SVD-832 Network Video Decoder User's Manual

32CH Full HD Network Video Decoder
with Dual Display

Version 1.0.0

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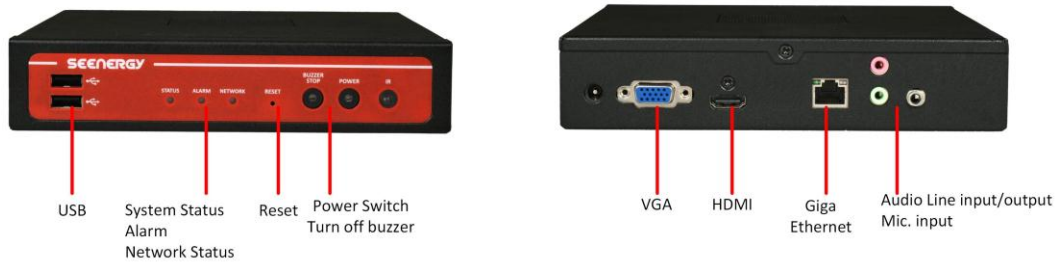
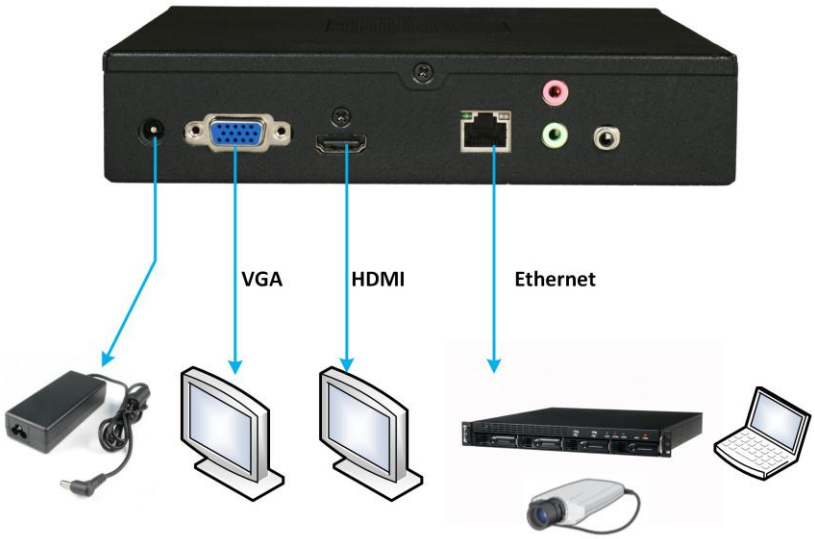
Hardware

Overview





LED & Buttons Definitions

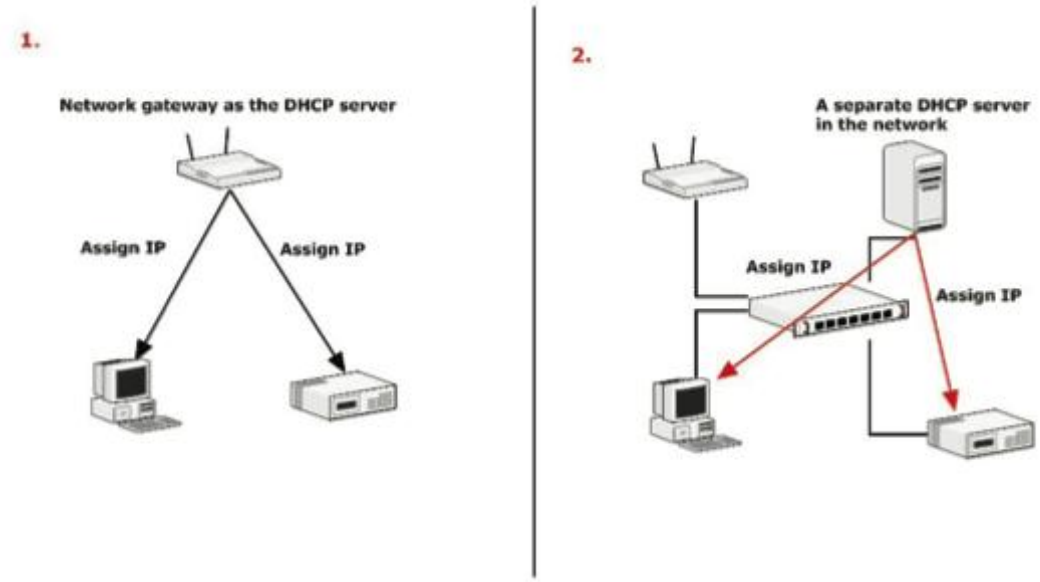
LEDs	Status	Definitions
Network	Green	Solid green for activity on a 10/100Mbps network
	Amber	Solid amber for activity on a 1Gbps network
Status	Green	*Shows solid green for normal operation *Blinking green when firmware upgrade is done
	Red	Blinking red for failed firmware upgrade through USB disk
	Amber	Blinking amber during firmware upgrade
Power	Green	*Solid green - Normal operation *Slow blinking in green after press and hold the reset button for 5 seconds indicates the device will enter the restore default process. Other LEDs remain unchanged during this state.
	Red	System off (power cord remains plugged in)
	Amber	*Fast blinking in amber during system initializing/starting. Continous blinking when system is unable to start properly (All other LEDs should be off when this LED is blinking in amber) * Slow blinking indicating the system is shutting down. Other LEDs go off according the stage of the process.
Alarm	Red	Blinking in red when a system/camera event occurs. Blinking should last 10 seconds for each event
	None	Goes off if reaches the 10-second duration, or when buzzer stop button is pressed (if buzzer is triggered)
Buttons		
Power btn	ON	Press and hold for 2 seconds
	OFF	Press and hold for 2 seconds
Reset	Restore default	Press and hold for 5 seconds
	Restart	Press and hold for 2 seconds
Buzzer stop	STOP	Press and release should stop buzzer right away
Buzzer		
Beep	Complete start	Beep once (indicating the system is fully started)
	Initiating restart	Beep once (Indicating the restart process has begun)
	Initiating shutdown	Beep once (Indicating users to release the Power button as the shutdown process has begun)

Connect to the NVD

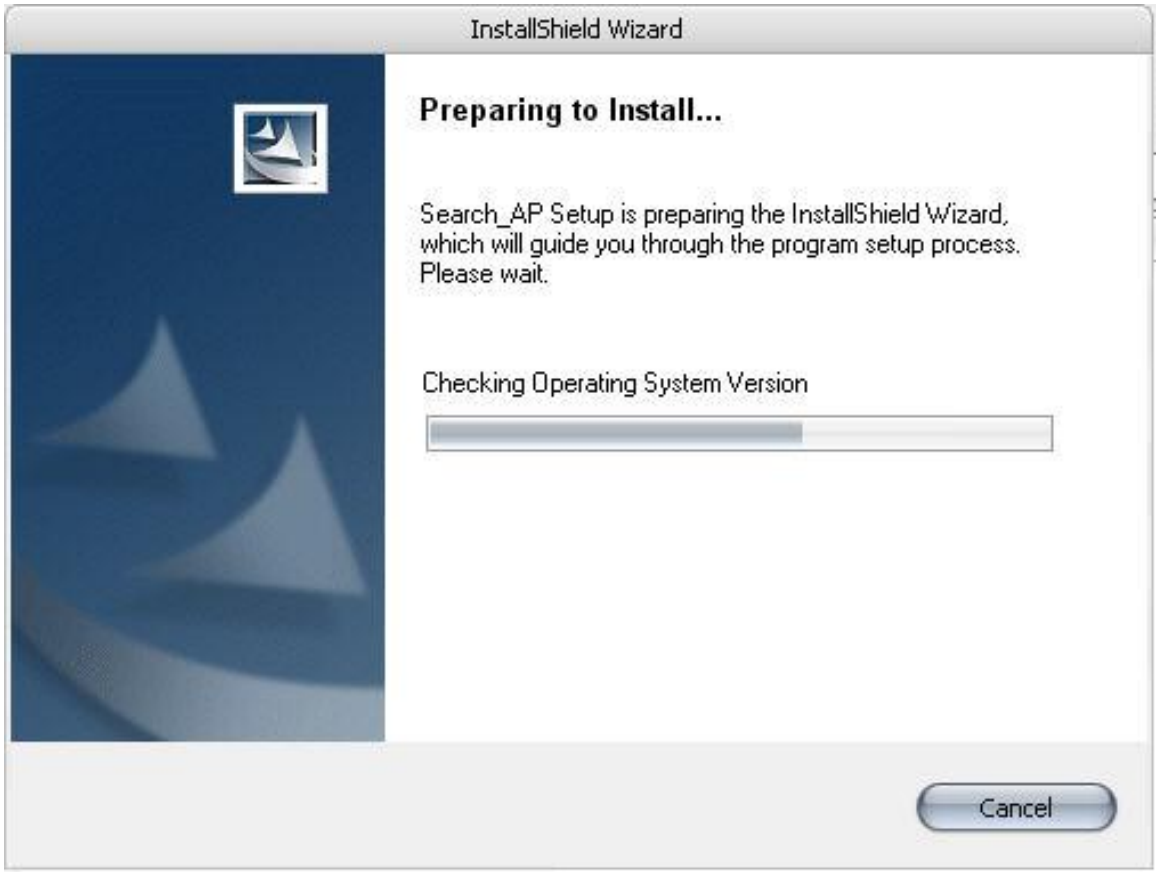
There are various ways you can connect to the NVD and below are the suggested methods for different network setup:

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

Use Search Utility



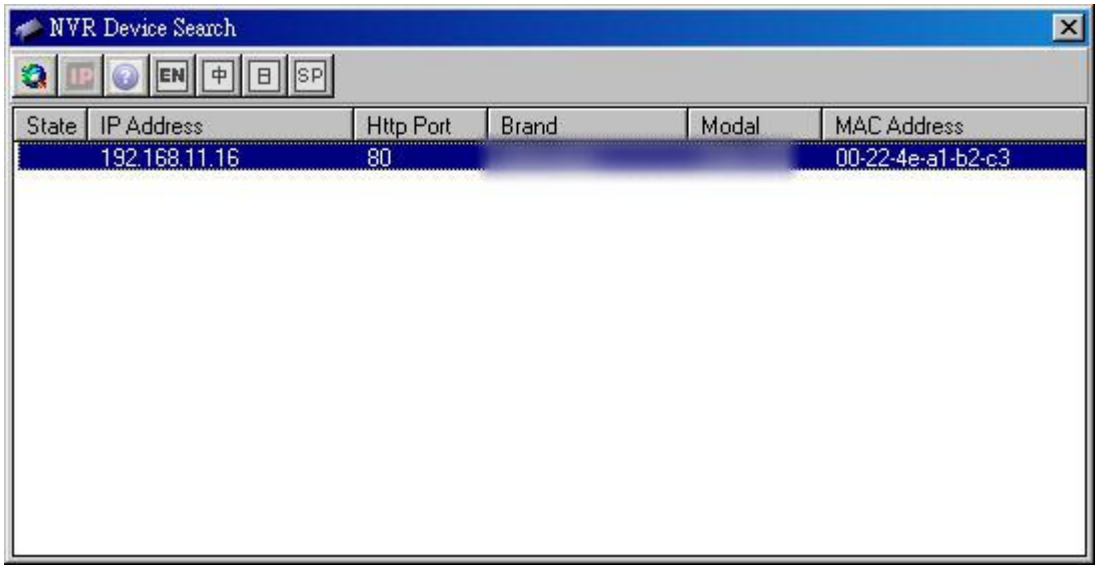
If the NVD is placed in a corporate network or a local area network where a DHCP server is already presented, run the "Search" utility from a computer that is on the same network and locate the NVD with its IP address that is assigned by the top-level DHCP server.



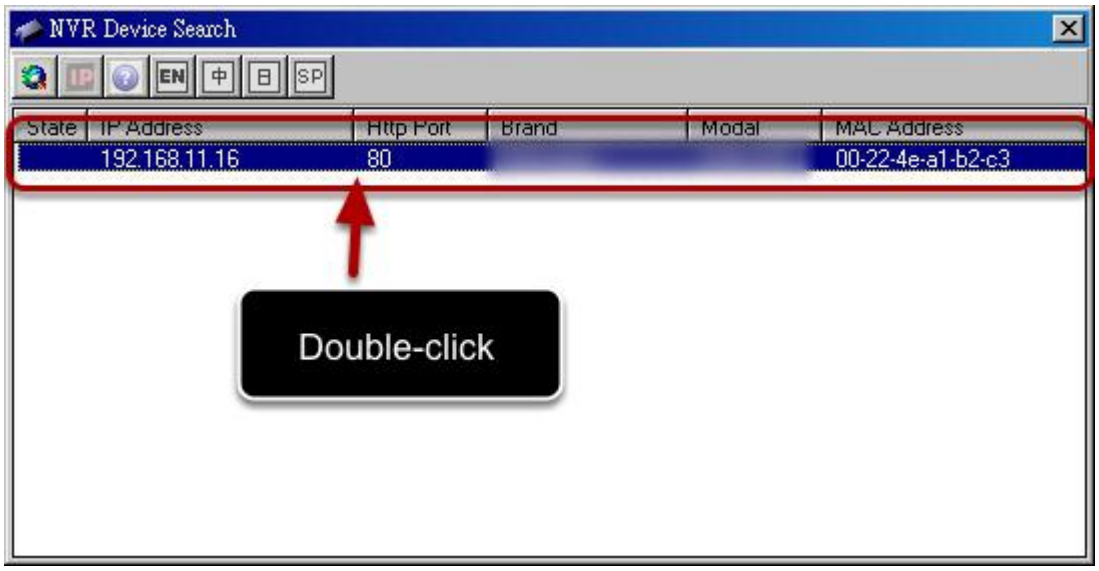
To begin, launch the "Search" utility from the CD and proceed with the installation:

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.



