



VTC-402NZ **ENVI 2.1MP Vandal Resistant AFZ/ WDR IR Network Bullet Camera**



FEATURES:

- 1/2.9" Sony® CMOS
- 2.1 MegaPixel With full 1080p/720p Output
- Up to 30fps live view@ 1920x1080 (1080p)
- MegaPixel IR Corrected 3-9mm (VTC-IR402NZ39) / 9-22mm (VTC-IR402NZ922) Varifocal Lens
- Mechanical IR Cut Filter (True Day/Night)
- H.264/MJPEG Dual Streaming
- 16:9 Video format
- On-board Intelligence (OBI Technology) delivers Auto-Focus-Zoom by tracking motion, then optically zooming in to that area of the frame
- 40 850nm IR LEDs with up to 150' IR range
- Fully programmable advanced WDR
- Onvif Compliance
- Integrated Cooling Fan
- Standard SD memory card slot for Local recording
- Advanced OSD Functions: Motion Activated Pointing Zoom, Defog, Dynamic IR, BLC/HLC, Motion Deblur, Pixel Defect Compensation, Title Set, Mirror, Flip
- Heavy Duty IP68 rated weather/vandal resistant aluminum construction
- 12VDC / 24VAC & PoE (Power over Ethernet) Operation

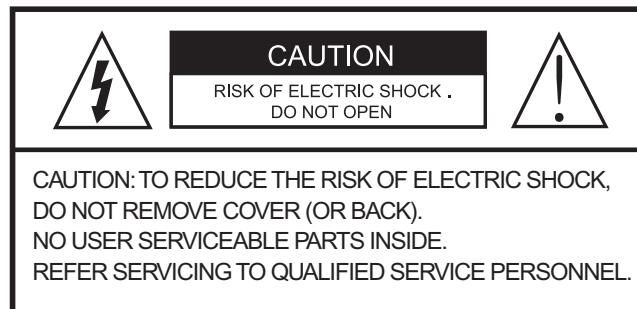
*Specifications & installation procedure subject to change without notice.
Visit www.vitekccv.com for the most current information available.*

IPcctv
MegaPixel CCTV Over IP Networks

1. Safety Precaution

Safety Precaution

- To prevent fire or shock hazard, do not expose the unit to rain or moisture.
- To prevent electric shocks and risk of fire hazards, do NOT use other than specific power source.



The symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons .



The symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the literature accompanying the unit.

- **Warning :**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment . This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- **Caution :**

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Mains power quality should be that of a typical commercial environment. If the user of the model requires continued operation during power mains interruptions, it is recommended that the model be powered from an uninterruptible power supply (UPS) or a battery.

Safety Precaution

NOTICE

- The image used in this instruction manual are processed to help comprehension and may differ from actual video of the camera.
- Avoid installing in areas where shock or vibration may occur.
- Pay attention to safety when installing the connection cable and observe that the cable is not subjected to heavy leads, kinks or damage and no moisture can get in.
- Never open the device such as boards or lens.
The warranty becomes void if repairs are undertaken by unauthorized persons.
- Maintenance and repair have to be carried out only by authorized service centers.
- Use only a mild detergent to clean the housing.
- The camera should never be operated beyond the technical specifications.
This can lead to damage to the camera and void the warranty.
- The camera should never be operated in water.

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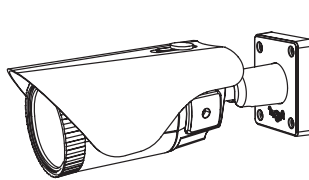
3. General Description & Included Accessories

General Description

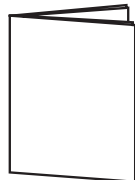
This camera realizes the natural and crisp image as you see the scene in front of you by adopting Auto Focus Full HD(1920x1080p) camera module.

- With ICR mechanism
 - Enhances its sensitivity about 10x at night time
 - Can accept infrared light
- 24VAC/12VDC dual power & PoE (Power Over Ethernet) design
 - Offers the flexibility of installation
 - Ensures the reliability

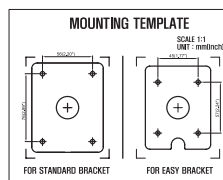
Package Includes



VTC-402NZ Camera



General Operation Instructions



Mounting Template



Complete Installation and Operation Instructions on CD

Plastic Anchor:
6 x 30mm (4pcs)



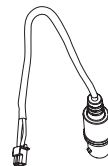
Mounting Screw:
4 x 30mm (4pcs)



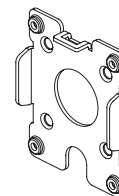
Assembly Screw:
4 x 14mm (4pcs)



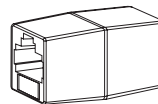
Torque Wrench:
3mm (1pc)



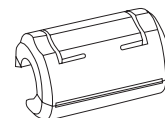
Video Sub-out Cable (1pc)



Easy Bracket

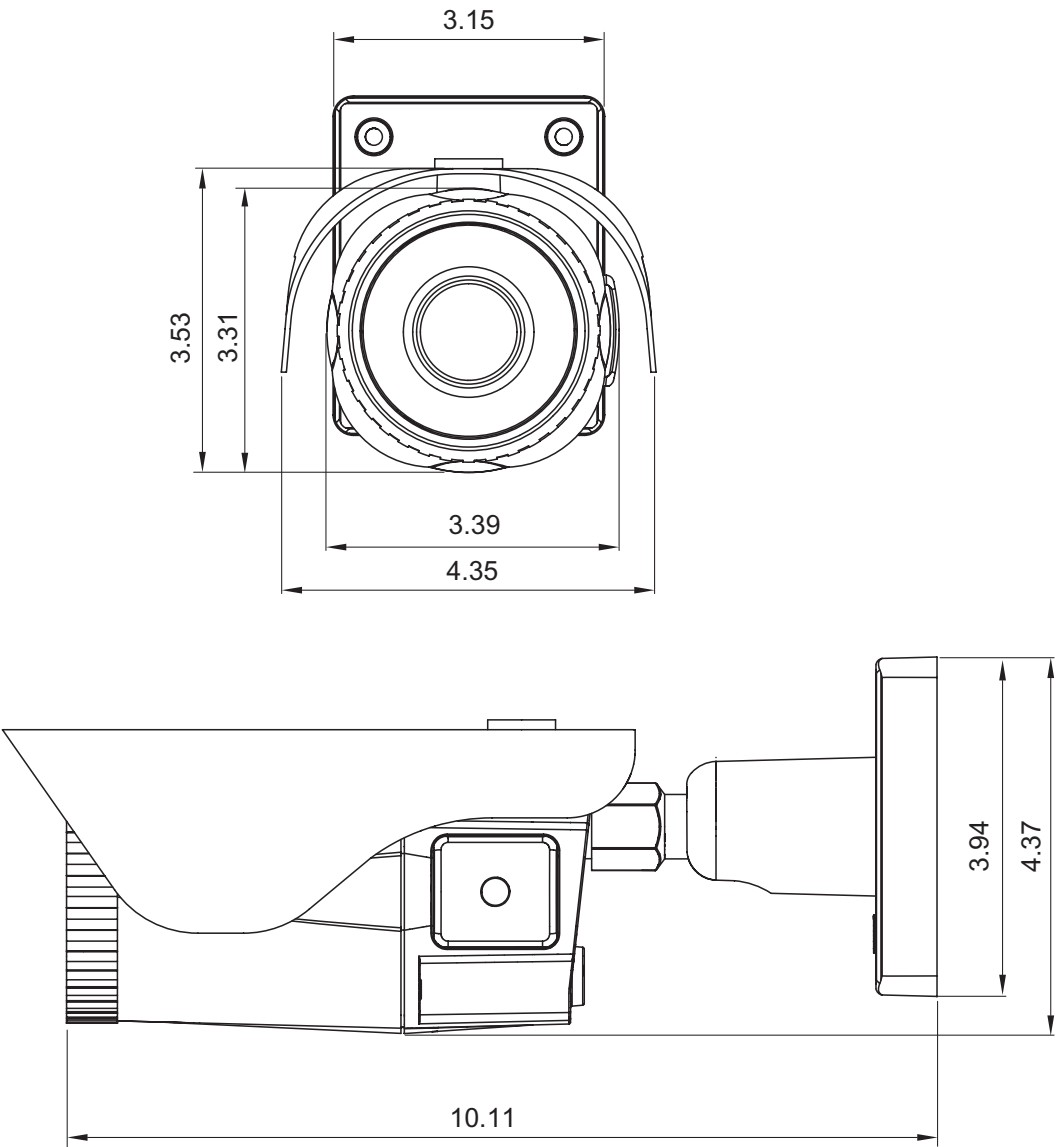


Coupler for RJ45 Cable (1pc)



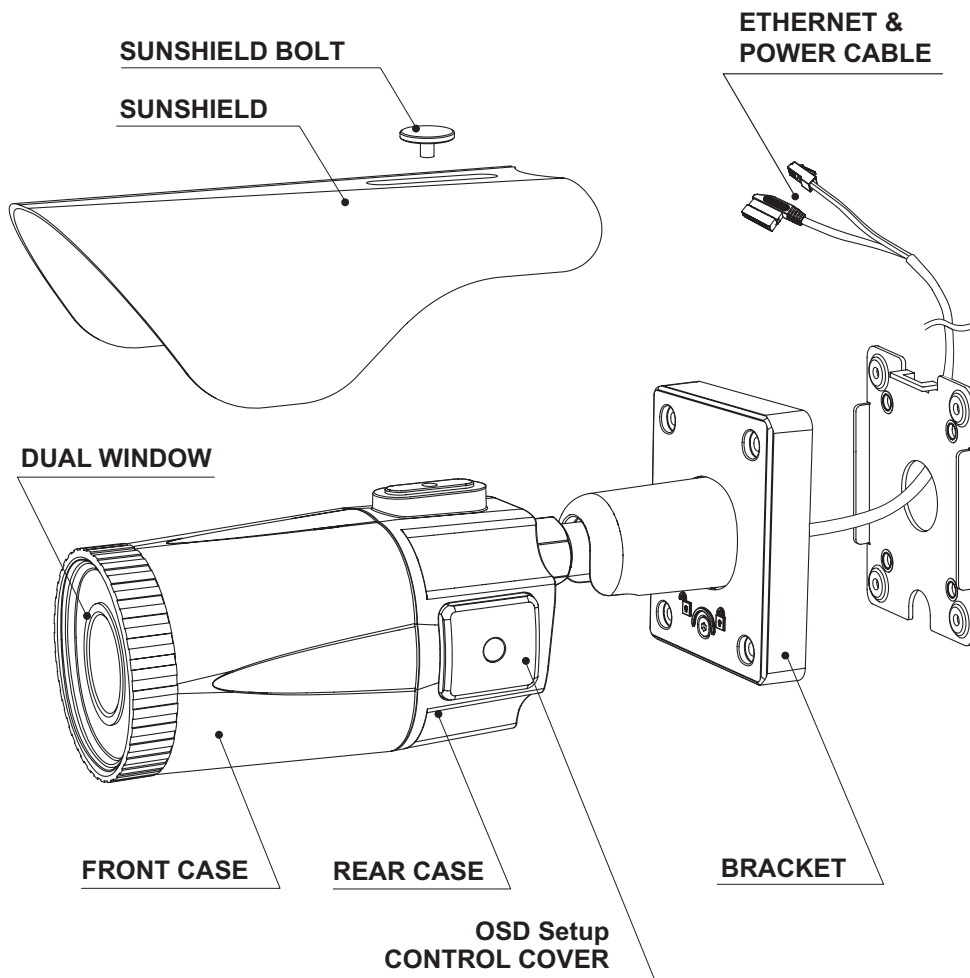
EMI Ferrite Core (1pc)

3.1. VTC-IR402NZ Dimensions (Unit : mm)



4. VTC-IR402NZ Layout

4.1. Part Names

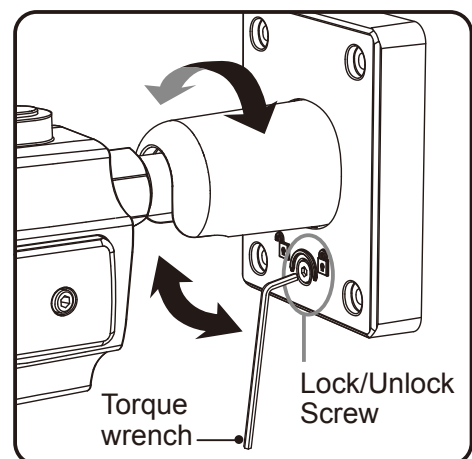


4.2. Mount

- Adjustment of viewing angle with one-touch 3-Axis bracket

CAUTION

- Extreme care should be taken NOT to scratch the window in front of lens while installing or adjusting the camera.
- Care should be taken the cable is NOT damaged, kinked or exposed in a hazardous area.
- Do not expose the camera directly to a strong light source such as the sun or a spot light.

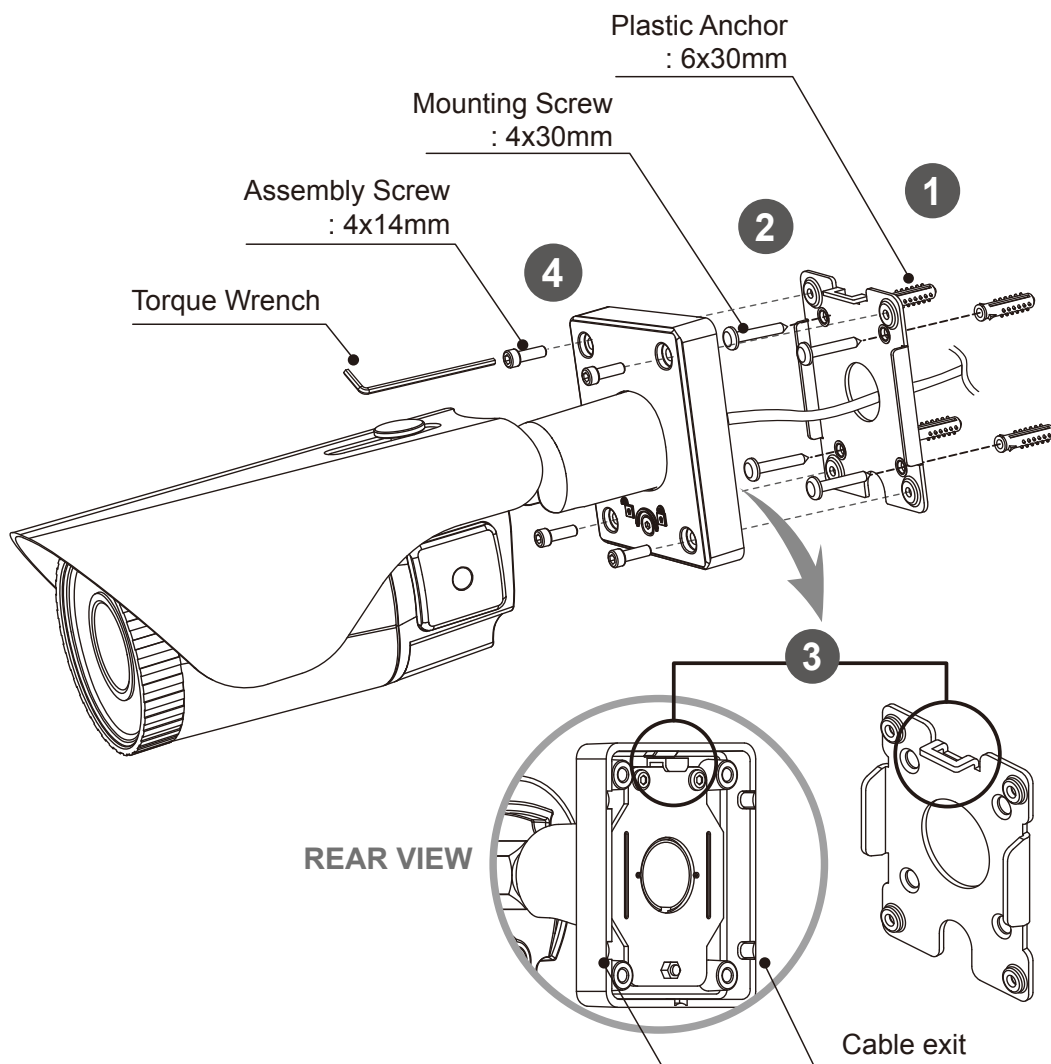


5. VTC-IR402NZ Installation

- Make sure power is not applied before installation.

5.1. Mounting The Camera

1. Locate the mounting template at the installation position and drill the ceiling or wall if needed. (*The easy bracket can not be installed on the ceiling)
2. Place the easy bracket on pre-drilled position and attach using mounting screws (4x30mm). Skip this step when an easy bracket is not installed.
3. Route the power cable to the area where connections are to be made.
Hook up the camera bracket with the easy bracket as illustrated below.
4. Affix the camera bracket using assembly screws (4x14mm).
5. Set the camera's viewing angle.
6. Put the sunshield on the camera unit and tighten the sunshield-bolts.



5.2. Pan/Tilt Adjustment

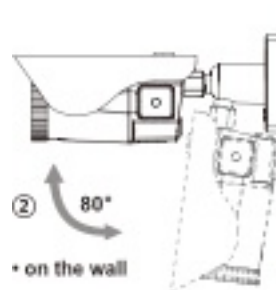
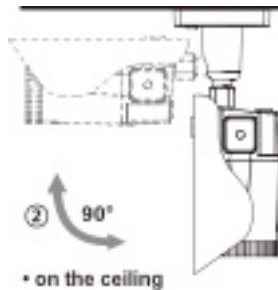
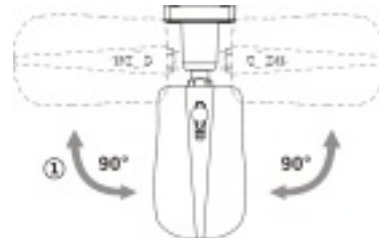
- Unlock the screw on the camera bracket using the torque wrench supplied
- Set the camera's viewing angle then lock the screw on the bracket.

1. Tilt Adjustment

Pan is limited to $\pm 90^\circ$.

2. Tilt Adjustment

Tilt is limited to $0^\circ(2^\circ)$ min $\sim 90^\circ$ max. for wall (ceiling) installation respectively with reference to the wall (ceiling) when the inclination of camera module is 0° , that is, the image is aligned horizontally.



3. Camera Rotation

Inclination limited (Horizontal image alignment): Inclination limited to $\pm 90^\circ$ max.



5.3. Power Supply Connections

- Make sure the power is removed before installation.
- After all connections are finished properly, follow the order for applying power.

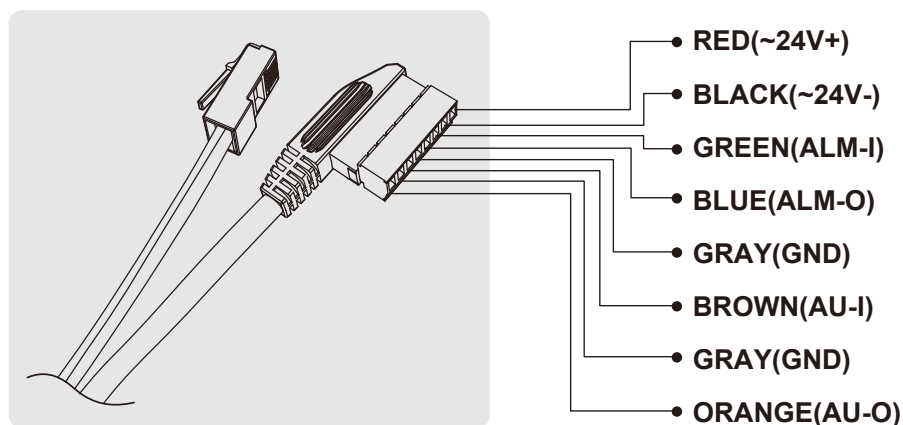
a) Plug the network cable into RJ-45 Ethernet Port.

If PoE is the unique power, there will be no need to connect Power terminal.

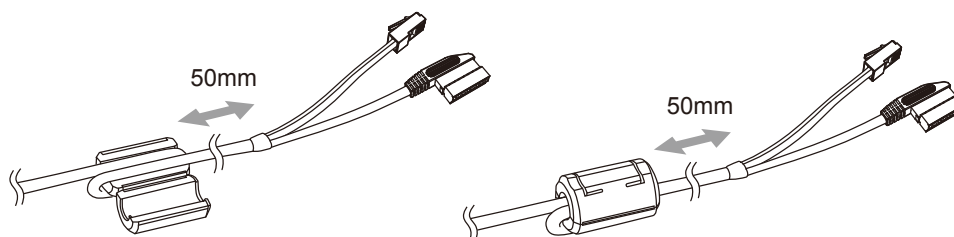
b) When DC12V or AC24V Local power is necessary, first connect the low voltage (DC12V or AC24V), then plug the AC adapter to AC outlets to avoid an improper reset from power spike and damage from a voltage surge with no load.

※ When PoE and Local power are connected, Local power has priority

Camera can work with either 24VAC or 12VDC, dual voltage power and PoE (IEEE Std. 802.3af). Primary and secondary grounds are completely isolated to avoid the possible ground-loop problems.



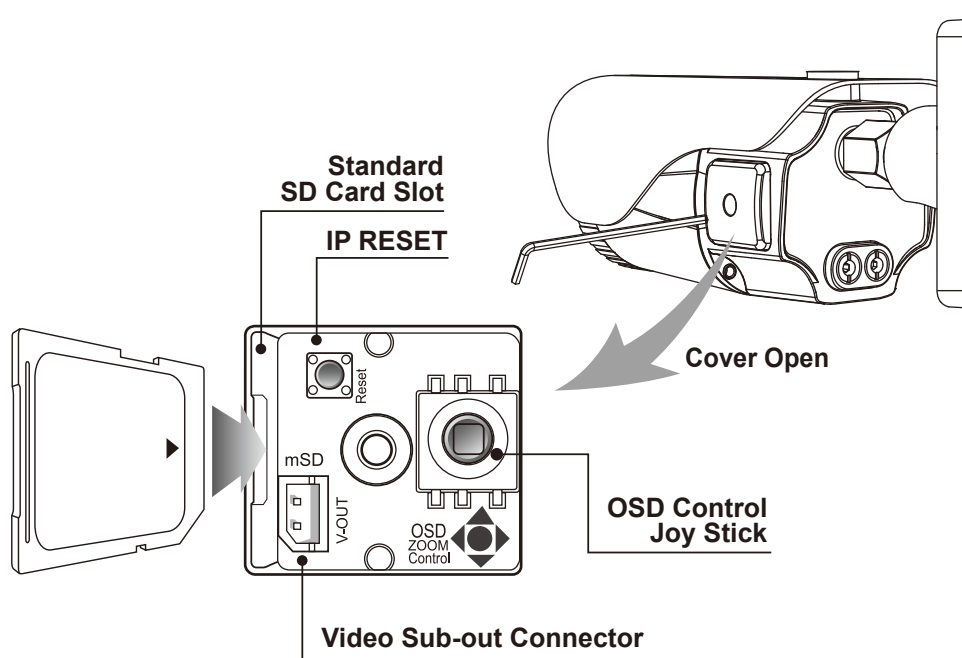
EMI Ferrite Core Connection



6. Operating Instructions

6.1. Using OSD controller

- Setup menu can be accessed and controlled by OSD control joy stick on the side of camera unit.
- Five commands are available with the joy stick.
- The design of OSD could be different according to the Model.



◆ Description of the joystick operation

1. SET Key (●) : Access to the menu or enter the setting. To enter the main menu, press the Set Key down for about 1.5sec
2. UP/DOWN Key (▲/▼) : Choose the desired sub-menu and to move the cursor up or down
3. LEFT/RIGHT Key (◀/▶) : Set up the value of the selected menu. Used to adjust the desired menu selection and to move the cursor left or right.
4. '👆' Denotes long press down for about 2 seconds

◆ Description of the DIGITAL ZOOM* adjustment

1. ▲ : Zoom In
2. ▼ : Zoom Out
3. ◀ : Focus Near
4. ▶ : Focus Far

7. Camera Software Installation

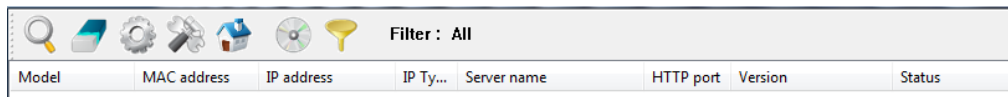
1. Run **IP Installer** Software from the CD program on a computer that is on the same network as the IP camera.



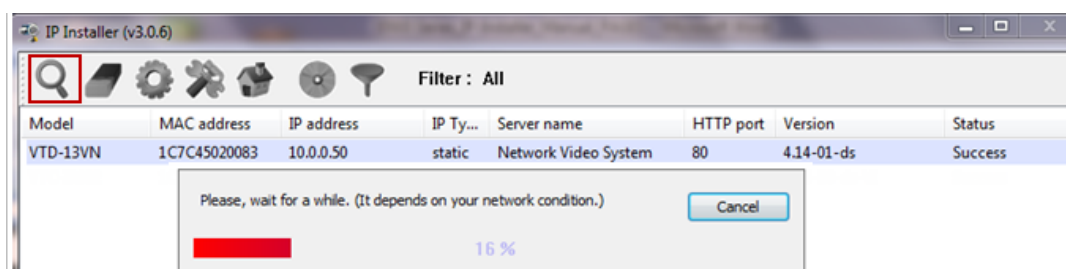
2. Start **IP Installer**, by double clicking the icon "IP Installer"



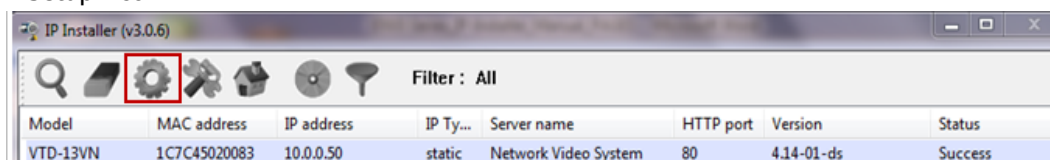
3. After the program has started, the main window of **IP Installer** program will appear on the screen as shown below.



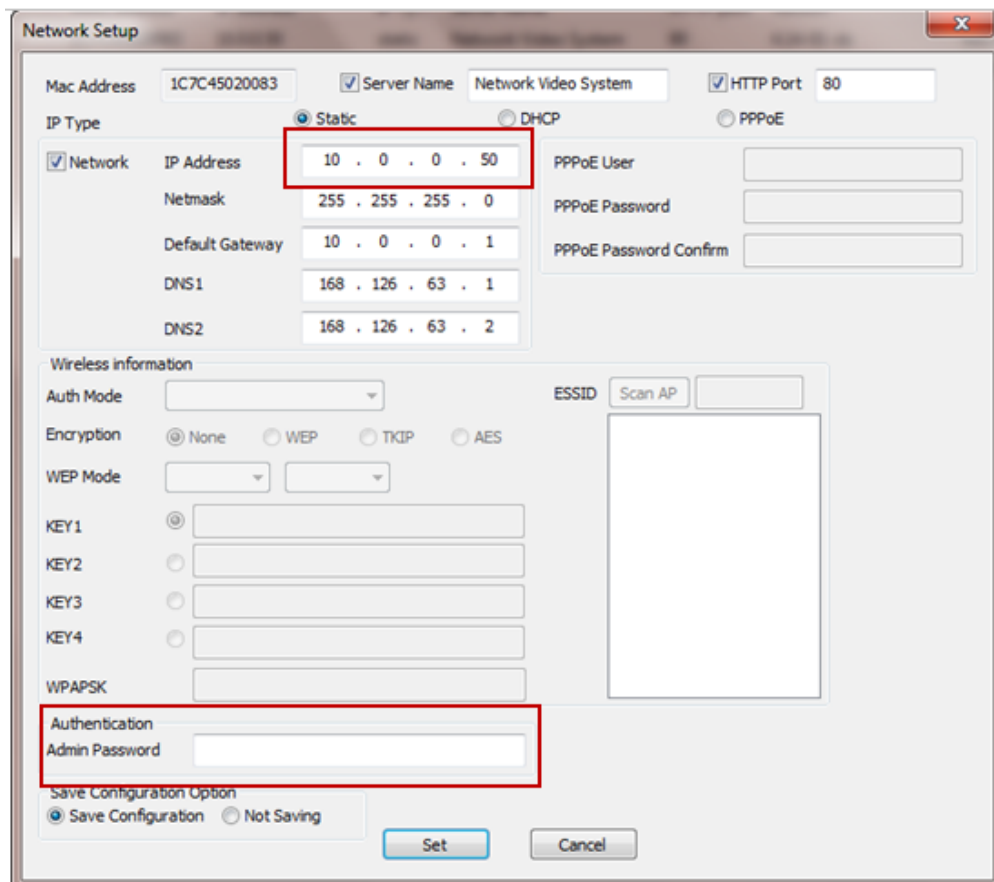
4. Search for the installed camera on the network by clicking the search product icon, the camera should appear as the image below. The default IP address is 10.20.30.40



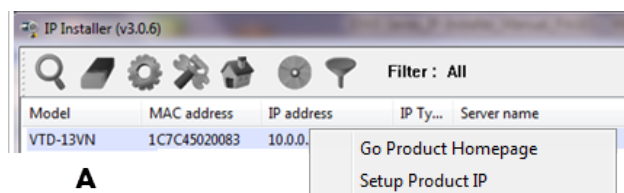
5. To assign an automatic IP address to this camera within the network, click the "Automatic IP Setup" icon



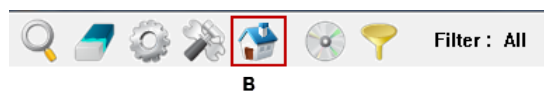
6. Verify the Automatic IP address provided, enter the default password root and then click **Set** as shown below.



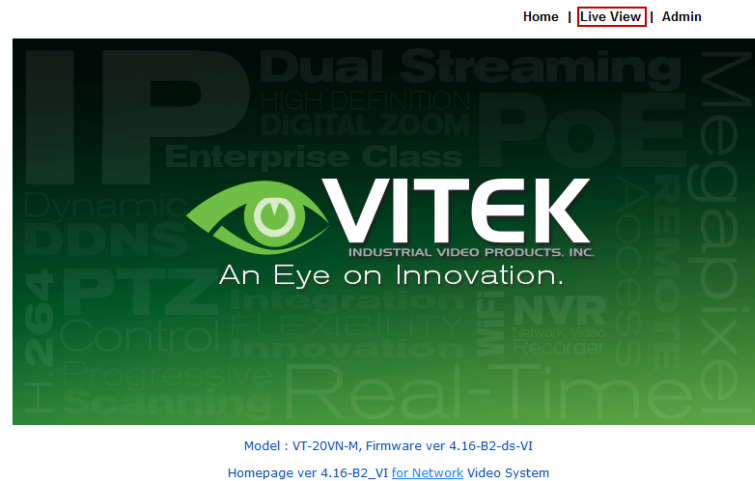
7. After the camera was configured by the program automatically, you will be able to get access by
- Right click over the camera information, "Go Product Homepage"



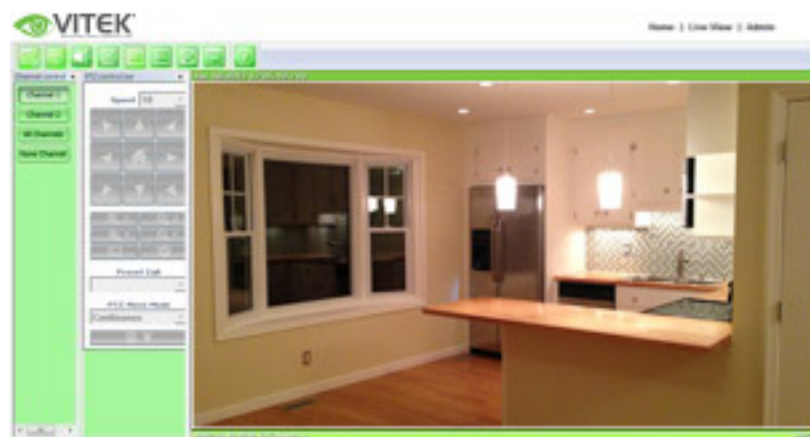
- Click over the icon "Connect Product Homepage"



8. From the Home Page, you can "Live View" or administrate "Admin" the camera.



On Live View you will be able to see live video from your camera.



*NOTE: For more information, refer to **Section 12. ENVI Admin Menu** on **page 36**.*

8. VTC-IR40NZ Features

- Full HD, 2Mega Pixel Network CAMERA, 1920x1080(30p/25p)
- ONVIF & PSIA Conformance
- True WDR(Wide Dynamic Range)
- Improved Noise reduction with the enhanced 3D-NR
- VTC-IR402/NZ39: f=3~9mm, F1.2~F2.1 Day&Night zoom lens
(Optical 3x Auto focus zoom / Digital 32x zoom)
- VTC-IR402/NZ922: f=9~22mm, F1.6~F2.3 Day&Night zoom lens
(Optical 2.4x Auto focus zoom / Digital 32x zoom)
- Focusig Status Indicator on Screen
 - ★ (Blue) Focusing in process
 - ★ (White) Focusing Completed
- Pointing Zoom which enables the flexible zooming at any area.
- Smart Motion Zoom in combining with Pointing Zoom.
- Selectable Scale down image to 720p mode
- Motion Detection, Privacy Mask, Defog, Sens-up, BLC/HLC, H/V/HV Flip, Motion Deblur, Pixel Defect Compensation
- Lens Refresh / Lens Initializing Set / LSC(Lens Shade Compensation)
- Enhanced light Sensitivity by DSS technology
- H.264/MJPEG dual streaming
- Full duplex 2 way Audio, Alarm IN/OUT
- Max 30fps live view @ 1920x1080p
- Slot for Standard SD memory card verified up to 64GB
- Menu Control via either Local Joystick or WEB
- OSD menu & CVBS Video output BNC for easy installation & maintenance
- PoE(IEEE Std. 802.3af), 24VAC/12VDC
- Circuit protection against faulty connection in power polarity
- Isolated power supply against ground loop problem
- 40 850nm IR LEDs with up to 150' IR range
- Dual Window, One-touch 3-Axis locking bracket, Easy Installation Pad
- Built-in cooling Fan & Heating function
- IP68 protection

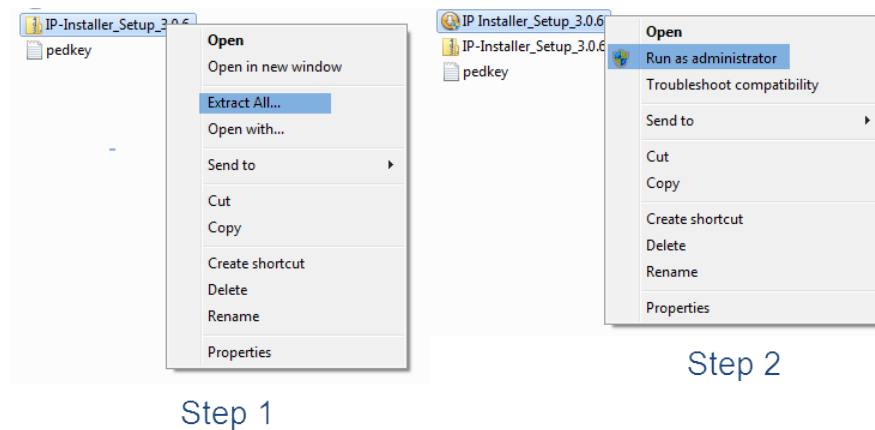
9. IP Installer: Introduction

IP Installer is a proprietary utility program for Vitek IP products. It enables users of Vitek products to search their network for any Vitek network camera, video server, or network video recorder no matter what IP address it has. By using IP Installer, users will be able to facilitate network setup process for Vitek products deployment.

5. Runs on Microsoft Windows operating system (XP, Vista, 7, 8)
6. Search for Network Cameras, Video Servers, and Network Video Recorders
7. Capable of firmware updating
8. Support automatic and manual IP setup

10. Installing and Uninstalling

**** It's recommended to install this program as an administrator ****

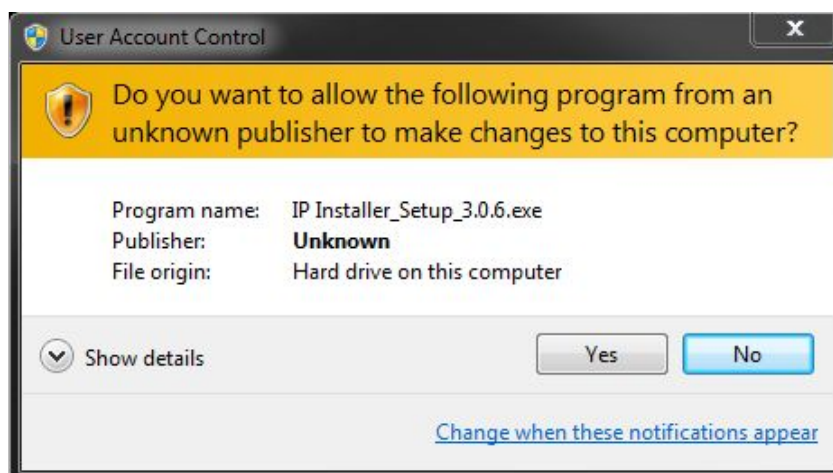


10.1. Installing IP Installer

If the program is started from the CD supplied with Vitek products, insert the CD in to CD/DVD tray and check the installation file. If it is download or copied from the Internet or any other media, locate the file from the PC's hard drive. You will see the icon as shown with the file name **IP Installer_Setup_x.x.x.exe**. The actual file name in your case may vary as the version changes. Double click the icon to start installation.



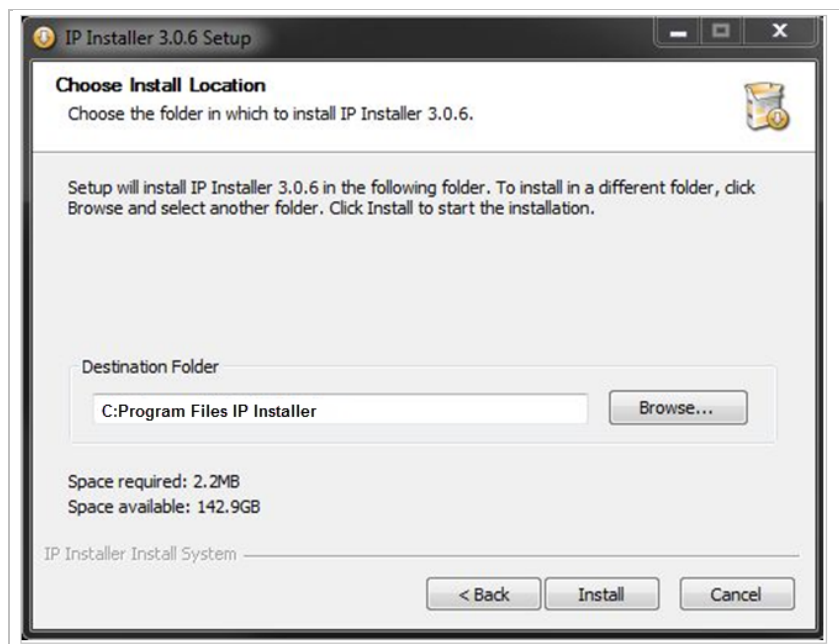
You may be prompted to continue running the installation program.



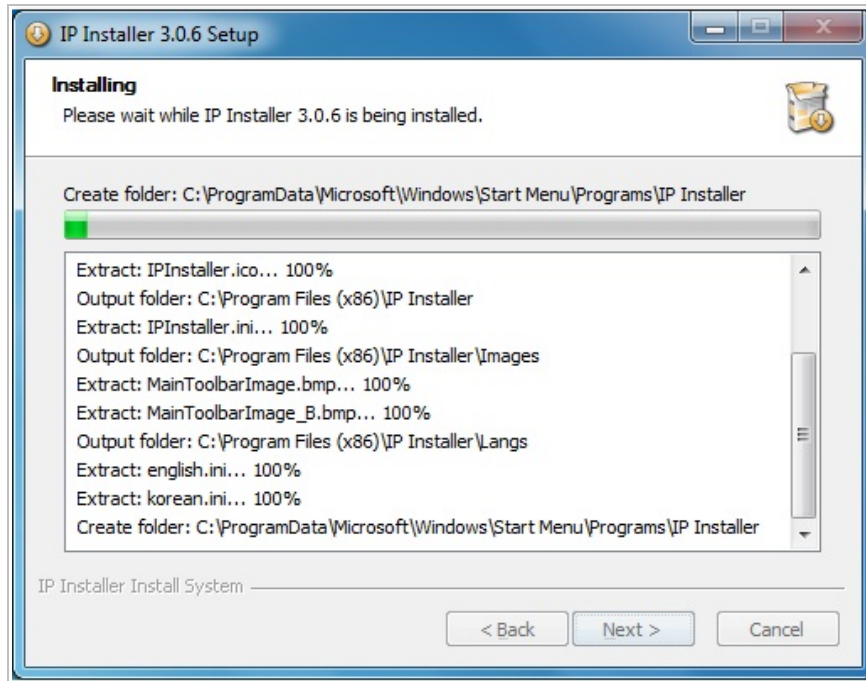
Click **Yes** button, then the following window will be shown on the screen.



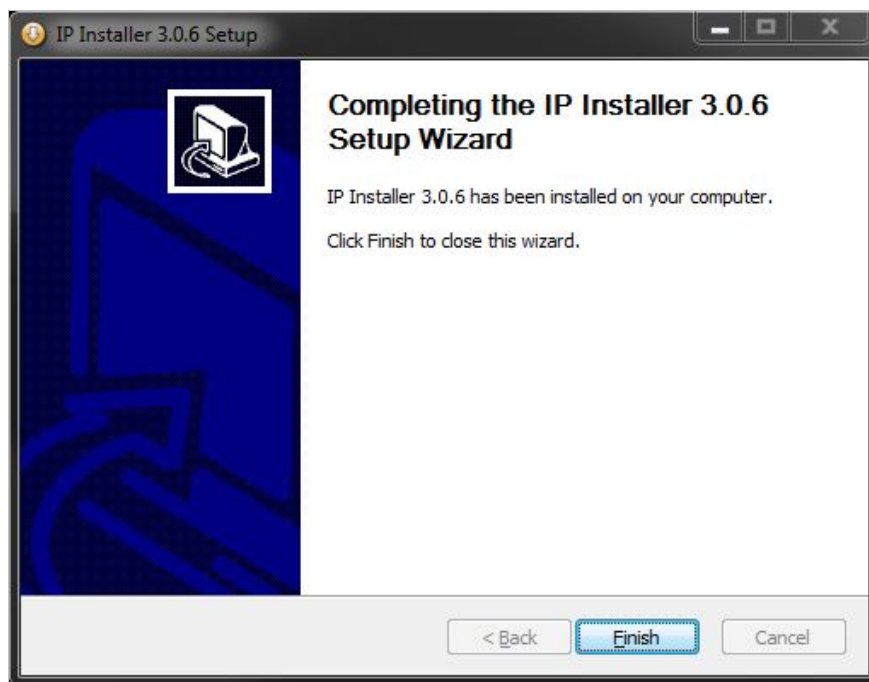
To continue the installation, click **Next**. The following window will be displayed for location to install.



The default location for installation is **C:\Program Files\IP Installer**. It is recommended to install in this folder, if you want to change it to a different location, click the **Browse** button to choose location. Now click the **Install** button. You will see the progress of the install as shown below.

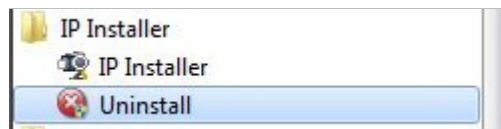


When the files are done copying, the following window will be shown. Click the **Finish** button to complete the installation.

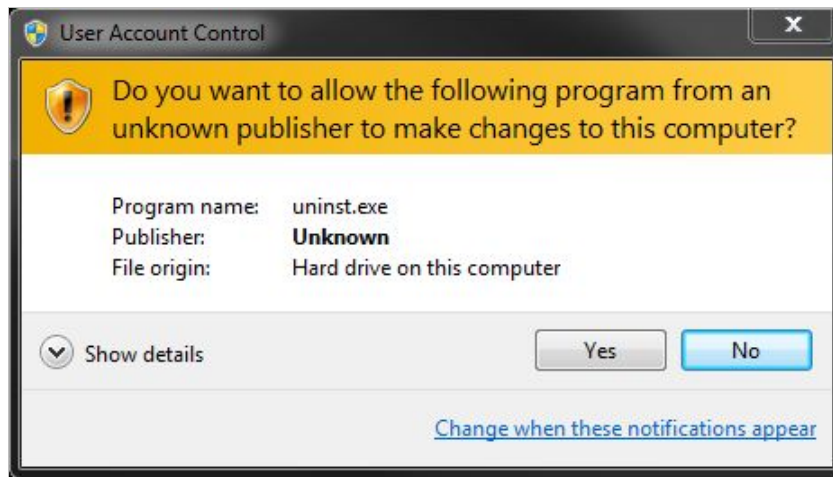


10.2. Uninstalling IP Installer

If you want to remove the IP Installer program from your PC, click **Start > All Programs > IP Installer > Uninstall**.



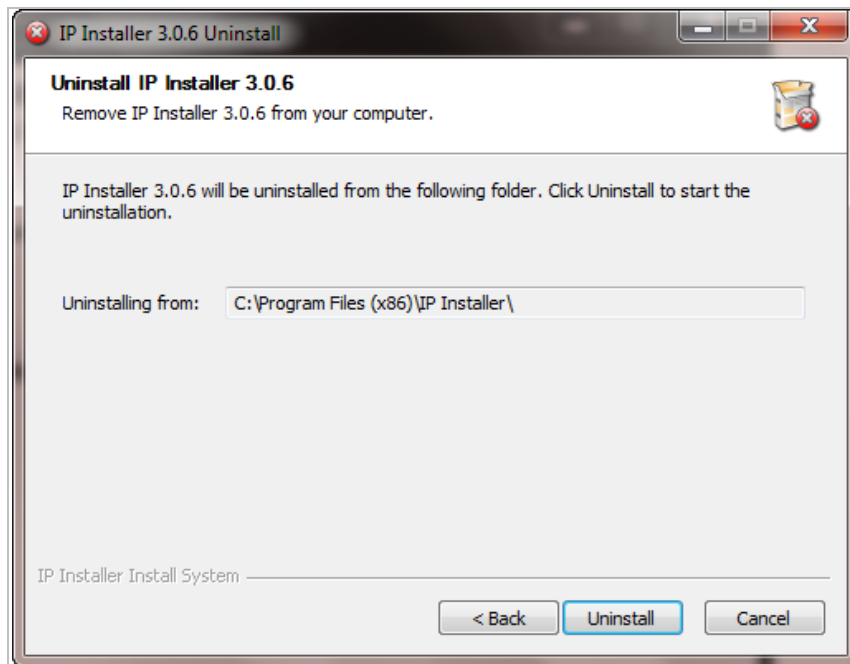
You may be prompted to continue running the uninstall program.



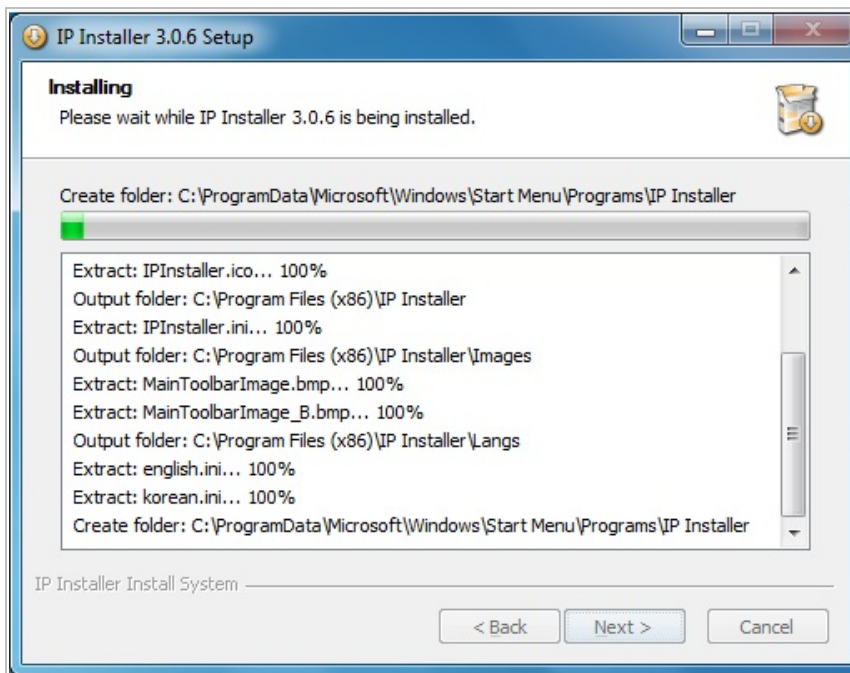
Click on the **Yes** button, then the following window will be shown on the screen.



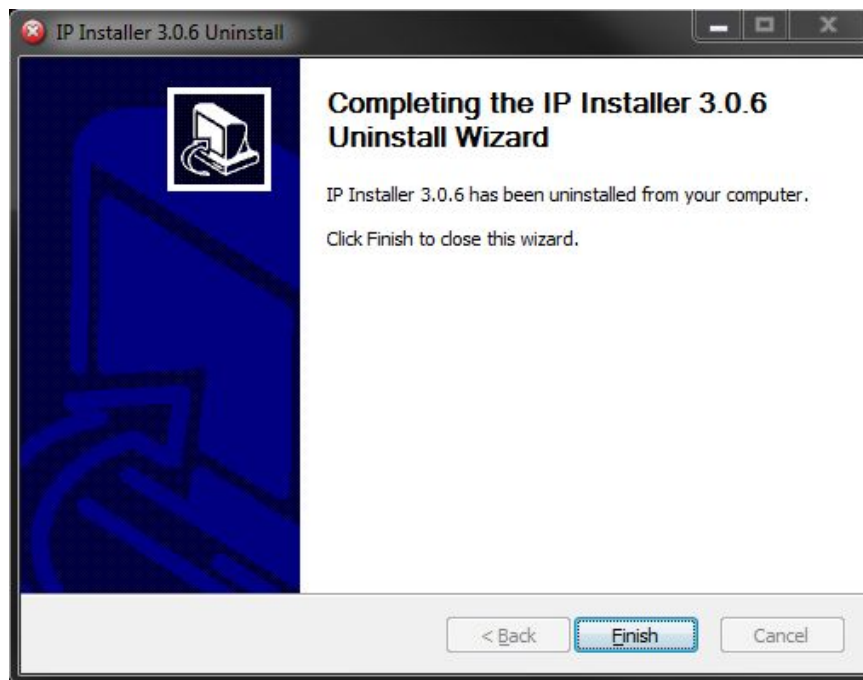
Click on the **Next** button and you will see the following window.



Click on the **Uninstall** button to start removing the **IP Installer** program from your computer. The following window will be displayed.



Click on the **Finish** button to close the window



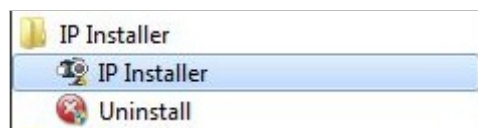
11. Using IP Installer

11.1. Starting the Program

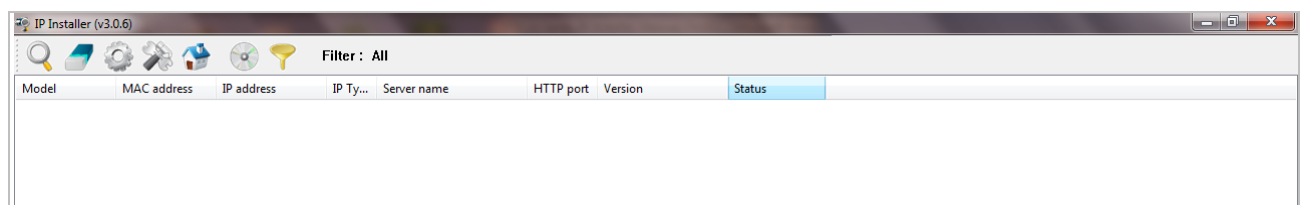


Once **IP Installer** program has been installed on your computer, a shortcut icon should be created on the desktop of your computer. You can start **IP Installer** by double clicking the icon.

Or you can also start the program by clicking **Start > All Programs > IP Installer > IP Installer** as shown below.



After the program has started, the main window of **IP Installer** program will appear on the screen as shown below. There are no network devices shown, as it is the first time running the program and nothing has been registered.








Search Product

Scan the network and shows the list of all the Vitek products that IP Installer program found.



Clear Product List

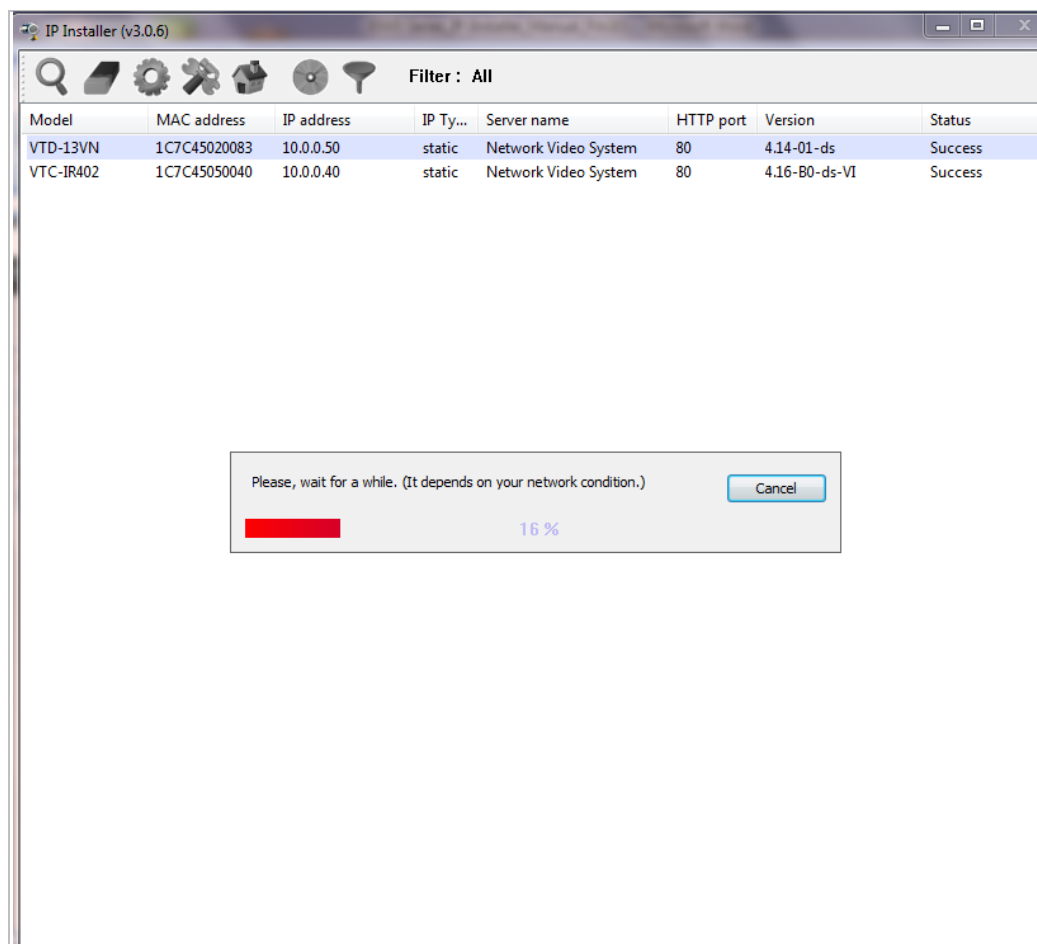
Clear the Vitek products list created by searching the network.

	Automatic IP Setup	Configure the network setting of selected IP device in Automatic mode.
	Manual IP Setup	Configure the network setting of selected IP device in Manual mode.
	Connect Product Homepage	Connect to the server homepage of the selected IP device.
	Update Firmware	Update the firmware of the selected IP device.
	Filter Configuration	Define the range of MAC and IP addresses to search.

11.2. Search Product



Make sure that your Vitek products are powered and connected to the network, and then click the **Search Product** button. A status window will pop up to show the progress of the search. Wait until it reaches 100%, or you may press the **Cancel** button to stop the search at any given time and proceed with the results made until that moment.



After searching is completed 100%, the **IP Installer** program will display the IP devices found.

