



LevelOne



NVR-0432

Network Video Recorder
User Manual

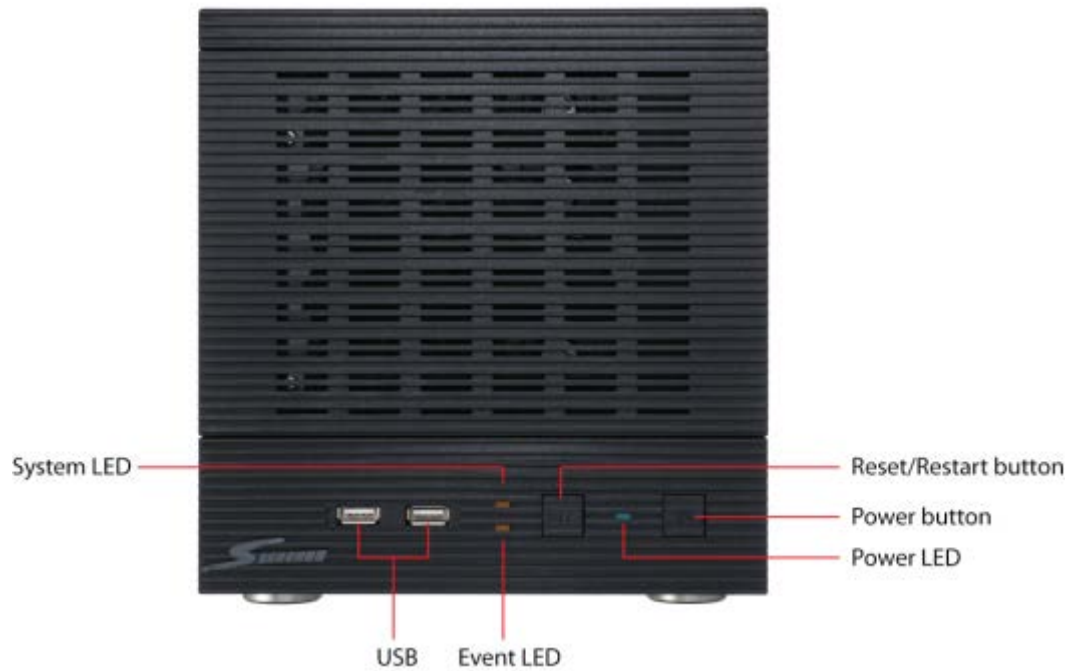
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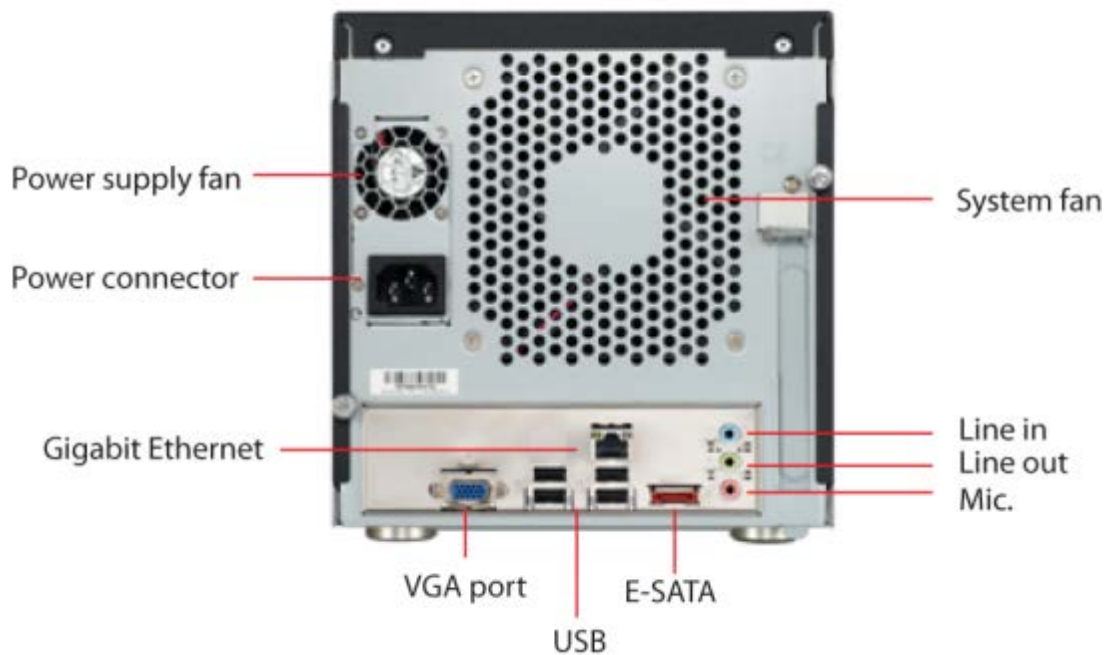
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System Overview

Front View



Rear View



LED Definition

Buttons	
Power	
Reset/Restore default	<ul style="list-style-type: none">• Press and release for restart• Press and hold for 3 seconds then release for restore to default, when 3 seconds is reached, System LED blinks until release of the button
LEDs	
Restore default	<ul style="list-style-type: none">• System LED blinks during the process• Power LED stays solid
Restart	<ul style="list-style-type: none">• Power LED stays solid• System LED off
Power	<ul style="list-style-type: none">• Blue• During power on/restart/reset to default/OS fail: stays solid
System	<ul style="list-style-type: none">• Amber• During firmware upgrade: blinking• System failure (AP fail): off• System Normal: Solid
Event	<ul style="list-style-type: none">• Amber• During event recording: solid• No event: off

Installation

HDD Installation



Release the HDD tray by pulling the lock to the right.



Pull the HDD tray out of the case.



Place the HDD in the tray and



Put the HDD tray back to the case. Secure it with the screws at the bottom of the tray



Push the tray door back to the case to secure it.

Connect to the NVR

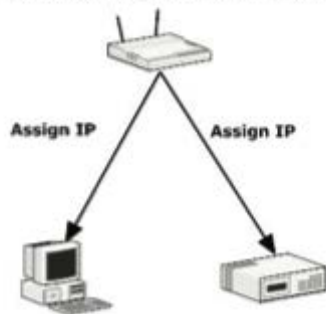
There are various ways you can connect to the NVR and below are the suggested methods for different network setup:

- The NVR is placed in a network with a DHCP server: Connect to the NVR by using **“Device Search” Utility**
- The NVR is placed in a network without DHCP server (or you are connecting to it directly): **Access the NVR with its default IP**

Use Device Search Utility

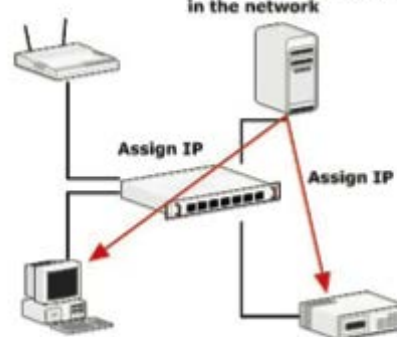
1.

Network gateway as the DHCP server

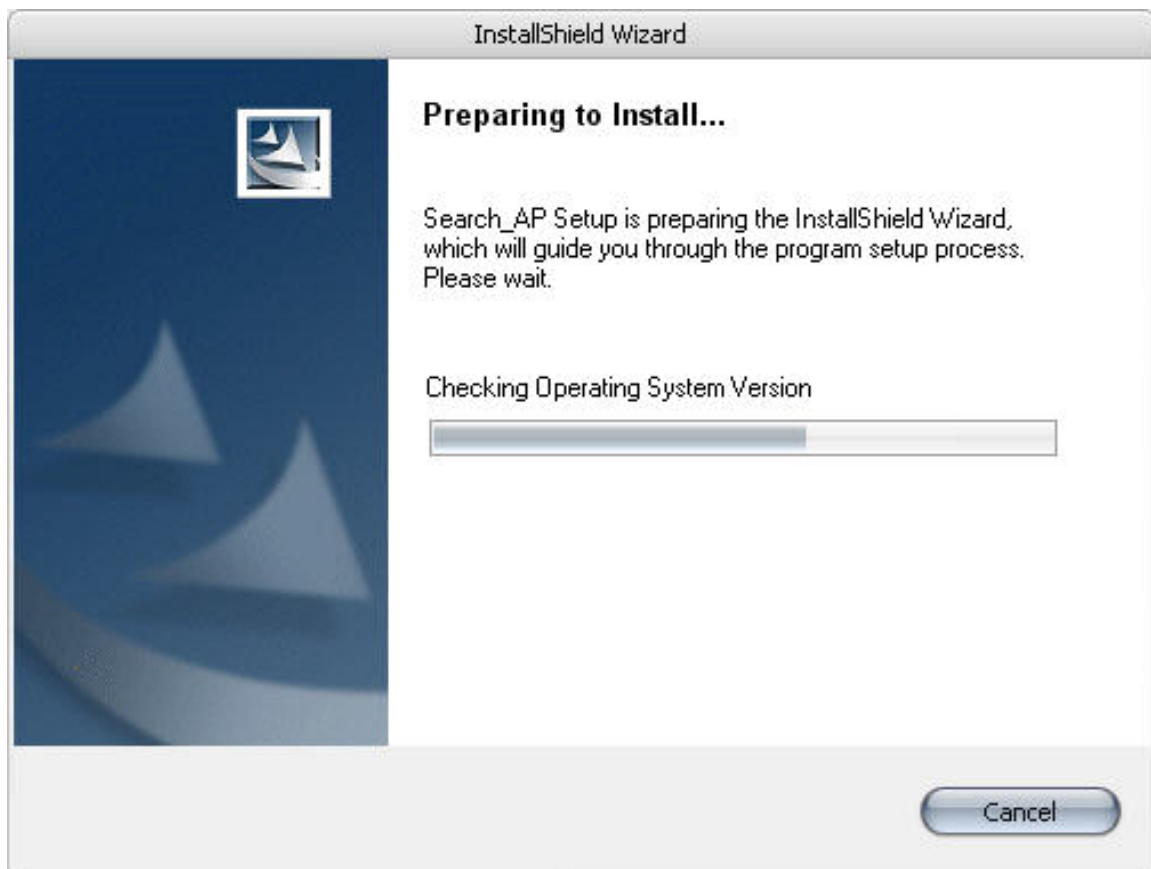


2.

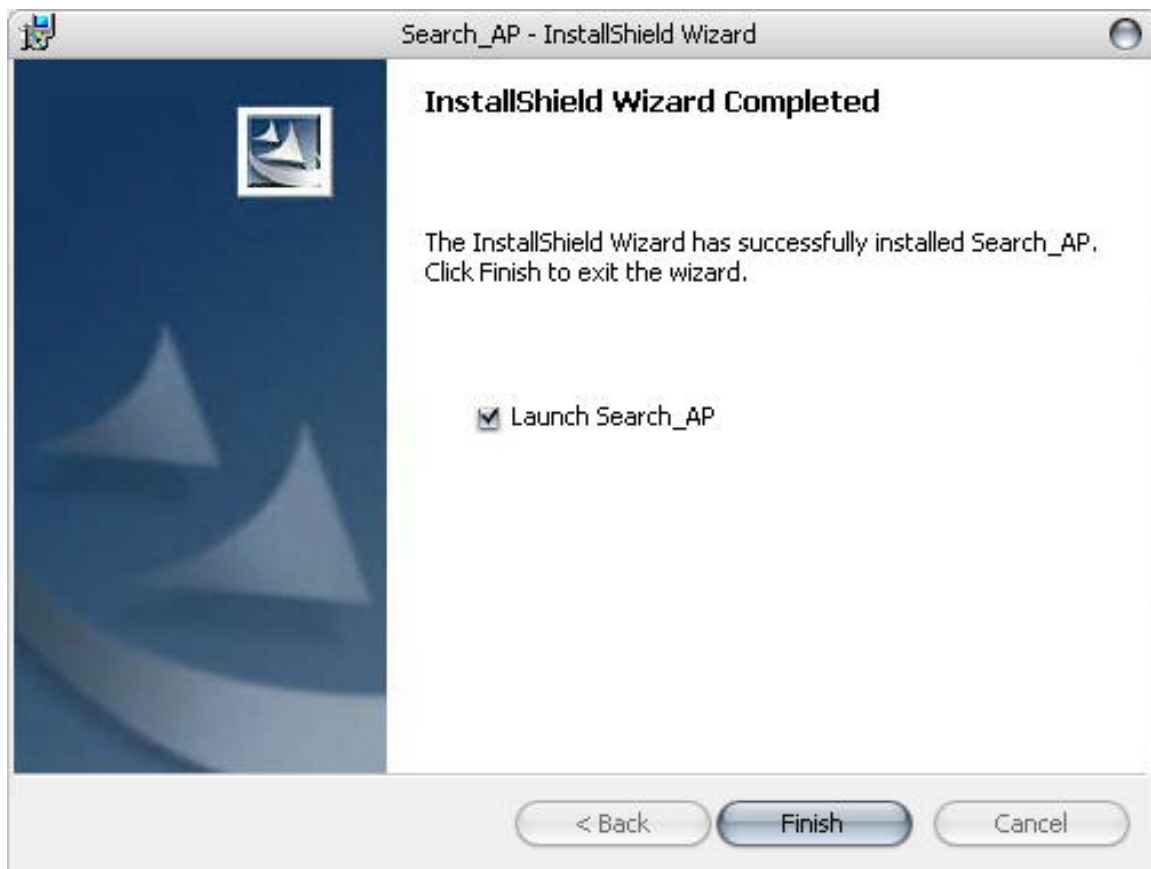
A separate DHCP server in the network



If the NVR is placed in a corporate network or a local area network where a DHCP server is already presented, run the “Device Search” utility from a computer that is on the same network and locate the NVR with its IP address that is assigned by the top-level DHCP server.



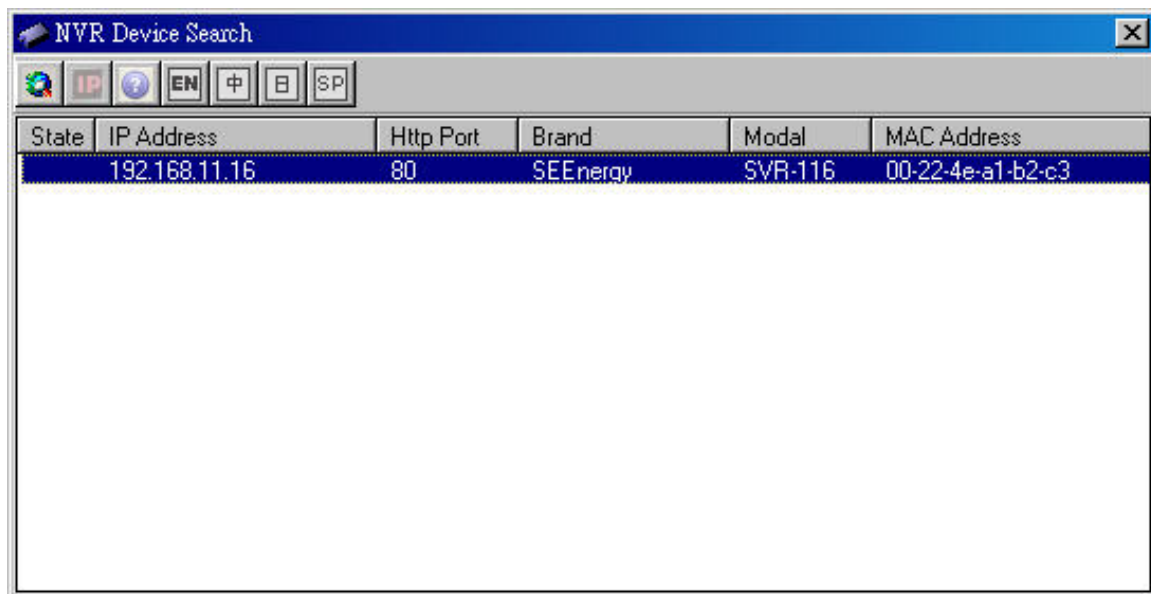
To begin, launch the "Deivce Search" utility from the CD and proceed with the installation:



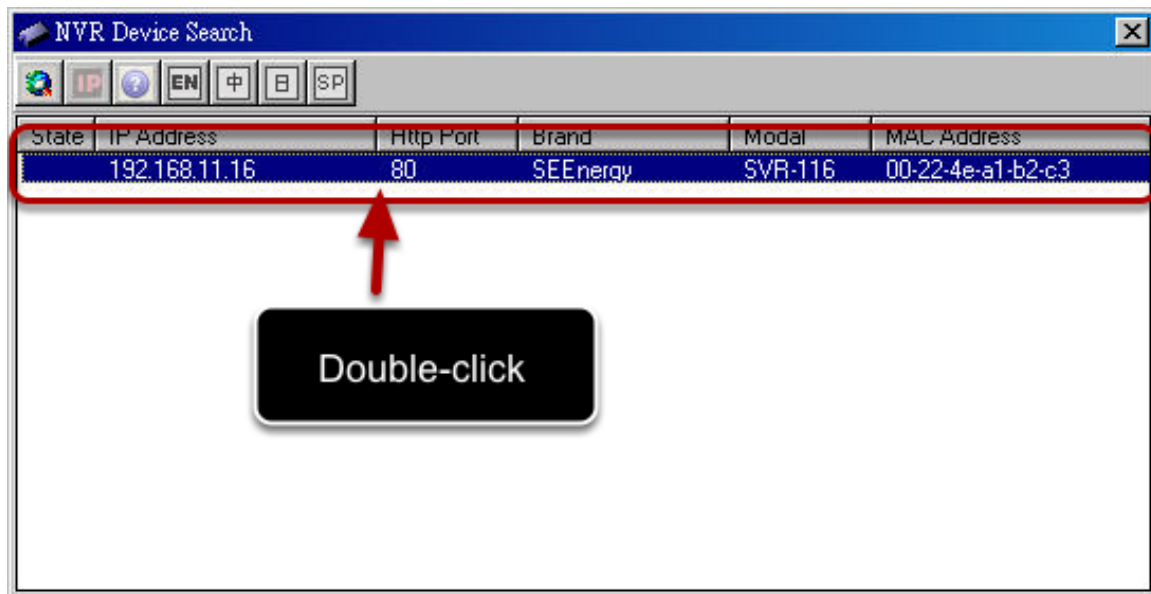
Once the installation is complete, check the "Launch the Search AP" option and click "Finish".



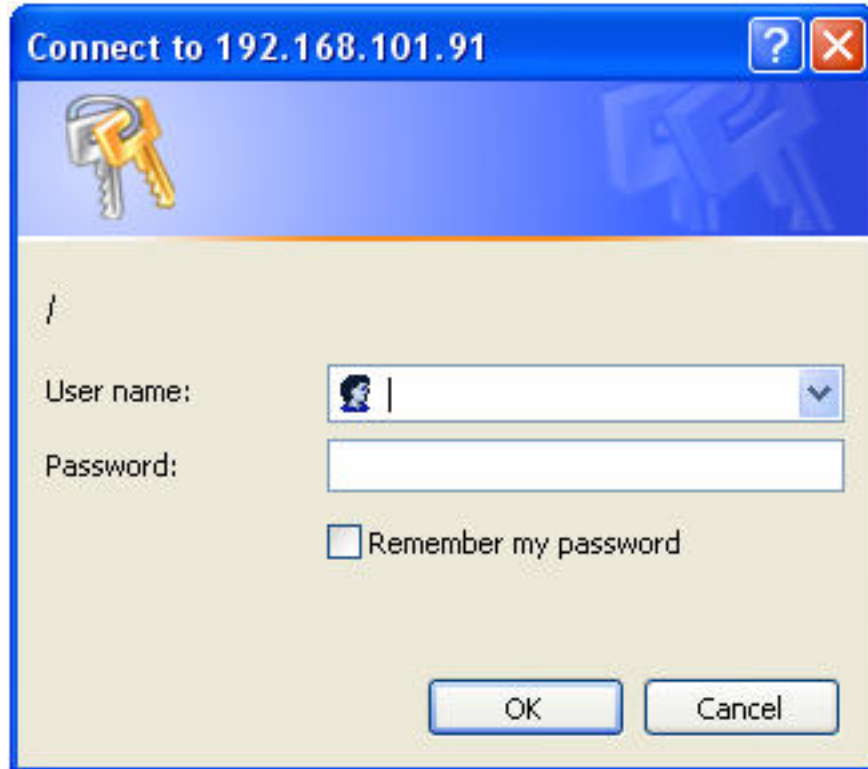
The search should start automatically and its status should be displayed.



The NVR should be located and its IP address should be displayed.



Double-click on an NVR and the search program should automatically access the NVR's web administration page from your default browser.



A Windows-style dialog box titled "Connect to 192.168.101.91". The title bar is blue with a question mark icon and a red close button. The main area has a light beige background. At the top left, there is an icon of two keys. Below the icon, there is a small icon of a person. The dialog contains two input fields: "User name:" and "Password:". The "User name:" field has a dropdown arrow on the right. Below the "Password:" field is a checkbox labeled "Remember my password". At the bottom, there are two buttons: "OK" and "Cancel".

Connect to 192.168.101.91

/

User name:

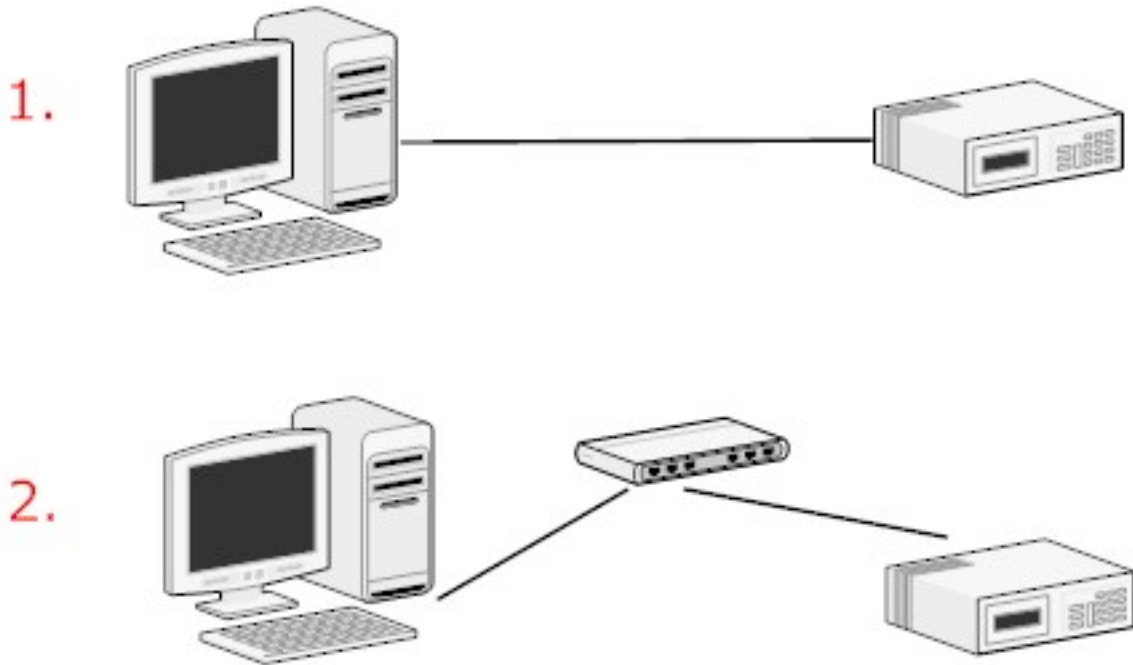
Password:

☐ Remember my password

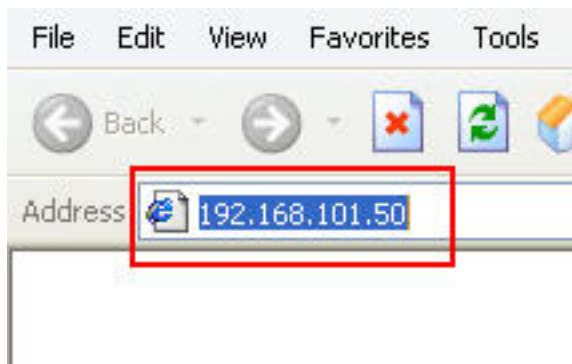
OK Cancel

You should be prompted for the the NVR's username and password. Enter **its default username "admin" and password "admin"** and then click "OK" to enter the system

Access the NVR with its default IP address




The NVR comes with a pre-configured static IP "**192.168.101.50**". However, it is only used when there is no DHCP server presented in the network. The NVR will turn on its DHCP server function and act as the DHCP server in the network. To connect to the NVR, use a PC that is on the same network over a switch or hub, or connect the PC directly to the NVR using a crossover CAT5 Ethernet cable.



The PC that is connected directly to the NVR (or within the same local area network) should receive an IP from the NVR. Simply access the NVR from your web browser with its IP address

Connect to 192.168.101.91



/

User name:

Password:

☐ Remember my password

OK Cancel

Again, you should be prompted for the username and password. Enter its default username "**admin**" and password "**admin**" and then click "OK" to enter the system

Set up Password

Network Video Recorder

Home View | E-Map Monitor | Setup | Channel Status

System Time: May 07, 2009 10:26:50 User: admin

Setup

- System Configuration
 - Network Setup
 - Time and Date
 - USER ACCOUNT
 - Group Privilege
 - Disk Setup
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options

User Account Setting

User Name	Group	Description
admin	admin	
guest	guest	SC
joer	supervisor	eng
hunt	opera	tc
view1	VIEWER	japan

1

2

Add User

User Name: Only A-Z, a-z, 0-9 and _ are allowed

Password:

Confirm Password:

Company: (Optional)

Department: (Optional)

Telephone: (Optional)

Mobile: (Optional)

E-Mail: (Optional)

Group:

Language: English

Description: (Optional)

The default login username and password is admin/admin. To change the password of the admin account, go to "Setup" --> "System Configurations" --> "User Account", click on the "admin" account in the account list then press the "edit" button to change its password. Finally, click "Apply" to save the change.