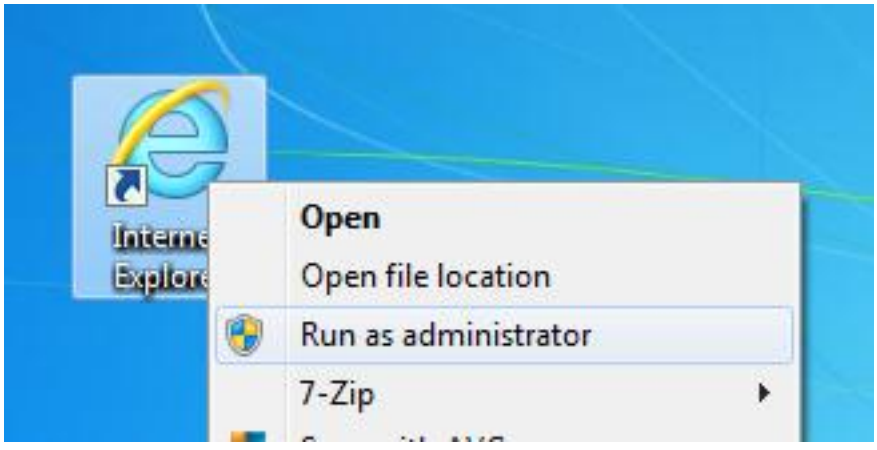
The NVD should be located and its IP address should be displayed.



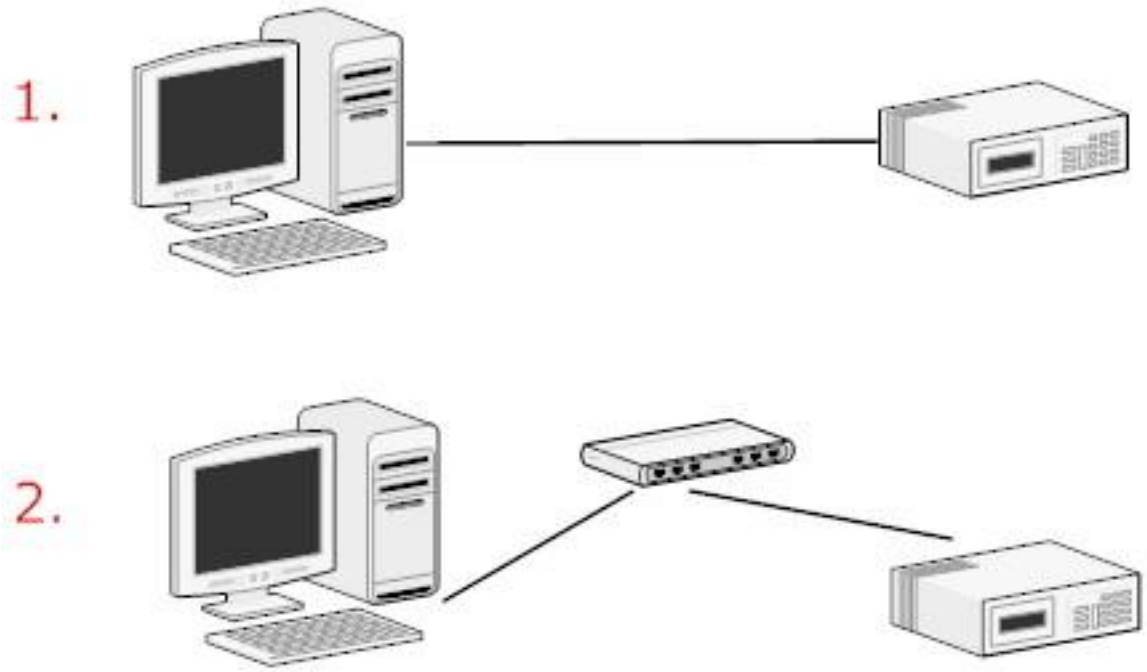
Double-click on an NVD and the search program should automatically access the NVD's web administration page from your default browser.

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

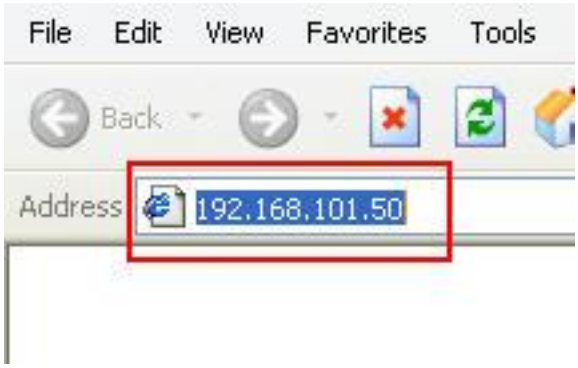
- Please make sure you are using Internet Explorer 8 or above
- If you are running Windows Vista or 7, please make sure you are running Internet Explorer with the "administrator" privilege.



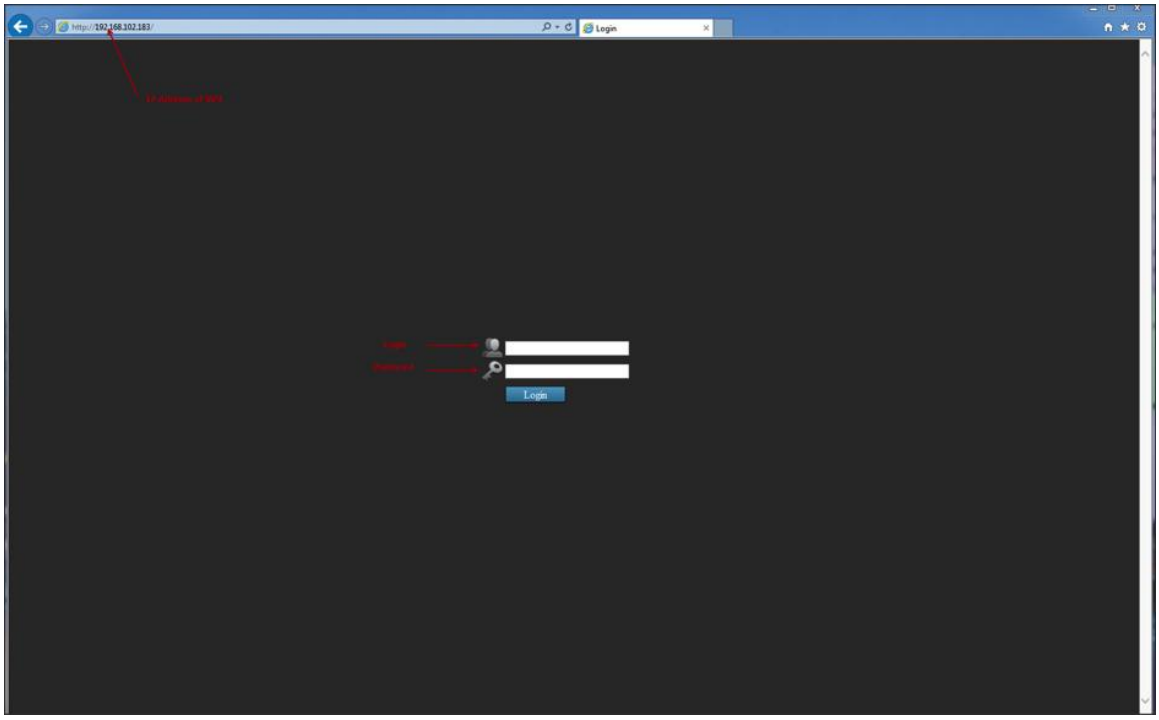
Access the NVD with its default IP address



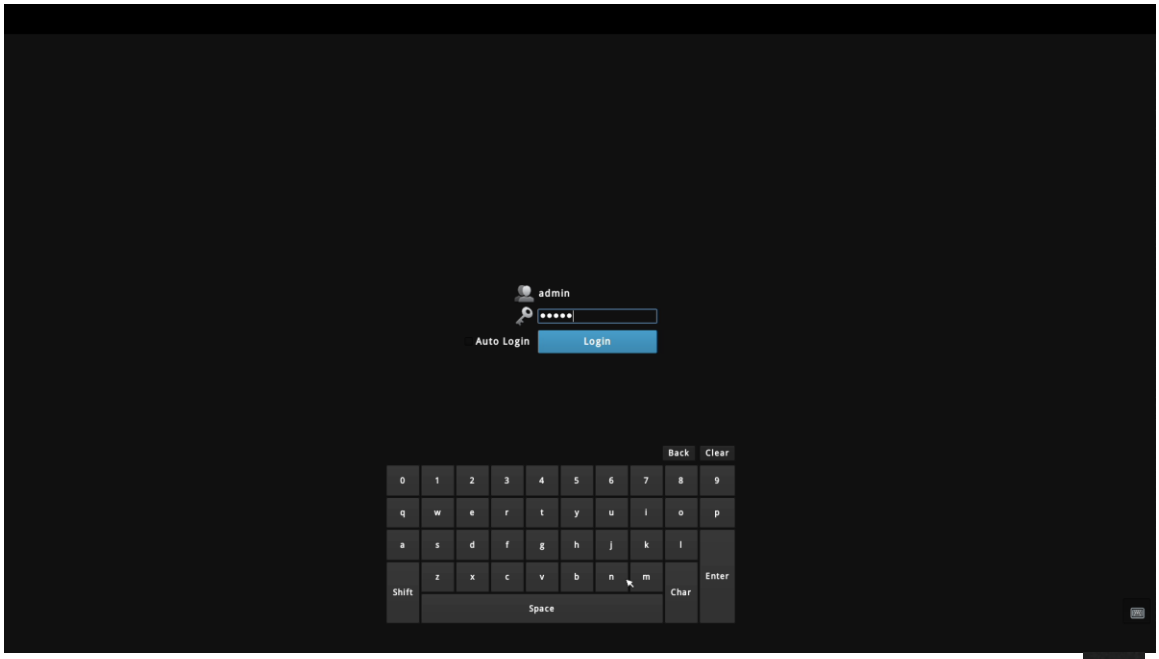
The NVD comes with a pre-configured static IP "**192.168.101.50**". However, it is only used when there is no DHCP server presented in the network. To connect to the NVD, use a PC that is on the same network over a switch or hub, or connect the PC directly to the NVD using a crossover CAT5 Ethernet cable.



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

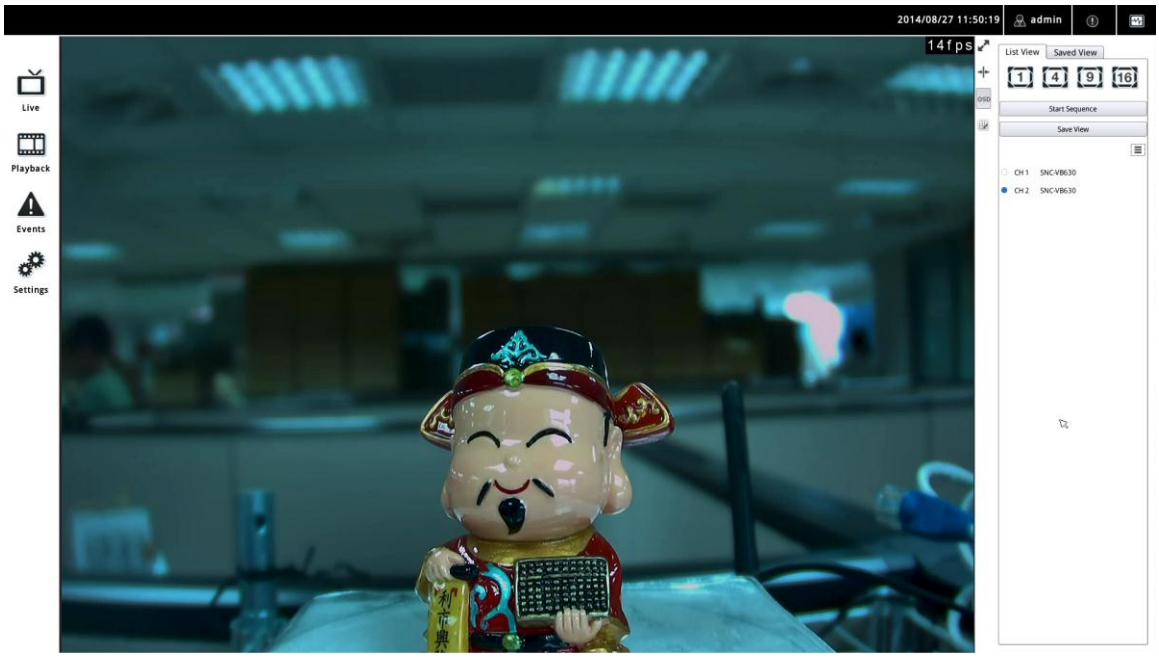


Again, you should be prompted for the username and password. Enter its default username "**admin**" and password "**admin**" and then click "Login" to enter the system



Besides using web browser, you use local UI to operate NVD, click to display virtual keyboard to enter user name and password.

Main/Live View



The main/live view is the first interface displayed once you access to the NVD through the internet browser.
It displays the live video of all the cameras added to the NVD and following the pattern chosen by the user. The interface has many functions explained bellow.

The "Live View" page provides the following functions:

- **Retrieve camera's video stream**
- **Retrieve camera's status**
- **Perform Live Sequence Viewing**
- **PTZ Control (Click directly on the video)**
- **Perform PTZ Preset Sequence viewing**
- **Perform manual recording**
- **Take snapshot** - as soon as a snapshot selection is made, the snapshots are automatically saved to x:\SnapshotFolder ("x" represents the partition where Windows is installed, e.g: C:\)

- **Receive audio of a video stream**
- **Send audio**
- **Control "Buzzer"**
- **Change web UI display language**

a.The UI's 5 main functions:

The bar displays the 4 main functions of the Web User Interface (UI).

The Live view is the main view .The other 3 views will be explained in each chapter.

b. Date and Time display

The Date and the Time are defined by the user in the settings section of the NVR.

c. User's configuration

It displays the name of the current user.

