details on installing and using this program.

• The video server administrator can also adjust the Video Stream, and restrict access to the video stream to known users by requiring viewers to supply a username and password. See *Chapter 4 - Advanced Viewing Setup* for details.

• To make Live Video from the video server available via the Internet, your Internet Gateway or Router must be configured correctly. See *Making Video available from the Internet* in *Chapter 4 - Advanced Viewing Setup* for details.

Requirements

To view the live video stream generated by the Video Server, you need to meet the following requirements:

• Windows XP, 32-bit Windows Vista/Windows 7.

• Internet Explorer 6 or later, Firefox 3.0 or later.

Connecting to a Video Server on your LAN

To establish a connection from your PC to the Video Server:

1. Use the Windows utility to get the IP address of the Video Server.
2. Start Internet Explorer.
3. In the Address box, enter "HTTP://" and the IP Address of the Video Server.
4. When you connect, the following screen will be displayed.

12

Figure 13: Home Screen

5. Click *View Video*.

6. If the Administrator has restricted access to known users, you will then be prompted for a username and password.
   Enter the name and password assigned to you by the Video Server administrator.

7. The first time you connect to the Video Server, you will be prompted to install an ActiveX component (OCX or CAB file), as in the example below.
   You must install this ActiveX component (OCX or CAB file) in order to view the Video stream in Internet Explorer.
   Click the "Yes" button to install the ActiveX component.

Figure 14: ActiveX OCX Prompt

8. Video will start playing automatically. There may be a delay of a few seconds while the video stream is buffered.

13

Connecting to a Video Server via the Internet

You can NOT connect to a Video Server via the Internet unless the Video Server Administrator has configured both the Video Server and the Internet Gateway/Router used by the Video Server.

See *Making Video available from the Internet* in ***Chapter 4 - Advanced Viewing Setup*** for details of the required configuration.

Also, you need a broadband Internet connection to view video effectively. Dial-up connections are NOT supported.

To establish a connection from your PC to the Video Server via the Internet:

1. Obtain the following information from the Administrator of the video server you wish to connect to:
   - Internet IP Address or Domain Name of the video server.
   - Port number for HTTP connections.
   - Login (username, password) if required.
2. Start Internet Explorer.
3. In the Address box, enter the following:

   `HTTP://Internet_Address:port_number`

   Where `Internet_Address` is the Internet IP address or Domain Name of the video server, and `port_number` is the port number used for HTTP (Web) connections to the video server.

   Examples using an IP address:

   `HTTP://203.70.212.52:1024`

   Where the Internet IP address is `203.70.212.52` and the HTTP port number is `1024`.

   Example using a Domain Name:

   `HTTP://mycamera.dyndns.tv:1024`

   Where the Domain name (using DDNS in this example) is `mycamera.dyndns.tv` and the HTTP port number is `1024`.

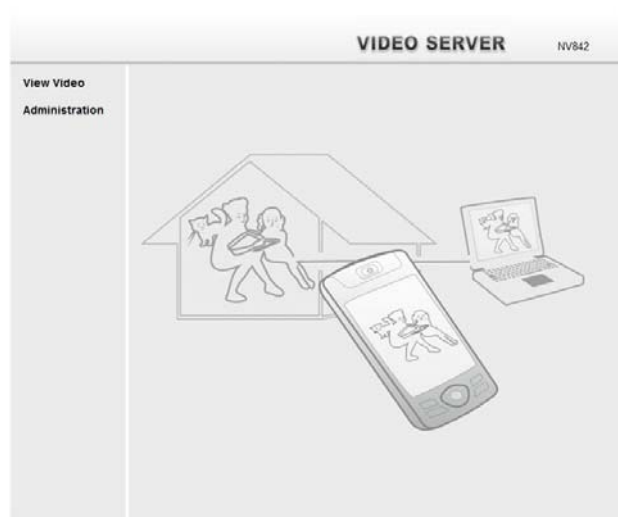4. When you connect, the following screen will be displayed.

Figure 15: Home Screen

5. Click *View Video*.

6. If the Administrator has restricted access to known users, you will then be prompted for a username and password.
Enter the name and password assigned to you by the Video Server administrator.

7. The first time you connect to the video server, you will be prompted to install an ActiveX component (OCX or CAB file), as in the example below.
You must install this ActiveX component (OCX or CAB file) in order to view the Video stream in Internet Explorer.
Click the "Yes" button to install the ActiveX component.

Figure 16: ActiveX OCX Prompt

8. Video will start playing automatically. There may be a delay of a few seconds while the video stream is buffered.

Viewing Live Video

After installing the ActiveX component, you be able to view the live video stream in its own window, as shown below.

Adjust focus manually by turning the front lens until the video becomes clear.
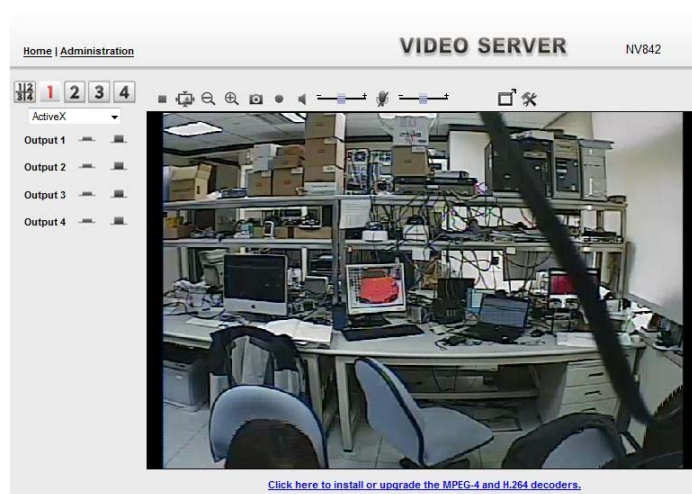
Figure 17: View Video Screen

There are a number of options available on this screen, accessed by select list, button or icon. See the table below for details.

Note: The options can only be configured while using IE browser. Other browsers can just view the video rather than configuration.
If after installing the OCX, the video still cannot be viewed, please install the decoders to solve this problem. You can install it from the following screens:

- Supplied Windows-based setup Wizard
- View Video Screen (preferred)

Figure 18: Install Decorders

- Motion Detection Screen

General Options

These options are always available, regardless of the type of video server you are connected to.

Screen. Select the desired channel to view on the screen.

Select the desired option from the drop-down list.
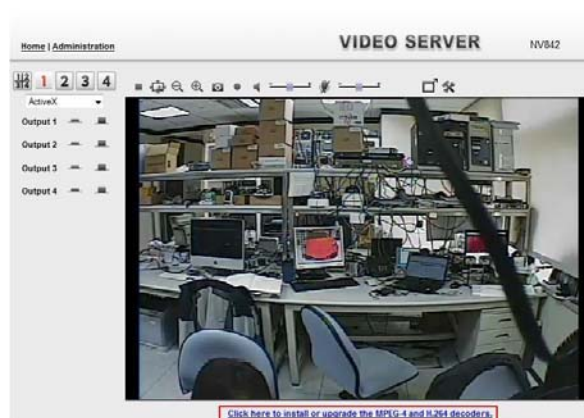
ON. Click this to set the output I/O port to ON mode.

OFF. Click this to set the output I/O port to OFF mode.

Play/Stop. Use this icon to start/stop viewing.

Back to Original. Use this icon to make the image back to original size.

Zoom Out. A digital zoom out feature is available. To zoom out the window, click this icon.

Zoom In. A digital zoom in feature is available. To zoom in the window, click this icon.

Snapshot. Click this to take a single JPEG "snapshot" image of the current video.

Speaker On/Off. Use this button to turn the PC's speaker on or off.

Audio Upload On/Off. This icon is displayed when the Speaker (Audio & Video screen) is enabled. Use this slider to adjust the volume.

Volume. Use this slider to adjust the volume.

Full Screen Display. Click this button to see the full screen of the image.

Setup. Select the desired folder to save the file.

Chapter 4

Advanced Viewing Setup

4

This Chapter provides information about the optional settings and features for viewing video via the Video Server. This Chapter is for the video server Administrator only.

Introduction

This chapter describes some additional settings and options for viewing live Video:

- Adjusting the video image
- Controlling user access to the live video stream
- Making video available from the Internet
- Using the *Motion Detection* feature

To Adjust the Video Image:

1. Connect to the Web-based interface of the Video Server. (See *Chapter 5 - Web-based Management* for details.)
2. Select *Administration*, then *Streamings*. You will see a screen like the example below.
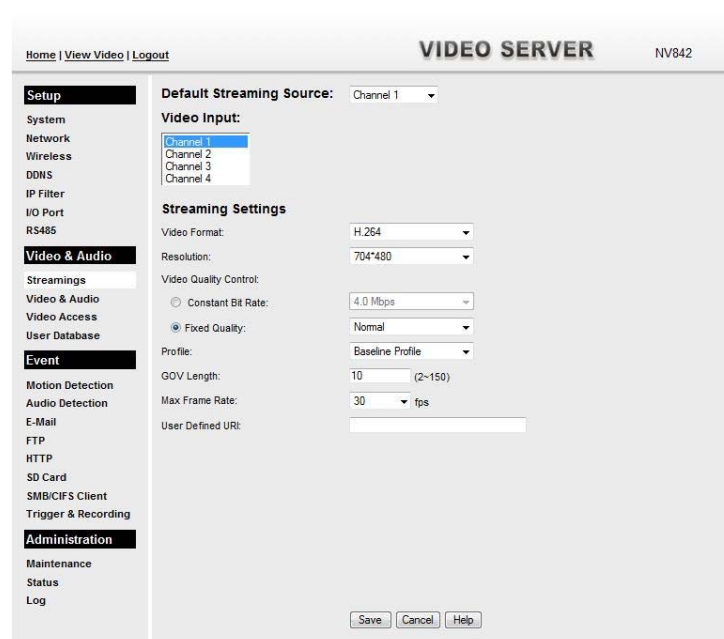

Figure 19: Streamings Screen

3. Make the required adjustments, as explained below, and save your changes.

Data - Streamings Screen

Default Streaming Channel	Select the default channel for streaming from the drop-down list.