Camera Installation

Add a Camera -- Automatic Search

Click Search to Add:

* You may skip this step and add a new camera by manually entering camera's settings in the "Camera Information" section

Brand	Model	IP Address	HTTP Port
AVTech	FIX	192.168.101.25	80
Panasonic	BB-HCM515A	192.168.101.23	80
Axis	215 PTZ	192.168.101.21	80
Axis	212 PTZ	192.168.101.24	80
Axis	Q7401	192.168.101.28	80
Axis	207W	192.168.101.20	80
SONY	SNC-RX550N	192.168.101.27	80
SONY	SNC-RZ25N	192.168.101.26	80

*select a camera from the search result and click configure to "Configure" setting below.

Click the "Search" button to perform the camera search.



You should be prompted to install Active Control component in order for the search to function properly. Go ahead and click "Install"

Network Communication

After that, the search should begin and its status should be displayed:

Click Search to Add:

* You may skip this step and add a new camera by manually entering camera's settings in the "Camera Information" section

Brand	Model	IP Address	HTTP Port
AVTech	FIX	192.168.101.25	80
Panasonic	BB-HCM515A	192.168.101.23	80
Axis	215 PTZ	192.168.101.21	80
Axis	212 PTZ	192.168.101.24	80
Axis	Q7401	192.168.101.28	80
Axis	207W	192.168.101.20	80
SONY	SNC-RX550N	192.168.101.27	80
SONY	SNC-RZ25N	192.168.101.26	80

2

*select a camera from the search result and click configure to "Configure" setting below.

Found cameras should be listed and simply select a camera from the list and press "Configure"

*select a camera from the search result and click configure to "Configure" setting below.

Add a new Camera:

Channel ID:

Camera Name:

Group:

IP Address:

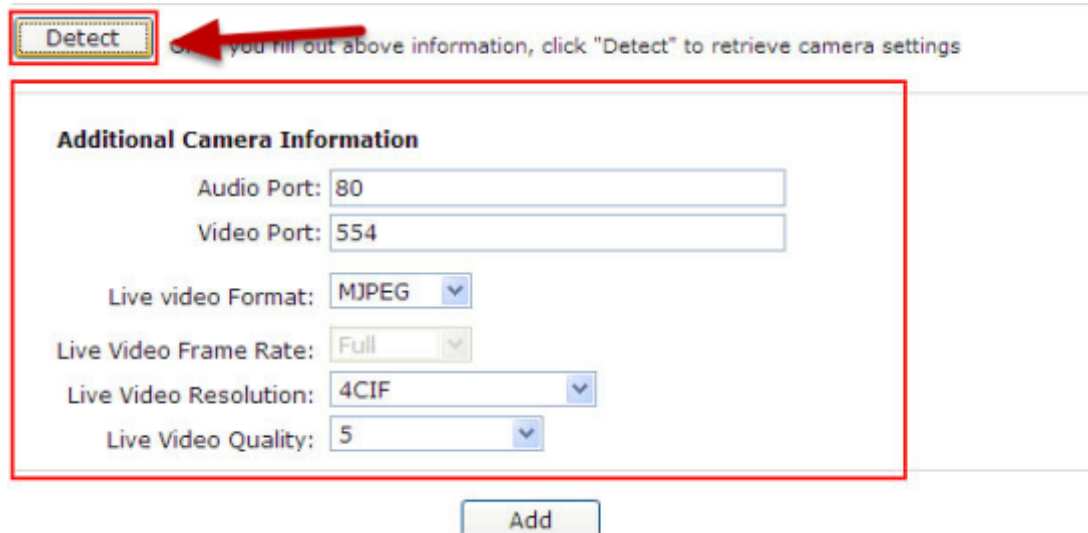
User Name:

Password:

HTTP Port:

Once you fill out above information, click "Detect" to retrieve camera settings

Its corresponding information should be displayed in the "Camera Information" section. Enter its username and password and select the channel ID and name the camera.



Detect ← Once you fill out above information, click "Detect" to retrieve camera settings

Additional Camera Information

Audio Port: 80

Video Port: 554

Live video Format: MJPEG

Live Video Frame Rate: Full

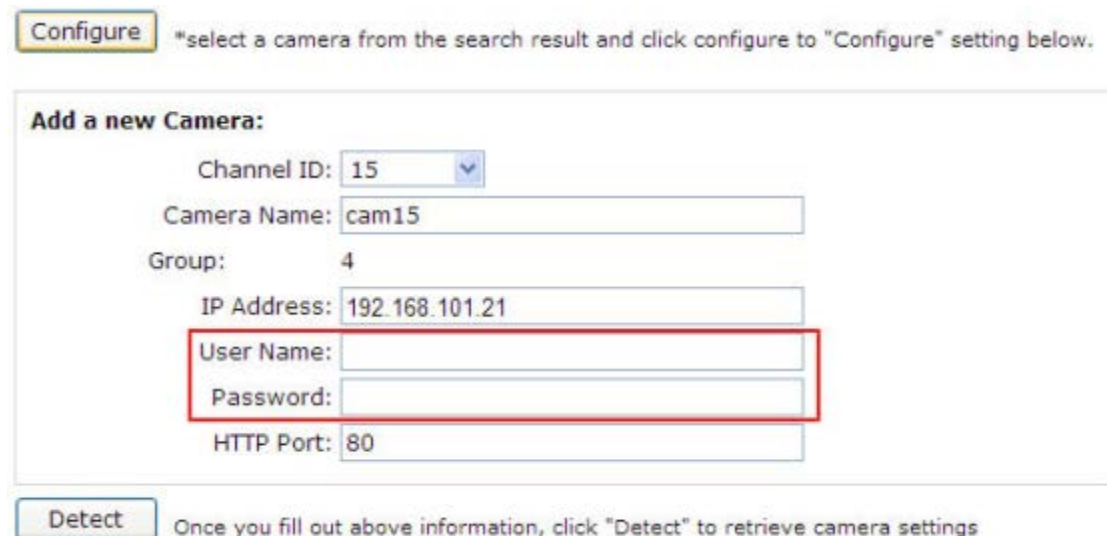
Live Video Resolution: 4CIF

Live Video Quality: 5

Add

Click on "Detect" to establish connection between the recorder and the camera. If connection establishes successfully, camera's detailed information should be polled and displayed as below. Adjust its video format, frame rate, resolution or bitrate...etc if you wish and then click "Add" to finish adding the camera

Add a camera manually



Configure *select a camera from the search result and click configure to "Configure" setting below.

Add a new Camera:

Channel ID: 15

Camera Name: cam15

Group: 4

IP Address: 192.168.101.21

User Name:

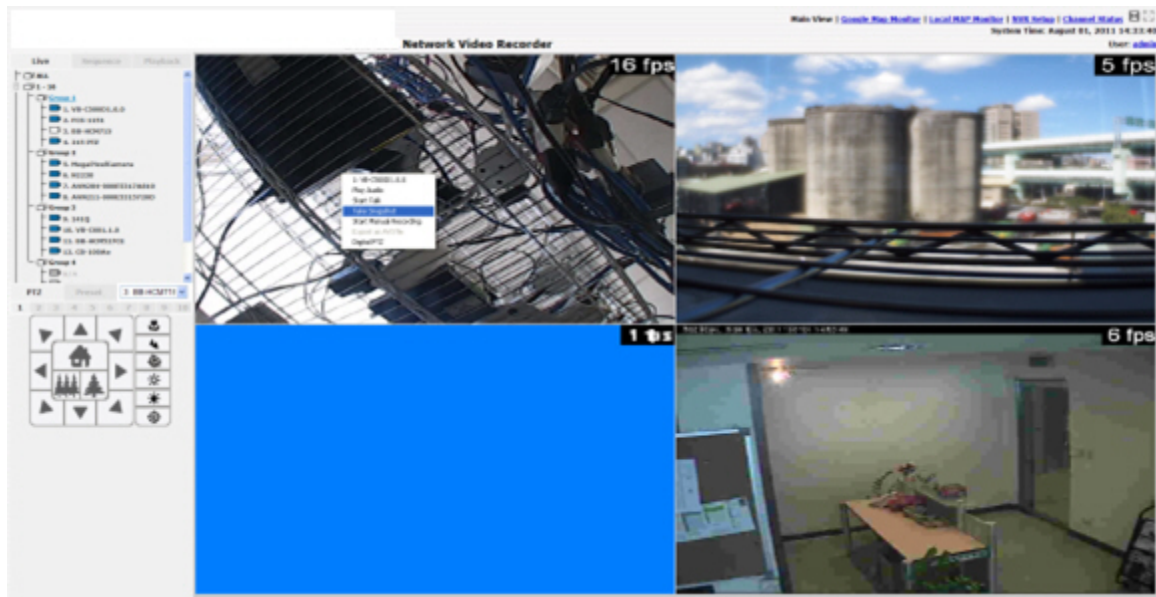
Password:

HTTP Port: 80

Detect Once you fill out above information, click "Detect" to retrieve camera settings

Simply follow the instruction described above but instead of using the "Search" function, enter the camera's IP address and credential in the "Camera Information" manually

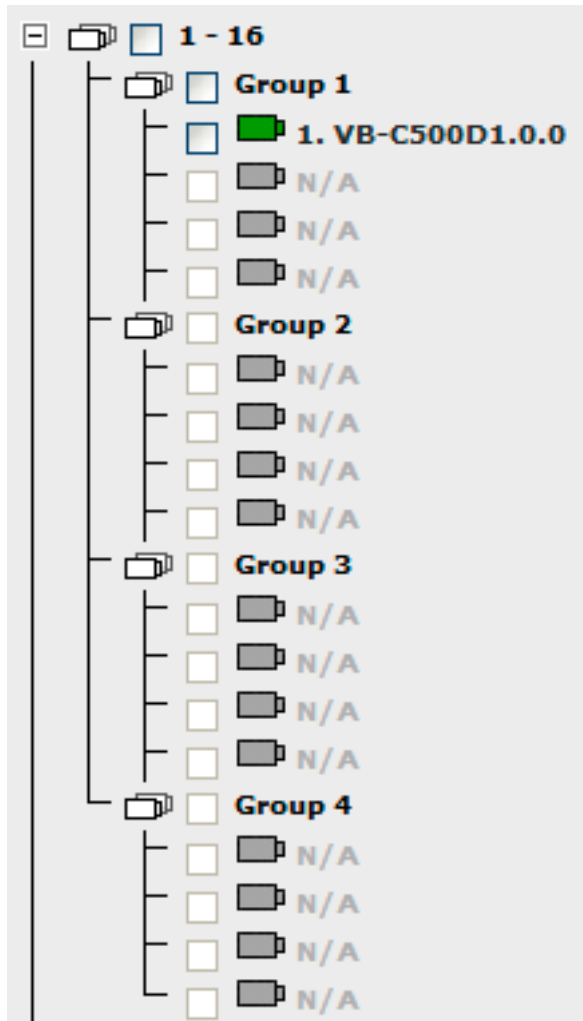
Live View



The “Live View” page provides the following functions:

- Retrieve camera’s video stream
- Retrieve camera’s status
- Perform Live Sequence Viewing
- PTZ Control
- Perform PTZ Preset Sequence viewing
- Perform manual recording
- Take snapshot
- Receive audio of a video stream
- Send audio
- Control “Buzzer”
- Change web UI display language

Retrieve camera's video stream



The camera list is expanded and displayed on the Live View page:

- Click "All" to display videos of all 32 channels
- Click "1-16" or "17-32" to display videos of in 16-video view
- Click on a "Group" (ex. Group 1) to display videos from cameras under that group in quad view
- Click on any camera to display video in single-view mode

Retrieve camera's status

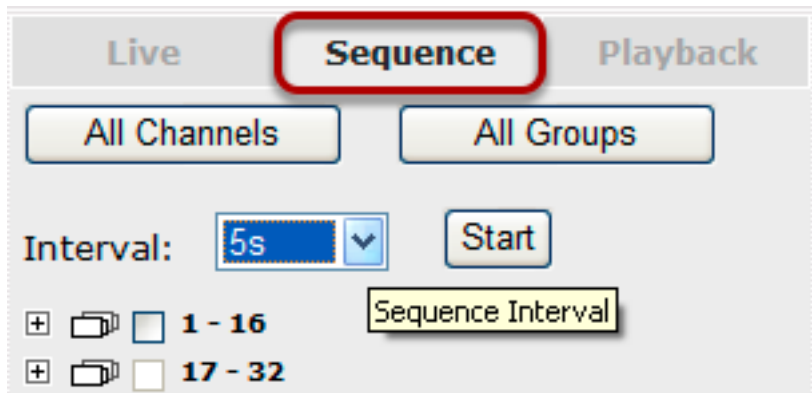
The camera list can show each camera's current status. Each status is represented with different colors:

Blue: Connected

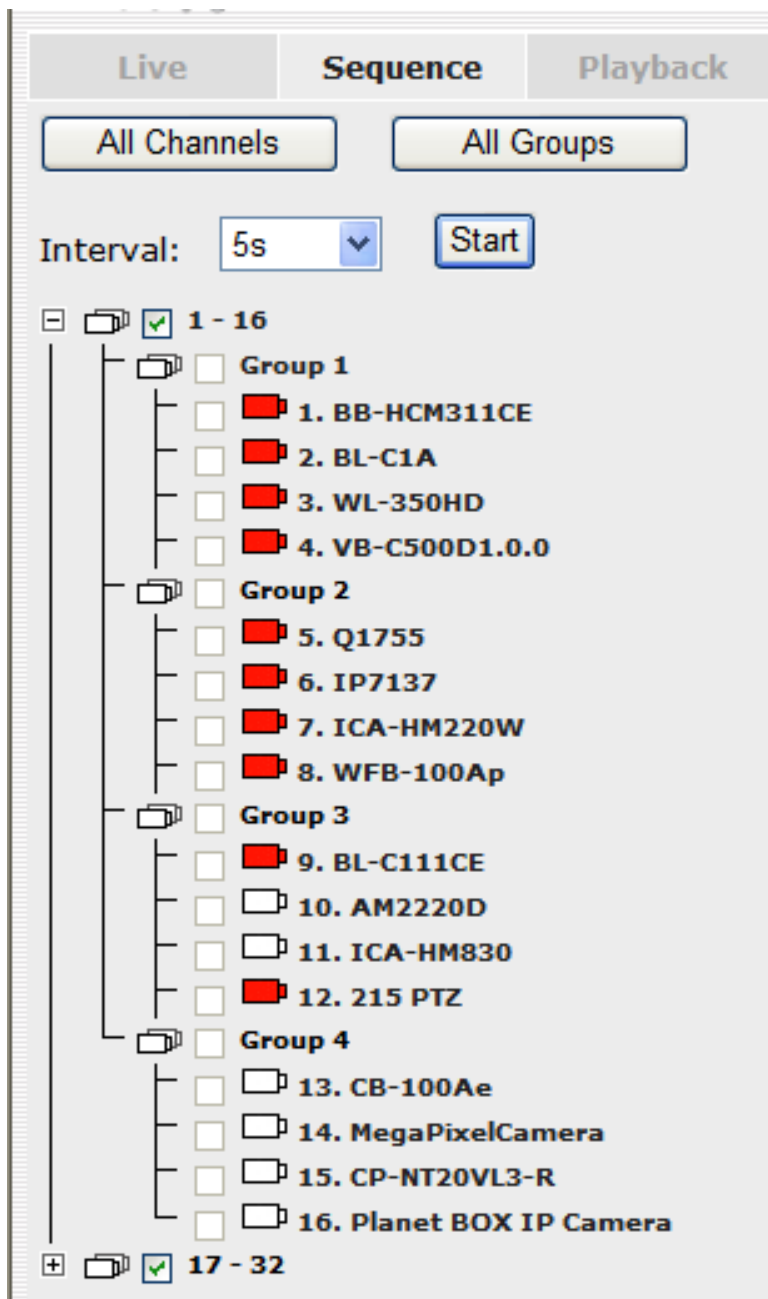
Gray: Disconnected

Red: Performing event recording
Green: Recording (manual/continuous/schedule)
White: This channel is not configured with any camera

Perform Sequence Viewing



Sequence view is a function that allows you to view multiple video streams from certain cameras in sequence automatically without having to select them one by one. To perform sequence view, select "SEQ View" from the upper-left hand corner

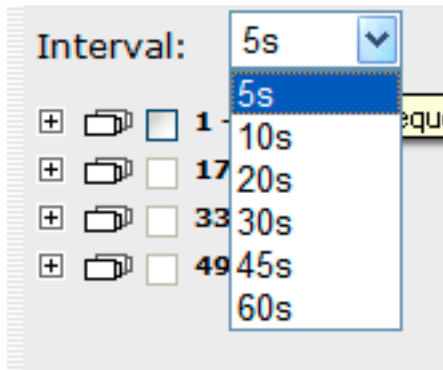


Next, select one or more camera(s) or camera group(s) for sequence viewing:

Select "1-16" and "17-32" to start sequence viewing in 16-video view

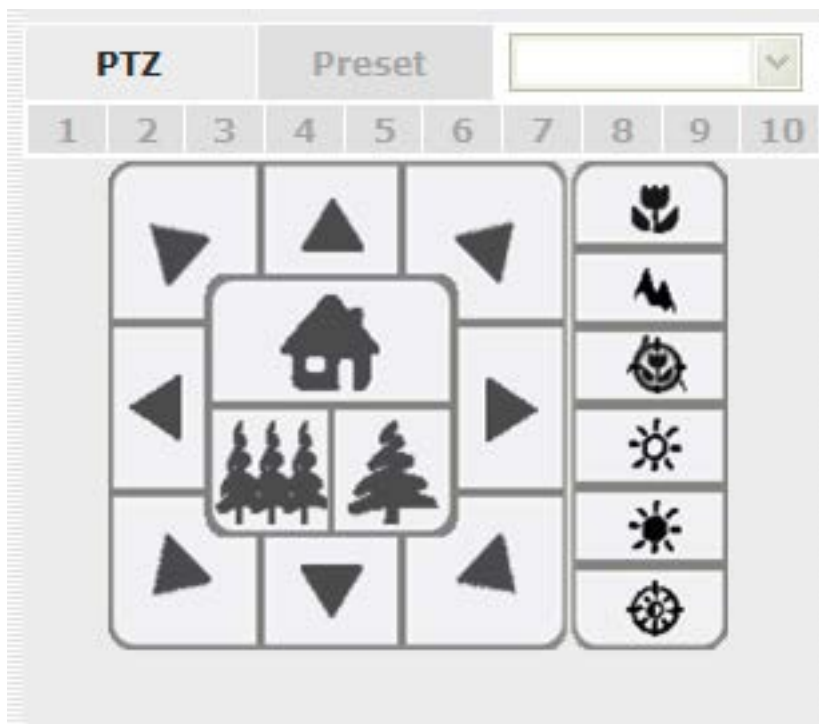
Select "Group(x)" to start sequence viewing in quad view

Select "cameras" to start sequence viewing in single video view

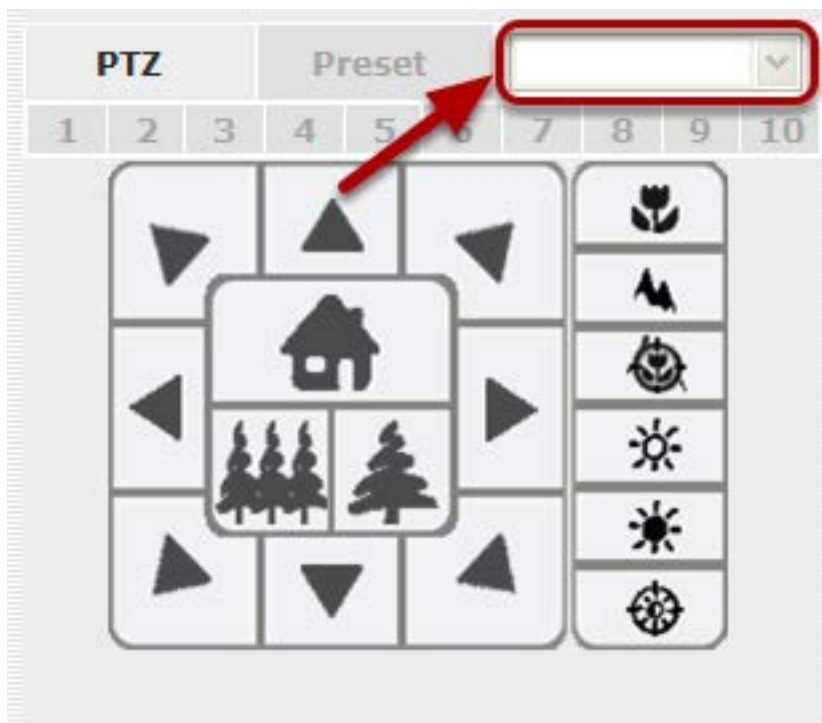


Then, select dwell interval from the drop-down menu and click "Start" to begin.

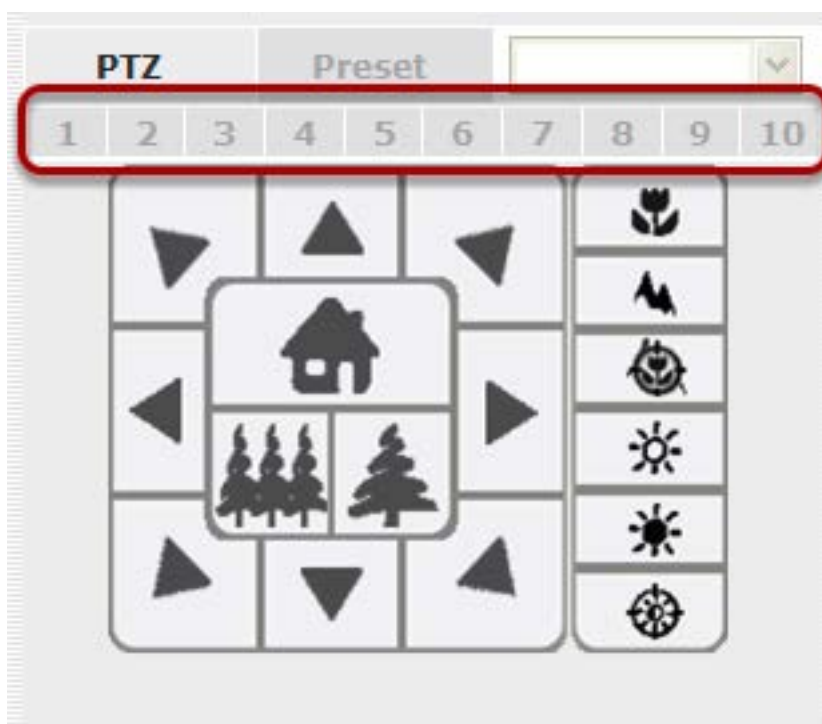
PTZ Control



PTZ control provides functions to pan, tilt, zoom a PTZ camera as well as the ability to adjust camera focus and iris.

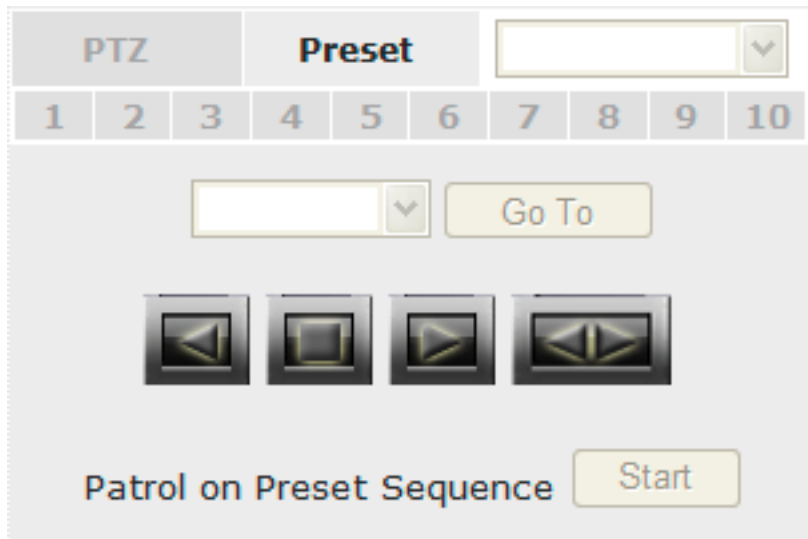


Only PTZ capable cameras will be listed in the drop-down menu



The bar highlighted above controls the moving angle. Larger number means bigger movement angle.

Perform PTZ Preset Viewing



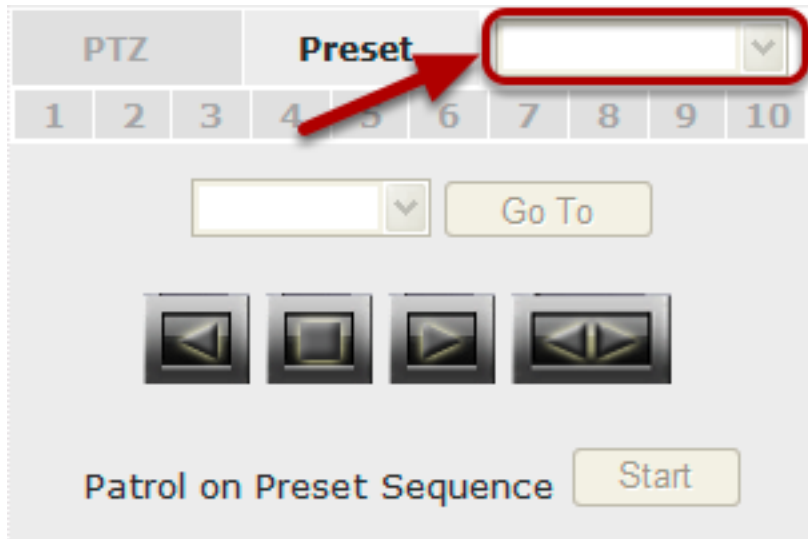
The interface for PTZ Preset Viewing consists of several components: a top bar with 'PTZ' and 'Preset' tabs and a dropdown menu; a row of 10 numbered buttons (1-10); a 'Go To' button next to a dropdown menu; four directional control buttons (left, right, up, down) with yellow arrows; and a 'Patrol on Preset Sequence' label with a 'Start' button.