If you click on the name of the user, the context menu offers the functions bellow:

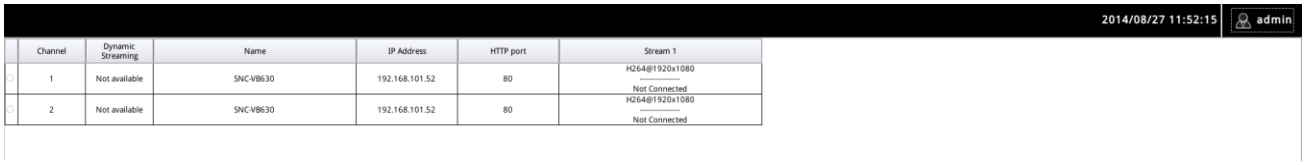
- Language settings
- User setting
- Locking the screen
- Logout function

d. Hardware events notification

In this section, you will receive notifications if a warning sound is triggered or if the hard drive of the NVR failed in recording data.

e. Channels status

If you click on the icon, page tab will display the current status of the channels added to the NVR.



It can also display the current configuration used for the event recording or the configuration settled for the scheduled and manual recording.

The channels status page is updated as long as the NVR's main user interface is open.

f. Video frame

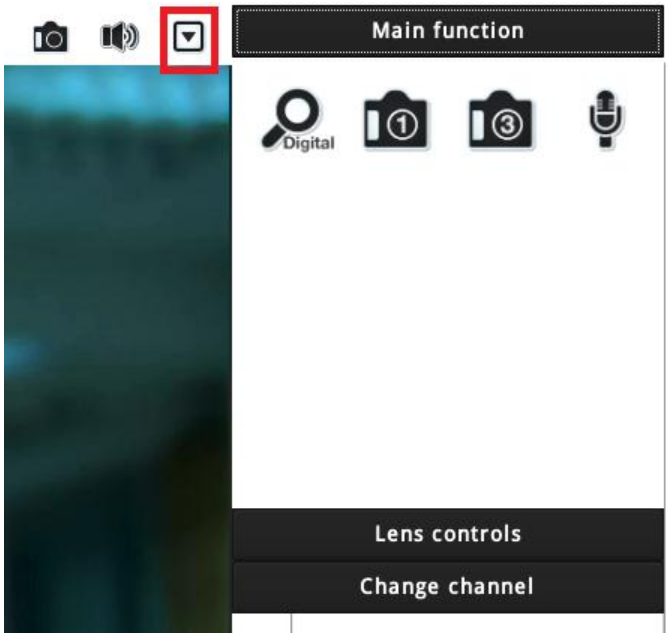
All the camera's videos are displayed in this frame.

- The PTZ function is available by clicking of the left button of the mouse on the camera's view.
- Double click on the left button of the mouse enables the zoom function. To disable it you can click on the right button of the mouse.

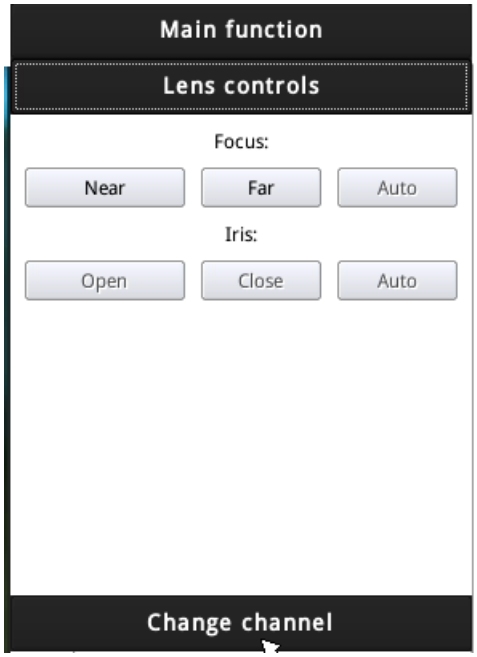
If the cursor is pointing on one of the cameras, it will show a bar in the top.

The bar displays the channel's number and some functions as showed on the snapshot above.

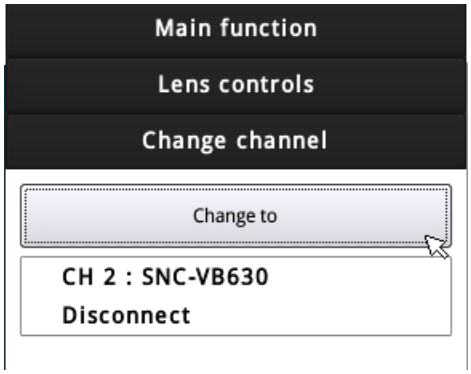
Click to display a function manual to control camera



Main function: Digital PTZ, snapshot, and audio post

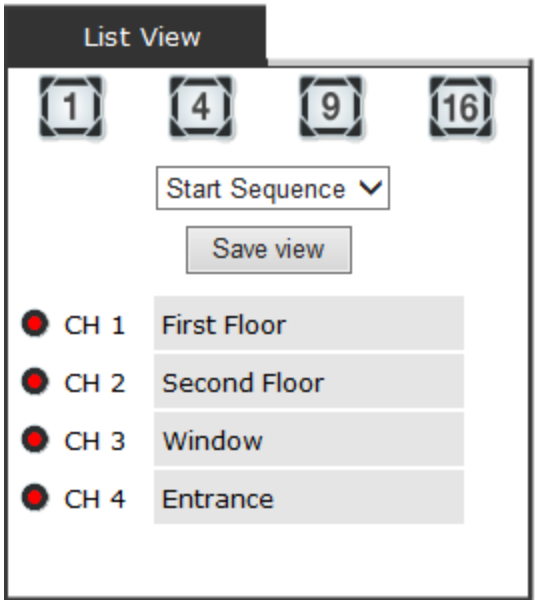


Lens controls: control PTZ

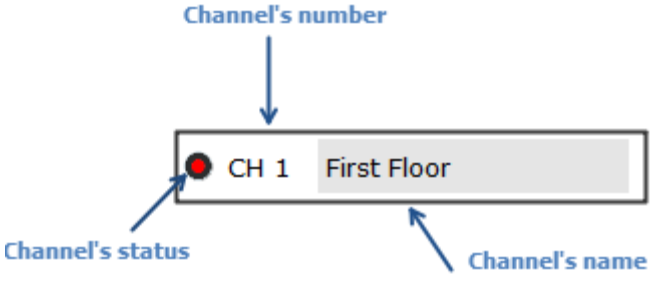


Change channel: switch channel to display on this video frame

g. List view



It displays the list of channels added to the NVR. Each channel represents a camera with its name, the channel number and its currents status.



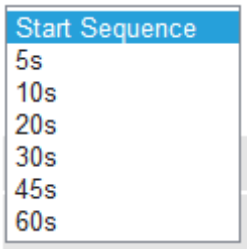
The channel's status is defined by 3 colors:

- Red: The channel is recording and the live view is available
- Blue: The channel is connected and live view is available
- Grey: The camera is disconnected

h.1, 4, 9, 16 Pattern view

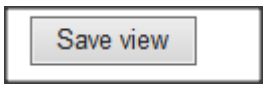
Different patterns of live view can be displayed on the video frame.
You can display 1, 4, 9, or 16 cameras at once.
Every time you click on an " n" pattern icon, the live video of the next "n" cameras will be displayed.

i. Sequence view



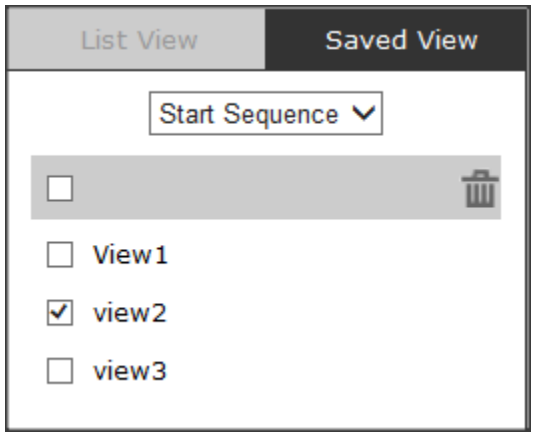
The sequence mode will automatically switch between a single or group of cameras every a certain period of time. You can define this period to 1 second to 60 seconds

j. Save view



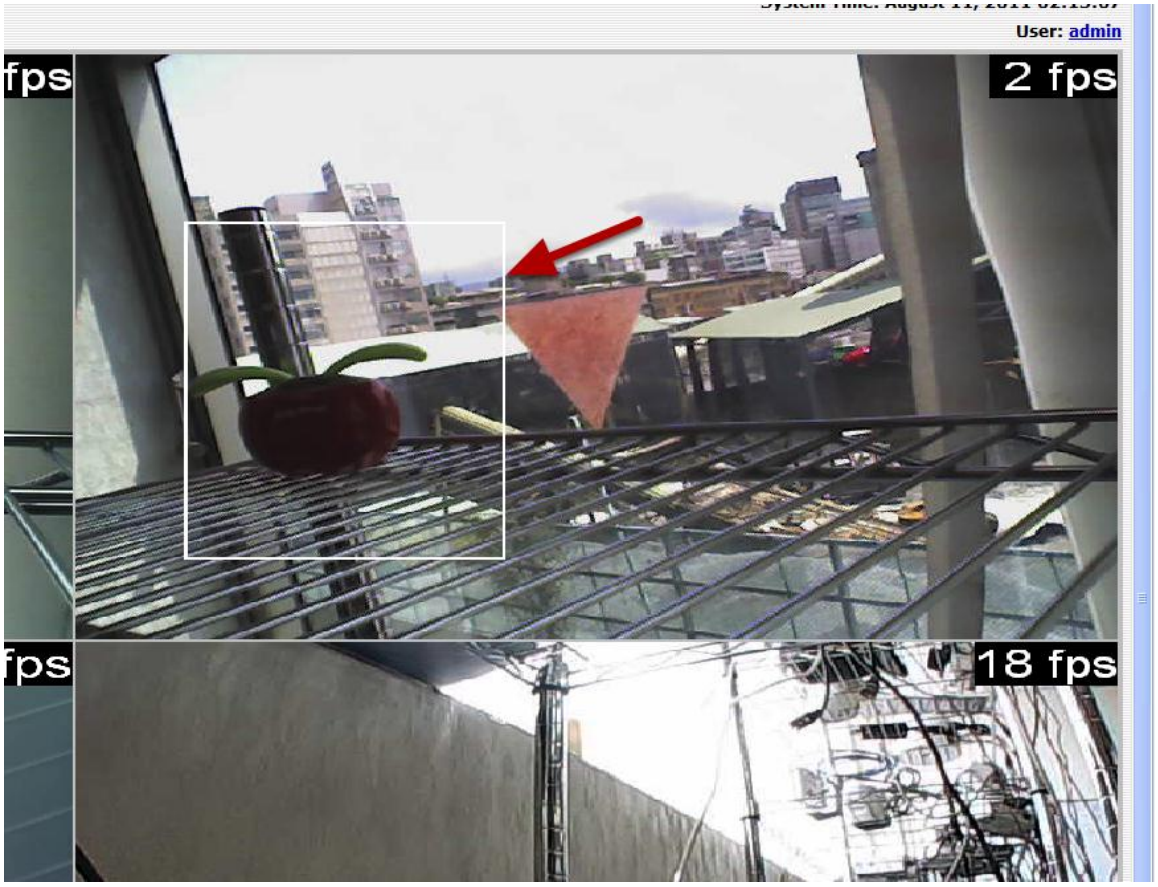
Click on the save view button and you will able to name the current view and save it.
This will help to quickly display your configured views when needed.

k. Saved view



This section can display the views that you have already saved. You can choose the views from the list you have created. You are also able to switch between saved views every certain period of time by clicking on the "start sequence function".
If you check the box beside the name of the view, you can edit or delete the view.

I. Digital zoom



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.

You are able to adjust brightness of the live video from the right-click menu.

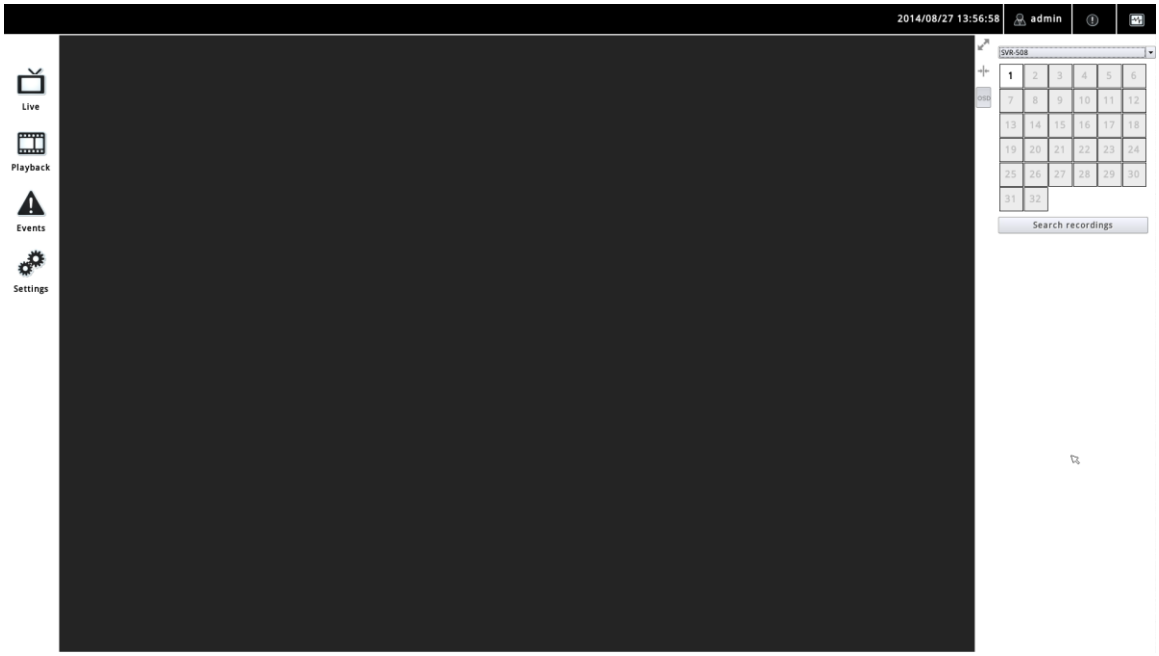
Same thing as the brightness, you can set the contrast for the live video from the right-click menu as well.
You can change the web UI display language from the current login username link located at the upper-right hand corner. Click on the link opens up a new window, which displays detail information about the user as well as a drop-down menu that lets you change the display language.

