

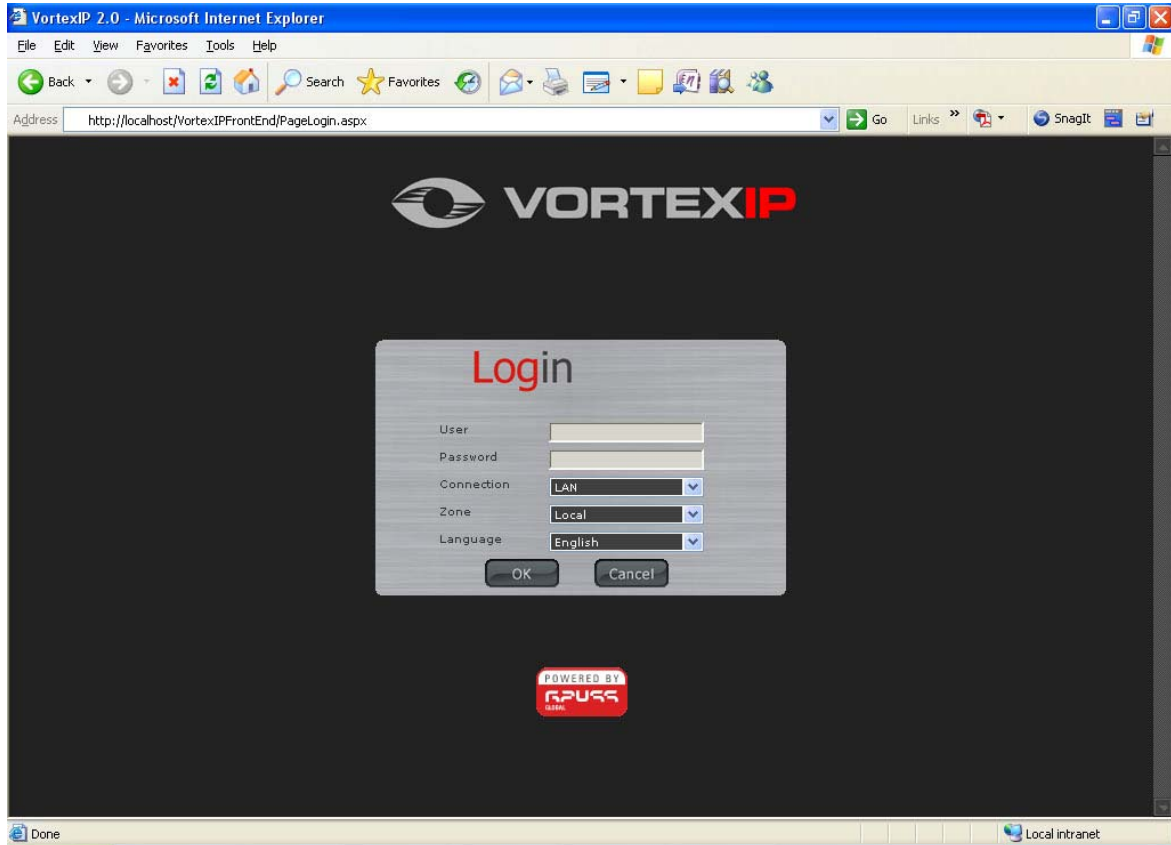
# **Configuration Guide**

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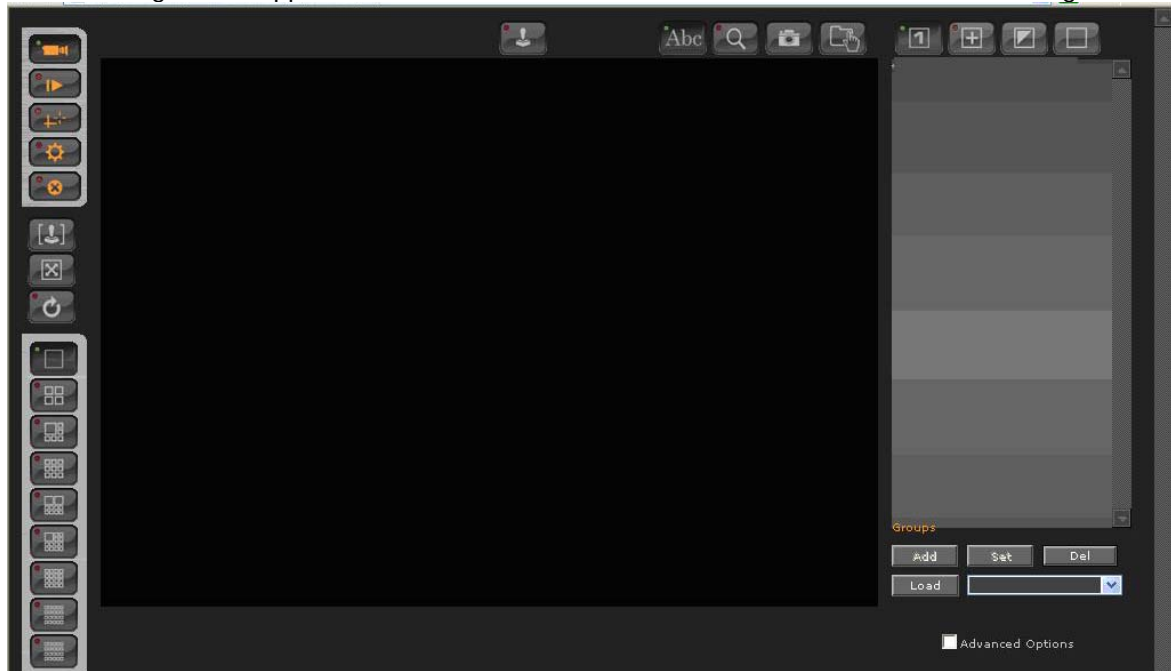
## Program Access

To access the program, open Internet Explorer and in the address bar enter the following:  
<http://localhost>



The default user name is root. By default, there is no password.

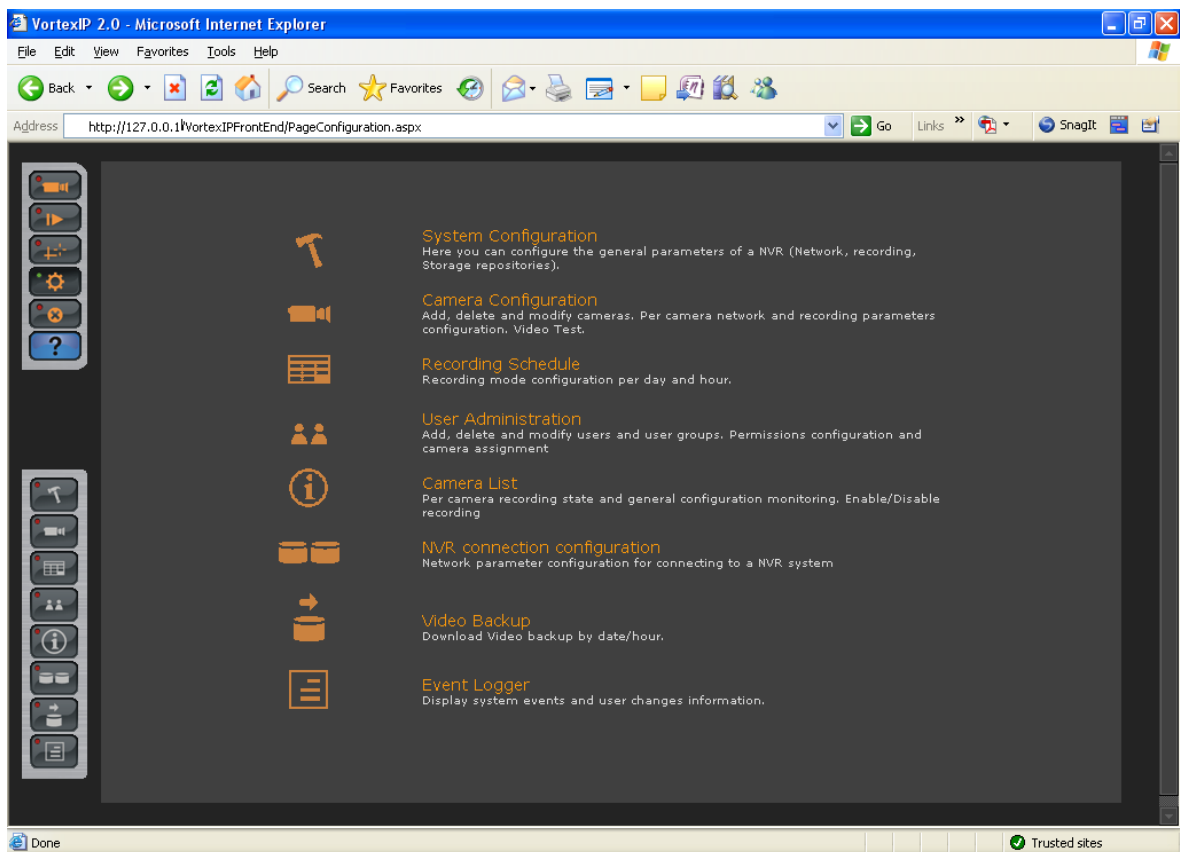
The following screen appears. In this screen, click this icon  to access the configuration.



# Configuration

Configuration is divided into 7 different sections:

- System Configuration
- Camera Configuration
- Recording Schedule
- User Administration
- Camera List
- NVR connection configuration
- Video Backup

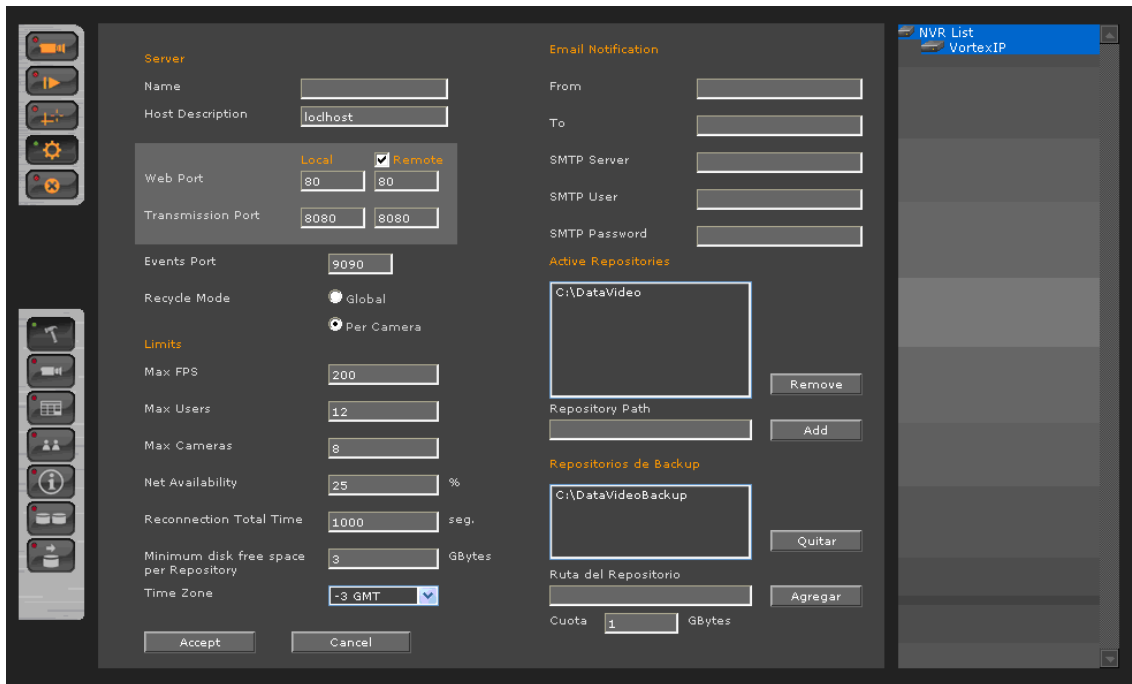


**Exit the system:**

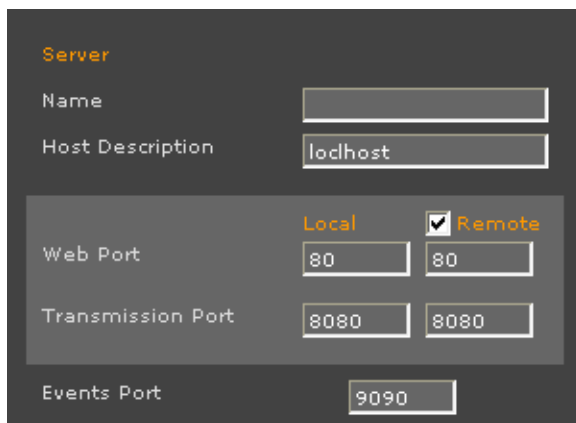
Click this icon  to log out the user's session.