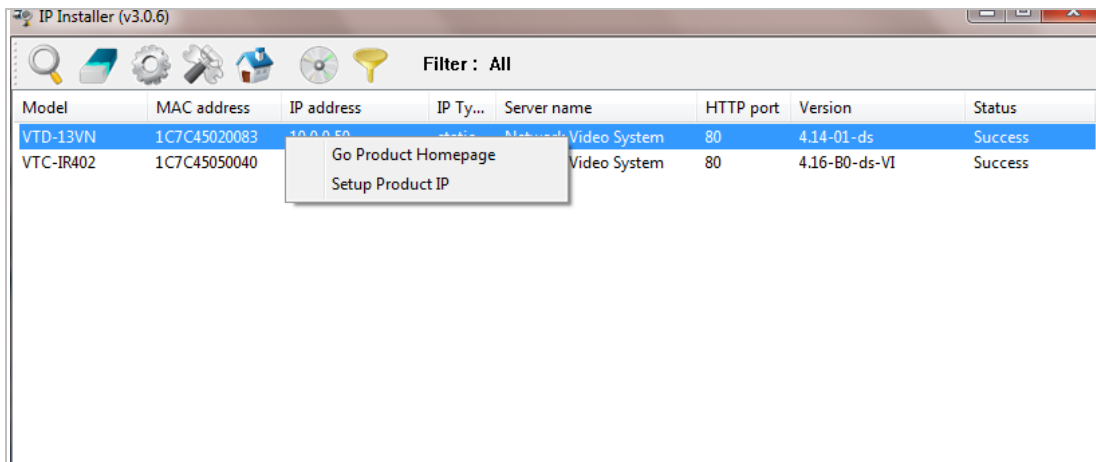


If you want to clear the list of the IP Devices from the window, click **Clear Product List** button from the Main Toolbar.

Manual Network Setup



Configuring the network parameters of the devices in the list can be started either by highlighting and right clicking mouse button or by clicking **Manual IP Setup** button on the main **Toolbar**.



When one IP device is selected, the following screen will appear

Network Setup

Mac Address: 1C7C45020083 ☒ Server Name: Network Video System ☒ HTTP Port: 80

IP Type: ☒ Static ☐ DHCP ☐ PPPoE

☒ Network

IP Address: 10 . 0 . 0 . 50
 Netmask: 255 . 255 . 255 . 0
 Default Gateway: 10 . 0 . 0 . 1
 DNS1: 168 . 126 . 63 . 1
 DNS2: 168 . 126 . 63 . 2

Wireless information

Auth Mode: [Dropdown]
 Encryption: ☒ None ☐ WEP ☐ TKIP ☐ AES
 WEP Mode: [Dropdown]
 KEY1: [Radio] [Field]
 KEY2: [Radio] [Field]
 KEY3: [Radio] [Field]
 KEY4: [Radio] [Field]
 WPA/PSK: [Field]

ESSID: [Field] Scan AP: [Button]

Authentication
 Admin Password: [Field]

Save Configuration Option
☒ Save Configuration ☐ Not Saving

[Set] [Cancel]

MAC Address	MAC address of the selected device is shown.
Server Name	Input desired name of camera i.e. Lunch Room
HTTP Port	Input port number to access IP devices homepage via web. Default port is 80
IP Type	Select the type of address (Static / DHCP / PPPoE) Use STATIC for manual IP setup

Network	General network parameters are required in this part. Please contact your network administrator for detail. (IP Address, Netmask, Default Gateway, DNS1, DNS2)
Authentication (Admin Password)	Password for the IP device. (Default password for Vitek products is " root " unless already changed)
Save Configuration Option	<p>Select whether the configured contents is to be saved in the Camera memory or not.</p> <ul style="list-style-type: none"> • Save Configuration: Changed values will be saved in the Camera memory of the device, which means the changes are permanent. • Not Saving: Changed values will not be saved in the Camera memory, which means if the IP device is turned off the changes are lost and the previous setting will be applied back.

Click **Set** button to apply the changed values to IP device. If you don't want it, click **Cancel** button.

When two or more IP devices are selected

You can select two or more IP devices at the same time by clicking one after another while CTRL key is pressed. The result is shown as below.

To configure the network parameters of those devices, click the right mouse button or click

Manual IP Setup icon on the main **Toolbar** with multiple IP devices selected as shown above.

Then the following window will show up.

The Network Setup window displays a table with the following data:

Model	MAC Address	Server Name	IP Type	IP Address	Netmask	Gateway	DNS1	DNS2	HTTP Port	Password
VTD-13VN	1C7C45020083	Network Vide...	Static	10.0.0.50	255.255.255.0	10.0.0.1	168.126.63.1	168.126.63.2	80	
VTC-IR402	1C7C45050040	Network Vide...	Static	10.0.0.40	255.255.255.0	10.0.0.1	168.126.63.1	168.126.63.2	80	

At the bottom of the window, there are three buttons: "Apply to all", "Save Close", and "Cancel".

You can modify the value of each changeable field by clicking it. The following shows an example of entering a new value to a field.

The Network Setup window is shown with the "Netmask" field for the first device (VTD-13VN) selected and highlighted in blue. The value "255.255.255.0" is visible in the field.

Model	MAC Address	Server Name	IP Type	IP Address	Netmask	Gateway	DNS1	DNS2	HTTP Port	Password
VTD-13VN	1C7C45020083	Network Vide...	Static	10.0.0.50	255.255.255.0	10.0.0.1	168.126.63.1	168.126.63.2	80	
VTC-IR402	1C7C45050040	Network Vide...	Static	10.0.0.40	255.255.255.0	10.0.0.1	168.126.63.1	168.126.63.2	80	

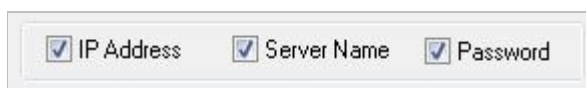
At the bottom of the window, there are three buttons: "Apply to all", "Save Close", and "Cancel".

Model	Model Numbers of the IP devices that you selected.
MAC Address	MAC address of the selected device is shown.
Server Name	Name of the selected IP device.
IP Type	How to assign IP address to the device (Select Static here for Manual IP Setup)
IP address, Netmask, Gateway, DNS1, DNS2	General network parameters are required in this part. Please contact your network administrator for detail.
HTTP Port	HTTP port number of the IP device for web access to homepage.
Password	Password for the IP device.(Default password for Vitek products is " root ")

If you click **Apply to all** button after changing just a field of one IP device, the remaining IP devices will have the same value for that parameter. In this case, each device's **Server name** and **IP Address** field will have +1 incremented value added to the original value. For example, if the first IP device has been given the server name of **NetCam** and **Apply to all** button is pressed, it will be automatically changed to **NetCam1** and the next IP device will have **NetCam2** and so on. The same applies to the **IP address** field.

For Password field, the entered information doesn't increment but will use the same data.

In using **Apply to all**, you can choose which field is affected. Put check marks only on the field you want to use this automatic action as below.



The image shows a horizontal row of three checkboxes, each followed by a label. The first checkbox is checked and labeled 'IP Address'. The second checkbox is checked and labeled 'Server Name'. The third checkbox is checked and labeled 'Password'.

Click **Save & Close** button to save the changed values in the camera memory of all the IP devices and close the Network setup window.

11.3. Automatic Network Setup



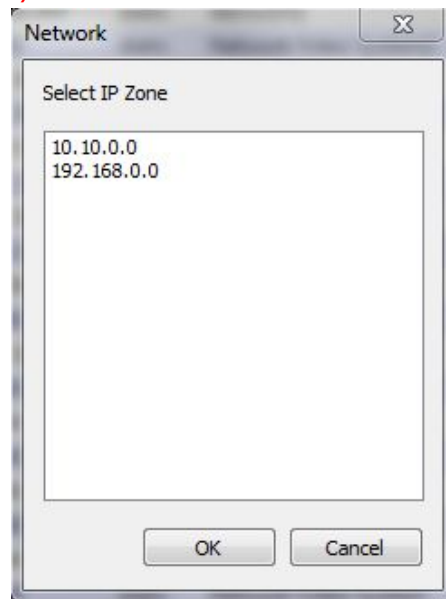
Configuring the network parameters of the devices in the list can be started either by clicking right mouse button or by clicking **Automatic IP Setup** button on the main **Toolbar**. Before starting the setup, you first need to choose the one to be configured. In this setup mode, IP Installer program checks your local network and assigns available IP addresses to the IP devices. You have a choice of using those automatically assigned IP addresses, or you can just enter other IP addresses as you desire.

The screenshot shows a 'Network Setup' dialog box. At the top, there's a 'Mac Address' field with '1C7C45020083', a 'Server Name' field with 'Network Video System', and an 'HTTP Port' field with '80'. Below these are three radio buttons for 'IP Type': 'Static' (selected), 'DHCP', and 'PPPoE'. The 'Static' section includes fields for 'IP Address' (10.0.0.50), 'Netmask' (255.255.255.0), 'Default Gateway' (10.0.0.1), 'DNS1' (168.126.63.1), and 'DNS2' (168.126.63.2). To the right of these are fields for 'PPPoE User', 'PPPoE Password', and 'PPPoE Password Confirm'. Below the IP settings is a 'Wireless information' section with a dropdown for 'Auth Mode', radio buttons for 'Encryption' (None selected, WEP, TKIP, AES), a dropdown for 'WEP Mode', and four radio buttons for 'KEY1' through 'KEY4'. There are also fields for 'WPA/PSK', 'ESSID', and 'Admin Password'. At the bottom left, there's a 'Save Configuration Option' section with 'Save Configuration' (selected) and 'Not Saving' radio buttons. 'Set' and 'Cancel' buttons are at the bottom right.

Server Name	Name of the selected IP device.
HTTP Port	HTTP port number of the IP device for web access to homepage.
IP Type	How to assign IP address to the device (Select Static here for Manual IP Setup)
Network	General network parameters are required in this part. Please contact your network administrator for detail. (IP Address, Netmask, Default Gateway, DNS1, DNS2)
Authentication (Admin Password)	Password for the IP device. (Default password for Vitek products is "root")
Save Configuration Option	<p>Select whether the configured contents is to be saved in the Camera memory or not.</p> <ul style="list-style-type: none">• Save Configuration: Changed values will be saved in the Camera memory of the device, which means the changes are permanent.• Not Saving: Changed values will not be saved in the Camera memory, which means if the IP device is turned off the changes are lost and the previous setting will be applied back.

Click **Set** button to apply the changed values to IP device. If you don't want it, click **Cancel** button to restore the previous values.

Note: If your network has more than one IP address Zone at the same time, the confirmation window will be displayed as below. You need to choose the one you are going to use for your IP devices.



11.4. Using DHCP Server

If your network has a DHCP server running for assigning IP addresses, you may choose to let it assign IP addresses to the IP devices on the list. To do that, first open the Network Setup window either by **Manual IP Setup** or **Automatic IP Setup** procedure. Choose **DHCP** in "IP Type" selection, then **IP Address, Netmask, Default Gateway** field in **Network** setup area on the window will be disabled to input as shown below.

The image shows a 'Network Setup' window with the following fields and options:

- Mac Address:** 1C7C45020083
- Server Name:** ☒ Network Video System
- HTTP Port:** ☒ 80
- IP Type:** ☐ Static, ☒ DHCP, ☐ PPPoE
- Network Section (Enabled when DHCP is selected):**
 - ☒ Network
 - IP Address:** 10 . 0 . 0 . 50
 - Netmask:** 255 . 255 . 255 . 0
 - Default Gateway:** 10 . 0 . 0 . 1
 - DNS1:** 168 . 126 . 63 . 1
 - DNS2:** 168 . 126 . 63 . 2
- PPPoE Section (Enabled when PPPoE is selected):**
 - PPPoE User:**
 - PPPoE Password:**
 - PPPoE Password Confirm:**
- Wireless information:**
 - Auth Mode:**
 - Encryption:** ☒ None, ☐ WEP, ☐ TKIP, ☐ AES
 - WEP Mode:**
 - KEY1:** ☒
 - KEY2:** ☐
 - KEY3:** ☐
 - KEY4:** ☐
 - WPAPSK:**
 - ESSID:**
- Authentication:**
 - Admin Password:**
- Save Configuration Option:** ☒ Save Configuration, ☐ Not Saving
- Buttons:**

For setting up other fields on the setup window, refer to **Section 0 Manual Network Setup on page 26**. After filling the fields with appropriate values, click **Set** button to apply the changed values to IP device. If you don't want it, click **Cancel** button to restore the previous values.

11.5. Using PPPoE

If your network environment is based on PPPoE connection, you'll need to choose **PPPoE** on IP Type selection. First open the Network Setup window either by **Manual IP Setup** or **Automatic IP Setup** procedure. Choose **PPPoE** in IP Type selection, and then all the fields in **Network** setup area on the window will be disabled. The network settings such as IP Address, Netmask, Default Gateway and DNS are no longer available to enter. You only need to enter the Server Name, HTTP Port number, and login authentication for your PPPoE connection.

The image shows a 'Network Setup' window with the following fields and options:

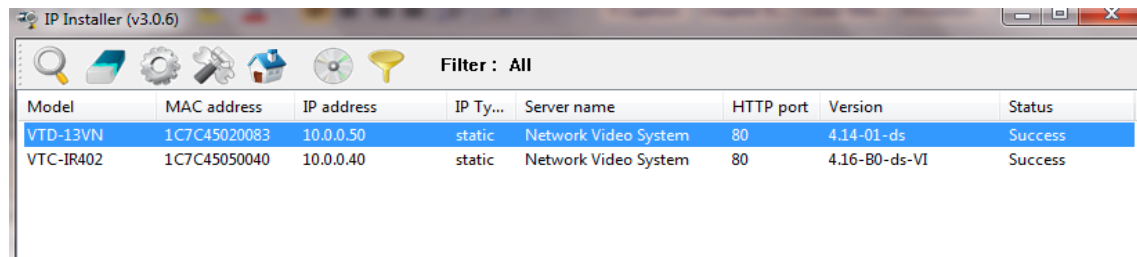
- Mac Address:** 1C7C45020083
- Server Name:** Network Video System
- HTTP Port:** 80
- IP Type:** Static (selected), DHCP, PPPoE
- Network Section (under Static IP Type):**
 - ☒ Network
 - IP Address:** 10 . 0 . 0 . 50
 - Netmask:** 255 . 255 . 255 . 0
 - Default Gateway:** 10 . 0 . 0 . 1
 - DNS1:** 168 . 126 . 63 . 1
 - DNS2:** 168 . 126 . 63 . 2
- PPPoE Section:**
 - PPPoE User:** [Empty field]
 - PPPoE Password:** [Empty field]
 - PPPoE Password Confirm:** [Empty field]
- Wireless information:**
 - Auth Mode:** [Dropdown menu]
 - Encryption:** None (selected), WEP, TKIP, AES
 - WEP Mode:** [Two dropdown menus]
 - KEY1:** [Radio button selected, followed by an empty field]
 - KEY2:** [Radio button, followed by an empty field]
 - KEY3:** [Radio button, followed by an empty field]
 - KEY4:** [Radio button, followed by an empty field]
 - WPAPSK:** [Empty field]
 - ESSID:** [Empty field] with a 'Scan AP' button next to it.
- Authentication:**
 - Admin Password:** [Empty field]
- Save Configuration Option:**
 - ☒ Save Configuration
 - ☐ Not Saving
- Buttons:** Set, Cancel

MAC Address	MAC address of the selected device is shown.
Server Name	Name of the selected IP device.
HTTP Port	HTTP port number of the IP device for web access to homepage.
IP Type	How to assign IP address to the device (Select PPPoE in this mode)
PPPoE	<p>User Authentication for PPPoE Connection.</p> <ul style="list-style-type: none"> • PPPoE User: Enter User ID. • PPPoE Password: Enter Password for the User ID. • PPPoE Password Confirm: Enter the same Password again.
Authentication (Admin Password)	<p>Password for the IP device. (Default password for Vitek products is "root" unless already changed)</p>
Save Configuration Option	<p>Select whether the configured contents is to be saved in the Camera memory or not.</p> <ul style="list-style-type: none"> • Save Configuration: Changed values will be saved in the Camera memory of the device, which means the changes are permanent. • Not Saving: Changed values will not be saved in the Camera memory, which means if the IP device is turned off the changes are lost and the previous setting will be applied back.

*Note: After setting up the network for the IP devices, make sure the IP devices are accessible on the network from your computer. It can be done by running Live View function of the homepage of the IP device's built-in server. Refer to **Section 11.8 Live View on page 36** for more information.*

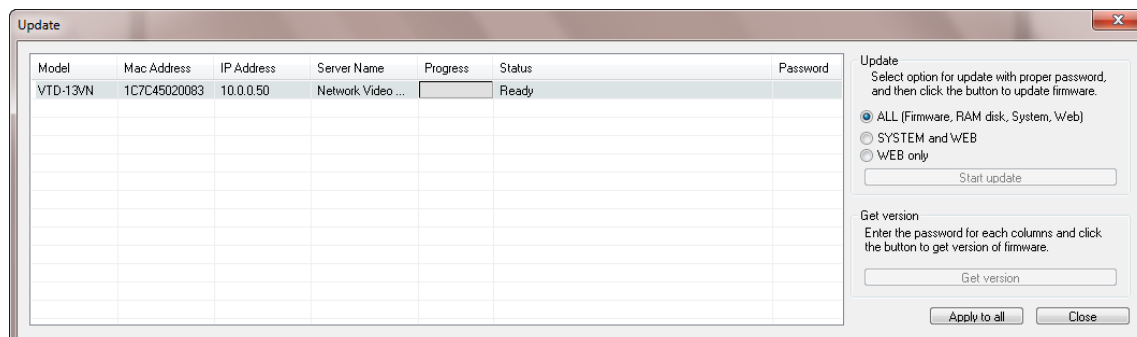
11.6. Updating Firmware

Once IP devices are searched and shown on the screen as functioning successfully, you can update the firmware of them in "IP Installer" program. To do that, first check the firmware version of the device, which you can find on the IP Installer window.



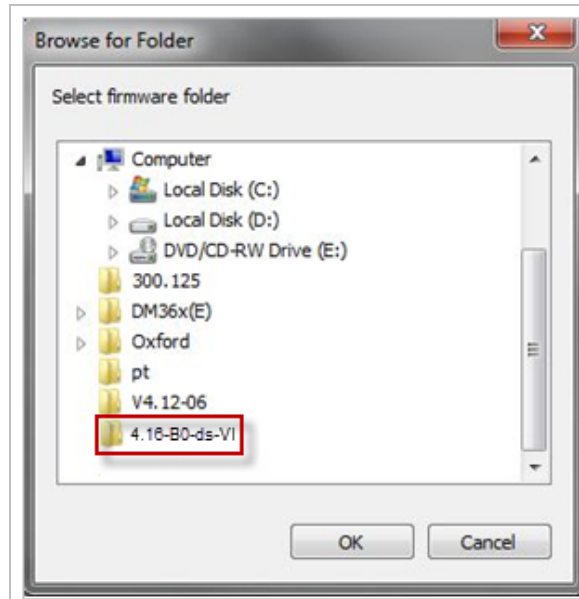
In the above picture, the firmware version of this product is 4.14-01-ds while the latest firmware version available is 4.16-B0-ds-VI as you could see at Vitek's homepage (<http://www.vitekctv.com/Downloads.asp>). If you decide to update the firmware, first create a folder on your computer for the update firmware, then download the latest firmware to that folder.

Then select the IP device to be updated on IP Installer window, then click **Update Firmware** button from the toolbar. The following window will be displayed.

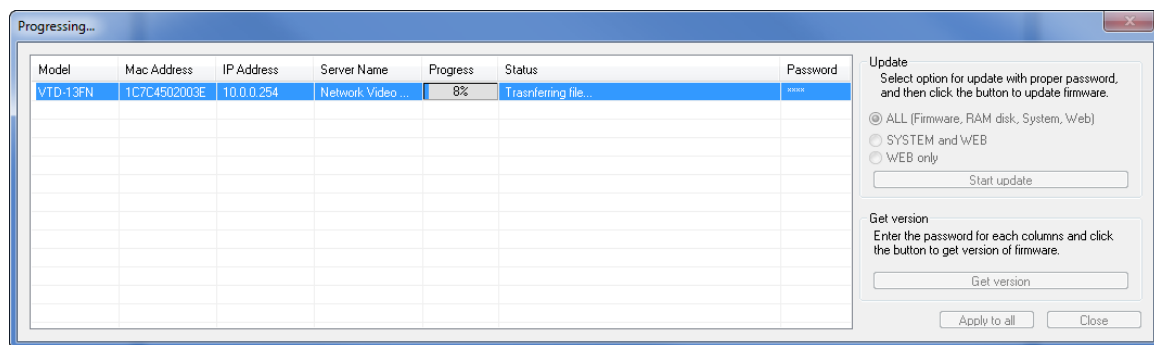


You may find the **Password** field is empty on the window shown above. If so, click the Password field of the IP device and enter the proper password for the device. You are not allowed to update the firmware if the correct password is not provided.

After the password is entered, the **Start Update** button will be enabled now. Click the button to see the following window for selecting the folder where the file has been saved. Highlight the folder than click OK.



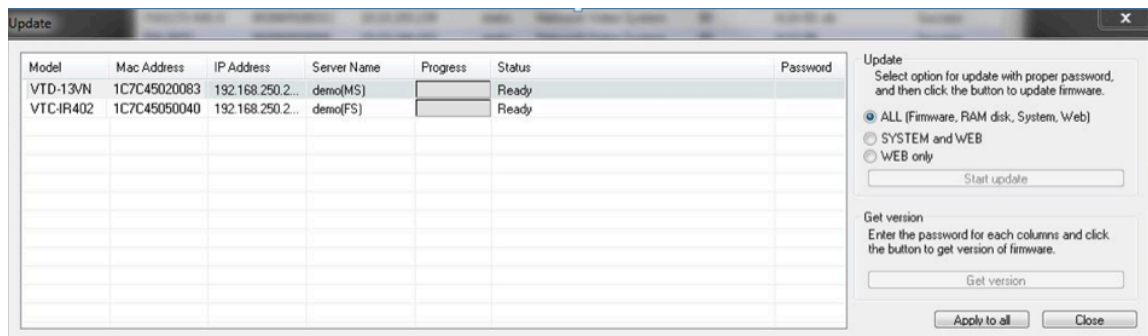
After clicking OK the following window will be displayed.



Note: Do not CLOSE window until completed, to avoid permanent damage to the camera.

You can also select multiple IP devices at the same time, and have them start firmware updating in a single step. Select the files to update by holding CTRL key and selecting which IP devices to update

Click **Start Update** button. You will see the update window brought up with multiple IP devices listed.



The rest of the procedure is the same as in the firmware update case for a single IP device.

11.7. Filter Configuration



When you need to search only for the IP device having a specific range of MAC or IP addresses, you can do it by using this feature. To set the search condition, click **Filter Configuration** button on the Toolbar, then the following window will show up on the screen.

The first six HEX characters are already filled in with 1C:7C:45, which is the MAC prefix for Vitek products. Put a checkmark in **MAC Address** or **IP Range** to set the range for searching.

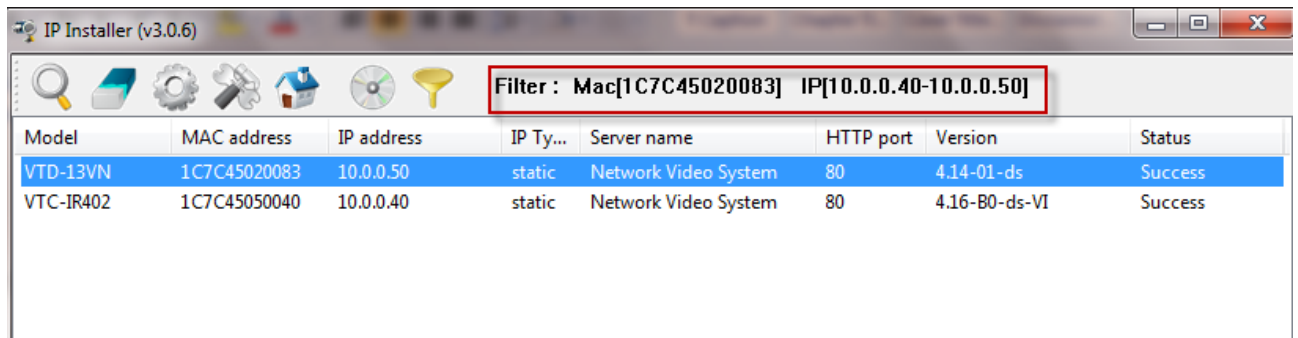
You can set the range of IP addresses to scan as shown below. In this example, all the IP devices having MAC address starting with 1C:7C:45 will be listed on the result window after scanning.

Or you can look for a single IP device having a specific IP address as below.

IP Address range for searching can be entered as follows.

You may even set both MAC Address and IP Range together at the same time.

After setting the searching range as explained above, click **OK** button. Then IP Installer program window will show the searching range on the top right portion of the window as shown below.

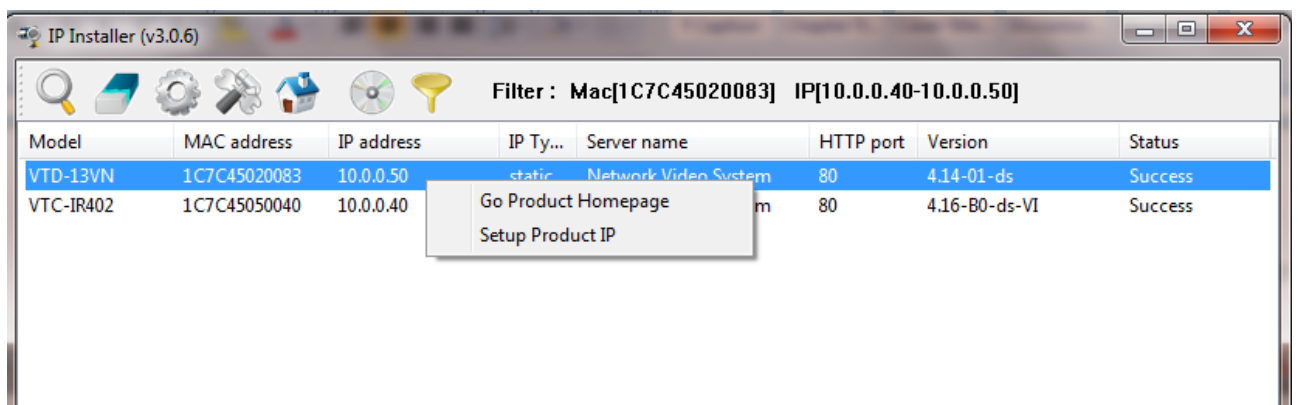


To start searching with this condition now, click **Search Product** button on the toolbar. The program will start searching and show the result after a moment.

11.8. Live View

Once searching and configuration on IP devices are done, you should make sure that the IP devices are accessible with the new settings. The best way to do it is by connecting to the homepage of each IP device's built-in server, and starting Live View feature.

Select **Go Product Homepage** when you click the right mouse button on the IP device to test.



If you select **Go Product Homepage**, the homepage of that device's built-in server will be opened on a new Web browser window as shown below. This is the same result when you click Connect Product Homepage button from the Main Toolbar.

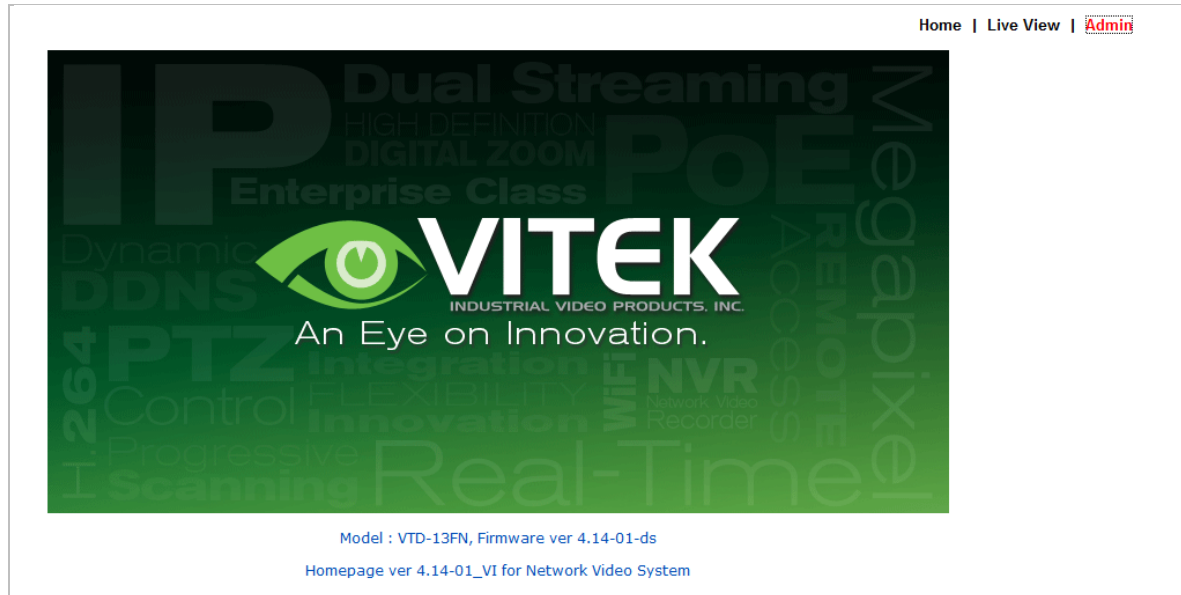


Click Live View on the top right of the window, then ENVI Series Viewer ActiveX program will be started. If you have not installed the ENVI Series Viewer program before, it will ask for a confirmation to install it. Allow it and you will be able to find out whether the configuration by IP Installer program is properly done.

*Note: Refer to **Section 20. ENVI Series Viewer on page 90** for detailed information about the ENVI Series Viewer ActiveX program.*

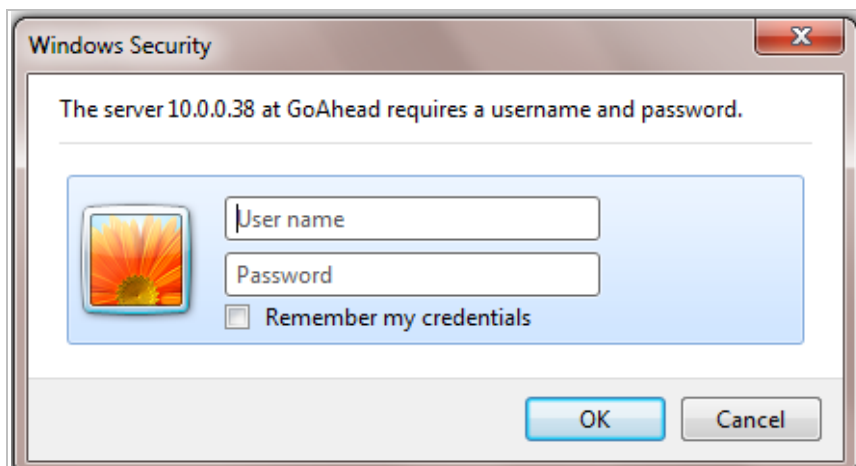
12. ENVI Admin Menu

After connecting to a VITEK ENVI Series camera via web browser, you'll find the web page as shown below. The upper rightmost item of the menu is **Admin**; this is where you can set up most of the features in the VITEK camera you're connected to.

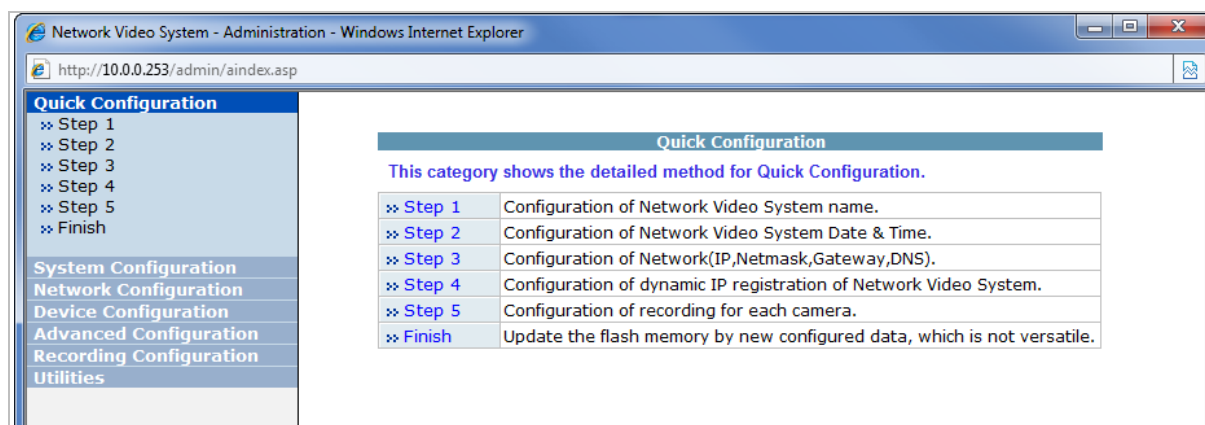


12.1. Entering Admin Menu

Click **Admin** then you'll see a login window. In the login window, enter **root** for both ID and password as they are the factory defaults. Press **Enter** key or click **OK**.



Now the **Admin Menu** will be displayed as shown below. This will guide you to the top level menu items, which are Quick, System, Network, Device, Advanced, Recording, and Utilities. Clicking any of these top level menu items will display submenu items and brief descriptions.

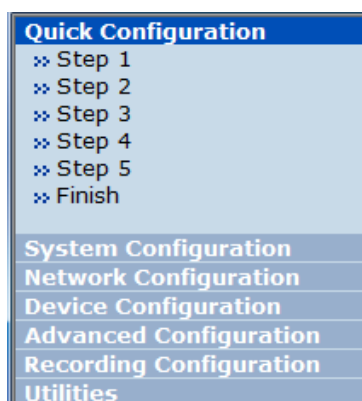


12.2. Admin Menu Structure

The following table shows the hierarchy of the Admin menu structure that we're going to deal with in this manual.

13. Quick Configuration

In Quick Configuration, you will be able to set up many of the essential parts of the configuration in a simple manner without going into details. Selecting Quick Configuration gives you the menu as seen below. You can perform each setup by clicking the one you would like to configure.



13.1. Step 1: Changing Server Name

Click Server Name on System Configuration menu, then Server Name Setup windows will be displayed. Refer to **Section 14.1 Server Name Setup on page 40** to see how to change the server name.

13.2. Step 2: Time Setup

Click Date & Time on System Configuration menu, then the Local Date & Time Configuration window will be displayed. Refer to **Section 14.2 Date & Time on page 41** to see how to set up.

13.3. Step 3: Network Setup

To make a connection to the Internet, it is required to figure out the type of the Internet service you're using. Refer to **Section 15. Network Configuration on page 45** to see how to set up.

13.4. Step 4: IPCCTVDNS.COM

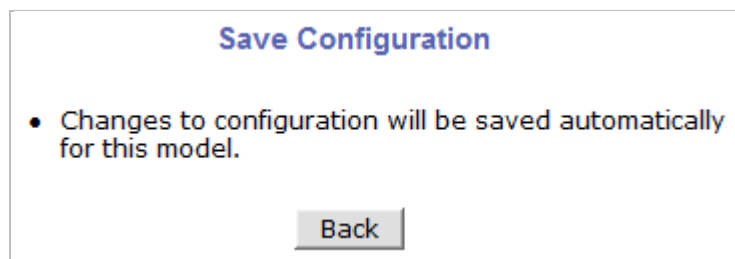
When VITEK Server is used in a Dynamic IP environment, it is required to utilize **IPCCTVDNS.com** feature. Refer to **Section 37. IP-CCTV DNS Registration on page 151** for setup information.

13.5. Step 5: Recording Configuration

Vitek cameras with MicroSD card can be configured for recording options in this section. Refer to **Section 18.1 SD / MicroSD Card Configuration on page 79** to see how to set up.

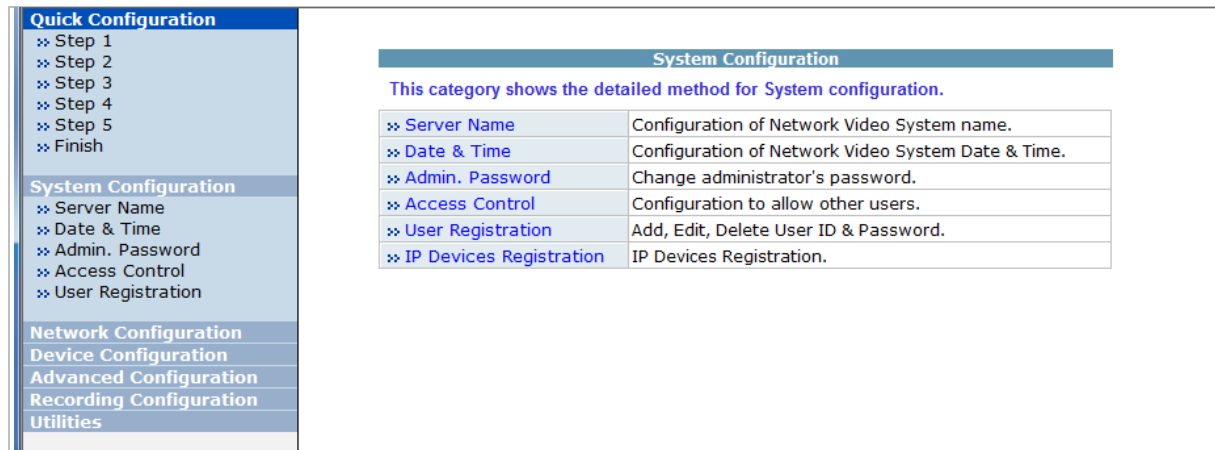
13.6. Finish

After clicking Finish all changes will be saved automatically to the camera/server



14. System Configuration Menu

When you click on **System Configuration** item on Admin Menu, the following sub menu will be displayed.



14.1. Server Name Setup

Click **Step 1** on **Quick Configuration** or **Server Name** under **System Configuration** then the following will be displayed and you will find out the system information such as model number of the VITEK camera, server name (camera name), MAC address (serial number), firmware version, and Web image version.

Server Name Setup

Product model name	VTD-13VN
Server name	Network Video System
Mac Address (S/N)	1C:7C:45:02:00:83
Firmware version	4.14-01-ds
Webimage version	4.14-01_VI

Notice : The server name can be 21 alphanumeric or 10 unicode.

As an administrator, you can change the name of the camera/ server, but other values are not allowed to be changed. To change the camera/ server name, enter a new name in the **Server Name** field. You may use up to 21 alphanumeric or up to 10 Unicode characters. Tab or any other special characters are not allowed. Click **Apply** button to save the setting and it will take effect immediately.

14.2. Date & Time

Click **Step 2** on **Quick Configuration**. Or **Date & Time** under **System Configuration** Fill the **Date** and **Time** fields with your local time and date information. If you're in a different time zone, put a checkmark on **Change Time Zone**, then select the correct region from the dropdown list to make the time zone change, you need to click **Apply** button and reboot the system.

Local Date & Time Configuration

Date (yyyy/mm/dd)	2012 / 11 / 9
Time (hh:mm:ss)	05 : 39 : 57
Time Zone	<input type="checkbox"/> Change Time Zone US/Pacific
Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
NTP server address	pool.ntp.org
NTP sever time	Get NTP server time

Notice : If you change the 'Time Zone' and click 'Apply' button, we strongly recommend to reboot this Network Video System.

If you want to retrieve the exact current time from a NTP server on the network, click **Get NTP Server Time** button. Clicking **Refresh** button will display the date and time retrieved from the camera. Then click **Apply** button to save it.

Note: In order to retrieve Time and Date information from a NTP server, you need to put NTP server address in advance of setting up, such as pool.ntp.org.

14.3. Admin Password

To change the password for the administrator, click **Admin Password** in **System Configuration** menu.



Administrator's Password Configuration

Administrator's ID	root
Old Password	<input type="text"/>
New Password	<input type="text"/>
Confirm Password	<input type="text"/>

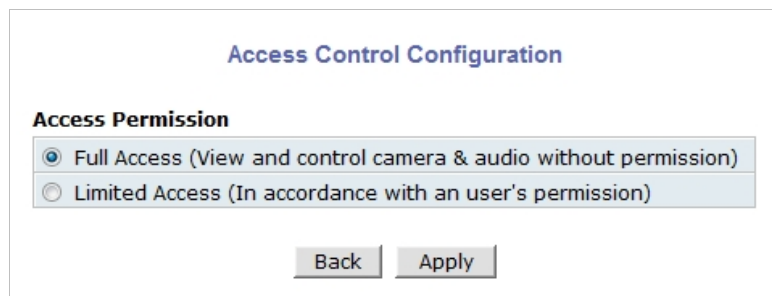
Notice : The password must be alphanumeric, within 4 ~ 23 characters.

Default ID for admin account is fixed as “**root**” and is not allowed to change. In **Old Password** field, enter the current password. In both **New Password** and **Confirm Password** fields, enter the same new password. The password must be between 4 and 23 alphanumeric characters. Click **Apply** button to put it into effect.

Because you have replaced the password with a new one, the existing network connection made with old password to VITEK camera is lost now. You will have to reconnect to the VITEK camera using new password.

14.4. Access Control

Click **Access Control** on **System Configuration** menu. The following windows will be displayed.



Access Control Configuration

Access Permission

☒ Full Access (View and control camera & audio without permission)

☐ Limited Access (In accordance with an user's permission)

From the **Access Permission** window, select either one you would like to use. Click **Apply** button to save the change.

- **Full Access:** Any user can access the camera/server and use all the features without limits.
- **Limited Access:** Only registered users can access the camera/server and have limited privileges.
-

14.5. User Registration

You can add, modify, or delete users for your VITEK camera/server here. Once registered as Limited Access setting, the user can access the VITEK camera/server with some limited privileges.

14.5.1. Add

To add a user, click **User Registration** on **System Configuration** menu. When **Add** is selected, you can add users and define their passwords, names, and access permission levels respectively.

User Registration (Add)

☒ **Add**
☐ **Edit**
☐ **Delete**

User ID	<input style="width: 70%;" type="text"/>
Password	<input style="width: 70%;" type="password"/>
Confirm password	<input style="width: 70%;" type="password"/>
Name	<input style="width: 70%;" type="text"/>

Notice : User ID & Password must be alphanumeric within 23 characters.

Enter a **User ID** between 4 and 23 alphanumeric characters. In both **Password** and **Confirm Password** fields, enter the identical password respectively. The password must be between 4 and 23 alphanumeric characters. In **Name** field, enter the user's name up to 23 alphanumeric characters.

Now select one of the four items from **System Resource Access Permission**, which defines the permission level for registered users to the VITEK camera.

System Resource Access Permission	
<input checked="" type="radio"/>	All Channels Access
<input type="radio"/>	General Access (only live viewing access)
<input type="radio"/>	No Access
<input type="radio"/>	Selective Access

- **All Channels Access:** User can use all the features except for Configuration in Admin Page.
- **General Access (only live viewing access):** User can only use Live View feature.
- **No Access:** User is not permitted any of the features.
- **Selective Access:** User is allowed to use only the selected features. With this item selected, you can now configure the details under this menu for the user.

VITEK cameras may have multiple VS Modules registered in it. When you click on any of the **Enable** check boxes, other fields in that row are now enabled to select.

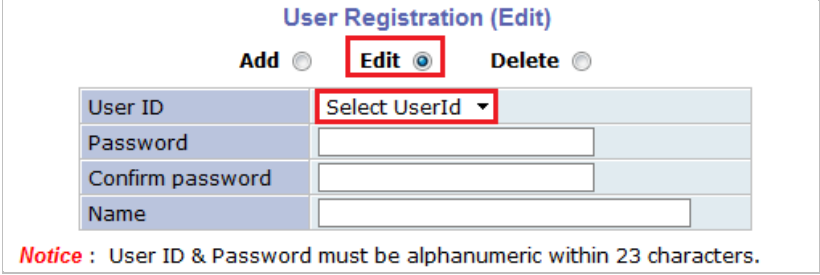
System Resource Access Permission				
<input type="radio"/>	All Channels Access			
<input type="radio"/>	General Access (only live viewing access)			
<input type="radio"/>	No Access			
<input checked="" type="radio"/>	Selective Access			
Enable	VS Module ID	Camera No.	Alarm Control	Audio Control
<input checked="" type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Built-in Module 0 ▾	All ▾	<input type="checkbox"/>	<input type="checkbox"/>

- **VS Module ID:** VS Module is a network device that has been registered in the VITEK camera
- **Camera No.:** Among the cameras of the VS Module select one to set up. (between all,1or2)
- **Alarm Control:** Determine if Alarm control is to be allowed. (*selected models*)

- **Audio Control:** Determine if Audio Control is to be allowed. (*selected models*)
After finishing the registration process, click **Apply** button to add the user.

14.5.2. Edit

To edit a user account, select **Edit**. In this part, you can modify the existing user's name, password, and access permission. User ID is not allowed to change. Once selecting a user ID to edit, the procedure is the same as in **Add** section.

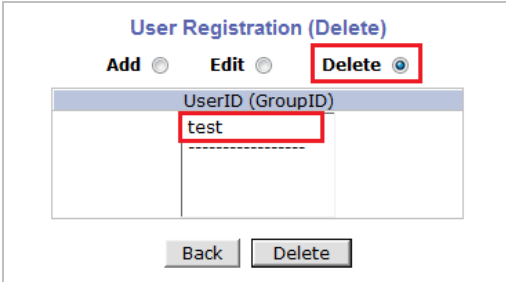


The screenshot shows the 'User Registration (Edit)' form. At the top, there are three radio buttons: 'Add', 'Edit' (which is selected and highlighted with a red box), and 'Delete'. Below these are four input fields: 'User ID' with a dropdown menu showing 'Select UserId' (highlighted with a red box), 'Password', 'Confirm password', and 'Name'. At the bottom, there is a red notice: 'Notice : User ID & Password must be alphanumeric within 23 characters.'

To see existing users, click **Select UserId**, and select a user to be edited from the dropdown box. Then you can change the password, name, or access permission, and click **Apply** button to save the setting. Setup of Access Permission can be done the same way as in the **Add** section.

14.5.3. Delete

To delete an existing user, select **Delete**.



The screenshot shows the 'User Registration (Delete)' form. At the top, there are three radio buttons: 'Add', 'Edit', and 'Delete' (which is selected and highlighted with a red box). Below these is a table with the header 'UserID (GroupID)' and one row containing the text 'test' (highlighted with a red box). At the bottom, there are two buttons: 'Back' and 'Delete'.

From the list of the users, select a user to delete. Click **Delete** button to confirm the deletion.

15. Network Configuration

Configuring the network is dependent on how an IP address is assigned in Ethernet-based environment, which is static IP, dynamic IP (DHCP), or PPPoE.

Quick Configuration » Step 1 » Step 2 » Step 3 » Step 4 » Step 5 » Finish System Configuration » Server Name » Date & Time » Admin. Password » Access Control » User Registration Network Configuration » Network Configuration » Network Ports » Bandwidth Control » View Network Status » Network Status Notify » IP-CCTV DNS™ » Port Forwarding & UPnP » RTP/RTSP Device Configuration Advanced Configuration Recording Configuration Utilities	<table border="1"> <tr> <th colspan="2">Network Configuration</th></tr> <tr> <td colspan="2">This category shows the detailed method for network system.</td></tr> <tr> <td>» Network Configuration</td><td>Configuration of Network(IP,Netmask,DNS).</td></tr> <tr> <td>» Network Ports</td><td>Modification of HTTP and other application network port numbers.</td></tr> <tr> <td>» Bandwidth Control</td><td>Configuration of bandwidth control.</td></tr> <tr> <td>» View Network Status</td><td>View of Network Status.</td></tr> <tr> <td>» Network Status Notify</td><td>It sends IP address by e-mail when IP address is allocated by DHCP(or PPPoE).</td></tr> <tr> <td>» IP-CCTV DNS™</td><td>Configuration of dynamic IP registration of Network Video System.</td></tr> <tr> <td>» Port Forwarding & UPnP</td><td>Configuration of Port Forwarding & UPnP(Universal Plug and Play).</td></tr> <tr> <td>» RTP/RTSP</td><td>Configuration of RTP/RTSP.</td></tr> </table>	Network Configuration		This category shows the detailed method for network system.		» Network Configuration	Configuration of Network(IP,Netmask,DNS).	» Network Ports	Modification of HTTP and other application network port numbers.	» Bandwidth Control	Configuration of bandwidth control.	» View Network Status	View of Network Status.	» Network Status Notify	It sends IP address by e-mail when IP address is allocated by DHCP(or PPPoE).	» IP-CCTV DNS™	Configuration of dynamic IP registration of Network Video System.	» Port Forwarding & UPnP	Configuration of Port Forwarding & UPnP(Universal Plug and Play).	» RTP/RTSP	Configuration of RTP/RTSP.
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» Port Forwarding & UPnP	Configuration of Port Forwarding & UPnP(Universal Plug and Play).																				
» RTP/RTSP	Configuration of RTP/RTSP.																				

15.1. Static IP Configuration

Select **Network Configuration** under **Network configuration**

Quick Configuration System Configuration Network Configuration » Network Configuration » Network Ports » Bandwidth Control » View Network Status » Network Status Notify » IP-CCTV DNS™ » Port Forwarding & UPnP » RTP/RTSP Device Configuration Advanced Configuration Recording Configuration Utilities	<p style="text-align: center;">Network Configuration : Static IP</p> <p> <input checked="" type="radio"/> Static IP <input type="radio"/> DHCP Client <input type="radio"/> PPPoE </p> <table border="1"> <tr> <td>IP Address</td><td>10.0.0.253</td></tr> <tr> <td>NetMask</td><td>255.255.255.0</td></tr> <tr> <td>GateWay</td><td>10.0.0.2</td></tr> <tr> <td>DNS 1</td><td>10.0.0.1</td></tr> <tr> <td>DNS 2</td><td></td></tr> </table> <p style="text-align: center;"> <input type="button" value="Back"/> <input type="button" value="Apply"/> <input type="button" value="Refresh"/> </p>	IP Address	10.0.0.253	NetMask	255.255.255.0	GateWay	10.0.0.2	DNS 1	10.0.0.1	DNS 2	
IP Address	10.0.0.253										
NetMask	255.255.255.0										
GateWay	10.0.0.2										
DNS 1	10.0.0.1										
DNS 2											

For static IP, select **Static IP** and input IP address, NetMask, Gateway, DNS1, DNS2 and click apply to save settings. After **apply**, program will ask to close web browser for updates, which will take 20~30 seconds. If **Back** button is clicked all values will be discarded. If **Refresh** button is clicked, the program will load previous values.

15.2. DHCP Client Configuration

To use DHCP a DHCP server must exist in the network environment. Select **DHCP Client** from **Network Configuration**, click **Apply**. And all information needed will be filled in automatically

Network Configuration : Static IP	
Static IP <input type="radio"/> DHCP Client <input checked="" type="radio"/> PPPoE <input type="radio"/>	
IP Address	10.0.0.253
NetMask	255.255.255.0
GateWay	10.0.0.2
DNS 1	10.0.0.1
DNS 2	8.8.8.8
<input type="button" value="Back"/> <input type="button" value="Apply"/> <input type="button" value="Refresh"/>	

15.3. PPPoE Configuration

PPPoE is used to connect VITEK products to a PPPoE modem provided by the ISP. Since PPPoE needs verification, ID and a password are necessary to access the network. Type in PPPoE user ID and password

Network Configuration : PPPoE	
Static IP <input type="radio"/> DHCP Client <input type="radio"/> PPPoE <input checked="" type="radio"/>	
User ID	<input type="text"/>
User Password	<input type="text"/>
Confirm Password	<input type="text"/>
<input type="button" value="Back"/> <input type="button" value="Apply"/>	
<p>Notice : Please make sure to set up "Network Status Notify" option to get IP address through e-mail when PPPoE option is selected. Otherwise, there is no way to get changed IP address.</p>	

15.4. Network Ports

In this configuration, you set up the HTTP port for VITEK cameras to communicate with the Client PC. HTTP Port is the network port that is used when a Client PC connects to the VITEK camera Web page. It can be assigned between 80 and 65535. The default value is 80.

Note: If the HTTP port number is changed to a different value than default (80), make sure the new HTTP port number goes together with the VITEK cameras IP address. For example, when a VITEK cameras IP address is 192.168.1.100 and the HTTP port is 8080, you will have to enter `http://192.168.1.100:8080` to connect to the camera.

Quick Configuration	<h3 style="color: #005596;">Network Ports Configuration</h3> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px auto; width: 80%;"> <div style="display: flex; justify-content: space-between; align-items: center;"> HTTP Port <input style="width: 150px;" type="text" value="80"/> (Default: 80, 80 ~ 65535) </div> <div style="display: flex; justify-content: center; gap: 20px; margin-top: 10px;"> <input type="button" value="Back"/> <input type="button" value="Apply"/> </div> </div> <p style="color: red; font-weight: bold; margin-top: 20px;">Notice</p> <ul style="list-style-type: none"> HTTP Port : For web access, video streaming and playback.
System Configuration	
Network Configuration	
» Network Configuration	
» Network Ports	
» Bandwidth Control	
» View Network Status	
» Network Status Notify	
» IP-CCTV DNS™	
» Port Forwarding & UPnP	
» RTP/RTSP	
Device Configuration	
Advanced Configuration	
Recording Configuration	
Utilities	

15.5. Bandwidth Control Configuration

Bandwidth control is for limiting maximum network traffic. If it is enabled with Bandwidth limits, maximum data size transferred from VITEK cameras won't exceed bandwidth limits set by users. If transferred data is exceeded, part of the data will be randomly lost.

If multiple users try to access a VITEK camera when bandwidth control is enabled, users connected to the VITEK camera will share network bandwidth limit.

Bandwidth Control Configuration

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Bandwidth Limit	<input style="width: 100px;" type="text" value="0"/> Kbps

Notice

- The bandwidth limit should be over 32.
- MPEG-4 or H.264 streaming can be affected by this setting.

*Note: This bandwidth control feature works well in M-JPEG video transmission. But, for H.264, dropping data packets may cause low quality of video, so it is recommended to utilize CBR and frame rate control instead of bandwidth control for H.264 video. Refer to **Section 16.2 Camera & Motion on page 55** for more info on CBR and Frame rate.*

Note: Network Bandwidth control is managed by the VITEK camera and it drops any data packets if required, thus you may experience slow connection when this feature is enabled.

15.6. View Network Status

This menu shows network status of VITEK cameras.

Quick Configuration
System Configuration
Network Configuration
 ✦ Network Configuration
 ✦ Network Ports
 ✦ Bandwidth Control
 ✦ **View Network Status**
 ✦ Network Status Notify
 ✦ IP-CCTV DNS™
 ✦ Port Forwarding & UPnP
 ✦ RTP/RTSP
Device Configuration
Advanced Configuration
Recording Configuration
Utilities

Network Status

Common Status
 Gateway: 10.0.0.2
 Gateway Device: eth0
 DNS1: 10.0.0.1
 DNS2:

LAN Status
 IP Address: 10.0.0.253
 Netmask: 255.255.255.0
 MAC Address: 1C:7C:45:02:00:3E

PPPoE Status
 Connection Status: Link is down
 IP Address:
 Netmask:

WAN-Modem Status
 Connection Type: PPP Server (Dial In)
 Connection Status: Link is down
 Local IP:
 Remote IP:
 Netmask:

Back Refresh

15.7. Network Status Notify

This feature helps to send updated network status information to registered email address if any changes happen. This function will work under DHCP or PPPoE.

If **Network Status Notify** is set to **Enable**, VITEK cameras network status will be emailed to a specific person in case of the following events:

- When it is set to Dynamic IP in the **Network Configuration** menu, and the VITEK camera has been given a new dynamic IP address and connects to the network.

Or,

- When it is set to PPP Client on WAN-Modem menu, and the VITEK camera has been connected to the network with ISP or PPP server.

To configure, click **Network Status Notify** on **Network Configuration** menu. The following window will be shown.

Network Status Notification

Mail Notification	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
SMTP Server	<input type="text"/>
Authentication Login	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
User ID	<input type="text"/>
Password	<input type="text"/>
Sender	<input type="text"/>
1st Recipient	<input type="text"/>
2nd Recipient	<input type="text"/>
3rd Recipient	<input type="text"/>
===== User-Defined Message =====	
<input type="text"/>	
<input type="text"/>	
<input type="text"/>	
<input type="text"/>	
<input type="button" value="Back"/> <input type="button" value="Apply"/>	

Notice : It sends IP address by e-mail when IP address is allocated by DHCP(or PPPoE).