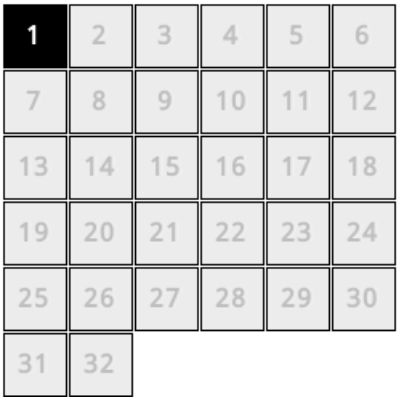
Playback view

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.

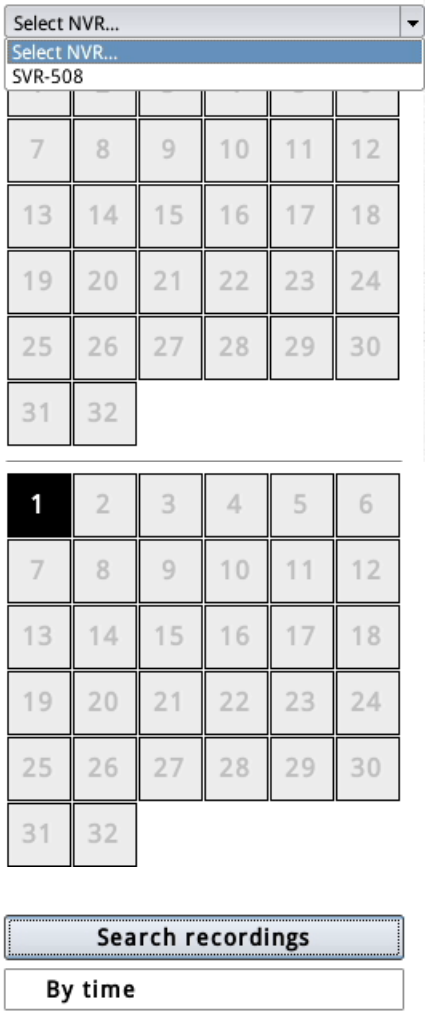
Playback video can be viewed in full screen and snapshots can be taken and saved during a video playback.



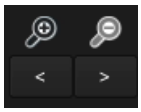


To play a recorded video:

1. Select NVR
2. Select channel
3. Choose "search mode", by times



a. Zoom on a range of time



If you click on the icon you can zoom on range of the time and get more details on the playback bar.

b. Minimize the bar of the playback

If you click on the icon you can minimize the playback range to get more space for the videos.

c. 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. Send Audio
4. Digital PTZ

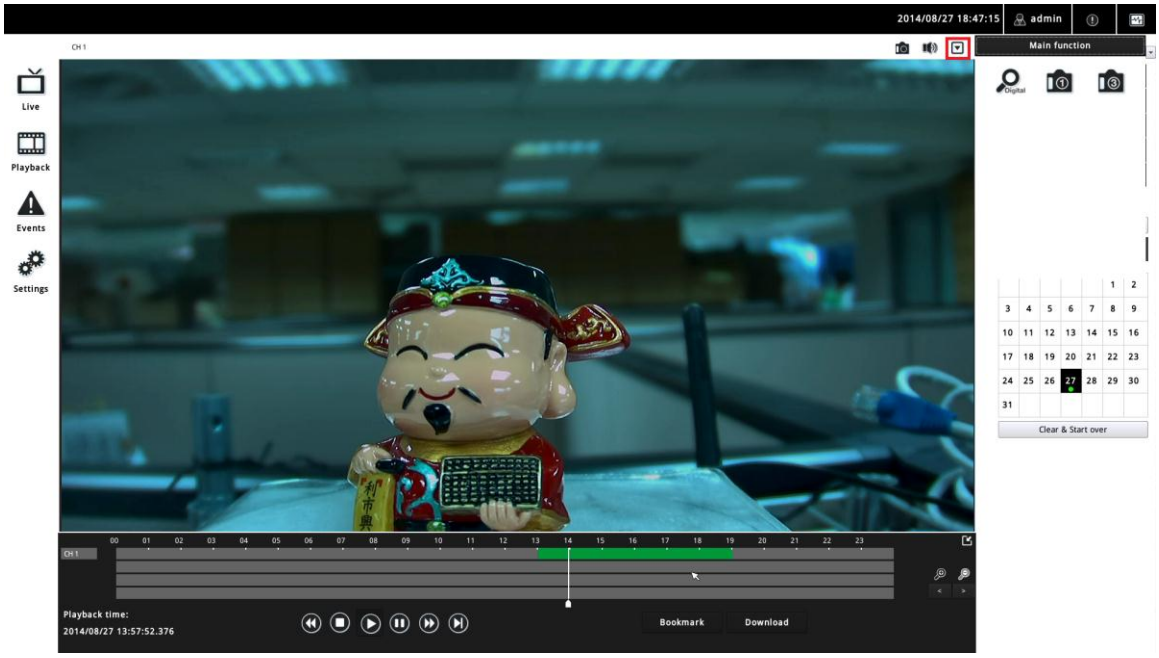
d. Take a snapshot of a playback video

To take a snapshot, click on the button " ", there is a manual showing up. You are given with options to take 1 snapshot or 3 continuous snapshots.

If the "3 continuous snapshots" option is chosen, the new window displays snapshots and lets you view them individually by using the "Prev", "Next" buttons shown above.

However, as soon as a snapshot selection is made, the snapshots are automatically saved to x:\SnapshotFolder ("x" represents the partition where Windows is installed, e.g: C:\)

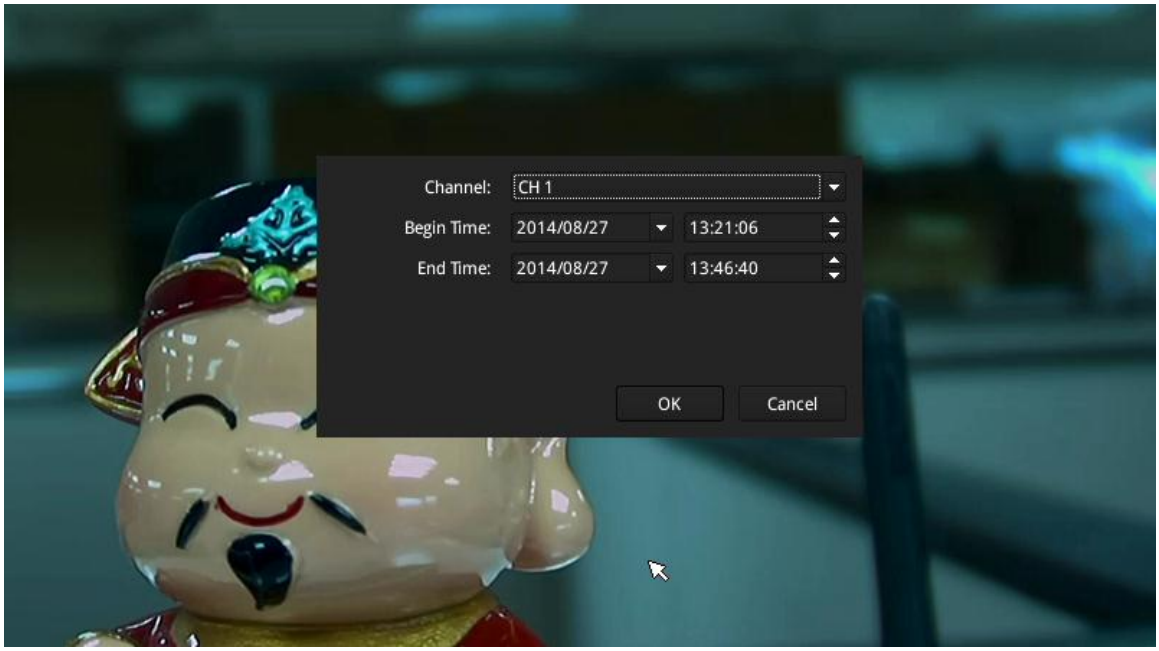
You can right-click anywhere on the image and select "Save Picture As..." to save the images somewhere else if you wish.



"Bookmark" is used to set a time range for export.

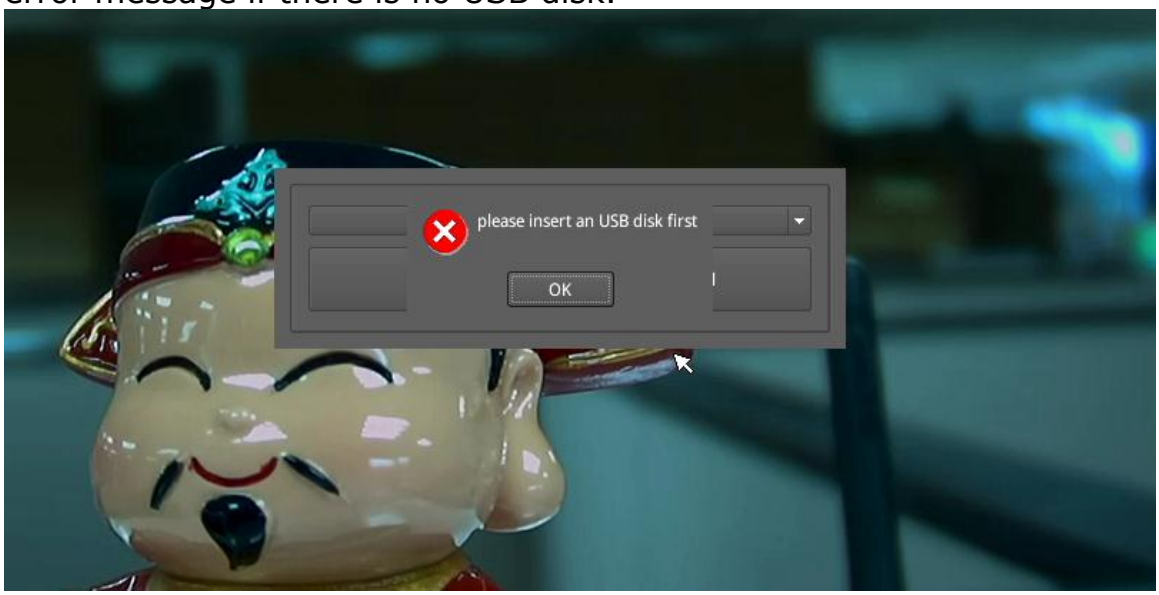
1. Click will set the current playback time as "Start" time. A blue slider should be displayed on the timeline.
2. Click again will set the current playback time as "end" time. A blue slider should be displayed on the timeline.

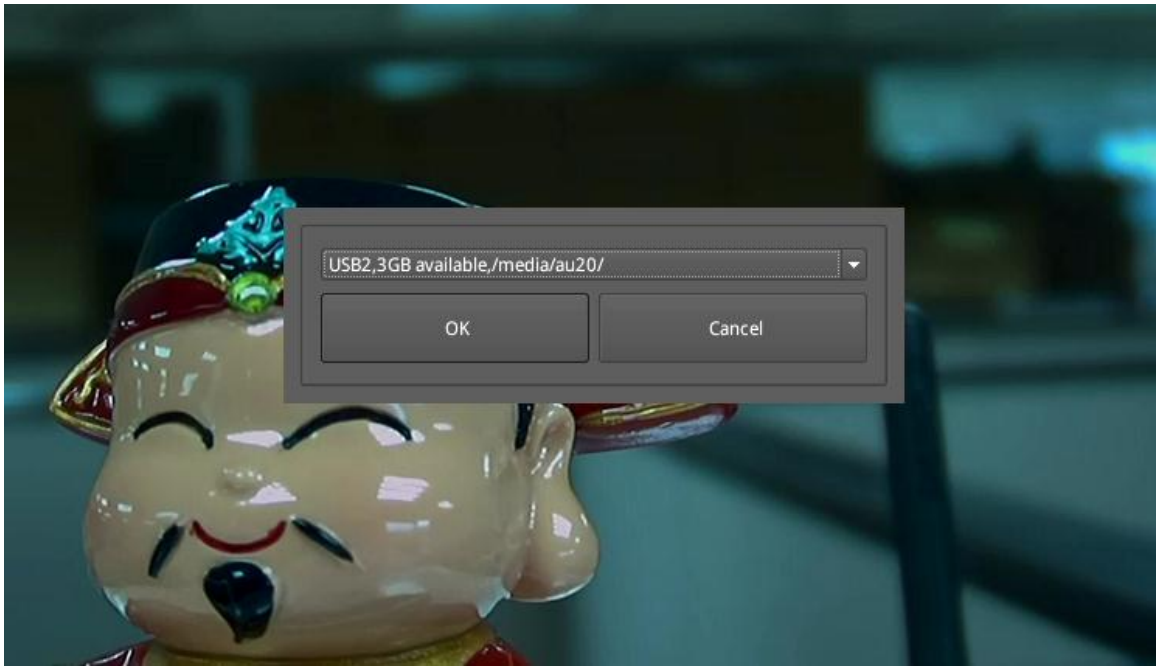
Click "Download" to open a pop-up dialog for export options



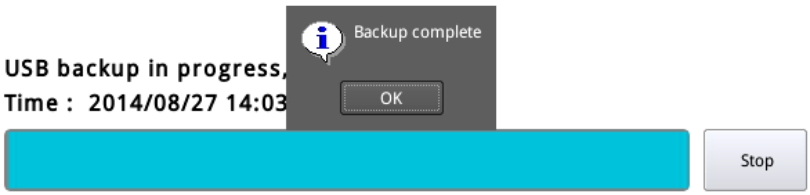
The recorded video can be backed up to a USB disk with AVI file. It is required to plug in a USB disk formatted in FAT32 prior to using the backup function.