There are three functions provided in the "Preset" section:

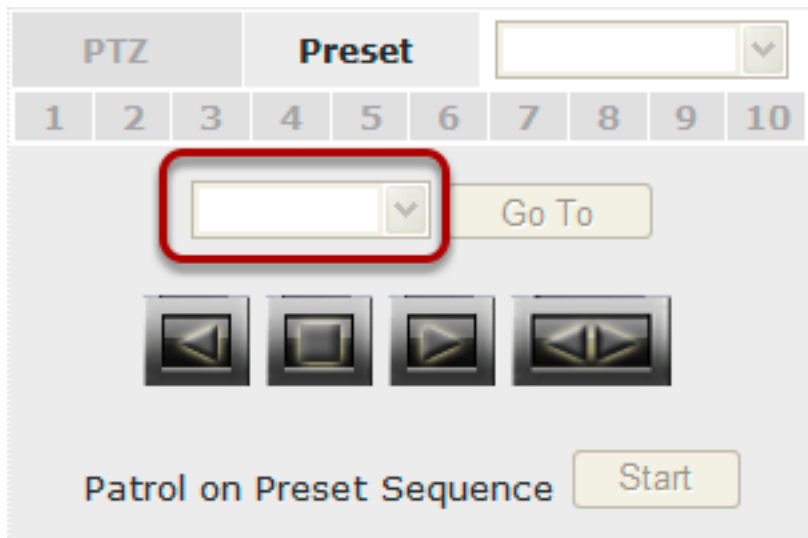
- Perform preset point viewing of a particular camera
- Auto pan a particular camera
- Perform preset point sequence viewing

(In order to use this function, one must configure camera's preset points in "NVR Setup" >> "Channl Configurations" >> "PTZ Preset" first)

Preset Point Viewing

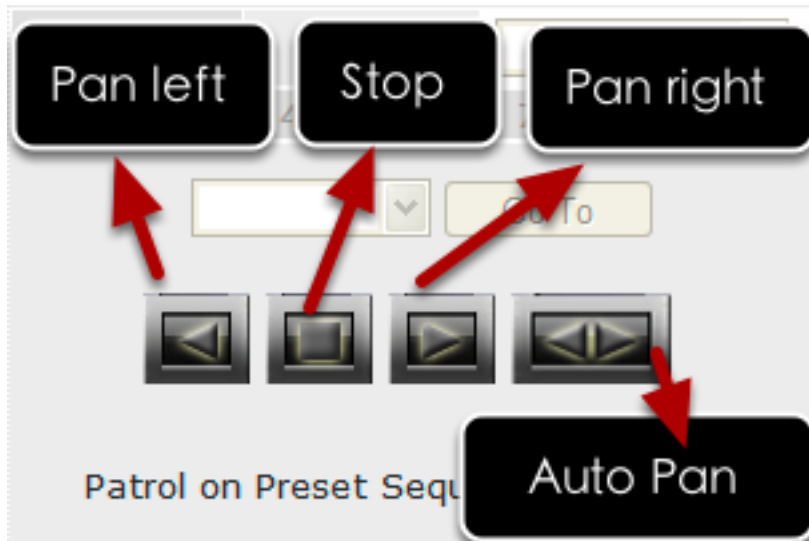


Start by selecting a PTZ camera from the drop-down list



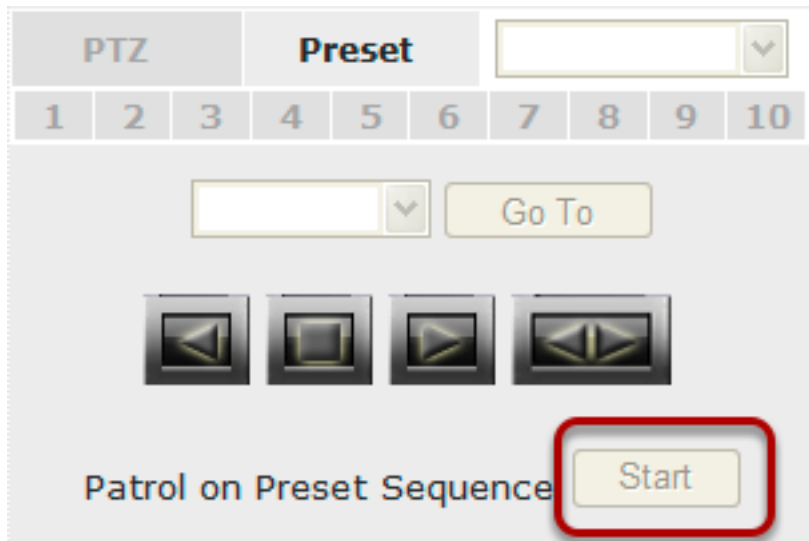
Its available PTZ preset points will be listed in the drop-down list shown below. Click "Go to" to move to the selected position.

Auto Pan Viewing



Use the Auto Pan control buttons to pan right, left and stop auto pan
** Certain cameras do not support bi-directional pan movements. Use the "Autopan" button for such cameras*

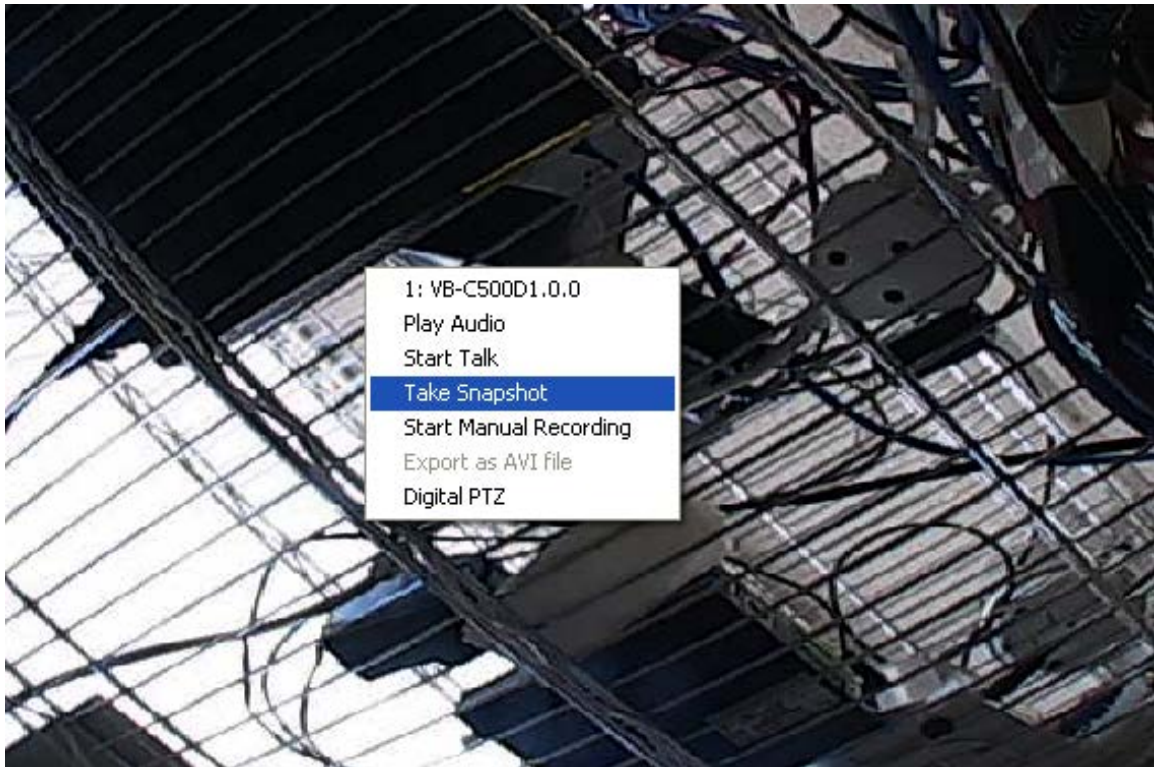
Preset Point Sequence Viewing



This function allows you to view multiple preset points from a video of a camera without having to select them one by one. Once you have defined the preferred preset points in "**Channel Configurations**" >> "**PTZ Setting**" >> "**PTZ Sequence**" under the "**Setup**" menu, click "Start" in the lower-left hand corner in Live View under "Preset" and

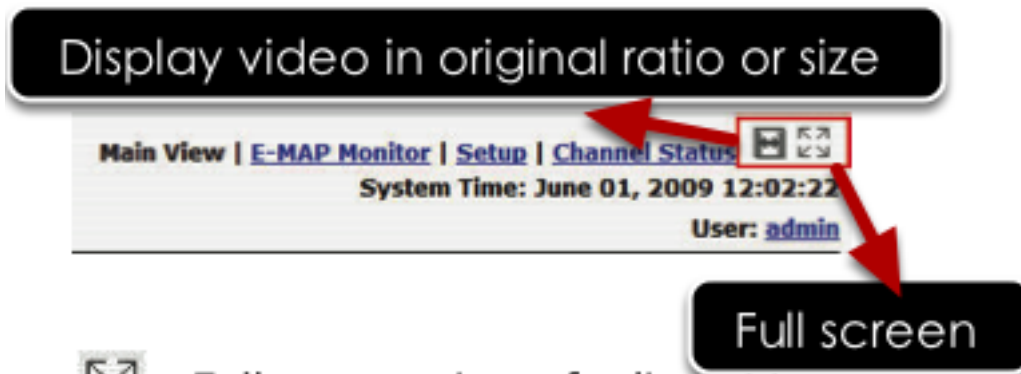
the recorder will begin to display videos from those preset points in sequence automatically until you click "Stop"

Live Video Controls



Users can perform certain functions to a live view video. They can be accessed by right-clicking on a video.

Display ratio and full screen

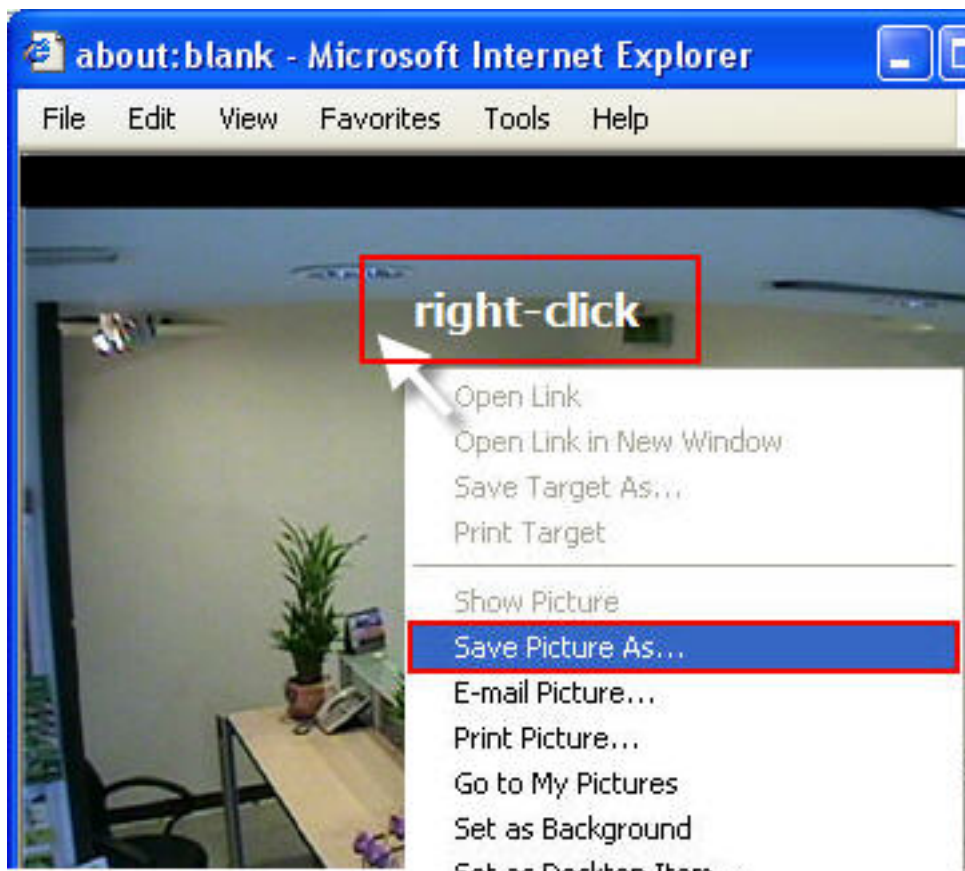


By default, the videos are set to fill the whole video window, to display its original size or ratio, use the button in the upper-right hand corner.

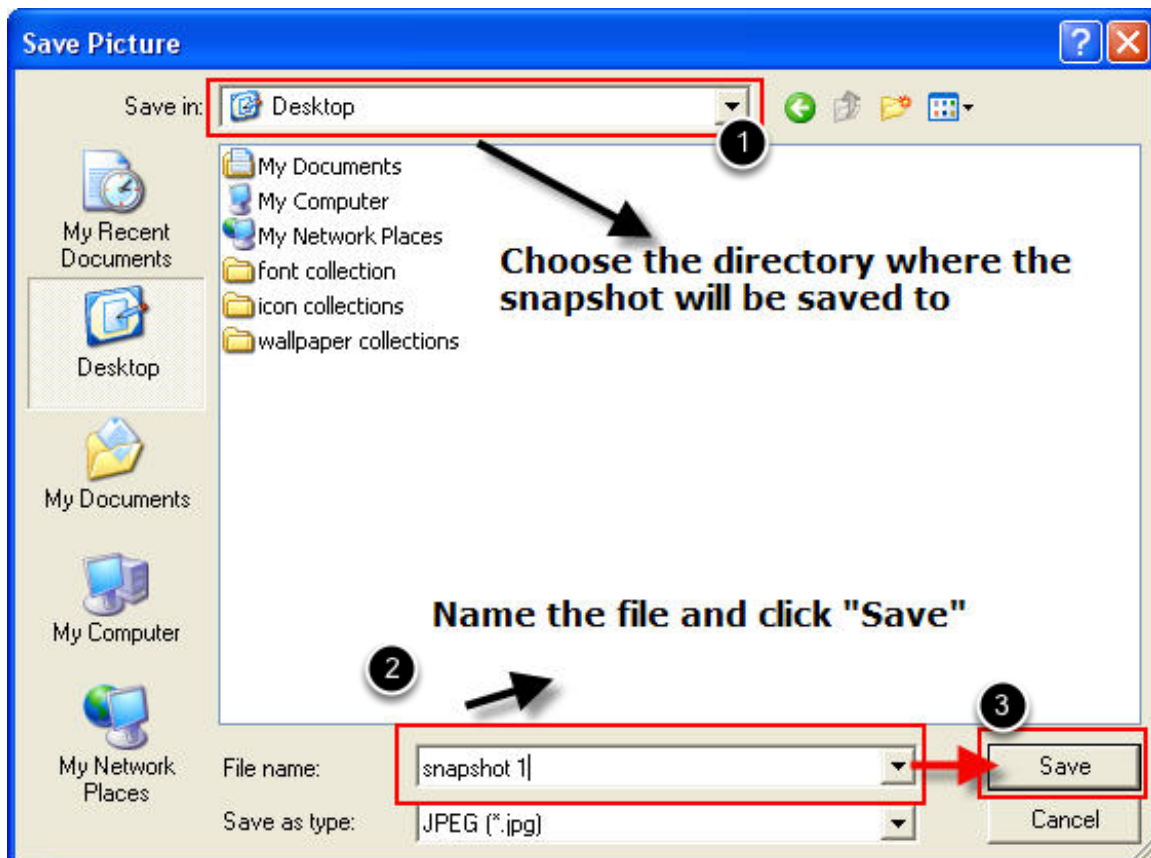
Take a snapshot of a live video



To take a snapshot of a live video, right-click on the video and select "Take Snapshot".

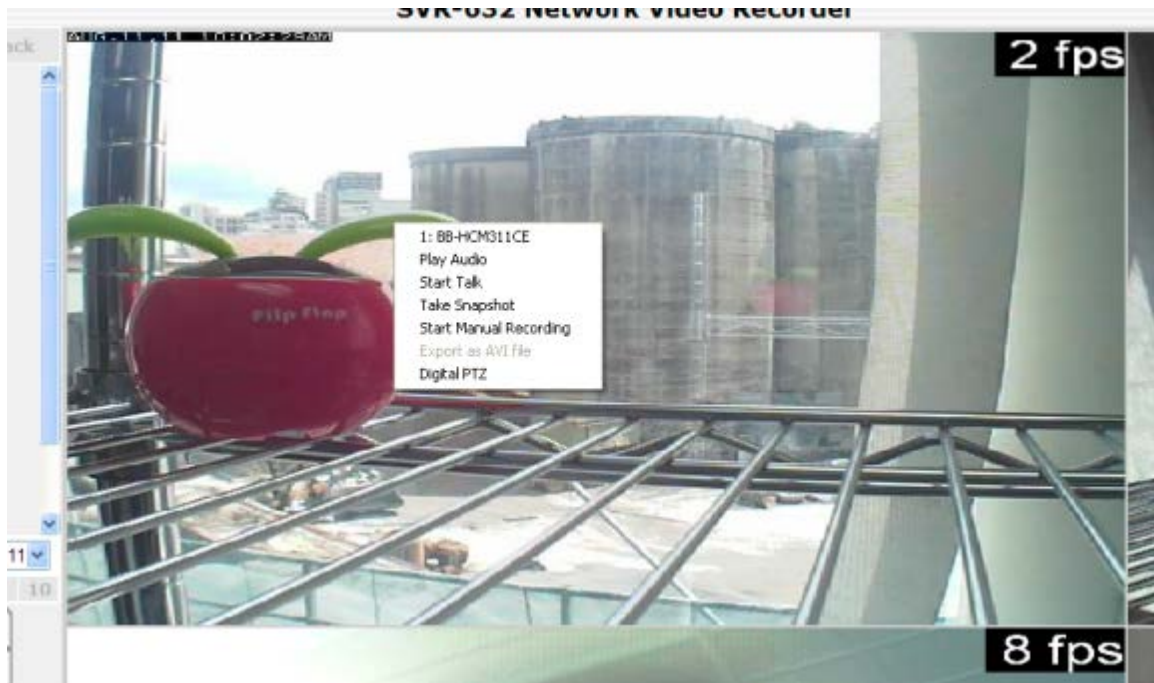


An additional window containing the captured image should be displayed. Right-click anywhere on the image and select "Save Picture As..." to save the image.

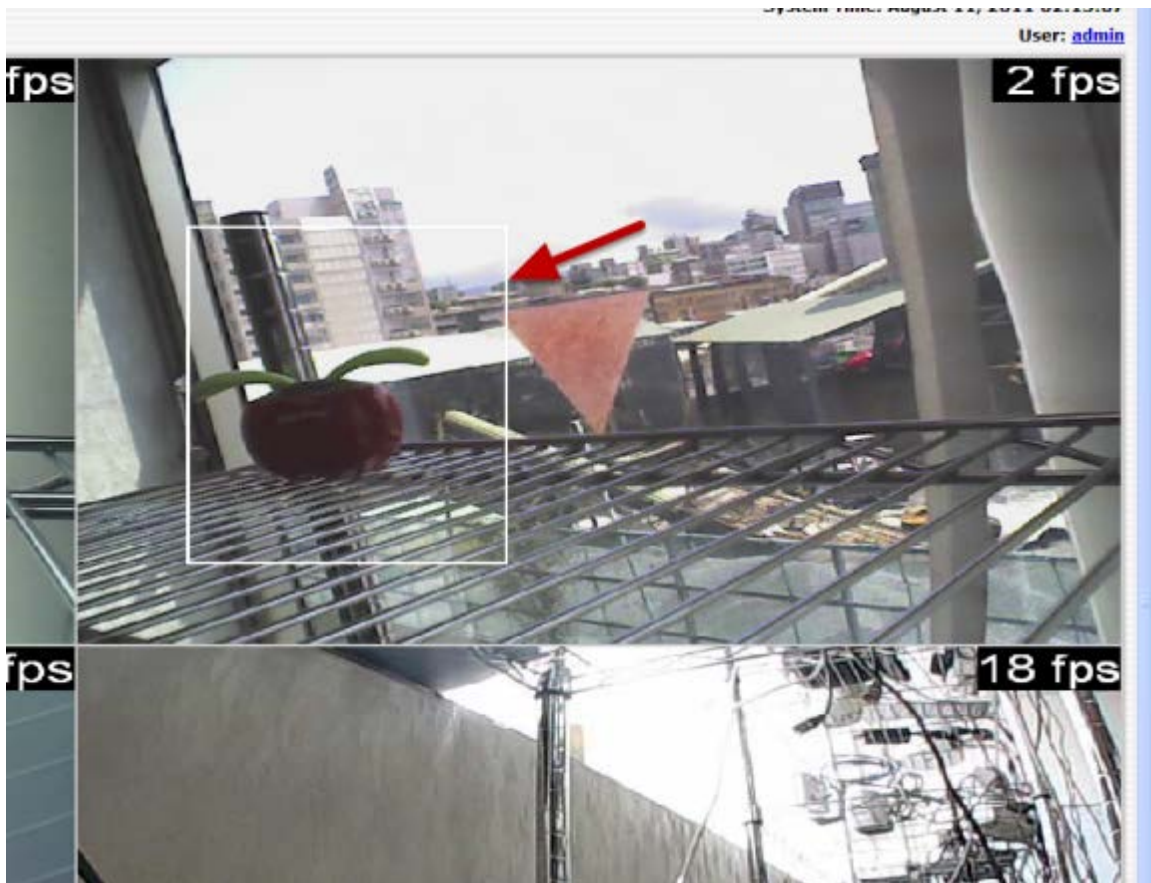


A dialog should be displayed that allows you to choose a directory/folder of where the snapshot will be saved to.

Perform Digital PTZ



To perform digital PTZ on a particular channel, right-click anywhere on its video and select "Digital PTZ".

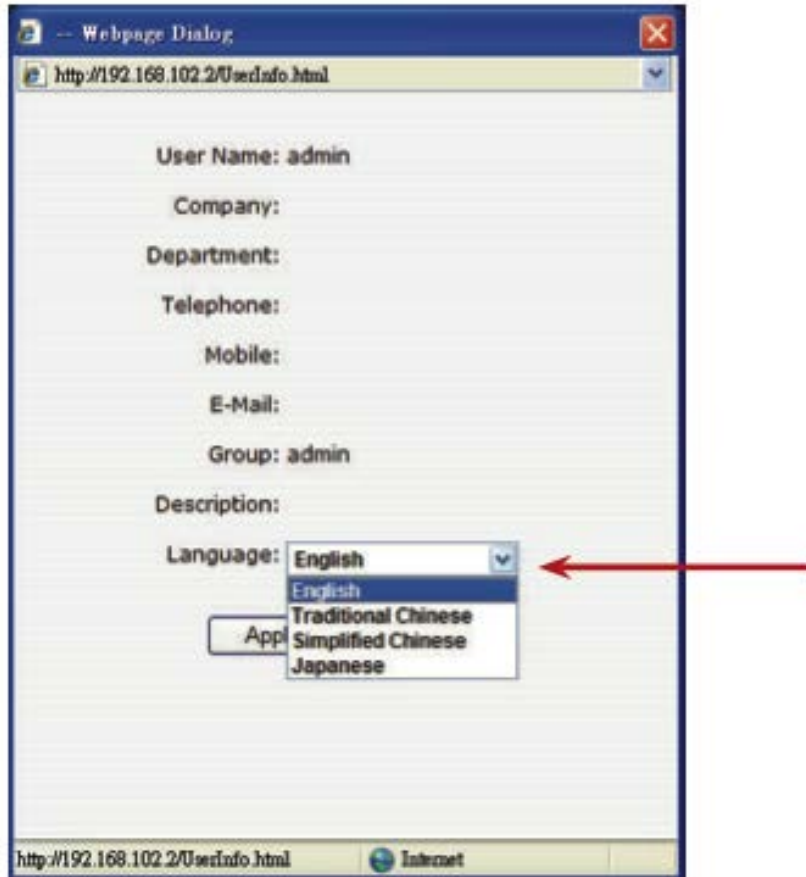
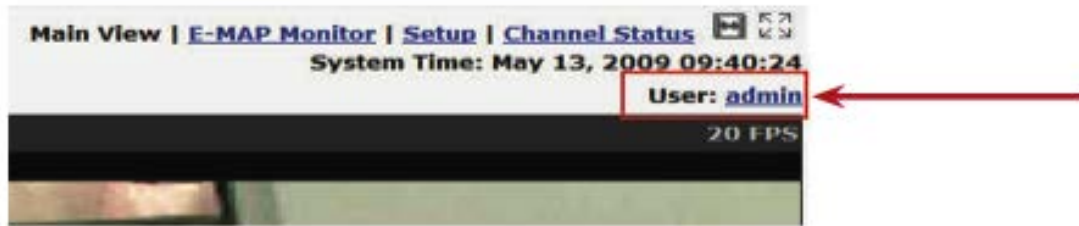


Next, hold the mouse left button and draw a square on the video to specify the zoom in area



Once the image is digitally zoomed in, use the mouse scroll button to further zoom on or zoom out the image. Hold and left-click on the image and move the mouse to move the zoomed in video.

Change Web UI Display Language



You can change the web UI display language from the current login username link located at the upper-right hand corner. Click on the link opens up a new window which displays detail information about the user as well as a drop-down menu which lets you change the display language.