First, select **Enable** to use the feature. Then enter the address of the SMTP server which is needed for email service. If your SMTP server requires a user ID and a password for authentication, you will have to Enable **Authentication Login** and enter the user ID and Password.

In **Sender** field, enter your email address or other meaningful words that will show the message was sent from the VITEK camera as a notification. Now enter the email addresses of the recipients in the **Recipient** fields, up to 3 addresses. In the **User-Defined Message** box, you may enter a message to explain why the message was sent. After finishing the setup, click **Apply** to save settings.

Mail Notification	Enable: Send email Disable: Do not send email
SMTP Server	SMTP Server address for email service
Authentication Login	Enable: user ID and password are required for SMTP server Disable: user ID and password are not required
User ID	User ID for SMTP server
Password	Password for SMTP server
Sender	Email address of Sender or Name
1st / 2nd / 3rd Recipient	Email Addresses of the Recipients (up to 3 addresses)
User Defined Message	Message to be included in the Notification email

15.8. IP-CCTV DNS Setup

Note: Refer to **Section 37. IP-CCTV DNS Registration on page 149** for further details on configuration.

IP-CCTV DNS service provides a static & public domain name to help user's access VITEK cameras even though their IP address has changed or they are used in a local network. For proper function of IP-CCTV DNS service, products need to be accessible through the internet.

Quick Configuration System Configuration Network Configuration » Network Configuration » Network Ports » Bandwidth Control » View Network Status » Network Status Notify » IP-CCTV DNS™ » Port Forwarding & UPnP » RTP/RTSP Device Configuration Advanced Configuration Recording Configuration Utilities	<div style="text-align: center;"> IP-CCTV DNS™ Setup </div> <table border="1"> <tr> <td>Service</td> <td><input checked="" type="radio"/> Enable <input type="radio"/> Disable</td> </tr> <tr> <td>DNS Server IP</td> <td><input type="text" value="www.ipcctvdns.com"/> <input type="button" value="Go"/></td> </tr> <tr> <td>Mac Address</td> <td>1C7C4502003E</td> </tr> <tr> <td>Product-Key</td> <td>01FBA6C8</td> </tr> <tr> <td>IP-CCTV DNS Registration verification</td> <td><input type="button" value="Confirm"/></td> </tr> </table> <div style="text-align: center;"> <input type="button" value="Back"/> <input type="button" value="Apply"/> </div> <p>Notice : If you do not use public dynamic IP address for the remote access, please skip this step. This is related with www.ipcctvdns.com. Different IP address or URL must follow the same protocol of www.ipcctvdns.com If you click Confirm button, you can verify registered URL on IP-CCTV DNS. If product is not registered on IP-CCTV DNS, you can not verify registered URL.</p>	Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	DNS Server IP	<input type="text" value="www.ipcctvdns.com"/> <input type="button" value="Go"/>	Mac Address	1C7C4502003E	Product-Key	01FBA6C8	IP-CCTV DNS Registration verification	<input type="button" value="Confirm"/>
Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable										
DNS Server IP	<input type="text" value="www.ipcctvdns.com"/> <input type="button" value="Go"/>										
Mac Address	1C7C4502003E										
Product-Key	01FBA6C8										
IP-CCTV DNS Registration verification	<input type="button" value="Confirm"/>										

15.9. Port Forwarding & UPnP

UPnP(Universal Plug and Play)is a kind of network protocol to help users to find and configure network products in the same local network area. Port forwarding is to assign a certain network port to a network product so users can access it from outside of the Local Area Network. Generally, port forwarding can be configured from the network router.

UPnP port forwarding is made up with finding an available network port, assigning it to a VITEK camera and reporting overall network configuration of a VITEK camera to IP-CCTV DNS server. Users have to register products into IPCCTVDNS server and IP-CCTV DNS service should be enabled.

There are 3 options in UPnP Port Forwarding.

- **Manual: User Assigned Port** issued when users can access network router (hub) and manually assign available network ports to VITEK cameras. In this case, users have to type already-assigned network ports under **User Assigned port**.
- **UPnP: User Assigned Port** is used when users want VITEK cameras to configure port forwarding of network hub with user-assigned network port. If it fails, try to change user-assigned port
- **UPnP: Auto Selected Port** is used to let VITEK cameras deal with all network configurations automatically.

Please note that the network router needs to support UPnP Port Forwarding. There is a limit for the maximum number of UPnP devices. If it is properly configured, results will be displayed under **UPnP status**.

Port Forwarding & UPnP

Port Forwarding	<input checked="" type="radio"/> Manual : User Assigned port	<input type="text" value="9080"/>
	<input type="radio"/> UPnP : User Assigned port	<input type="text" value="9080"/>
	<input type="radio"/> UPnP : Auto selected port	
Display shortcut Icon in My Network Places		<input type="radio"/> Enable <input checked="" type="radio"/> Disable

UPnP Status

Status	<input type="text" value="Success"/>
External Port No.	<input type="text" value="9080"/>
Router Global Address	<input type="text"/>
System's IP address for Local Network Access	<input type="text" value="http://10.10.213.26:80"/>
System's IP address for Access via Internet	<input type="text"/>

Notice :

User's assigned port is the external port number of dynamic IP address. This function is quite unique when UPnP IP sharer or router are used together.

If Upnp service is not activated by UPnP : User Assigned port, allocate another port.

15.10. RTP/RTSP Setup

Factory default is Enable to be used with other manufactures VMS software's

RTSP (Real-Time Streaming Protocol) is a protocol to transfer video and audio streams over the network. Any application supporting Standard RTSP can be used for VITEK cameras. Quick Time Player or VLC program can be used with this; it may not be supported in the environment within a firewall. There are two types of usage; one for Unicast address condition and the other for Multicast address condition.

For Unicast Address:

Use "**rtsp://network video server ip address/cam0_0**". If there are multiple channels, use cam0_x, x (0~3) with each number applied. If there are multiple modules, use camx_0 x (0 ~ 3) with each module number applied.

For Multicast Address:

Use "**rtsp://network video server ip address/mcam0_0**". If there are multiple channels, use mcam0_x, x (0~3) with each channel number applied. If there are multiple modules, use mcamx_0 x (0 ~ 3) with each module number applied.

RTP/RTSP Setup

Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable		
RTSP Port	<input type="text" value="554"/>	(Default:554, 554 ~ 65534)	
RTP Start Port	<input type="text" value="5000"/>	(Default:5000, 2048 ~ 65534)	
Camera 1	Multicast Address	<input type="text" value="0.0.0.0"/>	Disable:0.0.0.0 (225.0.0.0 ~ 239.255.255.255)
	Multicast Port	<input type="text" value="0"/>	(Disable:0, 2048 ~ 65534)
Camera 2	Multicast Address	<input type="text" value="0.0.0.0"/>	Disable:0.0.0.0 (225.0.0.0 ~ 239.255.255.255)
	Multicast Port	<input type="text" value="0"/>	(Disable:0, 2048 ~ 65534)

Notice : This function is only for built in module.
IP devices (added VS module) does not support this function.

RTSP URL for Camera 1
rtsp://(Network Video Server IP Address)/cam0_0
-> cam(0 : VS Module number)_(0:Port number)

RTSP URL for Camera1 for Multicast address
(Multicast address and Port should be configured.)
rtsp://(Network Video Server IP Address)/mcam0_0
-> mcam(0 : VS Module number)_(0:Port number)

Service	Enable: Start RTSP service Disable: Stop RTSP service
RTSP Port	In normal case, use default port number 554 to connect to RTSP service. If not using port 554, enter the port number you want to use. e.g.) port number 445==>rtsp:// network video server ip address:445/cam0_0
RTP Start Port	The starting number of the port for video transfer. Each time video transfer connection is made, the port number also increases.
Multicast Address	Address for multicast video transfer. The multicast address 0.0.0.0 is for stopping multicast.
Multicast Port	Port number for viewing the video with a multicast address

16. Device Configuration

16.1. Privacy Zone

Users can set a privacy zone if a certain part of the screen needs to be unmonitored.

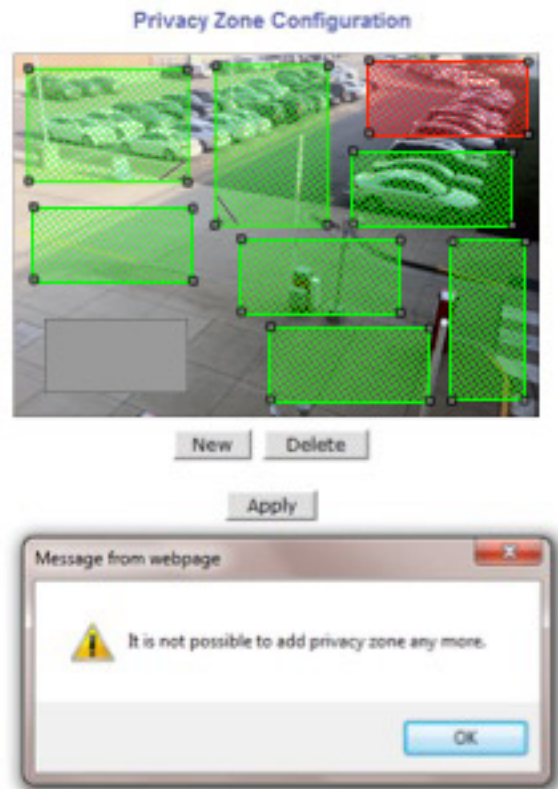
To set the region, click **Privacy Zone** from **Device Configuration** category.

Quick Configuration System Configuration Network Configuration Device Configuration Serial Ports Privacy Zone Camera & Motion DI/DO DI Status/DO Control Advanced Configuration Recording Configuration Utilities	<div style="background-color: #4f81bd; color: white; text-align: center; padding: 2px;">Device Configuration</div> <p style="color: #4f81bd;">This category shows the detailed method for Device Configuration.</p> <table border="1"> <tr> <td>Serial Ports</td> <td>Configuration of serial ports(RS-232, RS-422, RS-485 ports)</td> </tr> <tr> <td>Privacy Zone</td> <td>Configuration of Privacy Zone.</td> </tr> <tr> <td>Camera & Motion</td> <td>Configuration of video mode and the details.</td> </tr> <tr> <td>DI/DO</td> <td>Configuration of DI(Sensor Input)/DO(Alarm Output).</td> </tr> <tr> <td>DI Status/DO Control</td> <td>Enable or Disable each DO(Alarm Output) port.</td> </tr> </table>	Serial Ports	Configuration of serial ports(RS-232, RS-422, RS-485 ports)	Privacy Zone	Configuration of Privacy Zone.	Camera & Motion	Configuration of video mode and the details.	DI/DO	Configuration of DI(Sensor Input)/DO(Alarm Output).	DI Status/DO Control	Enable or Disable each DO(Alarm Output) port.
Serial Ports	Configuration of serial ports(RS-232, RS-422, RS-485 ports)										
Privacy Zone	Configuration of Privacy Zone.										
Camera & Motion	Configuration of video mode and the details.										
DI/DO	Configuration of DI(Sensor Input)/DO(Alarm Output).										
DI Status/DO Control	Enable or Disable each DO(Alarm Output) port.										



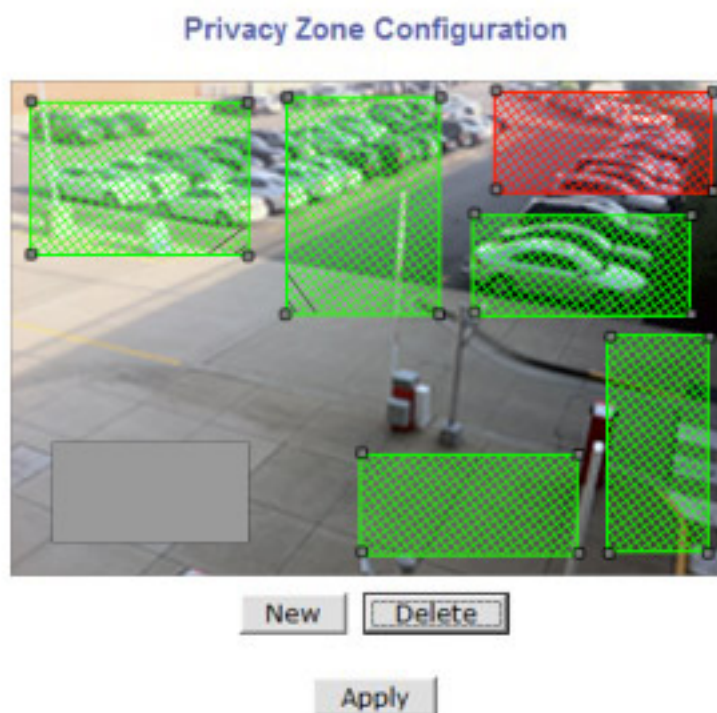
To Add a Privacy zone click **New** button, a **Green**-colored box will appear, click on the **Green** box and it will turn **Red**, at this point you can resize it by clicking and holding any corner and drag to desired size. To relocate box click and hold anywhere inside the box and drag to desired location. Click **Apply** when done





Users can add up to 8 Privacy Zones per screen by repeating above steps. If you add more than 8, an error message will display on the screen.

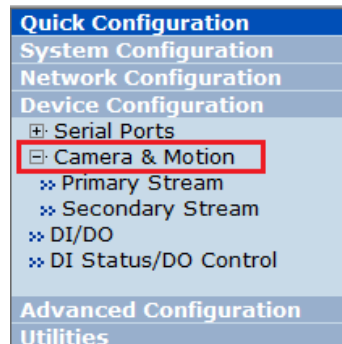
To delete a privacy zone, click the zone and click **Delete** button followed by **Apply** button.



16.2. Camera & Motion

This menu is used to set up the selection of video format, data added to video data, encoding speed, audio control, image resolution, video quality, motion detection, etc.

Click **Camera & Motion** on **Device Configuration** menu. The configuration menu will be displayed, and it may be different between VITEK cameras.



- **M-JPEG:** This format requires much higher network bandwidth than H.264 compression. But because of its higher quality of still image, it is adequate for detailed reviewing of stored video.
- **H.264:** In this format, each frame data is related to other nearby frames. For this reason, it provides much higher compression ratio than M-JPEG and is adequate for video transfer. However, if network conditions are limited dropped frames in video data is possible, the video quality can be relatively low. With VITEK Cameras, you can set the number of P-frames in the video which is independent still images between I-frames.
-

Note: For Dual Stream products, most of the parameters are dependent on primary stream value.

You can configure the video data format and other information to be contained in it.

Camera & Motion Configuration

Video with Flexible Extra System data		<input type="checkbox"/> Enable
Video with user defined message		<input type="checkbox"/> Enable
Video with PPP status		<input type="checkbox"/> Enable
Video with camera name		<input type="checkbox"/> Enable
Video with server name		<input type="checkbox"/> Enable
Video with IP address		<input type="checkbox"/> Enable
Audio		<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Primary Stream	Frame Rate	30 fps ▼
	Image Size	1280 x 1024 ▼
	Encoding Standard	<input type="radio"/> M-JPEG <input checked="" type="radio"/> H.264
Secondary Stream	Frame Rate	Primary fps ▼
	Image Size	704 x 480 ▼
	Encoding Standard	<input checked="" type="radio"/> M-JPEG <input type="radio"/> H.264

» Camera Control
» Motion Detection
» Primary Stream
» Secondary Stream

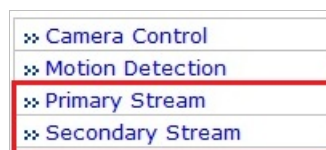
- **Video with Flexible Extra System data:** If **Enabled**, video data will contain UART sensor data from COM port. *.(Feature not available on this model)*
- **Video with user defined message:** If **Enabled**, video data will contain the user-defined data. (Reserved Field) *.(Feature not available on this model)*
- **Video with PPP status:** If **Enabled**, video data will contain PPP connection status. *.(Feature not available on this model)*
- **Video with camera name:** If **Enabled**, video data will contain the camera name. *.(Feature not available on this model)*
- **Video with server name:** If **Enabled**, video data will contain the server name that you defined. *.(Feature not available on this model)*
- **Video with IP address:** If **Enabled**, video data will contain the IP address of the video server. *.(Feature not available on this model)*
- **Audio:** (not available on all models) Select if Audio function is to be used (applies to Primary Stream only). VITEK Cameras provides 2-way audio streaming by combining microphone input with video data. Users can listen to the streamed audio through a PC and speakers.
- **Frame Rate:** For Primary Stream, this is the number of frames compressed in every second. You can control the network traffic with this parameter. For Secondary Stream, it can be set to a manner of 1/2, 1/4, 1/8... of the primary stream.
- **Image Size:** Select the resolution of each channel's video
- **Encoding Standard:** Select the compression method of each video, either M-JPEG or H.264 format. It is not allowed to set both channels to M-JPEG.

Below is the table of images sizes. To save the setting, click **Apply** button

Video Format	SXGA	D1	CIF	QCIF
NTSC	-	704 x 480	352 x 240	160 x 112
PAL	-	704 x 576	352 x 288	160 x 144
VGA	-	640 x 480	320 x 240	160 x 112
1.3M Pixel	1280 x 1024	640 x 480	320 x 240	160 x 112
2.0M Pixel	1920 x 1080	640 x 480	320 x 240	160 x 112

16.3. Camera Configuration

On the lower part of **Camera & Motion Configuration** menu, select a channel to configure.



In the example shown below, Primary Stream is set to **H.264** for compression format. Enter detailed parameters of the camera selected here.

Camera Configuration (Primary Stream)

Camera Name	Camera 1
Rate Control Mode	VBR Mode ▾
Image Quality	Highest ▾
GOP Structure	16 [1~64]

BackApplyDefault

Primary Stream of (H.264)

- **Camera Name:** Enter the name of the channel up to 21 alphanumeric or up to 10 Unicode characters.

16.3.1. Rate Control Mode

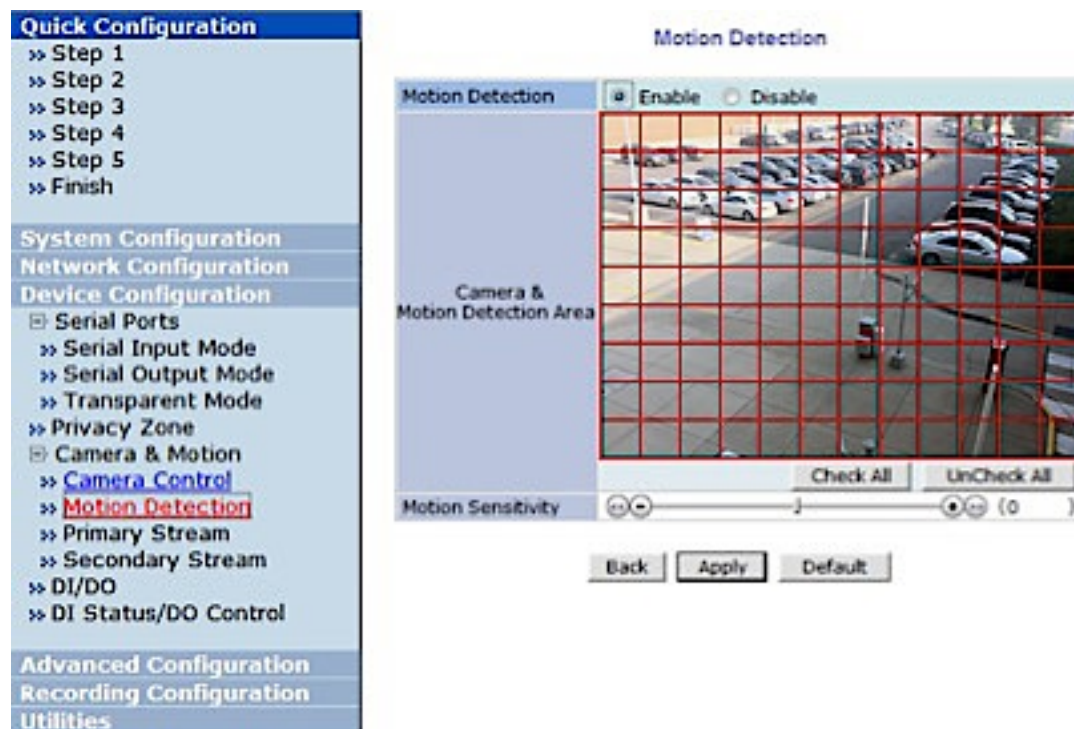
H.264	Rate Control Mode: VBR (Variable Bit Rate) Video frames are encoded with selected image quality and GOP. Encoded frames have different data size from each other.	Image Quality: one of 6 quality levels (Low Compression / Highest / High Normal / Low / Lowest)
		GOP Structure: Distance between I-Frames. That is filled with P-frames.
	Rate Control Mode: CBR (Constant Bit Rate) Video frames are encoded with selected image quality and GOP. Encoded frames have the same data size as other frames. Due to the constant bit rate, it has better stable transmission performance.	Bit Rate Control: Total number of Bits encoded per second. The higher Bit Rate, the better image quality. Can be set between 32kbps and 2Mbps.
		GOP: Distance between I-Frames. That is filled with P-frames.
M-JPEG	-	Image Quality: one of 6 quality levels (Low Compression / Highest / High Normal / Low / Lowest)

16.3.2. Image Quality Setup

In **Image Quality** level setup, select "Low Compression" for higher image quality, but it requires higher network bandwidth. Selecting the "Lowest" requires lower network bandwidth, but gives decreased image quality.

After configuration is finished, click **Apply** button to save the setting. If you click **Default** button, the entire configuration will be reset to the original values.

Motion Detection



- **Motion Detection:** (this is only available in Primary Stream) If enabled, Motion Detection feature is activated and user can configure the areas where motion detection function will work. Click **Check All** button for whole scene to be active (grid will turn **Green**) then click on any box inside scene to take out that area from Motion Detection (box will turn **Red**) then click **Apply** to save.
- **Motion Sensitivity:** Set the sensitivity of motion defined in Motion Detection Area. Select between -100 and 100. 100 is the most sensitive.

After all the settings are done, click **Apply** button to save it. If **Default** button is clicked, all the fields return back to original value.

16.4. Accessing the camera setup menu

Camera **SETUP** menu can be accessed in two ways via web viewer.

Most frequent controls are available with the parameters directly in the below table. More complicated settings such as **PRIVACY, POINTING ZOOM & SMART MOTION** settings are available via '**ADVANCED CAMERA MENU**' by activating the camera **OSD** menu.

Quick Configuration

- » Step 1
- » Step 2
- » Step 3
- » Step 4
- » Step 5
- » Finish

System Configuration

Network Configuration

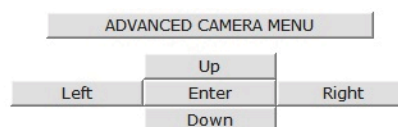
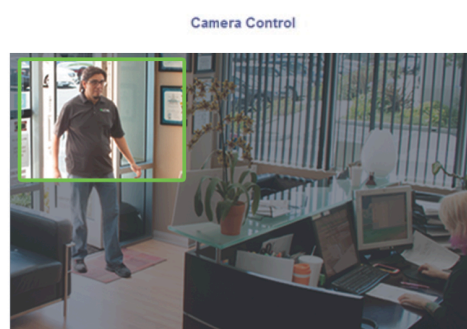
Device Configuration

- Serial Ports
- Camera & Motion
 - » Camera Control
 - » Motion Detection
 - » Primary Stream
 - » Secondary Stream
- DI/DO
- DI Status/DO Control

Advanced Configuration

Recording Configuration

Utilities



TV System	<input checked="" type="radio"/> US(60Hz) <input type="radio"/> EU(50Hz)
Auto Focus	Zoom Push ▾
Max D-Zoom	Off ▾
Exposure Mode	Auto ▾
Shutter speed	30 ▾
Iris Level	10 (Default: 10, 0 ~ 20)
Brightness	10 (Default: 10, 0 ~ 20)
Sens-Up	<input type="radio"/> Auto <input checked="" type="radio"/> Off
WDR	<input type="radio"/> On <input checked="" type="radio"/> Off
WDR Weight	Mid ▾
Back Light Compensation	<input type="radio"/> On <input checked="" type="radio"/> Off <input type="radio"/> HLC
3D-NR	Mid ▾
Day & Night	Auto ▾
Day & Night Threshold	<input type="radio"/> Low <input checked="" type="radio"/> High
AGC	12 (Default: 12, 0 ~ 20)
White Balance Mode	ATW ▾
WB Manual R-Gain	10 (Default: 10, 0 ~ 20)
WB Manual B-Gain	10 (Default: 10, 0 ~ 20)
Sharpness	10 (Default: 10, 0 ~ 20)
Color Gain	10 (Default: 10, 0 ~ 15)
Gamma	0.5 ▾
Mirror/Flip	[No Mirror, No Flip] ▾
Defog	<input checked="" type="radio"/> Off <input type="radio"/> Auto <input type="radio"/> Manual
Defog Weight	Mid ▾
Display Zoom Ratio	<input type="radio"/> On <input checked="" type="radio"/> Off
Display Focus Indicator	<input checked="" type="radio"/> On <input type="radio"/> Off
Display ID	<input type="radio"/> On <input checked="" type="radio"/> Off
Display Title	<input type="radio"/> On <input checked="" type="radio"/> Off
IR LED Mode	<input type="radio"/> On <input checked="" type="radio"/> Off

Back

Apply

Lens Initialize

16.5. Direct Control menu

SPECIAL	DEFAULT	DESCRIPTION
TV SYSTEM	US or EU	Selects HDTV standards for US(60HZ) or EU(50HZ). By this selection, 2nd analog video output switches to NTSC or PAL accordingly.
FOCUS MODE	ZOOM PUSH	ZOOM PUSH, AUTO and MANUAL modes are available for focusing. ZOOM PUSH – Focusing is activated only when zoom in/out is working. AUTO – Focusing is always working. MANUAL – Focusing can only be adjusted by ▲,▼ of OSD control joystick or Focus Near/Far button on WEB.
D-ZOOM	OFF	D-ZOOM(Digital zoom) is available up to 32x. D-ZOOM starts working when the optical zoom reaches its maximum tele-position. Zoom ratio is displayed on the right bottom corner of the monitor if DISPLAY ZOOM RATIO is set to ON.
EXPOSURE MODE	AUTO	Can set EXPOSURE MODE to AUTO, IRIS Priority, SHUT. Priority, MANUAL and Flickerless AUTO – Optimizes the video level by controlling the iris and the shutter speed automatically. IRIS Priority – Select to fix IRIS in a certain aperture and the video level is controlled by an automatic shutter control. IRIS Level menu is activated when EXPOSURE MODE is set to IRIS Priority. Lower IRIS LEVEL will close the iris more and increase the field of depth in the daytime but significantly decrease the low light performance. To Low of the IRIS LEVEL will result in foggy video by the diffusion from the lens iris. SHUT. Priority - Selects to fix SHUTTER speed at a certain speed and the video level is controlled by an automatic iris control. This mode is useful when color rolling occurs under fluorescent lighting. It is not recommendable for outdoor in the daytime. MANUAL – Iris and Shutter can be set to a fixed value. Flickerless – Reduces the flicker in video when US(60Hz) / EU (50Hz) mode is used in 50Hz/60Hz fluorescent lighting respectively. SHUT. Priority, MANUAL and Flickerless modes disable SENS-UP and MOTION BLUR functions.
BRIGHTNESS	10	Adjusts the brightness of video(0~20).
SENS-UP	AUTO	SENS-UP is the maximum integrations of frame by DSS(Digital Slow Shutter) in low light.

SENS-UP	AUTO	AUTO – SENS-UP is enabled or disabled automatically by the scene brightness. OFF – Disables SENS-UP
WDR	OFF	Improves the visibility for bright areas and dark areas by double capture of image with LONG and SHORT exposures. With WDR ON, the frame rate becomes half by double capture. ※ CVBS video signal - Connecting 2nd video to CVBS port disables WDR function temporary. It should be considered when installer adjusts the video with installation monitor via CVBS video signal
WDR Weight	OFF	WDR level can be selected from LOW, MID and HIGH. Care should be taken to select this mode because video may lose its quality in some environments by the over compensation.
BLC (Back Light Compensation)	OFF	ON – Improves the visibility of dark objects caused by bright back light. Outside area of BLC window can be over saturated. Able to set BLC POSITION in ADVANCED CAMERA MENU>BLC POSITION HLC – Cuts out the highlight area with black mask and excludes it from compensation. The more sensitive it is to bright light. HLC LEVEL is adjustable in ADVANCED CAMERA MENU>HLC LEVEL
3D-NR	MID	3D-NR is a very sophisticated and powerful time-based noise reduction technology by monitoring the noise for the several video frames and defining and eliminating them consecutively at low light. Higher setting reduces noise much more but results in losing the sharpness and tail effects or motion blur may occur.
DAY / NIGHT	EXT for IR LED type AUTO for Non IR type DAY for Non TDN type	EXT —DAY or NIGHT is determined by the built-in light photo sensor. Camera with IR LED must be set to EXT. AUTO — Used when DAY or NIGHT is determined by light level through the lens and DAY from/to NIGHT is switched automatically by the scene brightness. When EXPOSURE>AGC is less than 12, DAY/NIGHT AUTO is disabled and forcibly switches to _(DAY) to avoid malfunction. EXT, B/W(NIGHT) and COLOR(DAY) is independent on AGC level. When EXTERNAL IR LED is used with NON IR LED model please set to IR LED MODE ON. B/W(NIGHT) — Forcibly removes IR cut filter and switches to B/W regardless of light level. COLOR(DAY) — Forcibly DAY/NIGHT is disabled and outputs color video.

Day & Night Threshold	HIGH	D<-->N Threshold is a threshold level and Gap to switch from DAY to NIGHT. Low makes the camera enter night mode at a lower light level. High makes the camera exit the night mode at a higher light level.
AGC1	2	AGC amplifies the video gain for brighter video but noise and white pixel will increase. AGC level less than 10 disables AUTO in DAY/NIGHT
WHITE BAL	ATW	ATW, ONE PUSH and MANUAL are available for the white balance modes. ATW – White balance is continuously working when the color temperature changes in the range of 2,000K~8,500K. ONE PUSH – White balance works only when ONE PUSH is selected. MANUAL – This mode can be used only when the color temperature does not vary. White balance is fixed to the settings of R_GAIN and B-GAIN
WB Manual R-Gain/ B-Gain	10	Activates when WHITE BALANCE is set to MANUAL. Adjustable 0~20.
SHARPNESS	10	Adjusts the sharpness of video.
COLOR GAIN	10	Adjusts the color level of video.
GAMMA0	.5	Adjusts the gamma of video.
MIRROR / FLIP	NO	Reverses the video left and right and/or up and down by MIRROR/FLIP. No Mirror, No Flip : Normal display without mirroring or flipping No Mirror, Flip : Video is reversed upside down. Mirror, No Flip Ver. : Video is reversed left and right. Mirror, Flip HV : Video is reversed left and right and upside down. When the video is reversed by Ver. or HV, then the joystick directions are reversed accordingly. This feature is very useful when a camera is installed in upside down.
DEFOG	OFF	AUTO : Enhances foggy video automatically according to status of scene MANUAL : Sets to enhance foggy video manually regardless of status of scene
DEFOG Weight	MID	LEVEL — LOW, MID, HIGH Video quality can be less in normal environments.

DISPLAY Zoom Ratio	OFF	ON enables to display the Zoom Ratio on the bottom right corner. OZx.x appears during the optical zoom and DZx.x will display by multiplying the optical zoom ratio and the actual digital zoom ratio.
DISPLAY FOCUS INDICATOR	ON	ON enables to display the Focus Indicator on Monitor
DISPLAY ID	OFF	ON enables to display Camera ID on Monitor.
DISPLAY Title	OFF	ON enables to display Camera Title on Monitor.
IR LED MODE	OFF	IR LED Control(AUTO/OFF) is available with IR LED model only. If IR LED is set to OFF, IR LED will be turned OFF but DAY or NIGHT is still determined by the built-in light photo sensor. IR LED Mode is workable with IR LED built-in model only.
LENS INITIALIZE		<p>Lens initialization is necessary during the installation or the regular operation to align the position data with the mechanical positions whose lens elements may move and deviate from its calibrated position by shock or vibration, for example, during transportation.</p> <p>LENS INIT checks the positions for zoom and focus at both of the end positions and saves them for the references.</p> <p>Lens initialization is automatically executed at power up.</p> <p>[CAUTION]</p> <p>It is strongly necessary to execute LENS INIT in cases below;</p> <ol style="list-style-type: none"> 1) At the final step for the installation. 2) When focus becomes out of control by shock or vibration

16.6. Advanced Camera OSD menu

Click '**ADVANCED CAMERA MENU**' bar in **CAMERA CONTROL** menu to activate the camera **OSD** menu.

Click Up/Down/Left/Right bars to navigate or change the parameters.

These options have been pre-configured at the factory for optimal performance.

MENU V3.12	
1. PRIVACY	↵
2. MOTION	OFF ↵
3. TITLE SET	↵
4. SMART IR	:.....: 0
5. MOTION DEBLUR	ON
6. HLC LEVEL	:.....: :: :: 10
7. BLC POSITION	SET
8. POINTING ZOOM	↵
9. EXIT	SAVE&EXIT ↵

1. PRIVACY (default: OFF)

10 Privacy zones which can be enabled individually by **ZONE DISP** are available to mask areas of the video.

- **ZONE NUMBER** – Set a number to select a privacy zone from 1~10.
- **ZONE DISP** – ON enables a relevant privacy zone.
- **H-POS, V-POS, H-SIZE and V-SIZE** – Adjust the size and position of zone.
- **COLOR** – Select the color used for masking the zone from eight colors.
- **TRANSPARENCY** – Defines the transparency for the mask zone.

2. MOTION (default: OFF)

MOTION can detect the movement in the motion window and displays the results in blocks and/or a text message

- **SENSITIVITY** – Adjusts the detection sensitivity for motion. Higher value increases the sensitivity to detect small motion easier. Too high of sensitivity will cause the erratic detection by tree leaves or light level changes and too low setting will fail in detecting motion.
- **H-POS,V-POS, H-SIZE,V-SIZE** - Adjust the size and position of the detection window
- **BLOCK DISP** – ON enables to display the blocks for the detected area.
- **MOTION OSD** – ON enables to display a text message, **MOVING !!!**
- **SMART MOTION ZOOM**– ON enables to Automatic Zoom **IN/OUT** when motion is detected and also enables **MOTION OSD** to **ON**.

Area to be zoomed in by **SMART MOTION ZOOM** can be set in **MOTION> SMART MOTION ZOOM>ZOOM TARGET**. Clicking Up/ Down/ Left/ Right or Enter bars for **ZOOM TARGET** varies the viewing angle to be zoomed when motion occurs. Set the video left and right and/or up and down by **MIRROR/FLIP**. (See description of "**SMART MOTION ZOOM**" for more details)

- **STAY ZOOMING** – Sets the duration time for zooming by Motion.

**NOTICE**

: SMART MOTION ZOOM does not work in low light and B/W mode.

**CAUTION**

Set the direction of video by **MIRROR/FLIP** before **SMART MOTION ZOOM** setting. Otherwise the zoom target could be different from your intention.

3. TITLE SET

Camera title (name) can be set and editable up to 15 alpha numeric and symbolic characters from **ASCII** codes (ENGLISH only).

Clicking the Up/ Down/ Left/ Right bars to move the cursor for choosing characters and click the Enter bar to select them. The selected characters are added and displayed on the top left corner and the cursor moves right automatically for next input.

- **SP** - Space is inserted when clicked
- **BS** - Cursor moves back when clicked
- **CLR** - Clears all the characters on input line when clicked
- **POS** - Sets the title position by using four direction bars and enter bar.

4. SMART IR (default: 0)

SMART IR can be set to reduce the saturation of strong IR illumination at night in any menu of **EXT, AUTO** and **B/W(NIGHT)**. Setting **SMART IR** in any menu is identically applied to other menus. Zero(0) turns off **SMART IR** and High setting avoids saturation but the corners will be darker accordingly.

5. Motion Deblur (default: 10)

ON enables MOTION DEBLUR to reduce the motion blur in certain indoor environments. Noise or color rolling can increase..

6. HLC LEVEL (default: 10)

Cuts out the highlight area with black mask and excludes it from compensation.

Lower HLC LEVEL the more sensitive it is to bright light.

7. BLC POSITION (default: 10)

Improves the visibility of dark objects caused by bright back light.

Outside area of BLC window can over saturate.

BLC has a target window for compensation and its size and position can be set

by **H-POS**, **V-POS**, **H-SIZE** and **V-SIZE**.

8. POINTING ZOOM (default: ON)

ON enables to set off-centered location to be the center of zoom H-POINTER,

V-POINTER- Able to set the location of zoom center D-Zoom is available to

~ 32x

9. EXIT

SAVE & EXIT – Exits the menu after saving the parameters.

16.7. SMART MOTION ZOOM (Detail Function Description)

SMART MOTION ZOOM enlarges the area defined by a yellow window to a full size image when motion is detected in the black window.

SMART MOTION ZOOM window can be re-sized by adjusting **D-ZOOM RATIO**

and moved by **H-POINTER** and **V-POINTER**.

UNLIKE the conventional zoom, which can zoom in/out the center area of image only, the flexible zoom location and area, **SMART MOTION ZOOM** differentiates its usefulness from others.

That is, a conventional camera installed in the corner of the ceiling can zoom the center of the floor in a room and result in losing the image of door on the sidewall. However, **SMART MOTION ZOOM** can be set to see the door side and zoom in that area without missing the **IMPORTANT** security point.

SMART MOTION ZOOM	
H-POINTER	10
V-POINTER	10
O-ZOOM RATIO	OX2.0
D-ZOOM RATIO	DX1.5
MOTION CHK COUNT	2
RETURN	RET ↵

- **H-POINTER** (10): Moves **MOTION ZOOM** area (Yellow window) horizontally.
- **V-POINTER** (10): Moves **MOTION ZOOM** area (Yellow window) vertically.
- **D-ZOOM RATIO** (MZ2.0): Sets the area size to be Digitally zoomed when motion occurs in the black window.
- **MOTION CHK COUNT** (2) - **SMART MOTION ZOOM** is activated after the motion in **MOTION CHK COUNT** are detected in a certain period.
For example, "**SMART MOTION ZOOM** is activated after set # of triggers by motion".

16.8. POINTING ZOOM (Detail Function Description)


This camera has a very useful and powerful feature, **POINTING ZOOM** which can zoom in/out any area.

POINTING ZOOM enlarges the area defined by a Yellow window to a full size image when motion is detected in the **black** window.

POINTING ZOOM window can be re-sized by adjusting **D-ZOOM RATIO** and moved by **H-POINTER** and **V-POINTER**.

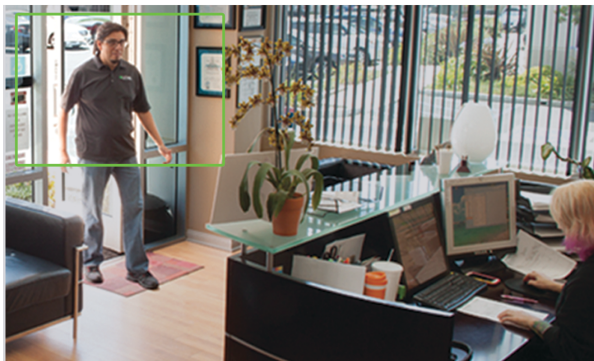
UNLIKE the conventional zoom, which can zoom in/out the center area of image only, the flexible zoom location and area, **POINTING ZOOM** differentiates its usefulness from others.

That is, a conventional camera installed in the corner of the ceiling can zoom the center of the floor in a room and result in losing the image of door on the sidewall. However, **POINTING ZOOM** can be set to see the door side and zoom in that area without missing the **IMPORTANT** security point.

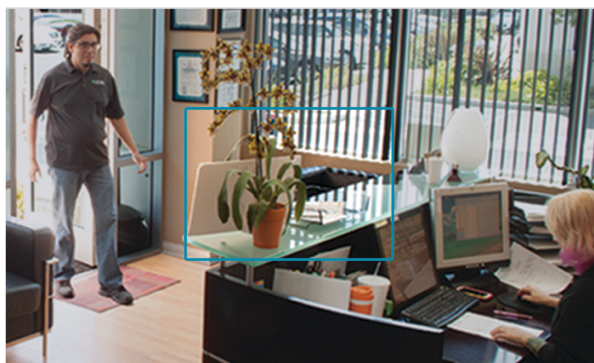
Set D-Zoom Pointer		
POINTING ZOOM		OFF
H-POINTER		10
V-POINTER		10
RETURN		RET ↵

- **POINTING ZOOM** (OFF) - ON enables to set off-centered location to be the center of zoom
- **H-POINTER** (10) - Sets the horizontal location of area to be zoomed by **POINTING ZOOM**.
- **V-POINTER** (10) - Sets the vertical location of area to be zoomed by **POINTING ZOOM**

EXAMPLE OF SMART MOTION & POINTING ZOOM



Smart Motion & Pointing Zoom

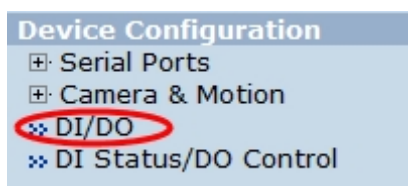


Conventional Zoom

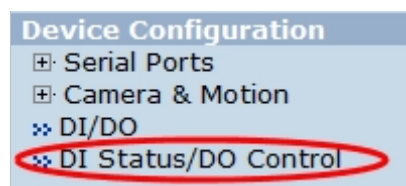
16.9. DI (Sensor Input) / DO (Alarm Output)

Select **DI/DO** from **Device Configuration** menu to name and configure Sensor Input and Alarm Output. After configuring, select **DI Status/DO Control** on Device Configuration menu to manually control **DO** (Alarm Output) and check status of **DI** (Sensor Input).

DI/DO Setup



DI/DO Control



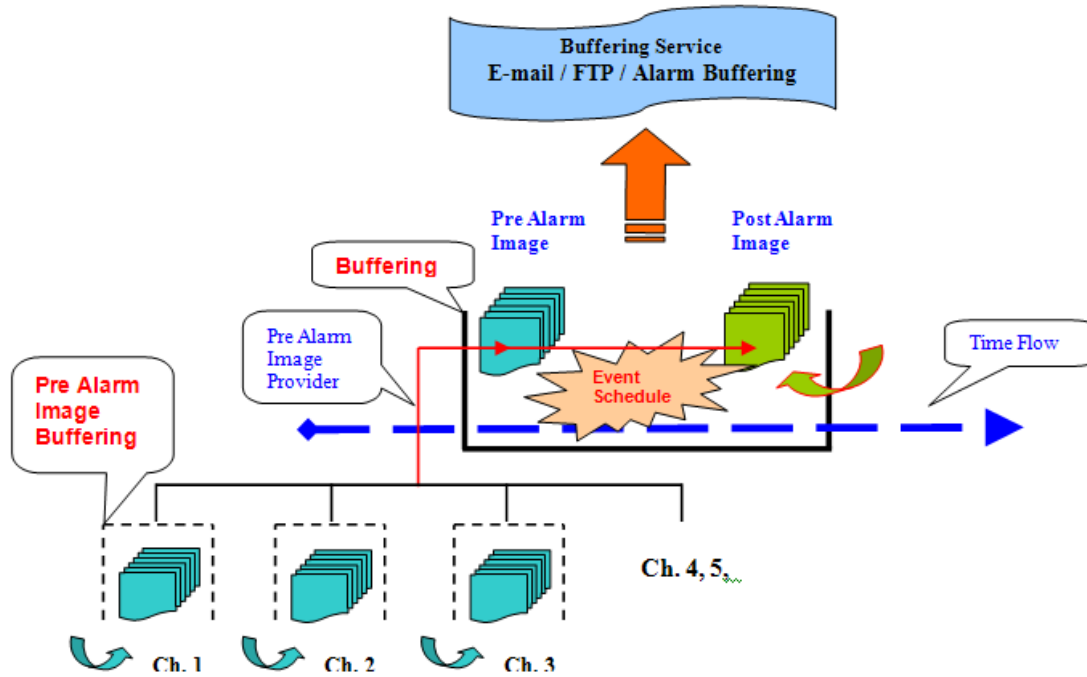
DI/DO functionality can be set to either Normal Open or Normal Closed type as follows.

- **Normal Open Type:** Normal is **OPEN**, and goes **CLOSED** when triggered by an event.
- **Normal Close Type:** Normal is **CLOSED**, and goes **OPEN** when triggered by an event.

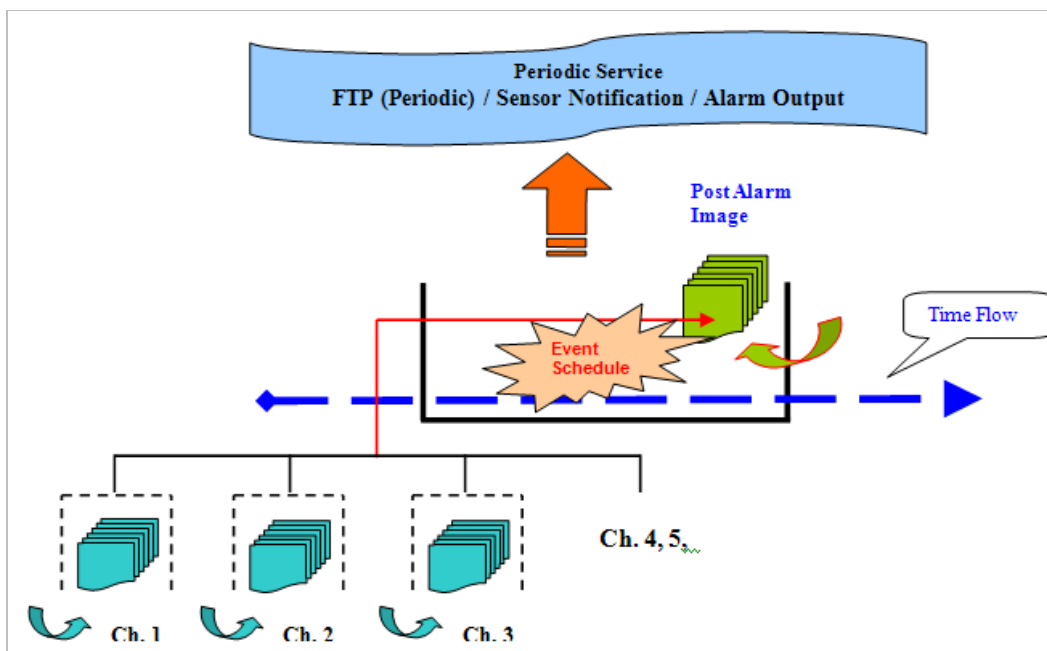
Note: Make sure the type of the sensor and use it correctly to the type. If a Sensor Input is not used, it must be set to Normal Open Type to avoid a false input.

17. Advanced Configuration

There are two types of advanced service, one is **Buffered Service** and the other is **Periodic Service**. In Buffered Service, a series of images are continuously being stored in a buffer memory of the camera/server for a certain period of time. When the camera/server is triggered by an event or schedule, the images or alarm status just before and after the event/schedule are reported to you by email or buffered FTP services.

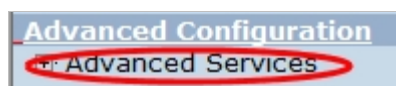


In Periodic Service, only the image, alarm/sensor status after an event/schedule is reported to you upon the server being triggered.



17.1. Advanced Services

Pre-Alarm buffer size and buffering speed can be defined here.



- **Pre-Alarm Buffer Size:** You can set the buffer size which will store the images before event. The unit is in frame, and each channel can be set with different values. The total number of frames for Pre-Alarm Buffer and Post-Alarm Buffer is limited to 10 frames.

Quick Configuration System Configuration Network Configuration Device Configuration Advanced Configuration Advanced Services Recording Configuration Utilities	<p style="text-align: center;">Advanced Services</p> <p>Total pre-alarm buffer size : 5600 kb Current used buffer size : 5 frames</p> <table border="1"> <thead> <tr> <th></th> <th>Ch 1</th> <th>Ch 2</th> <th>Sum</th> </tr> </thead> <tbody> <tr> <td>Pre-Alarm Buffer Size</td> <td>5 (frames)</td> <td>0 (frames)</td> <td>5</td> </tr> <tr> <td>Pre-Alarm Speed</td> <td>fastest</td> <td>Select Spe</td> <td></td> </tr> </tbody> </table> <p style="text-align: center;"><input type="button" value="Save"/></p> <p>Notice : Pre-alarm buffer size for each camera will be applied for E-mail, and FTP(Buffered) service. Please click to "Save" button to apply new changes.</p>		Ch 1	Ch 2	Sum	Pre-Alarm Buffer Size	5 (frames)	0 (frames)	5	Pre-Alarm Speed	fastest	Select Spe	
	Ch 1	Ch 2	Sum										
Pre-Alarm Buffer Size	5 (frames)	0 (frames)	5										
Pre-Alarm Speed	fastest	Select Spe											

- **Pre-Alarm Speed:** You can set the buffering speed. If it's set to Fastest, the server will store images as fast as it can. Each channel can be set with different values.

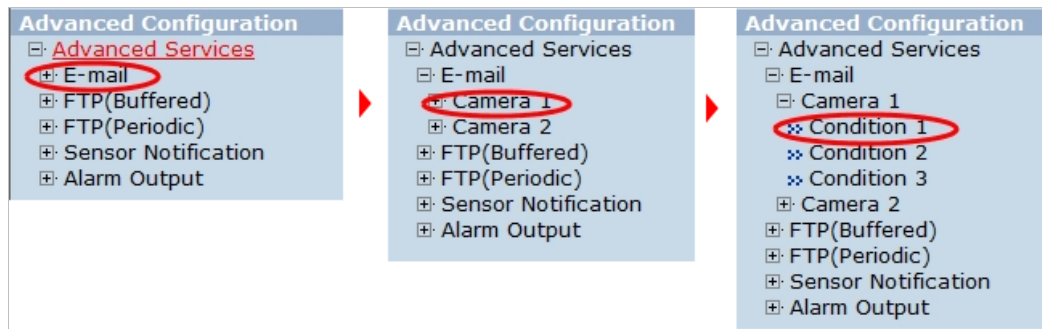
This configuration applies to E-mail and FTP(Buffered), and click **Save** button to apply changes.

» E-mail	Configuration of E-mail service to send pre-post alarm images.
» FTP(Buffered)	Configuration of ftp service to send pre-post alarm images.
» FTP(Periodic)	Configuration of ftp service to send recent images periodically according to service conditions.
» Sensor Notification	Configuration to notify sensor status to predefined IP address.
» Alarm Output	Configuration of alarm output duration according to service conditions.

- **E-mail:** Set up Email Service configuration
- **FTP (Buffered):** Set up FTP (Buffered) Service configuration
- **FTP (Periodic):** Set up FTP (Periodic) Service configuration

17.1.1. E-mail Service Configuration

Email configuration is set up here for Alarm in case any event occurs.



E-mail Service Configuration

Please click the below link to configure E-mail service for each camera.

[※ Camera 1](#) [※ Camera 2](#)

Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
SMTP server address	<input type="text" value="smtp.gmail.com"/>
SMTP Port	<input type="text" value="465"/> (Default:25, 0 ~ 65535)
Authentication Login	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
User ID	<input type="text" value="xxxxx@xxxxx.com"/>
Password	<input type="password" value="....."/>
Sender	<input type="text" value="xxxxx@xxxxx.com"/>
1st Recipient	<input type="text" value="xxxxx@xxxxx.com"/>
2nd Recipient	<input type="text" value="xxxxx@xxxxx.com"/>
3rd Recipient	<input type="text" value="xxxxx@xxxxx.com"/>

Notice : This service is valid for M-JPEG only.

Item	Description
Camera 1~2	Select a channel to be configured for email notification
Service	Select Enable in order to use this service
SMTP server address	Enter SMTP server's address for sending email.
Authentication Login	Select Enable if SMTP server requires ID and password
User ID	Enter User ID to log in to SMTP server
Password	Enter Password to log in to SMTP server
Sender	Enter email address of the sender
1st Recipient	Enter the email address of the first recipient
2nd Recipient	Enter the email address of the second recipient
3rd Recipient	Enter the email address of the third recipient

Click **Save** button to apply the change. If you don't want to change, click **Back** button.

E-mail Service Setup for Each Channel

For each channel, the following items can be configured for email service: Condition, Post-Alarm Buffer Size, and Post-Alarm speed. The content of text message and display style of DI value can be configured as well.

E-mail Service Configuration at Camera 1

Please click below link to configure the service condition.

❖ Condition 1	[Not Used]
❖ Condition 2	[Not Used]
❖ Condition 3	[Not Used]

Maximum 10 pre-post alarm images can be transmitted.

Pre-Alarm Buffer Size	0 (frames)	❖ Check video buffer	
Pre-Alarm Images	0	Post-Alarm Images	0
Pre-Alarm Speed	Select Speed	Post-Alarm Speed	Select Speed
Subject	Message From IP Device![0,0]		

?

Message		Value Format					
		NONE	INT	HEX	BIN	IPA	EVT
1	<input type="text"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2	<input type="text"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3	<input type="text"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4	<input type="text"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Back
Save

Item	Description
Condition 1 ~ Condition 3	Select a condition for Email service to be activated.
Pre-Alarm Buffer Size	The Buffer size assigned for Pre-Alarm.
Check Video buffer	Click this link to go to Advanced Services for buffer setup.
Pre-Alarm Images	The number of image frames to store before Alarm
Post-Alarm Images	The number of image frames to store after Alarm
Pre-Alarm Speed	This field shows the speed of Pre-Alarm. Configuration can be done in Advances Services page.
Post-Alarm Speed	Select the speed of Post-Alarm. Fastest is the highest value.
Subject	Subject of the E-mail message to send.
1	Content of the first line in the email message.
2	Content of the second line in the email message.
3	Content of the third line in the email message.
4	Content of the fourth line in the email message
Value Format	Select the format for the Event or DI data to email. NONE: Don't Send, INT: Decimal, HEX: Hexadecimal, BIN: Binary, IPA: IP Address, EVT: Name of Event

After finishing setup, click **Save** button to apply. If you don't want to change, click **Back** button.

Condition, Schedule & Event Configuration

Condition 1

Service	E-mail
Module ID	0
Camera ID	1

☒ **Enable** ☐ **Disable**

☐ Always
☒ **Schedule Only**
☐ Event Only
☐ Schedule and Event

Schedule

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Week	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☒ Time (hh:mm) 19 : 46 ~ 19 : 46
☐ Date (mm/dd) XX / XX ~ XX / XX

Event

	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Connected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Boot Finished ☐ Enable
☐ Serial Input ☐ Activated

If you click on a **Condition** link, the **Advanced Service** windows is displayed as shown below. Alarm Service is activated only when the conditions in Advanced Services are met.

Item	Description
Service	This shows what service this condition is for.
Module ID	Module ID for current setup
Camera ID	Channel ID for current setup
Enable / Disable	Select Enable to use Condition, otherwise select Disable .
Always	This Condition applies all the time. (Schedule or Event is not usable)
Schedule Only	Use Week, Time, and Date in Condition parameter. If none of the weekdays are checked, it is activated every day.
Event Only	It is activated only when any of the following events occurs. (Sensor, Motion Detection, Camera Connection, Server Booting)

To save the setting, click **Save** button. If you want to cancel it, click **Back**.

17.1.2. FTP (Buffered) Service Configuration

FTP(Buffered) Service Configuration

Please click the below link to configure FTP(Buffered) service for each camera.

※ Camera 1	※ Camera 2
Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Server Address	<input type="text"/>
Base Directory Name	<input type="text"/>
Base File Name	<input type="text"/>
User ID	<input type="text"/>
Password	<input type="text"/>
FTP Control Port	<input type="text"/> (Default:21, 0 ~ 65535)
Date Description Mode	American Style ▼
Connection Mode	<input checked="" type="radio"/> Active <input type="radio"/> Passive

[?](#)

Option	Directory Name	File Name
Server Name	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Weekday	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Year	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Month	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>
Hour	<input type="checkbox"/>	<input type="checkbox"/>
Minute		<input type="checkbox"/>
Sec		<input type="checkbox"/>
Sequence		<input type="checkbox"/>
Camera Number	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[Back](#)
[Save](#)
[Make Directory](#)

Notice :

- This service is valid for M-JPEG only.
- If the value of the FTP Control Port is 0, it will be set using by system configuration. It is usually same as port number 21.
- The follwing are values of Date Descrtion Mode.
 American Style -> Feb28th2009
 European Style -> 28thFeb2009
 ISO Standard -> 20090228

Item	Description
Camera 1 - Camera 2	Select which channel to set up for FTP (Buffered).
Service	Select Enable to use the FTP (Buffered) service. Otherwise select Disable .
Server Address	FTP Server Address.
Base Directory Name	The directory in FTP server where the data will be uploaded. (You should make the directory in the FTP server before using the service.)
Base File Name	The base file name of the data to be uploaded in FTP server.