Click "OK" to open a pop-up dialog for USB disk options. It will display error message if there is no USB disk.





Click "OK" to start back up

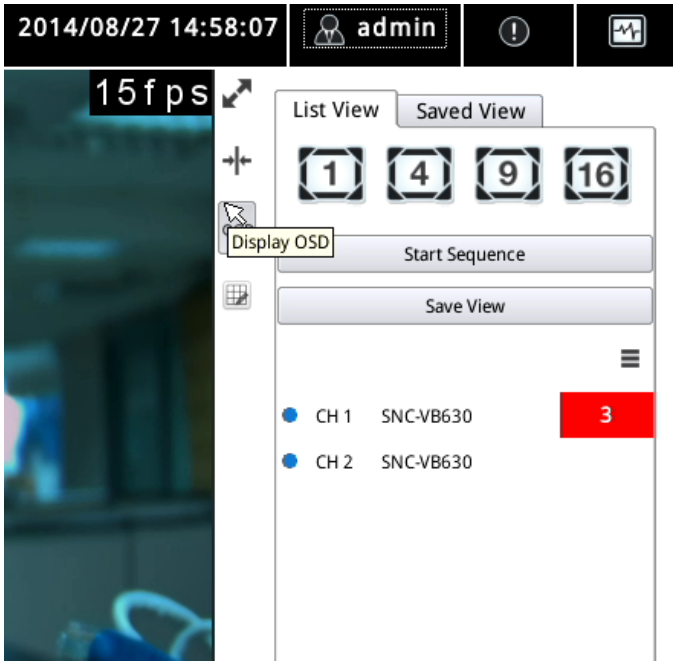


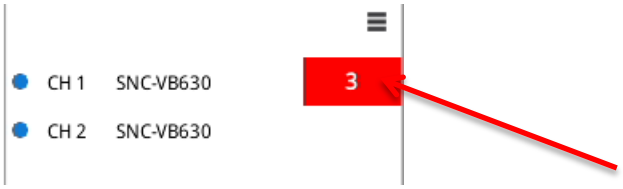
Event view

This section displays the last events recorded by the NVD.

The events can only be detected and displayed if you have configured it on the NVD's settings. You can display the event of all the channels at once or by each channel.

The event indicators will be shown on live view screen:



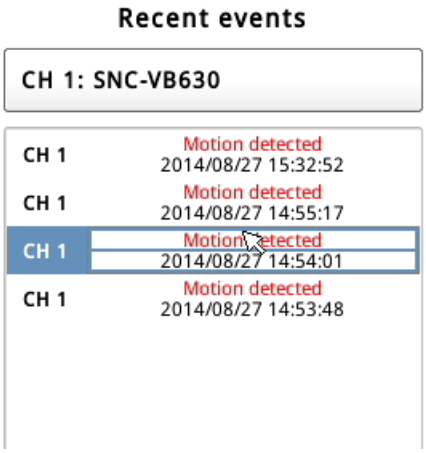


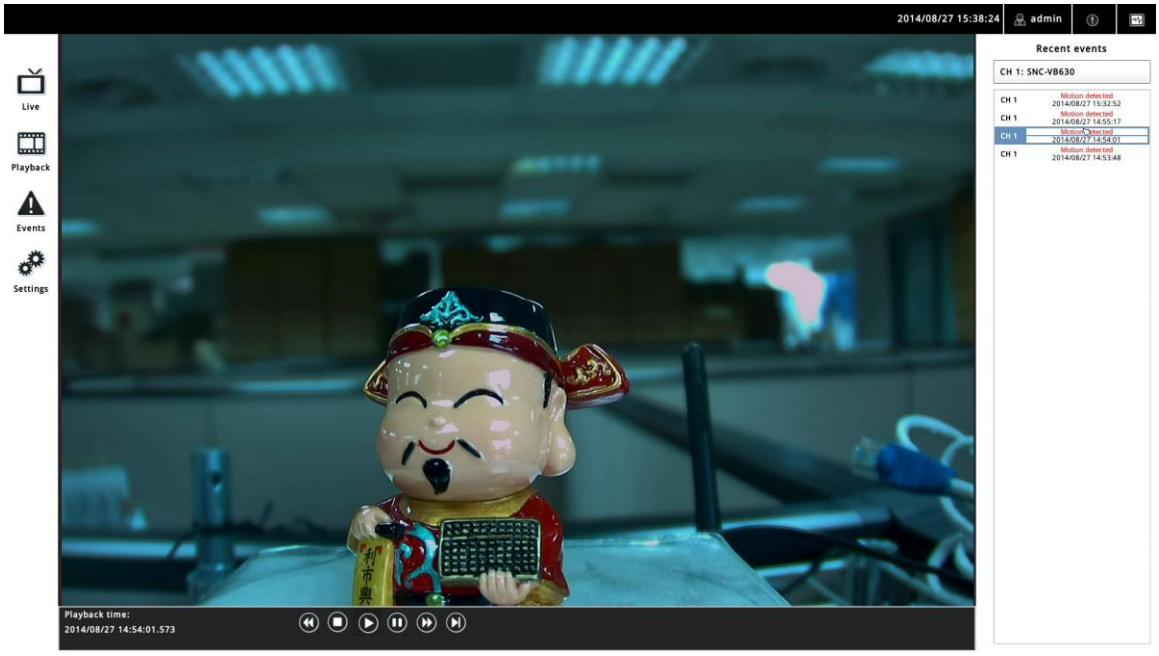
By clicking the event indicator to switch to event monitor.

You can also click the

button to enable monitor.

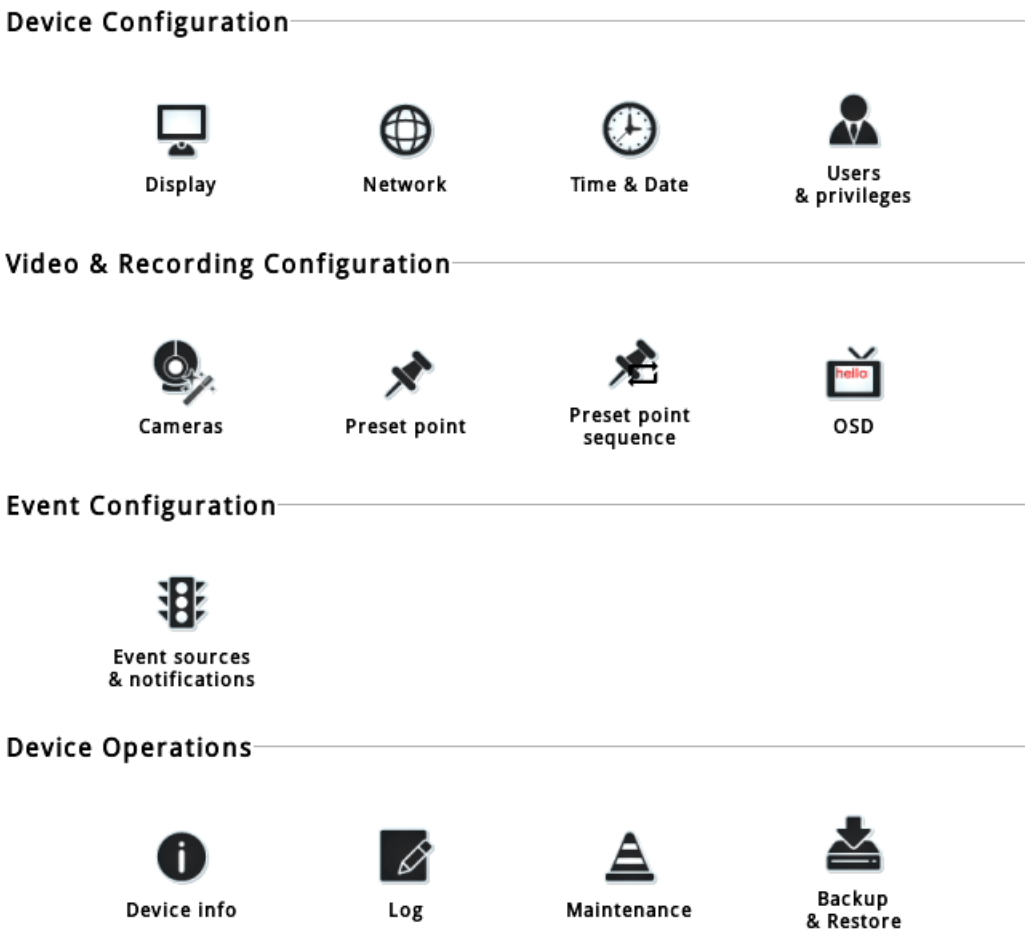
To play event video, click on one of the event list in the right of the UI to display the event related to it.


Recent events
CH 1: SNC-VB630
CH 1
Motion detected
2014/08/27 15:32:52
CH 1
Motion detected
2014/08/27 14:55:17
CH 1
Motion detected
2014/08/27 14:54:01
CH 1
Motion detected
2014/08/27 14:53:48

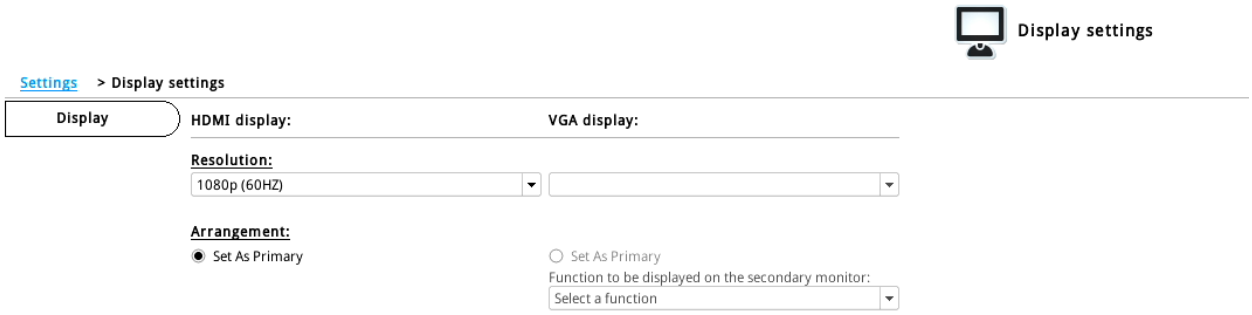

2014/08/27 15:38:24
admin
Live
Playback
Events
Settings
Recent events
CH 1: SNC-VB630
Playback time:
2014/08/27 14:54:01.573

NVD Setup – Settings

The "Settings" 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 decoder that is ready to manage cameras and NVR on the network.



Display



The "Display" configuration page allows you to choose the most optimized display resolution for the monitor that's used with NVD, as there will be circumstances that the incorrect resolution may be used when the system first boots up.

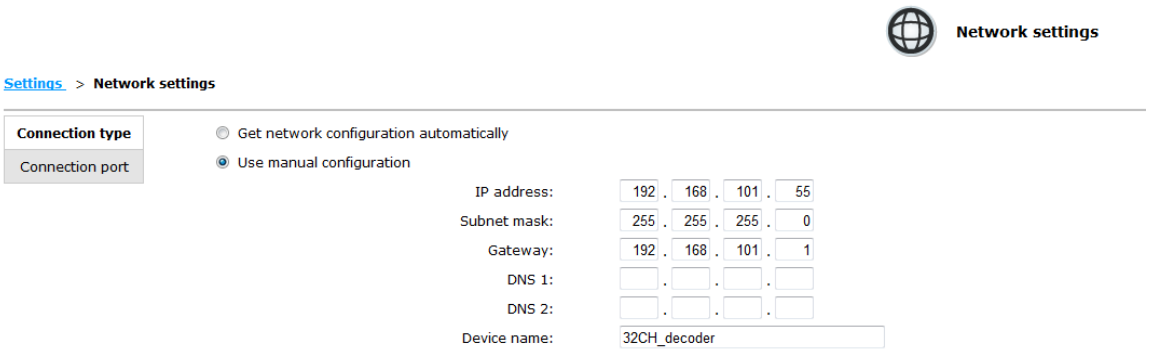
The NVD comes with two video outputs (HDMI: Primary as default, VGA: Secondary as default). You can set which to be used as primary and secondary in this page other than setting the resolution.

You are also able to set the function to be displayed on the secondary monitor in this page.

Currently you can configure the secondary monitor to display live videos with selected channels in desired layout, or live video in automatic sequence view.

NOTE: The NVD will reboot automatically upon change of resolution/or monitor for the new setting to take effect or be detected.

Network Settings



The NVD supports three connection types that can be configured depends on how the network is setup:

1. Get network configuration automatically
   Set the NVD to configure network settings automatically

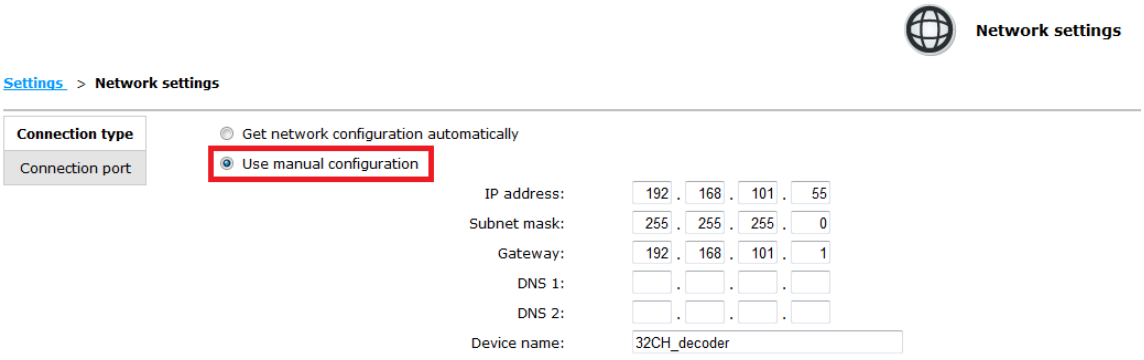
1) When no other DHCP server is in the network, the NVR should use the default IP: 192.168.101.50
2) Users should not be able to change IP settings when this mode is selected

2. Use manual configuration
   Set the NVR to use static IP

1) Use the NVR's default static IP when this mode is selected.
2) Users can change the IP settings

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 decoder is set to " Get network configuration automatically" which if there's a DHCP server in the same local network, the NVD can obtain IP address from DHCP server, and you can locate the NVD by using the search utility.
If there's no DHCP server in the network, and the NVD will use its own default static IP 192.168.101.50.