Streaming 1 Settings (MJPEG)

Video Format	This displays the default format.
Resolution	Select the desired video resolution format. The default resolution is set to 704*576.
Fixed Video Quality	Select the desired option. The default fix quality is set to Normal.
Max. Frame Rate	Select the desired Maximum frame rate for the video stream. The default value is **25**.

Streaming 2/3 Settings

Video Format	Select the desired format from the list.
Resolution	Select the desired video resolution format.
Video Quality Control	• Constant Bit Rate: Select the desired bit rate. • Fixed Quality: Select the desired option.
GOV Length	Enter the desired value between 1 and 150.
Max. Frame Rate	Select the desired Maximum frame rate for the video stream. The default value is **15**.
User Defined URI	You may enter the URI up to 32 characters long for accessing the live video from camera through cell phone connection.

Controlling User Access to the Video Stream

By default, anyone can connect to the Video Server and view live Video at any time.

If desired, you can limit access to scheduled times, and also restrict access to known users.

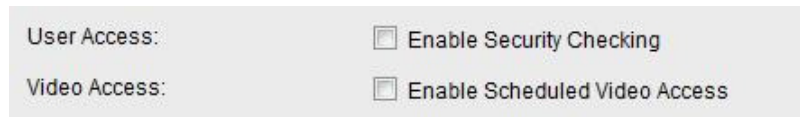## To Control User Access to Live Video:

1. Connect to the Web-based interface of the Video Server. (See *Chapter 5 - Web-based Management* for details.)
2. Select *Video Access.*
3. Set the desired options for **Access**.

Access

Select the desired option as required:

- If the **User Access** is enabled, users will be prompted for a username and password when they connect to the camera for viewing video.

- When Video Access is enabled, viewing video is only available during the scheduled periods, and unavailable at other times. If this option is selected, you need to define a schedule; otherwise it is always disabled.

However, viewing video is still possible by logging in as the Administrator.

| User Access: | ☐ Enable Security Checking |
| Video Access: | ☐ Enable Scheduled Video Access |

Figure 20: Controlling User Access

See *Chapter 5 - Web-based Management* for further details about using the *Video Access* and *User Database* screens.

Making Video available from the Internet

If your LAN is connected to the Internet, typically by a Broadband Gateway/Router and Broadband modem, you can make the Video Server available via the Internet. You will need to configure your Router or Gateway to allow connections from the Internet to the video server.

Router/Gateway Setup

Your Router or Gateway must be configured to pass incoming TCP (HTTP) connections (from Internet Viewers) to the Video Server. The Router/Gateway uses the *Port Number* to determine which incoming connections are intended for the Video Server.

This feature is normally called *Port Forwarding* or *Virtual Servers*. The Port Forwarding/Virtual Server entry tells the Router/Gateway that incoming TCP connections on port 1024 should be passed to the Video Server. If necessary, check the user manual for your Router/Gateway for further details.

The "Port" for the *Port Forwarding / Virtual Server* entry above is the " Secondary Port" number specified on the *Network* screen of the Video Server.

This equipment has been tested and found to comply with the limits for a Class B 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.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

FCC RF Radiation Exposure Statement:
1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. 2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 entimeters between the radiator and your body.
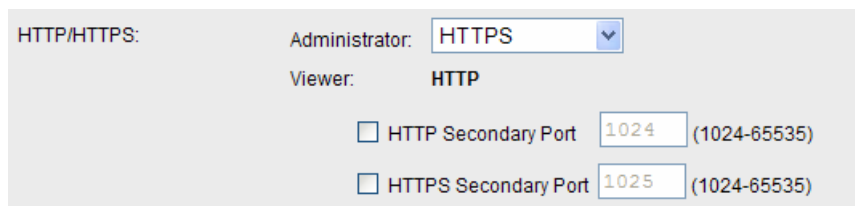
Video Server Setup

The Video Server configuration does NOT have be changed, unless:

- You wish to change the port number from the default value.
- You wish to use the DDNS (Dynamic DNS) feature of the Video Server.

HTTPS Port Configuration

Normally, HTTP (Web) connections use port 80. Since the Video Server uses HTTP, but port 80 is likely to be used by a Web Server, you can use a different port for the Video Server. This port is called the *Secondary Port*.

The default *HTTP/HTTPS Secondary Port* is 1024/1025. If you prefer to use a different port number, you can specify the port number on the Video Server's *Network* screen, as shown below.

Figure 21: Network Screen

See *Chapter 5 - Web-based Management* for further details on using the *Network* screen.

> **Viewers need to know this port number in order to connect and view live Video, so you must inform viewers of the correct port number.**

DDNS (Dynamic DNS)

Many internet connections use a "Dynamic IP address", where the Internet IP address is allocated whenever the Internet connection is established.

This means that other Internet users don't know the IP address, so can't establish a connection.

DDNS is designed to solve this problem, by allowing users to connect to your LAN using a domain name, rather than an IP address.

To use DDNS:

1. Register for the DDNS service with a supported DDNS service provider. You can then apply for, and be allocated, a Domain Name.
2. Enter and save the correct DDNS settings on the *DDNS* screen of the Video Server.
3. Both Router and Video Server should use the same port number for DDNS service.
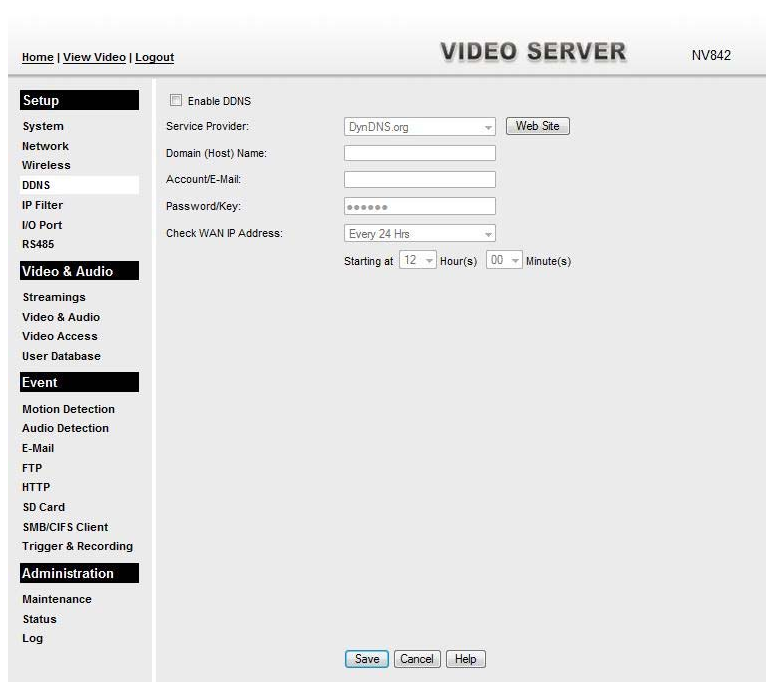
Figure 22: DDNS Screen

4. Operation is then automatic:

- The Video Server will automatically contact the DDNS server whenever it detects that the Internet IP address has changed, and inform the DDNS server of the new IP address.

- Internet users can then connect to the Video Server using the Domain Name allocated by the DDNS service provider.
  Example: `HTTP://mycamera.dyndns.tv:1024`
   mycamera.dyndns.tv is domain host name. 1024 is the port number.

Viewing Live Video via the Internet

Clients (viewers) will also need a broadband connection; dial-up connections are NOT recommended.

Viewing Live Video Using your Web Browser

If using your Web browser, you need to know the Internet IP address (or the Domain name) of the video server's Router/Gateway, and the correct port number.

Enter the Internet address of the Router/Gateway, and its port number, in the *Address* (or *Location*) field of your Browser.

Example - IP address:

```
HTTP://203.70.212.52:1024
```

Where the Router/Gateway's Internet IP address is 203.70.212.52 and the "Secondary Port" number on the Video Server is 1024.

Example - Domain Name:

```
HTTP://mycamera.dyndns.tv:1024
```

Where the Router/Gateway's Domain name is mycamera.dyndns.tv and the "Secondary Port" number on the Video Server is 1024.