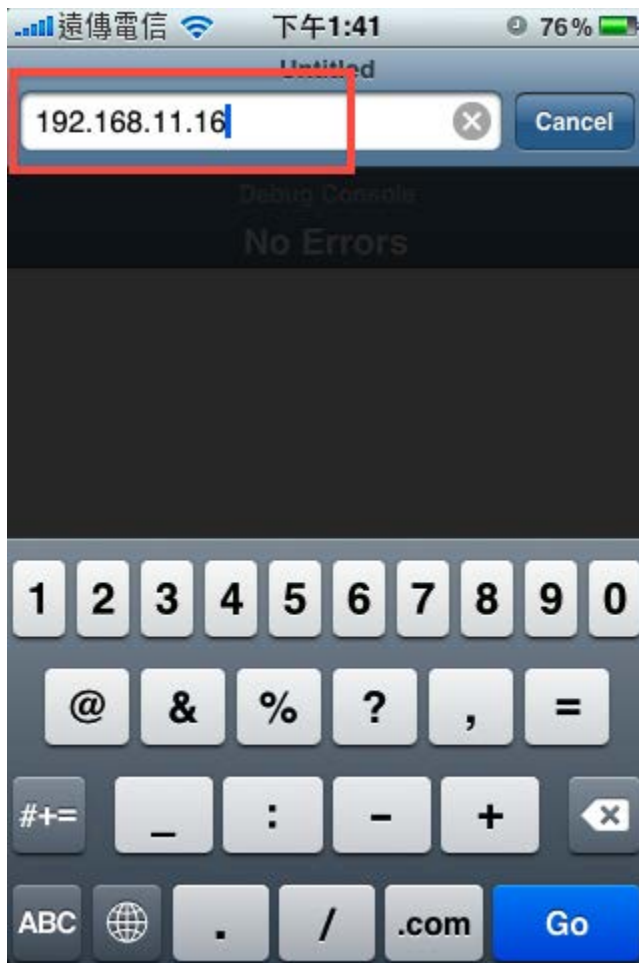
Live View through iPhone Safari Browser



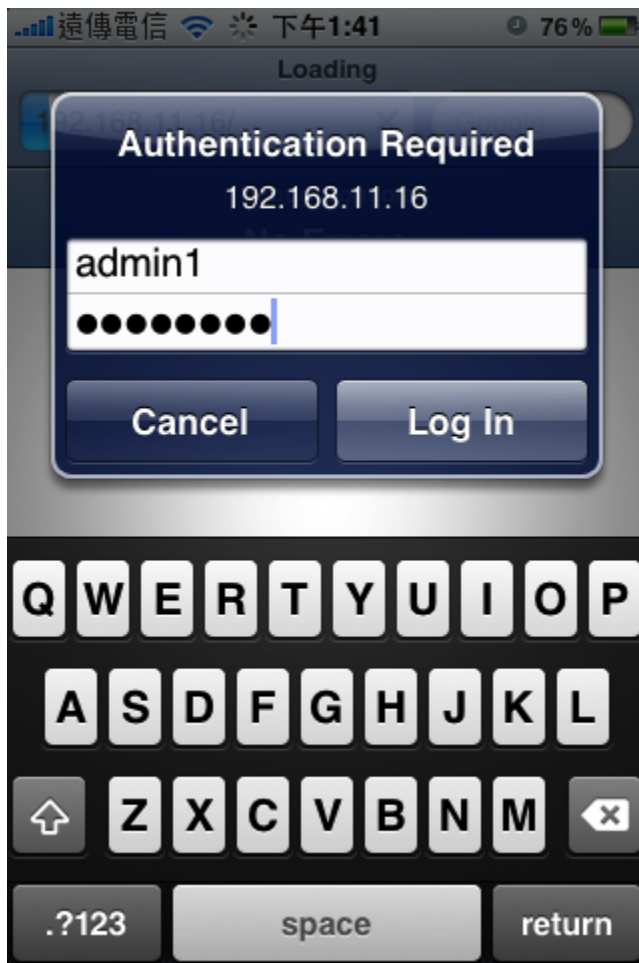
You can use iPhone and perform single channel live view to the NVR by using its Safari browser. To be able to view the live video through the Safari browser, make sure "javascript" is on under "Settings" >> "Safari" >> "Javascript"



Once Javascript is enabled, click the "Home" button on the iPhone to go back to the home screen and open the Safari browser



Type in the IP address of the NVR in the address bar



You should be prompted to enter the username and password to access the NVR

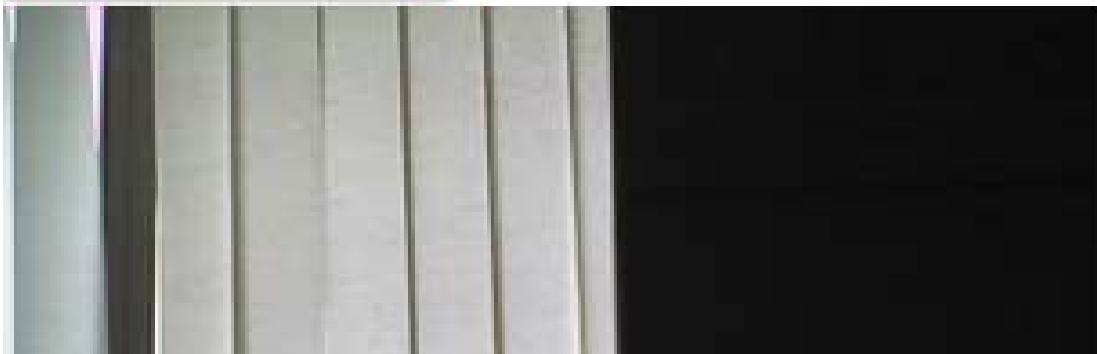


Upon successful login, you should see the live view video of the first channel



Image Size:

Channel:



Click on the "Channel" drop-down menu to select other cameras



Image Size:

Channel:



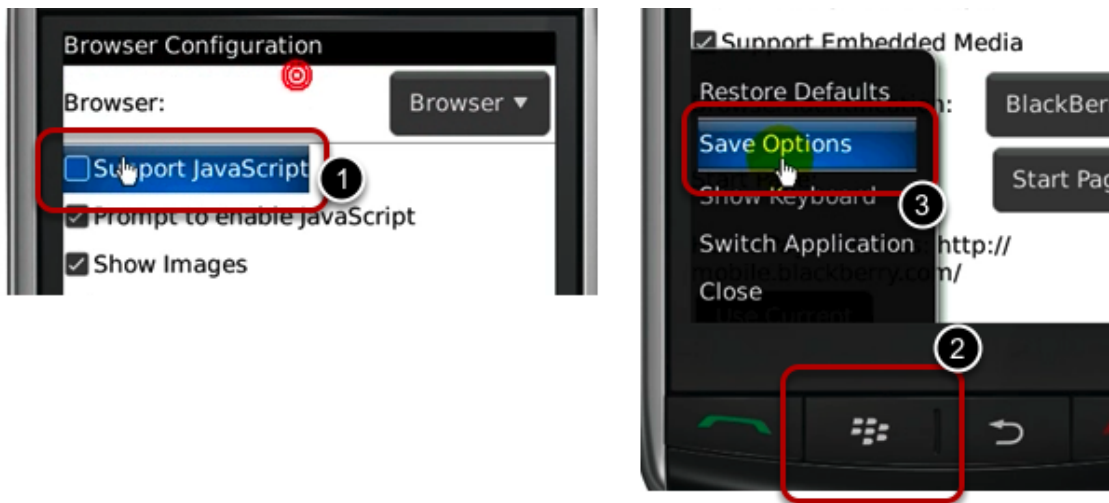
If a PTZ camera is selected, the corresponding control buttons will display (control PT only)

** Please note that this function is camera dependent and is not available to all cameras. Certain cameras do not allow adjusting image size and the selection "Auto" will be used.*

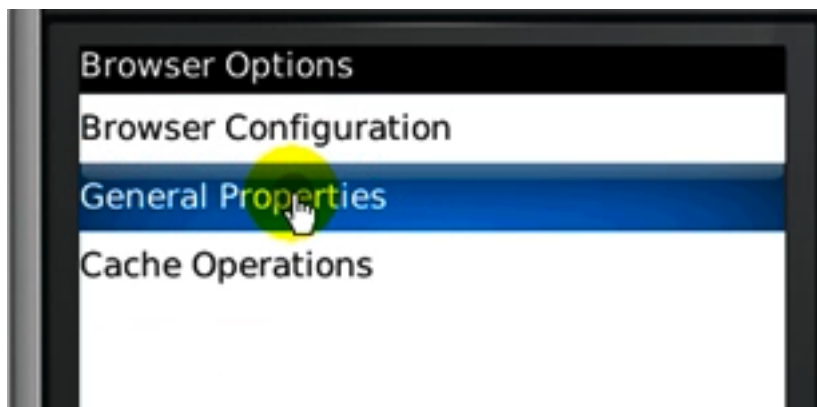
Live View through Blackberry Phones



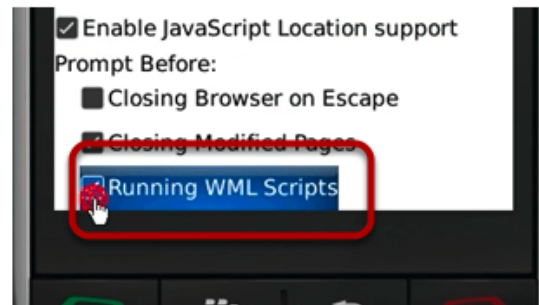
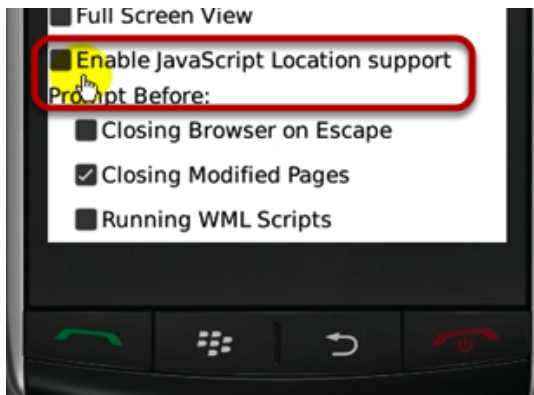
You can use Blackberry and perform single channel live view to the NVR by using its Safari browser. To be able to view the live video through its browser, make sure "javascript" is enabled under "Browser" >> "Menu button" >> "Options" >> "Browser Configuration"



Enable the "Support Javascript" option and click the menu button and click "Save Options"



Go to "General Properties"



Make sure two options illustrated above are enabled



Press the menu button and click the "Save Options" to save settings



Press the button highlighted above to go back to the browser

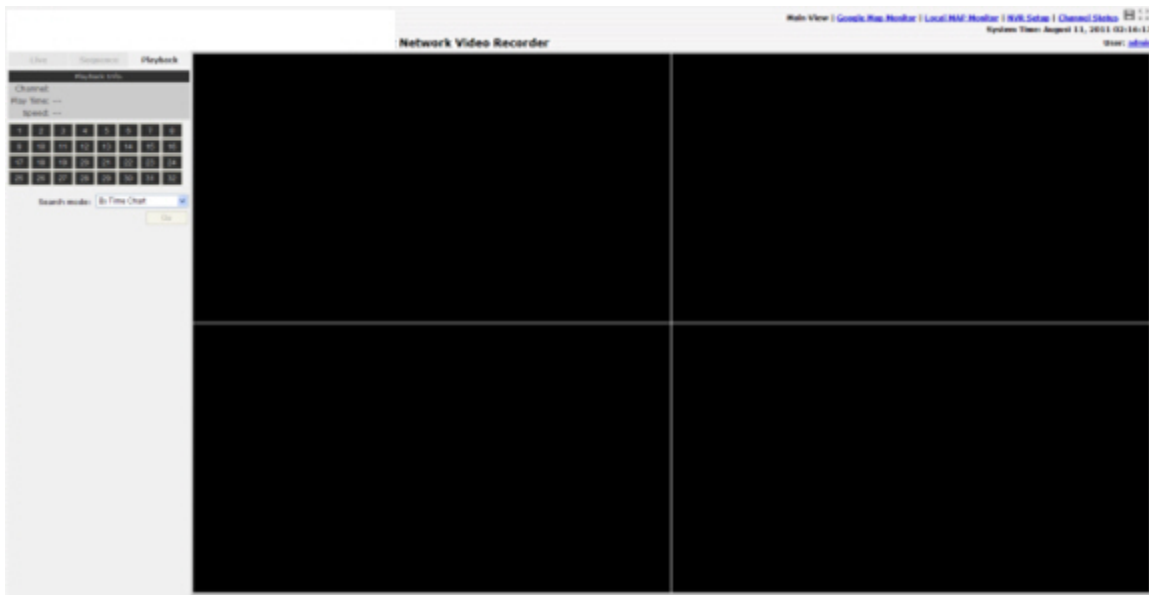


Type in the IP address of the NVR in the address bar



You should be prompted to enter its username and password for access

Playback



Playback is a function that allows you to play one or more videos that were previously recorded by a chosen recording method or due to an event trigger. The NVR offers synchronized playback from up to 4 channels and various types of search methods are provided to help you find the footage you need quickly.

You can turn on or off the audio of a recorded video at your choice if audio was also recorded during the recording of the video.

Playback video can be viewed in full screen and snapshots can be taken and saved during a video playback.

Methods to Search Playback Videos

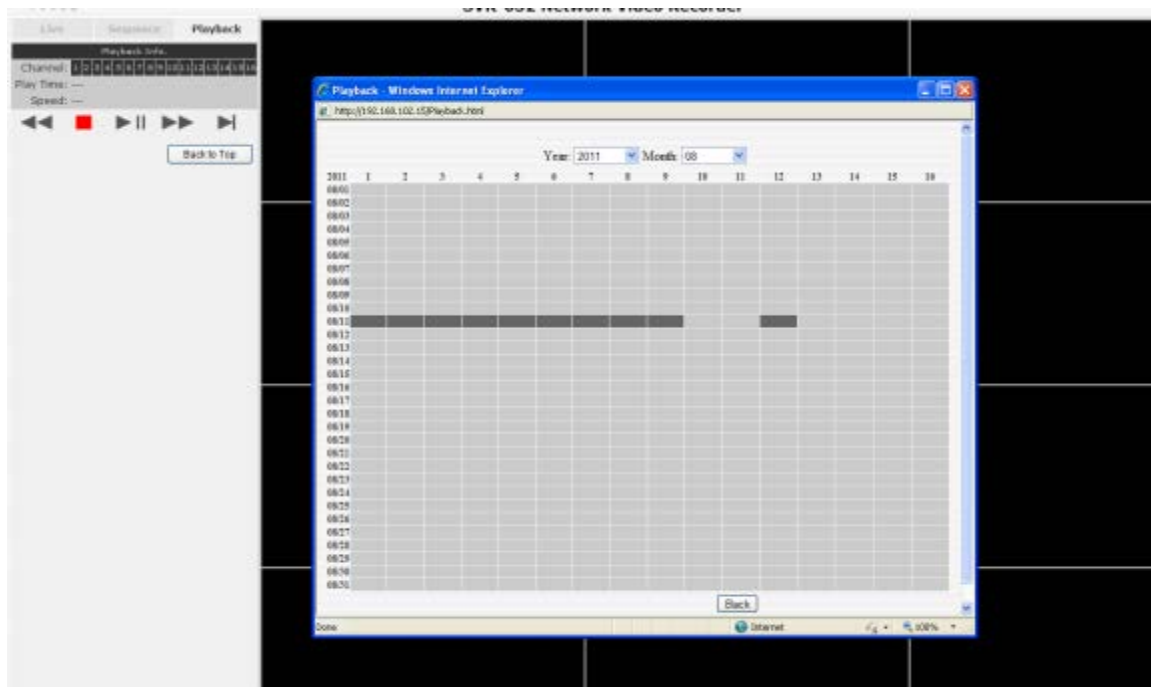
The NVR offers three methods to quickly help users find videos that were previously recorded:

- **Search by time:** *Specify a time range and search videos recorded within that range*
- **Search by event:** *Find videos that were recorded due to event triggers*
- **Most Recent Events:** *Displays the most recent 15 events*
- **Play by start time:** *Enter a specific time a video was recorded to start playing back the video*

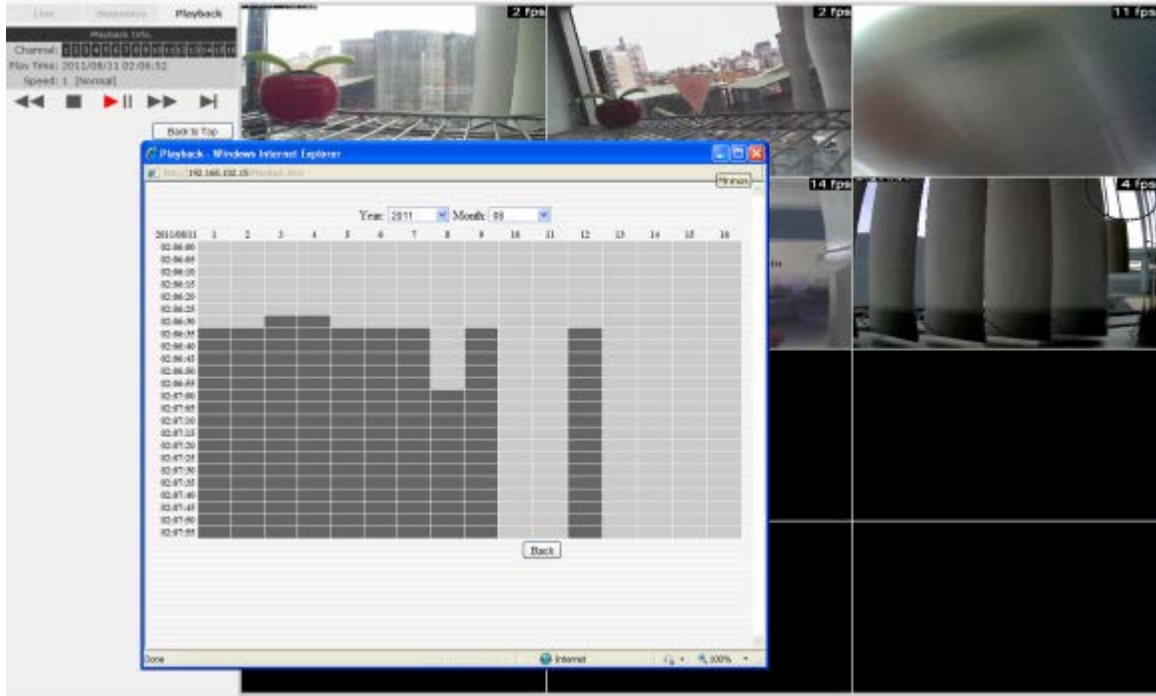
Search by time chart

Live	Sequence	Playback
Playback Info.		
Channel:		
Play Time: ---		
Speed: ---		
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31	32	
Search mode: <input type="text" value="By Time Chart"/>		
<input type="button" value="Go"/>		

1. Start by selecting which channel(s) you would like to perform a search on.
 2. Select "Search by time chart" from the "Search Method" drop-down list and click "Go" to start the search
- * Selected channels will be marked in red*



Results will then be displayed in a new dialog with a “Month/Channel” table and boxes marked in dark gray represent videos found in those dates. (* Videos from other cameras that are recorded on the same date will also be displayed)



Clicking on a cell box marked with gray will take you to the "day" view of the selected month. Repeating the same step will eventually take you to the "second" view (5sec per cell box). Right-click anywhere or the "Back" button on the table will take you back to the previous view.

Click on the play button at anytime will start playing videos from the beginning of the current time view (ex. if the table is in the "month" view, click play will start playing from the first available clip of that month)

Search by event

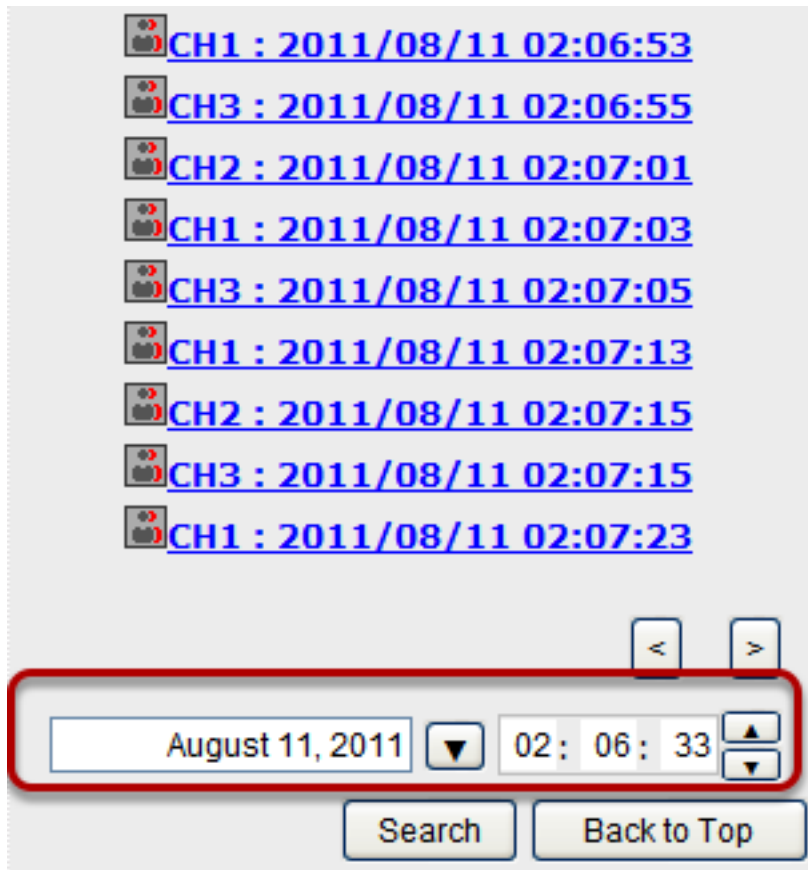


Start by selecting which channel(s) you would like to perform a search on.

Select "Search by event" from the "Search Method" drop-down list and click "Go" to start the search

Live	Sequence	Playback															
Playback Info.																	
Channel:	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16																
Play Time: -----																	
Speed: --																	
CH3 : 2011/08/11 02:06:35																	
CH1 : 2011/08/11 02:06:36																	
CH2 : 2011/08/11 02:06:39																	
CH1 : 2011/08/11 02:06:43																	
CH3 : 2011/08/11 02:06:45																	
CH2 : 2011/08/11 02:06:50																	
CH1 : 2011/08/11 02:06:53																	
CH3 : 2011/08/11 02:06:55																	
CH2 : 2011/08/11 02:07:01																	
CH1 : 2011/08/11 02:07:03																	
CH3 : 2011/08/11 02:07:05																	
CH1 : 2011/08/11 02:07:13																	
CH2 : 2011/08/11 02:07:15																	
CH3 : 2011/08/11 02:07:15																	
CH1 : 2011/08/11 02:07:23																	
<div style="text-align: right;"> </div>																	
<div>August 11, 2011 </div>																	
<div>02 : 06 : 33 </div>																	
<div>Search Back to Top</div>																	

Results will then be listed like what is shown below (displays the oldest record top down). Click on a particular result to start the playback. (* You can click "Next Search" to display the next 15 results.)



The screenshot shows a web interface with a list of search results. Each result consists of a small icon (a camera with a red dot) followed by a blue, underlined text string. The results are as follows:

- [CH1 : 2011/08/11 02:06:53](#)
- [CH3 : 2011/08/11 02:06:55](#)
- [CH2 : 2011/08/11 02:07:01](#)
- [CH1 : 2011/08/11 02:07:03](#)
- [CH3 : 2011/08/11 02:07:05](#)
- [CH1 : 2011/08/11 02:07:13](#)
- [CH2 : 2011/08/11 02:07:15](#)
- [CH3 : 2011/08/11 02:07:15](#)
- [CH1 : 2011/08/11 02:07:23](#)

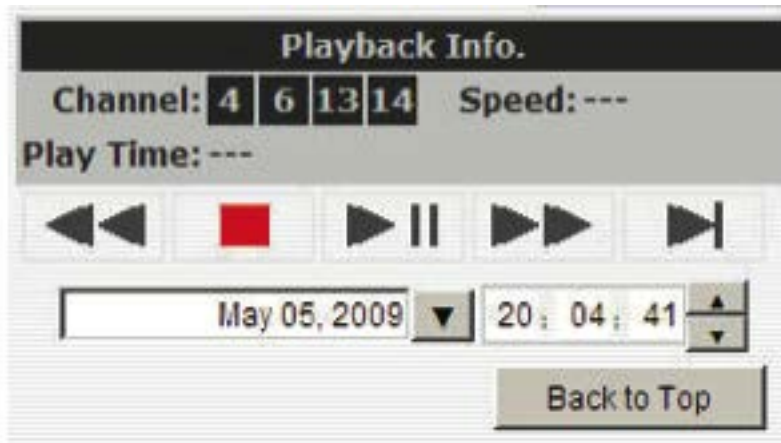
Below the list is a search filter section. It includes a date dropdown menu set to "August 11, 2011", a time dropdown menu set to "02 : 06 : 33", and two small buttons labeled "<" and ">". The entire filter section is enclosed in a red rectangular box. At the bottom of the interface are two buttons: "Search" and "Back to Top".

You may also specify a new start time to search and display results from then on. You can restrict the number of results to be displayed at once (max. 30) and perform the search again

Play by specific time




If you know when a recording was taken place, you may choose the "Play by start time" from the "Search Method" drop-down list



Then you will be prompted to enter a specific time and date for the recorded video.

Search by event (Most Recent)

Live	Sequence	Playback
Playback Info.		
Channel: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16		
Play Time: -----		
Speed: --		
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31	32	
Search mode: <div>By Event  By Time Chart By Specific Time By Event By Event (Most Recent)</div>		

This function quickly displays the most recent event recordings from the selected channels, displaying the most recent result top down.

LiveSequencePlayback

Playback Info.

Channel: 12345678910111213141516

Play Time: -----

Speed: --

◀◀

■

▶▶

⏸

▶▶▶

▶

 [CH3 : 2011/08/11 02:22:02](#)

 [CH1 : 2011/08/11 02:22:01](#)

 [CH2 : 2011/08/11 02:21:56](#)

 [CH3 : 2011/08/11 02:21:52](#)

 [CH1 : 2011/08/11 02:21:50](#)

 [CH2 : 2011/08/11 02:21:46](#)

 [CH3 : 2011/08/11 02:21:41](#)

 [CH1 : 2011/08/11 02:21:39](#)

 [CH2 : 2011/08/11 02:21:34](#)

 [CH3 : 2011/08/11 02:21:31](#)

 [CH1 : 2011/08/11 02:21:29](#)

 [CH2 : 2011/08/11 02:21:23](#)

 [CH3 : 2011/08/11 02:21:21](#)

 [CH1 : 2011/08/11 02:21:19](#)

 [CH2 : 2011/08/11 02:21:12](#)

Update

Back to Top

You may click "Update" to update the list to display the most recent results.