User ID	Enter a User ID to log in to FTP server.
Password	Enter the Password for the user ID to log in to FTP server
FTP Control Port	Port number for FTP server (Normally 21 is used)
Date Description Mode	Select Date Display Style: American, European or ISO Standard
Connection Mode	Select connection mode for FTP server
Server Name	If Directory Name is checked, new directory is created with server name. If File Name is checked, new file is created with server name.
Weekday	If Directory Name is checked, new directory name is created with weekday. If File Name is checked, new file name is created with weekday.
Year	If Directory Name is checked, new directory name is created with Year. If File Name is checked, new file name is created with Year.
Month	If Directory Name is checked, new directory name is created with month. If File Name is checked, new file name is created with month.
Day	If Directory Name is checked, new directory name is created with day. If File Name is checked, new file name is created with day.
Hour	If Directory Name is checked, new directory name is created with hour. If File Name is checked, new file name is created with hour.
Minute	If checked, new file name is created with minute.
Sec	If checked, new file name is created with second.
Sequence	If checked, new files are created starting from 0, with increment of 1.
Camera Number	If Directory Name is checked, new directory is created with camera number. If File Name is checked, new file is created with camera number.

To create a directory with the options shown above, click **Make Directory** button. After finishing the configuration, click **Save** button to apply the change and continue to the next page. Clicking **Back** button will cancel the changes and go back to the previous page. (This service is available only in M-JPEG mode.)

FTP (Buffered) Service Configuration at Camera 1

FTP(Buffered) Service Configuration at Camera 1

Please click below link to configure the service condition.

» Condition 1	[M1][]
» Condition 2	[Not Used]
» Condition 3	[Not Used]

Maximum 256 pre-post alarm images can be transmitted.

Pre-Alarm Buffer Size	5	(frames)	» Check video buffer
Pre-Alarm Images	0	frames	Post-Alarm Images
Pre-Alarm Speed	fastest		Post-Alarm Speed
	▼		Select Speed ▼

Back
Save

Notice :

If pre-alarm buffer size is not configured, pre-alarm is not served.
Number of pre-alarm images must be less than pre-alarm buffer size.

Item	Description
Condition 1 ~ Condition 3	Select a condition for FTP (Buffered) service to be activated. Up to 3 conditions can be set.
Pre-Alarm Buffer Size	The Buffer size assigned for Pre-Alarm.
Check Video buffer	Click this link to go to Advanced Services for video buffer setup.
Pre-Alarm Images	The number of image frames to store before Alarm.
Post-Alarm Images	The number of image frames to store after Alarm.
Pre-Alarm Speed	This field shows the speed of Pre-Alarm. Configuration can be done in Advances Services page.
Post-Alarm Speed	Select the speed of Post-Alarm. Fastest is the highest value.

After finishing setup, click **Save** button to apply. If you don't want to change, click **Back** button.

17.1.3. FTP (Periodic) Service Configuration

Advanced Configuration
☐ Advanced Services
☒ E-mail
☒ FTP(Buffered)
☒ **FTP(Periodic)**
☐ Sensor Notification
☐ Alarm Output

FTP(Periodic) Service Configuration

Please click the below link to configure FTP(Periodic) service for each camera.

Camera 1

Camera 2

Service	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	
Server Address	<input type="text"/>	
Base Directory Name	<input type="text"/>	
Base File Name	<input type="text"/>	
User ID	<input type="text"/>	
Password	<input type="text"/>	
Sequence Modulo	<input type="text" value="1"/>	
FTP Control Port	<input type="text" value="0"/>	(Default:21, 0 ~ 65535)
Date Description Mode	American Style	
Connection Mode	<input checked="" type="radio"/> Active <input type="radio"/> Passive	

Option	Directory Name	File Name
Overwrite		<input type="checkbox"/>
Server Name	<input type="checkbox"/>	<input type="checkbox"/>
Weekday	<input type="checkbox"/>	<input type="checkbox"/>
Year	<input type="checkbox"/>	<input type="checkbox"/>
Month	<input type="checkbox"/>	<input type="checkbox"/>
Day	<input type="checkbox"/>	<input type="checkbox"/>
Hour	<input type="checkbox"/>	<input type="checkbox"/>
Minute		<input type="checkbox"/>
Sec		<input type="checkbox"/>
Sequence		<input type="checkbox"/>
Camera Number	<input type="checkbox"/>	<input type="checkbox"/>

Back

Save

Make Directory

- Notice :**
- This service is valid for M-JPEG only.
 - If the value of the FTP Control Port is 0, it will be set using by system configuration. It is usually same as port number 21.
 - The follwing are values of Date Descrtion Mode.
 American Style -> Feb28th2009
 European Style -> 28thFeb2009
 ISO Standard -> 20090228

Item		Description
Camera 1 - Camera 2		Select which channel to set up for FTP (Periodic) service
Service		Select Enable to use the FTP (Periodic) service. Otherwise select Disable .
Server Address		FTP Server Address.
Base Directory Name		The directory in FTP server where the data will be uploaded. (You should make the directory in the FTP server before using the service.)
Base File Name		The base file name of the data to be uploaded in FTP server.
User ID		Enter a User ID to log in to FTP server.
Password		Enter the Password for the user ID to log in to FTP server
Sequence Modulo		Maximum number used in sequential file name
FTP Control Port		Port number for FTP server (Normally 21 is used)
Date Description Mode		Select Date Display Style: American, European or ISO Standard
Connection Mode		Select connection mode for FTP server
Overwrite		If checked, new file overwrites the existing file with the same name.
Server Name		If Directory Name is checked, new directory is created with server name. If File Name is checked, new file is created with server name.
Weekday		If Directory Name is checked, new directory name is created with weekday. If File Name is checked, new file name is created with weekday.
Year		If Directory Name is checked, new directory name is created with year. If File Name is checked, new file name is created with year.
Month		If Directory Name is checked, new directory name is created with month. If File Name is checked, new file name is created with month.
Day		If Directory Name is checked, new directory name is created with day. If File Name is checked, new file name is created with day.
Hour		If Directory Name is checked, new directory name is created with hour. If File Name is checked, new file name is created with hour.
Minute		If checked, new file name is created with minute.
Sec		If checked, new file name is created with second.
Sequence		If checked, new files are created starting from 0, with increment of 1.
Camera Number		If Directory Name is checked, new directory is created with camera number. If File Name is checked, new file is created with camera number.

To create a directory with the options shown above, click **Make Directory** button. After finishing the configuration, click **Save** button to apply the change and continue to the next page. Clicking **Back** button will cancel the changes and go back to the previous page. (This service is available only in M-JPEG mode.)

FTP (Periodic) Service Configuration for each channel

Notice : FTP interval is the time interval between each image upload service.
 If you put the number, the last numeric digit will be truncated to zero.
 For example, if you type 154 or 17, it becomes 150msec and 10msec.
 If the number is lower than 10, FTP interval becomes zero and
 FTP service is executed without any time interval.

Item	Description
Condition 1 ~ Condition 3	Select a condition for FTP (Periodic) service to be activated. Up to 3 conditions can be set respectively.
FTP interval (msec)	Select the speed of images to send in FTP(Periodic) service

After finishing setup, click **Save** button to apply. If you don't want to change, click **Back** button.

18. Recording Configuration for Cameras with SD card

Some versions of VITEK IP cameras will have a microSD or a full SD Card.
 Those models can record and playback video from the SD card if installed. Vitek IP cameras can Support cards up to a 32GB. (Only use quality class 10 SD cards)

18.1. SD / MicroSD Card Configuration

If a SD card is not present in the slot already, power down the VITEK IP camera before inserting an SD card. Make sure to turn the power on after inserting the SD card. Open a web browser, type in the IP address of the VITEK camera. Log in as **Admin**, Enter **Recording Configuration** menu, and then click on **SD Configuration** then click on **SD Information**, the card's format information will be displayed

If entire SD information is showing "-NONE-" this means SD card is not formatted, in this case click

Note: Be sure to turn off the device before installing a SD card. Otherwise, the SD card may become defective. Always check the recommended type of SD card because non-conforming SD cards can cause abnormal behavior of the system.

back button followed by clicking SD Status & Format

SD Status & Format (Normal)

SD	Status
1st SD	Unformatted

Back
Reboot

Notice : Be careful! The system could be broken.
If you inserted the SD memory with the power on, turn the power off and on again to format.
 If you select a SD to format, you will be automatically guided to the format menu.
 Once SD format is completed, you need to reset system.
 Once format starts, recording stops automatically.
 After reset system, recording starts automatically.

Click on "1st SD" and the following screen will be displayed

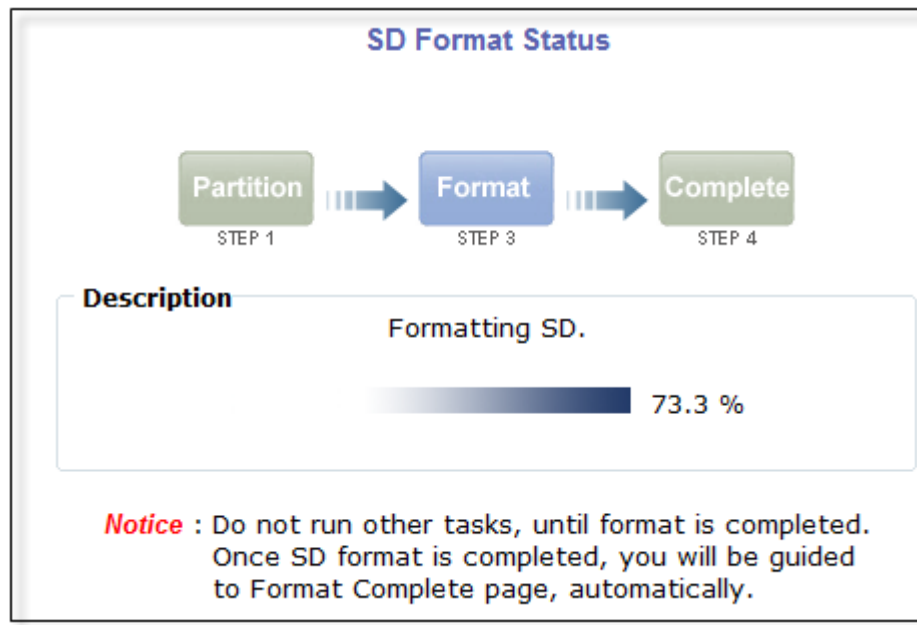
SD Format

Format Option
☐ Check Bad Block

- **Format Option**
 When you enable the "Check Bad Block" option, the Network Video System check the surface of the HDD for detecting bad blocks.
 Do not run other tasks, until format is completed.
If this option is enabled, the format time may be several hours depend on the size of the HDD.

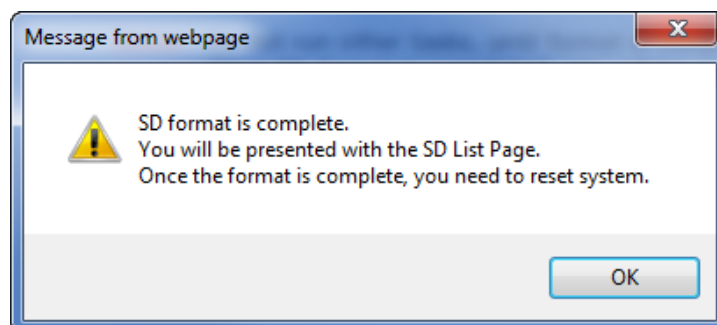
Back
Partition and Format

Read format option on screen and then click **Partition and Format** a pop up screen will display asking if you want to do a "Partition and formatting" click OK to continue or Cancel to stop. After clicking OK the following screen will be displayed



Note: if program is terminated during the "Format" process SD Card might be damaged

After formatting is completed the following screen will be displayed



Click OK and you will be brought back to the "**SD Status & Format screen**" click on "Reboot" wait approximately 30 seconds and log back into the **Admin** screen. Open up "**Recording Configuration**" menu and click on "**SD Configuration**" then click on "**SD Information**" and the following screen will be displayed showing SD card info

SD Information

File System	Default format
Total Disk Size	1.79 GB
Free Disk Size	1.69 GB
Usage	5.69 %
Oldest Image	-none-
Last Image	-none-

18.2. Recording Configuration with SD card

Each camera has 2 streams (referred as Camera 1 / Camera 2 (see image below)) which can be configured for recording options in this section. Configuration items include motion detection recording, 24-hour continuous recording, event-driven recording, etc.

You can find out the list of streams (camera 1 / camera 2) with recording capability by clicking **Recording Configuration on the left side of your screen**. For example, you will see 2 streams (camera 1 / camera 2) from the list of **VS Module ID (IP Devices)**.

Recording Configuration

- ⊕ SD Configuration
- ⊕ **Recording Configuration**
- ⌵ Recording Profile
- ⌵ Recording Mode
- ⌵ SD Status Report
- ⌵ Clear Recording Config.
- ⌵ Delete Recorded Data

Utilities

Recording Configuration

Please click camera name to configure Recording condition.

Recording Configuration						
VS Module ID (IP Devices)	Name	IP Address	Port	Vendor	Camera Name	REC. Config.
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 1	Disable
0	Built-in Module 0	Built-in Module 0	0	Built-in Device	Camera 2	Disable

Status

Stop

Record

Notice :

To start recording following your new recording configuration, click 'Record' button.
 Otherwise, recording with new configuration will not be started, although all the recording configurations are correctly set up.

Below is an example of configuring the motion detection-triggered recording. It starts by clicking **Recording Configuration** and clicking on [Camera1](#), the following screen will be display.

Recording Configuration (VS Module ID 0, Camera 1)

» Display current recording configurations
Please click below link for the recording configuration.

» Condition 1 [Not Used]
» Condition 2 [Not Used]
» Condition 3 [Not Used]
» Condition 4 [Not Used]

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

	1	2	3	4		1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Connected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Input Data	<input type="checkbox"/>								

 Always
 Schedule
 Schedule and Event

Recording Service: ☒ Enable ☐ Disable
 Server Module ID: 0 Camera Number: 1
 Camera Name: Camera 1
 Pre-Alarm Images: 0 Post-Alarm Images: 0
 Pre-Alarm Speed: fastest Post-Alarm Speed: fastest

Back Save

Notice : It is recommended using MJPEG compression to use Pre-Alarm and Post Alarm service. If MPEG4 or H.264 video compression is selected, only I Frame will be recorded.

Select [Condition 1](#) and the following window will be display.

Condition 1

Service: Recording
Module ID: 0
Camera ID: 1

☐ Enable
 ☒ Disable

Select Mode:
 ☒ Always
 ☐ Schedule Only
 ☐ Event Only
 ☐ Schedule and Event

Schedule

Sun Mon Tue Wed Thu Fri Sat
 Week ☐ ☐ ☐ ☐ ☐ ☐ ☐

☐ Time (hh:mm) : ~ :

☐ Date (mm/dd) / ~ /

Event

	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Input Data				<input type="checkbox"/>
Camera Connected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Camera Disconnected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Back Save

Notice : Motion Detection can be set at
Device Configuration -> Camera & Motion -> Motion Detection

Alarm Sensor can be set at
Device Configuration -> DI/DO

Enable / Disable

By clicking on **Enable** you will be able to select your mode (Always, Schedule only etc). in this example we will be selecting "**Event Only**".

Schedule

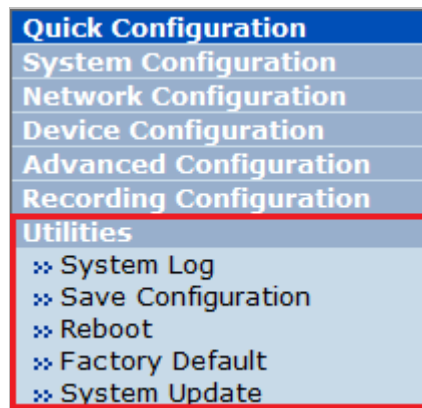
Under **Schedule** you can select time and date for motion recording if left blank motion recording will be 24hrs, 7 days a week. In this example we will be leaving it blank (24/7).

Event

Under **Event** click *Motion Detection* (stream 1 / stream 2). Click on Save to finish.

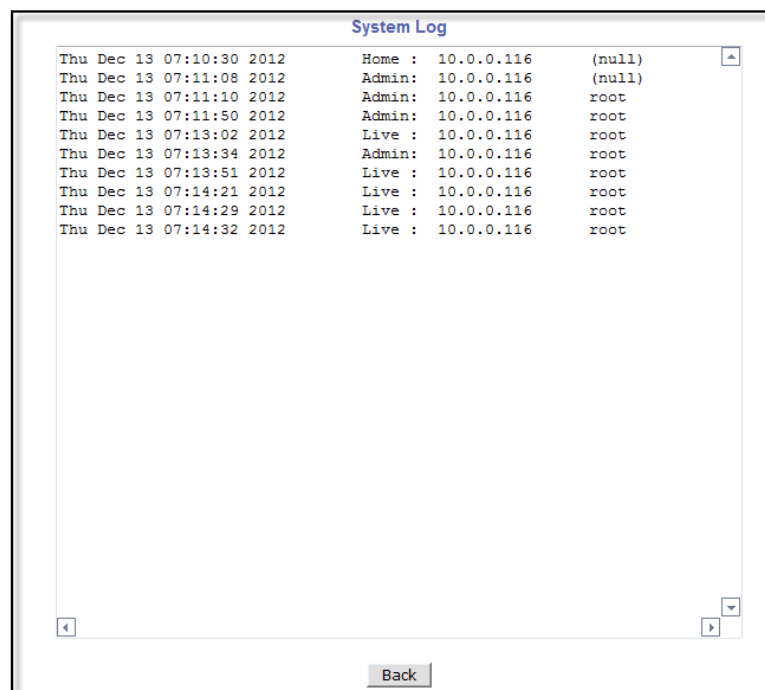
19. Utilities

In **Utilities** part of the Admin menu, you can view the **System Log** file, **Save Configuration**, **Reboot**, **Factory Default** and **System Update**.



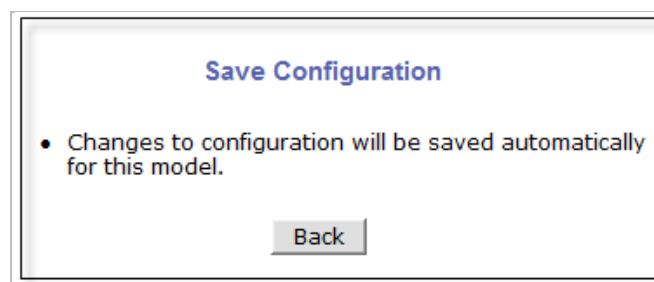
19.1. System Log

System log file provides you the information about when and who access' the contents of VITEK Cameras such as HTTP file or CGI programs. In each line, log data consists of date, time, category, IP address, user ID.



19.2. Save Configuration

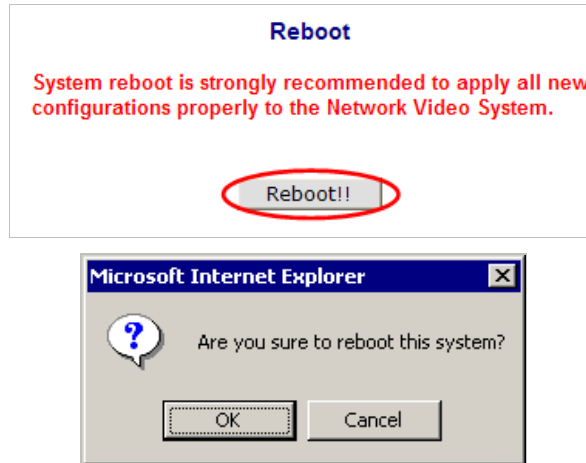
VITEK cameras save the configurations after every step.



19.3. Reboot

It is recommended to reboot the system after making changes to the configuration. To reboot, click **Reboot** on Utilities menu. A screen will display to confirm a system reboot, click ok to continue.

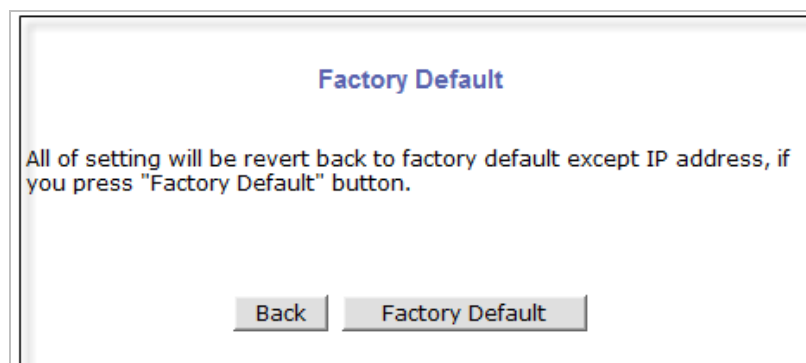
Windows Internet Explorer will ask to close the webpage, click Yes.

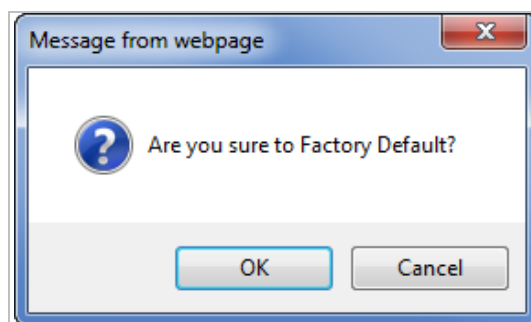


19.4. Factory Default

When required to restore the configuration of a Camera to factory default conditions, Network configuration is not affected by this action.

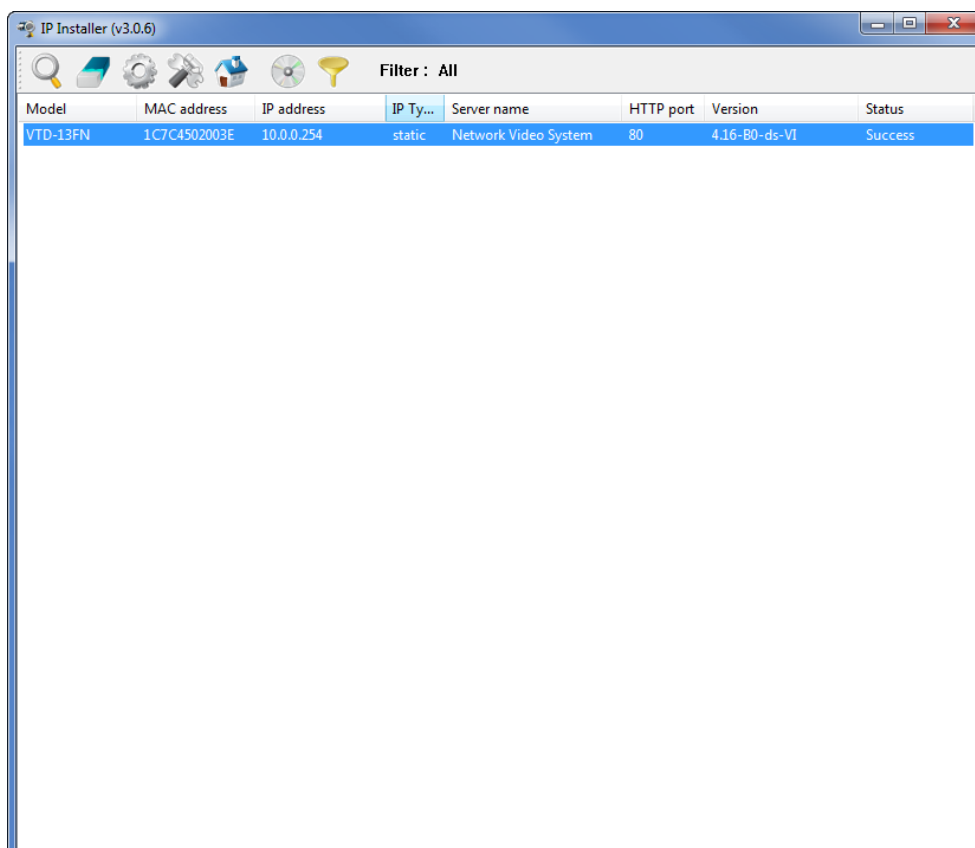
Click **Factory Default** on Utilities menu. A confirmation screen will be displayed as shown Click **Factory Default** button, otherwise click **Back** button to cancel it. The second confirmation screen will appear. Click **OK** button to restore the factory default condition right away. If you click **Cancel**, web browser will go back to the previous screen without any change made.



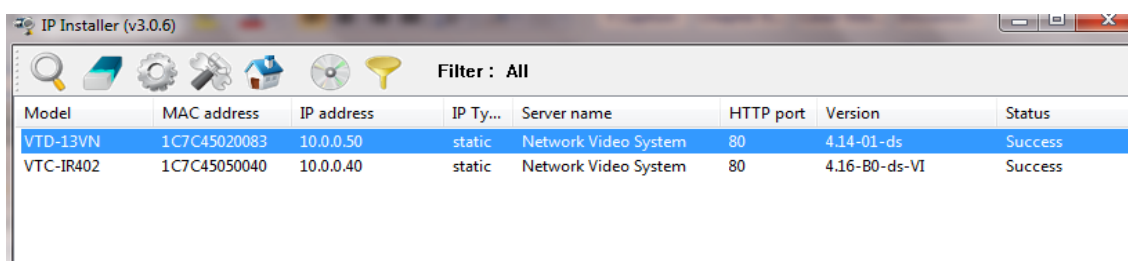


19.5. System Update

**** Is Highly Recommended to Use the IP Installer Program for This Process ****



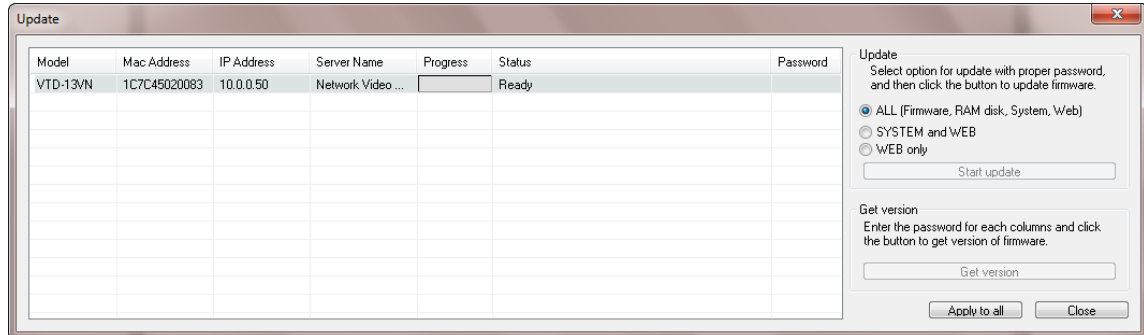
Once IP devices are searched and shown on the screen as functioning successfully, you can update the firmware of them using the "IP Installer" program. To do that, first check the firmware version of the device, which you can find on the IP Installer window.





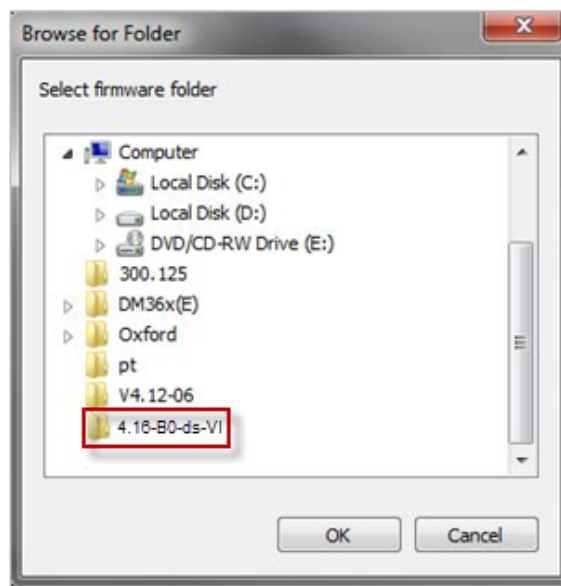
In the above picture, the firmware version of this product is 4.14-01-ds while the latest firmware version available is 4.16-B0-ds-VI as you can see at Vitek's homepage (<http://www.vitekctv.com/Downloads.asp>). If you decide to update the firmware, first create a folder on your computer for the update firmware, then download the latest firmware to that folder.

Then select the IP device to be updated on IP Installer window, then click **Update Firmware** button from the toolbar. The following window will be displayed.



You may find the **Password** field is empty on the window shown above. If so, click the Password field of the IP device and enter the proper password for the device. You are not allowed to update the firmware if the correct password is not provided.

After the password is entered, the **Start Update** button will be enabled now. Click the button to see the following window for selecting the folder where the file has been saved. Highlight the folder then click OK.



After clicking OK the following window will be displayed.

Progressing...

Model	Mac Address	IP Address	Server Name	Progress	Status	Password
VTD-13FN	1C7C4502003E	10.0.0.254	Network Video ...	8%	Transferring file...	*****

Update

Select option for update with proper password, and then click the button to update firmware.

☒ ALL (Firmware, RAM disk, System, Web)

☐ SYSTEM and WEB

☐ WEB only

Start update

Get version

Enter the password for each columns and click the button to get version of firmware.

Get version

Apply to all

Close

Note: Do not CLOSE window until completed, to avoid permanent damage to the camera.

20. ENVI Series Viewer

20.1. Introduction

ENVI Series Viewer is an ActiveX program for Internet Explorer web browser, which enable users to control video and audio functions of network video devices over the TCP/IP network. ENVI Series Viewer works with EN-V-R network video software, Vitek Network Video Servers, Network Video Recorders, and Network Cameras to show real-time live video images and enables users to control audio, Relay Output, and PTZ functions. (Supported cameras)

20.2. Key Features

9. Displays live video streams transmitted from Vitek Cameras / Servers
10. Plays audio transmitted from Vitek Cameras / Servers (supported cameras)
11. Transmits audio from PC with ENVI Series Viewer to Vitek Camera / Servers
12. Stores live video screen as image files
13. Stores live video streams as video files
14. Controls Relay Output of Vitek Cameras / Servers (supported cameras)
15. PTZ Controls (supported cameras)
16. Supports the group mode to see specific channels (for Network Video Recorders only)
17. Displays live videos in full screen mode
18. Supports Flexible Extra System

20.3. System Requirement for PC

For best quality and performance, your computer needs to meet the minimum requirement as below.

19. OS: Microsoft Windows XP Pro, Windows 7
20. CPU: Intel Pentium 4, 2 GHz (Dual-Core or faster is recommended)
21. System RAM: 2GB
22. Video Card: 256MB Ram, 1024x768 Resolution
23. 100 Mbps Network Adaptor

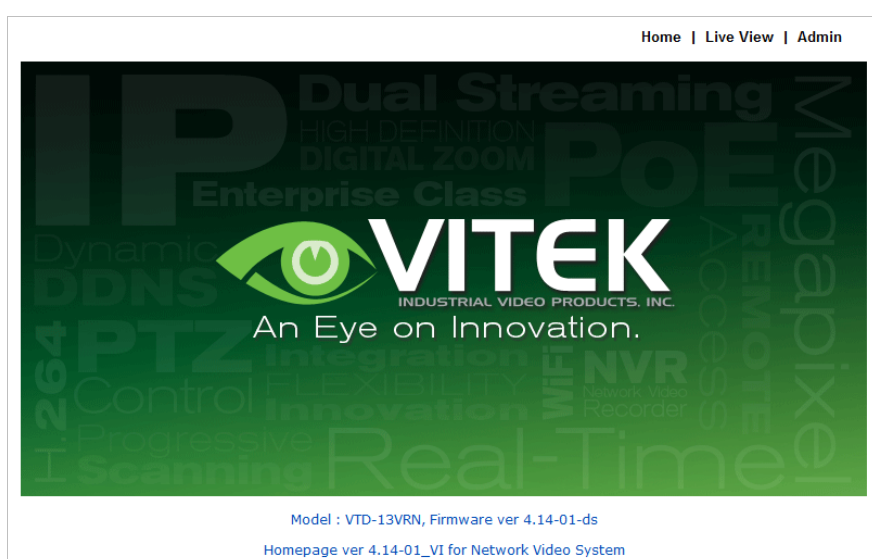
21. Installing and Uninstalling

21.1. Installing ENVI Series Viewer

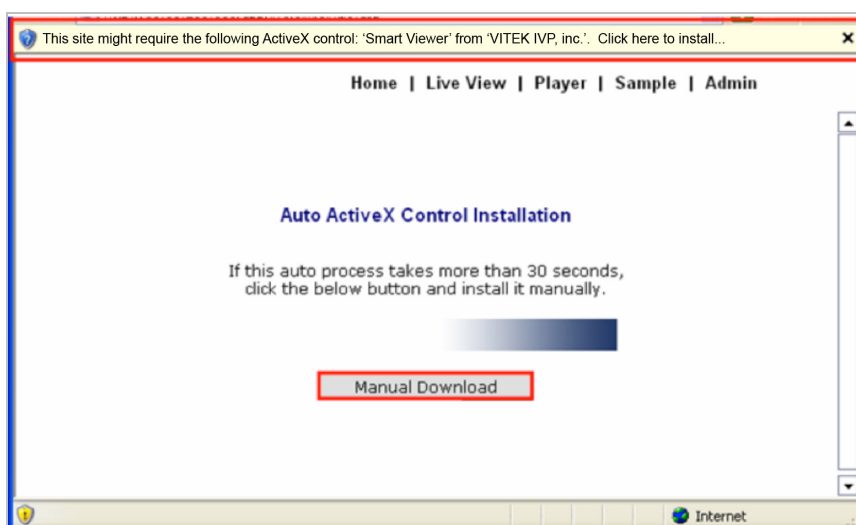
Connect to the Vitek Camera/Server using Internet Explorer, and click Live View on the main page. Then ENVI Series Viewer will be automatically downloaded and installed. If an Internet connection is not available, it's possible to manually install the program file in advance (from supplied CD) and connect to the Vitek Camera / Server later.

21.1.1. Installing on Web Browser

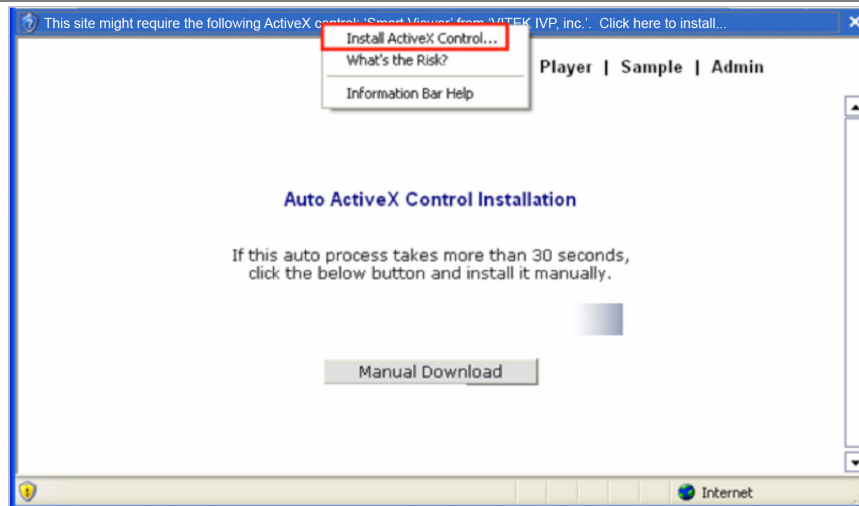
Click 'Live View' after access to Vitek® Server on Internet Explorer.



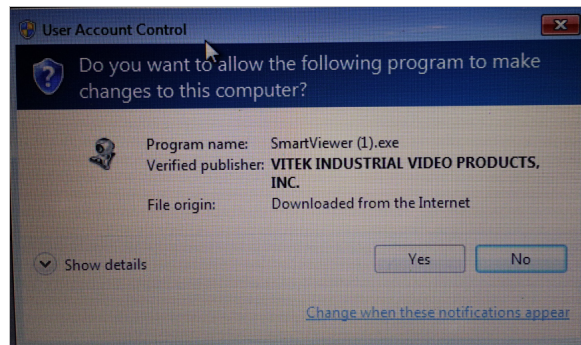
If you're using Windows XP Service Pack 2 or later, the Information message will show up as seen below. Click the Information message.



If the Information message doesn't come up due to the problems like network failure, you can start the manual installation as shown in the next section.



Click the **Install ActiveX Control**, and the pop-up window will be displayed as above. Click the **Install** button.



Click **"YES"** to allow program to run.

After the installation is successfully completed, ENVI Series Viewer window will be displayed.

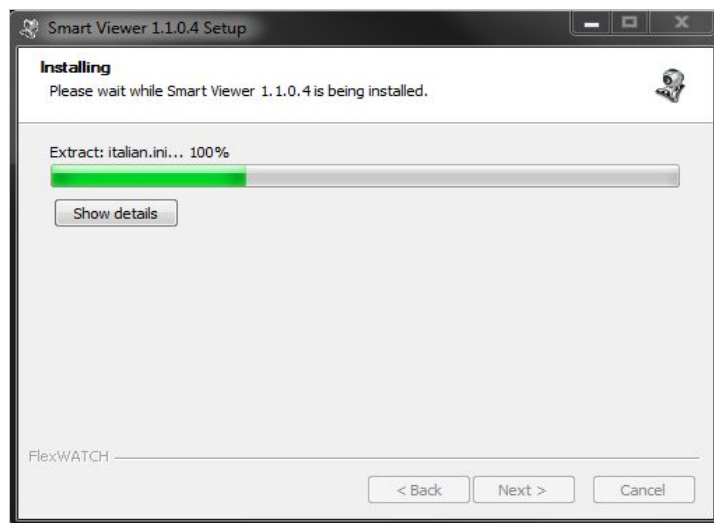


21.1.2. Manual Installation

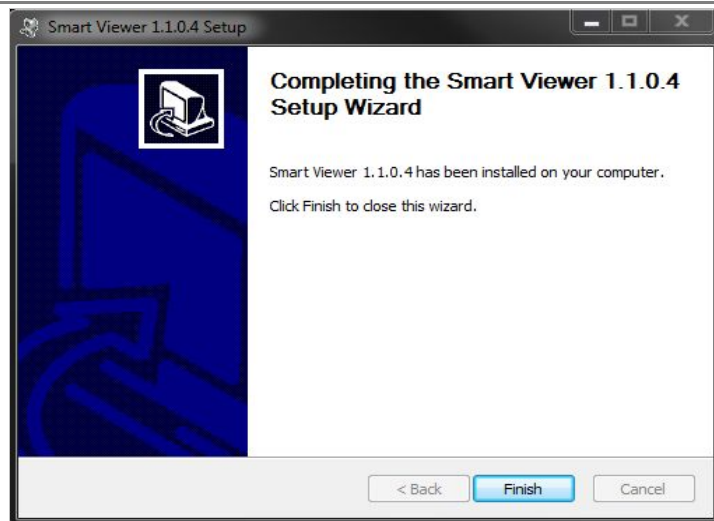
When an Internet connection is not available or having some difficulties, you can manually install from the supplied CD using ENVI Series Viewer program file. Execute the downloaded file, and you will see the ENVI Series Viewer Setup Wizard window as shown below. Click the **Install** button to start installing.



The following window will be displayed during the installation.



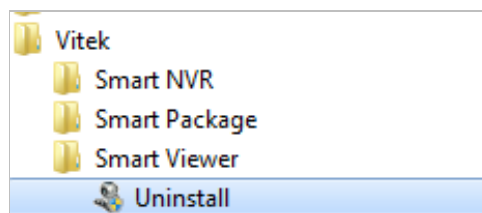
After installation is successfully completed, the following window will be displayed. Click the **Finish** button.



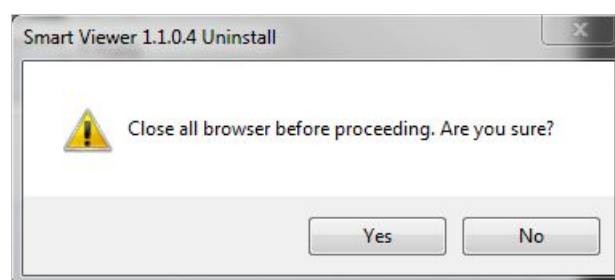
21.2. Uninstalling ENVI Series Viewer

There are two ways to uninstall ENVI Series Viewer program from your computer. Before uninstalling, close all the Internet Explorer windows.

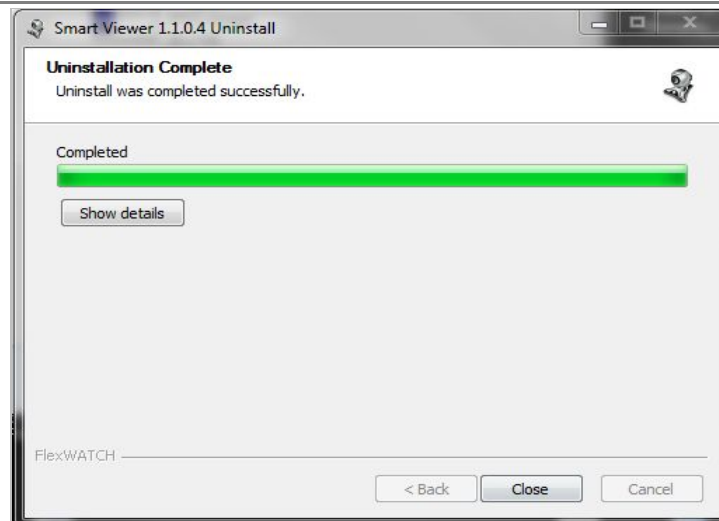
21.2.1. Uninstalling with Program Menu



Click **Uninstall** and the following window will be shown. Click the **Yes** button.

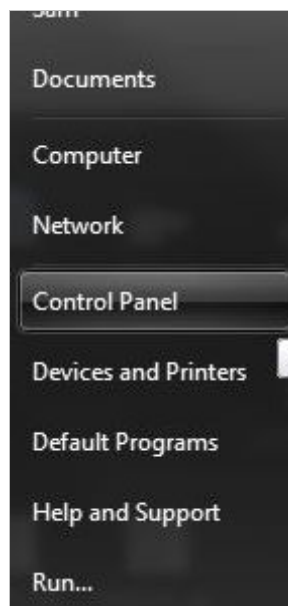


If the uninstall is successful, the following window will be displayed. Click **CLOSE** to finish.

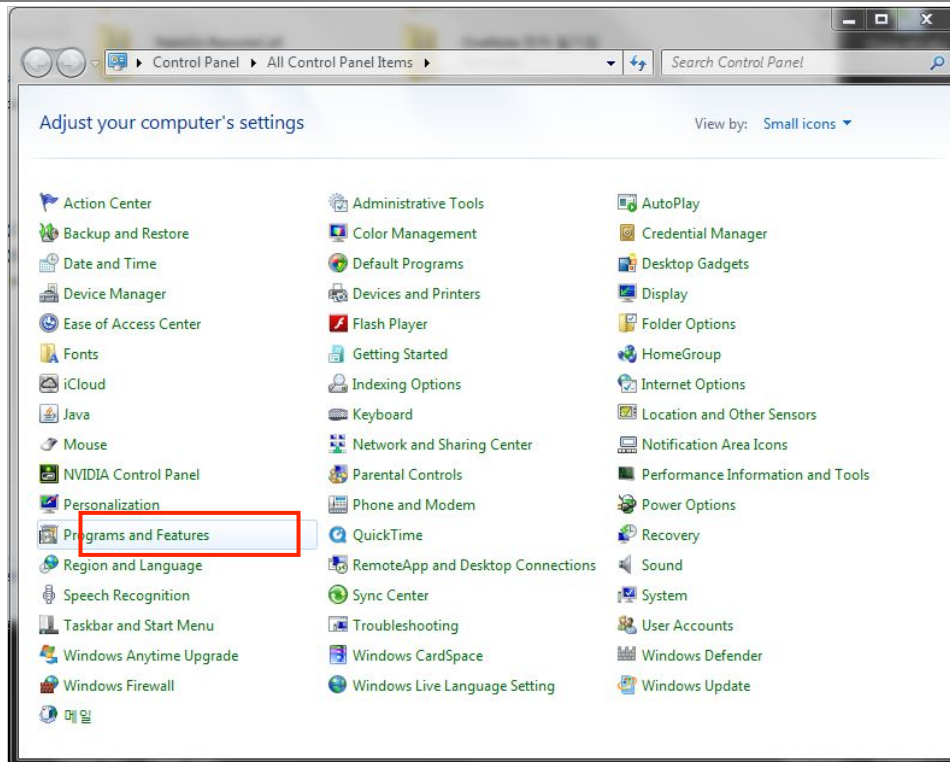


21.2.2. Uninstalling on Control Panel

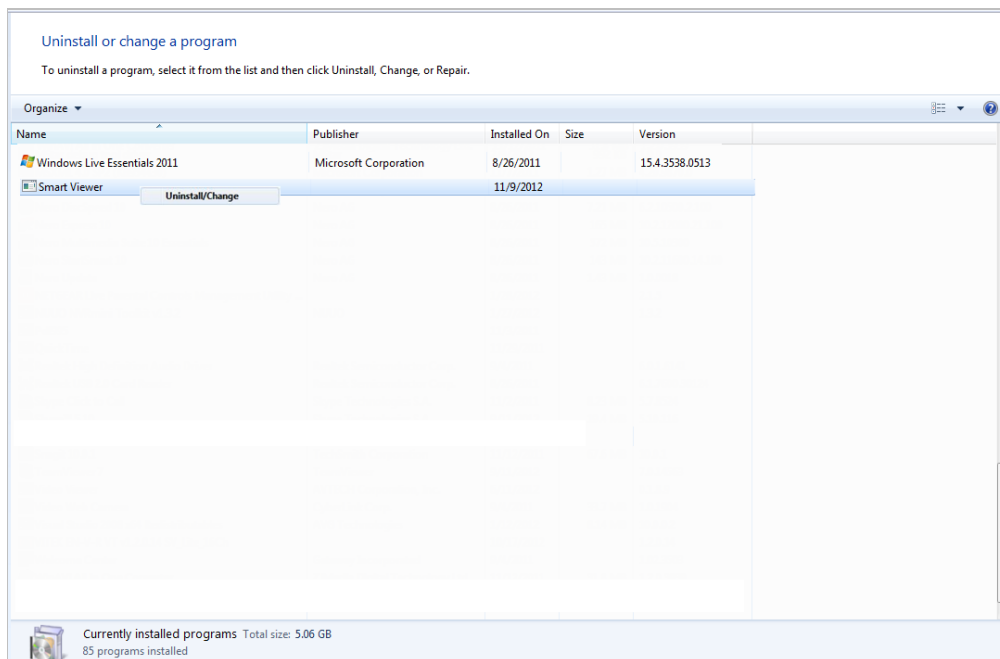
Click **Start** button on the screen, then select the **Control Panel**.



In the Control Panel window, double-click the **Add or Remove Programs** icon.



You will see the **Currently installed programs** list. Click **ENVI Series / (Smart Viewer)** button,



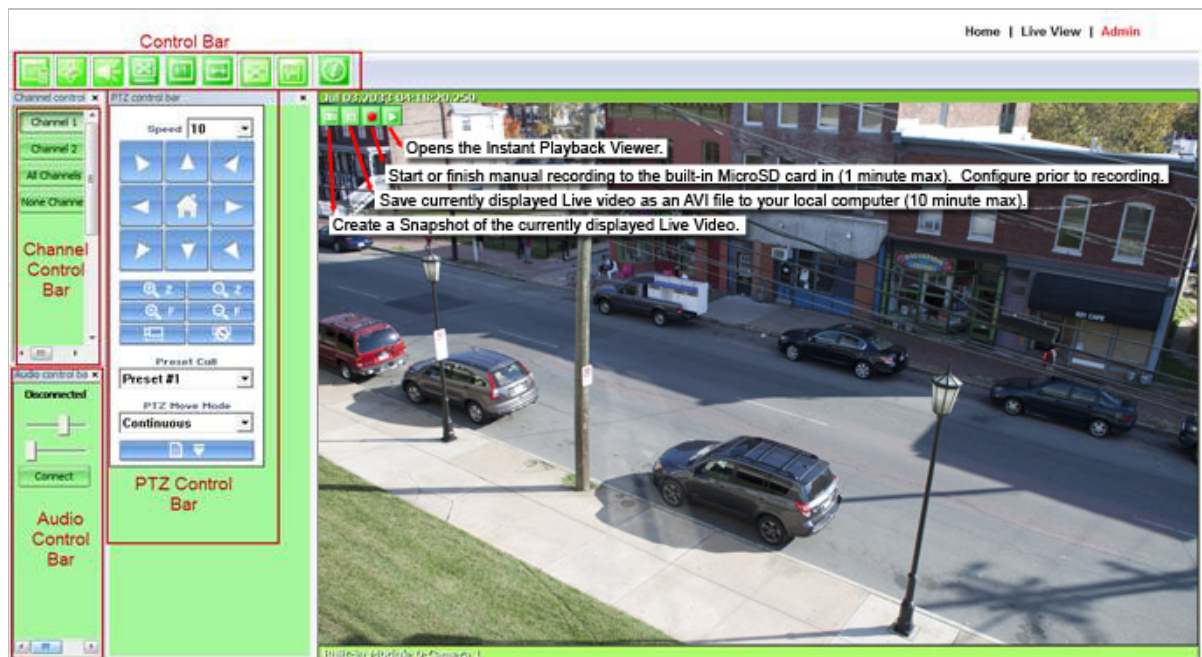
You will see the **Uninstall or change a program** list. Click **ENVI Series / (Smart Viewer)** button, and then right click **Uninstall /Change** button. Then, it will start uninstalling the program.

22. Starting ENVI Series Viewer

Once ENVI Series Viewer is installed in your computer, you can start it by connecting to the Vitek Camera / Server using Internet Explorer and select **Live View** on the main menu.

The appearance of ENVI Series Viewer window varies depending on what type of Vitek Server is connected (Network Video Server, Network Camera, or Network Video Recorder).

- ENVI Series Viewer window for Network Video Server or Network Camera



22.1. Control Bar



Displays and hides Channel control bar



System Information Display



Displays and hides PTZ control bar



Displays and hides Audio control bar



Display image by aspect ratio



Displays image normal screen



Display Enhancer on/off (uses more CPU)

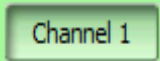
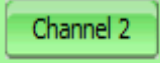
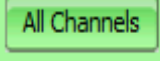
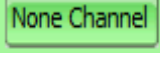


Display Full / Normal screen



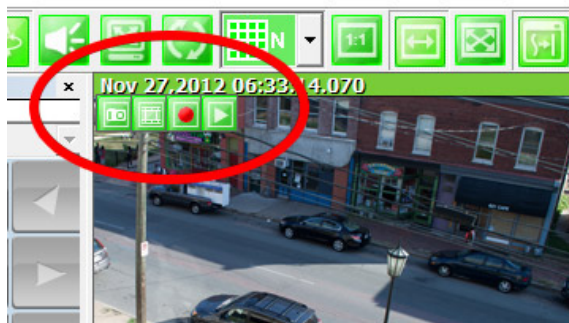
Displays image in original size

22.2. Channel Control Bar

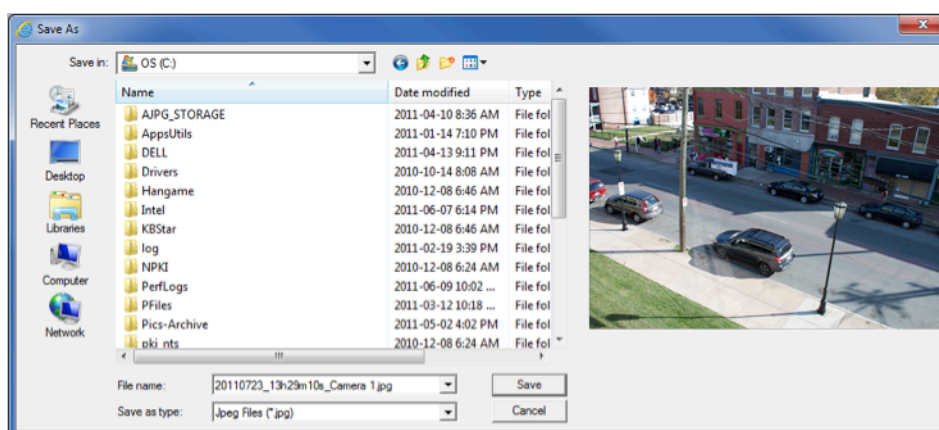
	Displays or hides live view video from channel 1
	Displays or hides live view video from channel 2
	Displays or hides live view video from ALL channels
	No Display

22.3. OSD Channels Buttons

22.3.1. Saving as Image File



In ENVI Series Viewer, Live video currently displayed can be captured and saved as an image file either in JPEG or BMP format. Select the live view video you want saved, and click **Snapshot** button on **OSD Channel Buttons**. The following window will be displayed.



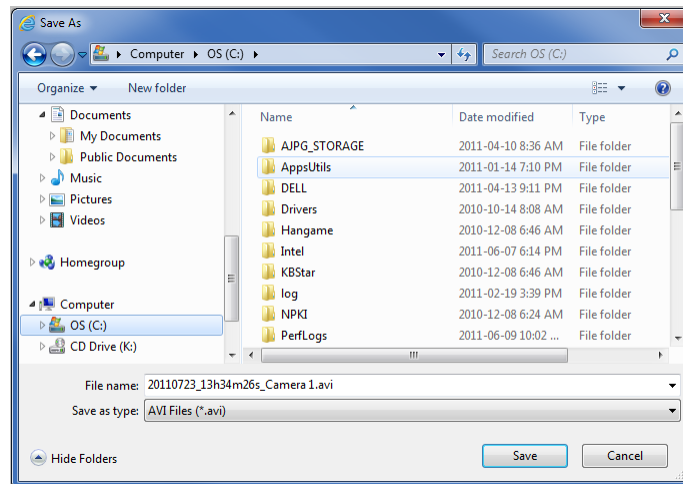
In this dialog box, you see the captured image to be saved. Enter the folder and file name, and click the **Save** button, then the image will be saved with the name you entered.

Note: If live view video is in MJPEG format, the image will be saved as a JPEG file. If the video is in MPEG-4 or H.264 format, it will be saved in BMP format.

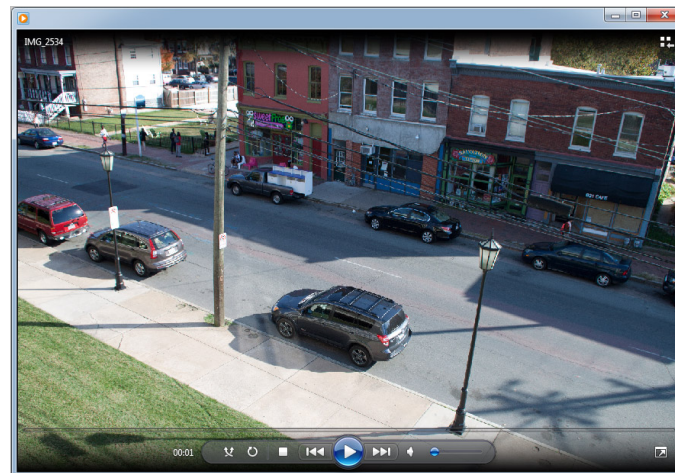
22.3.2. Saving as Video File



In ENVI Series Viewer, Live video currently displayed can be captured and recorded as a video file in AVI format. Select a live view you want to save, and click **RecAvi** button on **OSD Channel Buttons**. Clicking it again will stop recording. Max duration is 10 minutes and recording will be stopped after 10 min if left un-clicked.



In video files recorded from M-JPEG format video, the time information file will be generated in SMI subtitle format, which puts time stamp every second. When you play back the recorded video, the time stamp will be displayed as a subtitle on the video screen as shown in the picture below. (Upper left)



Note: When you play back videos recorded from MPEG-4 or H.264, proper CODEC's may be required.