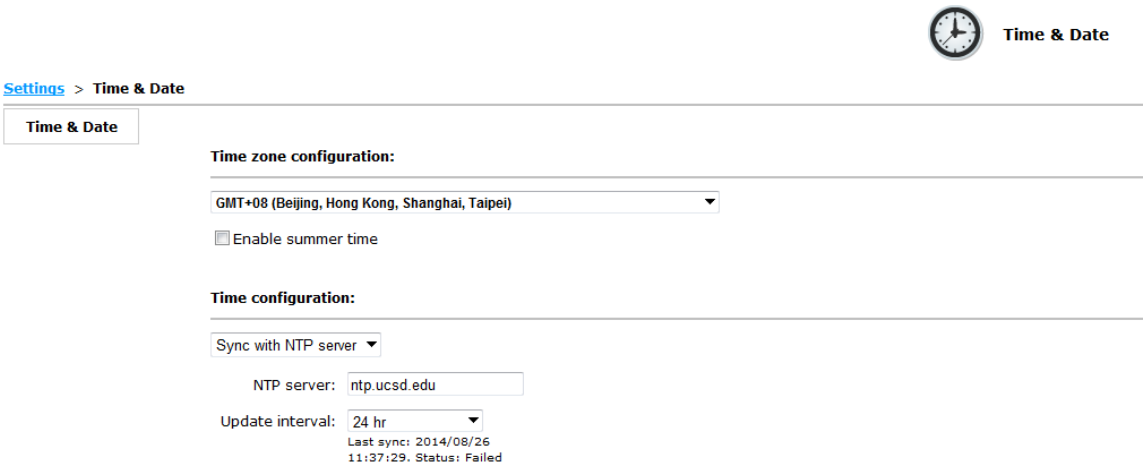


If you wish to set the recorder to use a static IP address in your local area network,

1. Choose "Use manual configuration"
2. Enter the IP address, subnet mask, default gateway address and DNS server address for the decoder

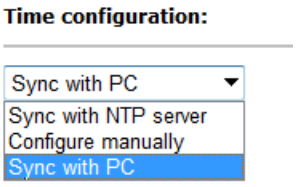
** The decoder can detect the presence of a DHCP server upon startup. It sets itself to use static IP address if there is no DHCP server currently presented in the network.*

Time and Date

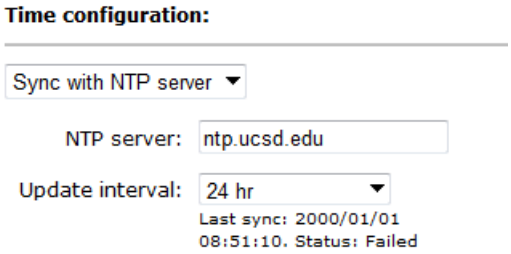


Set the time and date by selecting the time zone according to your location. It is imperative that you set the decoder's time correctly to avoid the following errors:

• 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 decoder time



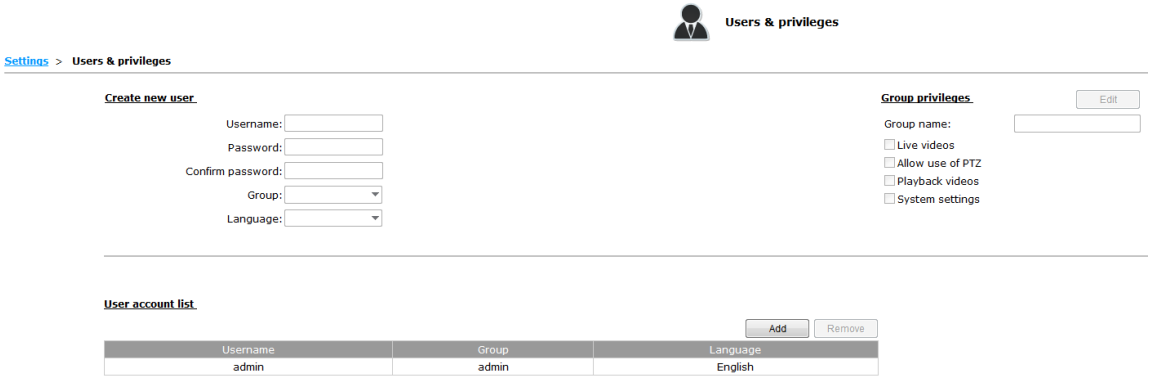
•**Sync with NTP server** – enter the hostname or IP address of a valid NTP server and set how often the recorder should synchronize the time with it by using the "Update interval" drop-down menu



•**Configure manual** – Use the drop-down list and configure the time manually

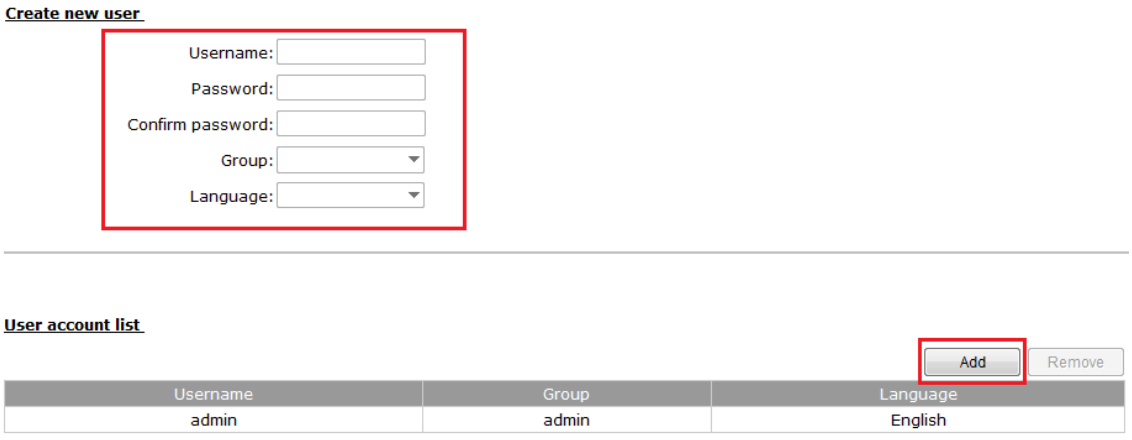
• **Sync with PC** – Check this option to synchronize the decoder time with the PC that you are currently using to access the recorder

Users & privileges



Multiple users can access the recorder 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

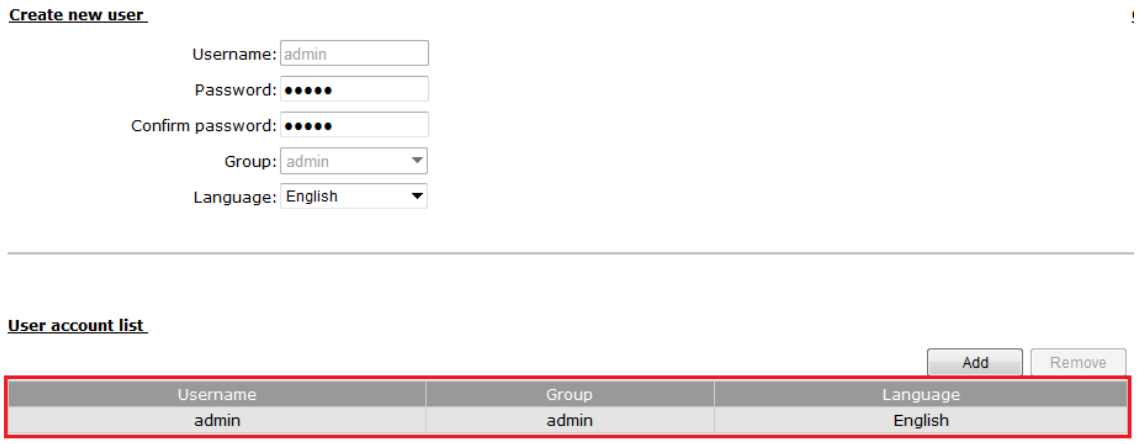


- Click "Add" to add new user
- Enter a username and password

• Select a group from the "Group" drop-down menu to assign the new user to a particular group

• Click "Apply" to finish configuration

Change the password of the "admin" account



1. Click and highlight the "admin" account in the account list and click

2. Its information should be displayed

3. Enter a new password in the "Password" field and enter it again in "Confirm Password"

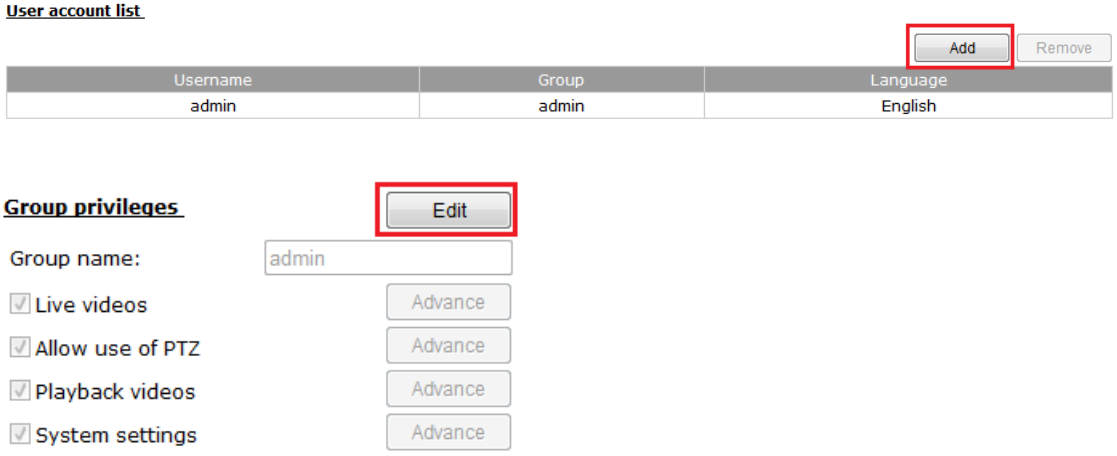
Group Privilege

Group Privilege is where you can create multiple customized access policies for situations if you need the decoder to be accessed by users other than the administrator. There are 7 pre-defined user groups for privilege configurations. 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 decoder 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.

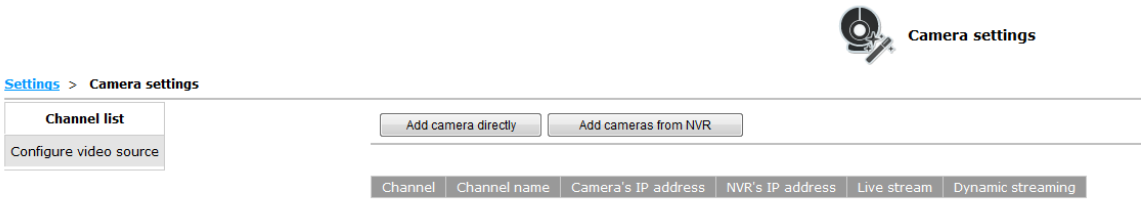
To change a group configuration, after clicking "Add" to add new user account, press "Edit" to change Group privileges.



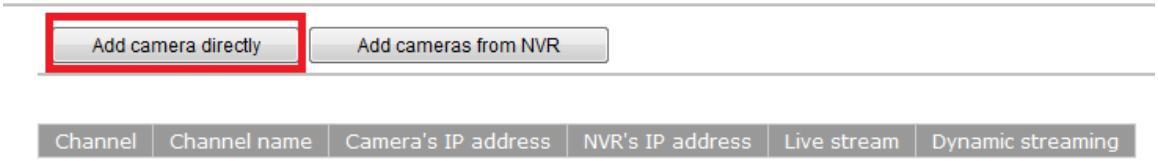
You can change the group name and privilege.