## System Configuration

To access system configuration click this icon . The following screen will appear.



## Server Section



**Name:** Server name. The server name can be used to reference its location.

**Host:** Host name or server's IP address. If "remote" is checked, the server can be managed remotely.

**Web Port:** TCP port for Web server. The default web port is 80. This port can be changed but must match with IIS (see Appendix F of this manual)

**Transmission Port:** TCP port which uses the server to transmit video to your remote clients.

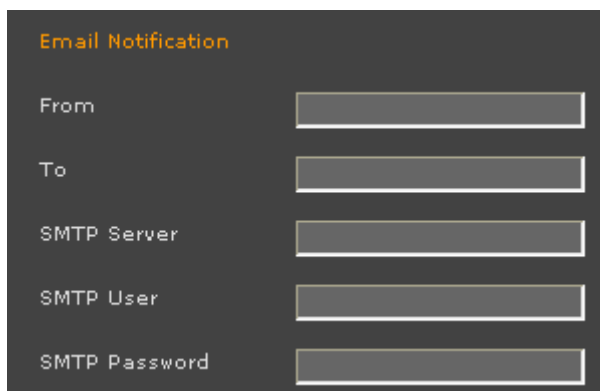
**Event Port:** TCP port which listens to the server to receive events from the IP cameras or video servers previously configured. Through this port, VortexIP will notify if any event has occurred such as motion detection and video loss.

## Recycled Mode

**Global:** In this mode, VortexIP recycles videos from all the cameras when there is no more space available on the repositories.

**Per Camera:** This mode allows the user to recycle video on a per camera basis, i.e. VortexIP recycles the video from the camera which does not have enough available space according to the quota configured.

## Email Notification Section



The screenshot shows a configuration panel titled "Email Notification" with a dark background. It contains five input fields, each with a label to its left:

- From: [input field]
- To: [input field]
- SMTP Server: [input field]
- SMTP User: [input field]
- SMTP Password: [input field]

**From:** The sender's address of the email notification.

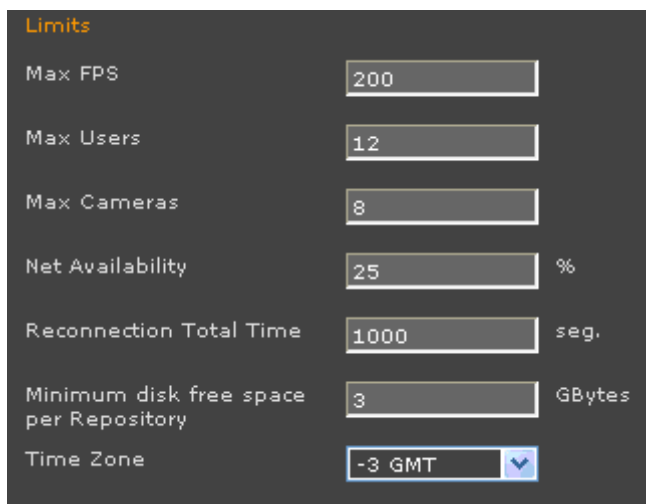
**To:** The recipient's address of the email notification.

**SMTP server:** This can be a host name or IP address. It has to be configured without authentication.

**User SMTP:** User name of the account

**Password SMTP:** Password of the account

## Section Limits



The screenshot shows a configuration panel titled "Limits" with a dark background. It contains seven configuration items:

- Max FPS: [input field with value 200]
- Max Users: [input field with value 12]
- Max Cameras: [input field with value 8]
- Net Availability: [input field with value 25] %
- Reconnection Total Time: [input field with value 1000] seg.
- Minimum disk free space per Repository: [input field with value 3] GBytes
- Time Zone: [dropdown menu with value -3 GMT]

**Max FPS:** maximum frames per second that VortexIP processes. **The maximum frames per second is 1000 per server.**

**Max Users:** maximum number of simultaneous connections. **The maximum users are 256 per server.**

**Max Cameras:** **The maximum number of cameras is 120 cameras per server.**

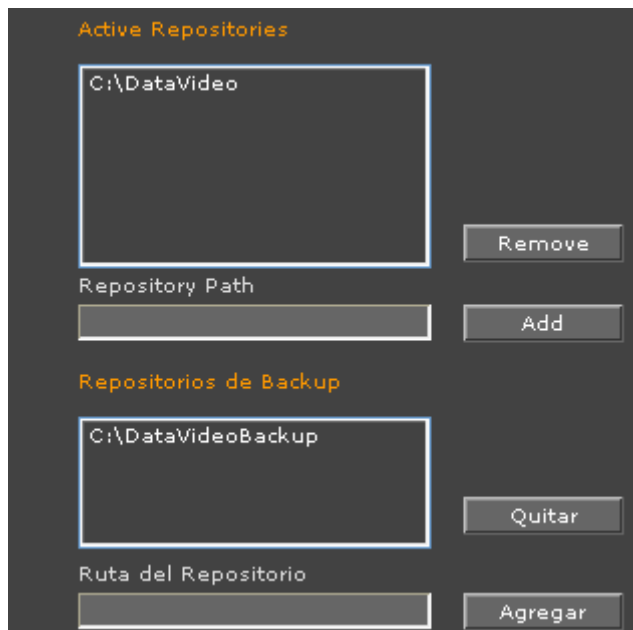
**Net Availability:** This setting must be configured with extreme care according to the quality of the connection that it has with the cameras. If the connection with the cameras is Slow or low quality, configure this setting near 10%. If the connection is good, you can configure this setting near 90%. This parameter is used to distinguish how many disconnections with the camera can be handled before reporting it as *disconnected*.

**Reconnections total time:** Maximum time VortexIP will try to reconnect a camera when connection problems occur. Once this value is reached, the camera will no longer be connected.

**Minimum space for repository:** This setting allows you to configure the minimum amount of space (GB) to be reserved for each repository.

**Time Zone:** This setting must be configured with extreme care according to the time zone where VortexIP recording server is installed.

## Repository



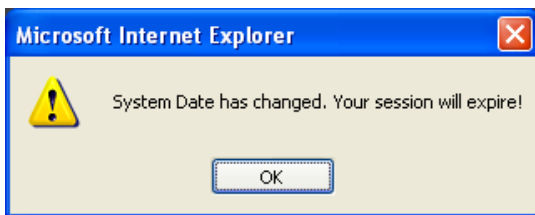
**Active Repositories:** Displays a list of the repositories VortexIP will be using for video recording. The default path for the repositories is c:/datavideo.

- **Remove:** To remove a repository, select it and click **Remove**. Before removing a repository you must first add a replacement.
- **Add:** To add a repository, enter the desired path, and then click **Add**. You may only add repositories in the local drives.

**Backup Repositories:** Shows the list of repositories that VortexIP uses to export video to.

- **Remove:** To remove a repository, select it and click remove. If you leave this field empty, you will not be able to export video.
- **Add:** Enter the desired path and then click **Add**. You may only add repositories in the local drives.

To apply changes, click **Accept**. Once the changes have been applied, the following message may appear:

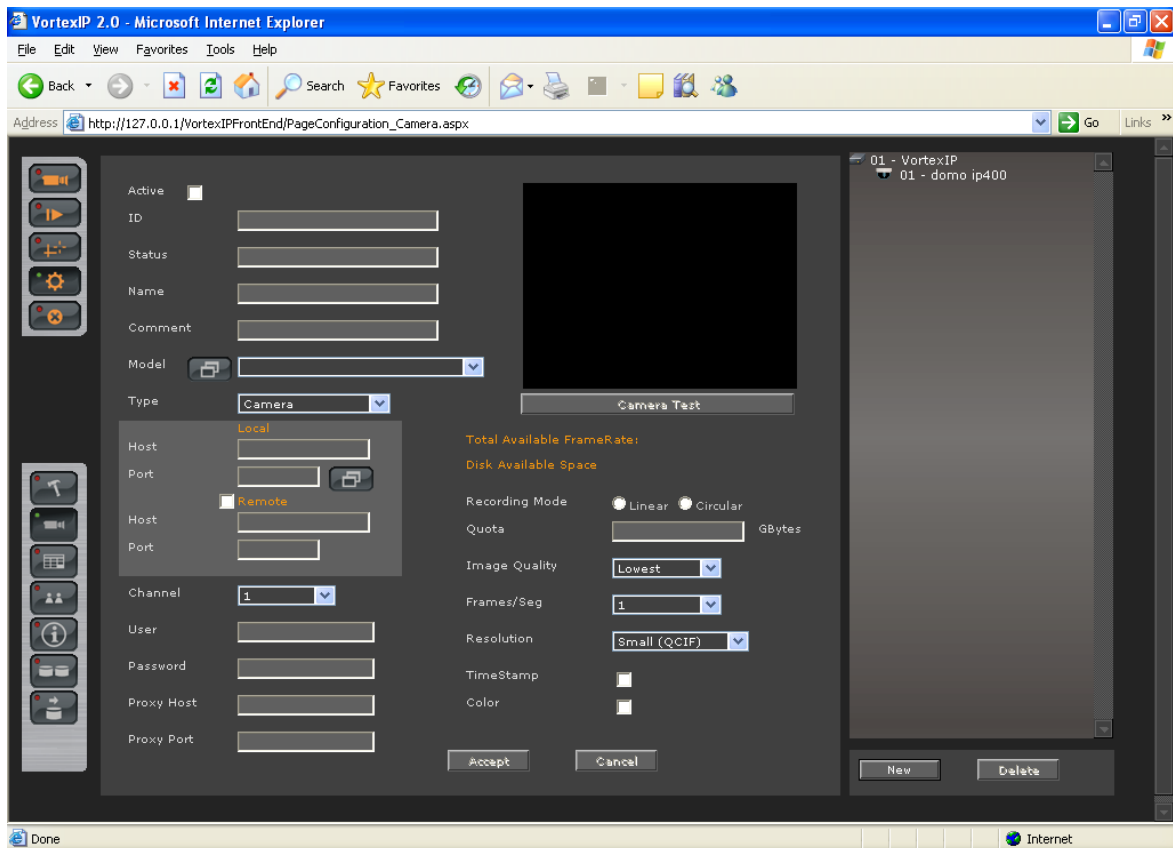


Once you have completed this step, you will need to login to VortexIP again.