22.3.3. Manual Recording



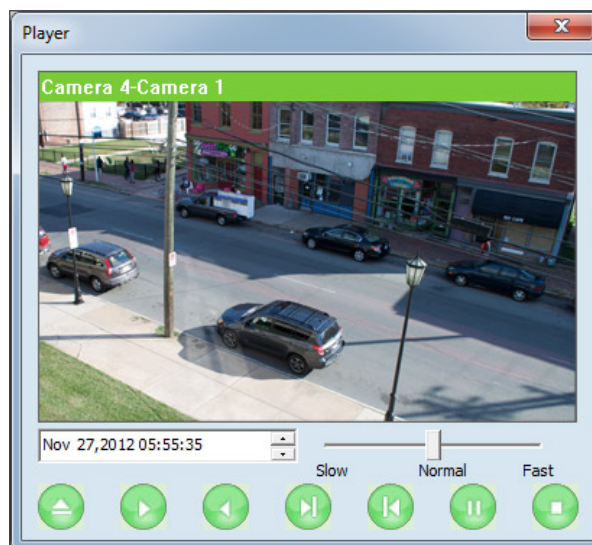
To manual record from network cameras with built-in local storage (SD Card), live video can be recorded to the SD Card by clicking this button. The recorded video can be viewed by **Instant Playback** feature of OSD Channel Buttons or by running ENVI Series Player program. To finish, click the icon again. *Max duration is 1 minute* and recording will be stopped after 1 minute.



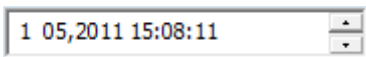
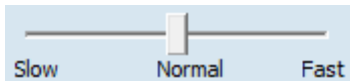







22.3.4. Instant Playback



For network cameras with local storage (SD Card), Instant Playback is supported. Clicking the Instant Playback button from the OSD menu will open the window below.

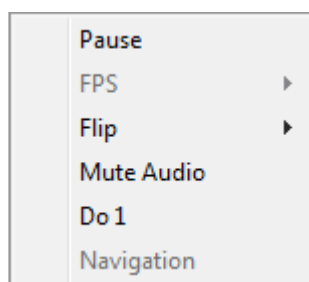


Instant playback will scan the video data up to 1 min before it was executed. And scanned data will be played automatically

	Set the beginning of video data. Instant playback will scan 1 min after this.
	Se the playback speed.
	Begin searching data
	Playback
	Reverse playback.
	1 frame playback
	1 frame reverse playback
	Pause
	Stop

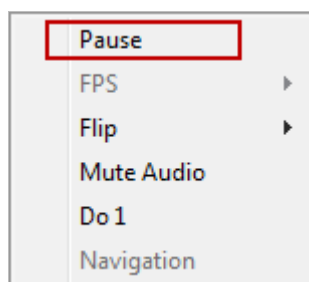
22.4. Extended Features

When you click the right mouse button on the Live View Window, a pop-up menu will appear for extended features as shown below.



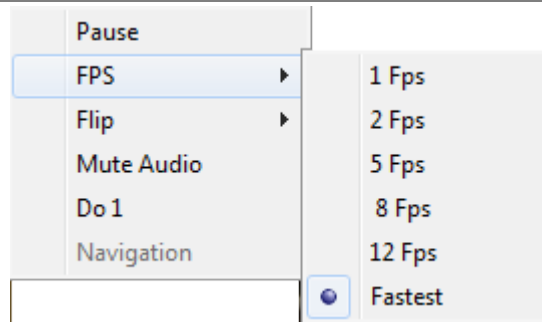
22.4.1. Pausing Live Video

Click the **Pause** button to stop and resume live view video.



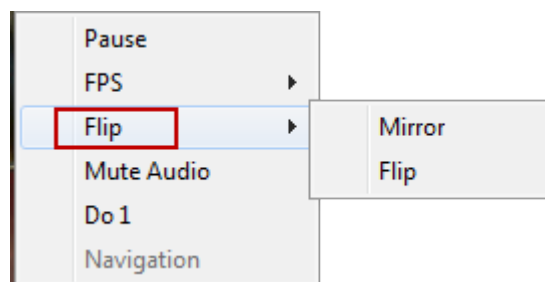
22.4.2. FPS Control

FPS (Frame per Second) can be controlled only in MJPEG mode. In MPEG4 and H.264 video mode, FPS control is not supported.



22.4.3. Flip Control

Flip Control: The horizontal view of the image can be changed using the (mirror) function. The vertical view of the image can be changed using the (flip) function.

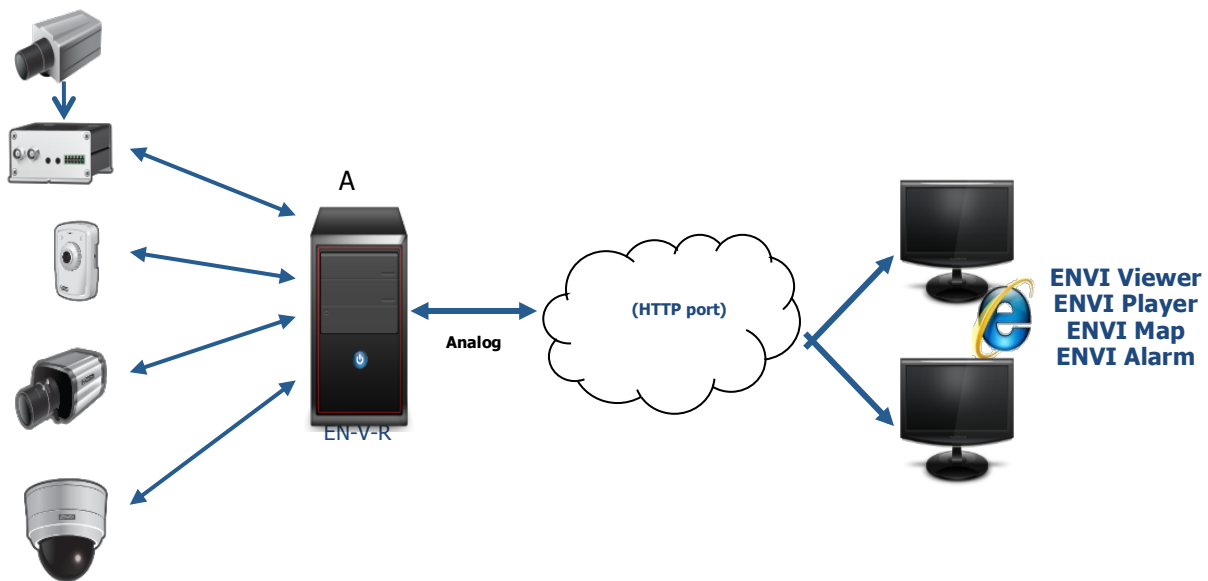


23. EN-V-R: Introduction

This User's manual explains how to set up EN-V-R software in your PC. EN-V-R is the integrated system software for video security applications, which runs on Microsoft's Windows-based computers. Some of major features of EN-V-R are listed below.

- Provides main features of Live view, Playback, Record, Backup
- Event, motion, scheduled recording & conditional playback
- Motion-JPEG, MPEG-4, H.264 stream supported
- Supports various vendors' IP devices (Multi Vendor Version only) for recording and retransmission of video, voice, and data
- Supports Megapixel cameras (up to 3M pixels)
- Users can connect to EN-V-R via web browsers to access live video, Audio, and data, and search for video to play back
- Up to 128 channels supported for cameras

Note: A product-key is required for proper installation of EN-V-R program. You can still install EN-V-R in 10-working day trial mode if a product-key is not entered during installation. (Multivendor software only)



24. Requirements for Installation

24.1. EN-V-R Versions

EN-V-R is supplied to customers in different versions for each appropriate application. Users will need to choose the right versions for their needs.

Version Types	Register Channels	Time Restriction	Recording Channels	Retransmission Streams	Support Other vendors	Max Recoding Capacity
Evaluation	128	10 days	128	256	Yes	160 TB
Free	16	N/A	16	64	No	160 TB
Multivendor	9	N/A	9	36	Yes	160 TB
	16	N/A	16	64	Yes	160 TB
	32	N/A	32	128	Yes	160 TB
	64	N/A	64	256	Yes	160 TB
	128	N/A	128	512	Yes	160 TB

24.2. System Requirement for PC

For best quality and performance, your computer needs to meet the minimum requirement as below.

24. Microsoft Windows XP Pro, Windows 7 Pro or higher, Video Card(256MB Ram, 1024x768 or higher)

Compression	# of Channels	Resolution	Recommended CPU	Memory
H.264	16 Channels	D1	Intel Core2Duo T5200	1.0GB
		720P	Intel Core2Duo E7550	1.5GB
		1080P	Intel Core i-5-2500S	2.0GB
	32 channels	D1	Intel Core2Duo E6700	1.0GB
		720P	Intel Core i-5 750	2.0GB
		1080P	Intel Core i-7 970	4.0GB
	64 channels	D1	Intel Core i-5 661	1.5GB
		720P	Intel Xeon X5660	4.0GB
		1080P	Intel Xeon X5680 Dual CPU	4.0GB
	128 channels	D1	Intel Xeon X5507 Dual CPU	4.0GB
		720P	Intel Xeon X5670 Dual CPU	6.0GB
		1080P	Intel Xeon E7-4850 Dual CPU	6.0GB
Motion-JPEG	16 Channels	D1	Intel Core2Duo E6700	1.0GB
		720P	Intel Core i-5 460M	1.5GB
		1080P	Intel Core i-5 -2500	3.0GB
	32 channels	D1	Intel Core i-5 661	1.5GB
		720P	Intel Core i-5 -2400S	2.0GB
		1080P	Intel Xeon X5590 Dual CPU	4.0GB
	64 channels	D1	Intel Core i-5 -2500	3.0GB
		720P	Intel Xeon X5550 Dual CPU	4.0GB
		1080P	Intel Xeon E7-4850 Dual CPU	6.0GB
	128 channels	D1	Intel Xeon X5687 Dual CPU	4.0GB
		720P	Intel Xeon X5690 Dual CPU	6.0GB
		1080P	Intel Xeon E7-4850 Dual CPU	6.0GB

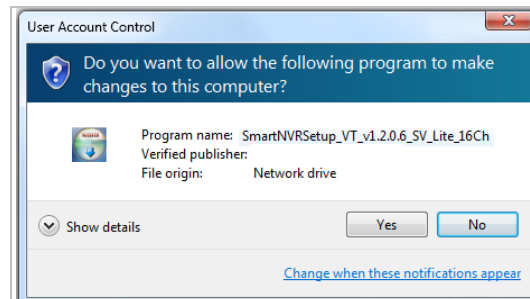
Note: Above PC requirements are based on running EN-V-R program only. If other software needs to run along with EN-V-R at the same time, you may need additional performance level for your PC. It is recommended to check actual performance and disk capacity before selecting a PC for EN-V-R.

25. Installing EN-V-R



After downloading EN-V-R, double click EN-V-R Setup icon to start installation. The following window will be displayed on the screen. Before installing, check the version of the EN-V-R which is shown on the window.

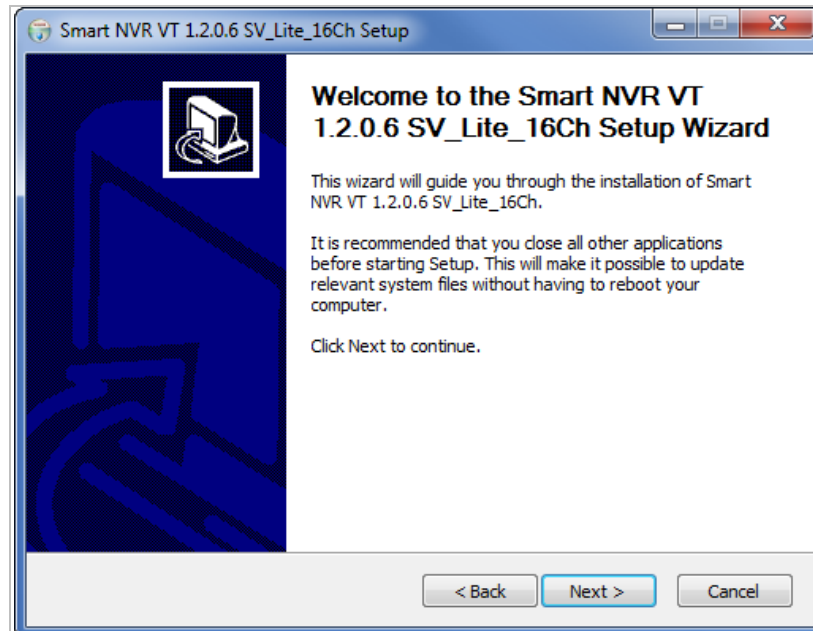
You may encounter the following security warning. To continue installing the program, click **Yes** button.



Then select language for installation.

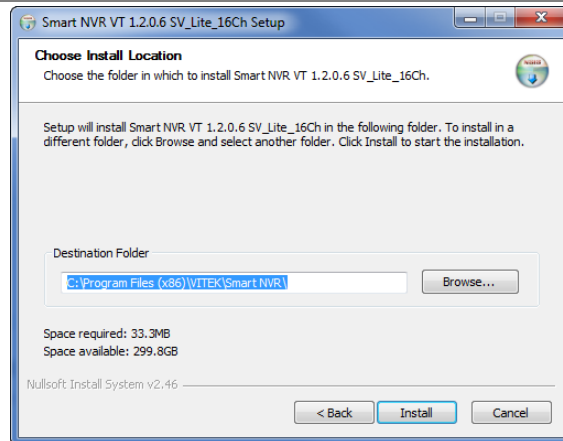


You will see the below window, then click **Next** button.

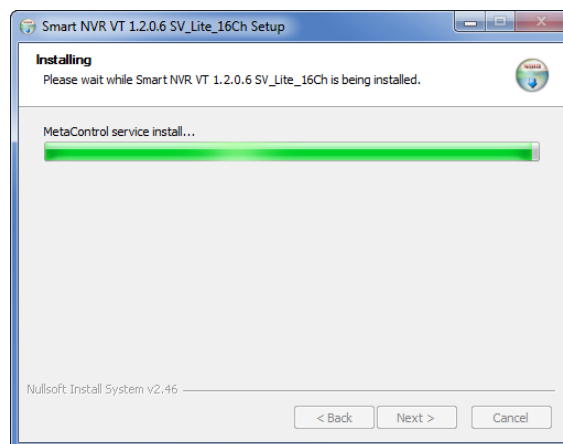


The default location for installation is **C:\Program Files\Vitek**. It is recommended to install in this folder, but if you want to change it to another location, click **Browse** button to choose a proper path.

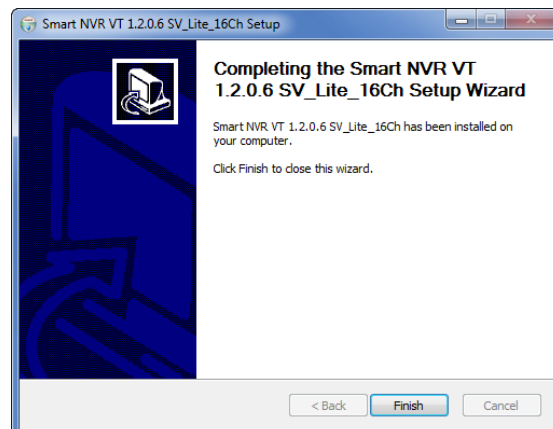
Now click **Install** button.



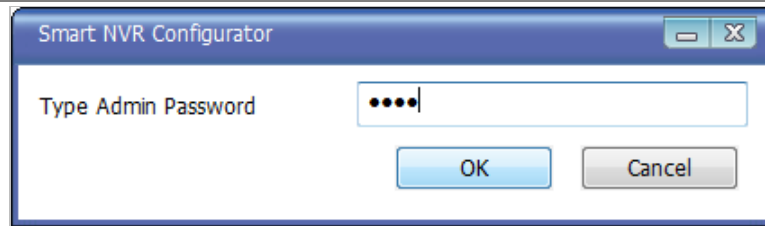
You will see the progress of copying install files to the hard drive as shown below, once is completed click on NEXT.



Click Finish to complete the Installation.

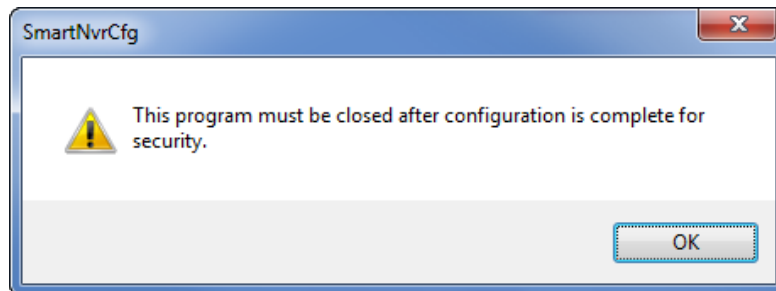


After installing EN-V-R program for the first time, it needs to be configured before use, so it automatically executes the configuration program, which is called **EN-V-R Configurator**.

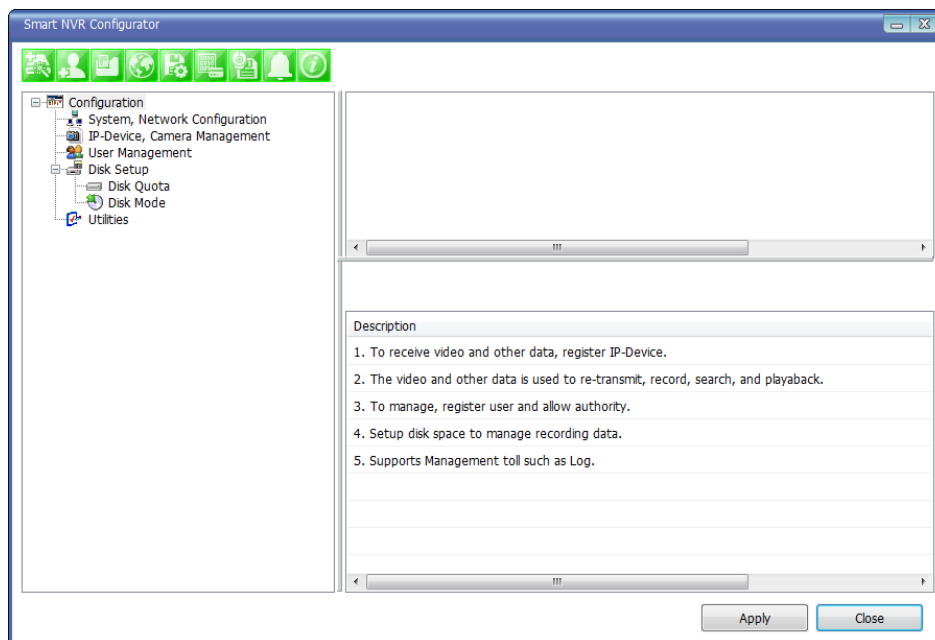


Enter the proper Admin Password. The default password is **root**.

The following screen will be displayed, click OK to continue.



Now you will see **EN-V-R Configurator** window on the screen.



For more information about the EN-V-R Configurator program, refer to **Section 28. Starting EN-V-R Configurator on page 110**.

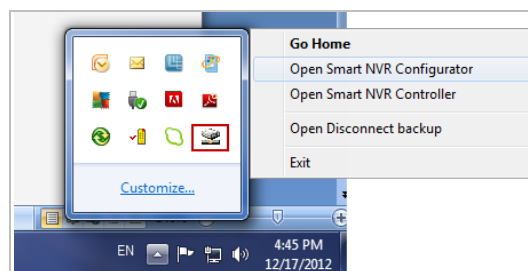
26. Uninstalling EN-V-R

26.1. Closing Active EN-V-R

If you need to uninstall EN-V-R, first you need to make sure EN-V-R program is not running on your computer by checking the system icon. As you see on the following picture, you can easily find out if EN-V-R service running.



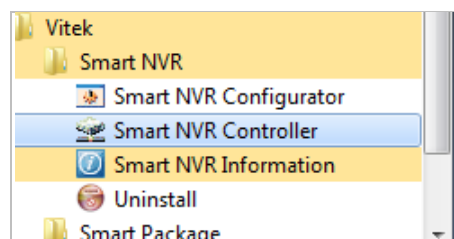
If EN-V-R is not running, you can go ahead to the next section of uninstalling the program. If EN-V-R is active, place the mouse pointer on the EN-V-R icon, and click the right mouse button. You'll see the pop-up menu. Select **Exit**.



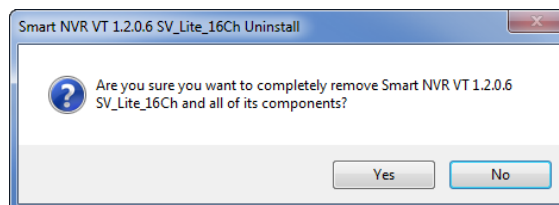
Then the EN-V-R icon disappears, and you know that EN-V-R is no longer running on your computer. Now you're ready to start uninstalling.

26.2. Executing Uninstaller

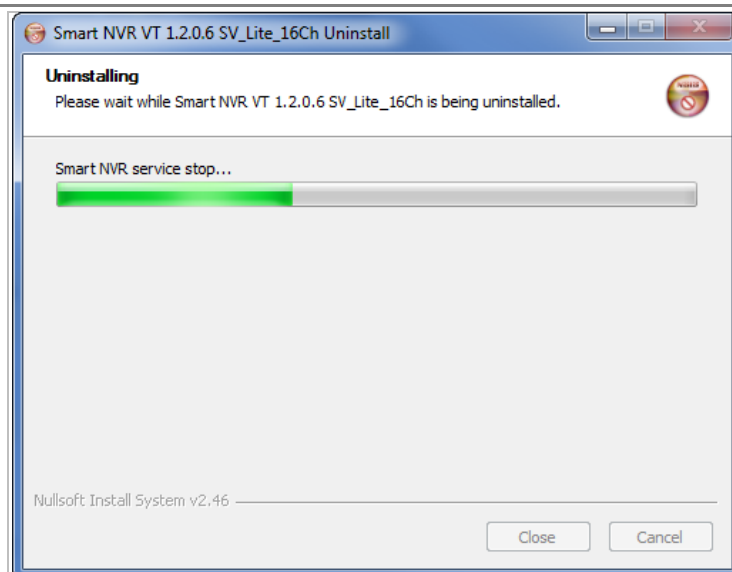
To start uninstalling, click **Start >All Programs >Vitek>EN-V-R>Uninstall**.



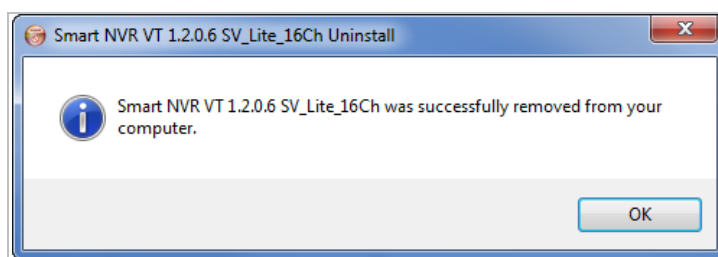
When the following window appears, click **YES** button.



The progress of uninstalling is displayed.



After all the install files are deleted, the following window will be displayed. Click **OK** button on the following window to complete the uninstalling.



27. Components of EN-V-R Program

EN-V-R consists of three programs, (***EN-V-R Service***, ***EN-V-R Configurator***, and ***EN-V-R Controller***).

27.1. EN-V-R Configurator

EN-V-R Configurator is used to set up various parameters and conditions of EN-V-R Service. Users can register, modify, and delete IP devices and users with this program. It also provides configuring tools for recording, alarm, event, and other functions.

27.2. EN-V-R Service

EN-V-R program is a Windows service and runs in a background mode, which means that it is not shown on the Windows desktop. EN-V-R receives video, audio, alarm, even data from IP devices over the network, and then it can record the data on the hard drive or retransmit to users. Starting, terminating and restarting of EN-V-R program can be done by using EN-V-R Configuration or EN-V-R Controller.

27.3. EN-V-R Controller

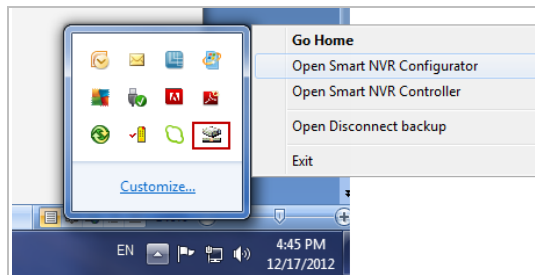
EN-V-R Controller program is used to start or stop the EN-V-R service.

27.4. EN-V-R System Tray Menu

After you finish installing EN-V-R, you will find the EN-V-R icon on the system tray, which is located right, bottom part of the Windows desktop.

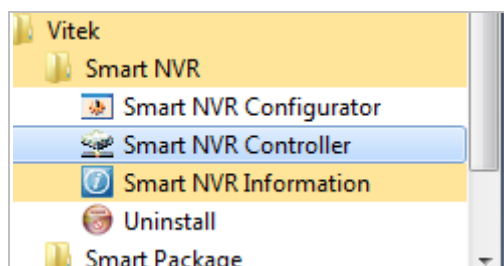


Move the cursor over the icon, and right click. The following pop-up menu will show. You can open EN-V-R Configurator or EN-V-R Controller program from this menu, or you can go to the Home page of the EN-V-R program for live view or playback.

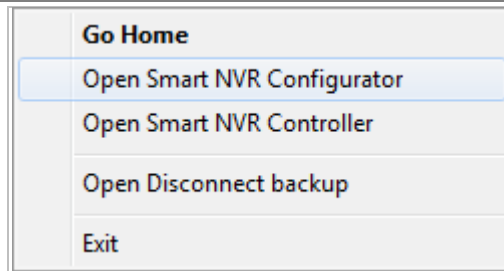


28. Starting EN-V-R Configurator

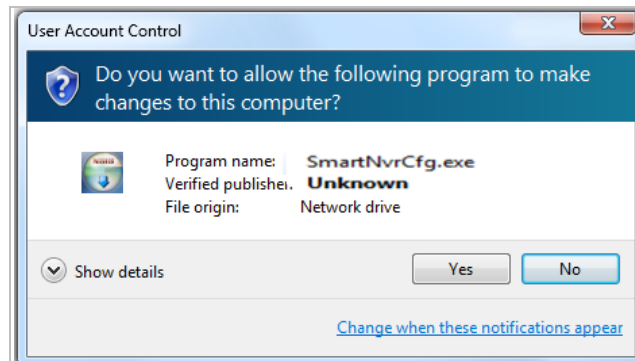
EN-V-R Configurator starts automatically right after installation is completed; you may also click the EN-V-R icon on the Windows desktop.



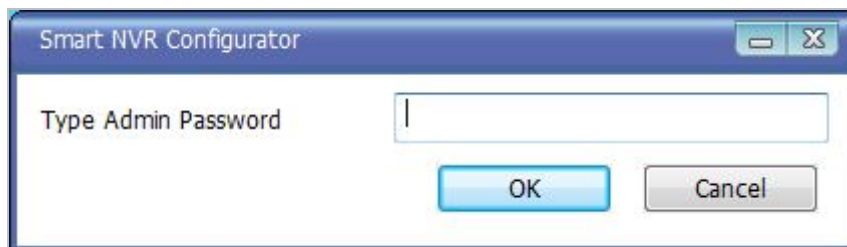
If EN-V-R program is already running in background, you may also select the EN-V-R icon on the system tray by clicking right button of the mouse.



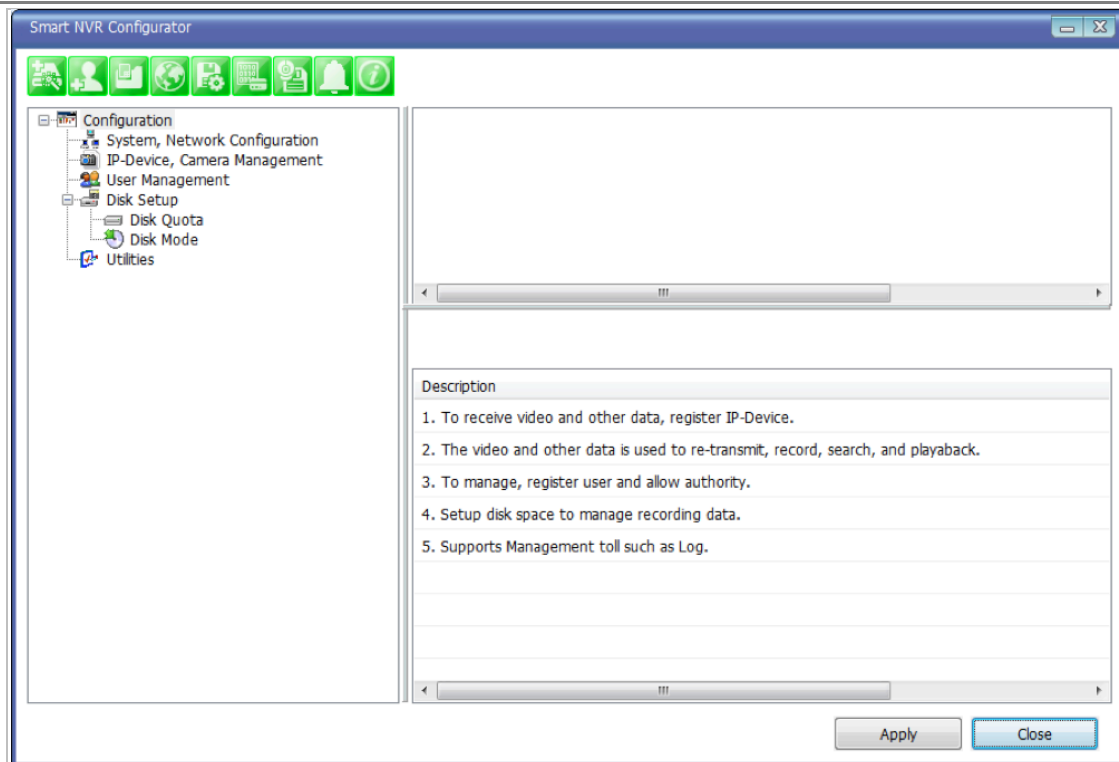
You may encounter the security window as below. Click **Yes** button to continue.



Once EN-V-R program starts, a log-in window will be displayed as below. Type in the proper admin password and click the **OK** button. The default admin / password is **root**.



Now EN-V-R Configurator window will be displayed.



29. Quick Start Guide

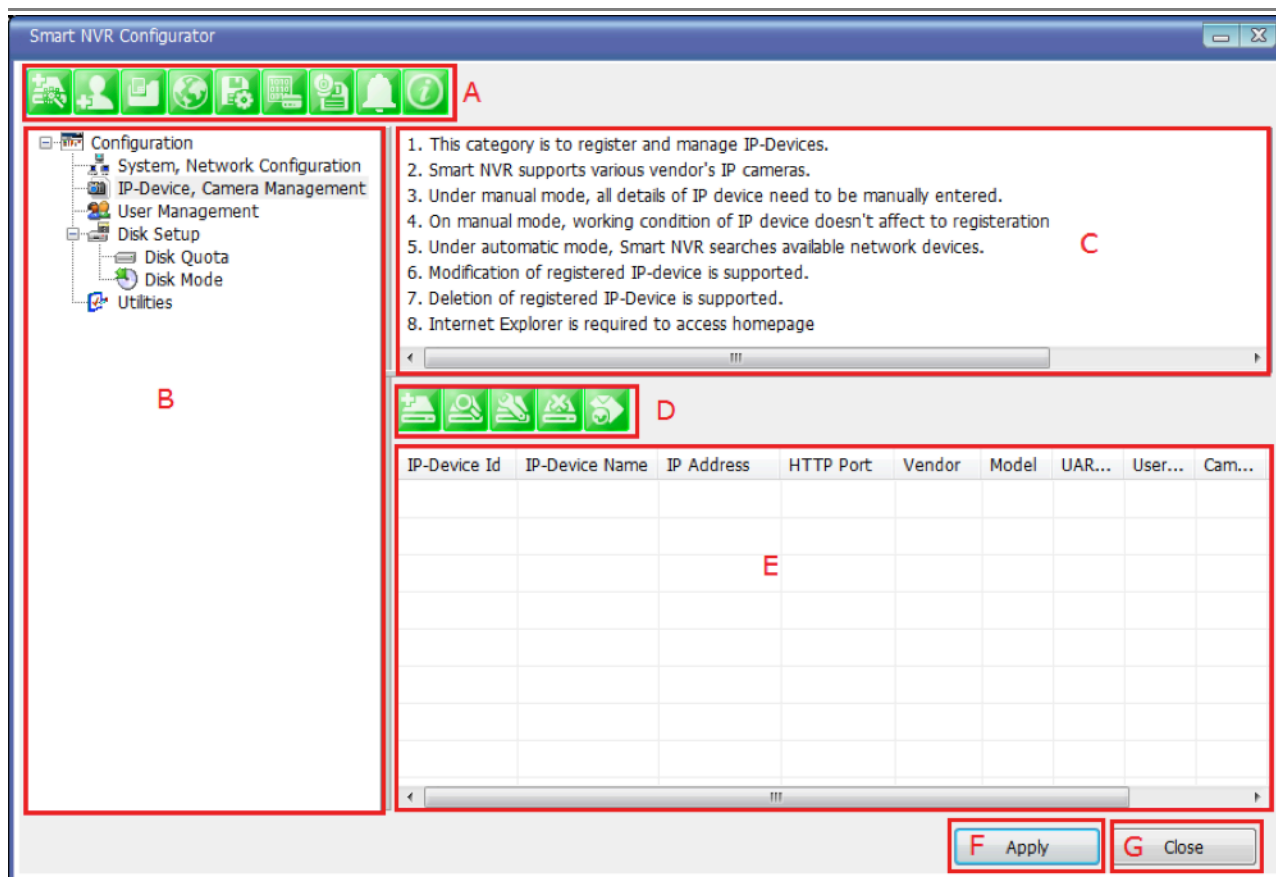
EN-V-R is full-functioning Network Video Recorder software that runs on your PC. When started for the first time after EN-V-R is installed, there is no IP devices connected.

To add a camera to the EN-V-R you must **register** the camera first. Then EN-V-R knows what IP devices they are, how to connect to them, and how to use them. That way, you will be able to control EN-V-R for recording, live viewing, etc.

29.1. EN-V-R Configurator User Interface

The following picture shows the main window of EN-V-R Configurator program.

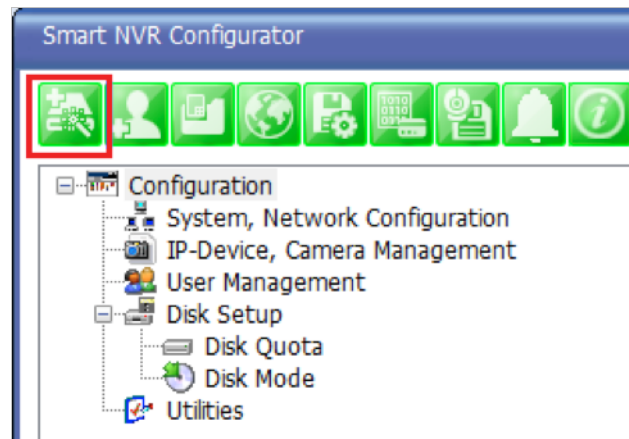
ENVI Series: VTC-IR402NZ



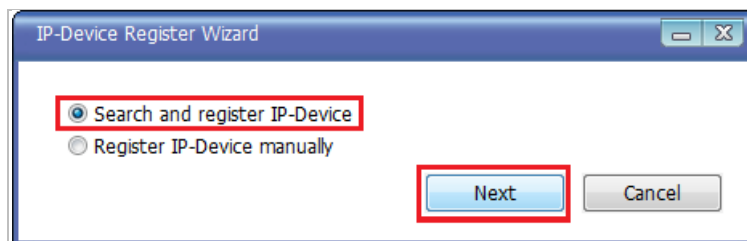
Items	Descriptions
A Main Toolbar	Frequently-used menu items are shown on this toolbar.
B Configuration Menu tree	Configurable categories are shown as a menu tree style.
C Configuration Menu Description	Descriptions and usages of the selected category are displayed.
D Sub-Menu Toolbar	Menu items for the selected category are shown. (Note: This toolbar is displayed only when any top menu item is selected from the menu tree.)
E Device List	IP cameras Information
F Apply Button	Click this button to apply the changed values.
G Close Button	Click this button to exit EN-V-R Configurator program.

29.2. Searching for IP Devices

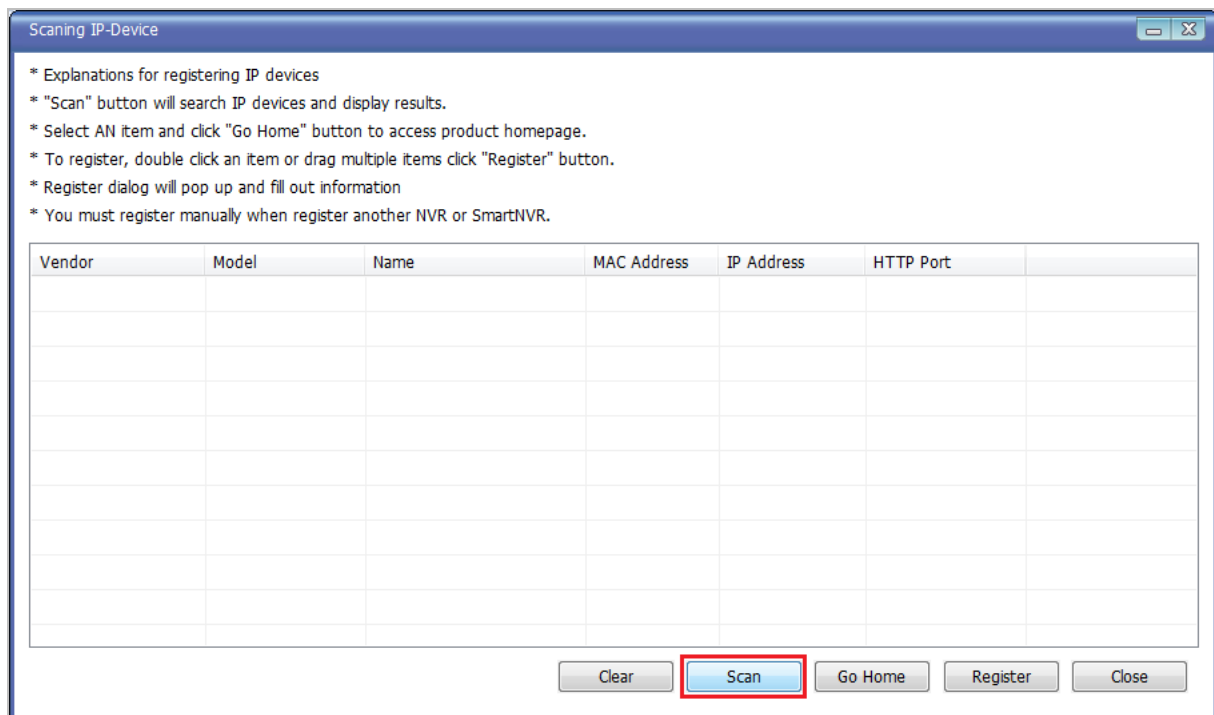
Click the first button on the Main Toolbar.



You are now given a choice to register the IP devices by "search and register or manually". To make it easy, choose **Search and register IP-Device** in this stage, and click **Next** button.

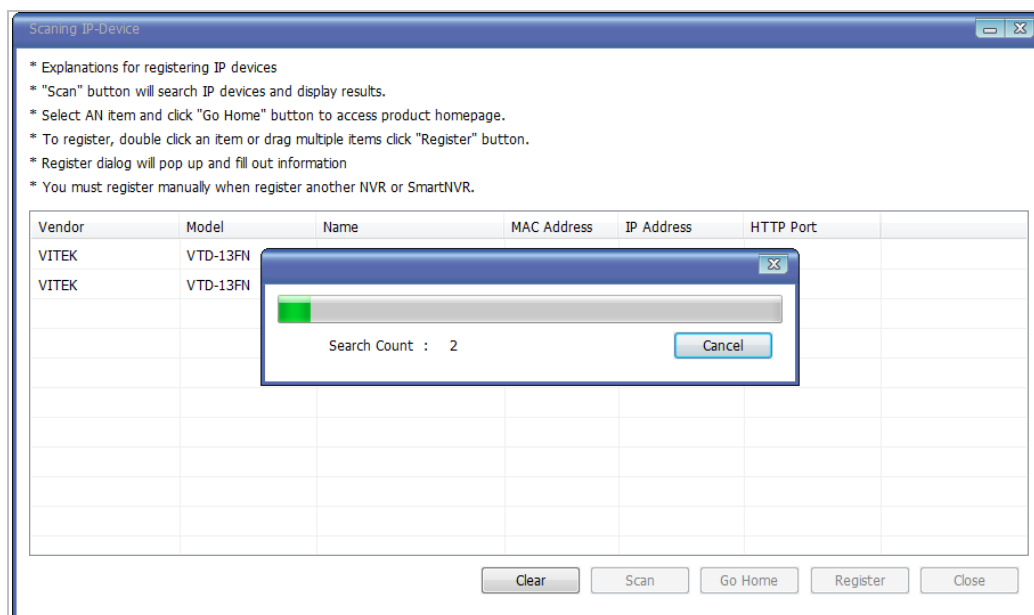


On the following window, click **Scan** button.



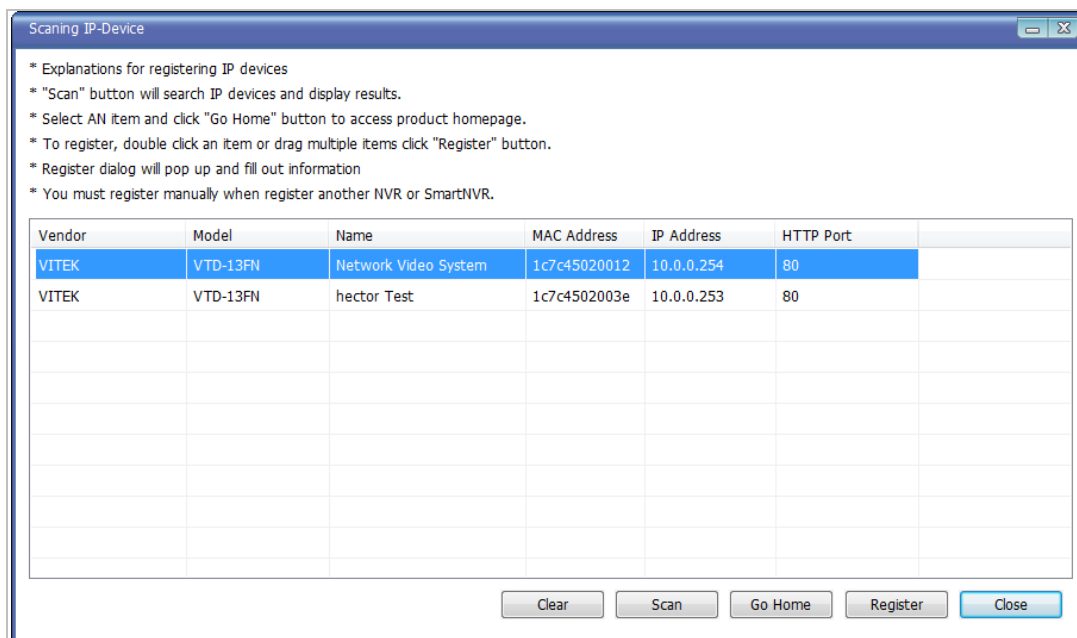
ENVI Series: VTC-IR402NZ

The searching for IP devices is started. As the detected IP devices are being listed. Wait until searching is finished. If you click **Cancel** button in the middle of searching, the EN-V-R will retain only the IP devices found until that moment.



29.3. Registering IP Devices

After scanning is finished, you have a list of IP devices found on your network. Next step is registering them. Double click the IP device you want to register or you may highlight it and then click **Register** button. In this example, the first one is chosen to register.



The next window shows up and it's for entering the network parameters and camera resolutions of the IP device you've chosen. You may need to enter the **Login ID** and **Password** here. Click **Save** to finish registering it.

Registering New IP-Device

Inputting IP-Device information

IP-Device ID: 10

Vendor: VITEK

Model: 2 Channel Model

Name: Network Video System

IP Address: 10.0.0.254

Input IP Address Range: ☐ ~

Getting Information from IP-Device: ☐ (May take several minutes)

VS Module ID: 0

HTTP Port: 80

RTSP Port: 554

Login ID: root

Login Password: ••••

Confirm Password: ••••

Checking available resolution

<input checked="" type="checkbox"/> QCIF (QQVGA) 176 X 144 ~ 160 X	<input checked="" type="checkbox"/> CIF (QVGA) 352 X 288 ~ 320 X
<input type="checkbox"/> Half D1 (Half VGA) 704 X 288 ~ 640 X	<input checked="" type="checkbox"/> D1 (VGA) 704 X 576 ~ 640 X
<input type="checkbox"/> SVGA 800 X 600 ~ 720 X	<input type="checkbox"/> XGA 1024 X 768
<input type="checkbox"/> HD720 (720P) 1280 X 720	<input type="checkbox"/> SXGA 1280 X 1024
<input type="checkbox"/> UXGA 1600 X 1200	<input type="checkbox"/> HD1080(1080P) 1920 X 1080

Checking available PTZ cameras

☐ Camera1 ☐ Camera2 ☐ Camera3 ☐ Camera4

Save Cancel

Click on Save after configuring IP device (camera)

Registering New IP-Device

Inputting IP-Device information

IP-Device ID: 10

Vendor: VITEK

Model: 2 Channel Model

Name: Network Video System

IP Address: 10.0.0.254

Input IP Address Range: ☐ ~

Getting Information from IP-Device: ☐ (May take several minutes)

VS Module ID: 0

HTTP Port: 80

RTSP Port: 554

Login ID: root

Login Password: ••••

Confirm Password: ••••

Checking available resolution

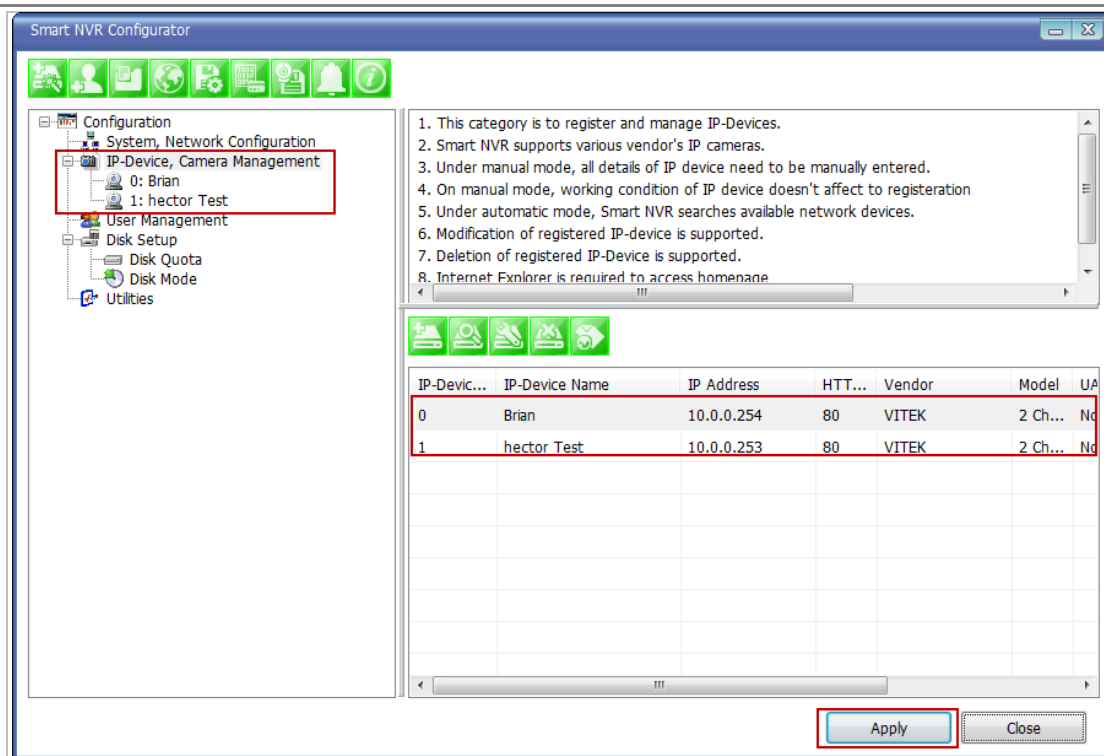
<input checked="" type="checkbox"/> QCIF (QQVGA) 176 X 144 ~ 160 X	<input checked="" type="checkbox"/> CIF (QVGA) 352 X 288 ~ 320 X
<input type="checkbox"/> Half D1 (Half VGA) 704 X 288 ~ 640 X	<input checked="" type="checkbox"/> D1 (VGA) 704 X 576 ~ 640 X
<input type="checkbox"/> SVGA 800 X 600 ~ 720 X	<input type="checkbox"/> XGA 1024 X 768
<input type="checkbox"/> HD720 (720P) 1280 X 720	<input type="checkbox"/> SXGA 1280 X 1024
<input type="checkbox"/> UXGA 1600 X 1200	<input type="checkbox"/> HD1080(1080P) 1920 X 1080

Checking available PTZ cameras

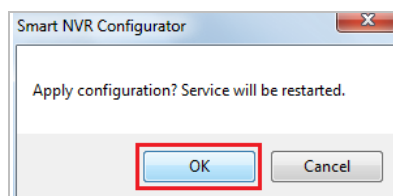
☐ Camera1 ☐ Camera2 ☐ Camera3 ☐ Camera4

Save Cancel

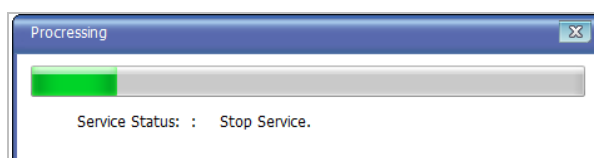
Click Apply after registering one or more IP devices (cameras).The image below represents the configurator with multiple IP devices registered.



After clicking **Apply**, the program will ask you to confirm it. Then click **OK**



EN-V-R service is being stopped momentarily, and then it will start running again.



29.4. Viewing Live Video

Once the network and cameras are set up, it is necessary to check if EN-V-R is functioning by viewing the live video from those devices.

To view the EN-V-R home page, click the Go NVR Home button on the main toolbar.



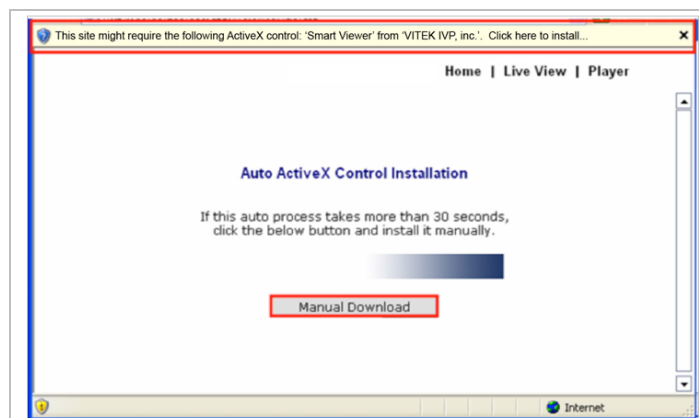
Below is an image of the EN-V-R home page.



Click **Live View** on top right part of the window to see the live video from registered IP devices (cameras)

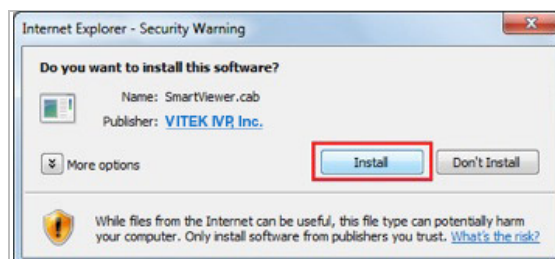
Home | **Live View** | Player

If this is the first time you are using Vitek Live View feature, the web browser may ask you to allow installing of an ActiveX program. Click **Install** to continue.



In some cases there is no response from the web browser, you may need to install the ActiveX manually by clicking **Manual Download**.

When you see the following security warning, click **Install**.

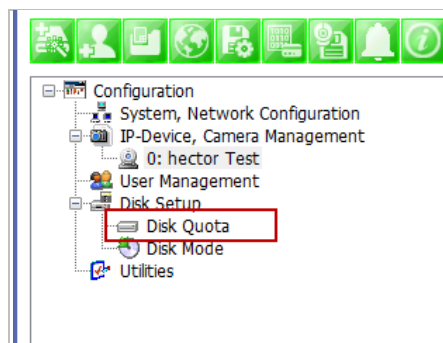


29.5. Recording Video

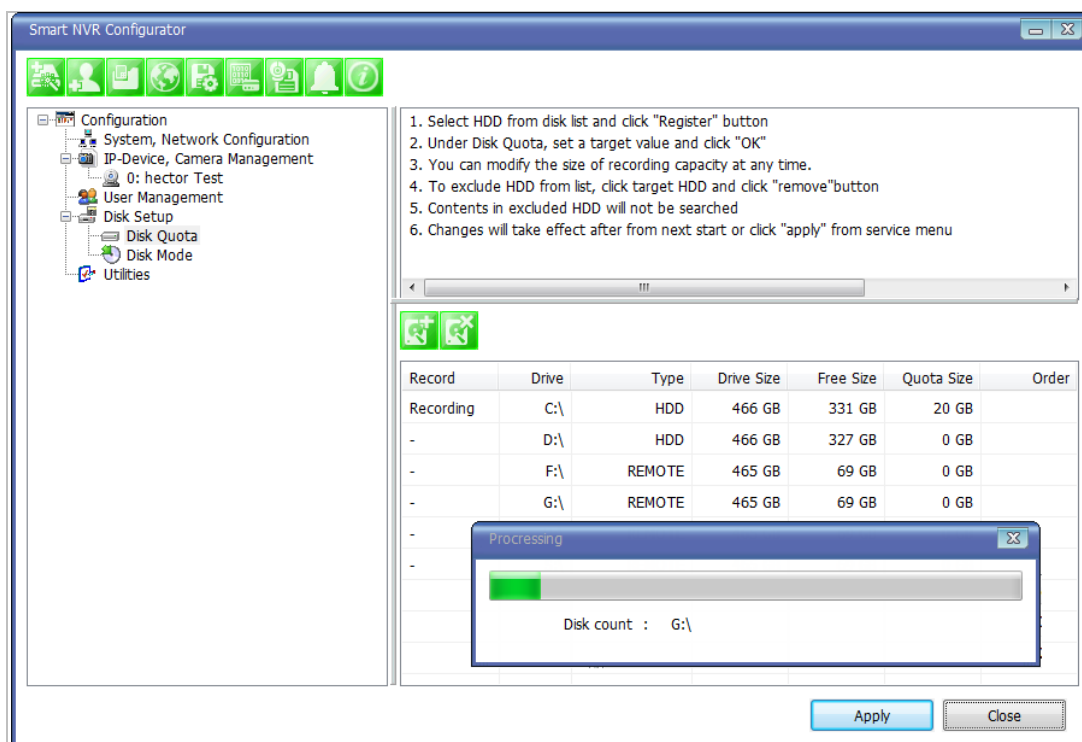
The essential feature of EN-V-R is recording the video from IP devices.

Before starting the recording, it is required to prepare the hard drive of your PC where EN-V-R program is running.

Click **Disk Quota** on the Menu tree.



The hard drive will be ready to start recording video after the progress window is done counting drives. It shows the target drive (s), total capacity, available size and quota for recording.



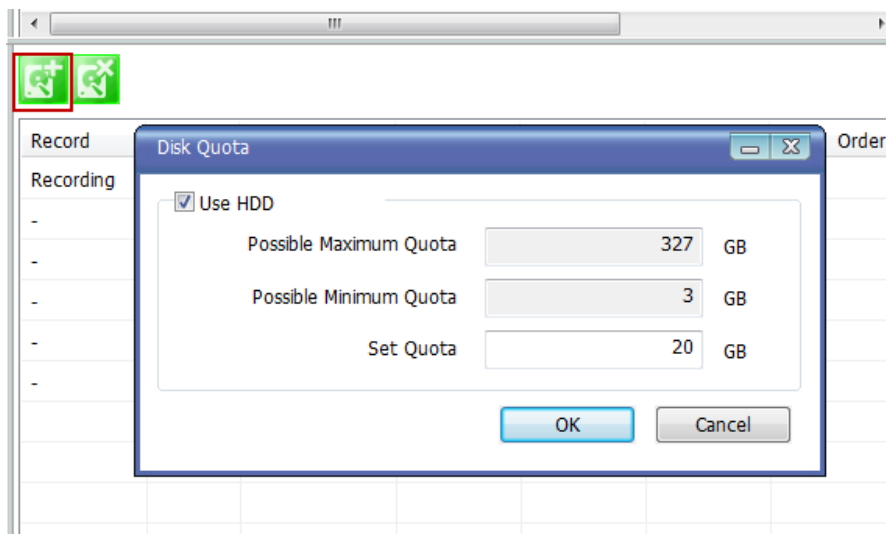
You are able to change the setting by highlighting the drive then clicking the first icon of the sub-menu Toolbar.