Certain functions you can perform to the playback video



You can do the followings by right-clicking on the playback video:

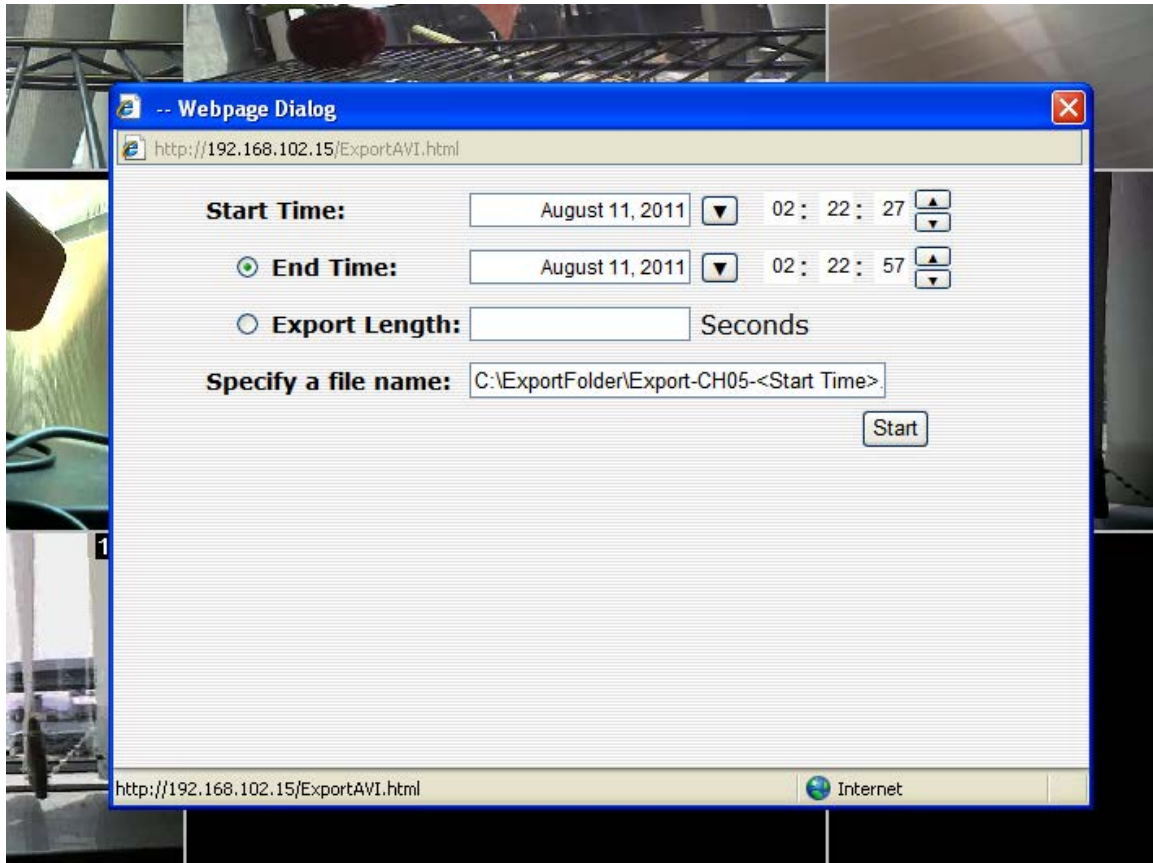
1. Play Audio
2. Snapshot
3. Export as AVI file
4. Digital PTZ

Export Playback Videos to AVI Files

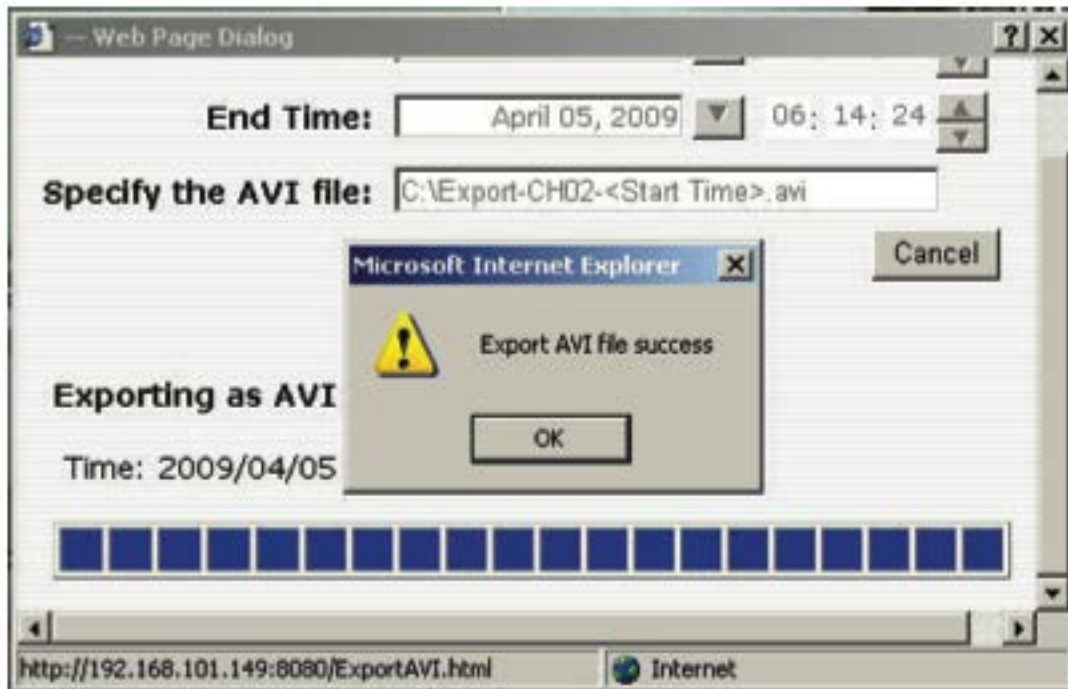


User can export the recorded playback videos stored on the NVR to a local computer and save them in AVI file format. The files can then be played on the PC by a 3rd party media player such as VLC player or Windows Media player.

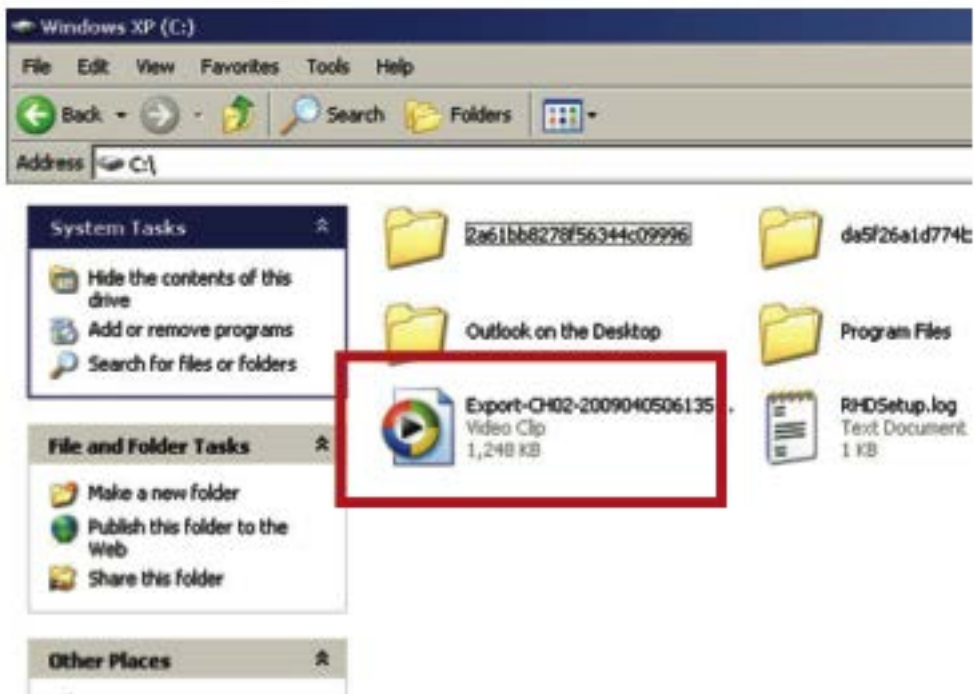
Once you locate the recorded videos with steps described in the previous section, select "Export as AVI file"



A new dialog will pop up and allows you to specify the time frame (or length) of the video you wish to export



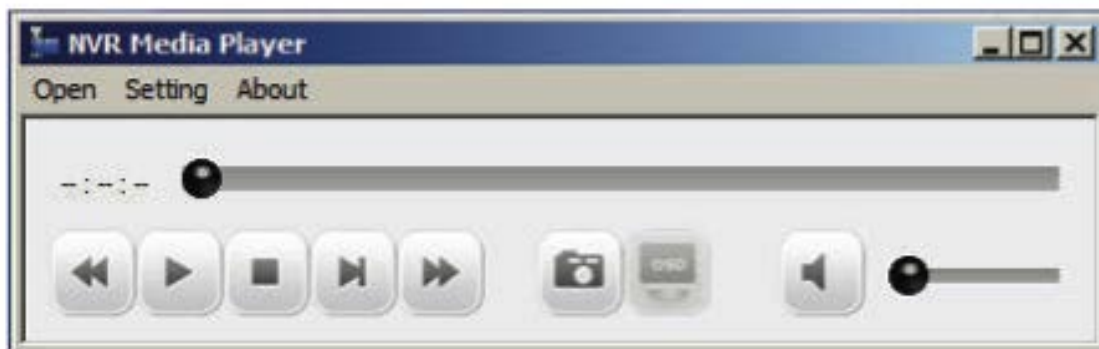
Specify the Start time/End time (or export length) and click "Start" to begin exporting.
You will be notified once the process is completed successfully



The exported AVI file will be saved under the C partition (or the partition where Windows is installed)

** ffdshow is required in order to play the exported AVI file with Windows Media Player. You can get it at "<http://sourceforge.net/projects/ffdshow-tryout/>" to download the "ffdshow_beta6_rev2527_20081219.exe"*

Play Exported Playback Videos with NVR Media Player

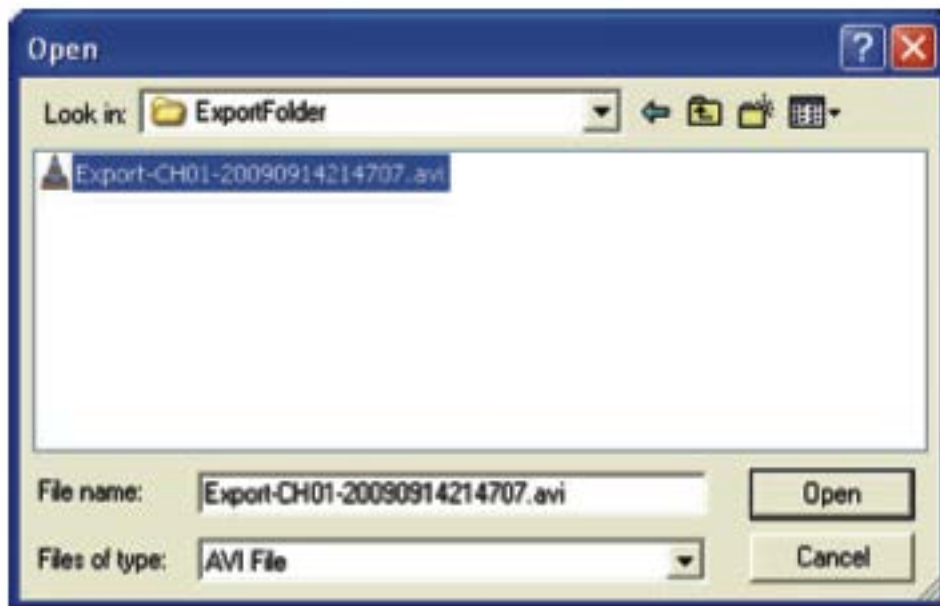


You can also use the NVR Media Player to play the exported AVI files. This can save you the trouble of installing third-party media player or codecs when playing the exported AVI videos.

The NVR Media Player will be automatically installed after the CMS software is installed. You can find it in the Windows Start menu.



Click "Open" >> "AVI File"

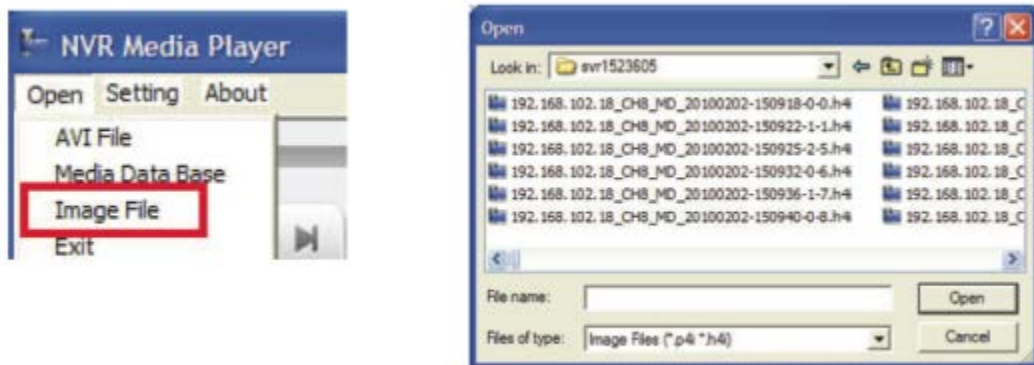


Locate the exported AVI file, and click "open". (normally under "C:\ExportFolder")



The video will then start playing

Open Event Snapshot images with NVR Media Player



The NVR sends snapshots that are taken when an event occurs to a destined FTP server or mail recipient. These type of snapshot images

are saved in a proprietary image file format, h4i or p4i, and can only be opened by the NVR media player.

To do so, Select "Open" from the top menu then select "Image File". A new dialog should be displayed which lets you locate the image file.

NVR Setup -- System Configurations

Network Setup

The "System Configurations" page provides users options to setup the device quickly and properly. After properly configuring all settings in all the sub-pages, users should expect a fully working network video recorder that is ready to manage cameras on the network. We will start by configuring its network settings to make sure it works correctly in your network. Next, we will help you adjust the system time so videos will be recorder with correct timestamp. To better secure the system for unwanted disturbance, we will guide you on setting up user's account and privileges to prevent settings gets altered by users other than the system administrator. Lastly, we will tell you what you should expect after installing a hard disk and how to prepare the hard disk for the video recording.

Network Settings

The screenshot shows a web-based configuration interface for an NVR. On the left is a sidebar menu with the following items: **Setup**, **System Configuration** (with sub-items: Network Setup, Time and Date, Users Account, Group Privilege, Disk Setup), **Channel Configuration**, **Event Configuration**, **Recording Configuration**, and **System Options**. The main content area is titled "Network Setting" and contains the following fields and controls:

- Connection Type: A dropdown menu set to "DHCP".
- IP Address: 192.168.102.2
- Subnet Mask: 255.255.252.0
- Gateway: 192.168.101.1
- DNS1: 192.168.11.11
- DNS2: 192.168.11.13
- HTTP Port: 80
- Streaming Port: 9877
- UPnP Port Forwarding: An unchecked checkbox.
- External Port: 6000
- Buttons: "Test" and "Force Change" next to the External Port field.

Below the "Network Setting" section is an "Optional Setting" section with a "Device Name" field containing the text "test". At the bottom center of the page is an "Apply" button.

You need to adjust settings in this page for the device to work properly in your network. It is critical that settings here are configured

correctly based on your network configurations so that the recorder can be administered through the local area network and cameras can be connected from it.

By default, the recorder is set to obtain IP address from DHCP server, it should be sufficient in most network environments, and most likely you should not need to alter anything in this page.

The screenshot shows a web interface for network configuration. It is divided into several sections: **Network Setting**, **Optional Setting**, **DHCP Server**, and **Current DHCP Clients**.
1. In the **Network Setting** section, the **Connection Type** dropdown menu is set to **Static IP**.
2. A red box highlights the static IP configuration fields: **IP Address** (192.168.101.143), **Subnet Mask** (255.255.252.0), **Gateway** (192.168.101.1), **DNS1** (192.168.11.11), and **DNS2** (192.168.11.13).
3. Below these are fields for **HTTP Port** (80) and **Streaming Port** (9877).
4. The **UPnP Port Forwarding** section has an unchecked checkbox, **External Port** (6000), and **Test** and **Force Change** buttons.
5. The **Optional Setting** section has a **Device Name** field containing 'tst'.
6. In the **DHCP Server** section, the **DHCP Server** toggle is set to **OFF**.
7. An **Apply** button is located below the DHCP Server section.
8. The **Current DHCP Clients** section contains a table with headers: **IP Address**, **Name (if any)**, **MAC Address**, and **Time when IP obtained**.

IP Address	Name (if any)	MAC Address	Time when IP obtained
------------	---------------	-------------	-----------------------

If you wish to set the recorder to use a static IP address in your local area network,

1. Choose "Static IP" from the "Connection Type" drop-down menu

2. Enter the IP address, subnet mask, default gateway address and DNS server address for the recorder
3. Enable "DHCP Server" under "DHCP Server" if you wish to use the recorder as a DHCP server, or leave it disabled if there is already a DHCP server in the network
4. Click Apply for the settings to take effect

** The recorder can detect the presence of a DHCP server upon startup. It sets itself to use static IP address if there is no DHCP server currently presented in the network. Its DHCP server function is also turned on at the same time to assign IP addresses to cameras that are later connected to the network or you can manually turn off the DHCP server function if you wish to use a separate DHCP server*

DDNS Service

NVR Setup

System Configuration

Network Setup

DDNS Service

Time and Date

Users Account

Group Privilege

Disk Setup

Channel Configuration

Event Configuration

Recording Configuration

System Options

Dynamic DNS Service

☐ Enable DDNS Service

Server Address:

Domain Name:

User ID:

Password:

Connection Status: Disconnected

DDNS, which stands for "Dynamic DNS", is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system (in this case, the NVR) using the Internet Protocol Suite, to notify a domain name server to change, in real time, the active DNS configuration of its configured hostnames, addresses or other information stored in DNS.

A popular application of dynamic DNS is to provide a residential user's Internet gateway that has a variable, often changing, IP address with a well known hostname resolvable through standard DNS queries. This is useful if the NVR is placed on the Internet with a dynamic public IP, which once the DDNS is properly setup, users can access the NVR remotely with the DDNS domain name without worrying if the IP has changed or not.

**Please make sure a valid DNS server has been configured under the "Network Setting" page in order for this function to work properly.*

**The NVR currently only works with free DDNS service provided by "DynDNS". For more information, please go to www.dyndns.com*

If the NVR is placed behind a router or Internet gateway, please make sure port forwarding for port 80 is configured on the router or the gateway in order for the DDNS function to properly register with the service. **It's often suggested to use the DDNS function in the router/ gateway for such case instead.*

**Once you have the DDNS function successfully up and running, please DO NOT forget to configure port forwarding for the NVR web port (default 80) and the streaming port (default 9877) in the router/gateway for remote viewing. You can then type in <http://yourddnsdomain> in the browser to access the NVR remotely for live view.*

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Dyn's legendary free DNS service allows you to create a hostname that points to your home or office IP address, providing a easy URL for you to remember anywhere you have internet access.

Dyn also provides update mechanisms for making hostnames work with your dynamic IP address, delivery of your DNS records to five DNS servers in five Tier 1 bandwidth datacenters around the world, fast propagation/reliable static IP caching for DNS TTL values and more.

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Get up to 648,000 queries per month.

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Get two domains in 18 available hostnames like DynDNS.org, DynDNS-home.com and more.

Uptime when you're down

When you're offline, forward web requests or mark your host servers offline.

DynDNS Free

GET IT NOW

Additional & Add-on Features

WebHop

In order to properly configure the DDNS service function, please register a free DDNS domain name and account from DynDNS first. Go to **<http://dyn.com/dns/dyndns-free/>** from the browser to do so.

Add New Hostname [↑ Host Services](#)

Note: You currently don't have any active [Dynamic DNS Pro](#) in your account. You cannot use some of our Host Service features. Paying for an Dynamic DNS Pro will make this form fully functional and will add several other features.

Hostname: - *Enter a desired hostname here*

Wildcard Status: Disabled [\[Want Wildcard support?\]](#) *Select a desired sub-domain from the drop-down menu*

Service Type: ☒ Host with IP address [\[?\]](#)
☐ WebHop Redirect [\[?\]](#)
☐ Offline Hostname [\[?\]](#)

IP Address:
[Your current location's IP address is 60.250.139.170](#)
[TTL](#) value is 60 seconds. [Edit TTL](#) *Click here to automatically fill in the current public IP in the "IP Address field"*

Mail Routing: ☐ Yes, let me configure Email routing. [\[?\]](#)

What do you want to use this host for?
 Select services and devices you would like to use with this hostname.

Work From Home Office or VPN: *Pick one or more options here (any is fine)*

Hosting and Design For Web Sites and Blogs:

Remote Access For Devices:

Click to go to the next step

Fill in the necessary fields as illustrated above

Hostname: -

This hostname already exists. It may be in use by another customer.

The page will check whether the hostname you entered has been used by another user or not as soon as you click the "Add to Cart" button. If

you see below message, simply enter a different and click "Add to Cart" again

Shopping Cart

Host **seenergy88.dyndns.org** added to cart. **Finish FREE checkout to activate.**

Your cart contains **free services only**. You will not be asked for credit card information.

Upgrade Options

Free accounts allow only five Dynamic DNS hosts.

- To add more and enjoy [additional benefits](#) for only \$15.00 per year, [purchase Dynamic DNS Pro](#).
- To get Dynamic DNS for **your own domain**, use [Custom DNS](#).

Dynamic DNS Hosts	
seenergy88.dyndns.org	<div>remove</div> \$0.00

Have a coupon? [Log in.](#)

Sub-Total: \$0.00

Order Total: \$0.00

Create account or log in to continue

Create an username and a password here. This will be used in the NVR's configuration. Enter a valid email address as well.

Username:

Password:

Confirm password:

Email:

Confirm email:

Subscribe to:

☐ DynDNS.com newsletter (1 or 2 per month)

☐ Dyn Inc. press releases

☐ Remove HTML formatting from email

Already Registered?


Username

Password

Log in

[Forgot your password?](#)

Security Image:



Enter the numbers from the above image:

☒ I agree with the [acceptable use policy \(AUP\)](#) and [privacy policy](#).

Create Account

Enter the security code

Check to agree the license

Click to finish creating the account

Once you get to the next page, fill in the necessary fields as illustrated above

Dynamic DNS Service

☒ Enable DDNS Service

Server Address:

Domain Name:

User ID:

Password:

Go back to the NVR's DDNS service configuration page under "Setup" >> "System Configuration" >> "DDNS Service". Fill in the domain name you picked during the registration in the "Domain Name" field and the username/password you created in the "User ID" and "Password" field and click "Apply" to finish

Dynamic DNS Service

☒ Enable DDNS Service

Server Address:


Domain Name:

User ID:

Password:

Connection Status: Disconnected

Message from webpage

 Connect DDNS successful

You can click the "Check DDNS Status" button to check the DynDNS service status. If you are getting a "Disconnected" message, it means that DDNS service server is down or the NVR is not connected to the Internet. If everything is ok normally, you should be prompted with a success message

Time and Date

The screenshot shows a web-based configuration interface. On the left is a sidebar menu with the following items: **Setup**, System Configuration (with sub-items: Network Setup, Time and Date, Users Account, Group Privilege, Disk Setup), Channel Configuration, Event Configuration, Recording Configuration, and System Options. The main content area is titled "Time and Date Setting". It features a "Time Zone:" dropdown menu currently set to "GMT+08 (Beijing, Hong Kong, Shanghai, Taipei)", with a "Summer time" checkbox to its right. Below this are three radio button options: "Manual", "Sync with NTP Server", and "Sync with PC". The "Manual" option is currently selected, showing a form with Year (2009), Month (05), date (06), Hour (10), Minute (24), and Second (29) dropdown menus. The "Sync with NTP Server" option is also visible, with an "NTP Server:" text field containing "ntp.ucsd.edu" and an "Update Interval:" dropdown menu set to "24 hr". The "Sync with PC" option is at the bottom, showing the current system time as "May 06, 2009 10:24:29". An "Apply" button is located at the bottom right of the configuration area.

Set the time and date by selecting the time zone according to your location. It is imperative that you set the recorder's time correctly to avoid the following errors:

- Incorrect display time for playback videos
 - Inconsistent display time of event logs and when they actually occur
- After selecting the time zone, choose an option below to set the recorder time
- **Manual** – Use the drop-down list and configure the time manually
 - **Sync with NTP server** – enter the hostname or IP address of a valid NTP server and set how often the recorder should synchronize the time with it by using the "Update interval" drop-down menu
 - **Sync with PC** – Check this option to synchronize the recorder time with the PC that you are currently using to access the recorder

User Account

Setup

- System Configuration
 - Network Setup
 - Time and Date
 - User Account
 - Group Privilege
 - Disk Setup
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options

- Recording Configuration
 - System Options

User Account Setting

User Name	Group	Description
admin	admin	
guest	guest	sc
joser	supervisor	eng
hunt	opera	tc
view1	VIEWER	japan

Edit

Remove

Add User

User Name: Only A-Z, a-z, 0-9 and _ are allowed

Password:

Confirm Password:

Company: (Optional)

Department: (Optional)

Telephone: (Optional)

Mobile: (Optional)

E-Mail: (Optional)

Group:

Language:

Description: (Optional)

Add

The recorder can be accessed by multiple users simultaneously. You can add, remove, and edit users by using options provided in this page to keep user information organized. Each recorder comes with a built-in "admin" account with password "admin". It's highly recommended to change the password upon your initial login.

Add a new user

Add User

User Name: Only **1** a-z, 0-9 and _.@ are allowed

Password:

Confirm Password:

Company: (Optional)

Department: (Optional)

Telephone: (Optional)

Mobile: (Optional)

E-Mail: (Optional)

Group: **2**

Language: English

Description: (Optional)

3 Add

- Enter a username and password in “User Account Information”. All other fields are optional for your own reference.
- Select a group from the “Group” drop-down menu to assign the new user to a particular group • Enter a short description for the account if you wish
- Click “Add” to finish configuration

Change the password of the "admin" account

The screenshot shows a user account list with the following data:

Username	Group	Description
admin	admin	This is the admin account

Below the table are two buttons: **Edit** and **Remove**. The **Edit** button is highlighted with a red box.