## Camera Configuration



To access **Camera Configuration**, click this icon . The following screen will appear.





## New Camera

To add a new camera, click **New** on the camera tree.

Then, enter in data related to the camera.



Active

ID

Status

Name

Comment

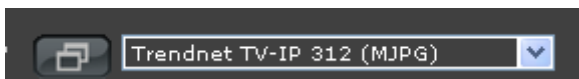
**ID:** Identification number of the VortexIP camera. Once created, you will not be able to modify it. Remember this later for motion detection.

**Status:** Displays the status of the camera (i.e. Record or Stopped).

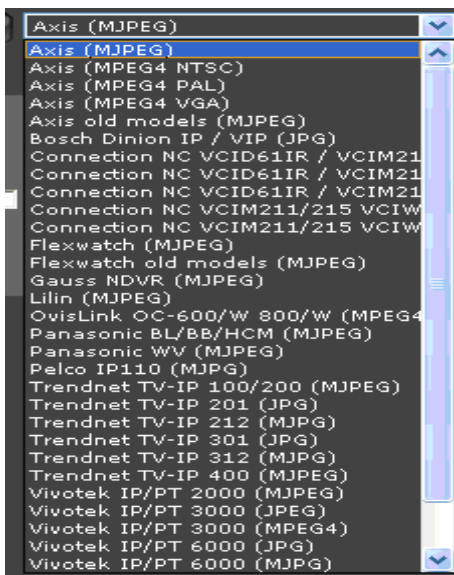
**Name:** Name of the camera.

**Comment:** Comments about the camera.

**Model:** Make and Model of the camera.

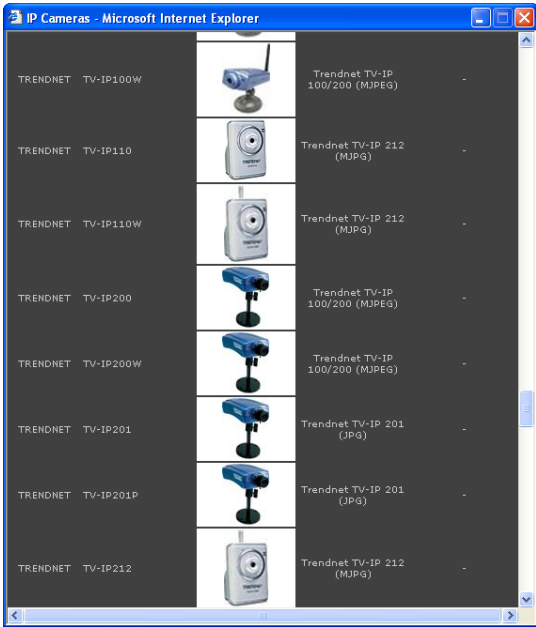


Trendnet TV-IP 312 (MJPG) ▼



- Axis (MJPEG)
- Axis (MJPEG)
- Axis (MPEG4 NTSC)
- Axis (MPEG4 PAL)
- Axis (MPEG4 VGA)
- Axis old models (MJPEG)
- Bosch Dinion IP / VIP (JPG)
- Connection NC VCID61IR / VCIM21
- Connection NC VCID61IR / VCIM21
- Connection NC VCID61IR / VCIM21
- Connection NC VCIM211/215 VCIW
- Connection NC VCIM211/215 VCIW
- Flexwatch (MJPEG)
- Flexwatch old models (MJPEG)
- Gauss NDVR (MJPEG)
- Lilin (MJPEG)
- OvisLink OC-600/W 800/W (MPEG4)
- Panasonic BL/BB/HCM (MJPEG)
- Panasonic WV (MJPEG)
- Pelco IP110 (MJPG)
- Trendnet TV-IP 100/200 (MJPEG)
- Trendnet TV-IP 201 (JPG)
- Trendnet TV-IP 212 (MJPG)
- Trendnet TV-IP 301 (JPG)
- Trendnet TV-IP 312 (MJPG)
- Trendnet TV-IP 400 (MJPEG)
- Vivotek IP/PT 2000 (MJPEG)
- Vivotek IP/PT 3000 (JPEG)
- Vivotek IP/PT 3000 (MPEG4)
- Vivotek IP/PT 6000 (JPG)
- Vivotek IP/PT 6000 (MJPG)

Press



**Type:** Type of camera: Camera, Dome and Video Server. Dome type allows you to use Pan and Tilt cameras.



## Camera connectivity

### Local:

**Host:** Host name or local IP address

**Port:** video port

If you want to view cameras remotely, check **Remote**.

### Remote:

**Host:** Host name or IP local address

**Port:** video port

**MacAddress:** Camera's 12-digit Mac address.

**Host Proxy:** Host name or Proxy server IP address to save the camera. If there is no need to specify any of them, leave the box blank.

**Port Proxy:** [Proxy Server port](#). It is recommended you always specify a port even though it is not going to be used to record through a Proxy Server. This parameter will be ignored if the **Host Proxy** is empty.

**Channel:** Number of the camera's video channel if the camera is a video server or a camera with multiple video inputs.

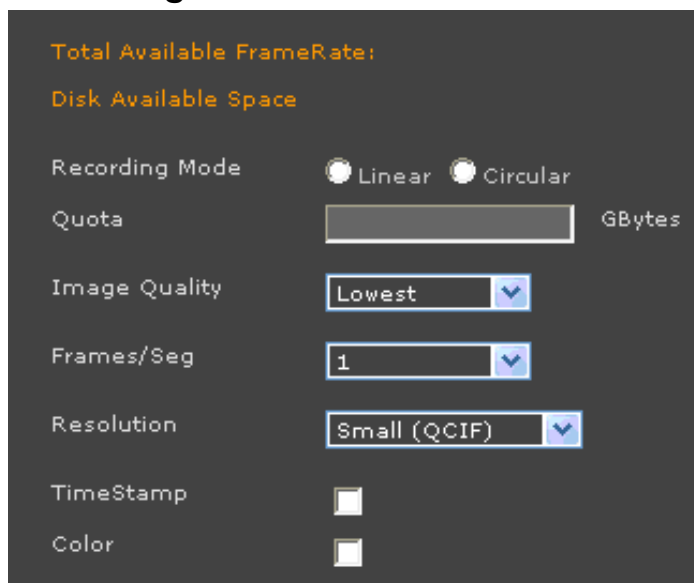
**User:** Camera's user name.

**Password:** Camera's password.

To access the configuration settings of the camera click on the icon below:



## Recording Mode



**Linear:** VortexIP stores video from the camera until the quota limit stipulated has been reached (in the event of recycle per camera) or until there is no more available space in the repositories (in the event of global recycle). In both cases, once the storage condition has been exceeded, VortexIP will stop recording, until the user frees enough space.

**Circular:** In this mode, VortexIP recycles the oldest videos if there is no more space available in the repositories or if the quota limit stipulated for this camera has been reached (depends on the recycled mode).

**Quota:** The minimum amount of space (GB) to be reserved for storing video. You only have to take into consideration this parameter when the recycled mode is *Per camera*.

When setting the quota, please keep the following in mind:

- Will there only be one camera or multiple cameras be installed.

- When you are installing the first camera, pay attention to the graphic indicating the amount of available space. Subtract that amount by 20%. This will help avoid running out of space.
- In the first case divide the remainder between the number of cameras that will be installed. In the second case you should only use the remaining 50% and then divide by the number of cameras (if the quota is less than 5%, it is recommended to increase the space available by adding another hard disk).

**Quality of the Image:** This refers to the image compression. There are 5 levels: Lowest, Low, Medium, High, and Highest. If you are not able to change these settings, click on the icon for the camera.

**Frames/sec:** The number of frames per second. If you are not able to change these settings, click on the icon for the camera.

**Resolution:** This refers to the resolution of the images. If you are not able to change these settings, click on the icon for the camera.

**Color:** If you want the images in color, check this option. If you are not able to change these settings, click on the icon for the camera.

**Timestamp:** Choose this image to display time and date on the image. If you are not able to change these settings, click on the icon for the camera.

## General Information

The following information will be displayed when a new camera is created. This is reported by VortexIP server.

**Frame Rate Total Available:** Quantity of available FPS at the VortexIP. It helps to know how many frames per second remain for assigning to a camera.

**Available Space at the Disk:** VortexIP maximum space. It helps to know how much space is available for the camera

## Delete Camera

To delete a camera, first you have to select it from the camera tree and then click **Delete**.

## Camera Edit

To view the settings of a camera, click on one of the cameras in the camera tree. All parameters for the camera that can be modified will appear.

- 
- 
- 
- 
- 
- 
- 
- 
- 
-

Active

ID: "01" @ 01 - VortexIP

Status: Stopped

Name: domo ip400

Comment:

Model: Trendnet TV-IP 400 (MJPEG)

Type: Domo

Host: Local  
192.168.1.244

Port: 8084

Remote  
Host: 88.2.184.  
Port: 8084

Channel: 1

User: admin

Password: \*\*\*\*\*

Proxy Host:

Proxy Port: 8080

Camera Test

Total Available FrameRate: 199 Fps  
Disk Available Space: 71188.72 MBytes

Recording Mode:  Linear  Circular

Quota: 2 GBytes

Image Quality: Lowest

Frames/Seg: 1

Resolution: Small (QCIF)

TimeStamp:

Color:

Accept Cancel

01 - VortexIP

- 01 - domo ip400
- Domo Sensor Axis241Q
- Trendnet Esp. TV-IP301
- Camara Axis
- Grupo Boluda 1
- Panasonic BB-HCM381
- Casa 1 Axis 241QA
- Casa 2 Axis 241QA
- Casa 3 Axis 241QA
- Town Axis 213
- Univ Axis 213
- Grupo Boluda 2
- Univ. Axis 213D
- Build. Axis 211
- Street Axis 210
- France Axis 211
- Axis 213
- Labo Ch1 Axis 241Q
- Univ. Axis 2120
- Obs. Axis 206
- Labo Ch2 Axis 241Q
- Panasonic WW-MF284
- Trendnet Brz. TV-IP100
- Flexwatch FW5440
- Vivotek IP7135
- Vivotek PT6112
- Vivotek IP6112
- Panasonic Ns202
- Trendnet TV-IP100 MX
- Grupo Boluda 3
- Grupo Boluda 4
- Trendnet TV-IP201 MX
- Trendnet TV-IP301 MX
- Trendnet TV-IP400 MX
- Camara 1
- Camara 2
- Camara 3
- Camara 4

New Delete

## Record Schedule



For accessing the record schedule press this button.

The following screen shows the record schedule of the configured cameras.

For seeing the configuration or for changing the recording mode, first select *camera*.

Then, select the *mode* by clicking on the menu of the recording modes.

And finally, use your mouse to select the desired days and times in the schedule grid.



If you click this icon, the entire grid will be filled in for the selected recording option.