Use HDD (to use this HDD for recording)

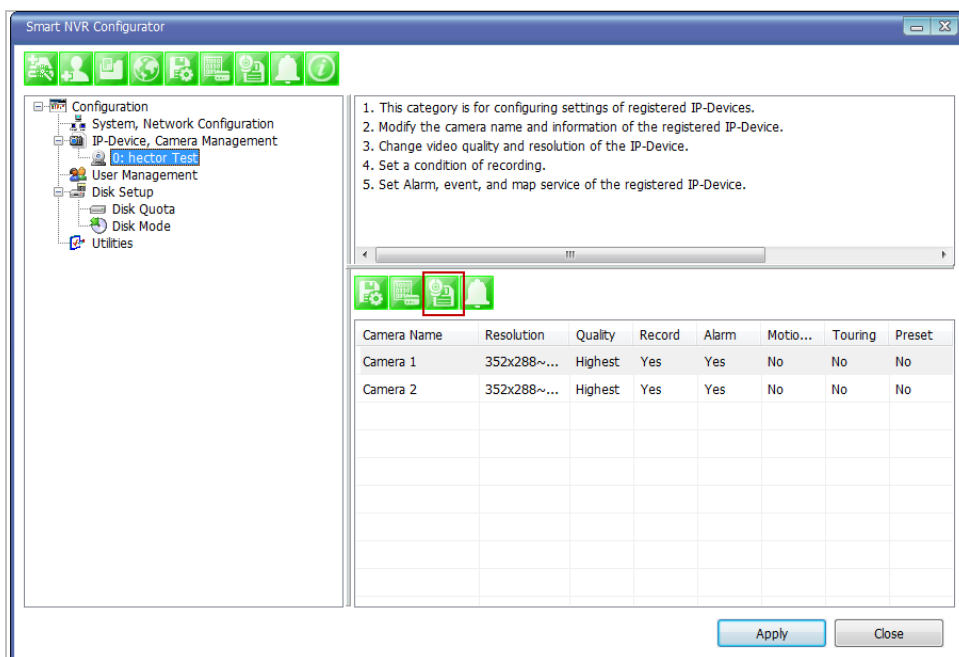
Possible Maximum Quota (the available of free space on your HDD)

Possible Minimum Quota (the minimum amount required)

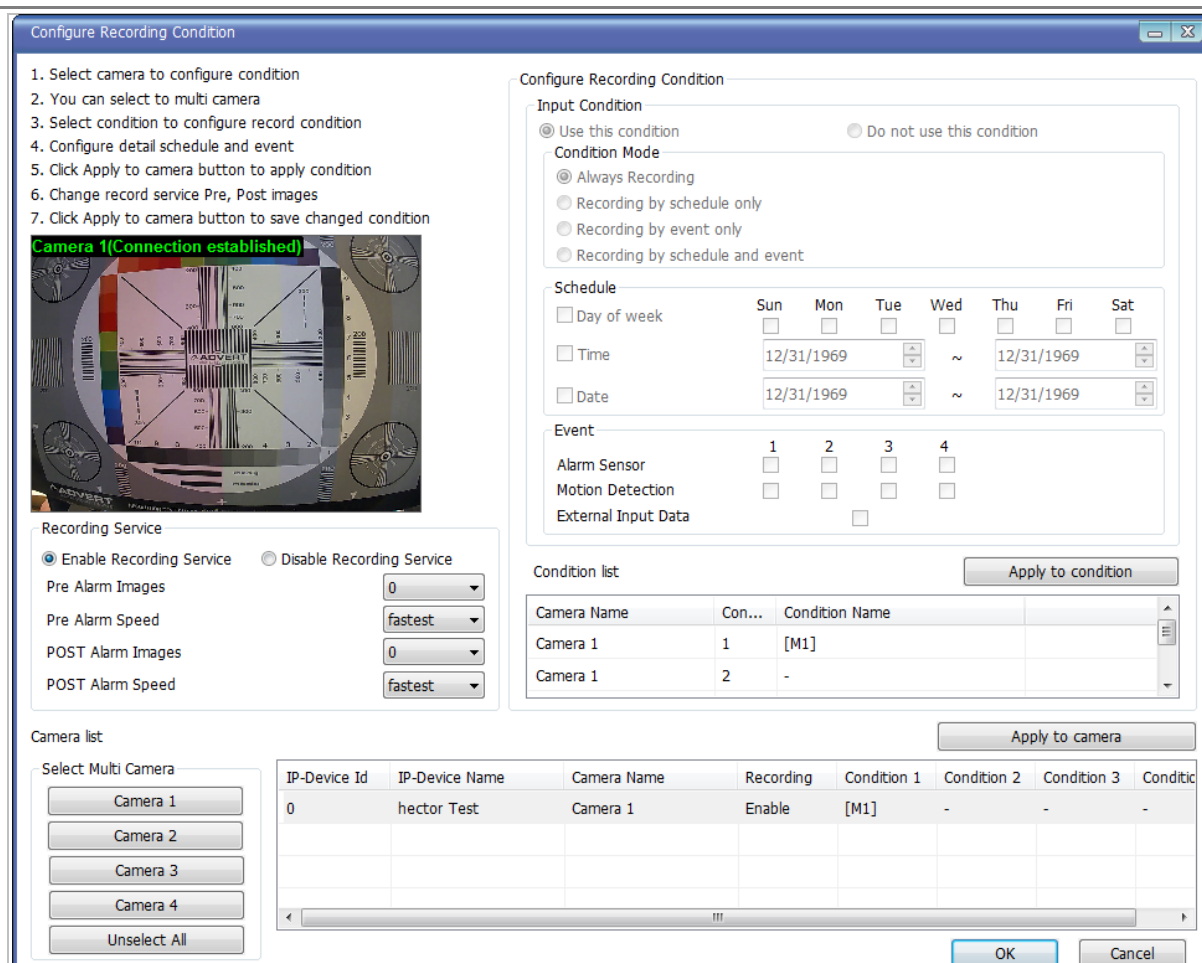
Set Quota (desired amount of HDD to be use for recording)



To set up the recording feature, select an IP device from the Menu tree on the left pane. The device information will be shown on the right pane. Click the button for recording configuration on the sub-menu Toolbar as shown below.



Now you will see **Configure Recording Condition** window as below.



The recording feature is already enabled and recording conditions are configured in default settings. In the example shown above, you can see that Camera 1 of Device 0 will record video only when motion is detected. Click **OK** to use this Recording Conditioned.

To change recording condition high light camera 1 under condition list (A)

Select the type of Recording under Condition Mode (B)

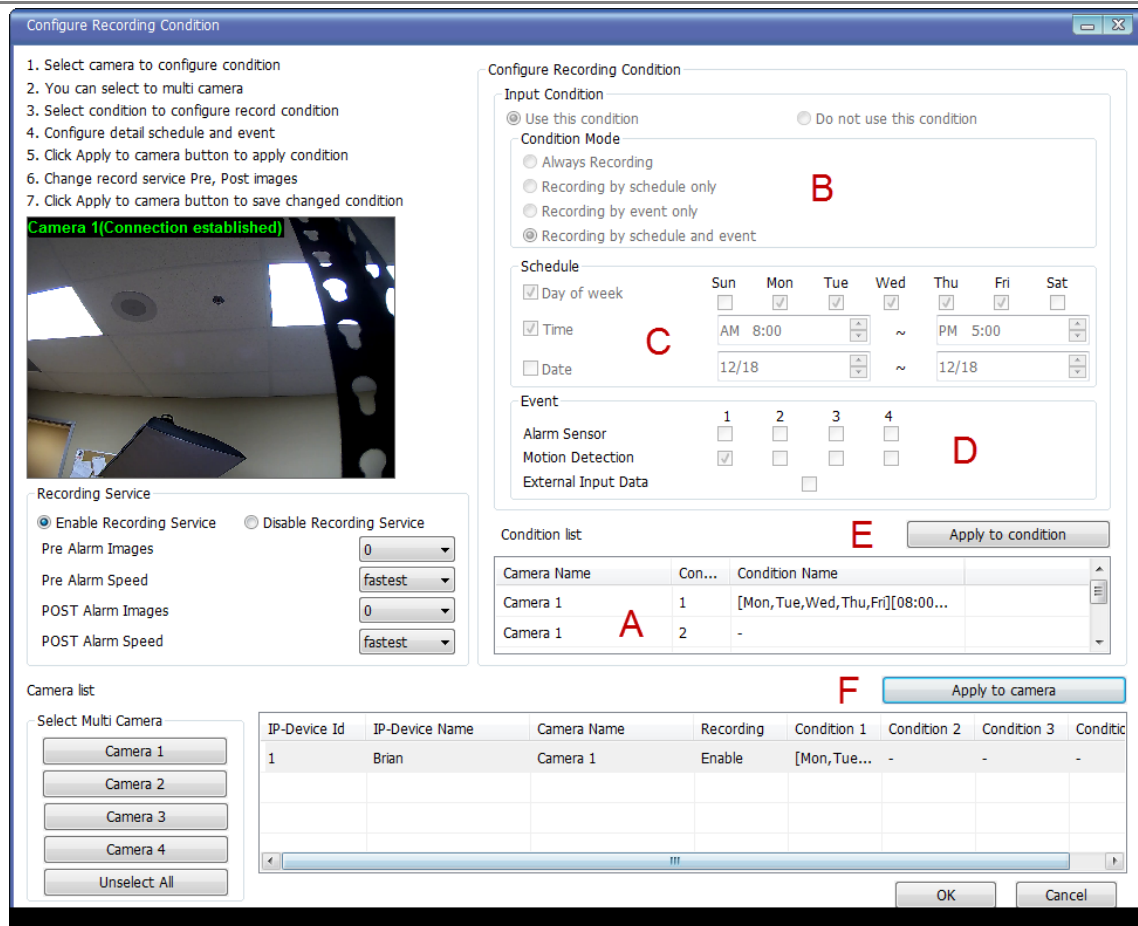
If schedule recording is enabled, the schedule section will be available to configure (C)

If Event is selected the event section will be available to configure (D)

After conditions are selected click **Apply to condition** (E)

After apply to condition click **Apply to camera** (F)

Click **OK** when done.

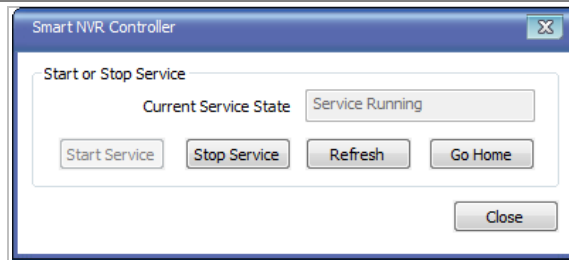


Now that the configuration is done, you need to start the EN-V-R service program. Select Start > All Programs > Vitek > smart NVR > Smart NVR controller.

You will find the EN-V-R icon on the system tray, which is located right, bottom part of the Windows desktop.



Move the cursor over the icon, and right click. The following pop-up menu will show. You can open EN-V-R Configurator or EN-V-R Controller program from this menu, or you can go to the Home page of the EN-V-R program for live view or playback.



You can find out from this window that the service is running at that moment. If not, click **Start Service** button to run. Once EN-V-R service is started, the video sent from the configured camera will be recorded according to the recording condition.

30. ENVI Smart Player

30.1. Introduction

Smart Player is an ActiveX program for Internet Explorer Web browser, which enables users to search and play back recorded video in Network Video Servers and other devices with built-in recording capabilities. The Searching and playback of video is refined by condition, schedule, and event.

Smart Player can be run in SmartNVR network video software for PC and network cameras equipped with SD card as well as standalone NVR (Network Video Recorder) devices.

30.2. Key Features

- 25. Transforming recorded video into AVI, FJP&IDX, formats
- 26. Supports Printing of video
- 27. Playing Audio from recorded video
- 28. Group Searching from recorded video
- 29. Supports Full Screen Mode

30.3. System Requirement for PC

For best quality and performance, your computer needs to meet the minimum requirement.

- 30. OS: Microsoft Windows XP Pro, Windows 7 Pro, Windows 8 PC
- 31. CPU: Intel Pentium 4, 2 GHz (Dual-Core or faster is recommended)
- 32. System RAM: 2GB
- 33. Video Card: 256MB Ram, 1024x768 Resolution
- 34. 100 Mbps Network Adaptor

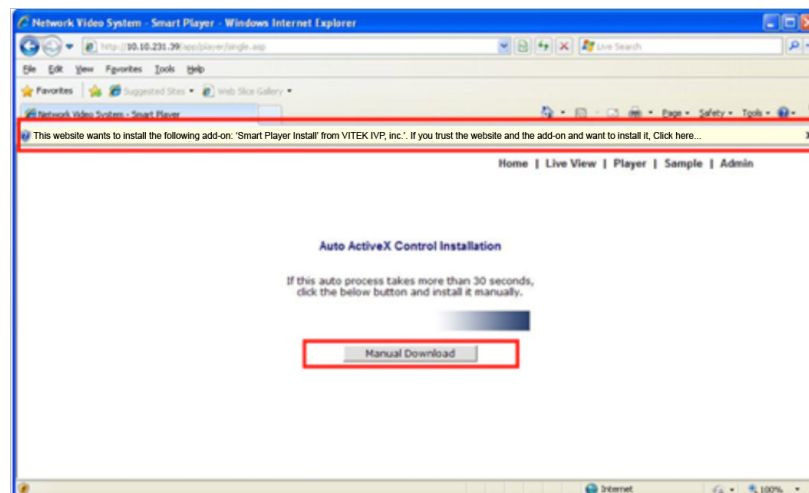
31. Installing and Uninstalling

31.1. Installing Smart Player

Connect to the Vitek Camera / Server / NVR on Internet Explorer, and click **Player** on the main page.



If you're using Windows XP Service Pack 2 or later, it may ask you to install ActiveX. Click the message bar, then click on the Install ActiveX control...

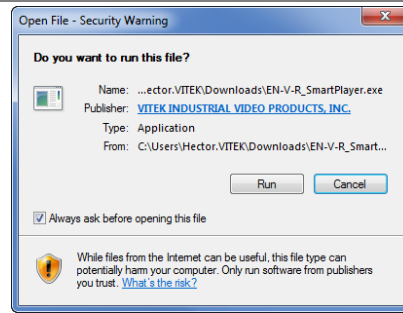


After the installation is successfully completed, **Smart Player** window will be displayed.

31.1.1. Manual Installation

When an Internet connection is not available or having some difficulties, you can manually download and install the Smart Player program file prior to setup, visit <http://www.vitekctv.com/Downloads.asp>. You may also install from the provided CD. Execute the downloaded file, and you will see the Smart Player Setup Wizard window.

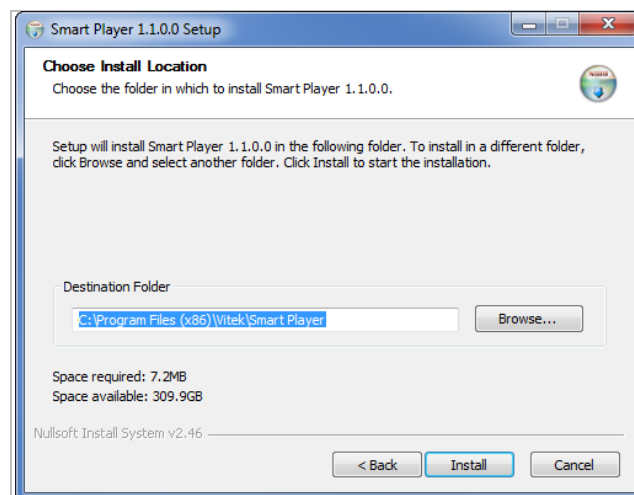
Click **Run** to start installing.



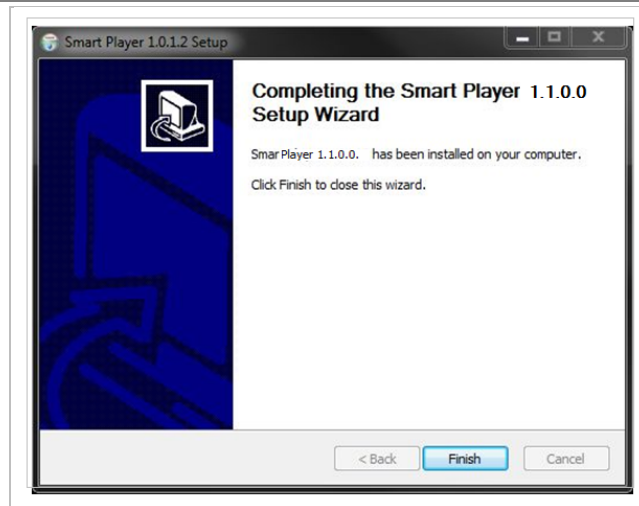
The following window will appear. Click **Next**.



The following window will be displayed. Click **Install**



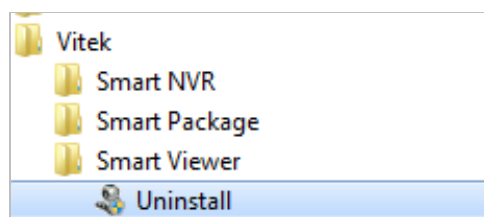
After installation is successfully completed, the following window will be displayed. Click **Finish**.



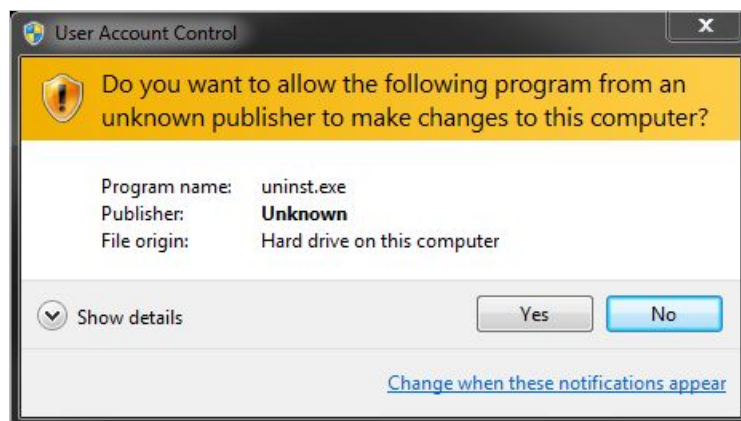
31.2. Uninstalling Smart Player

Before uninstalling, close all the Internet Explorer windows.

31.2.1. Uninstalling on Program Menu

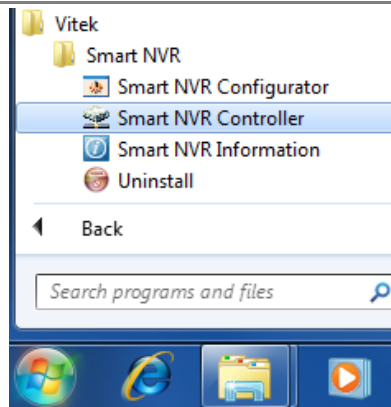


Click **Uninstall** and the following window will be shown. Click the **Yes** button.

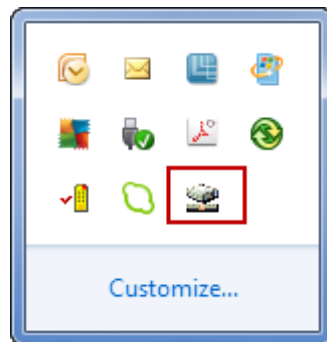


Live View & Play Back

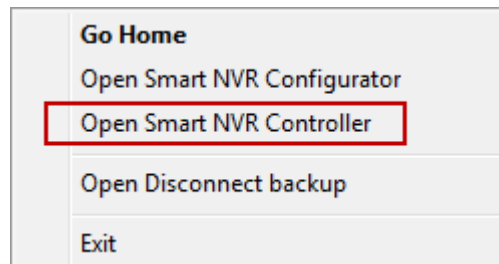
To live view and play back your cameras, go to **Start** menu, **All Programs**, **Vitek Folder**, Click on **Smart NVR Controller**, as shown below.



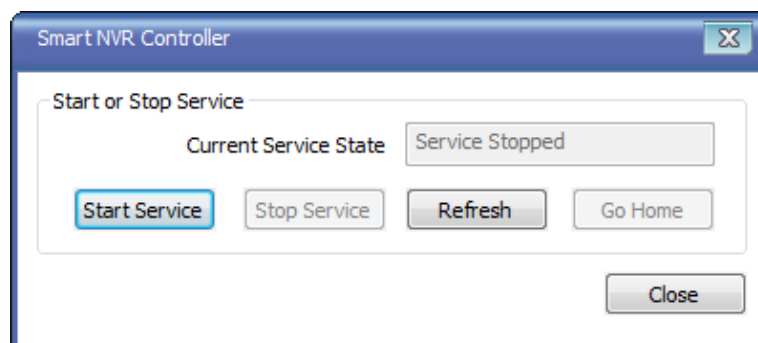
Look for icon on right side of taskbar as shown below (windows XP and windows 8 might show it different). Right click icon.



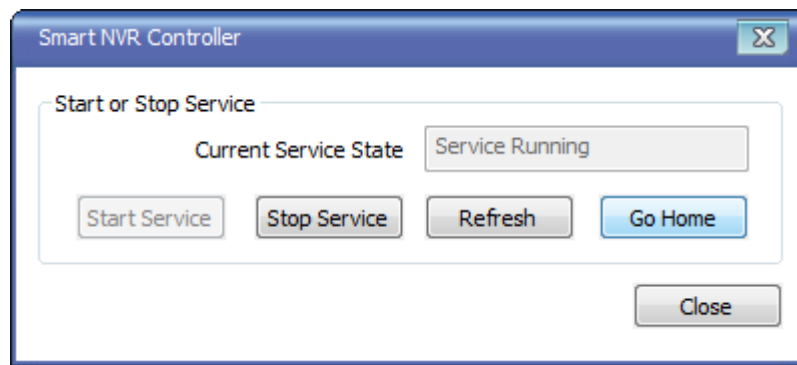
The following window will display. Click on **Open Smart NVR Controller**.



Click on **Start Service** to run the program.



Click on **Go Home** to view Smart Player Home Page

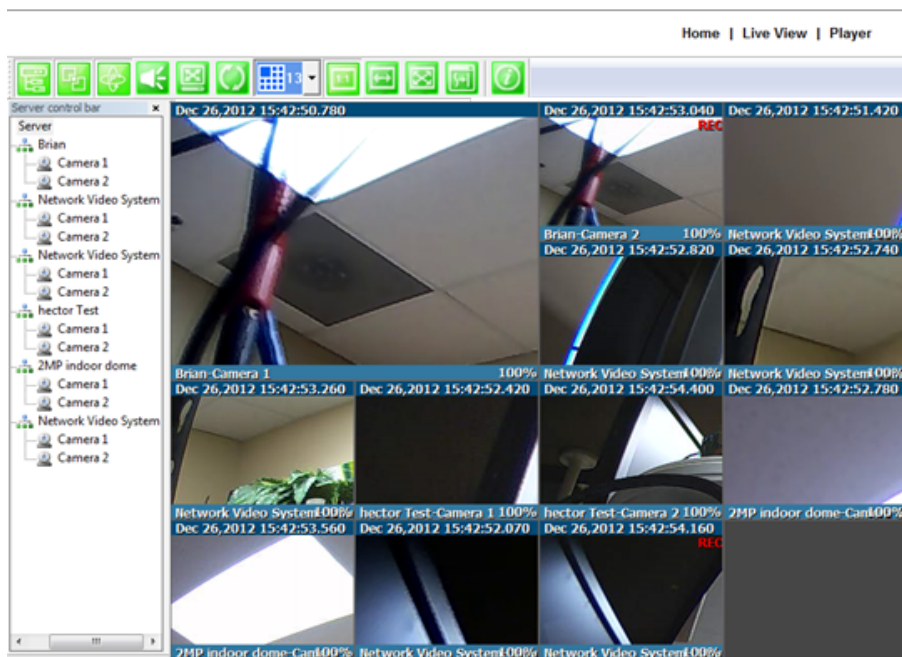


Click on **Live View**

Home | **Live View** | Player

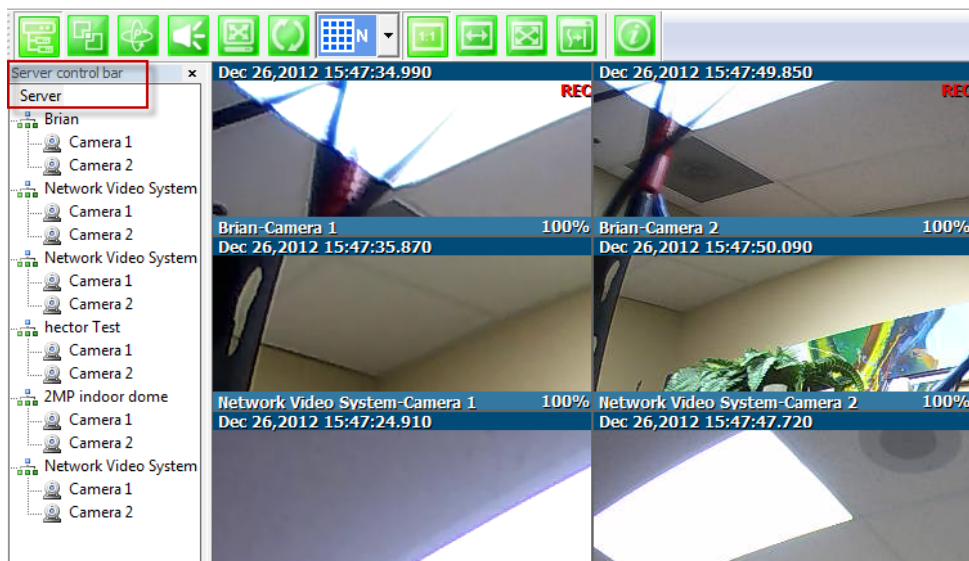


The following screen will be display were you can configure your live view.



Server Control Bar

Allows you to view cameras / servers that are registered in the system. Toggle On/Off



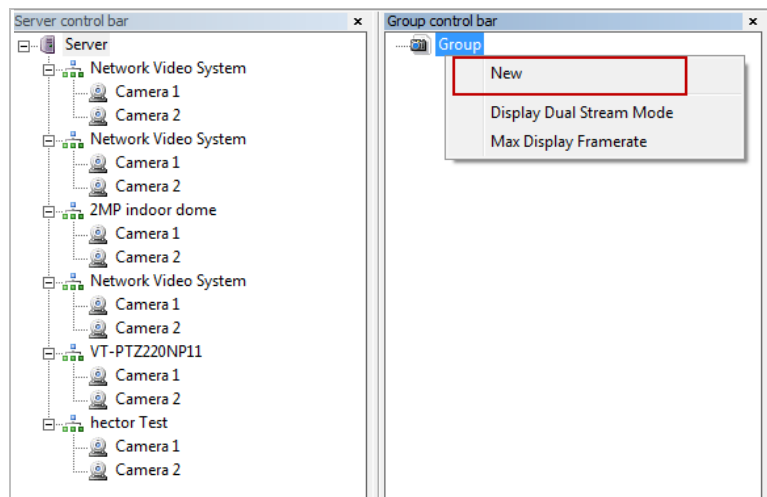
Group Control Bar



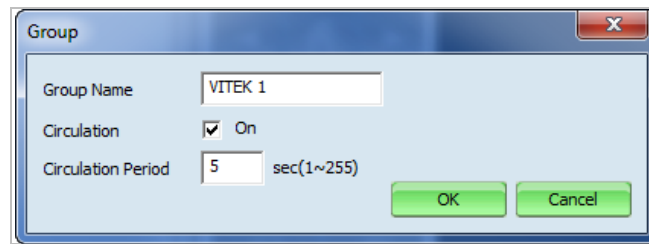
In order to view video, cameras must be assigned to a group, in this section you create groups with cameras you want to view.

Create Group

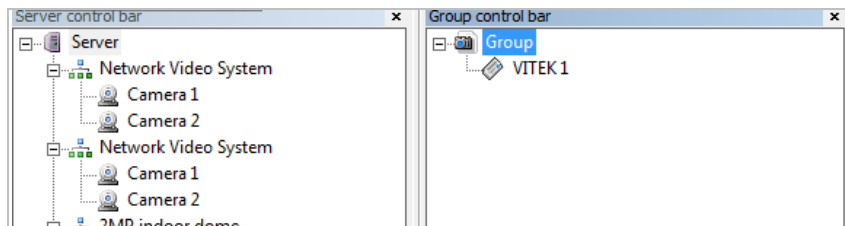
In order to create a group in **Group Control Bar**, right click on **Group**, another window will appear then select **New**.



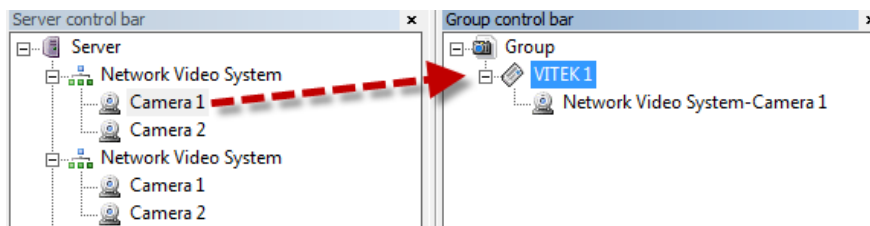
The following window will be displayed. Type in the group name, check "Circulation" to allow sequencing, input dwell time for "Circulation" and click **OK**.



A new group with the assigned name will be created as shown below.



To add cameras to the new group, drag from server control bar and drop on newly created group. You can create multiple groups and add multiple cameras in each group.

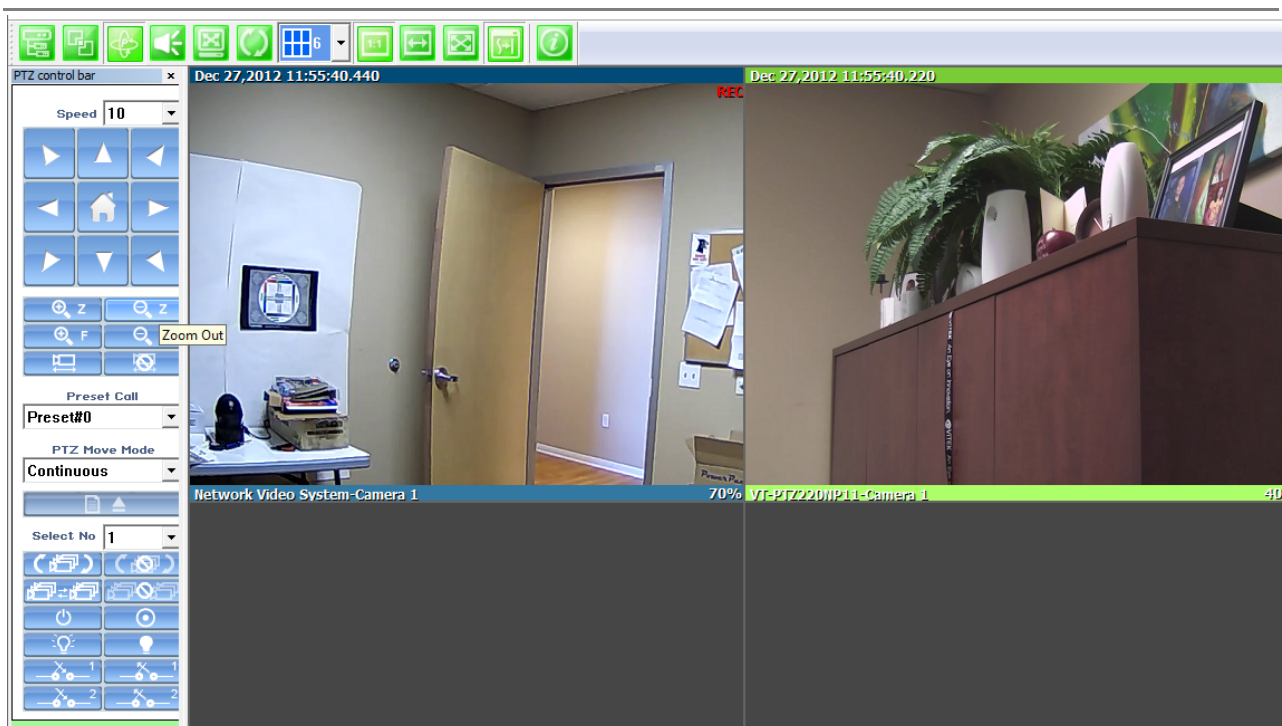


PTZ control Bar



In this section you will be able to control PTZ's connected to the system.

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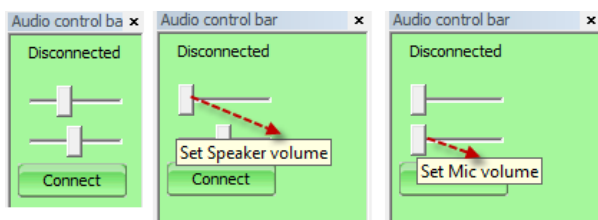


Audio Control Bar



Controls Speaker and Mic volume.

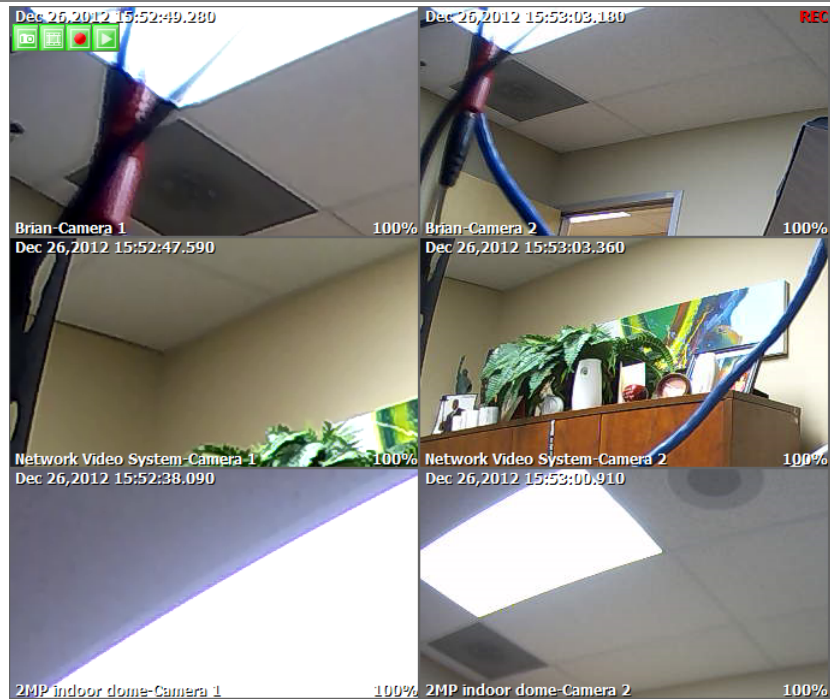
When audio is available click on **Connect** and adjust speaker and mic levels, when done click **Disconnect**.



Full/Normal Screen



Select full screen as seen below, to return to normal press **Esc** on your keyboard.



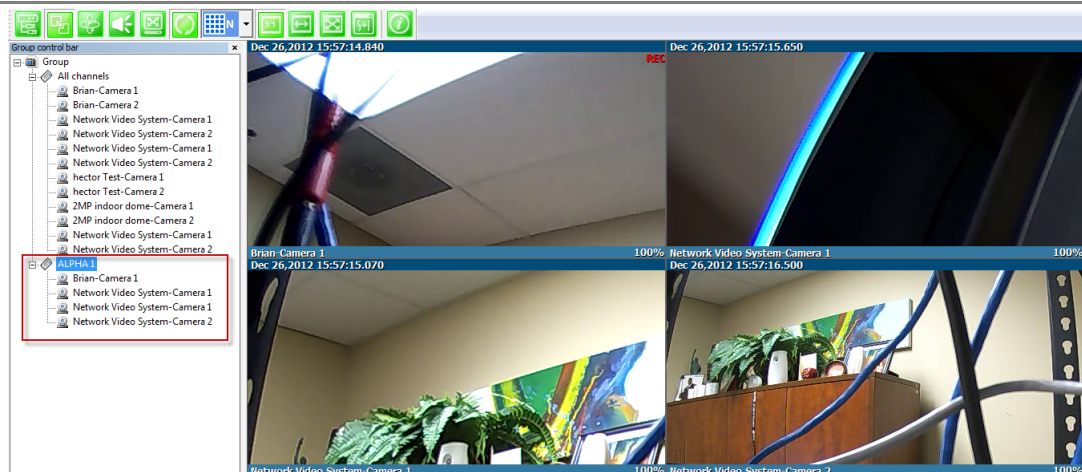
Group Circulation



Start sequencing between groups.



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Layout settings



You can change the screen layout between 1,2,4, etc.

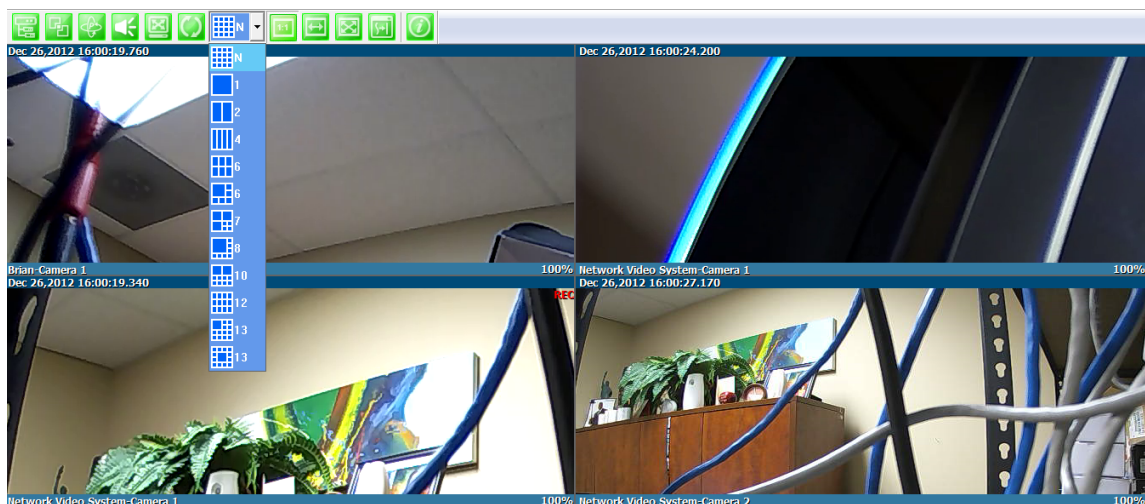
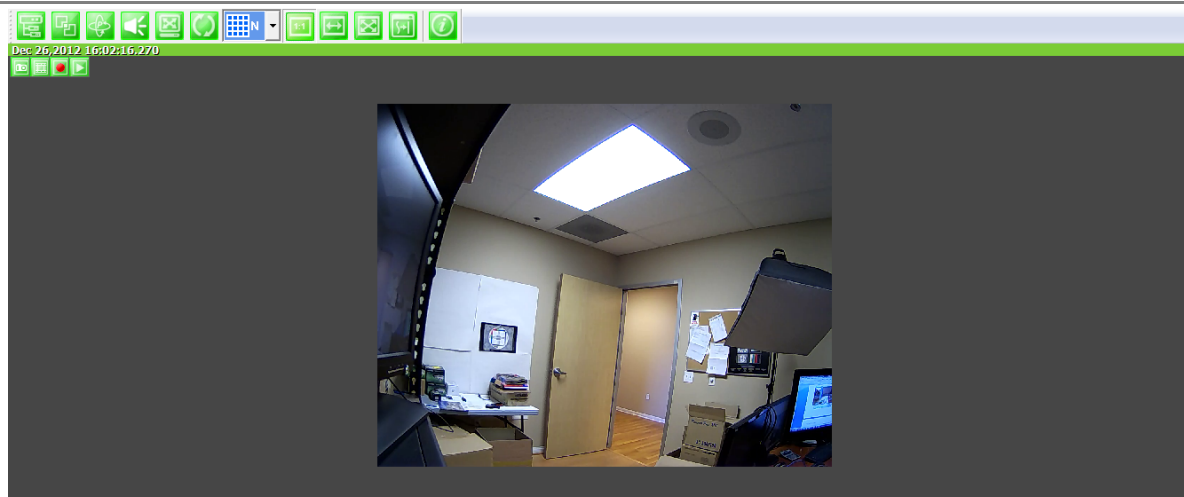


Image in Original Size



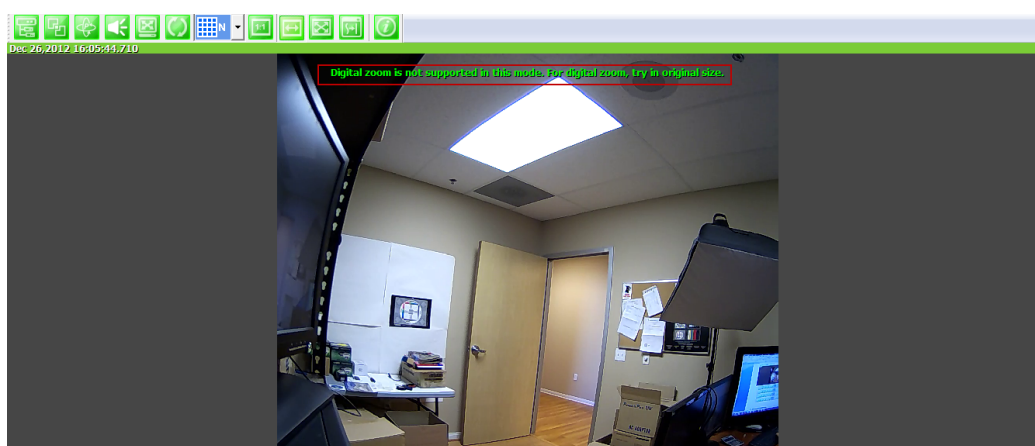
This allows for digital zoom.



Draw Image by Maintaining Aspect Ratio

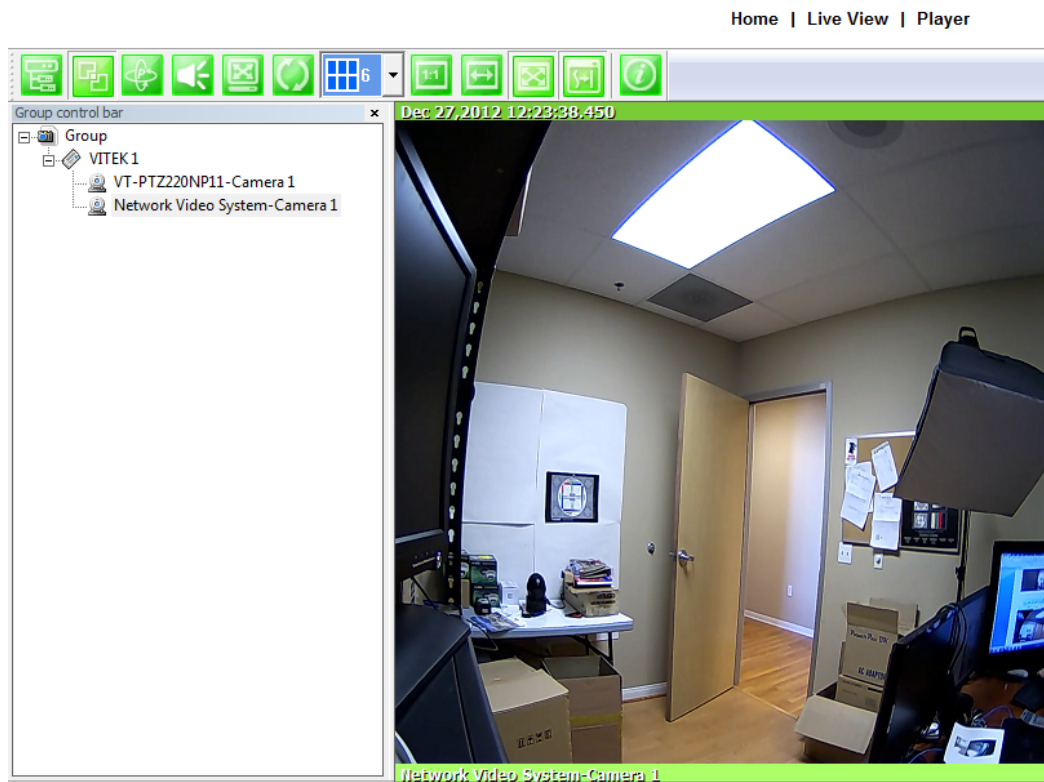


Maintains the aspect ratio of the camera



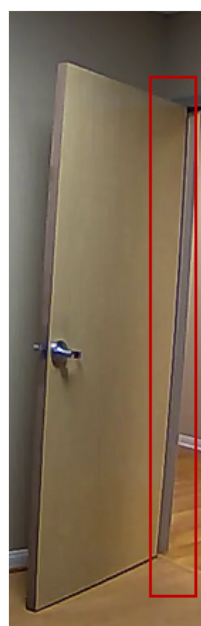
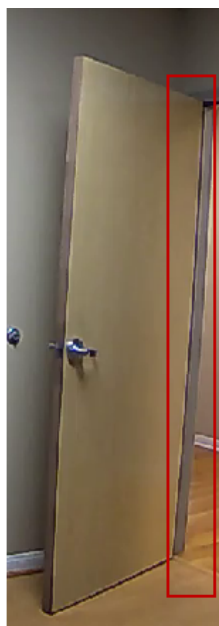
Draw Image by Filling the Screen





Enhanced Draw Mode On/Off.

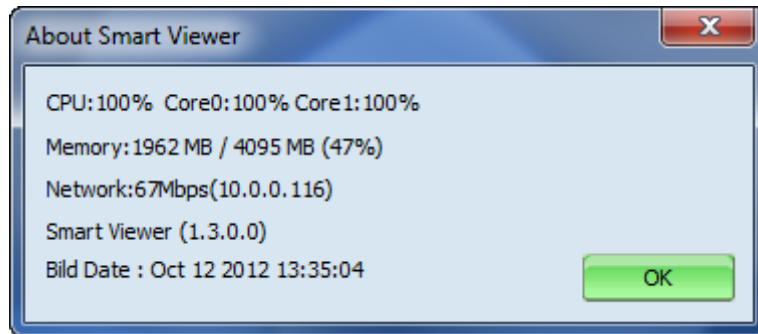
Enhance image for a better reproduction.



About Smart Viewer

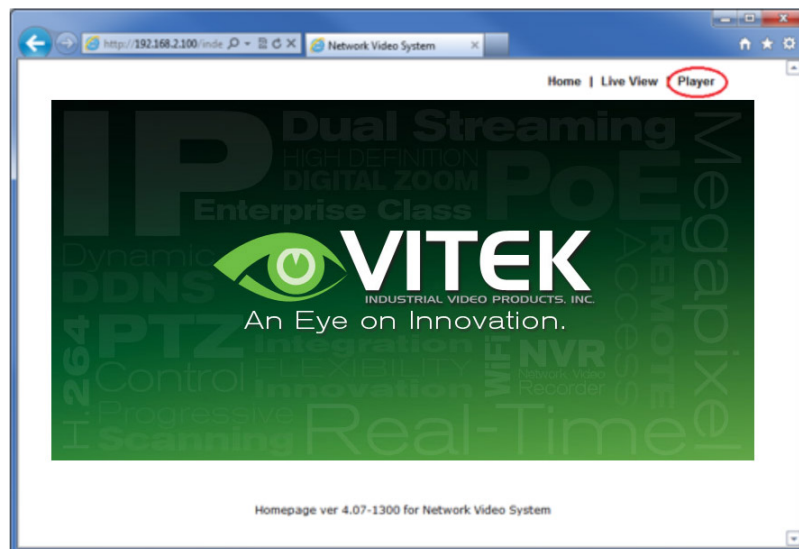


You can see the status of the Smart Viewer

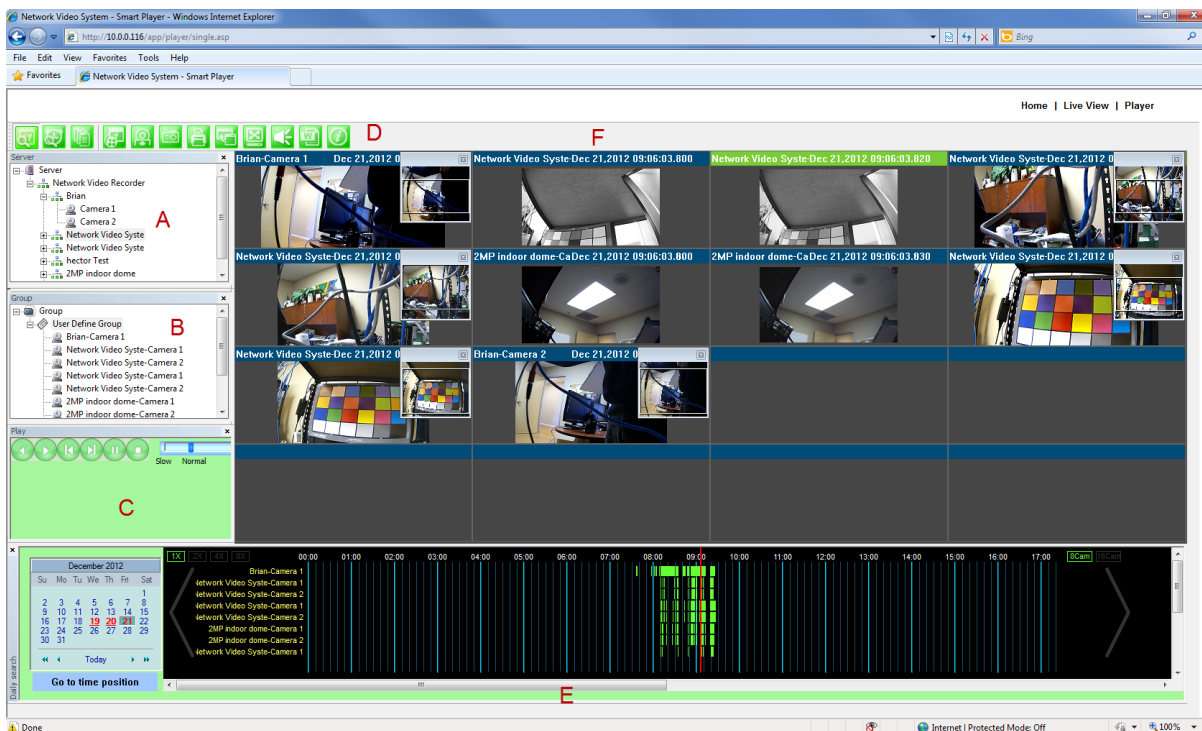


32. Configuring & Viewing Player

From the Home Screen click on **Player**



32.1. Main Window View

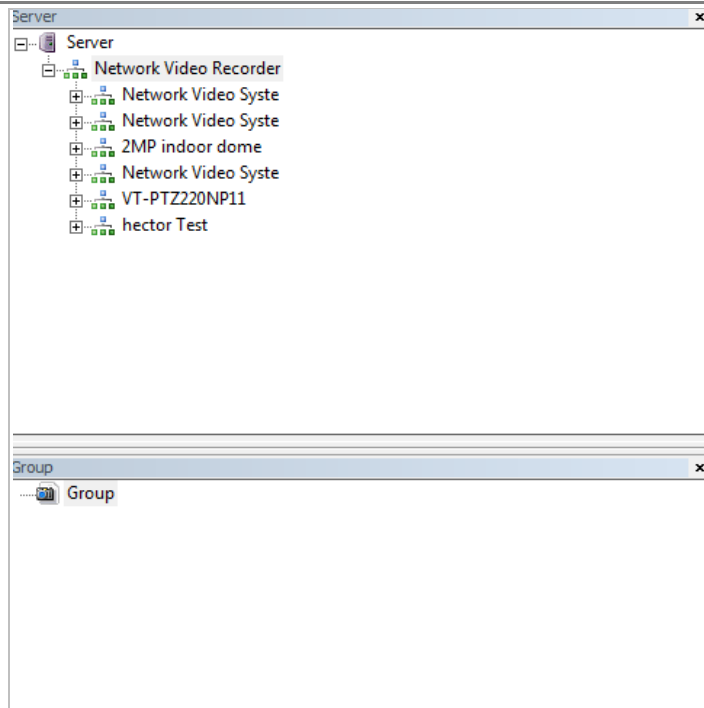


Note: The appearance of Smart Player window may vary depending on version and type of Vitek device you're using. This user's manual is based on general display screen.

Server Control Bar A	Allows you to view cameras / servers that are registered in the system.
Group Control Bar B	You can compose a new group by dragging & dropping servers, modules, and cameras into a group. Grouping provides search function of recorded video from cameras.
Playback Control Bar C	Users can use this bar for functions such as forward/reverse play, previous frame, next frame, pause, stop, playback speed.
Control Tool Bar D	Users can change search mode between calendar, condition, and data. It also provides additional features such as backup and snapshot.
Time Line Control Bar E	Search condition (calendar, condition, and data) can be refined in this bar.
Display screen F	This screen shows multiple numbers of recorded videos.

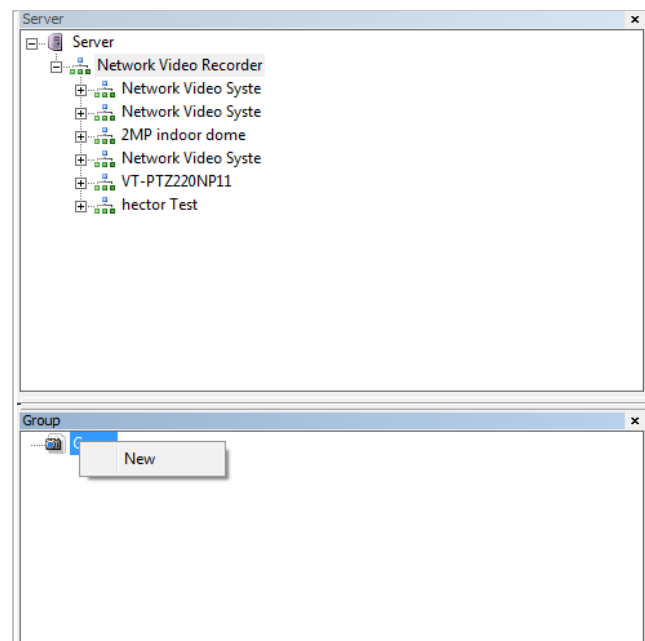
32.2. Connecting to NVR Player

In order to playback video, cameras must be assigned to a Group, in this section you create groups with cameras you want to playback. Playback directly from cameras with SD card installed will have "Group" automatically created and the camera assigned to that "Group"

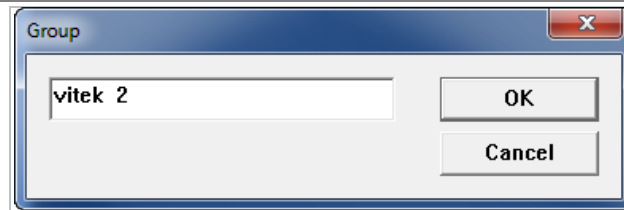


32.3. Creating a Group

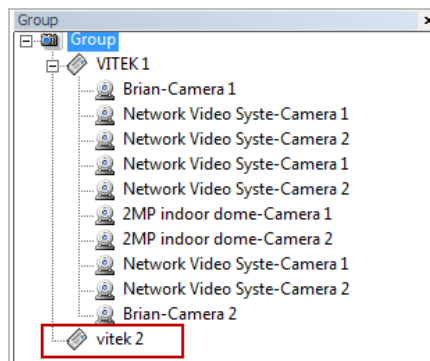
In order to generate a group in Group Control Bar, right click on **Group**, another window will appear then select **New**.



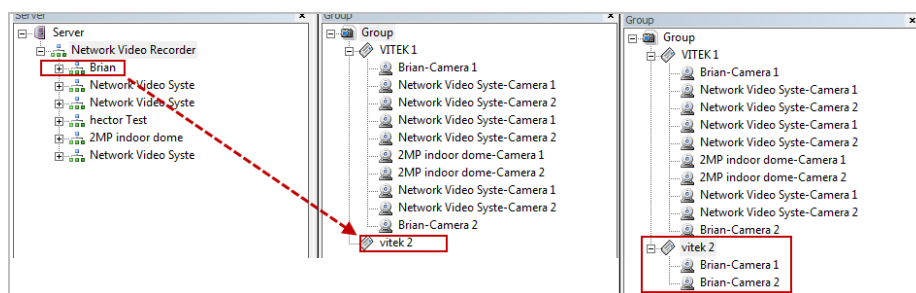
The following window will be displayed. Type in the group name and click **OK**.