Viewing Live Video with the Viewing/Recording Utility

If using the Windows Viewing/Recording Utility, the details of the Video Server must be entered on the *Cameras* screen.
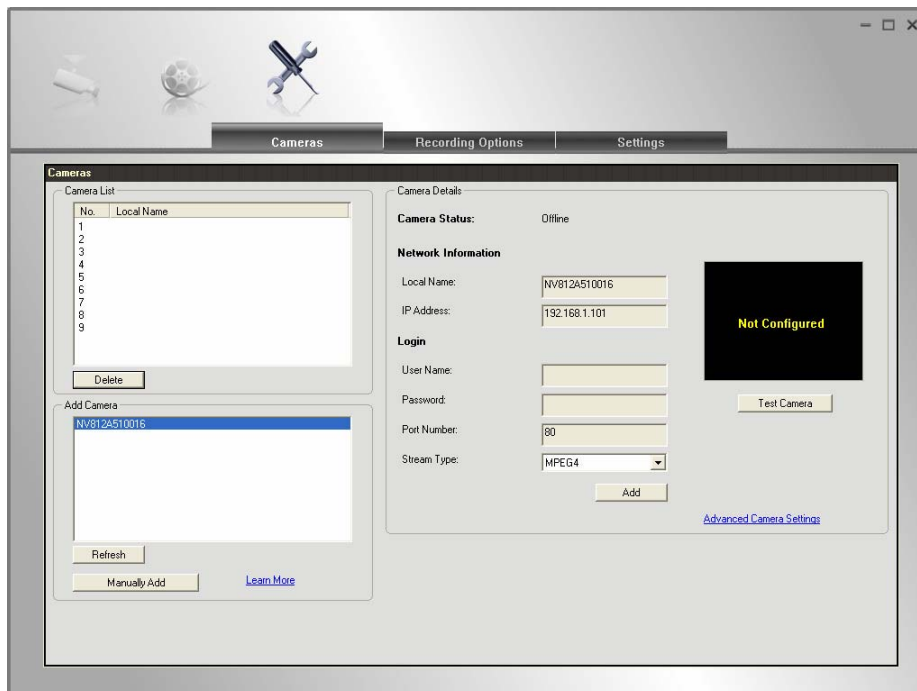

Figure 23: Add video server from LAN

See *Chapter 6 - Window Viewing/Recording Utility* for full details on using the Windows Viewing/Recording utility.

Motion Detection Alerts

The *Motion Detection* feature can generate an Alert when motion is detected.

The Video Server will compare consecutive frames to detect changes caused by the movement of large objects.

But the motion detector can also be triggered by:

- Sudden changes in the level of available light
- Movement of the camera itself.

Try to avoid these situations. The motion detection feature works best in locations where there is good steady illumination, and the camera is mounted securely.

Note: The Motion Detection settings can only be configured while using IE browser.

To Use Motion Detection Alerts

Using the Web-based interface on the Video Server, select the *Motion Detection* screen, then configure this screen as described below.
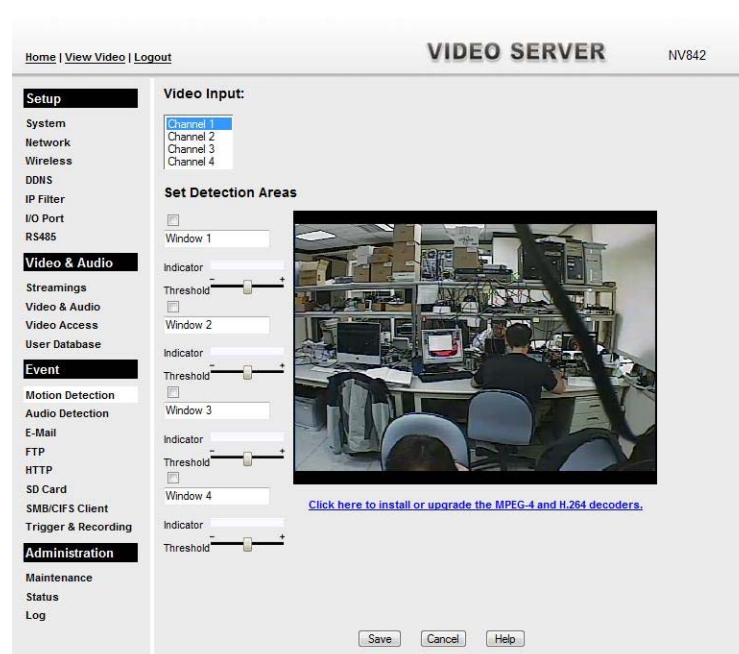
Figure 24: Motion Detection

1. Enable the *Motion Detection* feature.
2. Set the areas of the video image to be examined for movement. You can define up to 4 areas, and set the motion threshold individually for each area.
3. If using a schedule, define the desired schedule in *Event Trigger* screen.
4. Save your changes.

Note!	**If the Motion Detection feature is enabled, but the related options in the *Event Trigger* screen are not enabled, then the only action when motion is detected is to log this event in the system log.**

Chapter 5

Web-based Management

5

This Chapter provides Setup details of the Video Server's Web-based Interface. This Chapter is for the video server Administrator only.

Introduction

The Video Server can be configured using your Web Browser. The Video Server must have an IP address which is compatible with your PC.

The recommended method to ensure this is to use the supplied Windows-based Wizard, as described in *Chapter 2 - Basic Setup*.

Connecting to Video Server

- If using only your Web Browser, use the following procedure to establish a connection from your PC to the Video Server:
- Once connected, you can add the Video Server to your Browser's *Favorites* or *Bookmarks*.

Connecting using your Web Browser

1. Use the Windows utility to get the IP address of the Video Server.
2. Start your WEB browser.
3. In the *Address* box, enter "HTTP://" and the IP Address of the Video Server.
4. You will then be prompted for a username and password.
   - If using the default values, enter **administrator** for the name, and leave the password blank.
   - Otherwise, enter the *Administrator ID* and *Administrator Password* set on the **Maintenance** screen.

Welcome Screen

When you connect, the following screen will be displayed.

Figure 25: Welcome Screen

The menu options available from this screen are:

- **View Video** - View live Video using your Web Browser. See *Chapter 3 - Viewing Live Video* for details.
- **Administration** - Access the Administration menu.

Administration Menu

Clicking on *Administration* on the menu provides access to all the settings for the Video Server.

The *Administration* menu contains the following options:

Setup
- **System**
- **Network**
- **Wireless (Wireless Model Only)**
- **DDNS**
- **IP Filter**
- **I/O Port**
- **RS485**

Video & Audio
- **Streamings**
- **Video & Audio**
- **Video Access**
- **User Database**

Event
- **Motion Detection**
- **Audio Detection**
- **E-Mail**
- **FTP**
- **HTTP**
- **SD Card**
- **SMB/CIFS Client**
- **Trigger & Recording**

Administration
- **Maintenance**
- **Status**
- **Log**

System Screen

After clicking *Administration* on the main menu, or selecting *System* on the *Setup* menu, you will see a screen like the example below.

Figure 26: System Screen

Data - System Screen

System Settings	
Device ID	This displays the ID for the Video Server.
Camera Name	Enter the desired name of the Video Server.
Description	This field is used for entering a description, such as the location of the Video Server.

Date & Time	
Date Format	Choose the desired format from the drop-down list.
Current Date & Time	This displays the current date and time on the video server. If it's not correct, click the **Change** button to modify the date/time settings. This button will open a sub-screen where you have 2 options: • Set the video server's date and time to match your PC. • Select the correct date and time.
Time Zone	Choose the Time Zone for your location from the drop-down list. If your location is currently using Daylight Saving, enable the **Adjust for daylight saving** checkbox.

Network Time Protocol	Enable or disable the Time Server feature as required.
	If Enabled, the Video Server will contact a Network Time Server at regular intervals and update its internal timer.
NTP Server Address	Enter the address for the desired NTP server.
Update	The Schedule determines how often the Video Server contacts the NTP Server. Select the desired options.
LED Operation	If Disabled, the LED of the Video Server will be in off state.

Network Screen

This screen is displayed when the *Network* option is clicked.

Figure 27: Network Screen

Data - Network Screen

Network	

Internet Connection Type	There are 3 connection types:
	
	• **Obtain Address Automatically (DHCP)**: If selected, the Video Server will obtain its IP address and related information from a DHCP Server. Only select this option if your LAN has a DHCP Server.
	
	• **Static IP Address:** If selected, you must assign the following data to the Video Server.
	
	    • **IP Address** - Enter an unused IP address from the address range used on your LAN.
	
	    • **Subnet Mask** - Use the same value as PCs on your LAN.
	
	    • **Default Gateway** - Use the same value as PCs on your LAN.
	
	• **PPPoE (PPP over Ethernet)**: This is the most common login method, widely used with DSL modems. Normally, your ISP will have provided some software to connect and login. This software is no longer required, and should not be used.
	
	    • **Username** - The user name (or account name) provided by your ISP.
	
	    • **Password** - Enter the password for the login name above.

Obtain DNS server address automatically	If selected, the Video Server will use the DNS address or addresses provided by the DHPC server. This option is only available if the IP address setting is *Obtain an IP address automatically*.
Use the following DNS server address	**Primary DNS server** - Use the same value as PCs on your LAN. Normally, your ISP will provide this address. **Secondary DNS server** - This is optional. If entered, this DNS will be used if the Primary DNS does not respond.
WINS Address	There are 2 options: • **Obtain WINS address automatically** - If selected, the Video Server will obtain its IP address from DHCP server. • **Use the following WINS address** - Enter the IP address of your WINS server.