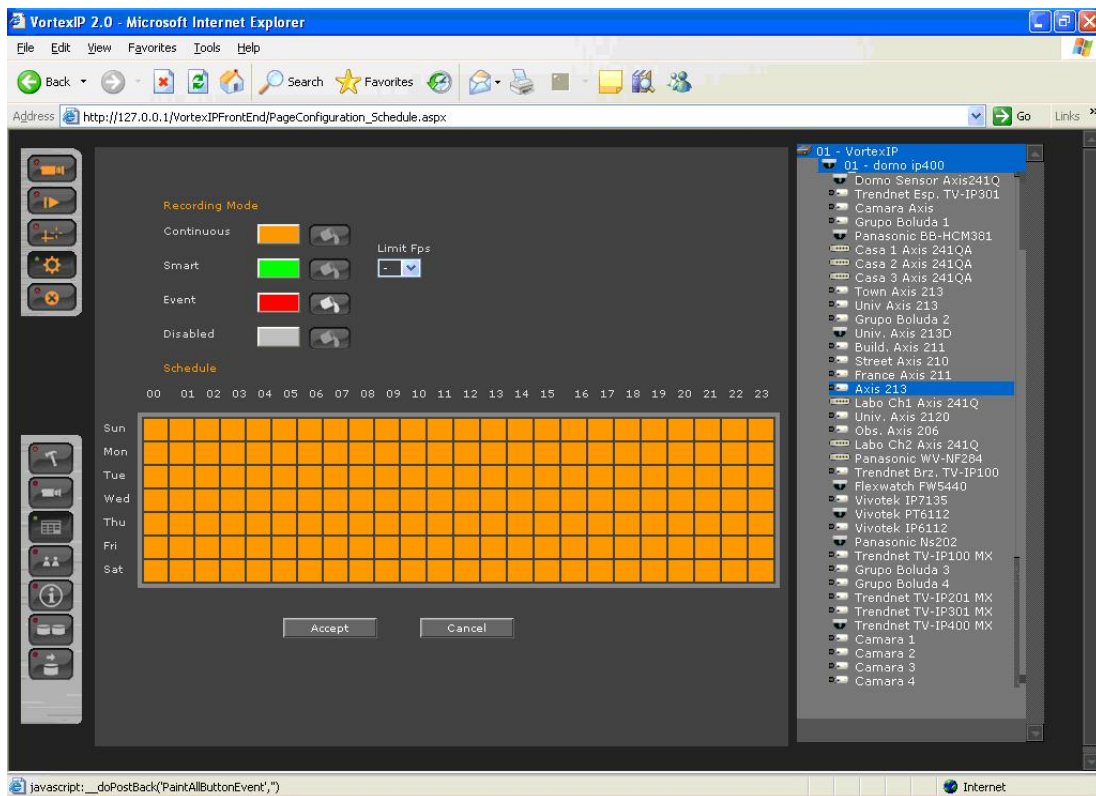
## Recording Modes

**Continuous:** It records continuously at the FPS speed previously specified.

**Smart:** It records continuously at FPS, and when it detects movement it increase the speed on FPS previously specified.

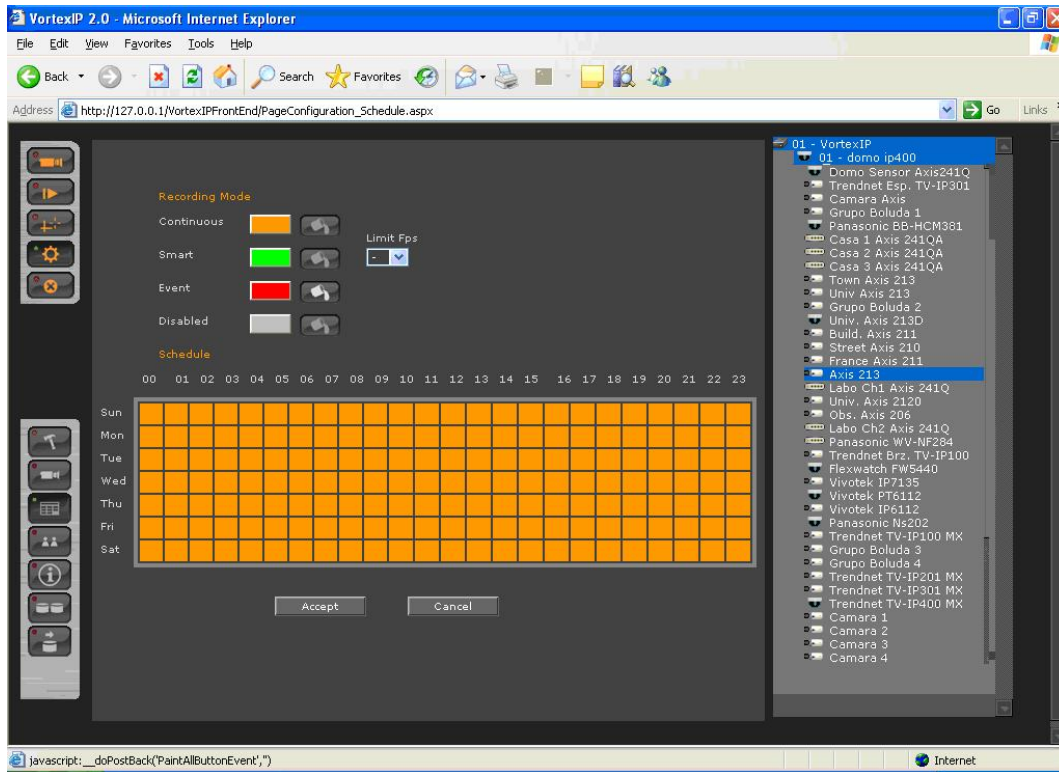
**Event:** It records when it receives events from the IP camera. The events can be: movement detection or other configured on the camera previously.

**Disabled:** It does not record.



If you keep the mouse click pressed, you will be able to paint quickly on the grid.

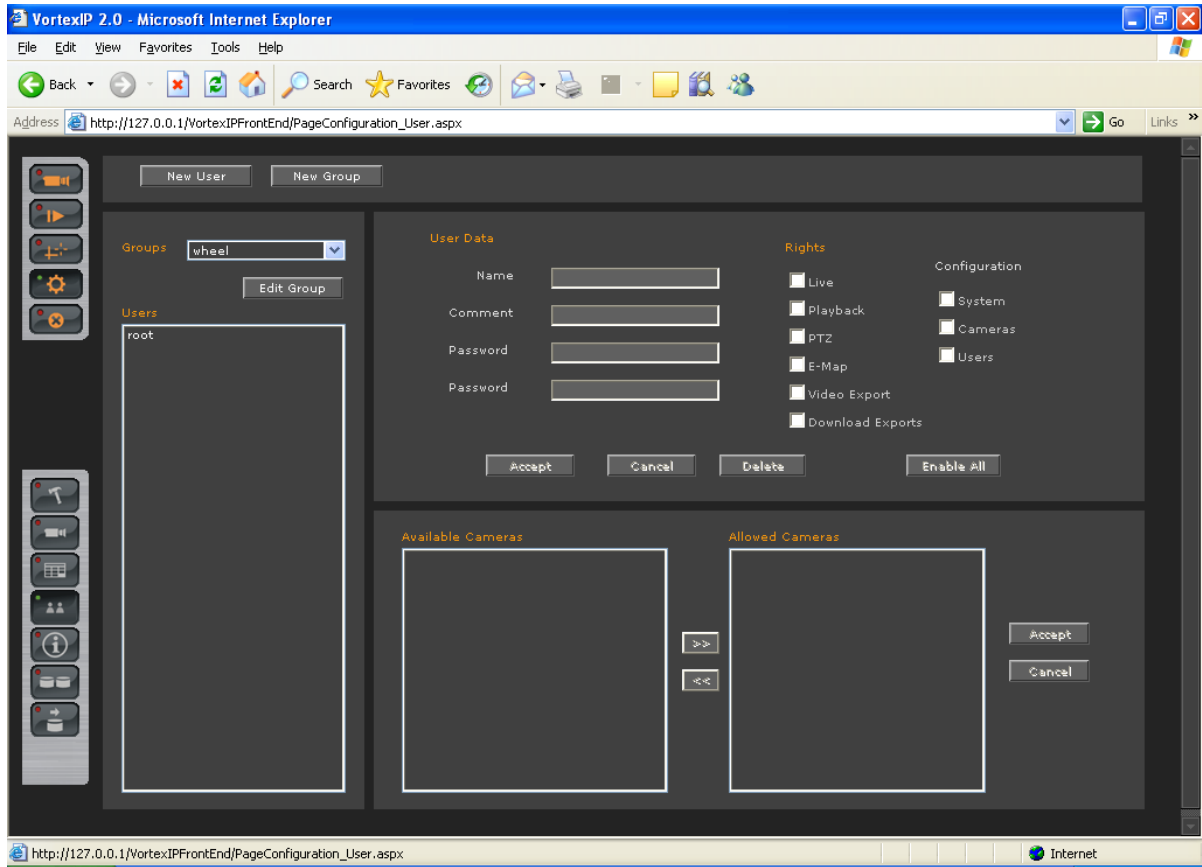
To apply changes press **Accept**.



## Users' Administration



For accessing users' Administration press the button



VortexIP allows the creation of groups with privileges template. At the same time, inside these groups users will be created and which their maximum privileges are those from the group, allowing to control the scaling privileges.

Since all the users have to be part of a group, first you will have to create the group and then the user.



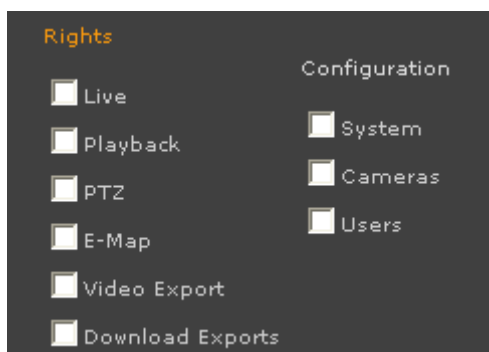
The system does not allow the creation of groups containing the same name as users.



The group "wheel" corresponds to the administration group and by default has complete control of the system. So, the root user belongs to the group "wheel".



## User/Group Privileges Profiles



**Live:** If this option is checked, the user/group will have access to live monitoring.

**Playback:** If you check this option, the user/group will have access to play video only on the assigned cameras.

**PTZ:** If you check this option, the user/group will have access to PTZ controls only on the assigned cameras.

**E-Map:** If you check this option, the user/group will have access to visualizing the electronic map only on the assigned cameras.

**Backup:** If you check this option, the user/group will have Access to making backups only, on the assigned cameras

**Export videos:** If you check this option, the user/group has access to export recordings, across media player.

**Download exports:** If you check this option, the user/group has access to export recordings to a format, across media player remotely.

**System Configuration:** If you check this option, the user/group will have Access to read and modify the configuration of the system.

**Cameras' Configuration:** If you check this option, the user/group will have Access to read and modify the configuration of the cameras.

**Users' Configuration:** If you check this option, the user/group will have Access to read and modify the configuration of the users.

## *Groups*

### New Group

To create a new group, press the button **New Group**. Then, you have to establish the group privileges, and finally press **Accept**.

Groups will not have a password so this field will be ignored.