A new group with the assigned name will be created as shown below.

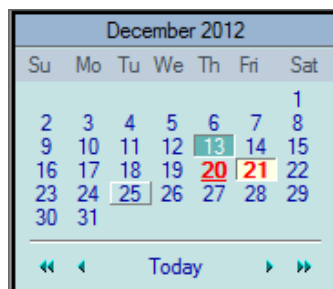


To add a camera to the new group, drag and drop from the server tree to the newly created group.



33. Searching Video

Make sure you have recorded video on the calendar (recorded video shows in **red**).



There are three choices in searching recorded video - Day Search, Condition Search, and Data Search.

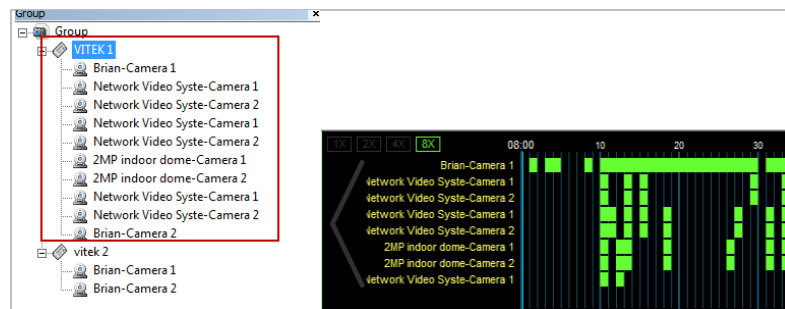
Make sure that Camera / Server Connection and Creating Group have been performed before you search recorded video.

33.1. Searching Video

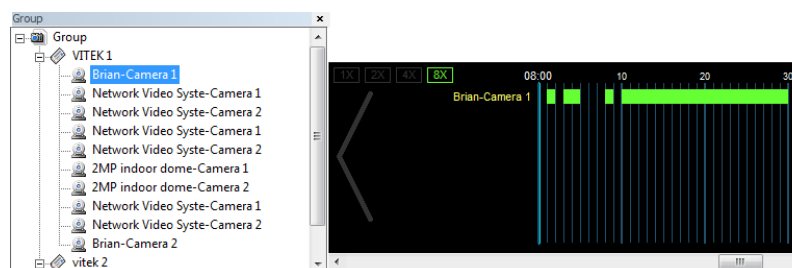
To search and playback video, Smart Player requires one or more groups to exist. If a search is executed on the basis of a selected group, a search will be performed on all the cameras in that group. If a search

is executed on the basis of a single camera, the search will be performed only from that camera.

For example, if you select a group and start searching; the search from that group will be displayed



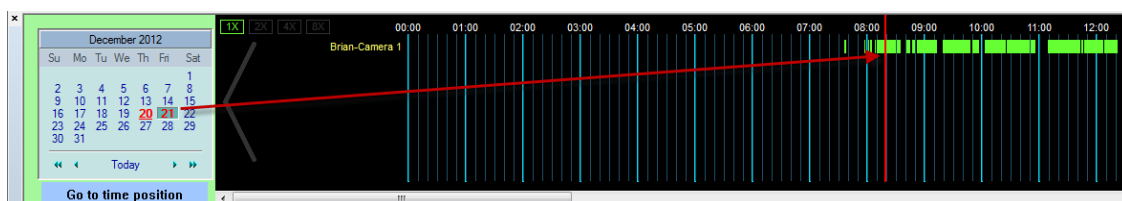
If you only select "Brian-Camera 1", the searching will be performed only on the video from that.



33.2. Daily Search



Select date from calendar than select time from the time bar.

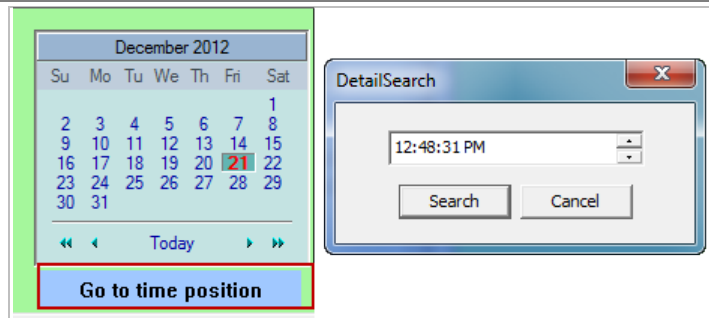


33.2.1. Search Mode

By clicking a date in red on the calendar, the time frame recorded is shown.

33.2.2. GO to Time Position

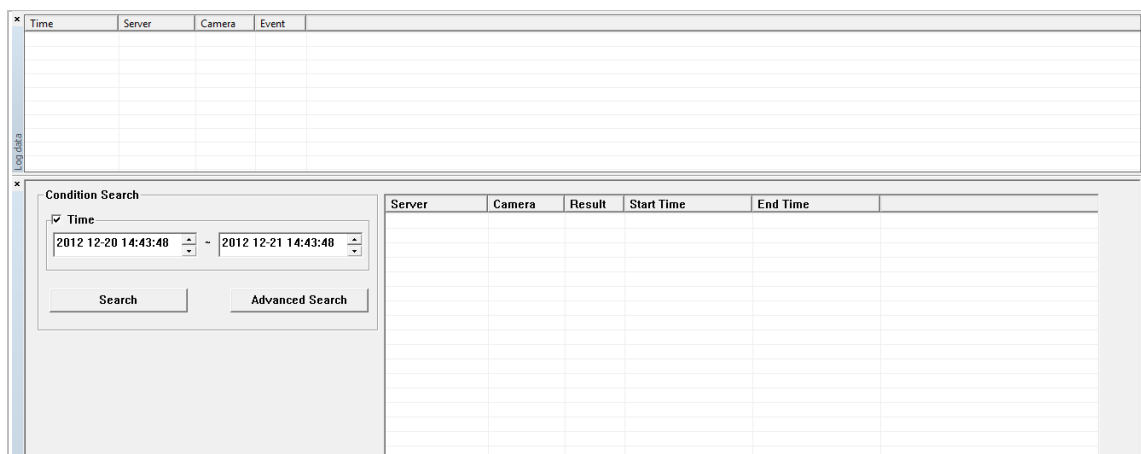
To go to specific time click on "Go to time position" than input time and click search.



33.3. Condition Search Mode



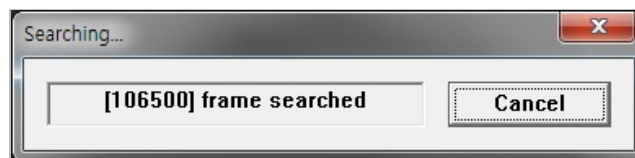
In this mode, you can search for video on the basis of combination of 3 different conditions, which are Time, Motion, and Sensor. Initially only Time condition is available for searching, and you need to enter **Advance Search** mode to utilize Motion and Sensor state if necessary.



Search

Select time and date from beginning to end of search criteria. Then click **Search**.

The following window will be displayed to inform you of the search progress. If any results are found, the video will start playing back right after searching is completed.

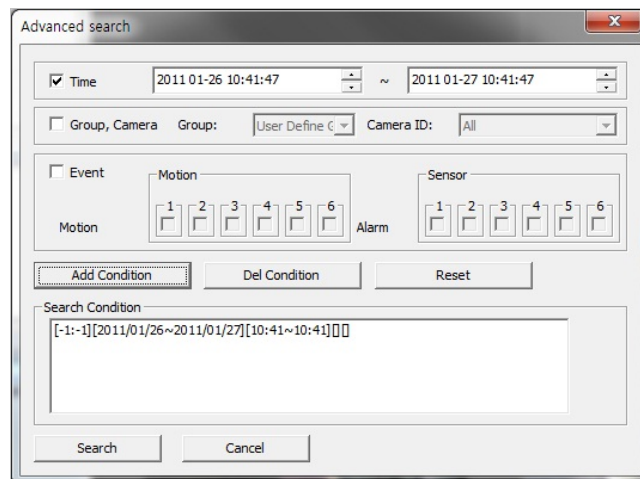


33.3.1. Advanced Search Mode

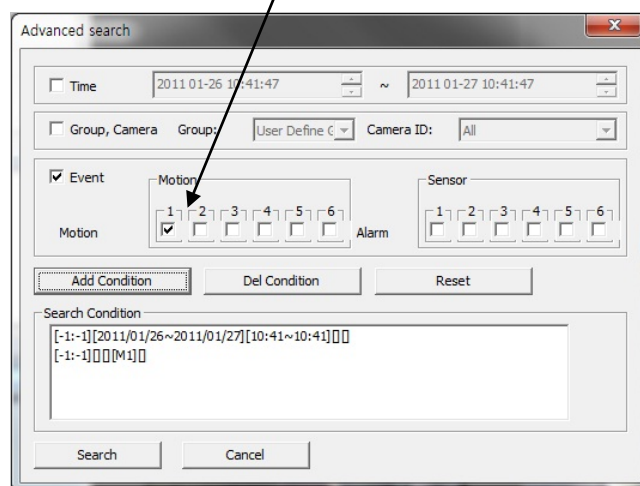
In Advance Search Mode you can select which conditions to search from (Time, Event, etc)

First, select **Time** checkbox, and choose the desired time frame (Start date and time ~ End date and

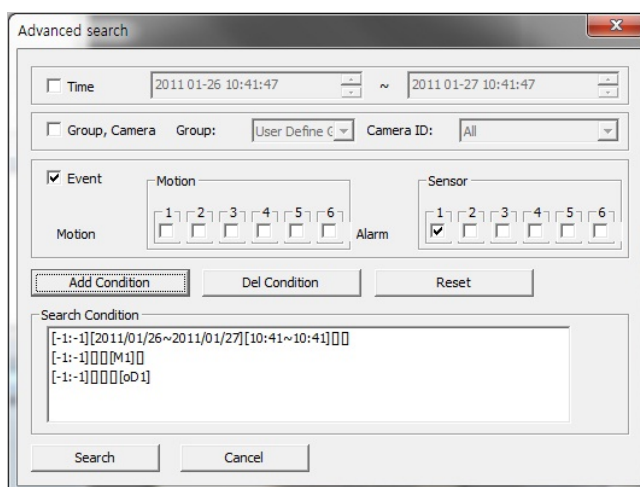
time), and then click **Add Condition** button to add to **Search Condition**.



Now select **Event** checkbox, and choose **Camera 1** from **Motion**, and then click **Add Condition** button to add to **Search Condition**.

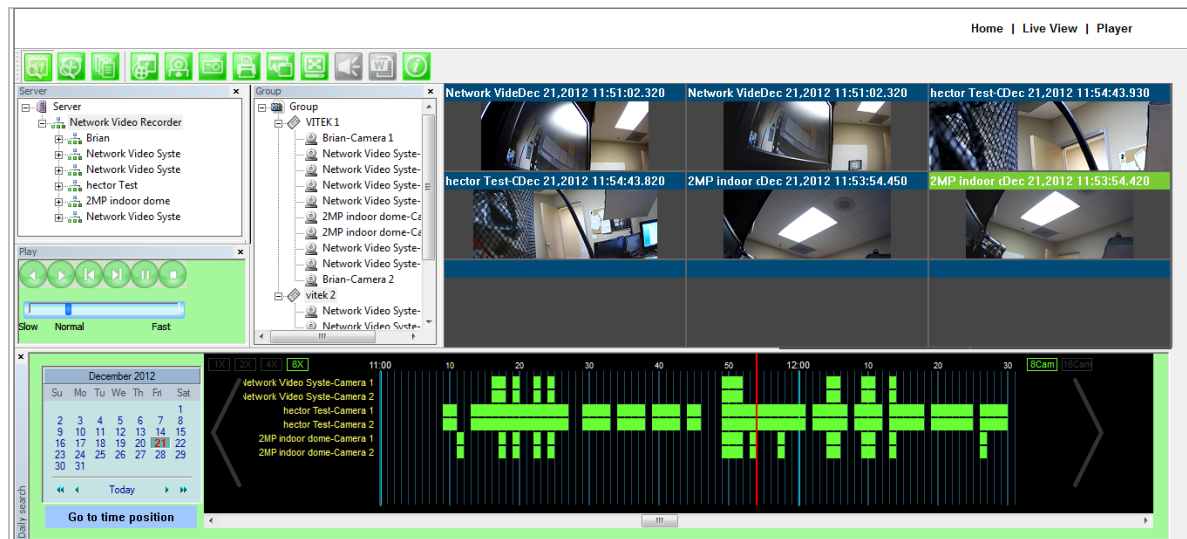


Next, select **Event** checkbox, choose Sensor 1, and then click **Add Condition** button to add the Sensor condition to **Search Condition**.



Now that all the conditions have been configured, click **Search** button to start searching. Any video data which meets at least one of the conditions in **Search Condition** list will be shown as the results.

34. Video Playback Controls



Play Reverse



Play Forward



Pause



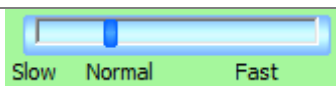
Stop



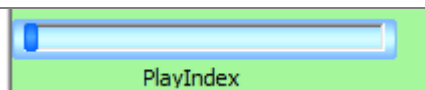
Back to Previous Frame



Go to Next Frame



Playback Speed Control

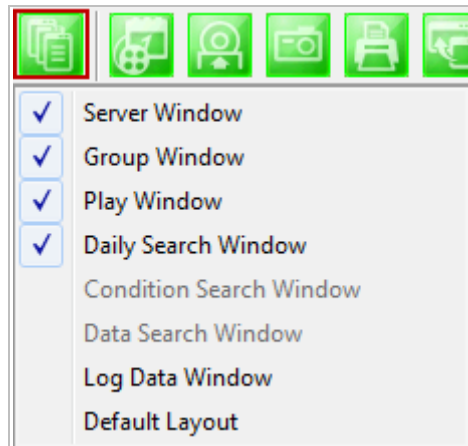


Player Path Control (only for condition search mode)

35. Extra Features

35.1. Window Control

Users can open or close control windows.



35.2. Recording Period

You can view the starting and ending date of a recorded channel.



Record time is displayed as shown below.

Server	Camera	Start Time	End Time
Brian	Camera 1	12/21	12/26
Brian	Camera 2	12/21	12/26
Network Video Syste	Camera 1	12/21	12/26
Network Video Syste	Camera 2	12/21	12/26
Network Video Syste	Camera 1	12/21	12/26
Network Video Syste	Camera 2	12/21	12/26
hector Test	Camera 1	12/21	12/26

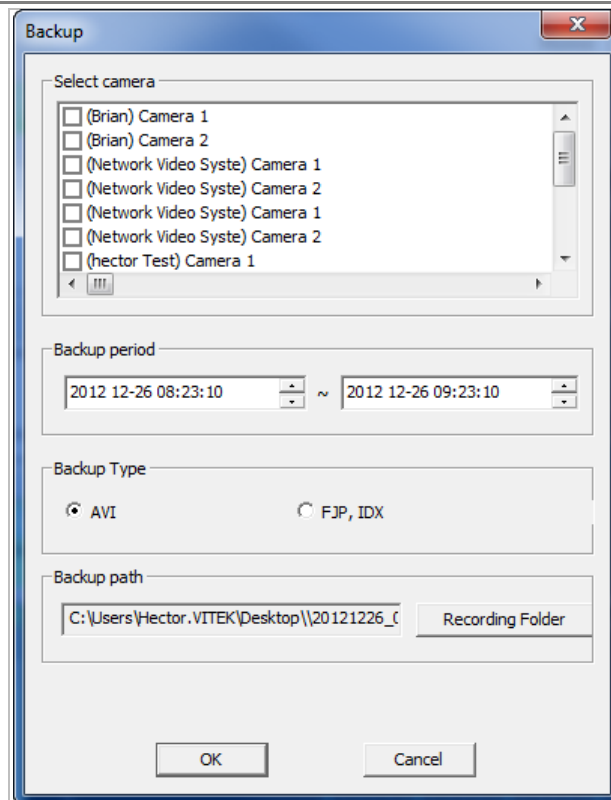
35.3. Backup

There are two backup formats IDX and AVI.

.IDX	Default video file format used by Vitek
.AVI	Video file format supported by Microsoft Windows

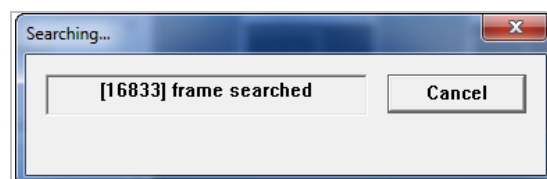


When the **Backup** button is clicked, the following window is displayed as below.

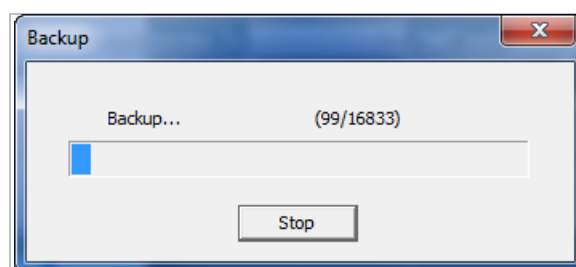


Select Camera	Check the camera to backup. For AVI backup, only one camera is permitted. For FJP, IDX , multiple backup is allowed.
Backup Period	Select the time frame (Start date and time ~ End date and time) to backup.
Backup Type	Select either AVI or FJP, IDX format.
Backup Path	Select the HDD path where the backup file will be saved.

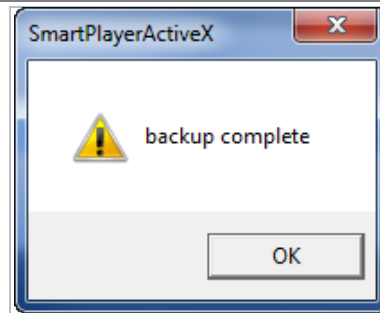
After selecting the parameters, click **OK** then the following window will display.



After searching is finished, backup operation will start.



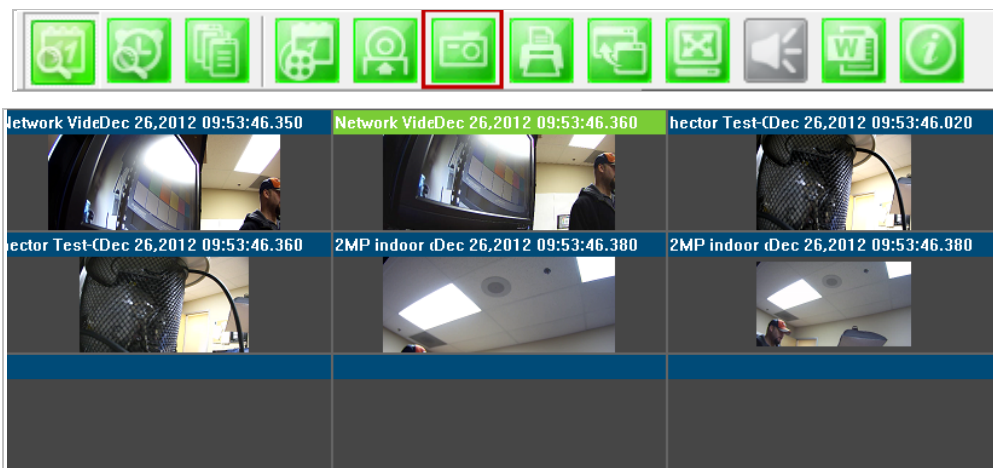
When backup is completed, the following window will appear. Click **OK** button.



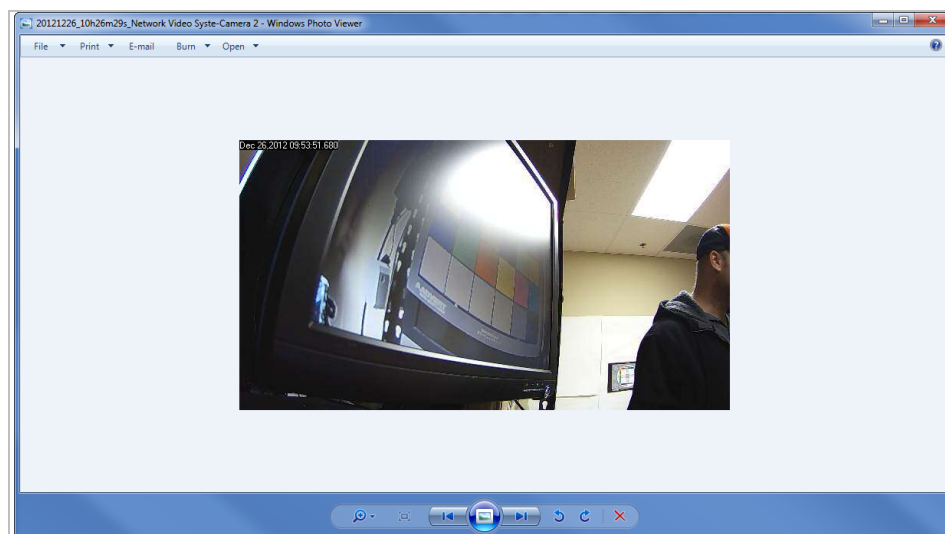
Note: For AVI file backup, only one camera is allowed. For IDX backup, multiple cameras are allowed.

35.4. Snapshot

Choose the camera currently being played or paused, click **Snapshot** button. Then a snapshot file will be saved in a designated path.



The below picture is a result of snapshot from the above window.



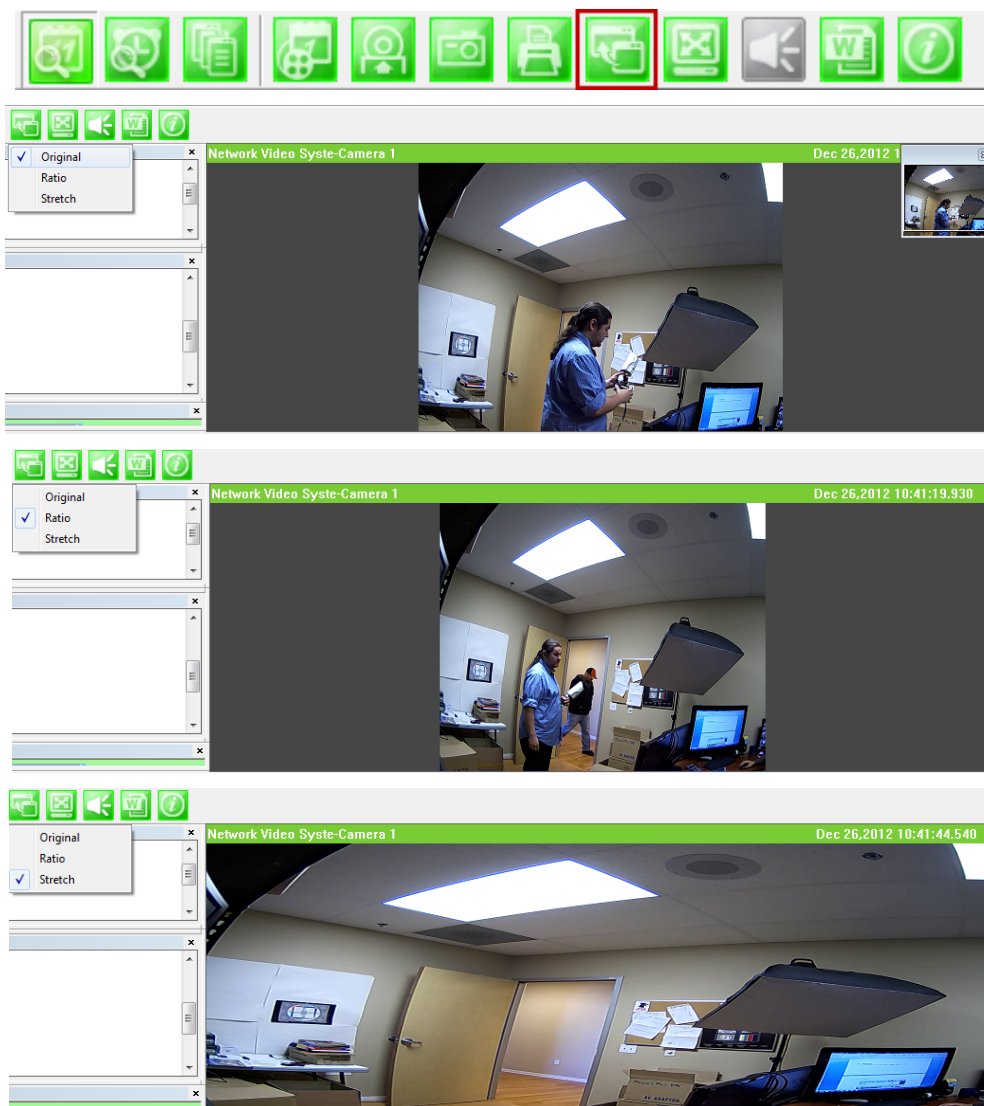
35.5. Print

Choose the camera currently being played or paused, then click **Print** button. Then the image of the selected camera will be sent to your default printer.



35.6. Ratio Display

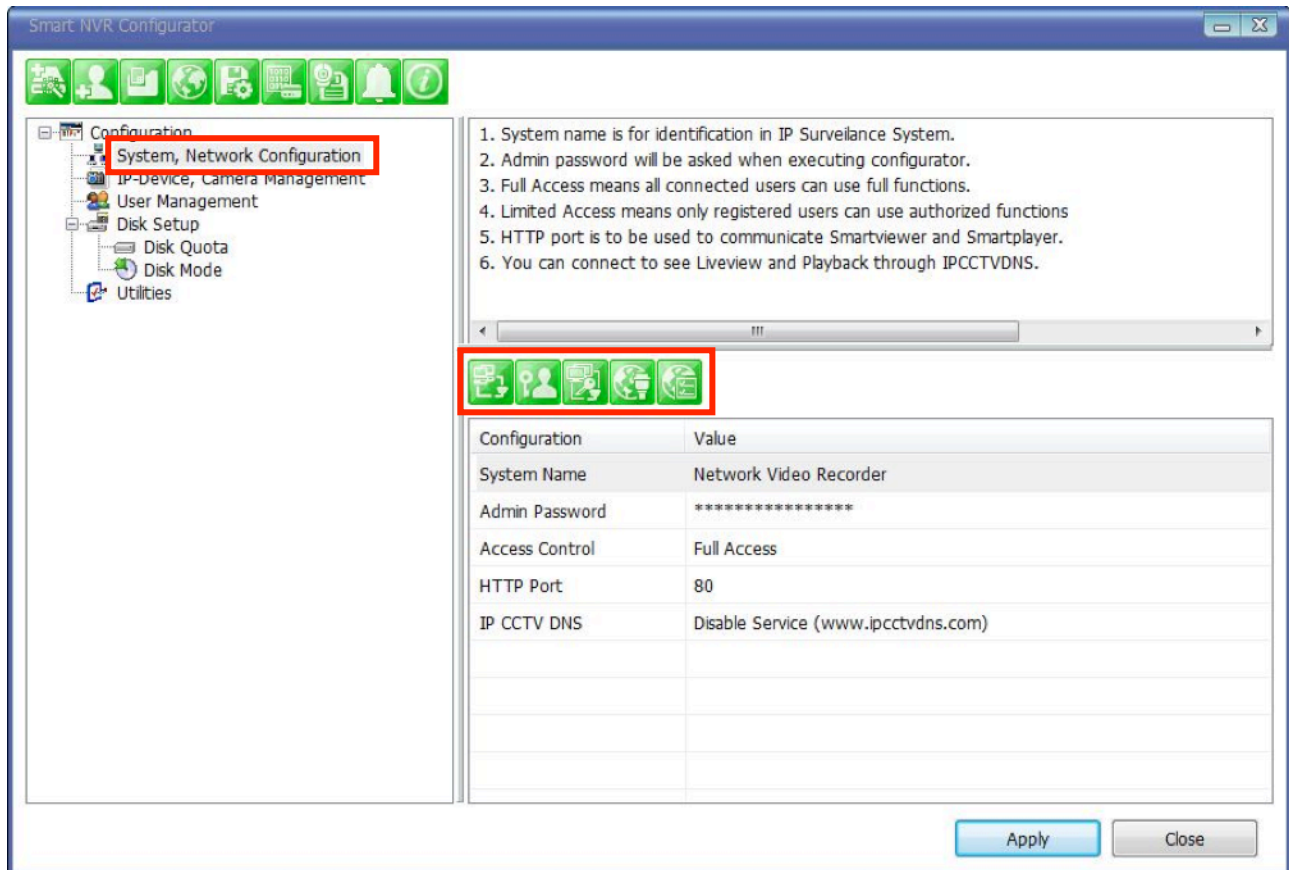
You have three options to view videos, which are **Original**, **Ratio**, and **Stretch**.








36. EN-V-R Configuration

36.1. System, Network Configuration

General system and network properties of EN-V-R program can be set up in this section. To start, select **System, Network Configuration** from the menu list.

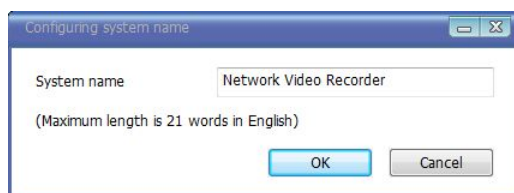


Items	Descriptions
	System Name Setting
	Set up Admin password
	Access Control
	HTTP Port Assign
	Configure IP-CCTV DNS

36.1.1. Configuring System name



To name the system, click configuring system name, the following window will be displayed. Change the name as desired.

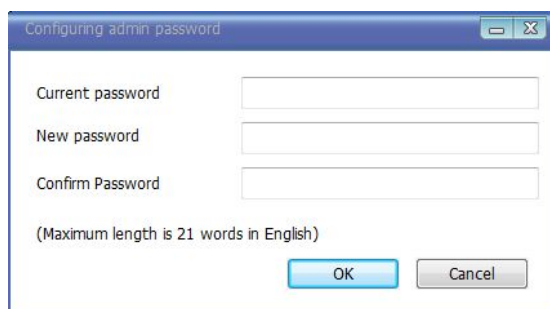


Items	Descriptions
System name	Type in a System name.
OK	Click this button to apply the entered System Name.
Cancel	Click this button to discard the configured System name.

36.1.2. System, Network Configuration - Admin password



To assign Password for the admin, click **System, Network Configuration** on the menu tree. Click configure admin password

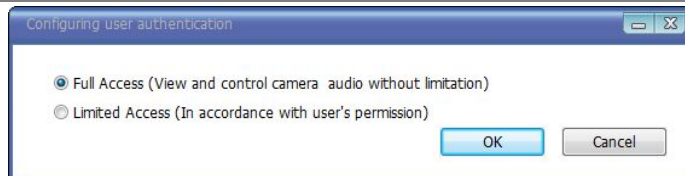


Items	Descriptions
Current password	Enter the Current password.
New password	Enter a new password to use.
Confirm Password	Enter the new password again to confirm.
OK	Click this button to apply the changed password.
Cancel	Click this button to discard the change.

36.1.3. System, Network Configuration - Access Control



To configure User Access Control, click **System, Network Configuration** on the menu tree. Click configure access control

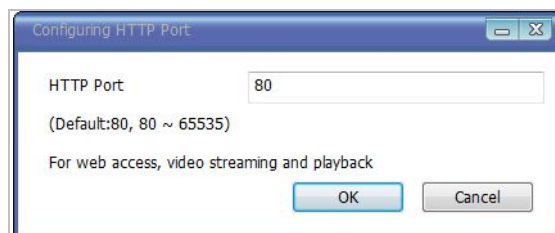


Items	Descriptions
Full Access	Set Full Access for the user. Anyone can connect to the EN-V-R without authentication, and be allowed live view, audio, PTZ, playback.
Limited Access	Set Limited Access for the user. Only the users with proper permission to the camera can access it.
OK	Click this button to apply the change.
Cancel	Click this button to discard the change.

36.1.4. System, Network Configuration - HTTP Port



To configure HTTP port to use, click **System, Network Configuration** on the menu tree. Then click Change HTTP Port



Items	Descriptions
HTTP Port	Enter a HTTP Port to use in the EN-V-R Service. (Default is 80)
OK	Click this button to apply the changed HTTP port number.
Cancel	Click this button to apply discard the changed port number.

Note: If a firewall is enabled in your Windows, you should set the above HTTP port number to be allowed in your computer.

36.1.5. System, Network Configuration - IP-CCTV DNS



To configure IP CCTV-DNS, click **System, Network Configuration** on the menu tree. Click Configure

IP-CCTV-DNS

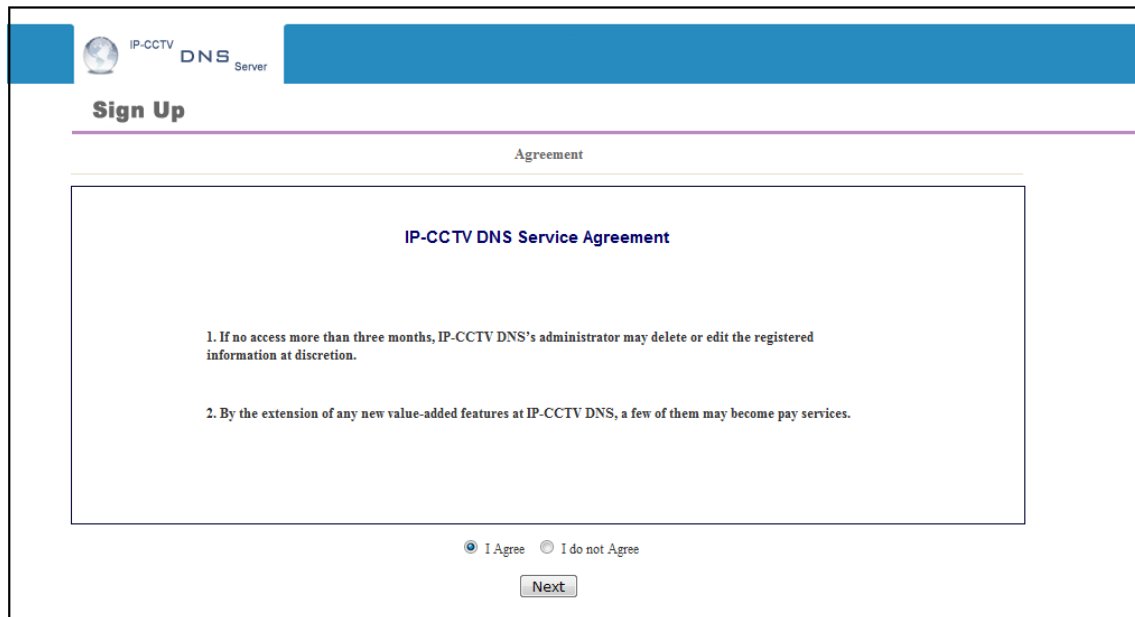
Items	Descriptions
Service	Set to use IP CCT DNS or not.
DNS Server IP	Vitek IP CCTV DNS address already entered.
Go Server	Directs to Vitek IP CCTV DNS server
MAC	MAC address of EN-V-R already entered
Product Key	Product Key of EN-V-R already entered
External Port	Enter an external HTTP Port to use for IP CCTV DNS service. (Default is 80)
Register verify	Click to test the connection with IP CCTV DNS server after setting is done in IP CCTV DNS server.
OK	Click this button to apply the changed IP CCTVV DNS settings.
Cancel	Click this button to discard the changed IP CCTV DNS settings

37. IP-CCTV DNS Registration

To register your camera / server please visit <http://www.ipcctvdns.com>

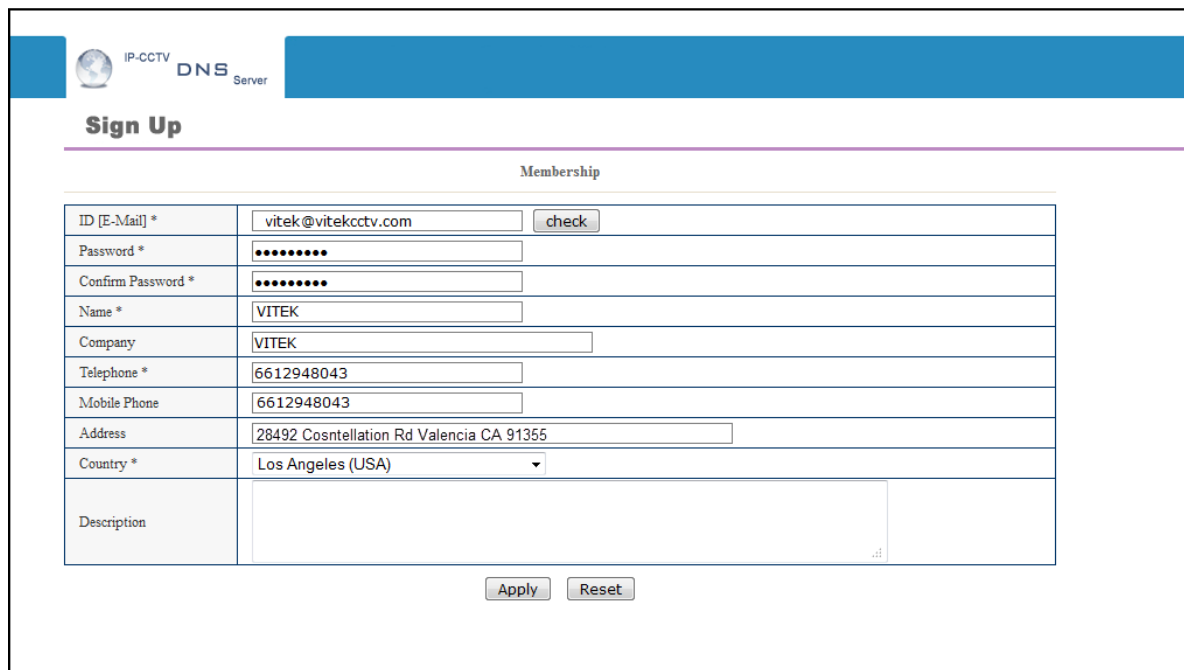
If this is your first visit your need to **Sign Up** if you abide by the Agreement, click on "I Agree" than on

the NEXT button as shown below.



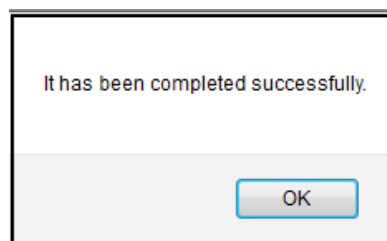
The screenshot shows the 'Sign Up' page of the IP-CCTV DNS Server. The page has a blue header with the logo and 'DNS Server' text. Below the header, the title 'Sign Up' is displayed. The main content area is titled 'Agreement' and contains the 'IP-CCTV DNS Service Agreement' text. The agreement includes two points: 1. If no access more than three months, IP-CCTV DNS's administrator may delete or edit the registered information at discretion. 2. By the extension of any new value-added features at IP-CCTV DNS, a few of them may become pay services. At the bottom of the agreement, there are two radio buttons: 'I Agree' (selected) and 'I do not Agree'. A 'Next' button is located below the radio buttons.

Fill out the requested information as shown below and click on **Apply**.



The screenshot shows the 'Sign Up' page of the IP-CCTV DNS Server, specifically the 'Membership' section. The page has a blue header with the logo and 'DNS Server' text. Below the header, the title 'Sign Up' is displayed. The main content area is titled 'Membership' and contains a form with the following fields: ID [E-Mail] * (vitek@vitekccctv.com), Password * (masked with dots), Confirm Password * (masked with dots), Name * (VITEK), Company (VITEK), Telephone * (6612948043), Mobile Phone (6612948043), Address (28492 Cosntellation Rd Valencia CA 91355), Country * (Los Angeles (USA)), and Description (empty). There is a 'check' button next to the ID field. At the bottom of the form, there are 'Apply' and 'Reset' buttons.

The following screen will confirm that your Membership has been completed successfully, that click **OK**.

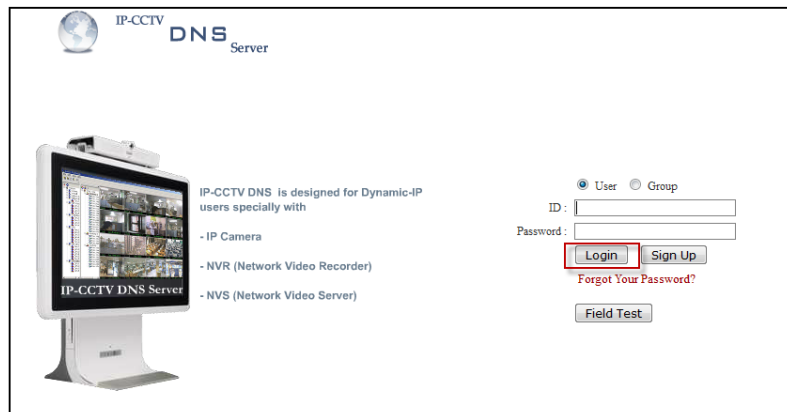


The screenshot shows a small dialog box with a light gray background. It contains the text 'It has been completed successfully.' and an 'OK' button at the bottom right.

You will be brought back to the main page of the IPCCTVDNS website; in this case you need to **Login**

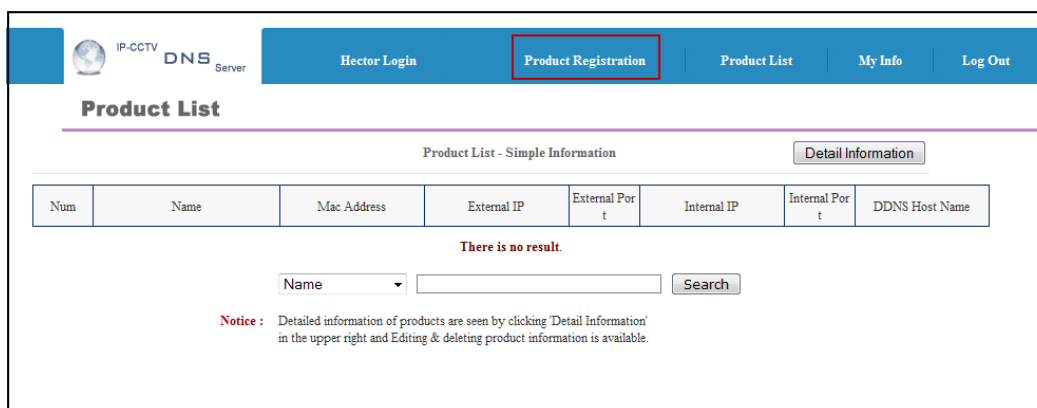
ENVI Series: VTC-IR402NZ

with the information previously created.



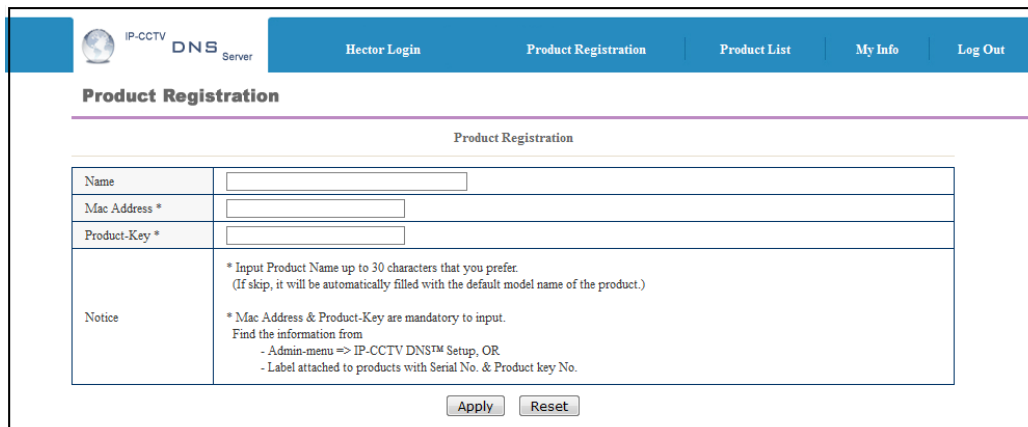
The image shows the login page for the IP-CCTV DNS Server. On the left, there is a monitor displaying a multi-camera feed. To the right of the monitor, the text reads: "IP-CCTV DNS is designed for Dynamic-IP users specially with". Below this, a list of supported devices is shown: "- IP Camera", "- NVR (Network Video Recorder)", and "- NVS (Network Video Server)". On the far right, there is a login form with radio buttons for "User" (selected) and "Group". Below these are input fields for "ID:" and "Password:". There are three buttons: "Login" (highlighted with a red box), "Sign Up", and "Forgot Your Password?". A "Field Test" button is located at the bottom right of the form area.

To register your first product, click on **Product Registration** as shown below.



The image shows the "Product List" page. At the top, there is a navigation bar with "Hector Login", "Product Registration" (highlighted with a red box), "Product List", "My Info", and "Log Out". Below the navigation bar, the page title is "Product List". There are two tabs: "Product List - Simple Information" (selected) and "Detail Information". Below the tabs is a table with the following columns: Num, Name, Mac Address, External IP, External Port, Internal IP, Internal Port, and DDNS Host Name. The table is currently empty, and a message "There is no result." is displayed below it. Below the table, there is a search form with a "Name" dropdown menu, a text input field, and a "Search" button. A "Notice" is displayed at the bottom: "Detailed information of products are seen by clicking 'Detail Information' in the upper right and Editing & deleting product information is available."

Enter the requested information (The name of your camera, the Mac Address and product Key) as shown below.



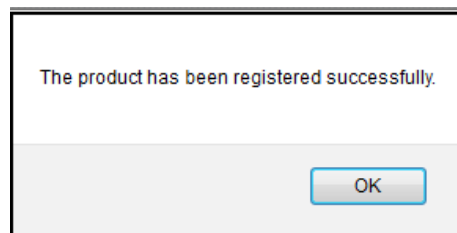
The image shows the "Product Registration" page. At the top, there is a navigation bar with "Hector Login", "Product Registration" (highlighted with a red box), "Product List", "My Info", and "Log Out". Below the navigation bar, the page title is "Product Registration". There is a "Product Registration" tab. Below the tab is a form with three input fields: "Name", "Mac Address *", and "Product-Key *". Below the input fields is a "Notice" section with the following text: "* Input Product Name up to 30 characters that you prefer. (If skip, it will be automatically filled with the default model name of the product.)" and "* Mac Address & Product-Key are mandatory to input. Find the information from - Admin-menu => IP-CCTV DNS™ Setup, OR - Label attached to products with Serial No. & Product key No." At the bottom of the form, there are "Apply" and "Reset" buttons.

Note that the Mac Address and the product Key will be available under the [Network Configuration>> IP-CCTV DNS setup](#) in the camera menu. Please see image below.

IP-CCTV DNS™ Setup

Service	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
DNS Server IP	<input type="text" value="www.ipcctvdns.com"/> <input type="button" value="Go"/>
Mac Address	1C7C4502003E
Product-Key	01FBA6C8
IP-CCTV DNS Registration verification	<input type="button" value="Confirm"/>

A window will pop up confirming that your product has been registered successfully, click on **OK**.



You will be directed to the *Product List* page where you will be able to see your recent camera registration.

IP-CCTV DNS Server							
Hector Login Product Registration Product List My Info Log Out							
Product List							
Product List - Simple Information							Detail Information
Num	Name	Mac Address	External IP	External Port	Internal IP	Internal Port	DDNS Host Name
1	la	1C7C4502003E	0.0.0.0	0	0.0.0.0	0	fw1c7c4502003e
<< Previous Next >>							
<input type="text" value="Name"/> <input type="button" value="Search"/>							
Notice : Detailed information of products are seen by clicking 'Detail Information' in the upper right and Editing & deleting product information is available.							

By clicking the **Detail Information** tab you will be allow edit DDNS Host Name

IP-CCTV DNS Server							
Hector Login Product Registration Product List My Info Log Out							
Product List							
Product List - Simple Information							Detail Information

Click Edit to change the DDNS Host Name.

IP-CCTV DNS Server

Hector Login Product Registration Product List My Info Log Out

Product List

Product List - Detail Information Simple Information

Num	Name	Mac Address	External IP	External Port	Internal IP	Internal Port	Last Refresh Time	IP-sharer model	DDNS Host Name	System Version	Edit	Del
1	la	1C7C4502003E	0.0.0.0	0	0.0.0.0	0			1c7c4502003e	0.0	Edit	Del

<< Previous | Next >>

Name

Type in desired host name than click **Apply**.

IP-CCTV DNS Server

Hector Login Product Registration Product List My Info Log Out

Product Info

Product Information

Name	<input type="text" value="la"/>
DDNS Host Name	<input type="text" value="vitek1sttest"/> (Only lowercase letters, arabic number, '-', and '_' can be inputted.)
Mac_address	<input type="text" value="1C7C4502003E"/>

A window will pop up asking if you really want to apply the new configurations, to continue click **OK**.

Do you really want to apply for the new configuration?

A window will pop up confirming that the product information has been modified successfully, click **OK**.

The product information has been modified successfully.

☐ Prevent this page from creating additional dialogs

Click under **Product List** to view your changes

IP-CCTV DNS Server

Hector Login Product Registration **Product List** My Info Log Out

Product Info

Product Information

Name	la
DDNS Host Name	vitek1sttest (Only lowercase letters, arabic number, '-', and '_' can be inputted.)
Mac_address	1C7C4502003E

Apply Back

Your camera with the new DDNS Host name will be displayed.

IP-CCTV DNS Server

Hector Login Product Registration Product List My Info Log Out

Product List

Product List - Simple Information Detail Information

Num	Name	Mac Address	External IP	External Port	Internal IP	Internal Port	DDNS Host Name
1	la	1C7C4502003E	0.0.0.0	0	0.0.0.0	0	vitek1sttest

<< Previous 1 Next >>

Name Search

Your camera is now registered and ready for use.

http://www.vitek1sttest.ipcctvdns.com/

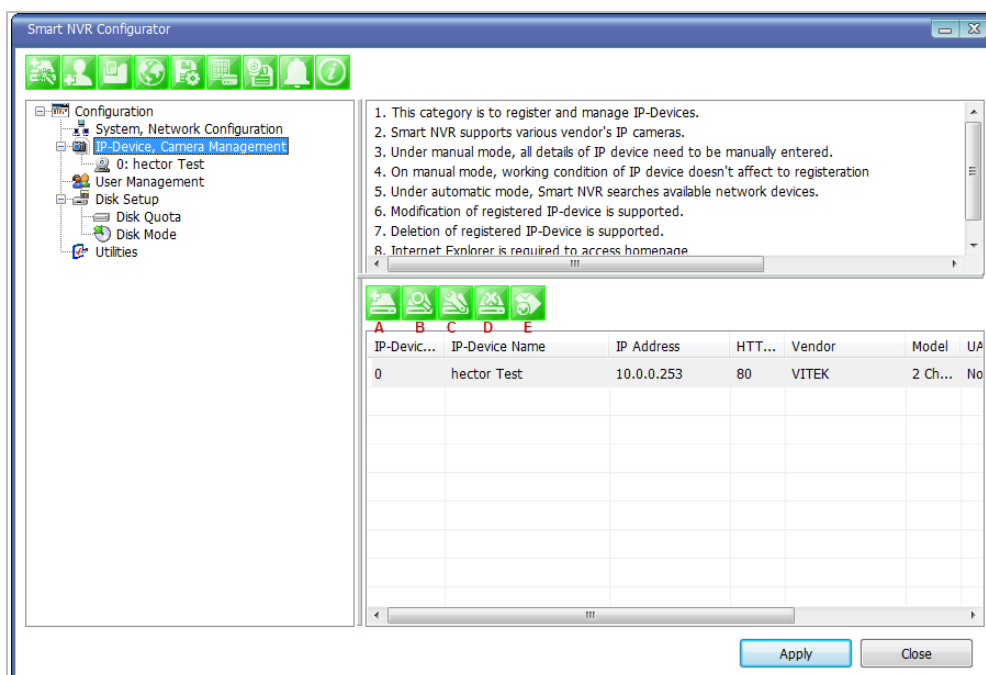
File Edit View Favorites Tools Help






Home | Live View | Player | Admin

Model : VTD-13FN, Firmware ver 4.16-B0-ds-VI
Homepage ver 4.16-B0_VI for Network Video System

38. IP-Device Registration

You will see how to manage IP devices in this section, which includes registering, modifying, and deleting IP devices. To start managing IP devices, select **IP-Device, Camera Management** from the menu list.

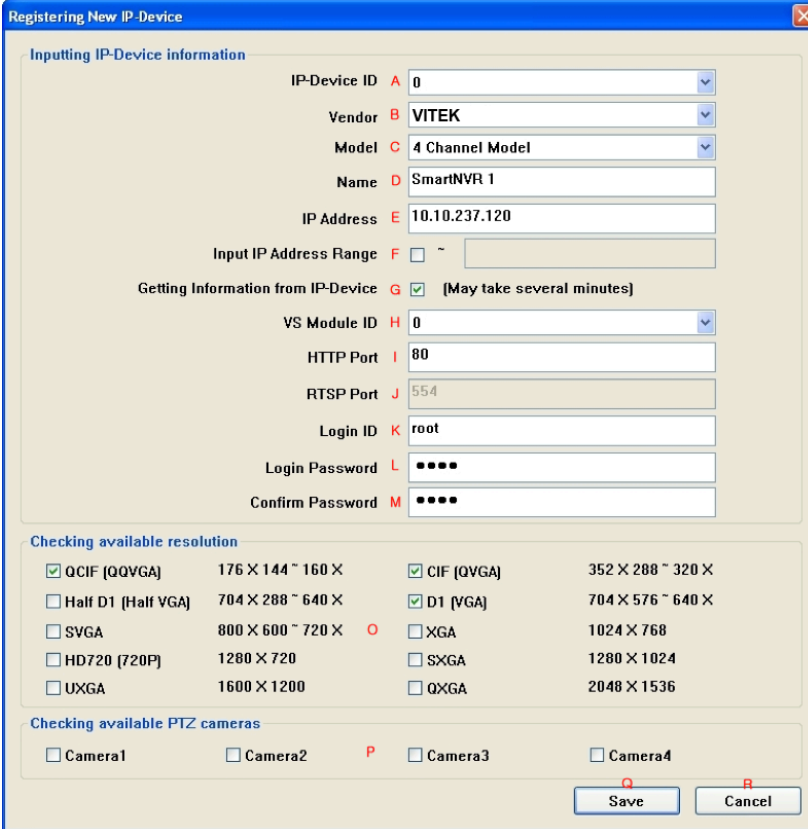


Items	Descriptions	
 A	IP-Device Manual Registration	Register IP-Devices manually by users.
 B	IP-Device Automatic Registration	Scan and register IP-Devices automatically by the program.
 C	IP-Device Modification	Modify the information of registered IP-Devices.
 D	IP-Device Deletion	Delete IP-Devices previously registered.
 E	IP-Device Homepage	Go to the homepage of the IP-Device.

38.1. IP-Device Registration (Manual)



To manually register an IP-Device, click **IP-Device, Camera Management** on the menu tree. Click Register IP device manually.



Registering New IP-Device

Inputting IP-Device information

IP-Device ID **A** 0

Vendor **B** VITEK

Model **C** 4 Channel Model

Name **D** SmartNVR 1

IP Address **E** 10.10.237.120

Input IP Address Range **F** ☐ ~

Getting Information from IP-Device **G** ☒ (May take several minutes)

VS Module ID **H** 0

HTTP Port **I** 80

RTSP Port **J** 554

Login ID **K** root

Login Password **L** ••••

Confirm Password **M** ••••

Checking available resolution

<input checked="" type="checkbox"/> QCIF (QQVGA) 176 X 144 ~ 160 X	<input checked="" type="checkbox"/> CIF (QVGA) 352 X 288 ~ 320 X
<input type="checkbox"/> Half D1 (Half VGA) 704 X 288 ~ 640 X	<input checked="" type="checkbox"/> D1 (VGA) 704 X 576 ~ 640 X
<input type="checkbox"/> SVGA 800 X 600 ~ 720 X	<input type="checkbox"/> XGA 1024 X 768
<input type="checkbox"/> HD720 (720P) 1280 X 720	<input type="checkbox"/> SXGA 1280 X 1024
<input type="checkbox"/> UXGA 1600 X 1200	<input type="checkbox"/> QXGA 2048 X 1536

Checking available PTZ cameras

☐ Camera1 ☐ Camera2 **P** ☐ Camera3 ☐ Camera4

Save **Cancel**

Item	Description
A IP-Device ID	Select the IP-Device ID to register.

Select the Vendor name of the IP-Device to register. Click the pull-down list, and choose a proper vendor name from the list.