Below the buttons is the **User Account Information** form:

Username:

Password:

Confirm Password:

Company: (optional)

Department: (optional)

1. Click and highlight the "admin" account in the account list and click "Edit"
2. Its information should be displayed in "User Account Information"
3. Enter a new password in the "Password" field and enter it again in "Confirm Password"

Group Privilege

The screenshot shows the 'Group Privilege Setting' window in an NVR setup application. On the left is a sidebar menu with options: System Configuration, Network Setup, Time and Date, Users Account, Group Privilege (selected), Disk Setup, Channel Configuration, Event Configuration, Recording Configuration, and System Options. The main window has a title bar 'Group Privilege Setting'. Below it, there's a 'Group' dropdown menu set to 'Group1: group1' and a 'Change Group Name' button. Below that is an 'Account Type' dropdown set to 'Supervisor'. The interface is divided into three main sections: 'Live:', 'Playback:', and 'Allow use of PTZ:'. Each section contains a grid of checkboxes for channels CH1 through CH16 and an 'Audio' checkbox. In the 'Live:' section, all checkboxes are checked. In the 'Playback:' section, all checkboxes are checked. In the 'Allow use of PTZ:' section, all checkboxes are checked. At the bottom, there's a 'System Configuration:' section with checkboxes for 'System Configuration', 'Channel Configuration', 'Event Configuration', 'Recording Configuration', and 'System Options'.

Group Privilege is where you can create multiple customized access policies for situations if you need the recorder to be accessed by users other than the administrator. You can do so by creating a group, and then remove access privileges for certain configuration pages or cameras. Users that are created and assigned to this group will have limited access instead of full administration rights.

The recorder comes with seven built-in groups and five built-in privilege profiles, except the "admin" and the "guest" accounts; the other five groups are fully customizable or you can simply assign a group with one of the default privilege profiles. You can, however, assign more than one users to the "admin" account if you wish to do so. The guest account comes with a "view-only" privilege in the "Live View" page, and users in this group do not have the power to make any changes in the "Live View" page or have access to pages other than the "Live View" page.

This is a close-up of the 'Group' dropdown menu from the 'Group Privilege Setting' window. The dropdown is highlighted with a red rectangle. It shows the text 'Group: Group1: group1' and a downward arrow. To the right of the dropdown is a 'Change Group Name' button. Below the dropdown, the 'Account Type' dropdown is visible, showing 'Supervisor'.

To create a group, select a group from the "Group" drop-down

Group:

Privilege Type:

You can change the group name by clicking the “Change Group Name” button. A text box will be displayed for you to enter the new group.

Group:

Privilege Type:

Choose what type of privilege you would like this group to have from the “Privilege Type” drop-down menu.

Live:

<input checked="" type="checkbox"/> CH1 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH2 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH3 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH4 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH5 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH6 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH7 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH8 <input checked="" type="checkbox"/> Audio
<input checked="" type="checkbox"/> CH9 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH10 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH11 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH12 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH13 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH14 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH15 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH16 <input checked="" type="checkbox"/> Audio

Playback:

<input checked="" type="checkbox"/> CH1 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH2 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH3 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH4 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH5 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH6 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH7 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH8 <input checked="" type="checkbox"/> Audio
<input checked="" type="checkbox"/> CH9 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH10 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH11 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH12 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH13 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH14 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH15 <input checked="" type="checkbox"/> Audio	<input checked="" type="checkbox"/> CH16 <input checked="" type="checkbox"/> Audio

Allow use of PTZ:

<input checked="" type="checkbox"/> CH1	<input checked="" type="checkbox"/> CH2	<input checked="" type="checkbox"/> CH3	<input checked="" type="checkbox"/> CH4	<input checked="" type="checkbox"/> CH5	<input checked="" type="checkbox"/> CH6	<input checked="" type="checkbox"/> CH7	<input checked="" type="checkbox"/> CH8
<input checked="" type="checkbox"/> CH9	<input checked="" type="checkbox"/> CH10	<input checked="" type="checkbox"/> CH11	<input checked="" type="checkbox"/> CH12	<input checked="" type="checkbox"/> CH13	<input checked="" type="checkbox"/> CH14	<input checked="" type="checkbox"/> CH15	<input checked="" type="checkbox"/> CH16

System Configuration:

<input checked="" type="checkbox"/> System Configuration	<input checked="" type="checkbox"/> Channel Configuration	<input checked="" type="checkbox"/> Event Configuration
<input checked="" type="checkbox"/> Recording Configuration	<input type="checkbox"/> System Options	

Its access privilege will then be displayed. You can alter its settings by allowing or denying access to other cameras using the checkboxes instead of accepting the defaults

Disk Setup

NVR Setup

- System Configuration
 - Network Setup
 - DDNS Service
 - Time and Date
 - Users Account
 - Group Privilege
 - Disk Setup
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options

Hard Disk Setting

Hard Disk List RAID Volume

Disk ID	Disk Type	Capacity	Disk Status	Format
1	Internal	459GB	Online	Format
2	Internal	2000GB	Offline	Format
3	Internal	500GB	Offline	Format

Once you install a hard disk to the recorder, you would need to initialize it so that it can be ready for recording. You can obtain basic information about the disk you installed in this page.

To initialize it, simply click the "Format" button.

**This page will list the Internal disks (or RAID volumes), and the E-SATA disk only. The HDD will be formatted in EXT3 file system.*

**The USB HDDs will only be listed in the "USB Backup" and "Hard Disk Status" pages in "System Options". The USB HDDs have to be formatted in advance in FAT16/FAT32 or EXT3 file system. (FAT32 is recommended)*

Build RAID Volume

NVR Setup

- System Configuration
 - Network Setup
 - DNS Service
 - Time and Date
 - Users Account
 - Group Privilege
 - Disk Setup
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options

Hard Disk Setting

Hard Disk List **RAID Volume** 1

RAID Volume

Disk ID	Disk Type	Capacity	Disk Status	
--	1	Internal	459GB	Normal
--	2	Internal	2000GB	Fail
--	3	Internal	500GB	Fail

Internal Hard Disk List

RAID ID	Disk ID	Disk Type	Capacity	Disk Status
--	1	Internal	459GB	Normal
--	2	Internal	2000GB	Fail
--	3	Internal	500GB	Fail

Disk Actions: Create RAID 0 2

It is required to format the RAID volume after creating a new volume. The format option can be found under the "Hard Disk List" tab.

Apply 3

The internal HDDs can be used for RAID. To do so, go to "RAID Volume" in Disk Setup and choose the available disk action.

RAID Type	HDD #	Allow Failed HDD	Capacity
RAID 0	2-4	0	(HDD#) x (Smallest HDD size)
RAID 1	2-4	(HDD #) - 1	Smallest HDD Size
RAID 5	>=3	1	(HDD# -1) x (Smallest HDD size)
RAID 10	>=4	1 HDD within each RAID 1 group	(HDD# / 2) x (Smallest HDD size)

The "Disk Actions" drop-down menu displays available actions based on how many HDDs are installed in the NVR. For detail, please refer to the table above.

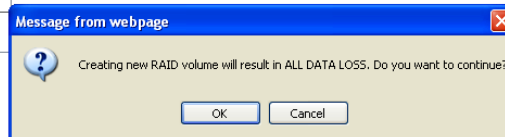
RAID Volume

Disk ID	Disk Type	Capacity	Disk Status
---------	-----------	----------	-------------

Internal Hard Disk List

RAID ID	Disk ID	Disk Type	Capacity	Disk Status
--	1	Internal	459GB	Normal
--	2	Internal	2000GB	Fail
--	3	Internal	500GB	Fail

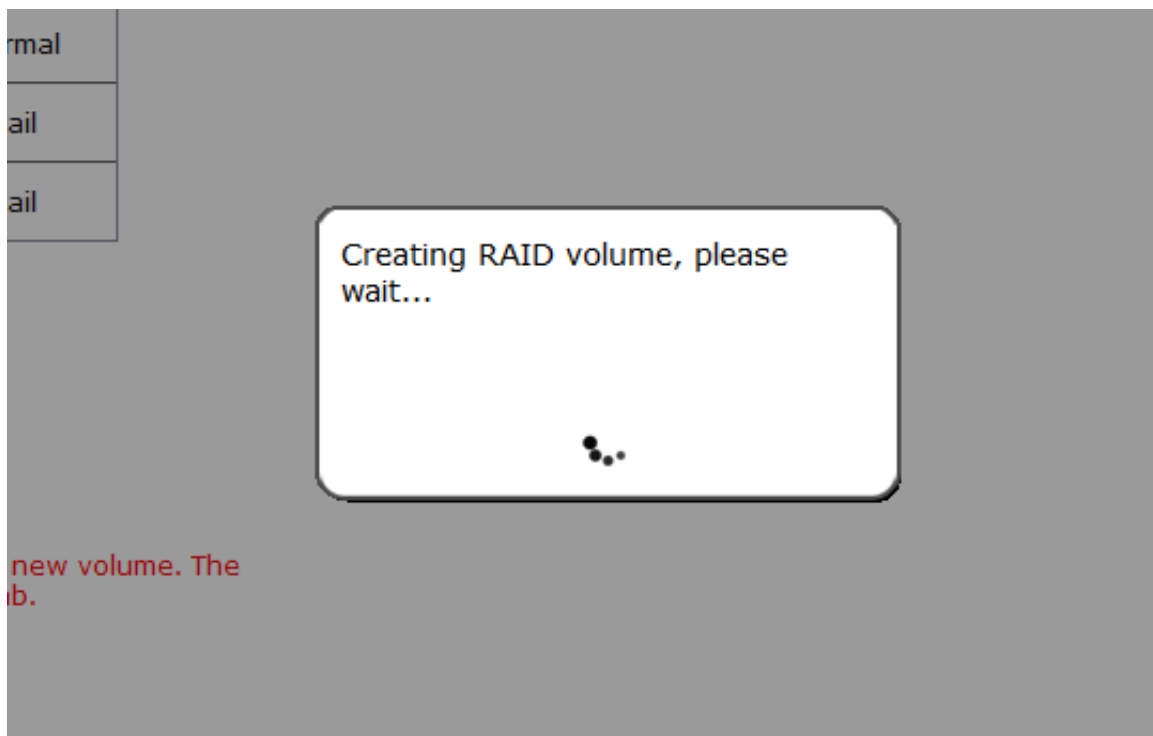
Disk Actions: Create RAID 0 ▾



It is required to format the RAID volume after creating a new volume. The format option can be found under the "Hard Disk List" tab.

Apply

Select a disk action and click "Apply" to proceed. A warning dialog will be displayed as creating RAID volume will erase all existing data on the HDDs. Click "OK" to continue.



Please wait for a few moment while the NVR is creating the RAID volume.



You will be prompted once the action is completed successfully.

RAID Volume

Disk ID	Disk Type	Capacity	Disk Status
1	RAID-0	3001GB	Offline

Internal Hard Disk List

RAID ID	Disk ID	Disk Type	Capacity	Disk Status
1	1	Internal	500GB	Normal
1	2	Internal	2000GB	Normal
1	3	Internal	500GB	Normal

Disk Actions: Delete RAID ▼

It is required to format the RAID volume after creating a new volume. The format option can be found under the "Hard Disk List" tab.

Apply

Once the RAID volume is created, it will be listed in the "RAID volume list with the status of "Offline"

Hard Disk List RAID Volume

Disk ID	Disk Type	Capacity	Disk Status	Format
1	RAID-0	3001GB	Offline	<input type="button" value="Format"/>

Go back to the "Hard Disk List" page and the RAID volume should be in the list. Click "Format" to bring the RAID volume online.

Hard Disk List RAID Volume

Disk ID	Disk Type	Capacity	Disk Status	Format
1	Internal	500GB	Offline	Formatting...0%
2	Internal	2000GB	Offline	<input type="button" value="Format"/>
3	Internal	500GB	Offline	<input type="button" value="Format"/>

The status will be displayed just as if you were formatting any internal HDDs

Deleting RAID

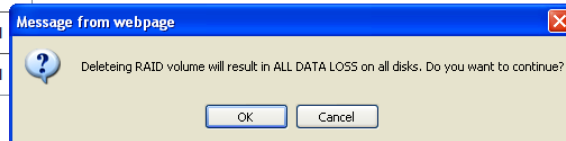
RAID Volume

Disk ID	Disk Type	Capacity	Disk Status
1	RAID-0	3001GB	Offline

Internal Hard Disk List

RAID ID	Disk ID	Disk Type	Capacity	Disk Status
1	1	Internal	500GB	Normal
1	2	Internal	2000GB	Normal
1	3	Internal	500GB	Normal

Disk Actions: Delete RAID



It is required to format the RAID volume after creating a new volume. The format option can be found under the "Hard Disk List" tab.

Apply

Once a RAID volume is created, it can be deleted at anytime by choosing the "Delete RAID" action in the RAID volume page. All existing data will be removed after the RAID volume is deleted.

All internal disks that were originally used for RAID volume will have to be formatted again after the RAID volume is deleted.

Notes for RAID function

- * Once a RAID volume is created, the "Delete RAID" option should be presented in the "Disk Action" drop-down menu. (regardless the RAID volume has been formatted or not)
- * Only RAID1 and RAID 5 have repair function
- * The recording should continue even when RAID 1 or RAID 5 volume fails or is rebuilding.
- * The replacement hard drive size must be larger or equal to the size of the smallest disk in the volume.
- * The internal disks do not need to be formatted prior to creating RAID volume.
- * Create RAID with an existing RAID volume is not allowed.

* Once a RAID volume is deleted, all internal disks within that RAID should become offline and need to be formatted again before they can be used individually.

* All internal disks (or RAID volumes) need to be formatted before they can be used.

NVR Setup -- Channel Configurations

Add a camera

Setup

- System Configuration
- Channel Configuration
 - Channel Setting**
 - OSD Setting
 - PTZ Setting
 - E-MAP Monitor
- Event Configuration
- Recording Configuration
- System Options

Channel Setting

Channel	Channel Name	Group	IP Address	Format	Resolution
1	cam1	Group1	192.168.101.21	MJPEG	4CIF

[Remove](#) [Edit](#)

Click here to search camera: [Search](#)

* You may skip this step and add a new camera manually by entering camera's setting in the "Camera Information" section

Add New Channel:
Channel ID:
Channel Name:
Group: [Change Group Name](#)
IP Address:
User Name:
Password:
HTTP Port:

[Detect](#) Once you fill out above information, click "Detect" to retrieve camera setting

[Add](#) [Cancel](#)

The NVR provides two options for adding a new camera. Users have the option to let the recorder automatically find the cameras or it is possible to enter camera's information and add it manually.

Automatic Search

Channel	Channel Name	Group	IP Address	Format	Resolution
1	cam1	Group1	192.168.101.21	MJPEG	4CIF

[Remove](#) [Edit](#)

Click here to search camera: [Search](#)

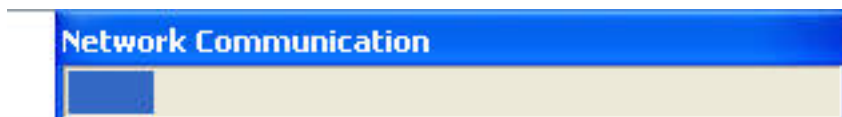
* You may skip this step and add a new camera manually by entering camera's setting in the "Camera Information" section

Add New Channel:
Channel ID:
Channel Name:
Group: [Change Group Name](#)
IP Address:

Click the "Search" button to perform the camera search.



You should be prompted to install Active Control component the first time you visit the page in order for the search to function properly. Go ahead and click "Install"



Once you have the ActiveX component installed, the search status should be displayed after clicking "Search"

AXIS	P3301	192.168.101.86	80
Configure "Select a camera from search result and click "Configure" to configure setting below.			

Found cameras should be listed and simply select a camera from the list and press "Configure"


Add New Channel:

Channel ID:	2	▼
Channel Name:	BL-C1CE	
Group:	Group1	▼ Change Group Name
IP Address:	192.168.11.26	
User Name:	admin1	
Password:	••••••••	
HTTP Port:	80	

Its corresponding information should be displayed in the “Camera Information” section. Enter its username and password and select the channel ID and name the camera.

Additional Camera Information

Video Port:	554
Format:	MPEG4 ▼
Resolution:	640x480 ▼
Frame Rate:	Full ▼
Bitrate:	Full ▼
Record:	<input checked="" type="checkbox"/> Continuous
Record Audio:	<input checked="" type="checkbox"/> Record audio


[Preview](#)

[Add](#) [Cancel](#)


Click on “Detect” to establish connection between the recorder and the camera. If connection establishes successfully, camera’s detailed information should be polled and displayed as below.

Adjust its video format, frame rate, resolution or bitrate...etc if you wish. You can also click on the "Preview" to preview the live video of the camera.

Click "Add" to finish adding the camera

l a new camera by manually entering camera's setting in the "Came

	IP Address	HTTP Port	Installed
	192.168.101.40	80	
	192.168.101.42	80	
	192.168.101.41	80	
	192.168.101.47	80	
	192.168.101.43	80	
	192.168.101.23	80	*
	192.168.101.46	80	



**If cameras are marked with "*" in the search result, it means those cameras are already configured and connected to the NVR.*

HTTP Port: 80

Once you change the camera's IP, User Name, Password or HTTP Port, click "Detect" to retrieve the camera's settings

Additional Camera Information

Settings for live video

Settings for continuous recording

Video Port: 554

Format: jpeg

Resolution: 1920x1080

Frame Rate: Full

Quality: 2

Record: ☒ Continuous Full

Format: h264

Resolution: 1920x1080

Frame Rate: Full

Bitrate Mode: CBR

Bitrate: Full

Record Audio: ☒ Record audio

Apply

Cancel

Once the camera's settings are polled and displayed, you can also enable "continuous" recording and adjust its recording quality settings before adding the camera.

Some cameras are capable of multiple streaming profiles, in which different video codecs are used for different purposes.

You will be able to use different video format for continuous recording if it's a multi-stream capable camera.

Quality: 2

Record: ☒ Continuous Full

Format: t

Resolution: .

Frame Rate: Full

Bitrate: ---

Bitrate: ---

Record Audio: ☒ Record audio

recording fps

live fps

There are two types of fps settings here, one is the fps that NVR sets back to the camera, and this is the fps NVR will be receiving from the camera. The other is recording fps which will be limited by the live fps. (ex. if the live fps is set to 10, choosing "Full" in the recording fps meaning it will only record at 10fps maximum).

For MPEG/H.264, only i frame or full (i+p frame) can be selected for recording fps.

Detect Once you change the camera's IP, User Name, Password or HTTP Port, click "Detect" to retrieve the camera's settings

Additional Camera Information

Video Port: 554

Format: jpeg

Resolution: 4CIF

Frame Rate: 20

Quality: 1

Record: ☒ Continuous 1FPS

Record Audio: ☒ Record audio

For single stream camera, only the recording fps can be adjusted.

Add a camera manually

Add New Channel:

2. Channel ID: 3
Channel Name: cam3
Group: Group1 [Change Group Name](#)

1.

IP Address: 192.168.101.20
User Name: root
Password: ●●●●
HTTP Port: 80

[Detect](#) Once you fill out above information, click "Detect" to retrieve camera setting.

Enter manually

Simply follow the instruction described above but instead of using the "Search" function, enter the camera's IP address and credential in the "Camera Information" manually.

OSD Settings

The OSD (On Screen Display) allows users to add informational text message and embed it onto the video. By default, this function is turned off. To add texts to one or more videos.



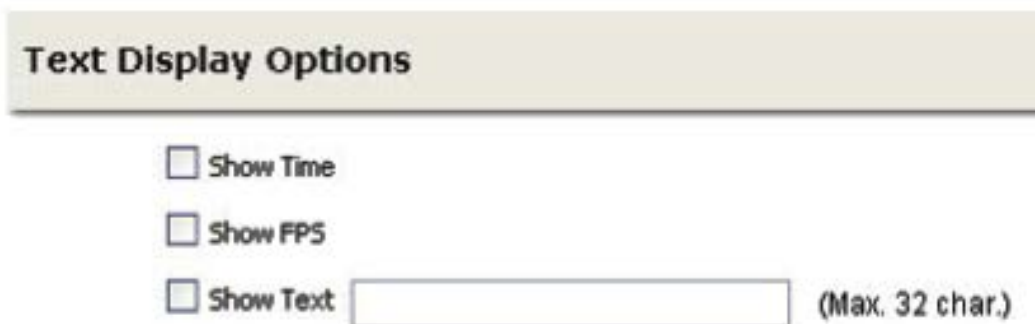
OSD Settings

Camera: Camera 1

☐ Do Not Display OSD

☒ Display OSD

Select a camera you would like to add text to and choose “Display OSD”



Text Display Options

☐ Show Time

☐ Show FPS

☒ Show Text (Max. 32 char.)

Choose one or more display options if you would also like the recorder to automatically embed the system time or the frame rate for you. Or simply choose to display a custom message of your own.

OSD Position

☐ Display OSD at the coordinates X Y

☐ Display OSD at

Next, define where the text will be displayed by either entering an X/Y coordinate or use the system pre-defined position from the drop-down menu.



Preview

* Click this button to see a preview of your OSD settings

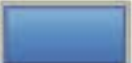
Click on the "Preview" button to see the preview of your setting and click "Apply" to save the configuration.

Customize OSD Text and Background

Text Size: ☐ Auto
☐ Self-defined 9 ▼

Text Color: 

Font: Arial ▼

Text Background Color: ☐ Auto
☐ Self-defined 

The texts can be further adjusted with changes to different size, color or font so they can be more visible on the video.

PTZ Setting

PTZ Preset Settings

MYR Setup


- System Configuration
- Channel Configuration
 - Channel Setting
 - OSD Setting
 - PTZ Setting
 - PTZ Preset**
 - PTZ Sequence
 - E-Map Setting
- Event Configuration
- Recording Configuration
- System Options

PTZ Preset

Channel: 1 BB-HCMS270E

Set as Home	Move Here When Event Trigger	Position No.	Position Name	Description
<input type="radio"/>	<input type="radio"/>	1	p1	
<input type="radio"/>	<input type="radio"/>	2	p2	

Position No: 3
Position Name:



PTZ Speed: 1
Zoom:
Focus:
Description:

The recorder supports PTZ cameras and can set multiple preset points or retrieve and manage preset points that are set in the camera. This is helpful if you need to monitor multiple spots in one area from a particular camera.


PTZ Preset

Channel: 1.BB-HCM527CE

Set as Home	Move Here When Event Trigger	P	n No	Position Name	Description
<input type="radio"/>	<input type="radio"/>	1	1	p1	
<input type="radio"/>	<input type="radio"/>	2	2	p2	

Position No: 3

Position Name:



PTZ Speed: 1

Zoom:

Focus:

Description:

To set up PTZ preset points:

1. Select a camera from the "Camera" drop-down menu and click "Add".
2. Select a position number for the preset point from the "Position Number" drop-down menu and fill in a name in the "Position Name" field for easier identification.
3. Use the PTZ control provided in the configuration page to set the preset point

NVR Setup

- System Configuration
- Channel Configuration
 - Channel Setting
 - OSD Setting
 - PTZ Setting
 - PTZ Preset**
 - PTZ Sequence
 - E-Map Setting
- Event Configuration
- Recording Configuration

PTZ Preset

Channel: 1.BB-HC0527CE

Set as Home	Move Here When Event Trigger	Position No	Position Name	Description
<input type="radio"/>	<input type="radio"/>	1	p1	
<input type="radio"/>	<input type="radio"/>	2	p2	

Ultimately, you can choose to make this preset point a “Home” point among all other preset points, as well as making the camera to move to this particular point when an event is triggered.

* “Move Here when Event Trigger”: In order for this function to work properly, please also complete configuration in “Event Configuration” >> “Event Trigger”

PTZ Preset Sequence

NVR Setup

- System Configuration
- Channel Configuration
 - Channel Setting
 - OSD Setting
 - PTZ Setting
 - PTZ Preset
 - PTZ Sequence**
 - E-Map Setting
- Event Configuration
- Recording Configuration
- System Options

PTZ Sequence

Channel: 1: cam1

Preset Positions:

1:p1

2:p2

Preset Sequence:

Dwell Time: 20s

Once you have multiple preset points defined for a camera, it is convenient for monitoring to set up the sequencing viewing among those preset point and let the recorder automatically switch between them for you.

The screenshot shows a configuration window for a camera. At the top left, there is a 'Channel:' label followed by a dropdown menu showing '1: cam1', with a circled '1' next to it. Below this, on the left, is a 'Preset Positions:' section containing a list box with two items: '1:p1' and '2:p2'. To the right of this list box are two buttons: a right-pointing arrow and a left-pointing arrow, with a circled '2' next to them. To the right of the 'Preset Positions' list is a large empty box labeled 'Preset Sequence:'. Below the 'Preset Sequence' box are two buttons: an up arrow and a down arrow, with a circled '3' next to them. At the bottom left, there is a 'Dwell Time:' label followed by a dropdown menu showing '20s', with a circled '4' next to it. At the bottom right, there are two buttons: 'Apply' and 'Cancel'.

To configure preset sequence for a camera,

1. Select a channel from the "Channel" drop-down menu. The available preset points should be listed in "Camera Presets" section.

2. Pick the ones you like for sequence viewing and press the "->" button to move them to the "Preset Sequence" section, then

3. use the up and down buttons to adjust their sequencing positions.