## Removing a Group

To erase a group, first, select the same menu for groups and then press the button **Edit**. Afterwards, you will be able to press the button **Erase**.

## Assigning Cameras to a group

First, make sure you select the group from the group's list. Then, assign the cameras by pressing this button >>. Then, press **Accept**.

## Removing Cameras from a group

First, make sure you select the group from the group's list. Then, remove the cameras by pressing this button <<. Then, press **Accept**.

## *Users*

### New user

To create a new user, first, select the group to which it will be related and then press the button **New User**. Then, establish the specific user's privilege, and finally press **Accept**.

### Removing a User

To erase a user, first, select the group where it belongs then select the user and then press the button **Edit**. Next, you will be able to press the button **Remove**.

### Assigning the cameras to a user

First, select the group where it belongs and then select the user from the user list. Next, assign the cameras by pressing this button >>. Finally, press **Accept**.

### Remove cameras from a user

First, select the group where it belongs and then select the user from the users' list. Next, remove the cameras by pressing this button <<. Finally press **Accept**.

### Modify a user

First, select the group where the users belong. Then, select the user and press the **Edit** button.

**User:** The user's login name.

**Comment:** Comments about the user.

**Password:** The user's password.



The only user with privileges to register, modify or remove VortexIP NVR is root.



Remember that you have to press **Save Configuration** when you are sure that you want to keep the changes made at the VortexIP data base.

## List of Cameras



To access the list of cameras press this icon.

The following screen displays the list of cameras configured for recording. To enable or disable one or more cameras, select the camera(s) from **Camera Selection** (you may use Shift or Ctrl for a multiple selection) and then press the respective button.

The screenshot shows the VortexIP 2.0 web interface in Microsoft Internet Explorer. The address bar shows the URL: http://127.0.0.1/VortexIPFrontEnd/PageConfiguration\_CameraList.aspx. The interface includes a navigation sidebar on the left, a main content area with a table of camera configurations, and a 'Camera Selection' panel on the right. The table has columns for Nvr, Nvr Id, Camera, Cam Id, Host, Port, Channel, Quality, Resolution, FPS, State, and Space/Quota. The 'Camera Selection' panel contains a list box with the entry '[VortexIP].domo ip400'. At the top of the main content area, there are buttons for 'Auto Refresh', 'Save', 'Enable', and 'Disable'.

Nvr	Nvr Id	Camera	Cam Id	Host	Port	Channel	Quality	Resolution	FPS	State	Space/Quota
VortexIP	01	domo ip400	01	192.168.1.244	8084	1	Lowest	QuarterCIF	1/1	Recording	0/2 GB

**Auto refresh:** If this option is already checked then, this page will auto refresh every 30 seconds allowing having the recording status of the cameras.

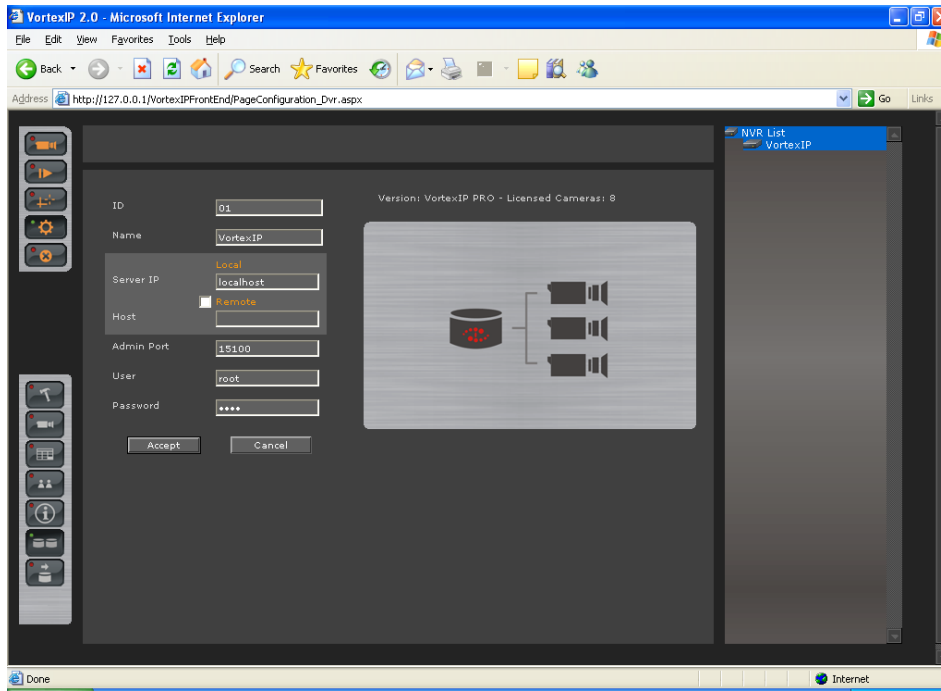


Remember if you select/deselect a camera you have to press **Save** to apply the changes made at VortexIP data base.

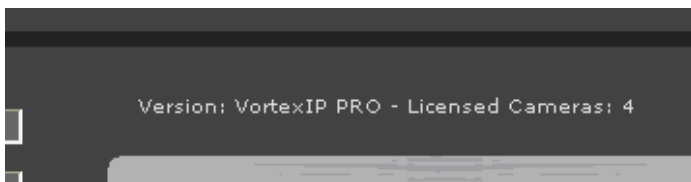
## NVRs Configuration



To access NVRs configuration, click this icon .



At the top of the screen we see the version of VortexIP and the number of licensed cameras.



## New NVR

To add a VortexIP Network Video Recorder (NVR) press the button **New NVR**. Enter in data related to NVR and then click **Accept**.

## Edit NVR

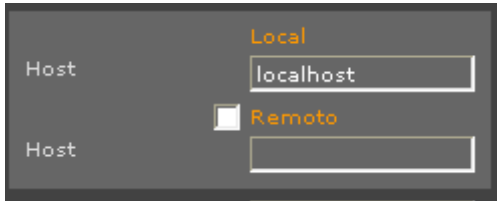
To view NVR administration setting, select on the NVR on the NVRs tree .

**ID:** NVR's ID.

**Name:** NVR name.

**Host:** Host name or NVR IP address.

Under Local, enter the local IP address of the server. To access the server remotely, check "remote" and enter the Public IP address.



The screenshot shows a configuration window with two sections. The first section is titled 'Local' and has a radio button selected next to it. Below this, there is a 'Host' label and a text input field containing the text 'localhost'. The second section is titled 'Remote' and has an unselected radio button next to it. Below this, there is a 'Host' label and an empty text input field.

**Port:** VortexIP NVR's TCP/IP administration port. By default, its port 80.

**User:** VortexIP NVR user name.

**Password:** VortexIP NVR password.

## Remove NVR

To remove a VortexIP NVR first, select it from the NVRs' tree. Then, click **Remove NVR**.



**Remember to click Accept in order to save settings.**

## Video Backup.



Click this icon to access the Video Backup screen.

The following information is displayed: NVR ID, Cam ID, Camera, Export ID, Start Date, Stop Date, Progress, File Size (if available for downloading) and Delete.

The screenshot shows the VortexIP 2.0 web interface in Microsoft Internet Explorer. The browser title is "VortexIP 2.0 - Microsoft Internet Explorer" and the address bar shows "http://127.0.0.1/VortexIPFrontEnd/PageConfiguration\_BackUp.aspx". The interface includes a navigation sidebar on the left with icons for home, play, search, settings, and other functions. The main content area features a table with the following data:

Nvr Id	Cam Id	camera	ExportID	Start Date	Stop Date	Progress	File Size	Download	Delete
01	01	domo ip400	39F8C0F5171E8428209A6299B96428D1	2008/05/21 18:10	2008/05/21 18:18	11 %			

The table also has an "Auto Refresh" checkbox in the top right corner. The browser status bar at the bottom shows "Done" and "Internet".

## Event Logger

Display System events and user changes information. This option allows the user to search for any activity in the cameras or in VortexIP by date and time.

# Appendix A: Recording by motion detection. Events Setting

## *Events Reception*

VortexIP has three different mechanisms to receive events from IP devices such as IP cameras, IP video servers or third parties programs.

Events reception mechanisms supported by VortexIP are:

- **TCP Event**
  - VortexIP receives TCP messages in a tabulated format.
- **HTTP CGI Events**
  - VortexIP receives petitions to a CGI page and converts them into TCP events.
- **SMTP Events**
  - VortexIP receives e-mails, processes them and converts them into TCP events.

Events are processed by VortexIP. It is necessary that it is configured correctly if you wish to record using one of the following methods:

- *Event*: records when any event takes place.
- *Smart*: continuously records at 1 frame per second; when an event takes place it is ready to record to the configured FPS value.

## **SMTP Events**

VortexIP receives the emails sent by the cameras acting as an outgoing email server.

Since SMTP is an authenticated server, NVR users have to be configured in the camera as follows.

SMTP data to configure in the camera are:

SMTP: <IP address or Host Name>

User: **root**

Password: **root**

Authentication: **Login**

## **Syntax of the field FROM of the e-mail**

In the "From" field of the e-mail, enter a valid e-mail address.

For example:

From: [ndvr@ndvr.com](mailto:ndvr@ndvr.com)

## **Syntax of the field TO of the e-mail**

For VortexIP to *detect* a received email as a sent event by the camera, we must follow this syntax:

TO: <IdCamera>.InternalVideoCaptureEvent.<Post-Alarm>@<domain.com>

Where:

<IdCamera>: The camera's ID, for example, 207. This field can not contain any blank spaces.

<Post-Alarm>: The duration in seconds of the event's post-alarm. This field can not contain any blanks spaces.

<Domain.com>: The domain name with a correct syntax, for example mycamera.com, ndvr.com. This field can not contain any blank spaces. It is not necessary for the domain to be registered or even exist.

Example:

[08.InternalVideoCaptureEvent.15@VortexIP.com](mailto:08.InternalVideoCaptureEvent.15@VortexIP.com)

When the NVR receives an email sent to the receiving party with an email address "08.InternalVideoCaptureEvent.15@VortexIP.com" it will generate an associated event for the camera with ID = 08 and with a 15 seconds post-alarm.

## ***Events Notification by E-Mail – TrendNet TV-IP201/W***

### **SMTP Configuration and sending of the Events by E-mail**

To configure the data of the SMTP server on the IP camera we have to go to the menu:  
**"Trigger"**

The screenshot shows the 'Trigger' configuration page in the TrendNet Internet Camera Server interface. The page has a blue header with the TrendNet logo and 'Internet Camera Server TV-IP201'. A left sidebar contains navigation buttons for Home, System, Date/Time, Video/Audio, Network, Users, Trigger (selected), Upload, RS485, Information, and Tools. The main content area is titled 'Trigger' and contains two sections: 'Trigger Email' and 'Trigger Output'. The 'Trigger Email' section includes a checkbox for 'Enable Trigger Email', fields for 'SMTP Server Address', 'Sender e-mail Address', 'Receiver e-mail Address1', 'Receiver e-mail Address2', 'User Name', and 'Password', and dropdown menus for 'Sending Interval' (set to 5) and 'Sending Times' (set to 5). There is also a checkbox for 'Send a test e-mail'. The 'Trigger Output' section includes a checkbox for 'Enable Trigger Output' and a dropdown menu for 'Time Interval' (set to 5). At the bottom of the configuration area is an 'Access Control' button. Below the configuration area are 'Save' and 'Cancel' buttons. A copyright notice 'Copyright © 2005 TRENDnet. All Rights Reserved.' is visible at the bottom of the page.