B Vendor



None

VITEK

Panasonic MJPG

Axis MJPG

Mobotix MJPG

Vivotek MJPG

IQinVision MJPG

Arecont MJPG

Appro MJPG

Axis MPEG4

Acti

Truon H264

Arecont H264

Vivotek MPEG4

Vivotek H264

AVTech MJPG

AVTech MPEG4

AVTech H264

Axis H264

3S MJPG

3S H264

C Model	Select the total number of channels (streams) the IP device has. Click the pull-down list, and choose proper one from the list.
----------------	---

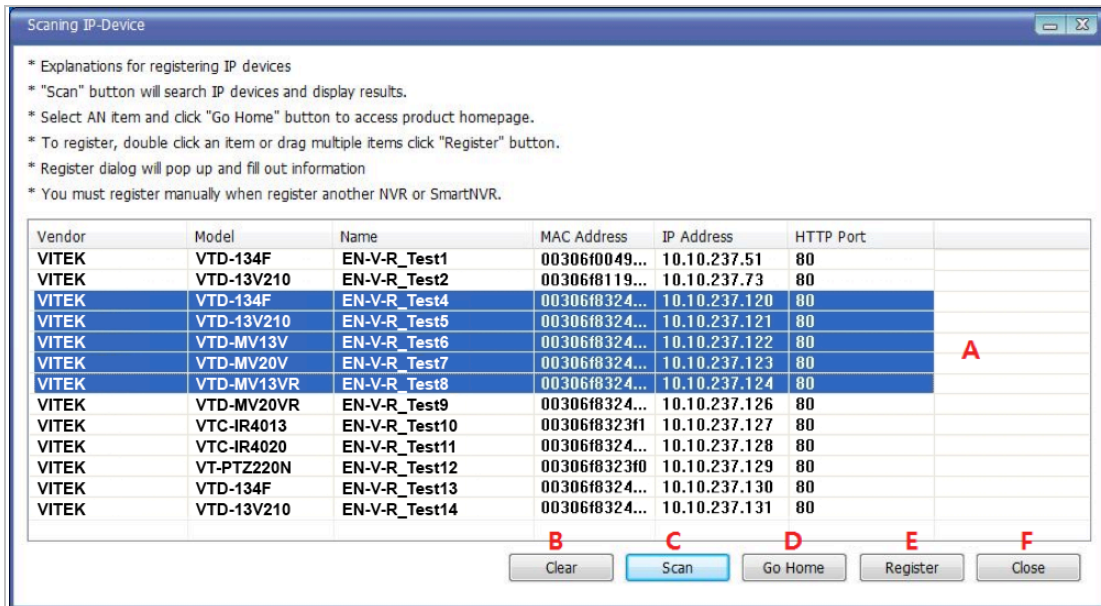
IP-Device ID: 1
 Vendor: VITEK
 Model: 1 Channel Model, 2 Channel Model, 4 Channel Model

D	Name	Type in the name of the IP-Device.
E	IP Address	Type in the IP Address to use with the IP-Device. IPCCTVDNS or URL addresses are also supported. (If Input IP Address Range box is checked, then the starting address of the range will be selected.)
F	Input IP Address Range	Enter the last IP address of the range.
G	Getting Information from IP-Device	Check this box if the information from IP-Device needs to be acquired.
H	VS Module ID	Select the VS Module ID. Enter 0 for non-Vitek IP devices. Vitek products can be set to 0 to 15, and default is 0.
I	HTTP Port	Enter the HTTP Port to use with the IP-Device. (Default is 80)
J	RTSP Port	Enter the RTSP Port (Default is 554)
K	Login ID	Type in the Login ID to use. (Default is root)
L	Login Password	Type in the Login Password to use for the Login ID. (Default is root)
M	Confirm Password	Type in the same password to confirm. (Default is root)
O	Checking available resolution	Select the Video Resolution for the device. <i>Not used, all resolution is done at camera level</i>
P	Checking available PTZ camera	Checkboxes to choose if PTZ is supported on the IP device.
Q	OK	Click this button to apply the configured values.
R	Cancel	Click this button to discard the configured values.

38.2. IP-Device Registration (Automatic)



To register an IP-Device by automatic scanning, click **IP-Device, Camera Management** on the menu tree. Then Click Scan available IP devices and register



Items	Descriptions
A IP-Device list	This list shows the IP devices found during the scan process. If you need to select multiple IP devices at the same time, drag your mouse over the devices or keep pressing CTRL or SHIFT key while clicking the IP devices.
B Clear	Clear the scanned IP Devices from the list.
C Scan	Start scanning for IP Devices on the network.
D Go Home	Go to the home page of the IP device selected from the list.
E Register	Go to the registration window for the IP Device selected.
F Close	Cancel the registration of the IP device and exit the window.

When you click the **Register** button after selecting more than one IP devices on the scanned device list, the following window will be displayed. You can register those IP devices to your EN-V-R in this window.

[illegible]

Items	Descriptions	
A	Resolution Description	Descriptions of the image resolution modes in the IP-Device list.(R1, R2, R3, R4, R5, R6, R7, R8, R9, R10)
B	PTZ Install Description	Descriptions of the PTZ numbers in the IP-Device list. (P1, P2, P3, P4)
C	IP-Device list	IP-Device list to select from.
D	Apply to All	Click this button to copy the information of a selected IP-Device to all other devices.(Only Model, Login ID, and Login Password will be copied.)
E	Register	Click this button to confirm and save the registered IP-Device added.
F	Cancel	Click this button to cancel IP-Device registration.

IP-Device Modification



To modify an IP-Device registration, Click Modify registered IP-Device

Items	Descriptions
A	IP-Device ID IP-Device ID is displayed. (not allowed to modify)
B	Vendor Select the Vendor of the device.
C	Model Select how many channels the device support.
D	Name Change the Name as required.
E	IP Address Enter the IP Address to use with the selected device.
F	Input IP Address Range (not allowed to modify)
G	Getting Information from IP-Device (not allowed to modify)
H	VS Module ID Select the VS Module ID. Enter 0 for non-Vitek IP devices. Vitek products can be set to 0 to 15, and default is 0.
I	HTTP Port Enter the HTTP Port to use with the IP-Device. (Default is 80)
J	RTSP Port Enter the RTSP Port (Default is 554)
K	Login ID Type in the Login ID to use. (Default is root)
L	Login Password Type in the Login Password to use for the Login ID. (Default is root)
M	Confirm Password Type in the same password to confirm. (Default is root)
N	Checking available resolution Select the Video Resolution for the device. <i>Not used, all resolution is done at camera level</i>
O	Checking available PTZ camera Checkboxes to choose if PTZ is supported.
P	OK Click this button to apply the changed values.

Q

Cancel

Click this button to discard the changed values.

38.3. IP-Device Deletion



To delete a registered IP-Device, click **IP-Device, Camera Management** on the menu tree in the left pane. Then select an IP device to be deleted from the list. Click Remove IP-Device registration

38.4. IP-Device Homepage

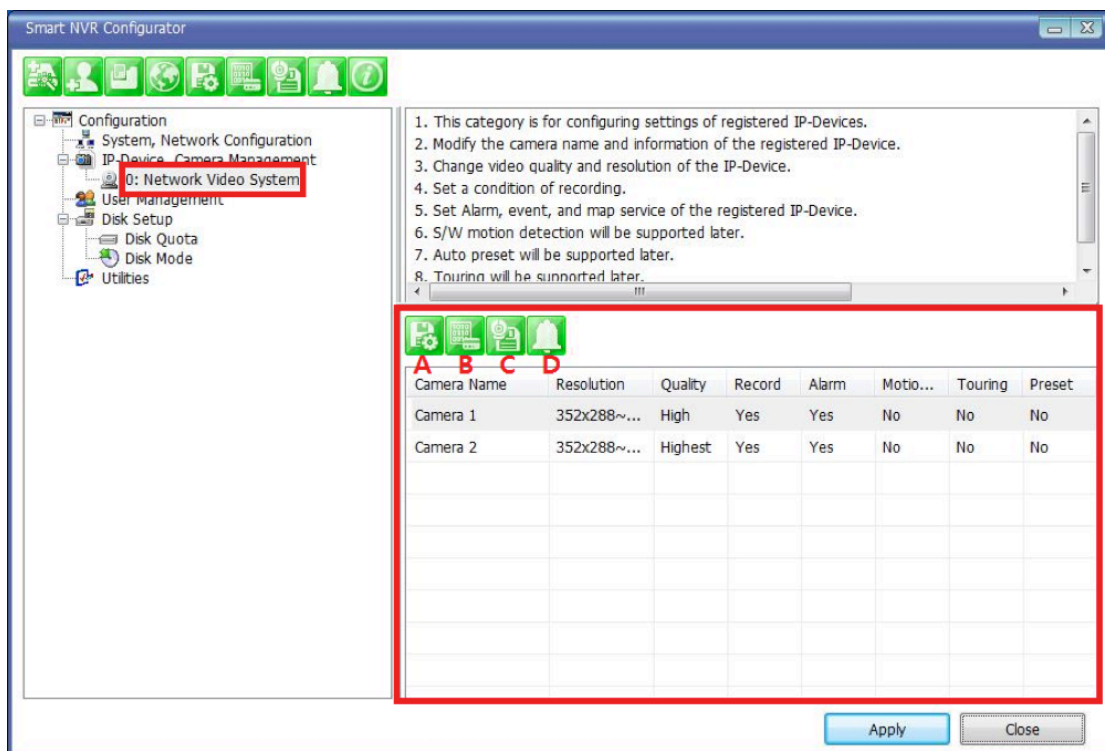






To go to the home page of an IP-Device, click the **IP-Device, Camera Management** on the menu tree. Then select the IP device. Click Go to IP-Device homepage

38.5. Camera Management

In this section, you will see how to manage the device information, video resolutions, recording configuration, and alarm event configuration. Firstly, select a camera name under **IP-Device, Camera Management** on the menu tree.

When you select **IP-Device, Camera Management** on the menu tree, it will show the **Camera Management** sub-menu. You can configure cameras here. The following picture shows when you selected an IP-device in the menu tree. The sub-menu toolbar changes accordingly to your selection.

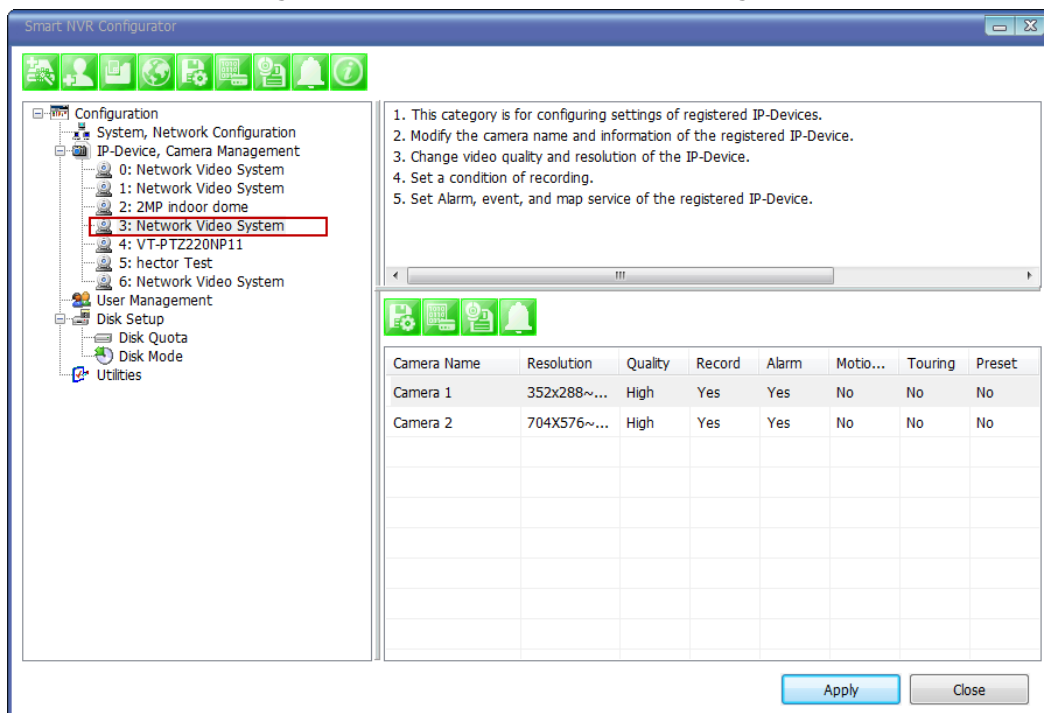


Items	Descriptions
 A Camera Information	Configure Information of the selected camera.
 B Resolution and Quality	Choose the resolution and quality of cameras.
 C Recording Conditions	Set up recording conditions.
 D Alarm and Map service settings	Configure Alarm and Map service functions.

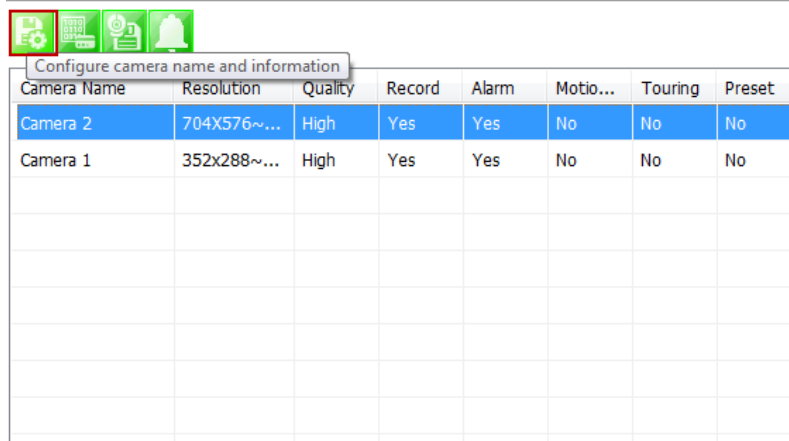
38.5.1. Configure Camera Name and Information



From the configuration list, select a camera to be assigned with a name.

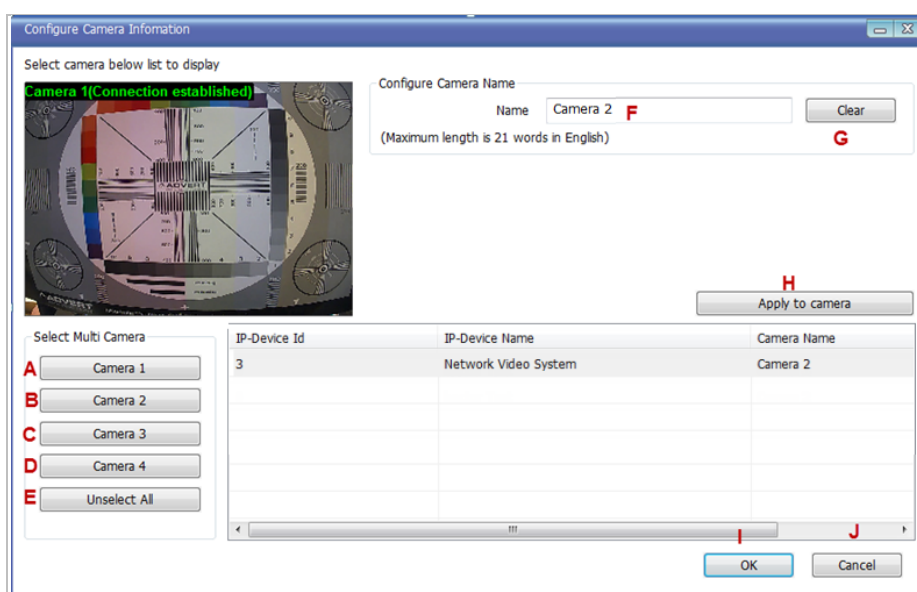


Then click on camera1 or camera 2, and then click Configure Camera Name and Information



Camera Name	Resolution	Quality	Record	Alarm	Motion...	Touring	Preset
Camera 2	704X576~...	High	Yes	Yes	No	No	No
Camera 1	352x288~...	High	Yes	Yes	No	No	No

The below image will be display, enter name (F), then click **Apply to camera** (H), then **OK**.

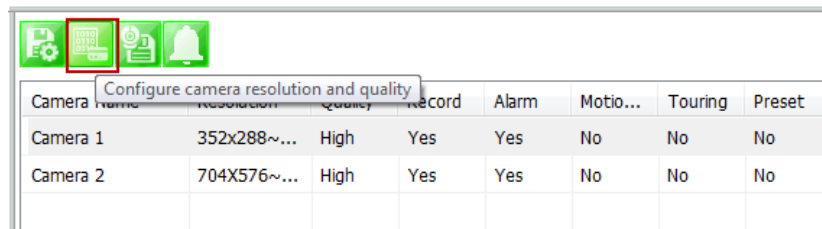


Items	Descriptions	
A,B,C,D	Camera Selection	Select one or more cameras for name assignment by clicking buttons.
E	Unselect All	Clear the device list which shows the selected cameras.
F	Name	Type in a camera name.
G	Clear	Clear the camera name field.
H	Apply to Camera	Apply the changed camera name to the system.
I	OK	Click this button to confirm the change and close the window.
J	Cancel	Click this button to cancel the change and close the window.

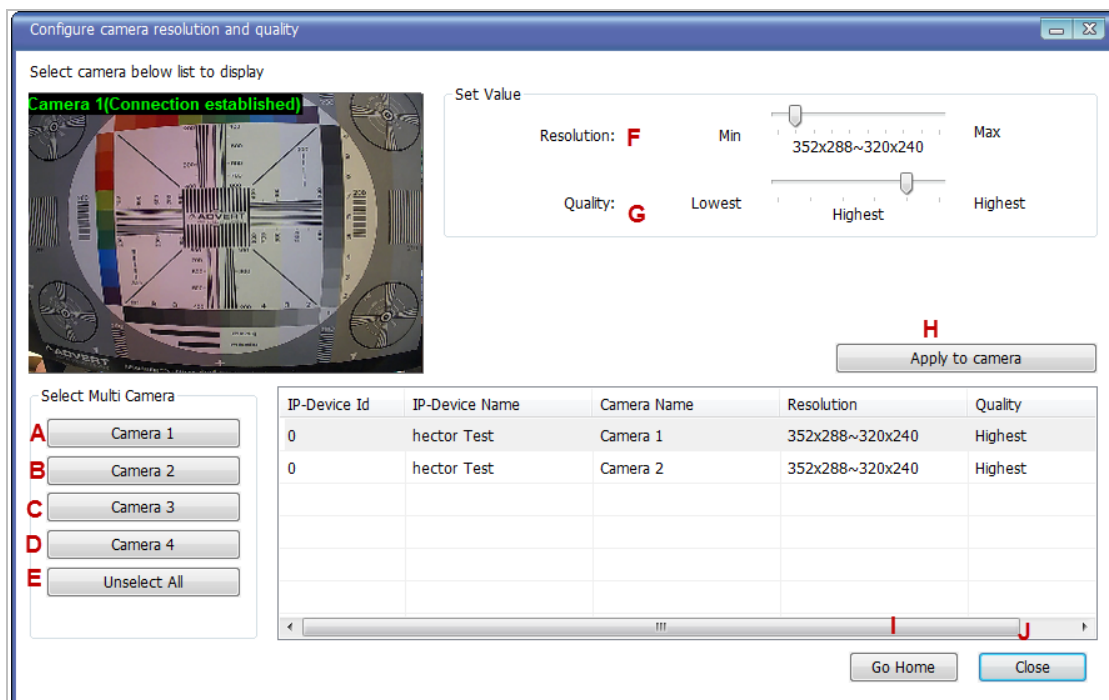
38.5.2. Camera Resolution, Quality



To configure a camera's resolution and video quality, select a camera to configure and click **Configure camera resolution and quality**



The below image will be display, adjust resolution (F), then click **Apply to camera** (H), then **OK**



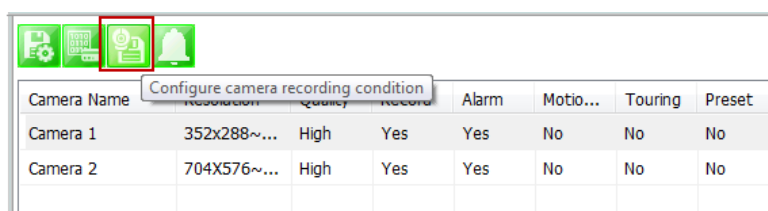
Items	Descriptions	
A,B,C,D	Camera Selection	Select one or more cameras by clicking buttons.
E	Unselect All	Clear the device list which shows the selected cameras.
F	Resolution	Select the video resolution.
G	Quality	Select the video quality.
H	Apply to Camera	Apply the selected video resolution and quality to the system.

I	Go Home	Go to the homepage of the product.
J	Close	Close and exit the window.

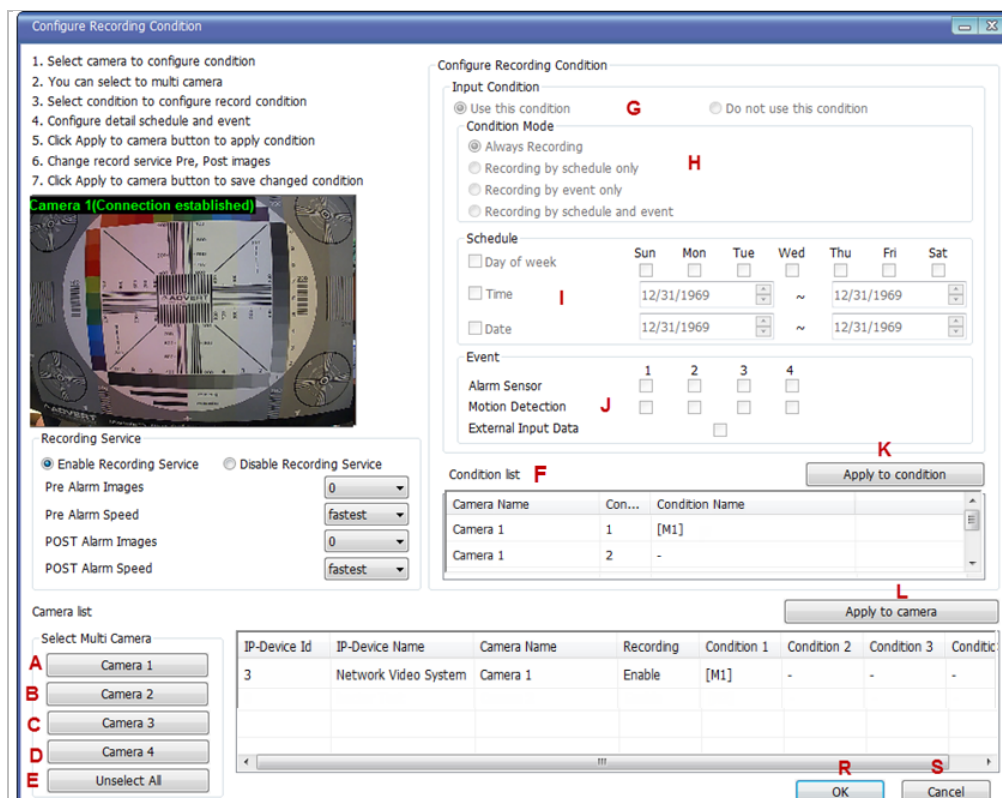
38.5.3. Configure Camera Recording Condition



To configure recording conditions, select a camera to configure, then click **Configure camera recording condition**



The below image is where you adjust the recording parameters.



Item	Description
A,B,C,D	Camera Selection Select one or more cameras by clicking buttons.
E	Unselect All Clear the device list which shows the selected cameras.
F	Condition List Define the condition for recording to be started.
G	Condition to use Decide whether to use the defined condition or not.
H	Condition Mode Select the condition mode for recording.
I	Scheduling Set up the schedule for recording.
J	Event setup Set up the event to initiate recording.
K	Apply to Condition Apply the configured schedule and event data to condition list.
L	Apply to Camera Apply the condition to camera.
M	Enable Recording Service Enable this to activate the recording. When this is not enabled, it won't be saved if a recording condition is set.
N	Pre Alarm Images Select pre-alarm images.
O	Pre Alarm Speed Select pre-alarm speed.
P	Post Alarm Images Select post-alarm images.
Q	Post Alarm Speed Select post-alarm speed
R	OK Click this button to confirm the change and exit the window.
S	Cancel Click this button to cancel the all the changed made in this session.

To setup recording, first click camera under *Condition list* (**F**). This enables the Configure Recording Condition (**G, H, I and J**)

Camera Name	Con...	Condition Name
Camera 1	1	[M1]
Camera 1	2	-

Now you can select your *condition mode* (**H**). Under condition mode you have four choices always, schedule, event and schedule and event. (In this example we will record by event only)

Condition Mode

☐ Always Recording
☐ Recording by schedule only
☒ Recording by event only
☐ Recording by schedule and event

Schedule: To schedule time and date of recording (**I**). (When schedule is activated in condition mode)

Schedule

☐ Day of week

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

☐ Time

AM 8:43	~	AM 8:43
---------	---	---------

☐ Date

12/28	~	12/28
-------	---	-------

Event: Here you can select Alarm or Motion (J)

Event	1	2	3	4
Alarm Sensor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External Input Data		<input type="checkbox"/>		

After completing your conditions selection click **Apply to condition (K)**

After apply to condition click **Apply to camera** (L), and then click **OK**(R)

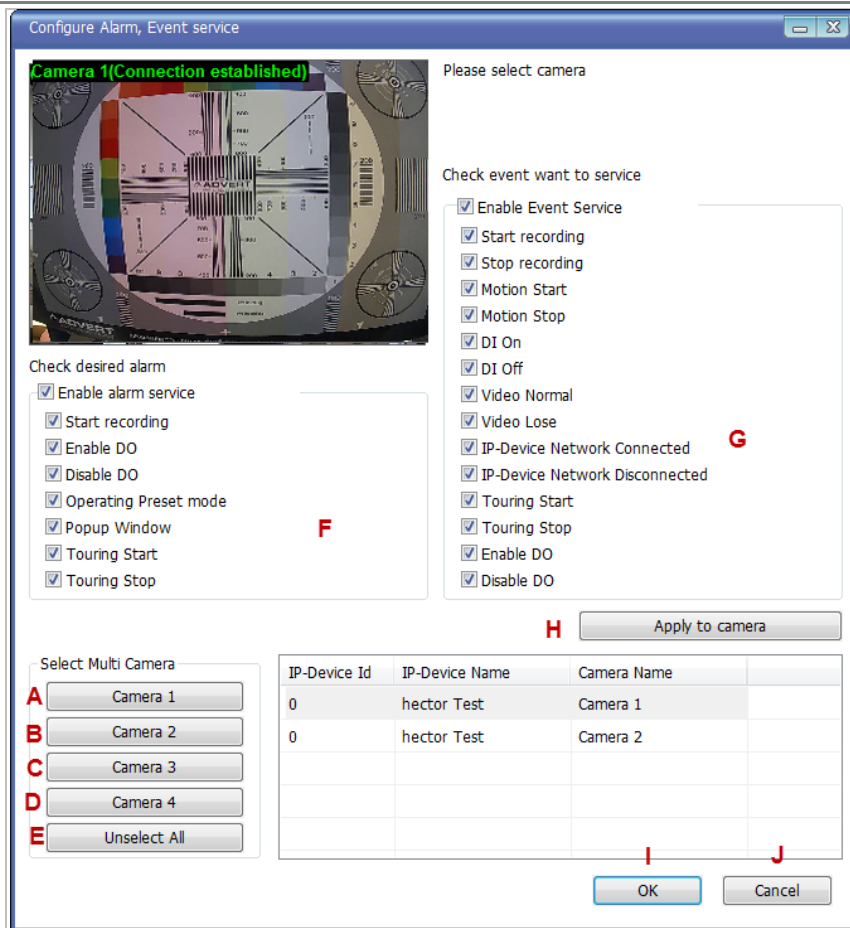
When that screen closes click **Apply**

Camera Name	Resolution	Quality	Record	Alarm	Motion...	Touring	Preset
Camera 1	352x288~...	High	Yes	Yes	No	No	No
Camera 2	704x576~...	High	Yes	Yes	No	No	No

38.5.4. Alarm, Event Configuration



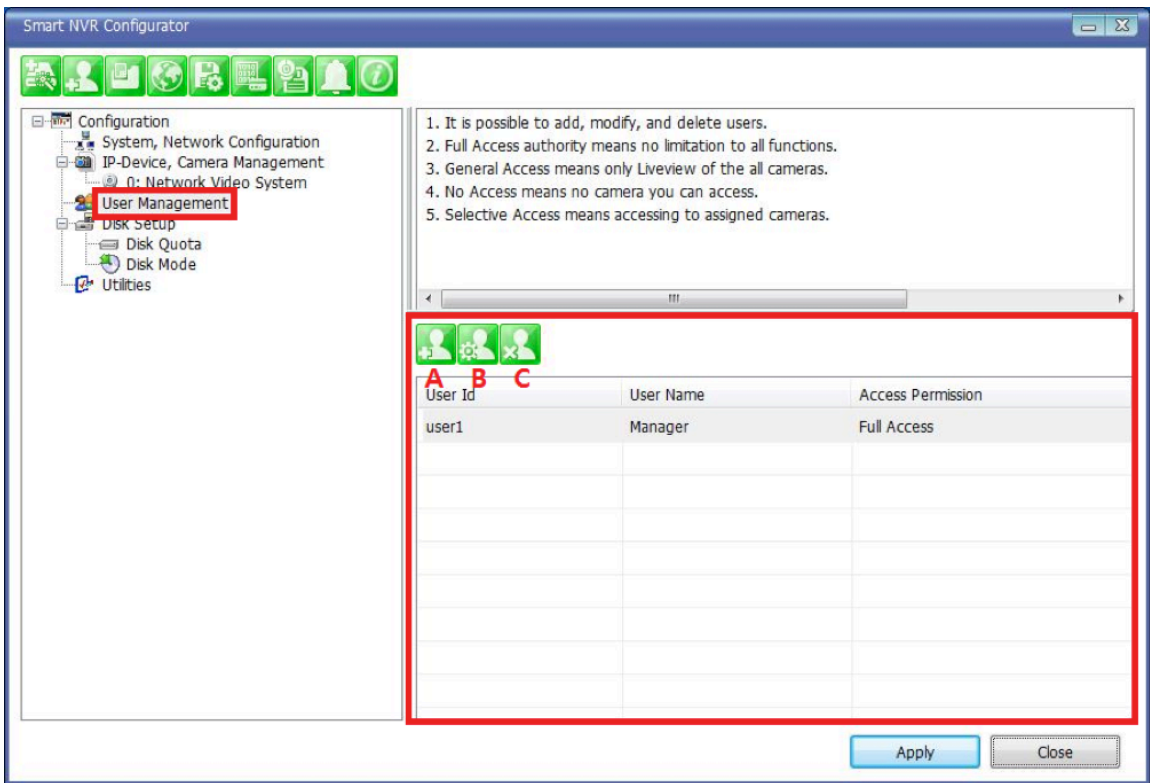
To configure the Alarm and Event features, select a camera to configure, and then click **Configure alarm, map service**






Item	Description
A,B,C,D	Camera Selection Select one or more cameras by clicking buttons.
E	Unselect All Clear the device list which shows the selected cameras.
F	Alarm Service Setup Put check marks on alarm types to use.
G	Event Service Setup Put check marks on event types to use.
H	Apply to Camera Click this button to apply the changes to the camera.
I	OK Click this button to confirm the change and exit the window.
J	Cancel Click this button to cancel the Alarm, Event configuration.

38.6. User Management

In this section, you will see how to manage user information. To start managing users, select **User Management** from the menu tree.



Items		Descriptions
	A	User Registration
	B	User Modification
	C	User Deletion

38.6.1. User Registration



To register a new user, click the 1'st button on the tool bar in the sub-menu toolbar.

Items	Descriptions
A	User ID Enter a new User ID to register.
B	Password Enter the Password for the new user.
C	Confirm password Enter the same Password for confirmation.
D	Name Enter the name of the new user to be registered.
E	System resource access permission Choose the level of permission for System resource access. <ul style="list-style-type: none"> All channels access: Viewing all cameras, Alarm, PTZ, Audio, Searching General access: Viewing all cameras only No access: An user account without any access to cameras Selective access: Access to only selected cameras and privileges.
F	System Permission Eight different modules can be set. The setup can be made on Module, camera, alarm, PTZ, Audio, and Search respectively. Enabling each module gives access permission to it.
G	OK Click this button to apply the registration of the new user.
H	Cancel Click this button to cancel the registration process.

38.6.2. User Modification



To modify a user's information, select the user's name then click the second button on the submenu toolbar. The **User Registration** window will come up on the screen, make the necessary changes and click **OK**.

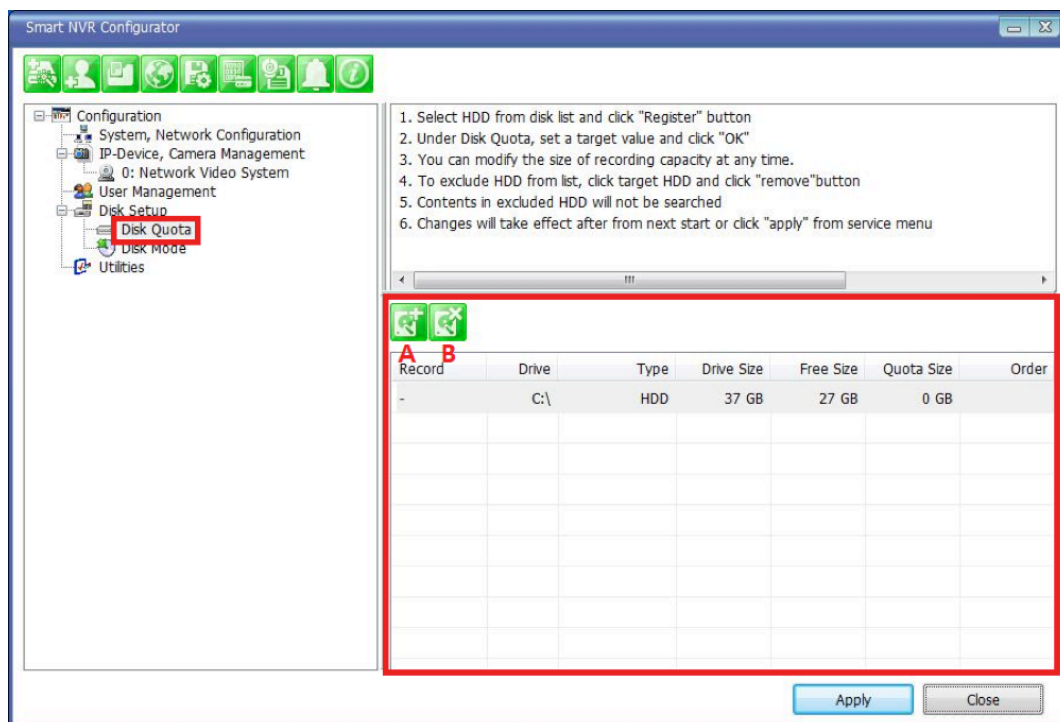
38.6.3. User Deletion





To delete an existing user, select the user name then click Remove Registered user account, another screen will pop up confirming to proceed with deletion, click **OK** to proceed.

38.6.4. Disk Setup

When you click **Disk Setup** on the menu tree, it will show two sub-menu items. One is **Disk Quota**, and the other is **Disk Mode**. The following window shows the **Disk Quota** mode.



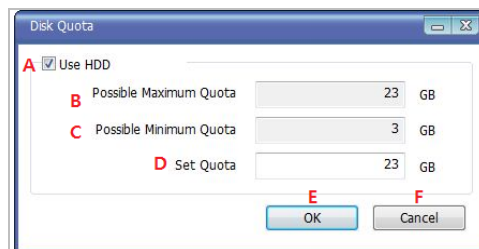
Items	Descriptions	
	A	Define the HDD for recording and configure the size of quota.
	B	Delete previously assigned disk quota.

38.6.5. Disk Quota Modification and Deletion



When EN-V-R program is installed, all local drives are assigned as recording devices. To modify the disk quota for recording, click **Disk Quota** on the menu list, and select the drive to be modified.

To change the disk quota size, click the 1'st button on the sub tool bar, or double click the drive on the device list. The following window will be displayed.

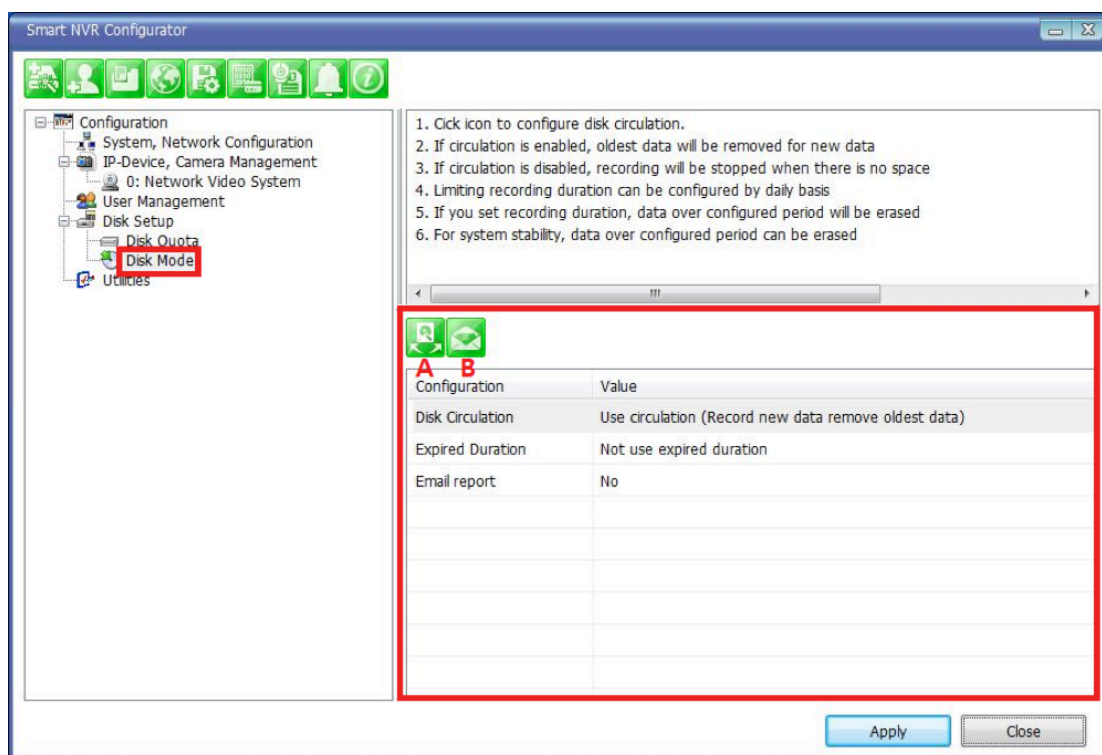




Item	Description
A Use HDD	Decide whether this HDD is to be used.
B Possible Maximum Quota	Display Possible maximum quota on this HDD.
C Possible Minimum Quota	Display Possible minimum quota on this HDD.
D Set Quota	Enter the desired size of disk quota for recording.
E OK	Click to apply the configured disk quota.
F Cancel	Click to cancel the disk quota configuration.

To delete the existing disk quota, click **Disk Quota** on the menu list. Then choose the drive quota to be deleted. Click the 2'nd button on the sub tool bar.

38.6.6. Disk Mode Change

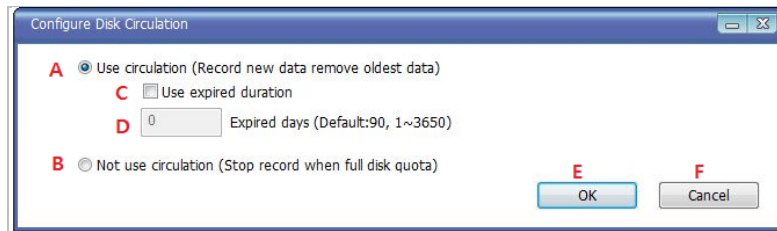
To modify the disk circulation style, click Disk Setup, and then **Disk Mode** on the menu tree.



Items		Descriptions
	A Disk Circulation Setup	Configure disk circulation type.
	B Disk Usage Report Setup	Configure email address for reporting.



Click the **Disk Circulation** in the list. The following window will be displayed.

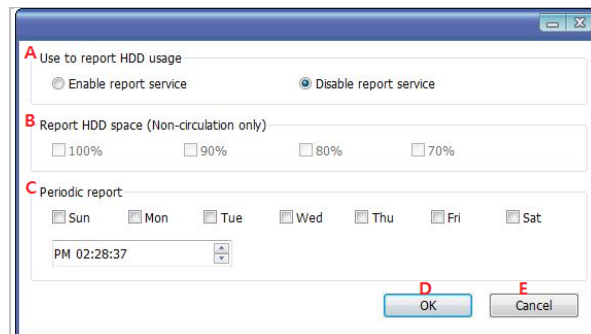


Item	Description
A	Use circulation Select this if disk circulation will be used.
B	Not use circulation Select this if disk circulation will not be used.
C	Use expired duration Decide whether the expiration will be used for recording. (This can be seen when "Use circulation" is selected.)
D	Expired days Enter the date when the recorded content will expire.
E	OK Click this to apply the Disk circulation settings.
F	Cancel Click this to Cancel Disk circulation settings.

Configure email reporting for disk usage



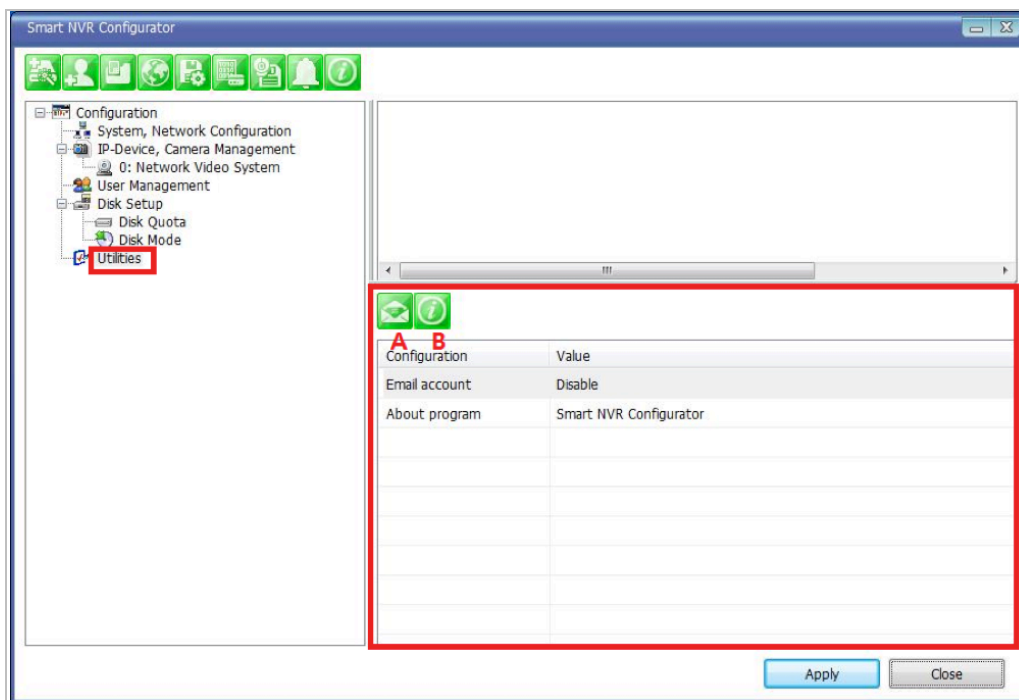
To modify the email notification behavior for hard disk recording.





Item	Description
A	Use to report HDD usage Choose whether to Enable or Disable the report service.
B	Report HDD space When disk circulation is not used, select the HDD size when it will be reported by email.
C	Periodic report Define when Periodic reports will be sent.
D	OK Click to apply the Email report settings.
E	Cancel Click to cancel Email report configuration.

38.7. Utilities

Select **Utilities** from the menu tree. You can perform two functions in **Utilities**, one is **Email Account Configuration** and the other is **About Program**.



Items		Descriptions
	A Email Account	Configure email account.
	B About Program	Display the information of EN-V-R program.

38.7.1. Email account Configuration



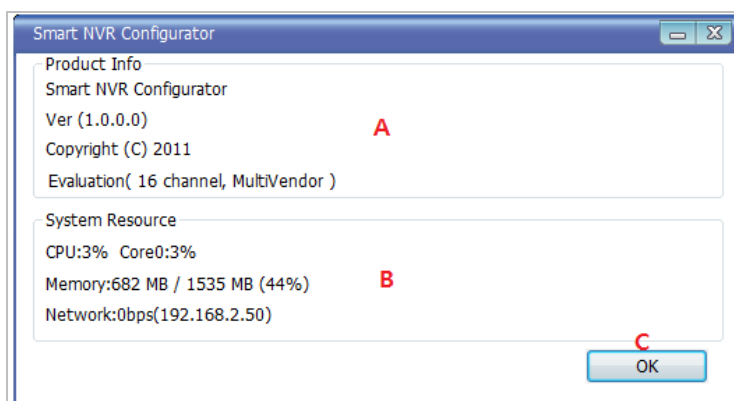
Once an email account is registered here, you can receive email notification from the EN-V-R program upon certain events. To configure an email accounts, click **Utilities** on the menu tree. Click *Configure email account for mail service*

Item	Description
A	Service
B	SMTP server
C	Authentication
D	Email user id
E	Email user password
F	Sender email
G,H,I	Recipient email #1,2,3
J	Email subject
K	OK
L	Cancel

38.7.2. About Program



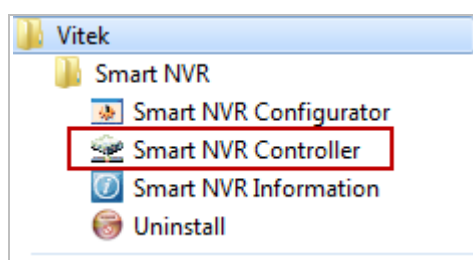
To displays the information of this program on the screen, Click *Information of this program*.



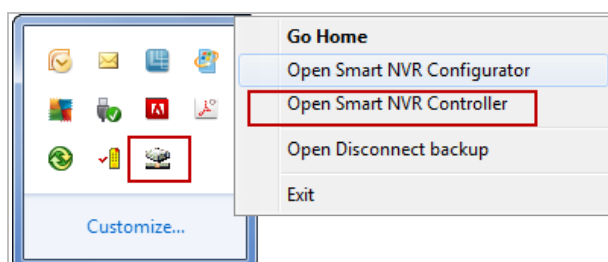
Items	Descriptions
A	About program Show the information about the EN-V-R running.
B	System Resource Displays the PC's system resource information.
C	OK Click this button to close the Window.

39. Using EN-V-R Controller

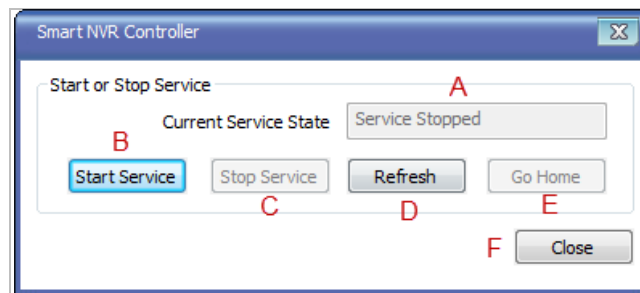
To open EN-V-R controller, click **Start >All Programs>Vitek>SMART NVR Controller**.



Smart NRV controller will be on the lower right part of the system tray. Then right click the icon a sub-window will display, click on Open Smart NVR Controller.



The following window will open



Items		Descriptions
A	Current Service State	Shows whether EN-V-R Service is running or stopped.
B	Start Service	Click this button to start EN-V-R Service when it's stopped.
C	Stop Service	Click this button to stop EN-V-R Service when it's running.
D	Refresh	Refresh the Screen.
E	Go Home	Go to the EN-V-R's built-in webpage.
F	Close	Close the EN-V-R Controller window.

40. Connecting to EN-V-R

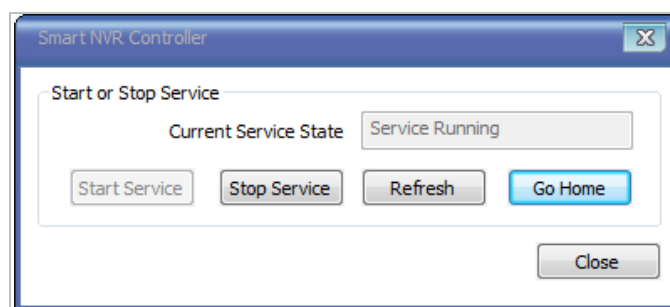
40.1. PC with EN-V-R installed

You can connect to EN-V-R in various ways as explained below.

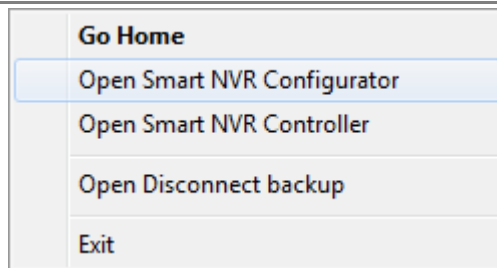
35. Click **Go Home** in EN-V-R Configurator



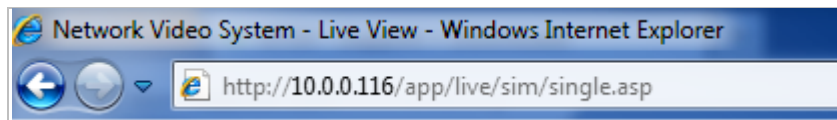
- EN-V-R Controller window.



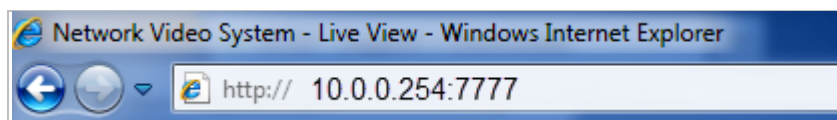
36. Click **Go Home** from the pop-up menu on the System Tray.



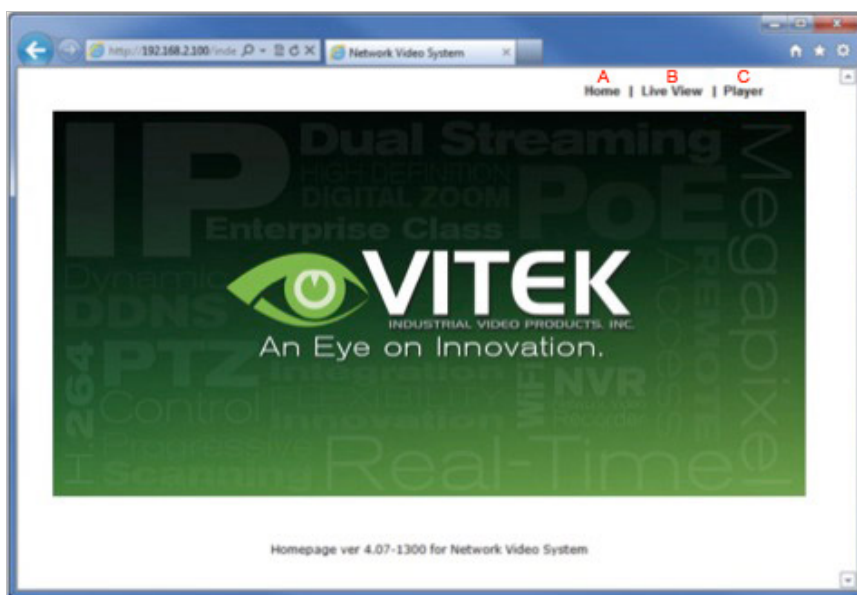
37. In Internet Explorer, enter the IP address of the computer that EN-V-R is running on.



38. In case that the HTTP port for EN-V-R is not 80 (default), the port number should be entered together with the IP address. (the example below assumes HTTP port of 7777)



After you successfully connecting to the EN-V-R homepage, you will see the following window.

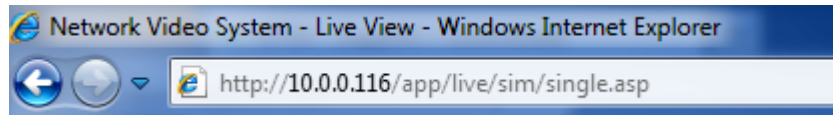


	Items	Descriptions
A	Home	Go to EN-V-R's homepage.
B	Live View	Click this button to execute Live View program. You can use various features such as live view, audio transmission, PTZ control, unconditional recording, etc.
C	Player	Click this button to search, record, and back up the video data sent from IP devices registered in EN-V-R.

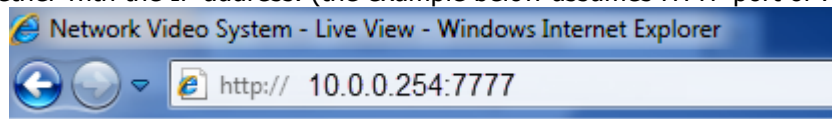
40.2. PC without EN-V-R

39. If your PC doesn't have EN-V-R program installed, type in the IP address of the PC where EN-V-R is running.

*Note: Refer to **Section 20 ENVI Series Viewer on page 90** for details on how to use ENVI Viewer program. Refer to **Section 30. ENVI Smart Player on page 123** for details on how to use ENVI Smart Player program.*



40. In case that the HTTP port for EN-V-R is not 80 (default), the port number should be entered together with the IP address. (the example below assumes HTTP port of 7777)



Detailed Specifications		VTC-IR402NZ39	VTC-IR402NZ922
Sensor			
Resolution			
Video Encoding		1/2.9" Sony® CMOS	
Video Output		2.1 MegaPixel (1080p / 720p)	
Frame Rate		H.264 / MJPEG Dual Streaming	
S/N		Ethernet (RJ45) Male & CVBS (BNC)	
IR Illuminators		30fps max	
IR Range		More than 50 dB (AGC Off)	
Dynamic Intensity IR LEDs		40 850nm IR LEDs	
Lens		MegaPixel IR Corrected 3-9mm Varifocal Zoom	150' MegaPixel IR Corrected 9-22mm Varifocal Zoom
Aufo-Focus-Zoom		YES - 3x Smart Motion Zoom	YES - 2.4x Smart Motion Zoom
Digital Zoom			
Minimum Illumination			
Day/Night		0 ~ x32	
Electronic shutter speed		0.0008 Lux (@AGC Max. DSS x2)	
White Balance		Mechanical IR Cut Filter (True Day/Night)	
Brightness		Auto (1/ 30sec ~ 1/ 60,000sec)	
DSS (Sens-Up)		ATW / ATWext / One Push / Manual	
Noise Reduction		YES	
WDR		OFF / AUTO	
Privacy		3D-DNR	
Motion Detection		YES	
ACE (Adaptive Color Enhancement)		YES (10 Zones)	
Advanced OSD Functions		YES	
		YES	
Memory Card		Motion Activated Pointing Zoom, Defog, Dynamic IR, BLC/HLC, Motion Deblur, Pixel Defect	
Connectivity		Compensation, Title Set, Mirror, Flip	
Audio / Alarm I/O		MicroSD - up to 64GB	
Cooling Fan		Up to 16 simultaneous user connections	
Weather Resistance Rating		2-way Audio & Alarm in/out	
Operating Conditions		Built-In Cooling Fan	
Input Voltage		IP-68	
Power Consumption (12VDC)		-22°-122°F (-30°-50°C) < 80% RH	
Power Consumption (24VAC)		12VDC / 24VAC / PoE	
Power Consumption (PoE)		1A (12Watt)	
Dimensions		650mA (7.8Watt)	
		215mA	
		4.375" x 3.875" x 10.875" (W x H x D)	

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LIMITED PRODUCT WARRANTY

VITEK products carry a three (3) year limited warranty. VITEK warrants to the purchaser that products manufactured by VITEK are free of any rightful claim of infringement or the like, and when used in the manner intended, will be free of defects in materials and workmanship for a period of three (3) years, or as otherwise stated above, from the date of purchase by the end user. This warranty is nontransferable and extends only to the original buyer or end user customer of a VITEK Authorized Reseller.

The product must have been used only for its intended purpose, and not been subjected to damage by misuse, willful or accidental damage, caused by excessive voltage or lightning.

The product must not have been tampered with in any way or the guarantee will be considered null and void.

This guarantee does not affect your statutory rights.

Contact your local VITEK Reseller should servicing become necessary.

VITEK makes no warranty or guarantee whatsoever with respect to products sold or purchased through unauthorized sales channels. Warranty support is available only if product is purchased through a VITEK Authorized Reseller.



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CLASS A DIGITAL DEVICE (INDUSTRIAL & COMMERCIAL ENVIRONMENT)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to CE and FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



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