HTTP/HTTPS	This sets the port number for HTTP/HTTPS connections to the Video Server, whether for administration or viewing video.
	The HTTP (HyperText Transfer Protocol) is used for the standard of transferring files (text, graphic images and other multimedia files) on the World Wide Web. The default HTTP port is 1024.
	HTTPS (Hypertext Transfer Protocol Secure) can provide more secure communication with the SSL/TLS protocol, which support data encryption to HTTP clients and servers. The default HTTPS port is 1025.
	The Secondary port can be used for DDNS, other service and when more than 2 Video Servers are in use.
	If enabled, you can connect using either port 80 or the Secondary port. You must enter the Secondary port number (between 1024 to 65535) in the field provided.
	Note that when using a port number which is not 80, you must specify the port number in the URL. For example, if the Video Server's IP address was 192.168.1.100 and the Secondary port was 1024, you would specify the URL for the Video Server as follows: http://192.168.1.100:1024
RTP/RTSP	The RTSP (Real Time Streaming Protocol), a standard for connected client(s) to control streaming data (MPEG-4) over the World Wide Web. Enter the RTSP Port number (between 1024 and 65535) in the field provided. The default RTSP Port is 554.
	The RTP (Real Time Transport Protocol), an Internet protocol for transmitting real-time data such as audio and video.
	Max RTP Data Packet field will let users limit the size of the file. Enter the desired value between 400 and 1400.
	Note: RTSP and RTP settings are for cell phone only.
Multicast RTP/RTSP	
Enable Multicast	Enable the feature as required.
Input Source	Select the desired channel as the input source.
Video Address	Enter the address of video.
Video Port	Enter the desired value (between 1024 to 65534) in the field provided. The number you entered must be even values.
Audio Address	Enter the address of the audio.
Audio Port	Enter the desired value (between 1024 to 65534) in the field provided. The number you entered must be even values.
Time to Live	Enter the desired length of time, if the packets fail to be delivered to their destination within. The Time to Live you entered must be in-between 1 to 255.
UPnP	
Enable Discovery	If enabled, the Video Server will broadcast its availability through UPnP. UPnP compatible systems such as Windows XP will then be able to detect the presence of the Video Server.

Enable Traversal	If enabled, HTTP connections (from your Web Browser or the Viewer and Recorder utility) can use secondary port instead of port 80 (the standard HTTP port) to access the video server.
Bonjour	
Enable Bonjour Service	If enabled, the Video Server can be accessed through a "Bonjour" enabled browser, such as Microsoft Internet Explorer (with a Bonjour plug-in) or Safari browser. You can also find other Bonjour-enabled devices on your network.
QoS	
Enable QoS Mode	If enabled, the throughput level (for Video and Audio) is guaranteed through QoS (Quality of Service).
DSCP	Enter the desired value of Differentiated Services Code Point (DSCP). The value must be between 0 and 63.

Wireless Screen (Wireless Model Only)

This screen is displayed when the *Wireless* menu option is clicked.

Figure 28: Wireless Screen

Data - Wireless Screen

Wireless Network	
Site Survey	Click the "Site Survey" button and select from a list of available APs.
WSC PIN Code	It displays the WSC PIN code number for the Video Server.
Network Type	This determines the type of wireless communication used by the Video Server. • If you have an Access Point, select *Infrastructure*. • Otherwise, select *Ad-hoc*.
SSID	This must match the value used by other devices on your wireless LAN. The Default is **ANY**. **Note! The SSID is case sensitive.**
Domain	Select your region from the drop-down list.

Channel No.	• In *Infrastructure* mode, this setting is ignored. The Video Server will use the Channel set on the Access Point.
	• For *Ad-hoc* mode, select the Channel you wish to use on your Video Server. Other Wireless stations should use the same setting.
	• If you experience interference (shown by lost connections and/or slow data transfers) you may need to experiment with different channels to see which one is the best.
Security	
Security System	Select the desired option, and then enter the settings for the selected method:
	• **Disabled** - No security is used. Anyone using the correct SSID can connect to your network. This is default.
	• **WEP** - The 802.11b standard. Data is encrypted before transmission, but the encryption system is not very strong.
	• **WPA/WPA2 Personal** - Like WEP, data is encrypted before transmission. WPA is more secure than WEP, and should be used if possible. WPA Personal is the version of WPA which does NOT require a Radius Server on your LAN.
WEP	
Authentication Type	Normally this can be left at the default value of "Automatic." If that fails, select the appropriate value - "Open System" or "Shared Key." Check your wireless card's documentation to see what method to use. **Note:** In *Infrastructure* mode, either setting will normally work, since most Access Points can use both methods.
WEP Encryption	Select the WEP Encryption level:
	• 64 Bit Keys (10 Hex chars)
	• 128 Bit Keys (26 Hex chars)
	• 64 Bit Keys (5 ASCII chars)
	• 128 Bit Keys (13 ASCII chars)
Passphrase	Enter a word or group of printable characters in the Passphrase box and click the "Generate Keys" button to automatically configure the WEP Key(s). If encryption strength is set to 64-bit, then each of the four key fields will be populated with key values. If encryption strength is set to 128-bit, then only the selected WEP key field will be given a key value.
WEP Keys	• Use the radio buttons to select the default key.
	• Enter the key value you wish to use. Other stations must have the same key values.
	• Keys must be entered in Hex. Hex characters are the digits (0 ~ 9) and the letters A ~ F.
	• Click *Clear Keys* to set the Keys to be blank.

WPA/WPA2 Personal

Shared Key	Enter the key value. Data is encrypted using a key derived from the network key. Other Wireless Stations must use the same network key. The PSK must be from 8 to 63 characters or 64 hex characters in length.

DDNS Screen

Many Internet connections use a "Dynamic IP address", where the Internet IP address is allocated whenever the Internet connection is established.

This means that other Internet users don't know the IP address, so can't establish a connection.

DDNS is designed to solve this problem, as follows:

- You must register for the DDNS service with a DDNS service provider. The DDNS Service provider will allocate a Domain Name to you upon request.

- The DDNS settings on the *DDNS* screen above must be correct.

- The Video Server will then contact the DDNS server whenever it detects that the Internet IP address has changed, and inform the DDNS server of the new IP address. (The *Check WAN IP Address* determines how often the Video Server checks if the Internet IP address has changed.)

This system allows other Internet users to connect to you using the Domain Name allocated by the DDNS service provider.

This screen is displayed when the *DDNS* menu option is clicked.

Figure 29: DDNS Screen

Data - DDNS Screen

DDNS	
DDNS Enable/Disable	Enable or disable the DDNS function, as required. Only enable this feature if you have registered for the DDNS Service with a DDNS Server provider.
Service Provider	Choose a service provider from the list.

Web Site Button	Click this button to open a new window and connect to the Web site for the selected DDNS service provider.
Domain (Host) Name	Enter the Domain Name (Host Name) allocated to you by the DDNS Server provider.
Account/E-Mail	Enter the login name or the E-mail address for the DDNS account.
Password/Key	Enter the password/key for the DDNS account.
Check WAN IP Address	Set the schedule for checking if the Internet IP address has changed. If the IP address has changed, the DDNS Server will be notified. NOTE: If the DDNS Service provided some software to perform this IP address update or notification, you should NOT use this software. The update is performed by the video server.

IP Filter Screen

This screen is displayed when the *IP Filter* option is clicked.
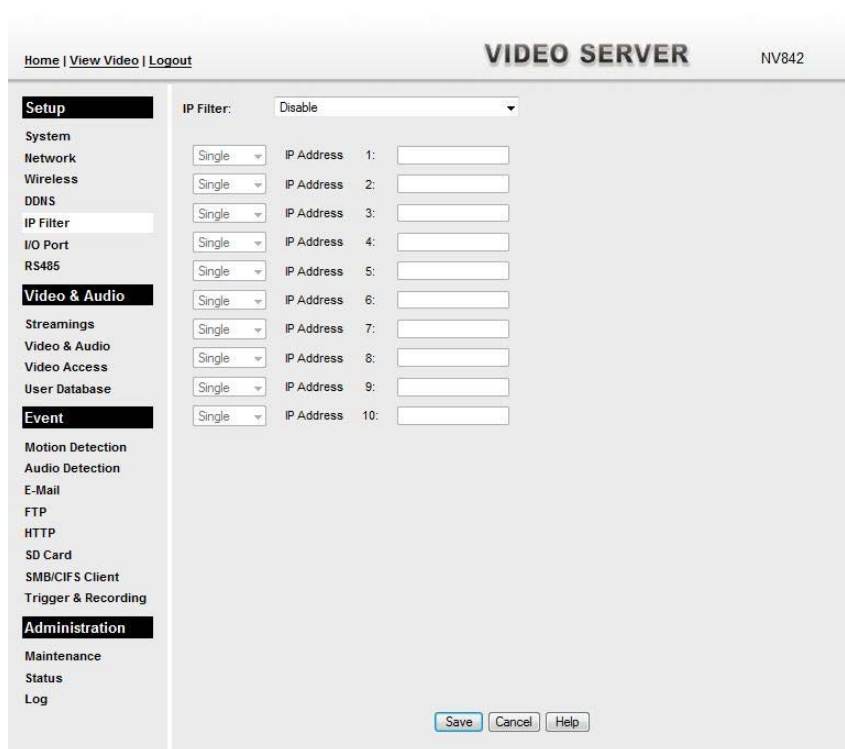
Figure 30: IP Filter Screen

Data - IP Filter Screen

IP Filter	
IP Filter	The IP Filter feature allows administrators to control Video Server access by filtering IP address. Select the desired option from the drop-down list.
Single/Range	Select to perform either single IP address or a range of IP addresses that you desired.
IP Address	Enter an IP address or a range of IP addresses you would like to allow or deny.

I/O Port Screen

The Video Server supports 1 input port and 1 output port. This screen is displayed when the *I/O Port* menu option is clicked.

Figure 31: I/O Port Screen

Data - I/O Port Screen

Input Ports	
Current State	It indicates the current state of the input port. Once the configured state is happened, it will trigger the event actions.
Low	Select the desired State: • High • Low • Rising • Falling

Output Ports	
Current State	It indicates the current state of the output port.
Default State	Select the desired option from the drop-down list.
Manual Trigger	Select the option to control the output state.
Action When Triggered	If an event is happened, it will trigger the event alerting.