**Enable Trigger Email:** Check this option.



**SMTP Server address:** Enter the IP address of the server that acts as a SMTP server for receiving events by E-mail.

**Sender e-mail address:** Enter a valid E-mail address for the sender. For example: *"ndvr@ndvr.com"*

**Receiver e-mail address1:** Enter the E-mail address with the syntax as explained above. For example: [1034.InternalVideoCaptureEvent.30@ipcam.com](mailto:1034.InternalVideoCaptureEvent.30@ipcam.com)

**User name:** enter **root**

**Password:** enter **root**

**Sending Interval:** Specify time between every event.

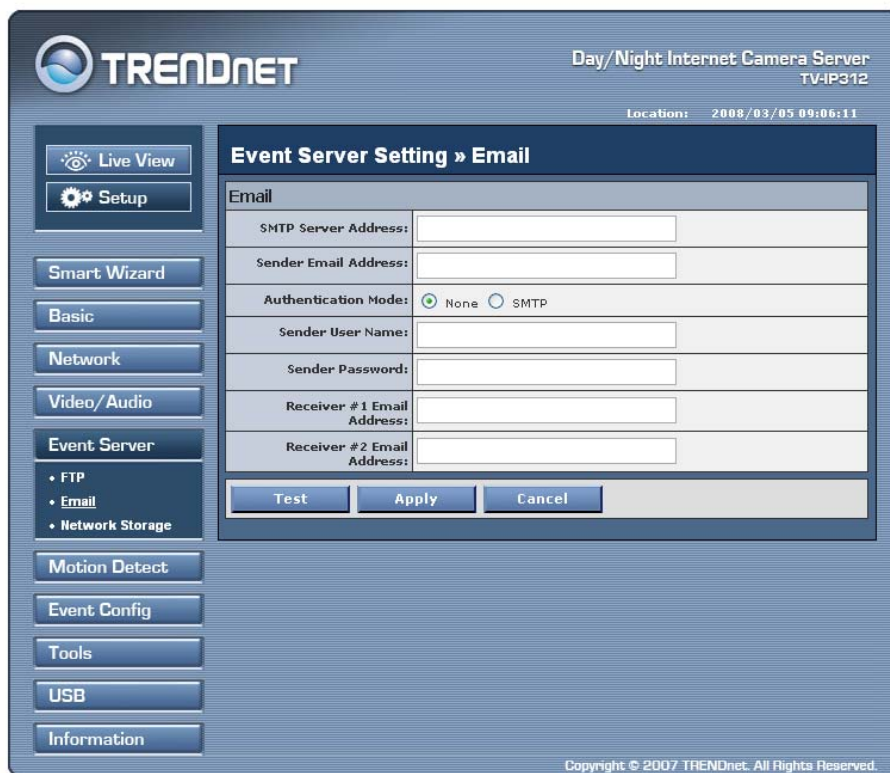
**Sending Times:** Specify the number of events sent.

## Events Notification by E-Mail– Trendnet TVIP212/312

### SMTP Configuration

To configure the data of the SMTP server on the IP camera we have to go to the menu:

#### Event Server



The screenshot shows the Trendnet web interface for a Day/Night Internet Camera Server (TV-IP312). The page is titled "Event Server Setting » Email". The interface includes a sidebar with navigation options: Live View, Setup, Smart Wizard, Basic, Network, Video/Audio, Event Server (with sub-options for FTP, Email, and Network Storage), Motion Detect, Event Config, Tools, USB, and Information. The main content area contains the following fields:

Email	
SMTP Server Address:	<input type="text"/>
Sender Email Address:	<input type="text"/>
Authentication Mode:	<input checked="" type="radio"/> None <input type="radio"/> SMTP
Sender User Name:	<input type="text"/>
Sender Password:	<input type="text"/>
Receiver #1 Email Address:	<input type="text"/>
Receiver #2 Email Address:	<input type="text"/>

At the bottom of the form are three buttons: Test, Apply, and Cancel. The footer of the interface reads "Copyright © 2007 TRENDnet. All Rights Reserved."

**SMTP Server address:** Enter the IP address of the server that acts as a SMTP server to receive events by e-mail.

**Sender email address:** Enter a valid E-mail address. For example, "ndvr@ndvr.com"

**Authentication Modes:** Select SMTP

**Sender user name:** Enter root

**Sender Password:** Enter root

**Receiver #1 email address:** Enter the e-mail address with the syntax explained above. For example: [1034.InternalVideoCaptureEvent.30@ipcam.com](mailto:1034.InternalVideoCaptureEvent.30@ipcam.com)

## Event Configuration: Motion Detection

Once the SMTP server is configured, you have to configure motion detection so it can send emails to the SMTP server. We have to go to the menu below:

### Event Config

The screenshot shows the Trendnet web interface for configuring motion detection. The page title is "Event Configuration » Motion Detect Trigger". The interface includes a sidebar with navigation options: Live View, Setup, Smart Wizard, Basic, Network, Video/Audio, Event Server, Motion Detect, Event Config (with sub-items: General, Schedule Profile, MotionDetect Trigger, Schedule Trigger), Tools, USB, and Information. The main content area is titled "Motion Detect Trigger" and includes a note: "(\*Please set the corresponding server setting first)". The configuration options are:

Enable	<input checked="" type="checkbox"/> Select to enable
Schedule Profile:	always
Action:	<input checked="" type="checkbox"/> Send Email <input type="checkbox"/> FTP Upload <input type="checkbox"/> Record to Network Storage <input type="checkbox"/> Save Image to USB

At the bottom of the configuration area are "Apply" and "Cancel" buttons. The footer of the interface reads "Copyright © 2007 TRENDnet. All Rights Reserved." The top right corner of the interface displays "Day/Night Internet Camera Server TV-IP312" and "Location: 2008/03/05 09:26:45".

**Enable:** Check this option.

**Schedule Profile:** Select always.

**Send Email:** Check this option.

**FTP Upload:** Do not check this option.

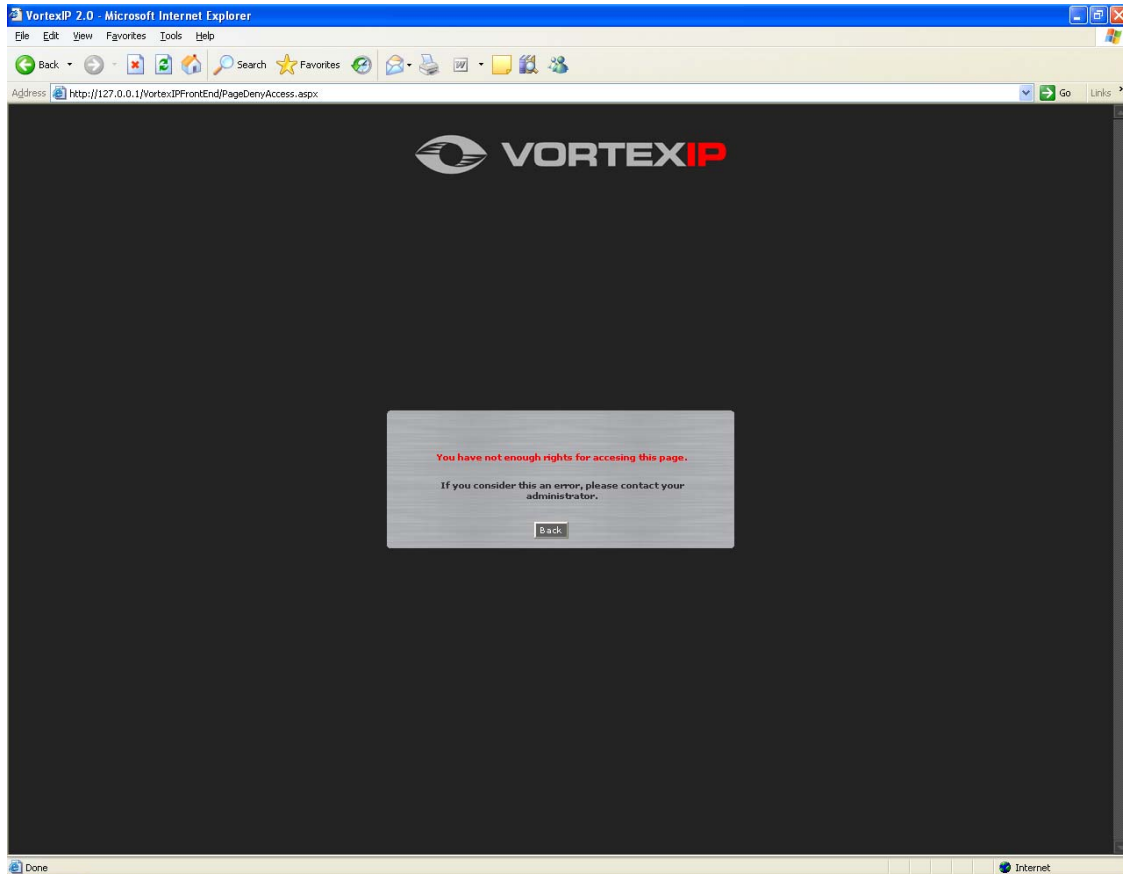
**Record to Network Storage:** Do not check this option.

**Save Images to USB:** Do not check this option.

## Appendix B – Error Messages:

### Access Denied

Every time that you access a resource of the systems, it will verify that you have the permission to access it. If your user is not a root, it has restrictions to certain resources (viewing, configuration, etc). The following screen will appear if the user does not have permission to access it:



## Appendix C – Problem solving

### 1. I am not able to watch live video nor recorded video

- Check that you have correctly installed the .NET Framework 1.1.
- Check that ActiveX components both live video and recorded video has been correctly installed.
- Check that you have Internet access, by trying to access any known Web page through Internet Explorer.

### 2. You are only able to watch live video

- Check that you have correctly installed the .NET Framework 1.1.
- Check that ActiveX component for live video has been correctly installed.
- Check you have Internet access, by trying to access any known Web Page in Internet Explorer.
- Check that you do not have Proxy Server configured in the Internet Explorer. ActiveX live video allows you to connect the PC through a Proxy Server. But ActiveX does not support connections by means of a Proxy Server.
- Check that your PC has access to the Internet.

### 3. ActiveX components do not get installed

- Check that you have correctly installed the .NET Framework 1.1.

### 4. The NVR does not record video

- Check that the NVR has direct connection to Internet and try to access any known Web page in Internet Explorer.
- Ping the IP cameras that you want to record.
- Check that recording is enabled.
- Check the cameras' recording schedule. If they are configured to record by event then verify that the IP camera is sending the events to the NVR.

### 5. Service cannot be initialized, stopped or restarted by Web access

- This functionality is only available when VortexIP recorded is installed on Windows XP Professional. If you are running Windows 2000 Server or Windows 2003 Server, then you will not be able to make decisions about the recording service from the Web access due to the security policy of the operating system.

### 6. Forgot my Administrator password

- For security reasons passwords will not be able to be restored. If you happen to forget your root password, you need to reinstall VortexIP. Remember that by default, there

is no root password.