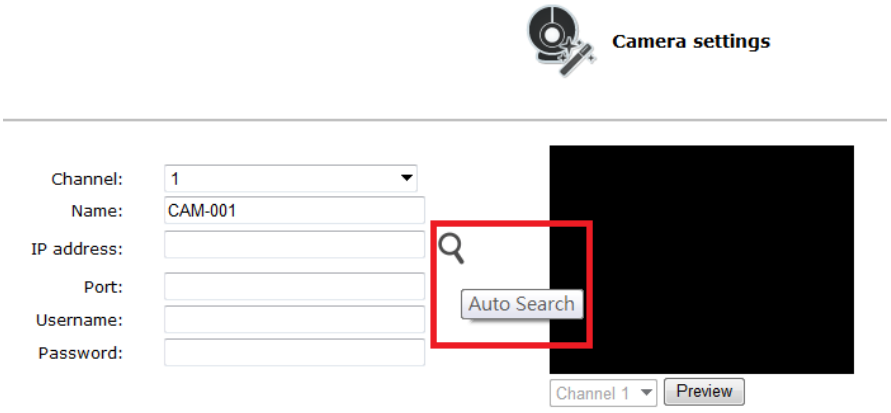
Camera

Automatic Search

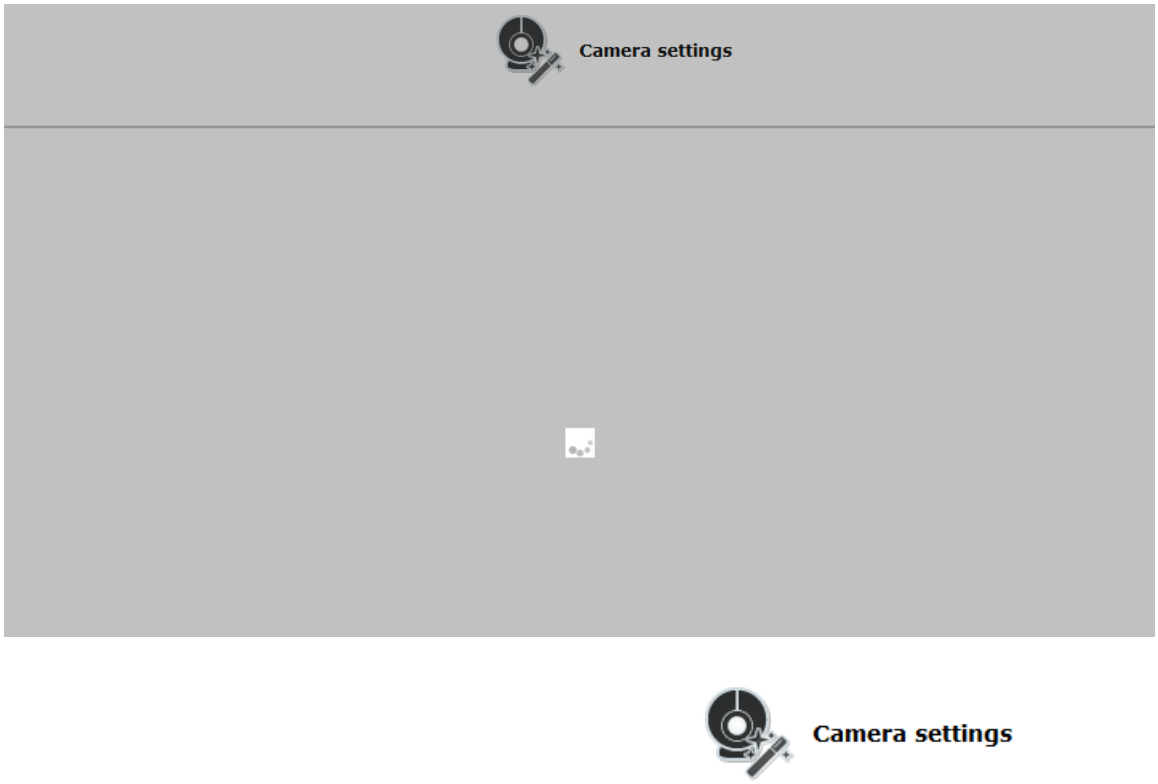


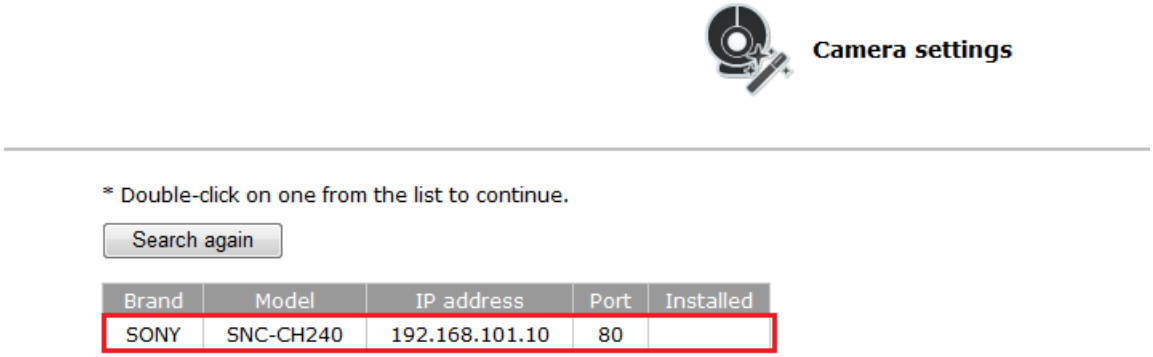
In "Settings" >> "Cameras", click the "Add camera directly" or "Add cameras from NVR" button to perform the camera search.



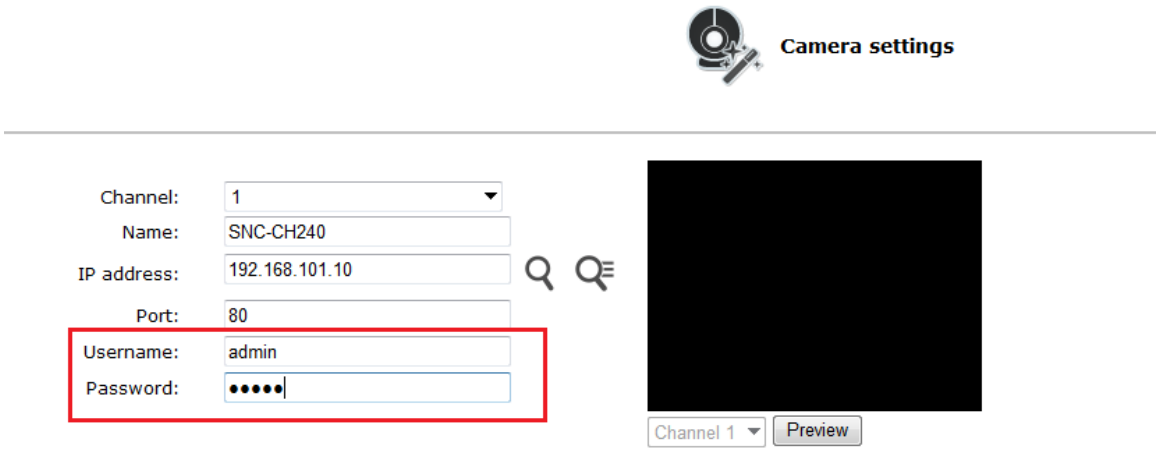


After clicking the "Add camera directly", press to start search and its status should be displayed:

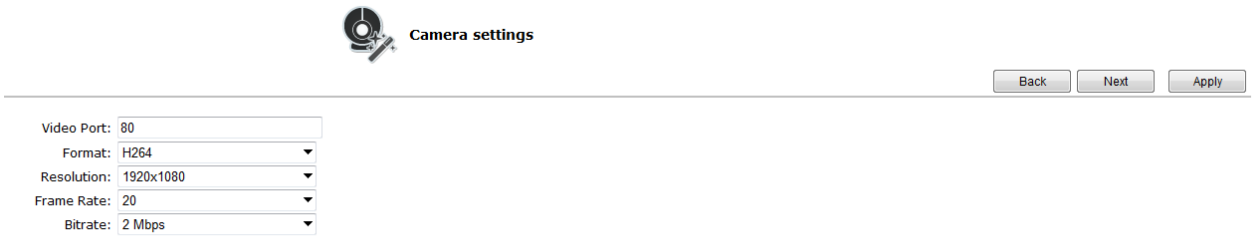




Found cameras should be listed and simply select a camera from the list

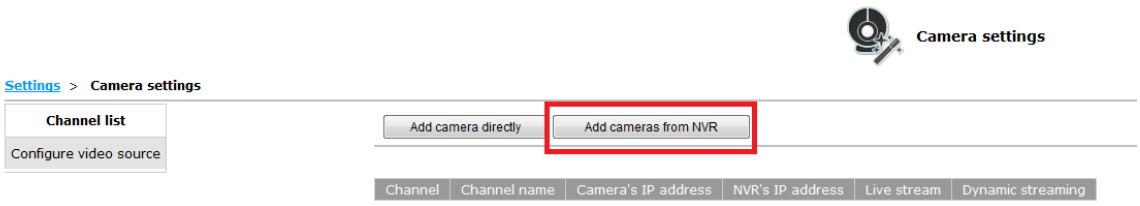


Its corresponding information should be displayed in the "Camera Information" section. Enter its username and password and press "Next" to detect this camera.

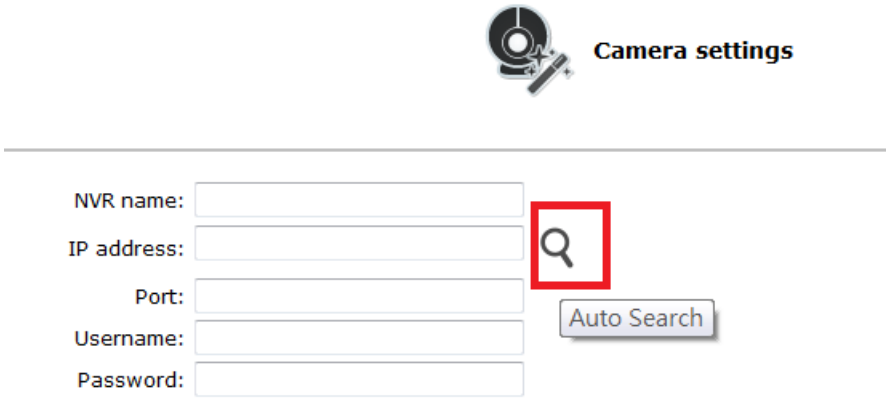


If connection establishes successfully, camera's detailed information should be polled and displayed as below.
Adjust its video format, frame rate, resolution or bitrate...etc if you wish and then click "Apply" to finish adding the camera.

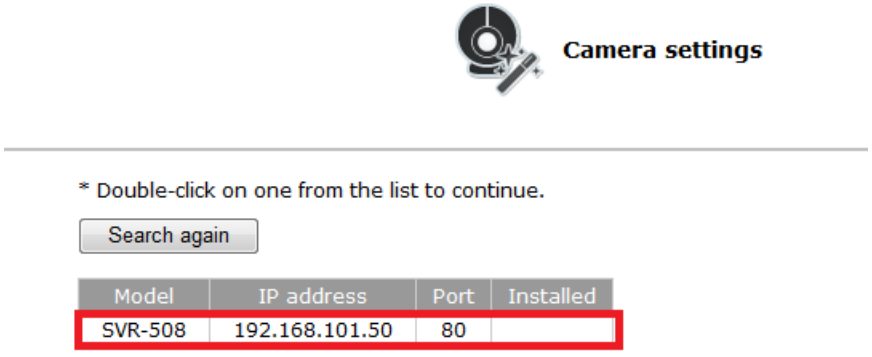
You can add cameras through NVR, the camera should be added in NVR previously.



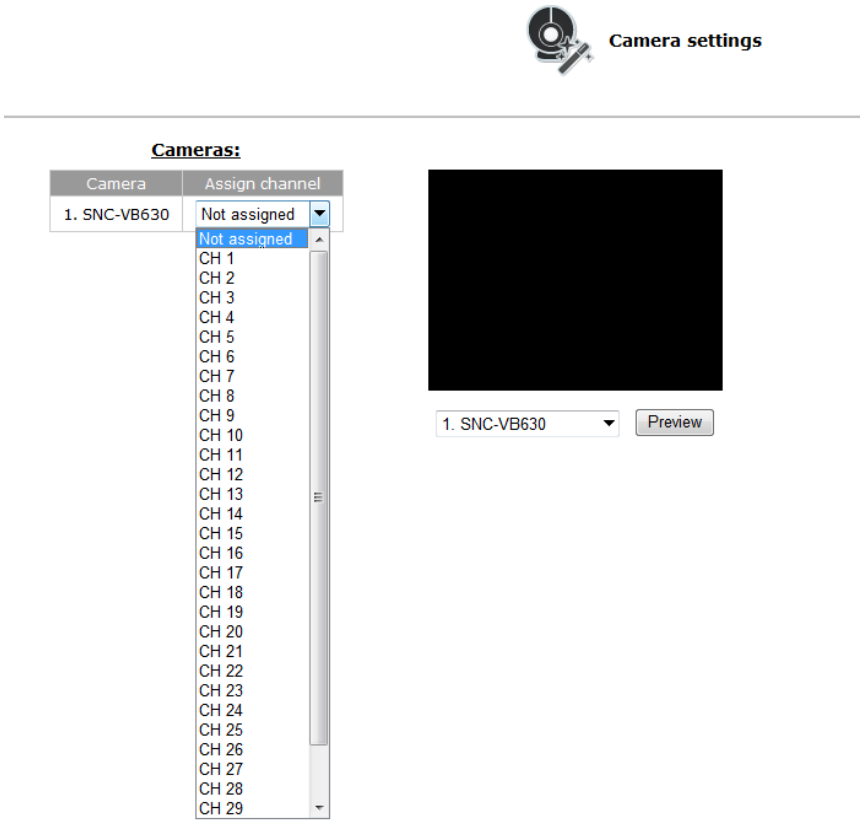
By click "Add cameras from NVR" to add NVR, the press to start search



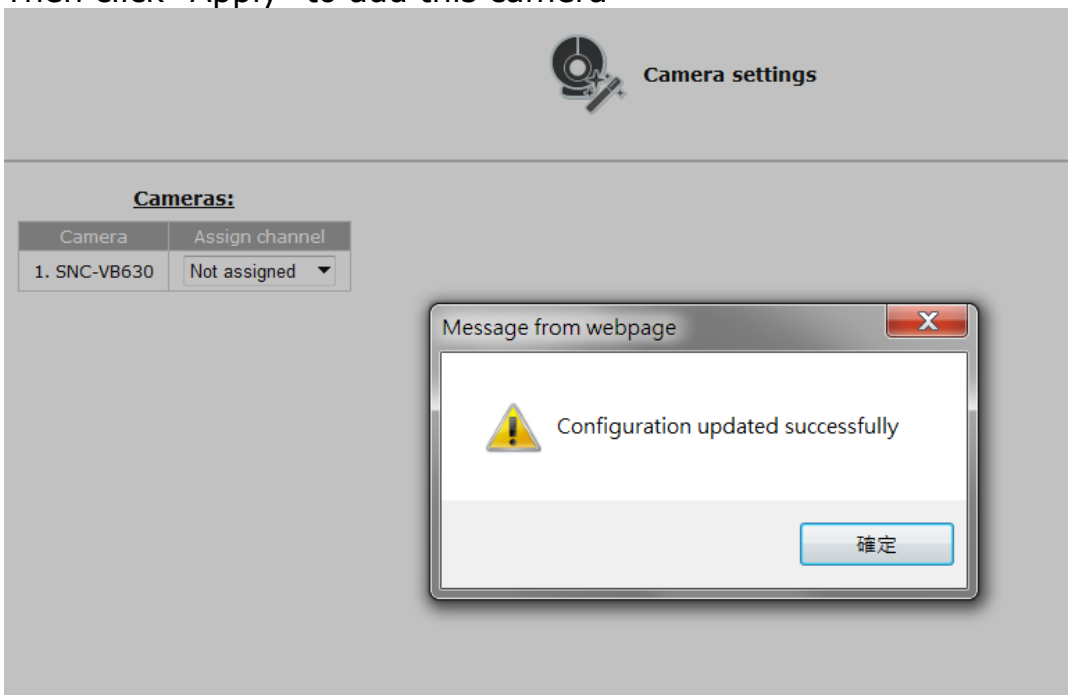
Double click the NVR, then type user name and password to detect