RS485 Screen

This screen is displayed when the *RS485* menu option is clicked.

Figure 32: RS485 Screen

Data - RS485 Screen

RS485	
Enable RS-485	Enable the RS-485 feature to enable pan and tilt functions for the device.
Ports Settings	
Baud Rate	Select the desired baud rate from the drop-down list. The default is 2400 bps.
Data Bits	Select the desired data bits from the drop-down list. The default is 8.
Parity	Select the desired parity from the drop-down list. The default is None.
Stop Bits	Select the desired value from the drop-down list. The default is 1.
Address	Enter the desired address in the provided field.
Set Preset Position	Click this button to define the preset point position. Please see the following section for more details.

Patrol Sequence	This feature determines how the Video Server will move when it is set to "Rotate". You can set a number of Preset Positions; the Video Server will go to the first position, then move through the list of preset positions until it is finished. The Video Server will stop at the last position in the list.
	To create the Preset Sequence, select the desired Preset Position in the left column, and click the "Add >>" button. Repeat until the desired sequence is complete. Note that you can add the same Preset Position more than once; this can be used to make the camera stay longer at one position.
	To delete a position from the Sequence, select the desired position and click the "Remove" button.

Set Preset Position Screen

This screen is displayed when the *Set Preset Positions* button on the *Pan/Tilt* screen is clicked.
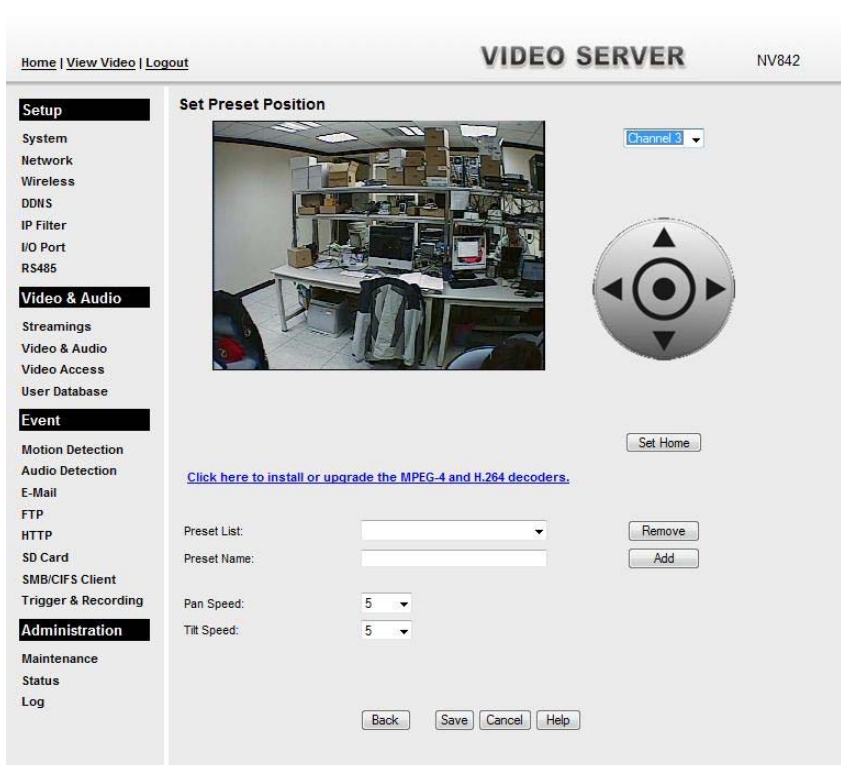

Figure 33: Preset Point Position Screen

Data - Preset Point Positions

Set Position	Set the desired position through adjusting the control panel.
Set Home	Click this button to set the home position of Pan/Tilt.
Preset List	Select the desired Preset. The screen will update with the current data for the selected Preset Position.

Preset Name	Enter a suitable name for the Preset Position. If no name is entered, the preset will have a number only.
Pan Speed	Select the desired speed for the Pan function.
Tilt Speed	Select the desired speed for the Tilt function.

Streamings

This screen is displayed when the *Streamings* menu option is clicked.

If you want to view streaming via the cell phone:
1. Cell phone should be supported by 3GPP protocol.
2. Enter 554 for RTSP port number in the *Network* screen.
3. Both MPEG-4 and H.264 format support cell phone option.
4. Enter the following address in the URI:
   RTSP:// Router IP address / User Defined URI
5. Select 15 fps for Max Frame Rate.

Note! Due to the bandwidth limitation for the cell phone usage, please set the resolution, quality and frame rate to lower values.

Figure 34: Streamings Screen

Data - Streamings Screen

Default Streaming Source	Select the default channel for streaming from the drop-down list.
Video Input	You can check or modify the related stream settings by selecting the desired channel from the list.
Streaming Settings	
Video Format	Select the desired format from the list.
Resolution	Select the desired video resolution format.
Fixed Video Quality	Select the desired option. The default fix quality is set to Normal.
Video Quality Control	• Constant Bit Rate: Select the desired bit rate. The default is set to 1.0 Mbps. • Fixed Quality: Select the desired option. The default fix quality is set to Normal.
Profile	This is only for H.264 format only. There are 3 options: • Baseline Profile • Main Profile • High Profile
GOV Length	Adjust the GOV interval in frame base. "2" means 1 I frame and 1 P Frame. "3" means 1 I frame and 2 P Frames. Enter the desired value between 2 and 150.
Max. Frame Rate	Select the desired Maximum frame rate for the video stream. The default value is **30**.
User Defined URI	You may enter the URI up to 32 characters long for accessing the live video from camera through cell phone connection.

Video & Audio Screen

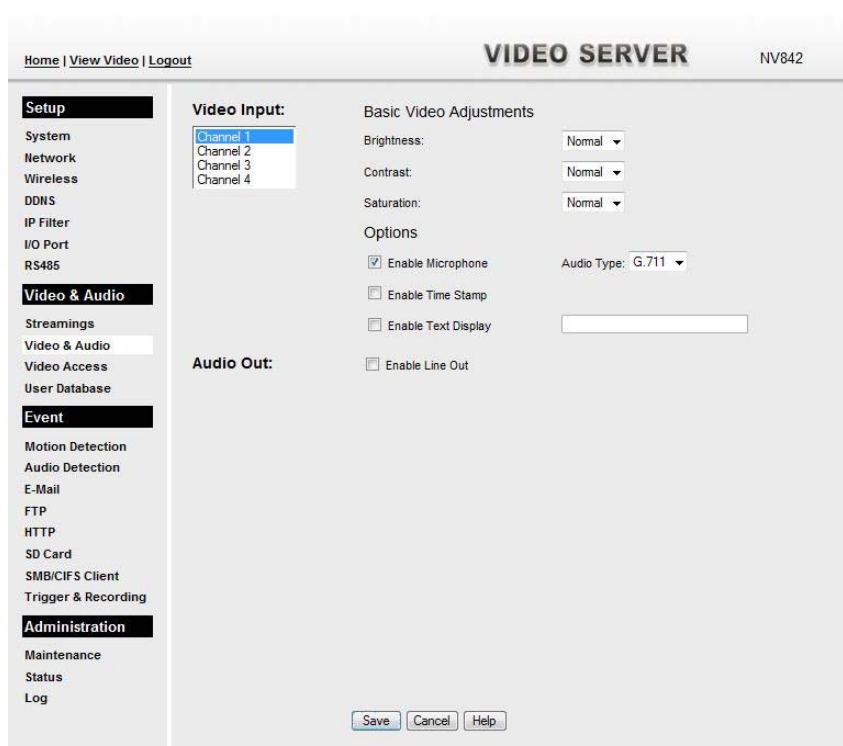This screen is displayed when the *Video & Audio* option is clicked.

Figure 35: Video & Audio Screen

Data - Video & Audio Screen

Video Input	You can check or modify the related video adjustments by selecting the desired channel from the list.
Basic Video Adjustments	
Brightness	If necessary, you can adjust the brightness to obtain a better image. For example, if the camera is facing a bright light, the image may be too dark. In this case, you can increase the brightness.
Contrast	Select the desired option for the Contrast. You can select a value between -3 and 3.
Saturation	Select the desired option for the Saturation. You can select a value between -3 and 3.
Options	
Enable Microphone	Enable audio by checking this checkbox. Using Audio will increase the bandwidth requirements slightly.
Audio Type	Select the desired audio type.
Enable Time Stamp	If enabled, the current time will be displayed on the Video image.

Enable Text Display	Enable this setting if you want text to be displayed on the Video image, and enter the desired text - up to 20 characters. This feature is often used to identify each Video Server when multiple Video Servers are installed.
Enable Line Out	Enable this to use this feature.

Video Access Screen

This screen is displayed when the *Video Access* option on the *Video & Audio* menu is clicked.

Figure 36: Video Access Screen

Data - Video Access Screen

Enable Security Checking	• If disabled - No login required. Users do not have to provide a username and password when they connect to the video server to view video.
	• If enabled - Require login, users will be prompted for a username and password when they connect to the video server to view video. The video server administrator must use the "User Database" menu option to create the desired users.
Enable Scheduled Video Access	• If enabled - The video server is available during the scheduled periods, and unavailable at other times. If this option is selected, you need to define a schedule. If no schedule is defined, this option is always disabled.
	• If disabled - The option will remain disabled until you enable it.
	Note that regardless of which setting is chosen, the Administrator can ALWAYS access the video server and view live video.
Access Schedule	
Scheduled Periods	This displays all periods you have entered into the database. If you have not entered any periods, this list will be empty.
Delete	Use the Delete button to delete the selected item in the list.