7. **VortexIP recorder works correctly, but whenever I want to watch a recorded video of an event that happened less than 10 seconds ago, images do not appear.**

- VortexIP recorder has a a buffer cache to maximize the useful life of the hard drive. Buffer's length is by default 512Kbytes and it cannot be modified. This means that if you are recording a camera at 1 FPS or less, then you will have to wait the equivalent time according to the image size in Kbytes.

To view images recorded by a camera at 1 FPS you have to wait about 10 seconds, which is the time to fill the buffer. This effect does not take place when the recording speed is higher than 1 FPS; the time to fill the buffer becomes negligible.

## Appendix D – Router’s configuration

To configure port forwarding on a router so it can access VortexIP, the following considerations have to be taken into consideration.

You need to know the following values, which can be found under system configuration:

- **Web Port**
- **Transmission Port**
- **Event Port**

These ports have to be accessible from remotely, as shown below:

	Recorder Ports	Router's Port Forwarding
<b>Web Port</b>	80	8080
<b>Transmission</b>	<b>9000</b>	<b>9000</b>
<b>Events Port</b>	9090	9091

The only port that has to be match is the **transmission** port. The Web port is necessary to access the user's interface. This number can be changed. The Event port is **only** necessary when you want to record the cameras from the Internet.

Example:

### Equipment:

TEW-672GR

Hardware Version: V1.0R

Firmware Version: 1.0.1.11, 15-August-2008

IP Address: 192.168.10.1

TV-IP422W

Hardware Version: A1.0R

Firmware Version: 1.00 Build 26

IP Address: 192.168.10.200

Server

Operating System: 2003 Server

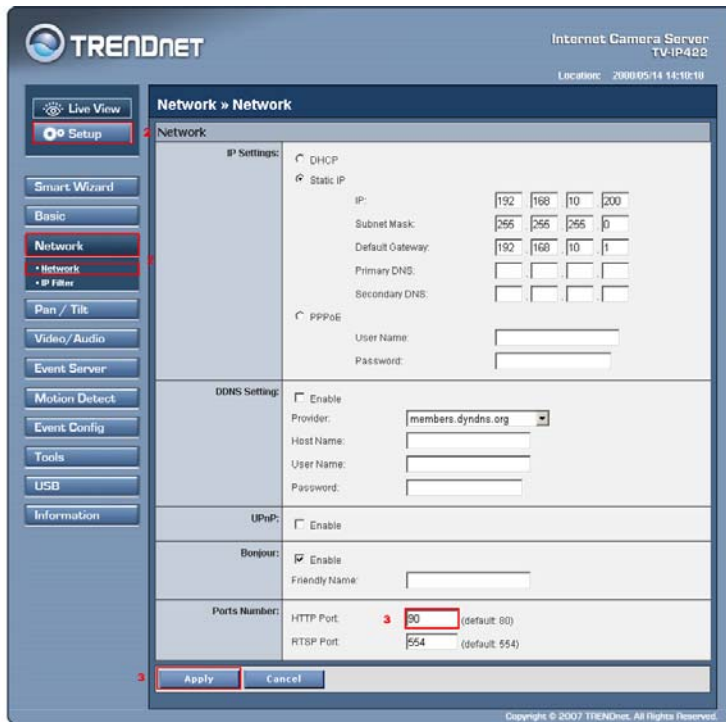
IP Address: 192.168.10.250

### Configuration:

**Step 1:** Log into the TV-IP422 by entering http://192.168.10.200 into a browser. The default user name is admin with a password of admin.

**Step 2:** Click on "**Setup**" on the left hand side, click "**Network**" and then click "**Network**".

**Step 3:** Enter 90 in the HTTP port field and then click "**Apply**".



**Step 4:** Log into the TEW-672GR by entering <http://192.168.10.1> into a browser. The default user name is "admin". By default, there is no password.

**Step 5:** Click "Advanced" and then click "Virtual Server".

**Step 6:** Click Rule Enable.

**Step 7:** Enter a Rule Name (e.g. Web Port).

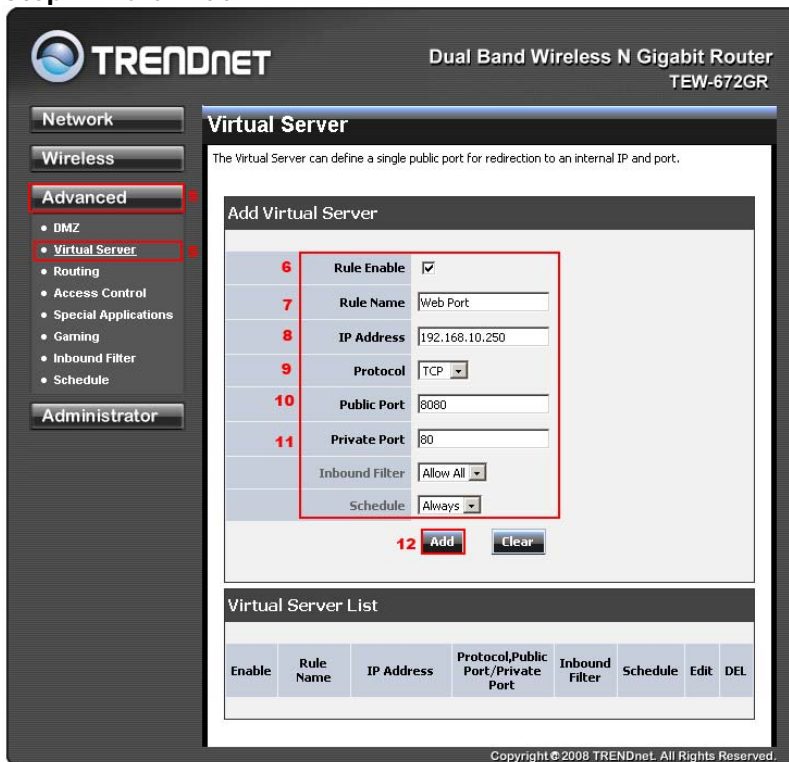
**Step 8:** Enter the IP Address for the Server.

**Step 9:** Select TCP for Protocol.

**Step 10:** Enter 8080 for Public Port.

**Step 11:** Enter 80 for Private Port.

**Step 12:** Click Add.





- Step 13:** Click **Rule Enable**.
- Step 14:** Enter a **Rule Name** (e.g. Transmission Port).
- Step 15:** Enter the **IP Address** for the Server.
- Step 16:** Select **TCP** for **Protocol**.
- Step 17:** Enter 9000 for **Public Port**.
- Step 18:** Enter 9000 for **Private Port**.
- Step 19:** Click **Add**.

**TRENDNET** Dual Band Wireless N Gigabit Router TEW-672GR

**Virtual Server**

The Virtual Server can define a single public port for redirection to an internal IP and port.

**Add Virtual Server**

13 Rule Enable

14 Rule Name Transmission Port

15 IP Address 192.168.10.250

16 Protocol TCP

17 Public Port 9000

18 Private Port 9000

Inbound Filter Allow All

Schedule Always

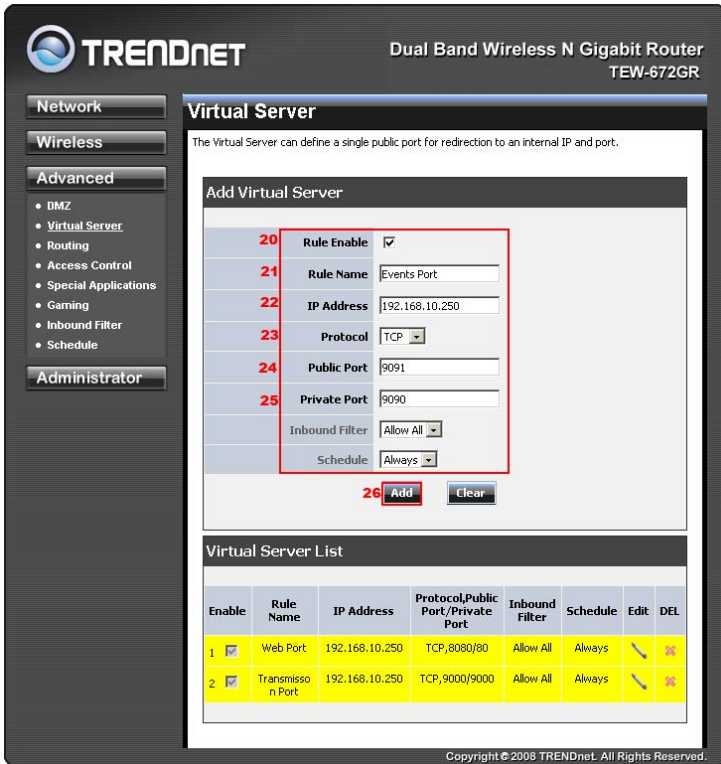
19 Add Clear

**Virtual Server List**

Enable	Rule Name	IP Address	Protocol, Public Port, Private Port	Inbound Filter	Schedule	Edit	DEL
<input checked="" type="checkbox"/>	Web Port	192.168.10.250	TCP, 8080/80	Allow All	Always		

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- Step 20:** Click **Rule Enable**.
- Step 21:** Enter a **Rule Name** (e.g. Events Port).
- Step 22:** Enter the **IP Address** for the Server.
- Step 23:** Select **TCP** for **Protocol**.
- Step 24:** Enter 9091 for **Public Port**.
- Step 25:** Enter 9090 for **Private Port**.
- Step 26:** Click **Add**.



**Step 27:** Click **Rule Enable**.

**Step 28:** Enter a **Rule Name** (e.g. TV-IP422).

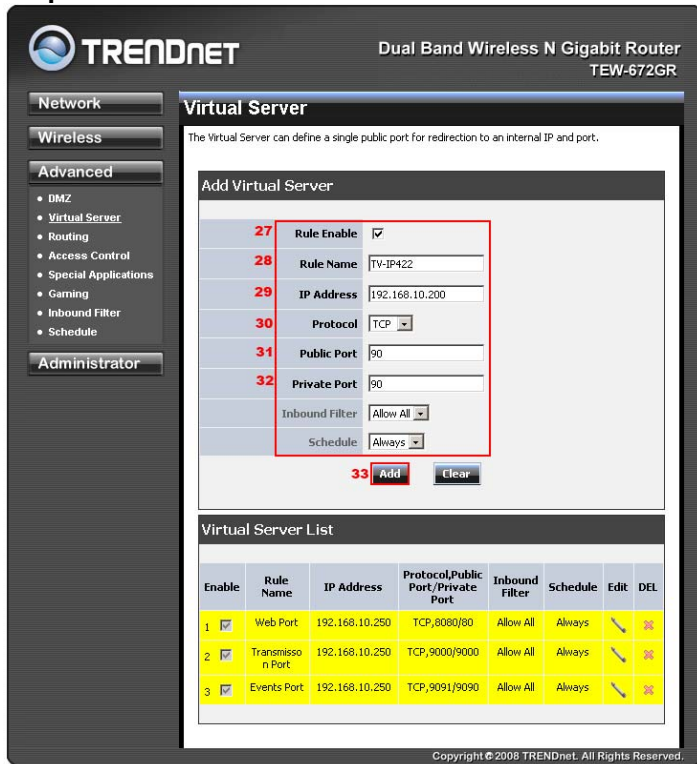
**Step 29:** Enter the **IP Address** for the TV-IP422.