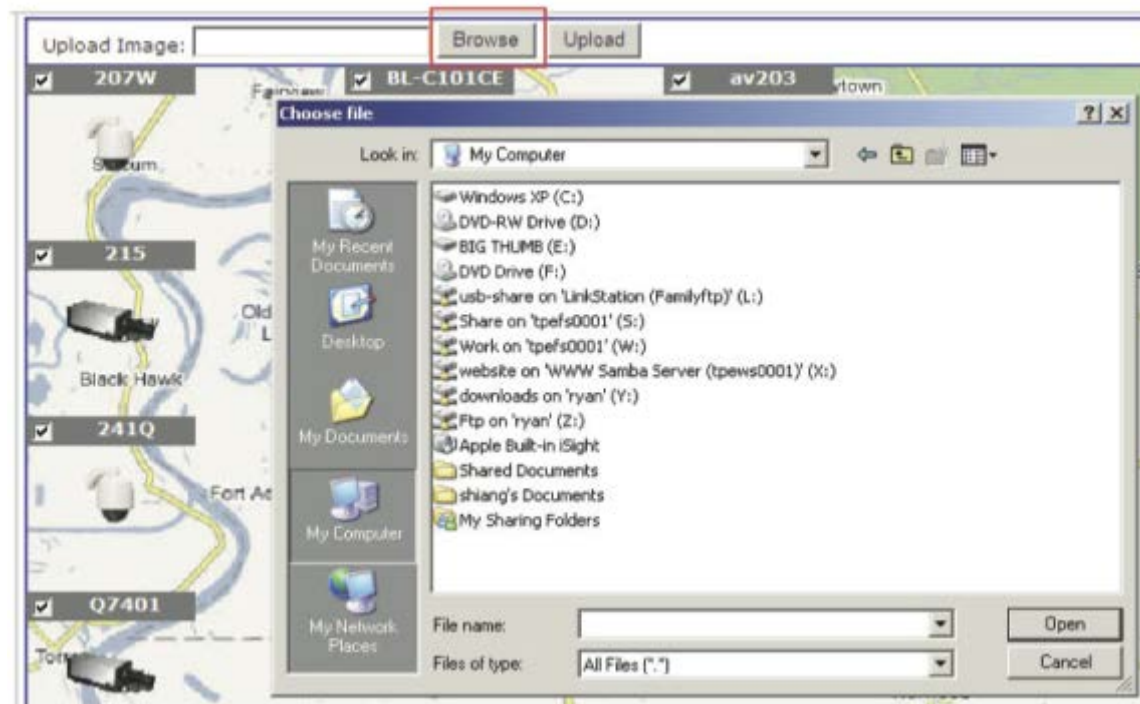
4. Finally, select a dwell time from the drop-down menu and click "Apply" to save the configuration

E-Map Setting

Local E-Map Setting



E-Map monitor is a function that alerts users whenever there is an event triggered (e.g. motion detected) from a camera with a geographical perspective. With this function, users can quickly identify which camera has detected an unusual event and where this event is happening. This function works by incorporating the event detection function as well as the recording function, which, as a result, helps users take all the necessary actions when an unusual event occurs.

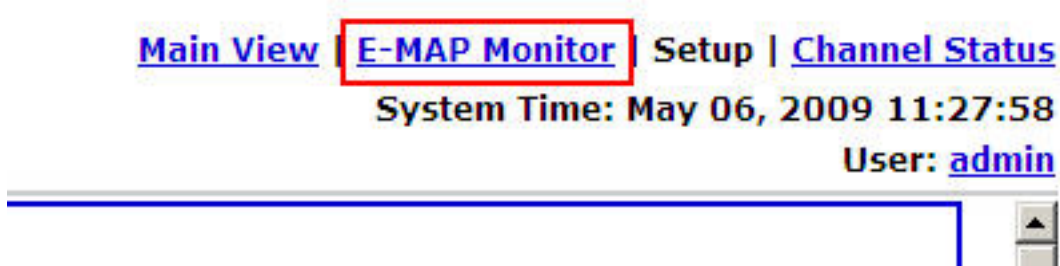


To replace the map, click "Browse" button to locate the new map image file from the local PC and then click "Upload".

** Only JPG, PNG, and GIF file formats are supported with file size under 100KB.*



Then click and drag the camera icon to move the camera to define its location.



Access the E-Map Monitor page from the upper-right hand corner menu.



When the NVR receives an event triggered from any of the cameras, their videos will be displayed on the E-Map and you can double-click on the video to enlarge it.

Google Map Setting



The Google Map monitor is a similar function to the aforementioned E-Map monitor. It is useful if you are managing multiple cameras from different locations.

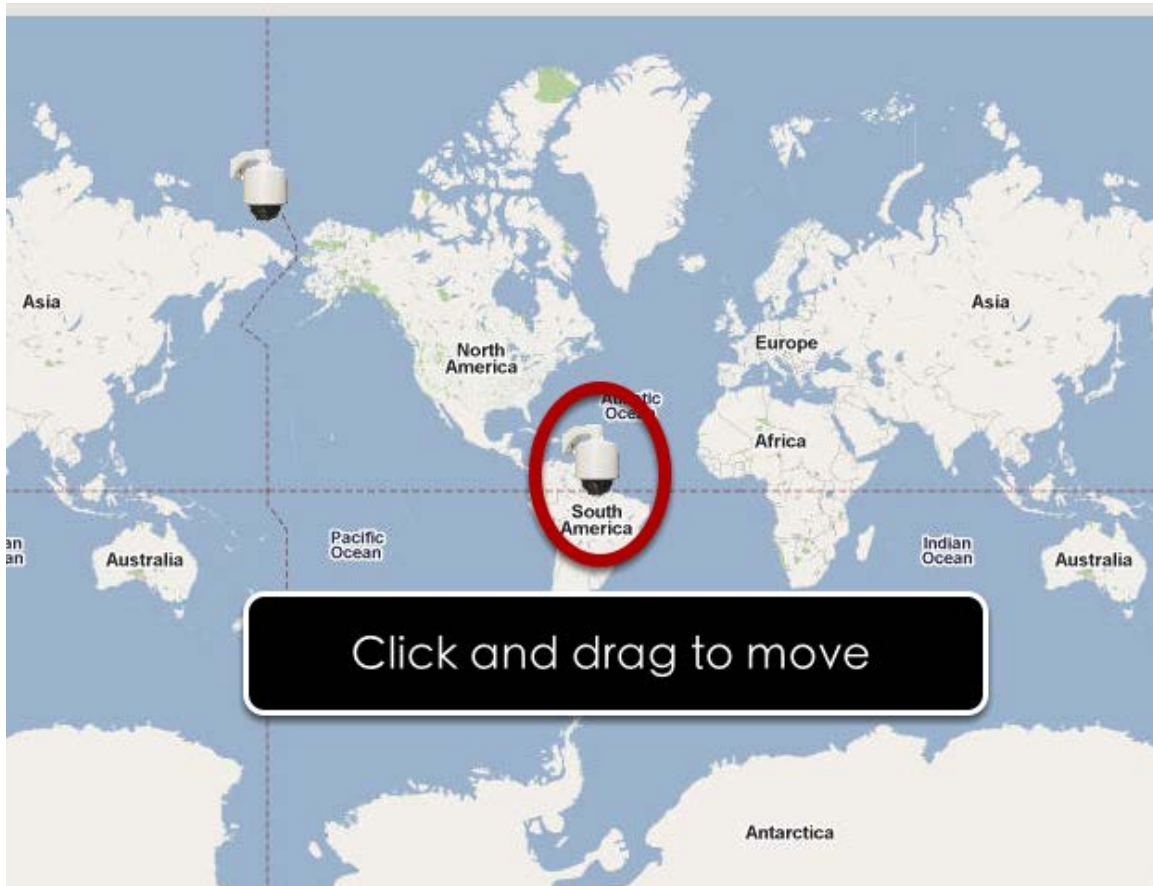


To configure locations of each camera, first determine the location you'd like to place the camera to on the map. You can do so by:

1. Zoom in to a smaller area by using the zoom control bar on the map
2. Zoom in to a smaller area by using the mouse scroll button



You can also go to a specific place on the map by entering its address or the name of the place in the “Address or places of interest” field



Once the location has been determined, click and drag the camera icon to move it to the desired location

** The Google Map Monitor requires active Internet connection and can not be used in conjunction with the regular E-Map monitor function.*

NVR Setup -- Event Configurations

Event Configuration

The “Event Configurations” section allows users to define conditions that constitute an event, its corresponding trigger action and when it will be triggered. Such setting can reduce the management overhead and notify the administrator only when it’s necessary.

General Settings

NVR Setup

- System Configuration
- Channel Configuration
- Event Configuration
 - General Setting**
 - DI/DO Setting
 - Event Servers
 - Event Trigger
- Recording Configuration
- System Options

General Setting

Event Trigger Duration

☒ Always

☐ Only during: ☐ Sun ☐ Mon ☐ Tues ☐ Wed ☐ Thur ☐ Fri ☐ Sat

Start Time: : : End Time: : :

Event Trigger Interval

Interval: Seconds. (5~86400)

Trigger Actions

Subject:

☐ Send Message

Text:

FTP File Name:

☐ Send Image

Frames,

File Name:

Apply Cancel

The general settings section can help you quickly configure when an event is triggered, how often events are triggered and the corresponding actions when events are triggered.

Start the event configuration by defining the general settings:

Define when an event will be triggered

- Choose “Always” or “Only during...” under “Event Trigger Duration”
- For the “Only during...” option, choose the days by using the checkbox and then define the time range in those days in the “Start Time”

and “End Time” fields that you would like the event trigger function to be enabled.

How often an event is triggered

- Set a time interval under “Event Trigger Interval” to define how often events are triggered

Trigger action

Now that you have the event trigger duration and interval defined, choose what action to be taken during an event trigger:

- You can choose to have the recorder send out the first few frames of the video recorder upon an event is triggered
- You can also choose to have the recorder send out a warning message in e-mail or in txt file format and upload it to an destined FTP server

I/O Settings

This function allows users to manage camera's digital input and output ports right from the recorder. You can setup the recorder to receive triggers from a particular camera's input port and trigger a device, such as an alarm that is connected to the recorder or camera's output port. Cameras that do not have built-in digital input/output port can also be configured to pair with the recorder's DI/DO ports.

NVR Setup				
<div><div>⊕ System Configuration</div><div>⊕ Channel Configuration</div><div>⊖ Event Configuration<ul style="list-style-type: none">General Setting<u>DI Setting</u>⊕ Event Servers<ul style="list-style-type: none">Event Trigger</div><div>⊕ Recording Configuration</div><div>⊕ System Options</div></div>			DI Setting	
	Trigger Event When			
	IP Camera			
	Port	Condition		
CH 1	<div>▼</div>	<div>▼</div>		
CH 2	<div>1</div>	-----		
CH 3	<div>2</div>	-----		
CH 4	<div>▼</div>	<div>▼</div>		
CH 5	<div>▼</div>	<div>▼</div>		
CH 6	-----	-----		
CH 7	-----	-----		
CH 8	<div>▼</div>	<div>▼</div>		
CH 9	<div>▼</div>	<div>▼</div>		

1. For cameras that come with physical digital input ports, their ports will be listed in the far left drop-down menu.
2. Pick the desired channel for I/O mapping, and then select the camera's input port from the drop-down menu.
3. Select the trigger condition from the "Condition" drop-down menu.

**The recorder does not control camera's input or output ports in a way to let you pair recorder itself with a camera's input or output port for event receiving or triggering.*

**The recorder only acts as a medium for pairing up input/output ports between cameras and the recorder.*

**Only connected cameras will be displayed in the list.*

**Some cameras only allow one trigger source be configured at a time, e.g.:*

if the camera has the motion detection function turned on, its digital input will be disabled and vice versa. Under such circumstance, if you set to use camera's digital input port as the event trigger source, you will not be able to select motion detection as the trigger source for this camera under "Event Configurations" >> "Event Trigger" setup page.

** The image(s) that are uploaded to the destined FTP server or emailed to a des- tined mail receipient are in their own proprietary image file format (.h4i or .p4i), which can only be opened by the NVR media player.*

Event Servers

Configuring an FTP server

NVR Setup

- System Configuration
- Channel Configuration
- Event Configuration
 - General Setting
 - DI/DO Setting
 - Event Servers
 - FTP Servers
 - HTTP Servers
 - SMTP Servers
 - Event Trigger
- Recording Configuration
- System Options

FTP Servers Setting

Name	Network Address	Port	Passive Mode	Enabled
<input type="button" value="Edit"/>	<input type="button" value="Remove"/>			

FTP Server

Name:

Network Address: *Enter host name or IP address

Port:

Login Information

User Name:

Password:

Passive Mode

☐ Use Passive Mode

Test

*Click "Test" to test the connection to the FTP server:

Event servers are to be used with event trigger actions. In case of unusual motion detected by the camera or a disk failure, the recorder can send notification with the acceptable format (image/txt) to a destined event server according to the configuration.

NVR Setup

- System Configuration
- Channel Configuration
- Event Configuration
 - General Setting
 - DI/DO Setting
 - Event Servers
 - FTP Servers**
 - HTTP Servers
 - SMTP Servers
 - Event Trigger
- Recording Configuration
- System Options

FTP Servers Setting

Name	Network Address	Port	Passive Mode	Enabled
<input type="button" value="Edit"/>	<input type="button" value="Remove"/>			

FTP Server

Name:

Network Address:

Port:

Login Information

User Name:

Password:

Passive Mode

☐ Use Passive Mode

Test

To add an FTP server,

1. Start by giving a name to the server that you are adding to the recorder
2. Enter the hostname or the IP address of the FTP server
3. Enter the communication port of the FTP server (usually port 21)
4. Enter the username and password of the FTP server if it's required
5. Check "Use Passive Mode" if it's required or leave it unchecked to use active mode
6. Click "Test" to verify if all information is entered correctly and the connection to the FTP server can be established successfully
7. Click "Add" for the settings to take effect

Configuring an SMTP server

SMTP Servers Setting

SMTP Server 1

Network Address: *Enter host name or IP address

Port:

Sender's Name:

Sender's E-mail:

☐ Enable Authentication:

User Name:

Password:

Test

Send Test Email To:

SMTP Server 2

Network Address: *Enter host name or IP address

Port:

Sender's Name:

Sender's E-mail:

☐ Enable Authentication:

User Name:

Password:

Test

Send Test Email To:

1. Enter the hostname or the IP address of the SMTP server
2. Enter the port of the SMTP server
3. Specify the sender's name in the "Sender's name" field
4. Enter the sender's e-mail address
5. Check "Enable Authentication" and enter the username and password of the SMTP server if it requires authentication
6. Click "Apply" to save the configuration

*The NVR supports SMTP servers that use base64 or MD5 authentication methods.

Event Triggers

Event Handling Setting

When Channel is triggered by

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
I/O Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
I/O Input	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Please make sure you have properly enabled and configured motion detection region in the camera's web configuration UI before enabling motion detection in the NVR. The NVR only supports single region detection, and only the first region will be used even if you set multiple motion detection regions in the camera.

When NVR is triggered by

☐ Disk Fail

☐ Recycled

☐ When NVR Start Up

☐ When NVR System Configuration Changed

☐ When Channel's Configuration Changed

Trigger Actions

☐ **E-Mail:** E-Mail Addresses: *use "," to separate e-mails

☐ **FTP** Upload Path:

☐ **Warning Sound**

☐ **Move to particular preset points**

Save

We have finished defining how an event will be triggered and which servers will be receiving notifications in the previous two sections, now we can finish up the event configuration by setting:

- which channels will have event trigger function enabled
- What is considered to be an event
- Where the warnings will be sent to and how they will be sent

Event Handling Settings

When Cameras is Triggered by

	1	2	3	4	5	6	7	8	9	10	11
Input	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Motion Detection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Use the checkbox to enable event trigger on the desired channels.

**Once motion detection is enabled in this page, please configure the motion area and enable motion detection in the corresponding channels (cameras) from camera's own web UI. The NVR only detects the first motion area set in the camera. The NVR recognizes the first motion area by its ID number set in the camera.*

motion detection regions in the camera.

When NVR is triggered by

☐ Disk Fail

☐ Recycled

☐ When NVR Start Up

☐ When NVR System Configuration Changed

☐ When Channel's Configuration Changed

Trigger Actions

Define which system events should trigger the recorder to send out notifications.

Trigger Actions

☐ **E-Mail:** E-Mail Addresses: *use "," to separate e-mails

☐ **FTP** Upload Path:

☐ **Warning Sound**

☐ **Move to particular preset points**

Define how the notifications will be sent and where they will be sent to.

** Event trigger may not work for cameras that are placed outside of your local network or on the Internet until the "UPnP Port Forwarding" is enabled in both the NVR and the router.*

NVR Setup -- Recording Configurations

General Settings

The “recording configurations” gives users the overall control of how and when a recording is performed and the quality of different types of recordings performed on each channels. It can help the recorder to operate with sufficient system resource by performing recording only when it’s necessary with adjustable recording frame rate.

Recording General Settings

Recording Buffer
Pre-Alarm Buffer: 0 Seconds
Post-Alarm Buffer: 5 Seconds

Recording Frame Rate
Channel: Channel 1~8

	1	2	3	4	5	6	7	8
Format	Same as Live	Same as Live	Same as Live	Same as Live	Same as Live	Same as Live	Same as Live	Same as Live
Continuous	Full	Full	Full	Full	Full	Full	Full	Full
Schedule	Full	Full	Full	Full	Full	Full	Full	Full
Event	Full	Full	Full	Full	Full	Full	Full	Full
Manual	Full	Full	Full	Full	Full	Full	Full	Full

Keep Video
☐ Keep the previous days of recorded videos

Camera Recording Setting

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Continuous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Continuous	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Record Audio

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Record audio	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Record audio	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

You can define the following in “General Settings”:

- Pre-Alarm/Post-Alarm recording length
- Recording frame rate
- Define to always keep a number of days of previously recorded data
- Enable/disable different recording types on different cameras
- Enable/disable audio recording

Recording General Settings

Recording Buffer

Pre-Alarm Buffer: Seconds

Post-Alarm Buffer: Seconds

The "recording buffer" allows user to define "pre-alarm" and "post-alarm" time for event recordings. The "pre-alarm" time sets the NVR to record in advance when an event is triggered. The "post-alarm" time sets the NVR to continue recording for a period of time after an event trigger is finished.

** The "Pre-alarm" function only works when the "Continuous" recording is also activated.*

Recording Frame Rate

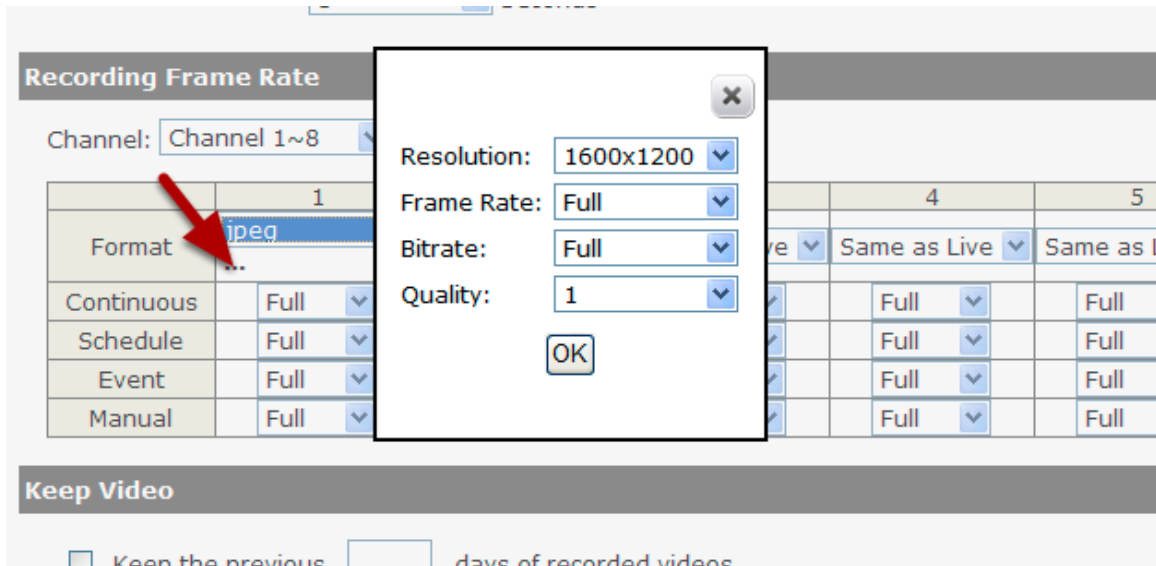
Channel:

	1	2	3	4
Format	Same as Live	Same as Live	Same as Live	Same as
Continuous	Full	Full	Full	Full
Schedule	Full	Full	Full	Full
Event	Full	Full	Full	Full
Manual	Full	Full	Full	Full

Keep Video

Recording frame rate allows you to set different frame rate for different types of recording instead of recording at one frame rate

only. Use the drop-down menu and select one of the pre-defined frame rates for a particular recording type



You are able to use the same video format for recordings or you can choose other formats for different recording purposes if it's a multi-stream capable cameras.

If you chose to use a different video format for recording, you are able to adjust its detail settings by clicking on the "...".

A new dialog will pop out for further detail configurations. Noticing the "Frame rate" in this dialog represents the live fps that will be set back to the camera for this particular video format. You can configure the recording fps for different types of recordings individually.

Record Audio

	1	2	3	4	5	6	7	8	9	1
Record audio	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

	17	18	19	20	21	22	23	24	25	2
Record audio	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

The section at the bottom of the page allows you to disable audio recording (record video only) of particular channels.

Schedule Recording

Schedule Recording Settings

Channel:

Schedule Table

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sunday																								
Monday																								
Tuesday																								
Wednesday																								
Thursday																								
Friday																								
Saturday																								

Clear

Quick Configuration

Days:
☐ Sun ☐ Mon ☐ Tues ☐ Wed ☐ Thur ☐ Fri ☐ Sat ☐ All

Duration:
☐ All day
☒ During Start Time: : End Time: :

Add

Copy Schedule To Channel:

Save Cancel

You can define the time range of the schedule recording for all channels in this page.

To configure a schedule recording

Schedule Recording Settings

Channel:

Use the “Channel” drop-down menu and select a camera first.

Schedule Table																								
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sunday																								
Monday																								
Tuesday																								
Wednesday																								
Thursday																								
Friday																								
Saturday																								

You can use the schedule table to set the time range. Click the cell boxes then move horizontally lets you set what hours to perform recording during a day. Click and move vertically lets you set what days to perform recording at a specific time.

** Each cell box represents 15 minutes of time. Click one or more boxes to omit consecutive recording.*

Quick Configuration

Days:

☐ Sun
☐ Mon
☐ Tues
☐ Wed
☐ Thur
☐ Fri
☐ Sat
☐ All

Duration:

☐ All day
☒ During

Start Time:

00

:

00

End Time:

00

:

00

You can also use the “Quick Configuration” to define recording time range instead of clicking cell boxex one by one on the time table. Simply check what days you would like to perform recording and specify the recording duration by either choosing “All Day” or enter a start and end time for specific recording duration.

▼

During

Start time:

:

End time:

:

Copy Schedule To Channel:

▼

Save

Cancel

Select the “Copy to” option if you would like to set the same recording schedule to another camera.

NVR Setup -- System Options

Device Information

System Options gives users a glance of the overall system status and allows users to perform maintenance tasks such as upgrading firmware, restore/backup device settings or reboot deviceetc.

NVR Setup <ul style="list-style-type: none">⊕ System Configuration⊕ Channel Configuration⊕ Event Configuration⊕ Recording Configuration⊖ System Options<ul style="list-style-type: none"><u>Device Information</u>System LogsMaintenanceDisk StatusUSB Backup	General Information Device Name: Model Name: SVR-632 Firmware Version: 1.0.0.39090 Device Time: July 18, 2011 17:51:10
	Network Information Network Type: DHCP Device IP: 192.168.102.48 HTTP Port: 80 Streaming Port: 9877 MAC Address: 00:19:0f:07:39:5a UPnP Port Forwarding: Disabled

The “Device Information” provides the general information of the device such as firmware version and system time. It also provides information of the current network settings and status.

Logs and Reports

System Logs							
ID	Time	Type	Sub-type	CH	AP	IP	User
1	July 19, 2011 10:15:07	User	User login		Web		admin
2	July 19, 2011 09:47:20	User	User login		Web		admin
3	July 19, 2011 08:56:19	Recording	Stop recycling HDD space				
4	July 19, 2011 08:55:23	Recording	Start recycling HDD space				
5	July 18, 2011 20:21:40	User	User logout		TestClient	192.168.102.21	admin
6	July 18, 2011 20:20:38	User	User logout		TestClient	192.168.101.178	admin
7	July 18, 2011 19:54:46	User	User login		Web		admin
8	July 18, 2011 19:50:35	User	User login		Web		admin
9	July 18, 2011 19:45:14	Linux	Format hard disk				
10	July 18, 2011 19:44:55	Linux	Format hard disk				
11	July 18, 2011 19:44:33	Linux	Format hard disk				
12	July 18, 2011 19:44:15	Linux	Format hard disk				
13	July 18, 2011 19:43:59	Linux	Format hard disk				
14	July 18, 2011 19:43:38	Linux	Format hard disk				
15	July 18, 2011 19:41:06	Channel	Camera connected	31			
16	July 18, 2011 19:41:06	Channel	Camera connected	21			
17	July 18, 2011 19:41:05	Channel	Camera connected	18			
18	July 18, 2011 19:41:05	Channel	Camera connected	19			
19	July 18, 2011 19:41:05	Channel	Camera connected	17			
20	July 18, 2011 19:41:05	Channel	Camera connected	16			
21	July 18, 2011 19:41:05	Channel	Camera connected	15			
22	July 18, 2011 19:41:05	Channel	Camera connected	13			
23	July 18, 2011 19:41:05	Channel	Camera connected	14			
24	July 18, 2011 19:41:05	Channel	Camera connected	12			
25	July 18, 2011 19:40:46	Channel	Camera connected	22			

“Logs and Reports” keeps a record of what’s been happening to the device and provides basic information for troubleshooting.

Maintenance

NVR Setup

- System Configuration
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options**
 - Device Information
 - System Logs
 - Maintenance**
 - D0 Status
 - Disk Status
 - USB Backup
 - UPS Configuration

Maintenance

Restart NVR

Click "Restart" button to restart NVR.

Restart NVR Automatically

Select one of the options below:

☒ Restart: ☒ Every week

Restart Camera

Select a camera below to perform a restart

Upgrade NVR Firmware

Locate the new firmware and perform the upgrade (Current Firmware Version: 1.6.0A.30028874)

Specify the firmware file: and click

*** Note ***: Please DO NOT power off the system during the firmware upgrade process. You will be notified once the upgrade process is complete.

Backup NVR's Setting

Backup the configuration to a local hard disk.

Restore NVR's Setting

Restore configuration from a previously saved configuration file

Specify the configuration file: and click

*** Note ***: Please DO NOT power off the system during the restore process. You will be notified once the process is completed.