Add New Schedule	
Day	Choose the desired option for the period.
Start Time	Enter the start time using a 24 hr clock.
End Time	Enter the end time using a 24 hr clock.
Add	Click this button to add a new period.

User Database Screen

This screen is displayed when the *User Database* option on the *Video & Audio* menu is clicked.

Figure 37: User Database Screen

Data - User Database Screen

Existing Users	
User List	This displays all users you have entered into the User database. If you have not entered any users, this list will be empty.
Edit, Delete, Delete All	Use these buttons to manage the user database.
User Properties	
User Name	Enter the name for the user here. • Spaces, punctuation, and special characters must NOT be used in the name. • The name is case insensitive (case is ignored), so you can not have 2 names which differ only by case.
User Password	The password for this user.
Confirm Password	Re-enter the password for the user, to ensure it is correct.
Control Level	Select the desired control level for the user you plan to add. (* Operator level allows user to trigger output port manually)
Add Button	Click this button to add a new user, using the data shown on screen.
Clear Button	Use this button to clear the input fields, ready to add a new user.

Motion Detection Screen

This screen is displayed when the *Motion Detection* option on the *Event* menu is clicked.
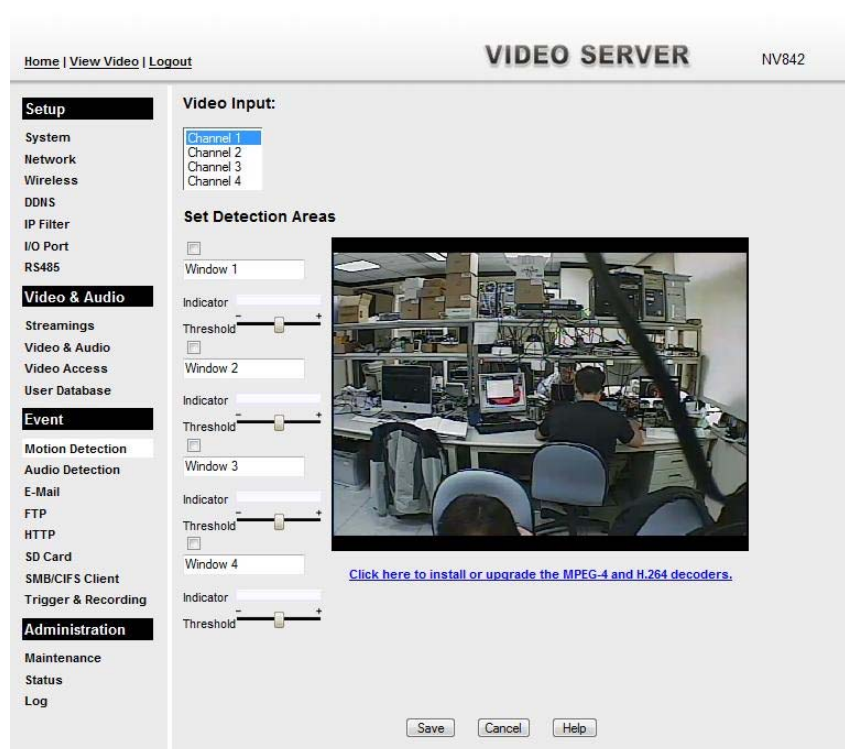
Figure 38: Motion Detection Screen

Data - Motion Detection Screen

Video Input	Select the desired channel to set the detection areas.
Set Detection Areas	
Set Detection Areas	You can set the full screen or areas of the video image to be examined. Note: Motion detection can be triggered by rapid changes in lighting condition, as well as by moving objects. For this reason, it should only be used indoors.
Indicator	Current value for the Motion detection.
Threshold	Adjust the threshold of detection for each area

Audio Detection Screen

This screen is displayed when the *Audio Detection* option on the *Event* menu is clicked.
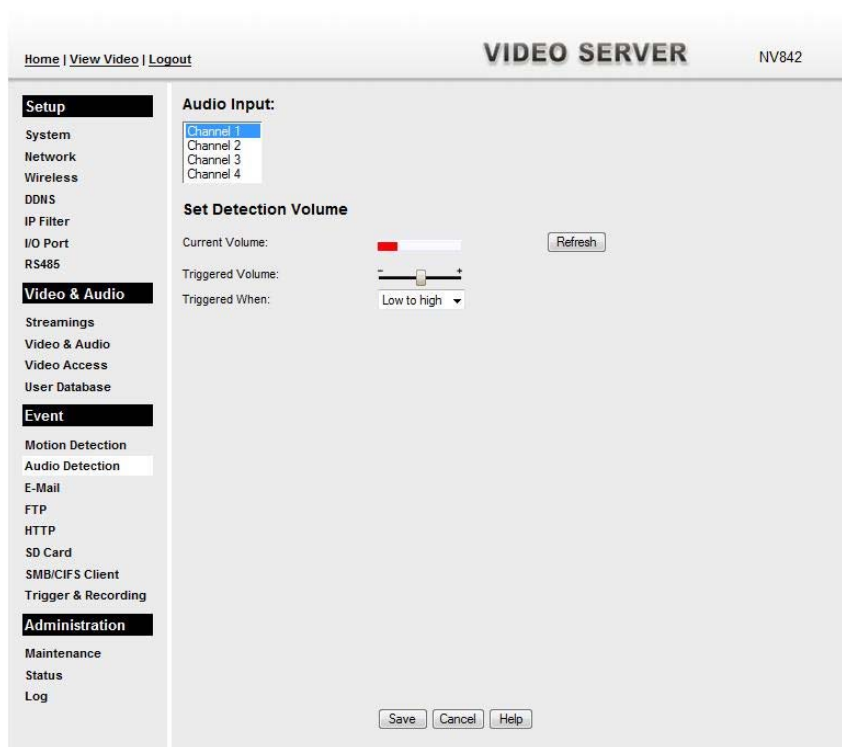
Figure 39: Audio Detection Screen

Data - Audio Detection Screen

Audio Input	Select the desired channel to set the audio volume.
Audio Detection	
Current Volume	It displays the current volume of the environment.
Triggered Volume	Drag the bar to set the volume for triggering.
Triggered When	Choose the desired situation for triggering the audio detection.

E-Mail Screen

This screen is displayed when the *E-Mail* option on the *Event* menu is clicked.

Figure 40: E-Mail Screen

Data - E-Mail Screen

Primary/Secondary SMTP Server	
SMTP Server Address	Enter the address of the SMTP (Simple Mail Transport Protocol) Server to be used to send E-Mail.
Authentication	Select the desired Authentication type for the SMTP Server.
SMTP Login name	Enter your login name for the SMTP Server.
SMTP Password	Enter your password for the SMTP Server.
POP server name	Enter the name for the POP Server.
Show "From" as	Enter the E-Mail address to be shown in the "From" field when the E-mail is received.
Test the Server	Click this button to test the server connection.
Secondary SMTP	Check the box to upload to the Secondary SMTP if the video server can not connect to the primary SMTP.
E-Mail Setup	
E-Mail Address	Enter at least one (1) E-Mail address; the 2nd and 3rd addresses are optional. The E-mail alert will be sent to the E-mail address or addresses specified here.

With Attachment	Enable the checkbox if you want to attaché files to the E-mail.
Subject	Enter the desired text to be shown as the "Subject" for the E-Mail when it is received. Subject can not exceed 48 alphanumeric characters.

FTP Screen

This screen is displayed when the *FTP* option on the *Event* menu is clicked.

Figure 41: FTP Screen

Data - FTP Screen

Primary/Secondary FTP	
FTP Server	Enter the address of the FTP Server.
Port	Enter the Port of the FTP Server to be connected.
Login name	Enter your login name for the FTP Server.
Password	Enter your password for the FTP Server.
Enable Passive Mode	Check the box to enable the Passive mode feature of the FTP.
File Path Name	Enter the file path/name of the FTP.
Test the Server	Click this button to test the server connection.
Secondary FTP	Check the box to upload to the Secondary FTP if the video server can not connect to the primary FTP.

HTTP Screen

This screen is displayed when the *HTTP* option on the *Event* menu is clicked.

Figure 42: HTTP Screen

Data - HTTP Screen

HTTP Notification	
URL	Enter the URL of your HTTP notification server.
User Name	Enter the user name of your HTTP server.
Password	Enter the password to match the user name above.
Proxy Server Name	Specify the proxy server name in the provided field if the device needs to pass through a Proxy Server to do the HTTP notification.
Proxy User Name	Enter the user name for the proxy server.
Proxy Password	Enter the password for the proxy server.
Proxy Port Number	Enter the port number for the proxy server.
Method	Select the desired method of form data encoding. • **Get** - It should be used if and only if the form processing is independent, which typically means a pure query form. Generally it is advisable to do so. • **Post** - If there are problems related to long URLs and non-ASCII character repertoires, which can make it necessary to use "POST" even for independent processing.