**Step 30:** Select **TCP** for **Protocol**.

**Step 31:** Enter 90 for **Public Port**.

**Step 32:** Enter 90 for **Private Port**.

**Step 33:** Click **Add**.



Step 34: Verify that all the ports are displayed in the **Virtual Server List**.

**TRENDNET** Dual Band Wireless N Gigabit Router TEW-672GR

Network  
Wireless  
Advanced  
• DMZ  
• **Virtual Server**  
• Routing  
• Access Control  
• Special Applications  
• Gaming  
• Inbound Filter  
• Schedule  
Administrator

### Virtual Server

The Virtual Server can define a single public port for redirection to an internal IP and port.

#### Add Virtual Server

Rule Enable:

Rule Name:

IP Address:

Protocol: TCP

Public Port:

Private Port:

Inbound Filter: Allow All

Schedule: Always

Add Clear

#### Virtual Server List

Enable	Rule Name	IP Address	Protocol, Public Port/Private Port	Inbound Filter	Schedule	Edit	DEL
<input checked="" type="checkbox"/>	Web Port	192.168.10.250	TCP, 8080/80	Allow All	Always		
<input checked="" type="checkbox"/>	Transmission Port	192.168.10.250	TCP, 9000/9000	Allow All	Always		
<input checked="" type="checkbox"/>	Events Port	192.168.10.250	TCP, 9091/9090	Allow All	Always		
<input checked="" type="checkbox"/>	TV-IP422	192.168.10.200	TCP, 90/90	Allow All	Always		

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## Appendix E – Antivirus Configuration

VortexIP is a surveillance system, designed and optimized for Screens platform. However, it can happen that running on the Screens platform you may find exploits, worms and vulnerabilities. For this reason, you have to be aware that you have to protect your PC from the net.

To carry out this protection efficiently, we give you some tips to keep in mind during the installations process of the antivirus software.

### Impact on the performance

Antivirus usually impact considerably on the PC performance that is why it has to be handled carefully on the configuration.

Since the VortexIP is designed to operate 24/7, the impact of erroneous configuration of the antivirus on the system can cause serious problems.

If you do not have knowledge on configuring the antivirus program that you are installing, please contact a technician or the antivirus program support for assistance.

### Keys to keep in mind for the antivirus operation with the VortexIP recorder

Disable scheduled scans. The server has to be dedicated to running VortexIP.

Verify that the antivirus program or the security center does not block access and connection to and from the NVR.

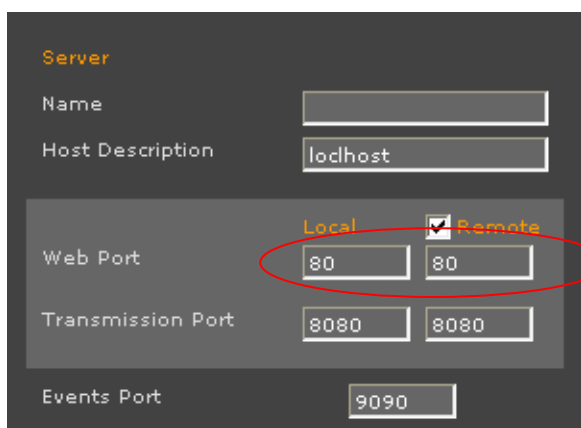
**Omit** scanning in real time for the following extensions: AVI, DVR, XSD, XML, and TMP

If your antivirus has the option to Optimize scanning in real time for low consumption of the CPU, enable it.

## Appendix F – Changing the Web port

The default Web port is 80. If you want to change the port number, follow these steps:

- 1) Access the VortexIP at the configuration page and modify the number of the desire Web port:



The screenshot shows the configuration page for a server. The 'Server' section is highlighted in orange. The 'Name' field is empty, and the 'Host Description' field contains 'localhost'. The 'Web Port' section has two columns: 'Local' and 'Remote'. The 'Local' column has a text input field containing '80'. The 'Remote' column has a checked checkbox and a text input field containing '80'. A red circle highlights the 'Web Port' section. Below this, the 'Transmission Port' section has two columns, both with text input fields containing '8080'. The 'Events Port' section has a text input field containing '9090'.

- 2) Then you have to open the configuration file:

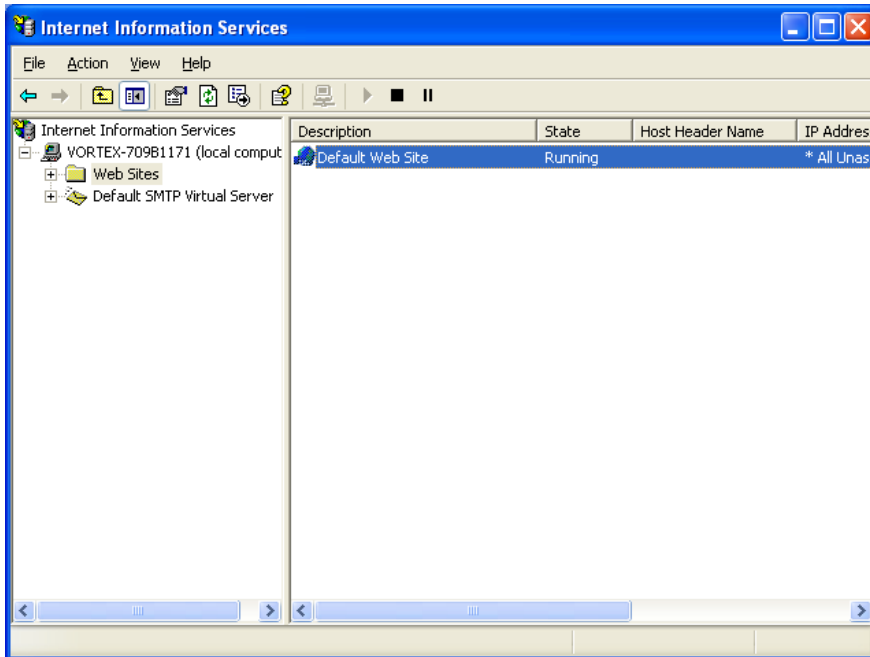
c:\inetpub\wwwroot\VortexIPFrontEnd\web.config

Edit the following property by changing the value to the desired port number:

```
<add key="ServiceApplicationPort" value="80"/>
```

3) Configure IIS:

Start -> Control Panel -> Administrative Tools -> Internet Information Services





Then, right-click on the **Default Web Site** and click **Properties**.

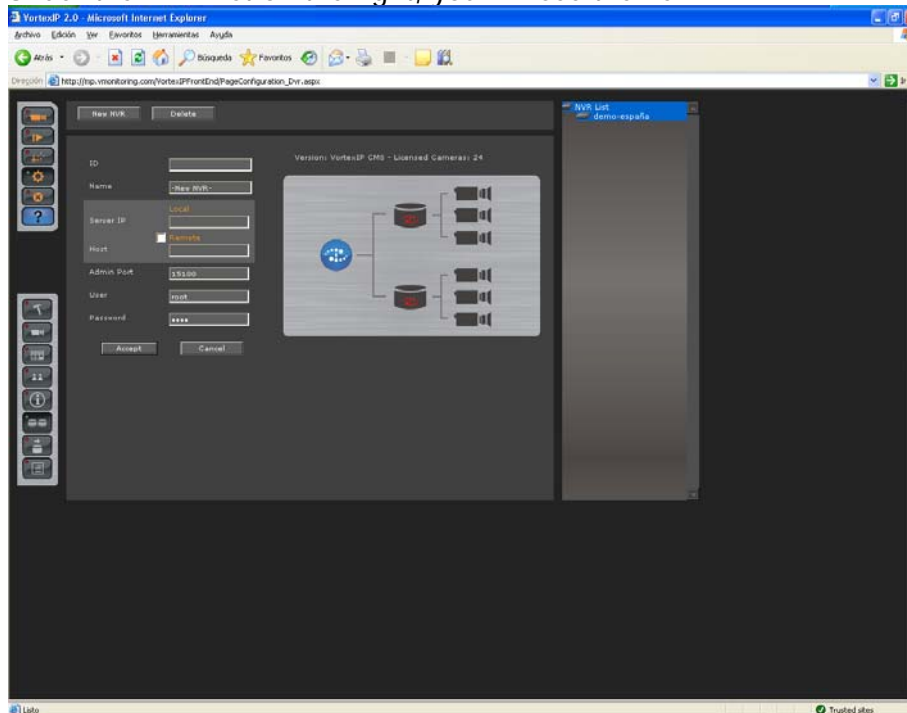


Modify TCP port to the desired port number.

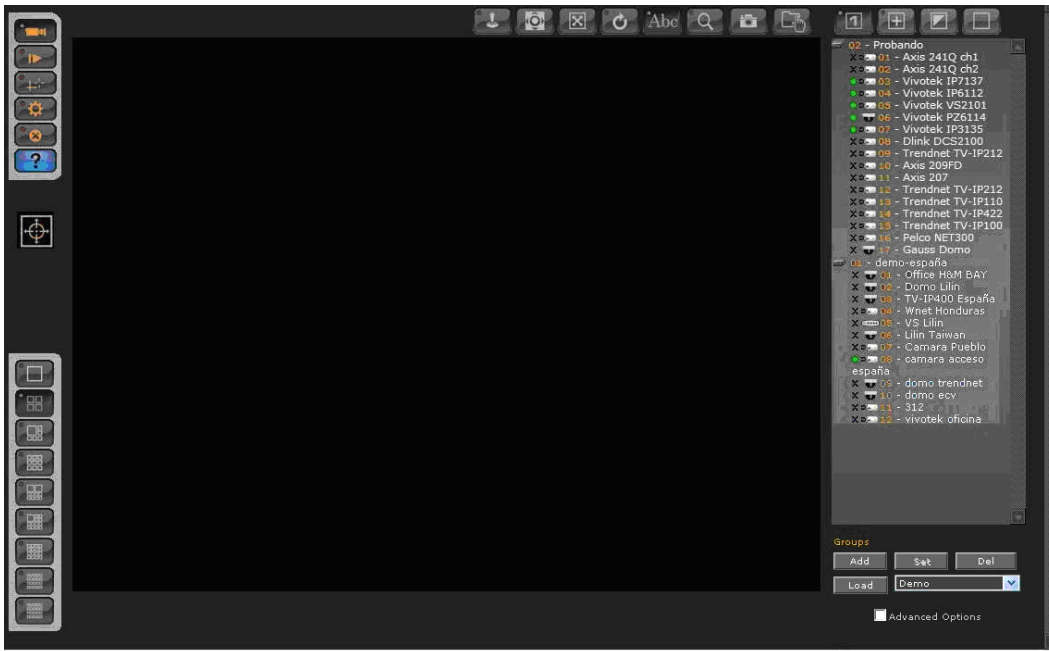
## Appendix G – CMS

It is important to know the difference between CMS and Pro. The CMS has the same functionality of Pro, but it also has the ability to remotely manage other servers with VortexIP Pro installed. To set this up, follow these steps:

- 1) Go to Configuration page 
- 2) Click on NVR connection configuration. 
- 3) Click on **New NVR**, and complete all fields below and click on **Accept**.
- 4) Under the NVR List on the right, you will see the new NVR.



- 5) Click on Live Video . The new NVR and cameras will now be displayed.





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