Reset NVR to Factory Default

This will restore all configurations to their factory default values.

When the DHCP server function is disabled, the default IP of the system is 192.168.101.50

*** Note ***: Please DO NOT power off the system during the reset process. You will be notified once the process is complete.

"Maintenance" provides functions for users to:

- Reboot the NVR when necessary
- Reboot cameras directly from the NVR
- Perform Firmware Upgrade
- Backup the NVR's settings to a local hard drive
- Restore the NVR's settings from a previously saved configuration file
- Reset the NVR's settings to their factory default values

Reboot the NVR at a specific time automatically

Restart NVR Automatically

Select one of the options below:

☒ Restart:

Restart NVR Automatically

Select one of the options below:

☒ Restart:

You can configure the NVR to restart automatically by using the options given in the web UI. You can set the NVR to restart at a particular hour of a specific day during a week or a month.

Firmware Upgrade

The firmware can be upgraded through web UI or USB. Before upgrading firmware, please backup configuration in advance.

**** the firmware file comes with a ".tar.gz" file extension, please use the file as is, DO NOT unzip it. It's normal that you may only see ".tar" as the file extension in Windows as the OS hide the known file extension by default.**

Through the web interface

⊕ **Recording Configuration**

⊖ **System Options**

Device Information

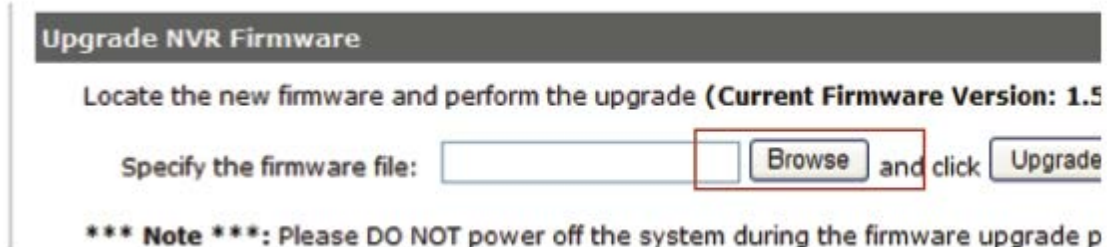
System Logs

Maintenance

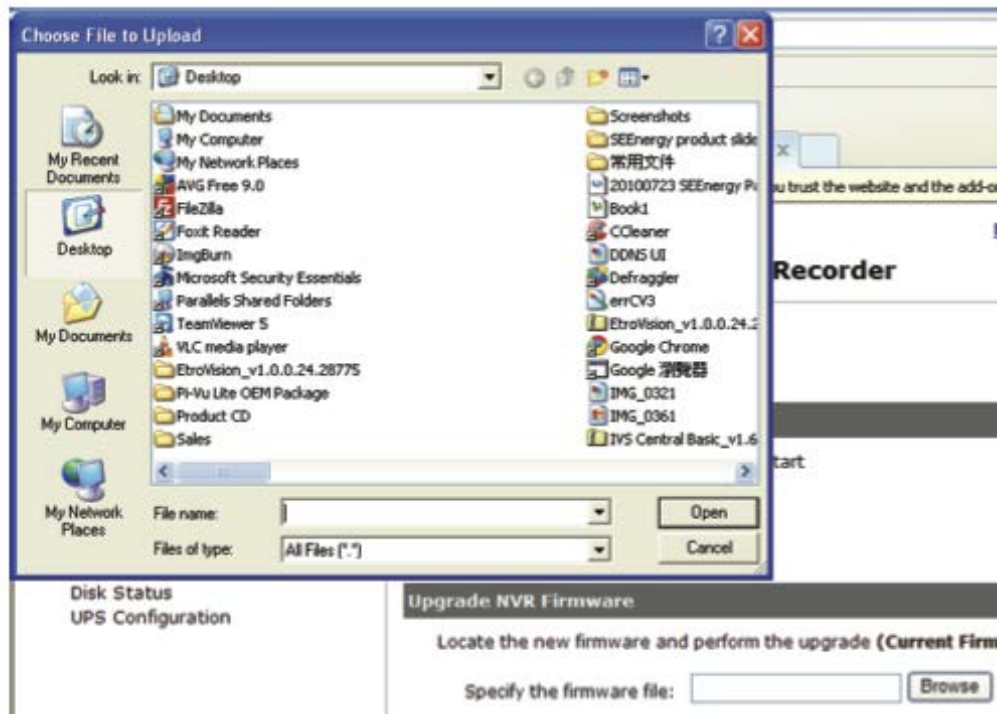
DO Status

Disk Status

Login into NVR's web management UI. Go to "Setup" page and go to "System Options"->"Maintenance"



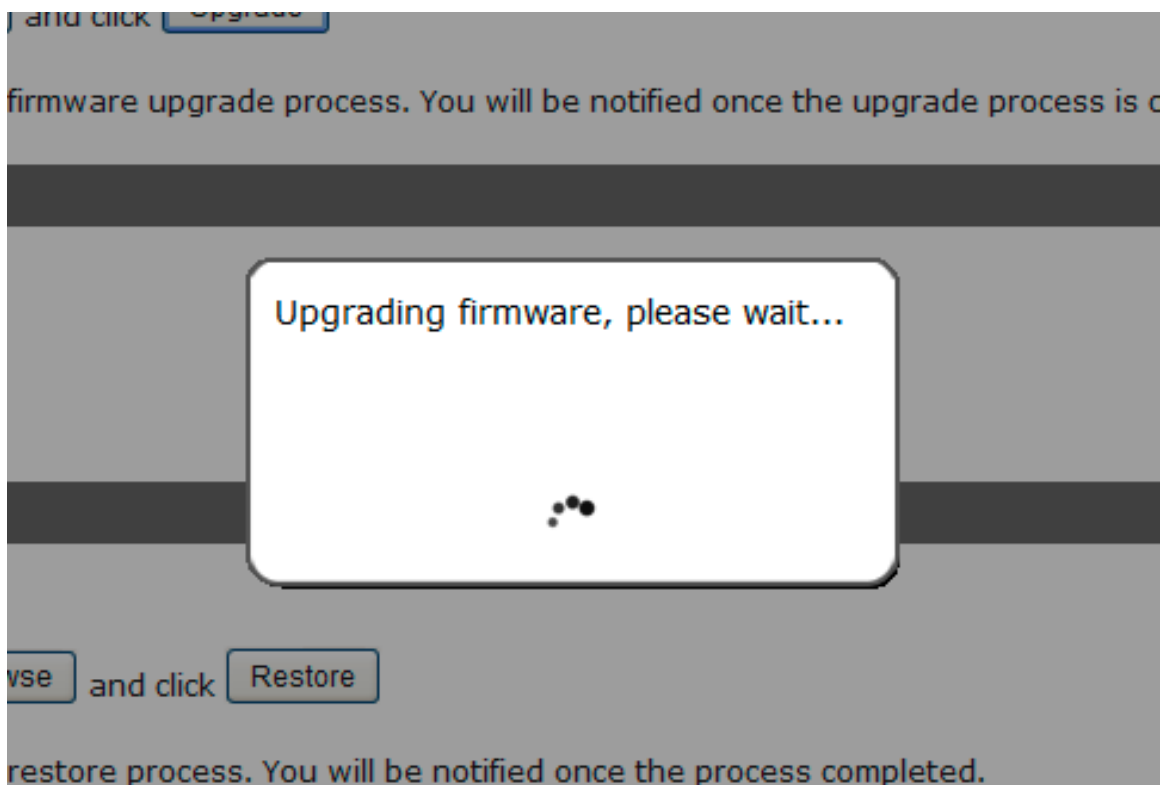
On "Upgrade NVR's Firmware" section, click "Browse" and select new firmware file



A new dialog should display and let you choose the location of the firmware file.



When done, click "Upgrade".



Follow the on screen instruction and wait for the process to finish (After upgrade, the system will reboot automatically, it's part of the process)

Upgrade through USB thumb drive

1. Prepare a USB flash disk and format with FAT or FAT32 format
2. Place the firmware in the USB flash disk and make sure it's placed at the top-level directory. Please do not place the file in a folder.
(make sure to change the firmware file name to "firmware" and leave its file extension ".tar.gz" as is before placing the file to the USB disk)
3. Plug USB flash disk into USB port on the NVR
4. The System LED on the NVR will start to flash in amber. This indicates firmware upgrade is in process
5. *** Warning *** Please wait until upgrade process finished, interrupt the upgrade process may cause system not work anymore
6. Wait until System LED remains solid in amber. This indicates firmware upgrade is finished
7. Power off the NVR and remove the USB disk the power the unit back on again
8. Restore configuration file back if needed

Reset the NVR to Factory Default

Reset NVR to Factory Default

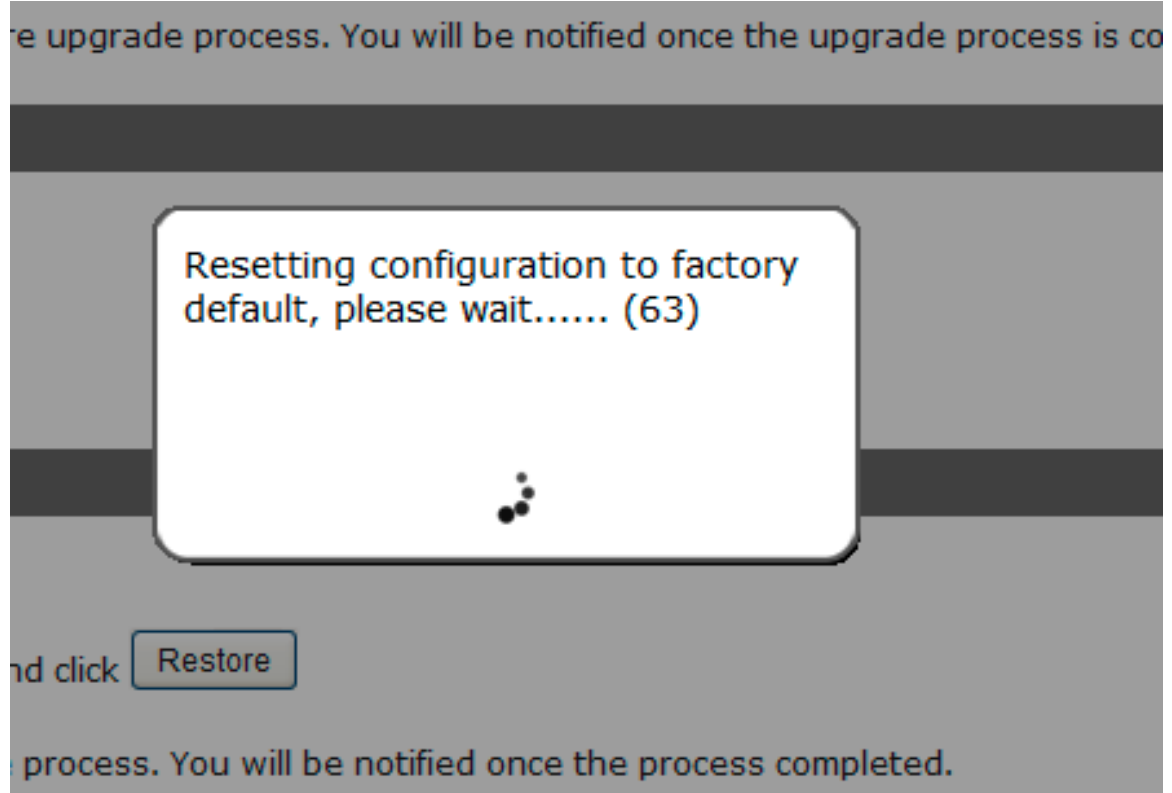
This will restore all configurations to their factory default values

[Restore Factory Default](#)

When the DHCP server function is disabled, the default IP of the system is:192.168.101.50

*** **Note** ***: Please DO NOT power off the system during the reset process. You will be notified once the process is complete.

To reset the recorder back to its factory default, click "Restore Factory Default" button and begin the process



The process should be displayed and you should be prompted back to the "Live View" page after it is complete.

Disk Status

Setup		Disk Status						
✖ System Configuration								
✖ Channel Configuration								
✖ Event Configuration								
✖ Recording Configuration								
✖ System Options								
Device Information								
System Logs								
Maintenance								
DD Status								
<u>Disk Status</u>								
Disk ID	Status	Capacity	Remaining Disk Space	Remaining	Online Time	Recording Period	Est. Remaining Time	
1	Offline	300GB	0GB	0%	--	--	--	
2	Online	160MB	0MB	0%	May 03 2009 18:56:23		--	

“Disk Status” gives you a more detailed information of the hard drive that is currently installed in the NVR.

USB Backup

NVR Setup

- System Configuration
- Channel Configuration
- Event Configuration
- Recording Configuration
- System Options
 - Device Information
 - System Logs
 - Maintenance
 - DO Status
 - Disk Status
 - USB Backup
 - UPS Configuration

USB Backup

USB HDD: * Please format the HDD to FAT32 on a Windows PC before using it for backup

- Channel:
- | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> LN24001 | <input type="checkbox"/> LNE3003 | <input type="checkbox"/> LNE1001 | <input type="checkbox"/> cam4 |
| <input type="checkbox"/> Channel 5 | <input type="checkbox"/> v1.0.0.5-2 | <input type="checkbox"/> Channel 7 | <input type="checkbox"/> Channel 8 |
| <input type="checkbox"/> Channel 9 | <input type="checkbox"/> Channel 10 | <input type="checkbox"/> Channel 11 | <input type="checkbox"/> Channel 12 |
| <input type="checkbox"/> Channel 13 | <input type="checkbox"/> Channel 14 | <input type="checkbox"/> Channel 15 | <input type="checkbox"/> Channel 16 |

Start Time: August 12, 2010 14:48:33

End Time: August 12, 2010 14:48:33

Backup

It's a function that allows users to backup the recording data in its database file format (not AVI) to the externally connected USB hard disk.

Disk Status

Disk ID	Status	Capacity	Remaining Disk Space	Remaining	Online Time	Recording Period	Est. Remaining Time
HDD 1	Online	222GB	216GB	97%	Aug 12 2010 11:21:12	May 21 2010 16:52:02 - Aug 12 2010 12:07:12	2980 day(s) 21 hour (s)
USB HDD 1	Online	1935MB	553MB	28%		--	--

You can check the "Disk Status" page under "System Options" to see if the USB disk has been detected by the NVR. If it's available, it will also be in the USB HDD drop-down menu in the USB backup page.

* It needs a USB disk containing free space larger than 100MB.

USB Backup

USB HDD: USB HDD 1, 553MB available ▾ * Please format the HDD

Channel:

☒ LNZ4001
☐ Channel 5
☐ Channel 9
☐ Channel 13

☒ LNE3003
☐ v1.0.0.5-2
☐ Channel 10
☐ Channel 14

Start Time: May 21, 2010 ▾ 16 : 52 : 02 ▴ ▾

End Time: May 21, 2010 ▾ 16 : 52 : 02 ▴ ▾

Backup

Once it's detected, go back to the "USB Backup" page and it should be available for further configuration

USB Backup

USB HDD: USB HDD 1, 553MB available ▾ * Please format the HDD

☒ LNZ4001
☐ Channel 5

☒ LNE3003
☐ v1.0.0.5-2

The USB hard disk(s) will be listed in the drop-down menu displaying the remaining disk space. Make your selection from the drop-down menu if you have more than one disks connected to the NVR.

USB HDD: USB HDD 1, 553MB available ▼ * Please format the HDD

Channel:

<input checked="" type="checkbox"/> LNZ4001	<input checked="" type="checkbox"/> LNE3003
<input type="checkbox"/> Channel 5	<input type="checkbox"/> v1.0.0.5-2
<input type="checkbox"/> Channel 9	<input type="checkbox"/> Channel 10
<input type="checkbox"/> Channel 13	<input type="checkbox"/> Channel 14

Next, select channels which you would like to backup the recording data from. Maximum 4 channels can be selected at once

Start Time: May 21, 2010 ▼ 16 : 52 : 02 ▲ ▼

End Time: May 21, 2010 ▼ 16 : 52 : 02 ▲ ▼

Backup

Configure the start and end time of the recording data you would like to backup and click the "Backup" button to begin.

Things to pay attention to the USB Backup function

Limitation:

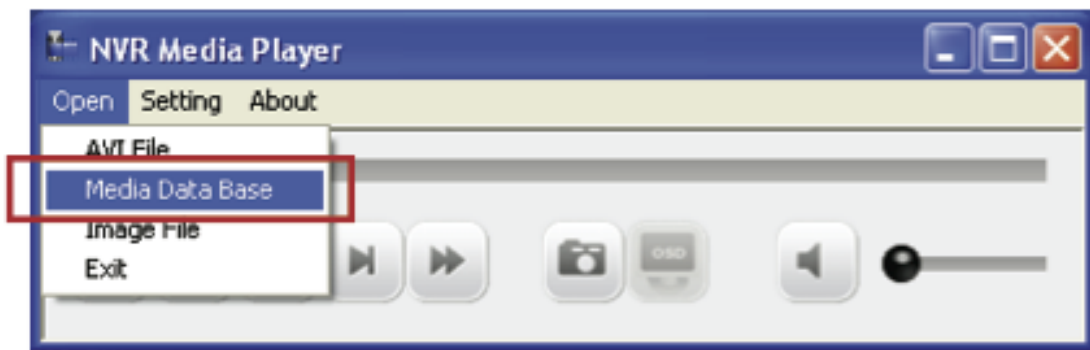
- It does not support USB Hub extend the number of HDD connected to the NVR
- Only one backup process can be performed at a time
- Maximum 4 channels can be selected for backup
- Only FAT32 USB hard disk is supported for backup
- The USB hard disk needs to have more than 100MB remaining space
- If multiple partitions are presented in one disk, only the first partition will be detected and used for backup

Process:

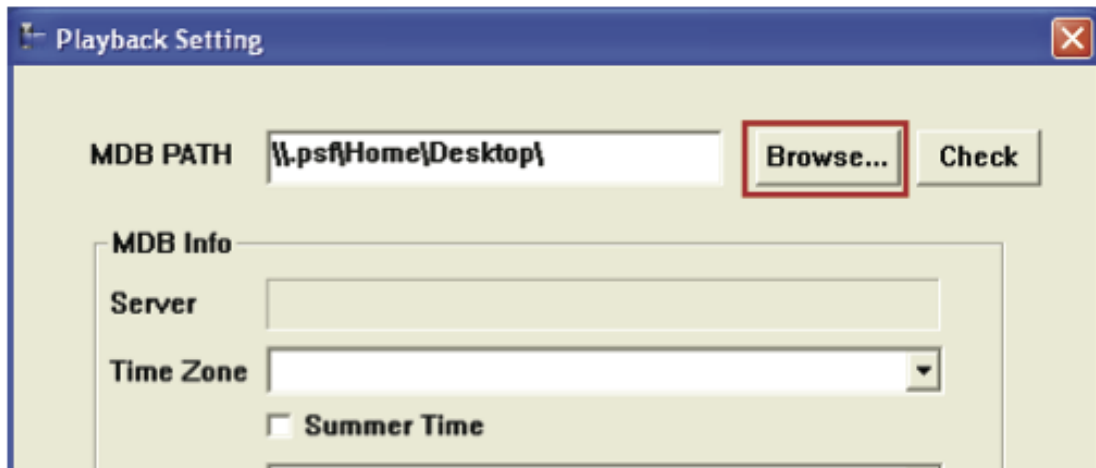
- Progress will be displayed on the UI
- If the backup process gets interrupted, which the process stops at a point of time that is before the "END Time" user defined, such time will be displayed on the UI
- A folder will be automatically created in the USB hard disk with a name format like 0028687831_20100610151515_20100605110010_20100606110010 (MAC_backupbuttonclicktime_starttime_endtime)

Note:

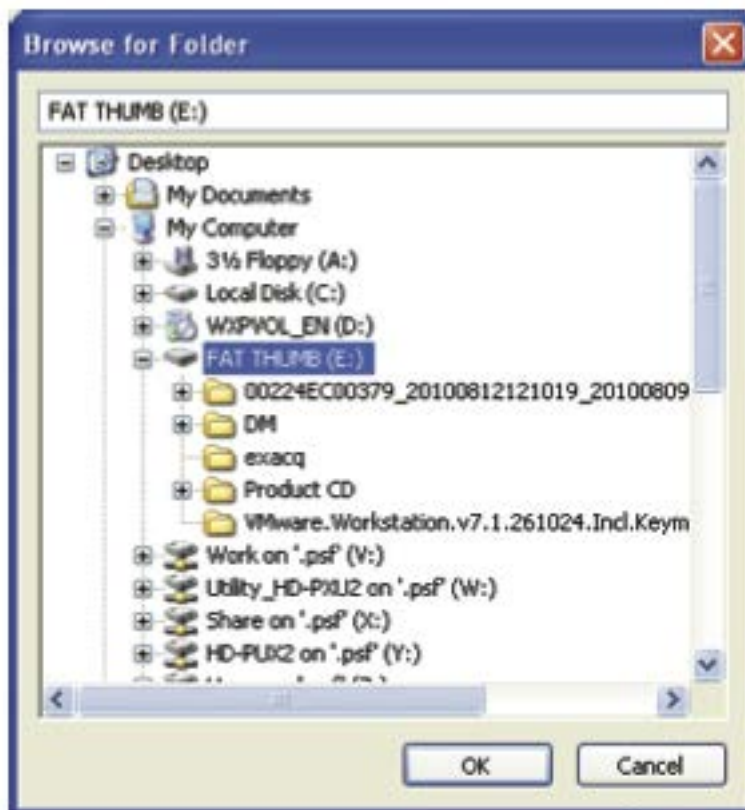
- Please plug in the USB HDD only after the NVR is fully started, or the HDDs will be incorrenctly mounted.

Play the backup file with the NVR Media Player

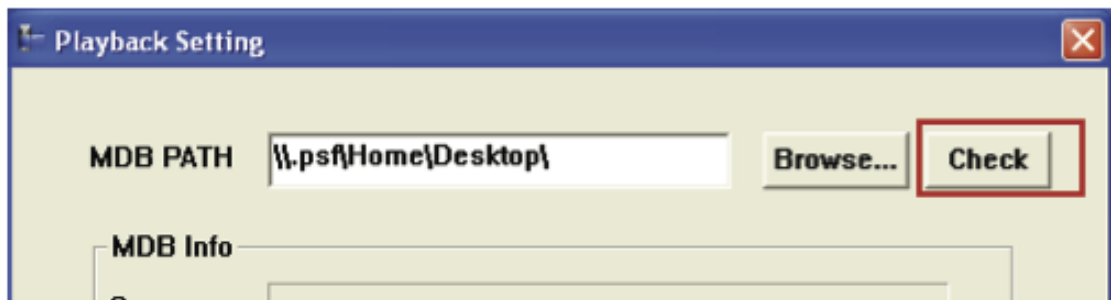
The backup files can be played with the NVR media player. To do, open the player and select "Open" >> "Media Database"



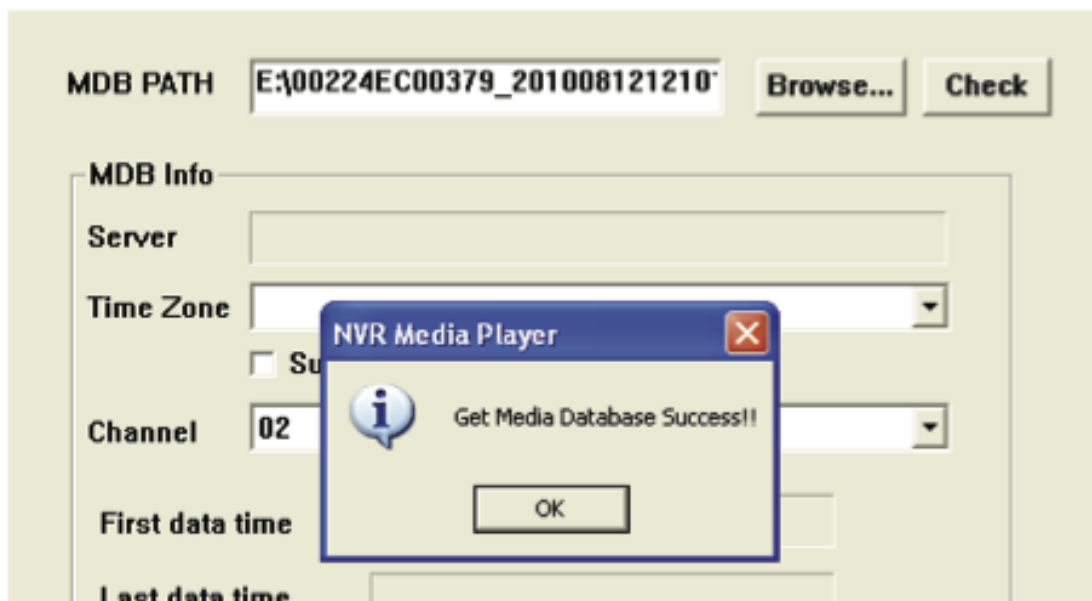
Click "Browse..." to select the file from the USB disk.



A new dialog should be prompted for you to select the file location.



When done, click "Check" to validate the file.



Once the file has been successfully verified, you should be prompted with the message shown below.



Select the time zone according to your current location.



Finally, click "OK" to begin playing. The player should now play the backed up file.

About LevelOne

LevelOne was established in 1998 in Dortmund, Germany by Digital Data Communications GmbH. By providing quality networking products and solutions, we've grown steadily throughout the years with Branch Offices in 18 countries around the world. The Internet has become a deeply integral part of both business and home life. Our years of experience have taught us that the only way to stay on top of the latest technology and trends is by listening carefully to what the customer says.

DDC was established in 1991 and is headquartered in Germany, and also maintains branches in Taiwan, Australia, Belgium, Brazil, Colombia, Denmark, Greece, Italy, Kenya, the Netherlands, Portugal, Slovenia, Spain, U.A.E. We are currently achieving year-on-year increase in turn-over. Our Production, Development, Distribution and Logistics Centers are growing in number and setting new quality standards throughout the world with powerful and recognizable brand names.

Please take a look through this brochure and if you have any questions or inquiries you can contact us at

sales@level1.com