SD Card Screen

This screen is displayed when the *SD Card* option is clicked.
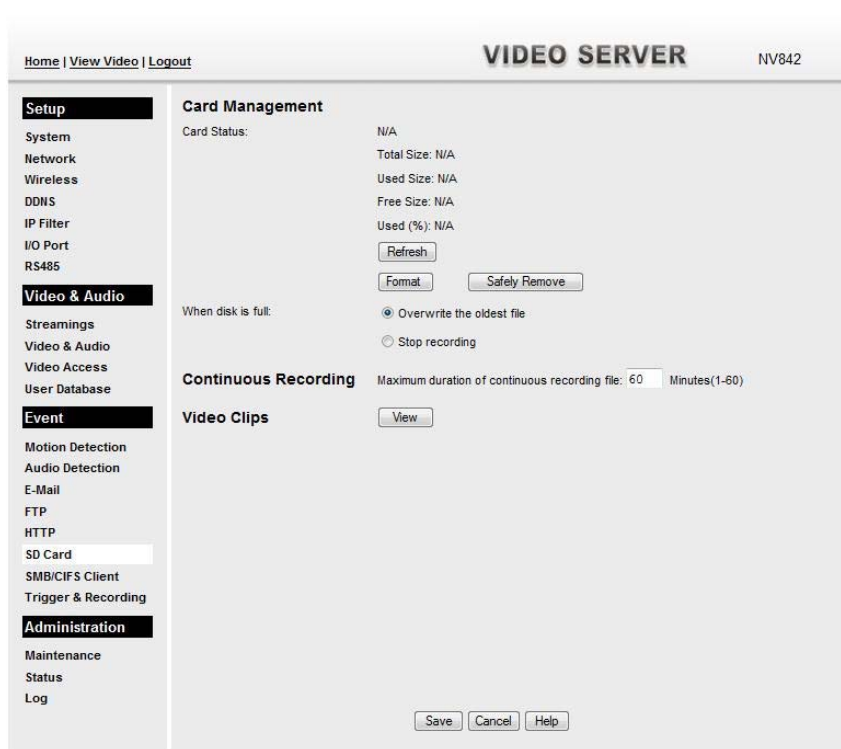
Figure 43: SD Card Screen

Data - SD Card Screen

Card Management	
Card Status	It shows details of the card, if any. • Total Size • Used Size • Free Size • Used (%)
Refresh	Click this button to update the status of the current SD card
Format	Format the SD card by clicking the *Format* button.
Safely Remove	When you want to remove the card, click this button.

When disk is full	Select the desired option for the behavior when the disk space limit is reached. • **Overwrite oldest file.** The Recorder will overwrite the oldest file if the space is not enough for further recording. • **Stop recording.** If the disk space limit is reached, no further recording is done.

Continuous Recording	
Continuous Recording	Enter the desired time (minute) to set the maximum time period of a recording.
Video Clips	Click *View* button to see the details of the video clips.

SMB/CIFS Client Screen

This screen is displayed when the *SMB/CIFS Client* option on the *Event* menu is clicked.

Figure 44: SMB/CIFS Client Screen

Data - SMB/CIFS Client Screen

SMB/CIFS Client	
Browse SMB/CIFS Server	Click *Browse* button to select the desired SMB/CIFS server.
Server Name	Enter the name of your SMB/CIFS server.
File Path	Enter the file path of your SMB/CIFS server.
User Name	Enter the user name for the SMB/CIFS client account.
Password	Enter the password for the SMB/CIFS client account.
Test the Server	Click this button to test the server connection.

Trigger & Recording Screen

This screen is displayed when the *Event Trigger* option on the *Event* menu is clicked.
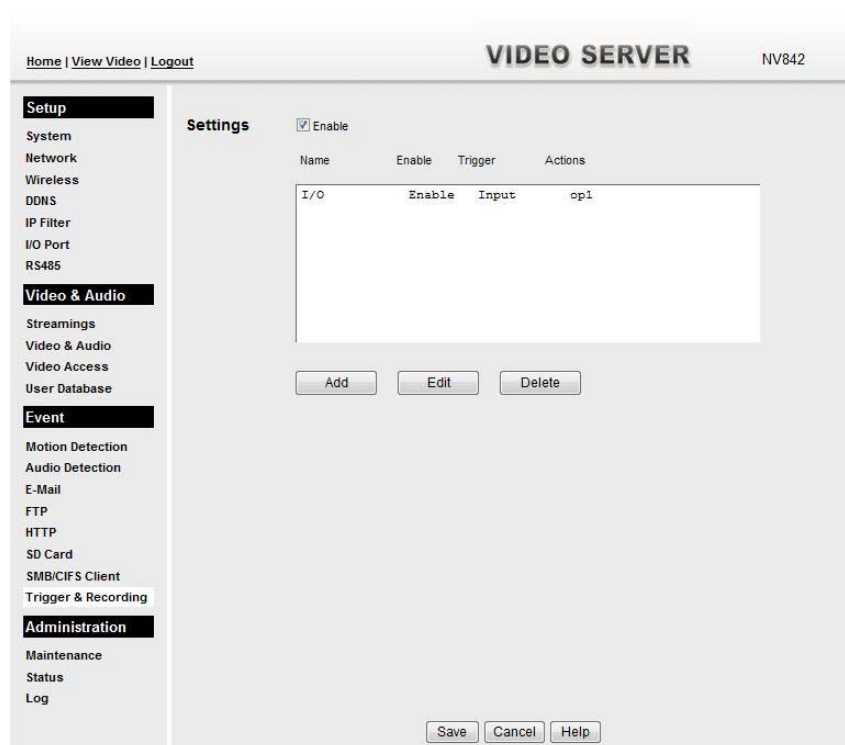

Figure 45: Event Trigger Screen

Data - Event Trigger Screen

Event Schedule	
Schedule List	The Event Schedule shows all of the event types currently configured in the Video Server, along with various information about their configuration, as listed below: • Name - the descriptive event name set by the user. • Effective Time Frame - shows when the event at a set time will be triggered. • Trigger by - shows what kind trigger activate the event. • Action - shows what kind of the actions will be issued when the event been triggered
Add, Edit, Delete Button	Use the buttons to manage the selected schedule.
New Schedule	
Effective Time Frame	Choose the desired option for the period.
Start Time	Choose the desired start time using a 24 hr clock.
End Time	Choose the desired end time using a 24 hr clock.
Add Button	Use this button to add the new schedule.

Trigger Event	
Enable	Check to perform all of the event(s) that were configured and scheduled.
Interval	Select the desired option for the events interval. (* "0" = No Delay)
Trigger by	• Input 1 - This describes the states that the input must be in for an event to be triggered. • Audio Detection - The sound detection can be used to trigger events. • Motion Detection - Movement in a motion detection window can be used to trigger events.
Actions	• E-Mail - If checked, an E-Mail (with "Attachment") will be delivered to the SMTP server. (SMTP Server must be configured on the E-Mail page.) • FTP - If checked, an FTP upload will be activated to the FTP server. (FTP servers must be configured on the FTP page.) • Output Port - If checked, the output port state will be activated as configured. (Output port must be configured on the I/O Port page.) • HTTP - If checked, a HTTP CGI command will be delivered to the HTTP server. • SMB/CIFS - If checked, JPEG image(s) or video files will be uploaded to the SMB server. (SMB must first be enabled and configured on the SMB Client page.)
Attachment Type	• **Streaming Channel** - Select the desired type for the video file. • **Pre/Post Capture** - Select the desired length. The size of the file depends on this setting, and also the Video size and degree of compression.

Maintenance Screen

This screen is displayed when the *Maintenance* option on the *Administration* menu is clicked.

Figure 46: Maintenance Screen

Data - Maintenance Screen

Administrator Login	
Administrator ID	Enter the name for the Administrator here. Spaces, punctuation, and special characters must NOT be used in the name.
Administrator Password	Enter the password for the Administrator.
Verify Password	Re-enter the password for the Administrator, to ensure it is correct.
Firmware Upgrade	
Upgrade File	Click the "Browse" button and browse to the location on your PC where you stored the Firmware file. Select this file.
Start	Click this button to upgrade the Firmware. When the upgrade is finished, the Video Server will restart, and this management connection will be unavailable during the restart.
Clear File Name	This does NOT stop the Upgrade process if it has started. It only clears the input for the "Upgrade File" field.

Backup & Restore	
Backup Configuration File	Click *Backup* button to save the current configuration information to a text file.
Restore Configuration File	Click *Restore* button to reinitialize the video server to load the new updated software. Do this after loading the upgrade file.
Clear File Name	This does NOT stop the Restore process if it has started. It only clears the input for the "Restore Configuration File" field.
Buttons	
Defaults	Click *Defaults* button to reload the default settings of the video server.
Restart	Click *Restart* button to restart the video server.

Status Screen

This screen is displayed when the *Status* option on the *Administration* menu is clicked.

Figure 47: Status Screen

Data - Status Screen

System	
Device Name	This shows the name of the Video Server.
Description	This shows the description of the Video Server, such as location.
F/W version	The version of the current firmware installed.
Network	
MAC Address	The MAC address of the Video Server.
IP Address	The IP Address of the Video Server.

Network Mask	The network mask associated with the IP address above.
Gateway	The IP Address of the remote Gateway associated with the IP Address above.
WINS Address	The IP Address of the WINS server.
Wireless (Wireless Model Only)	
WSC PIN Dode	It displays the current WSC PIN code.
Network Type	This shows the Network Type currently in use (Ad-hoc or Infrastructure).
SSID	This displays the wireless SSID.
Channel	This shows the wireless channel currently used.
Security	The current security setting for Wireless connections.
Signal Strength	This shows the strength of the signal.
Channel (1~4)	
Video Format	It displays the current format of video.
Resolution	The image size of the video stream.
Video Quality	This displays the image quality of the video stream.
Frame Rate	This displays the frame rate of the video stream.
Buttons	
Refresh	Update the log and any other data on screen.

Log Screen

This screen displays a log of system activity.
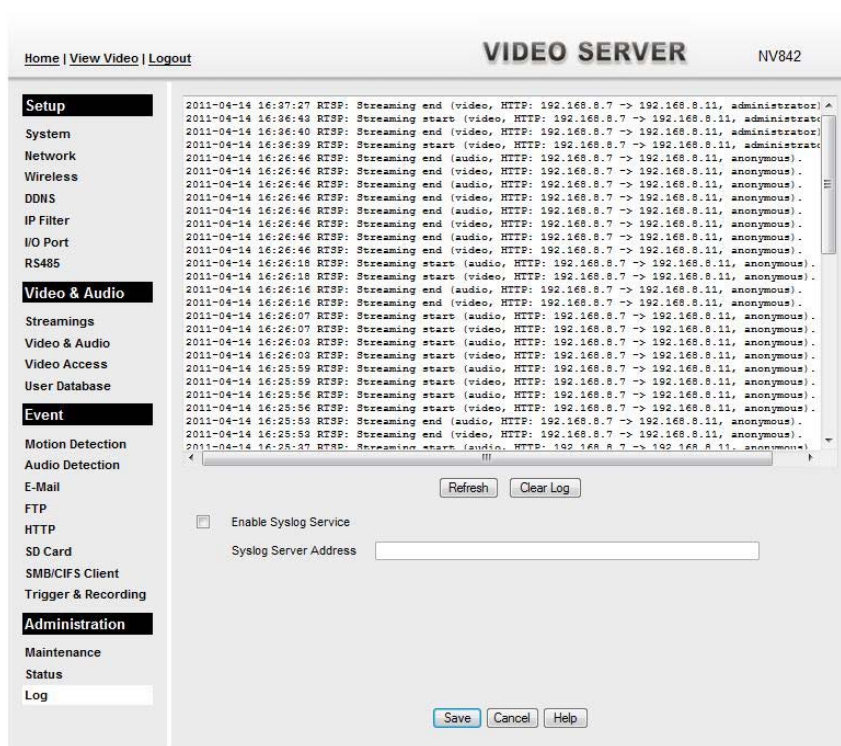
Figure 48: Log Screen

Data - Log Screen

Log	
System Log	This is a log of system activity.
Refresh Button	Click this to update the data shown on screen.
Clear Log	Click this button to restart the log.
Enable Syslog Service	Check the box to enable the System Log Server feature.
Syslog Server Address	Enter the address of the Syslog Server.

Chapter 6

Windows

Viewing/Recording Utility

6

This Chapter describes how to view and record the live video stream generated by the Video Server, using the supplied Windows utility.

Overview

The Utilities package includes following three functions:

- LiveView - to view/listen the live streams.
- View Recordings - to record the live streams.
- Setup - to configure the Utilities such as adding device, making recording schedules and setting required parameters, etc..

The Utilities must be installed in the Windows before they can be configured.

System Requirements

In order to use the utility, you need to meet the following requirements:

- Windows XP SP3, 32-bit Windows Vista/Windows 7.
- Microsoft .NET Framework 3.5 Service Pack 1 (it should be installed on Windows XP/VISTA via "Windows Update").
- Internet Explorer 6 or later, Firefox 3.0 or later
- 2GB RAM
- Individual Graphic Card

Installation

1. Insert the supplied CD-ROM into your drive. If the setup program does not start automatically, run **NetworkCamera.exe** in the root folder. You will see the *Welcome* screen shown below.

Figure 49: Welcome Screen

2. Click the *Install Utility* button to start the installation of the Utilities package.

3. Follow the prompts to complete the installation.

4. After the installation, double click the Monitor icon on the desktop or click Monitor menu item in the Windows main program menu to launch the Utilities.

System Tray Icon

When started, the program will create an icon in the Windows system tray on the taskbar, as shown below.

Figure 50: System Tray Icon

You can right click the icon and it will provides a menu which allows you to launch utility program, view the utility details or even exit the utility package.

LiveView Screen

When Utility launched, the Camera Utility screen like the example below will be displayed.
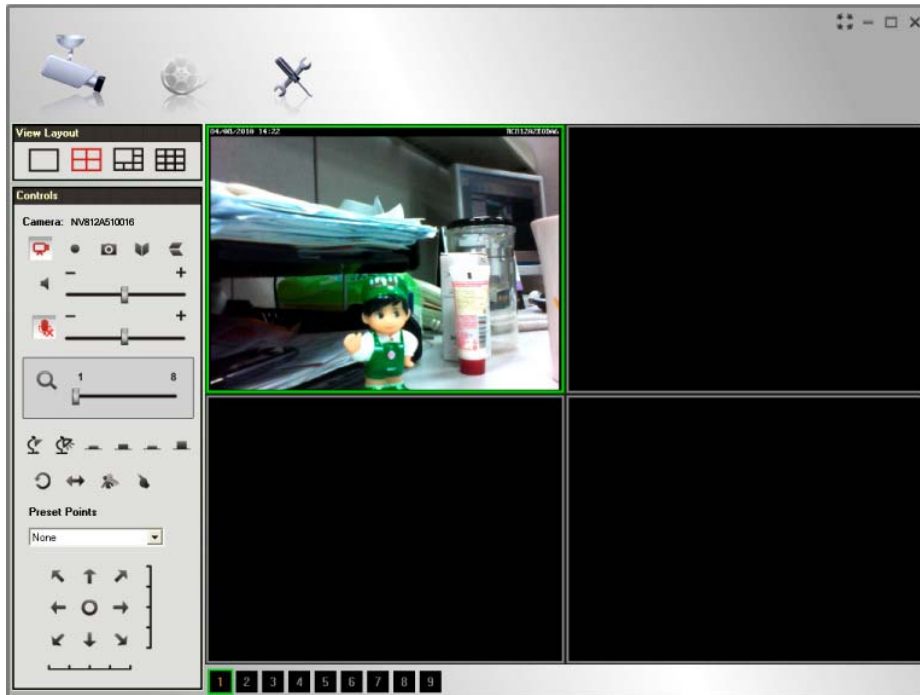

Figure 51: Main Screen

If no devices have been defined and added to the Utilities, no video will be displayed. Utilities should be configured first to view the streams. See the following section for information on defining a device. Note that each device is given a number (Channel Number).

Camera Setup

To define a device and associate it with a *Channel Number*:

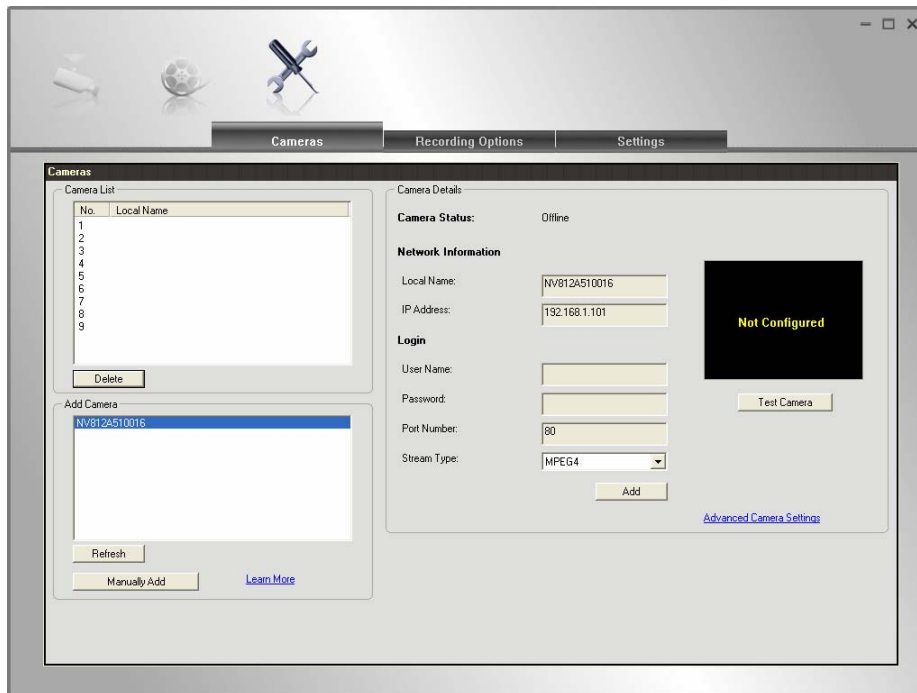1. Click the *Setup* icon on the main screen. You will see a screen like the example below.

Figure 52: Cameras Screen

2. Add desired Video Server to the *Camera List*:

- **To associate a device automatically with the current Channel**:

  - The Utilities will search and display all available devices found on your LAN in the Add Camera list automatically. The *Add Camera* list can be updated by clicking the *Refresh* button.

  - The *Camera Details* panel, on the right, displays the data for the selected device.

  - Check that the *Camera Details* shown on the right is correct. Enter associated User Name and Password.
    Note: The **Port Number, User Name**, **Password** and **Stream Type** can only be modified in the WEB UI instead of Camera Setup screen.

  - Click the *Test Camera* button to check that a connection and login can be performed successfully.

  - Click *Add* button. The device will now appear in the *Camera List*.

- **To associate a device manually with the current Channel**:

  - Click *Manually Add* button.

  - Enter the *Local Name*, *IP Address*, *User Name*, *Password*, *Port Number* and *Stream Type* in the *Camera Details* section.
    Note: The **Port Number, User Name**, **Password** and **Stream Type** can only be modified in the WEB UI instead of Camera Setup screen.

71