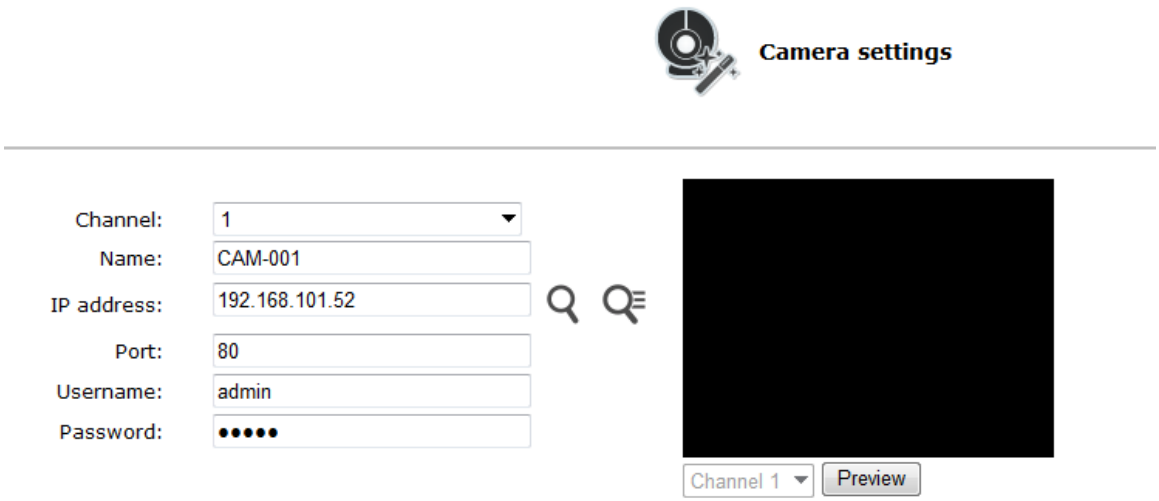
By using "Assign channel" drop-down menu, assign the camera to NVD with channel ID

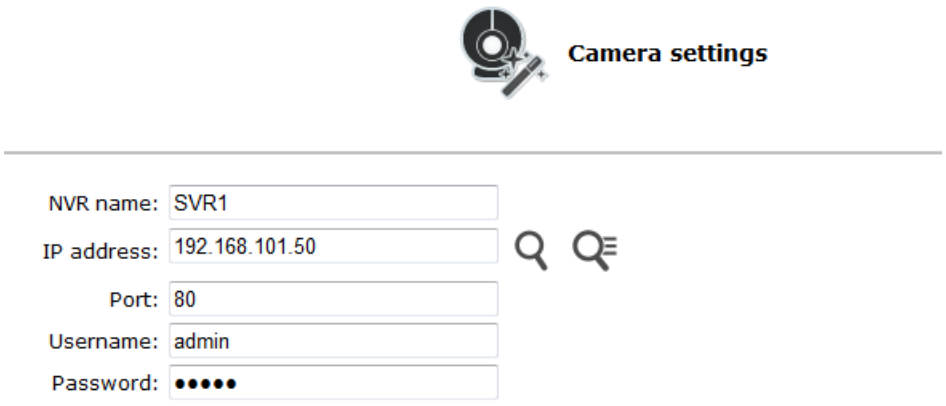


Then click "Apply" to add this camera



Add a camera manually



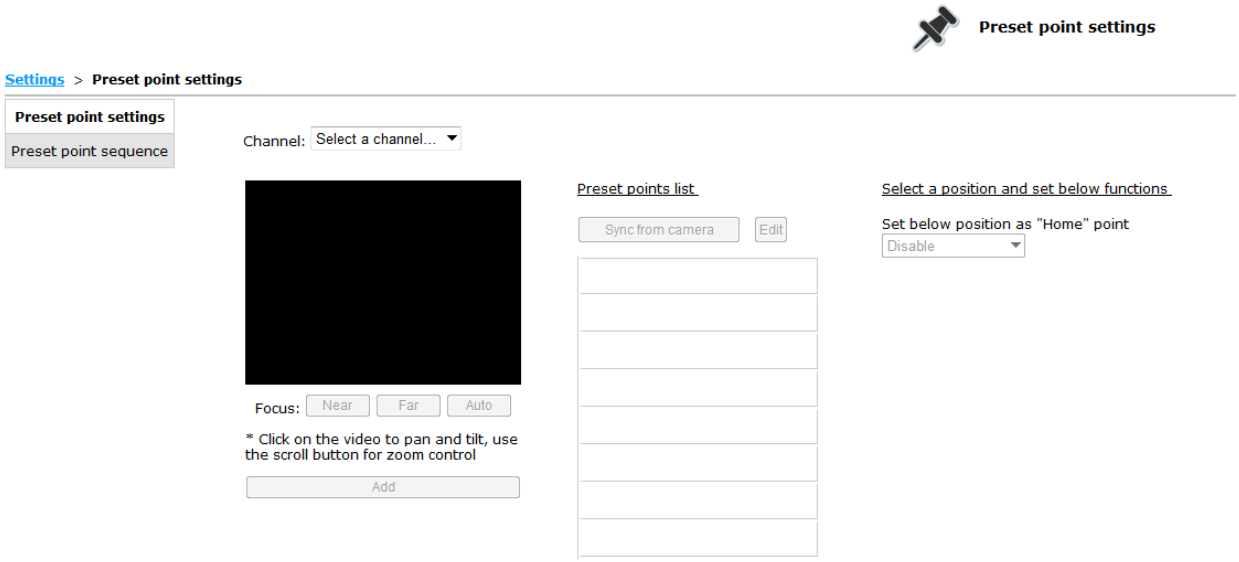


Simply enter the camera's or NVR's IP address and credential in the "Camera Information" manually.

Preset Point Setting

PTZ Preset Settings

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.



To set up PTZ preset points:

1. Select a camera from the "Channel" drop-down menu

2. Use the PTZ control provided in the configuration page to set the preset point

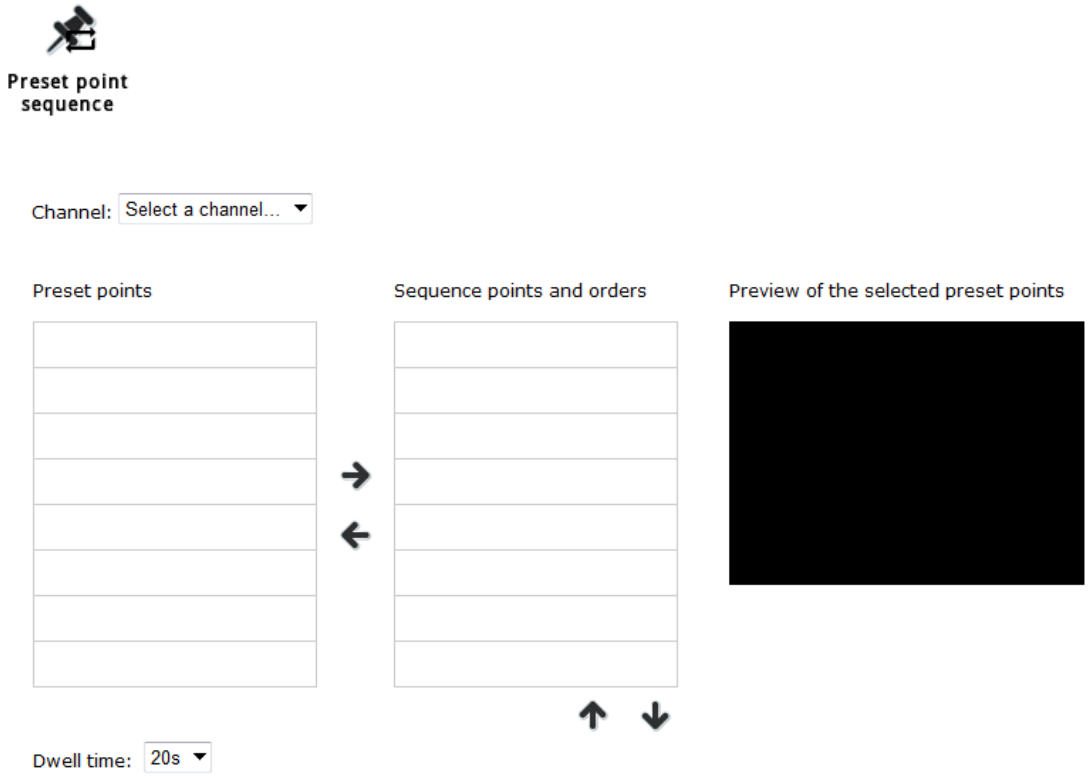
2. Press "Add" to add preset point

Press "Edit" to enter edit mode to change preset point names or delete preset points

The function of "Sync from camera" is to retrieve preset points from camera

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.

PTZ Preset Sequence



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.

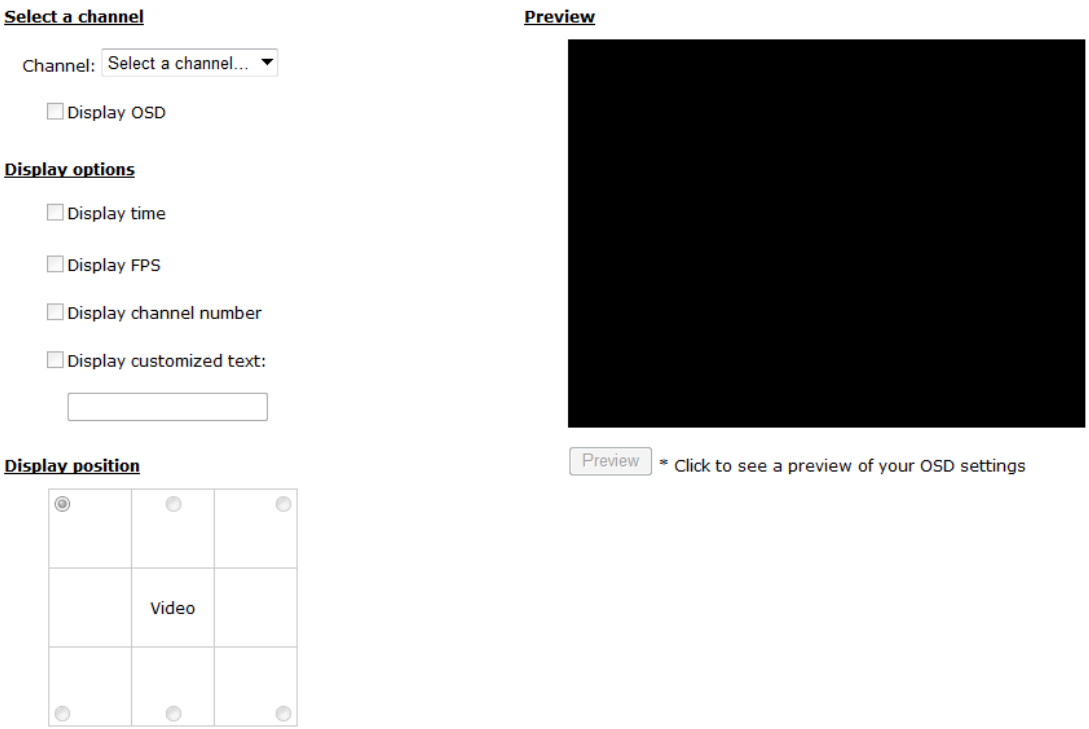
To configure preset sequence for a camera,
1. Select a channel from the "Channel" drop-down menu. The available preset points should be listed in "Camera Presets" section.

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

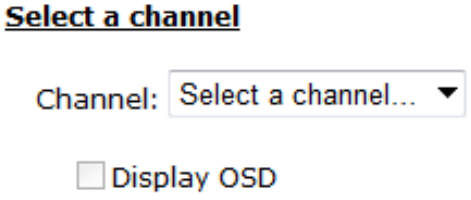
3. Use the up and down buttons to adjust their sequencing positions.

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

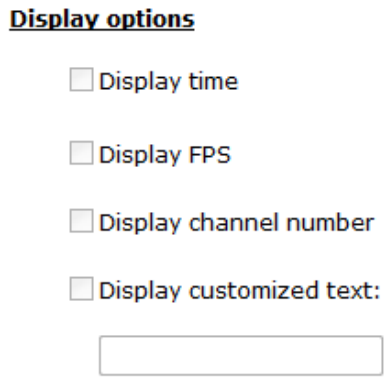
OSD Settings



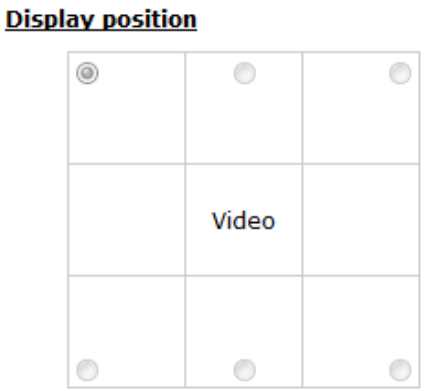
The OSD (On Screen Display) allows users to add informational text message and embed it onto the video. By default, this function is turned off. To add texts to one or more videos:



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



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.



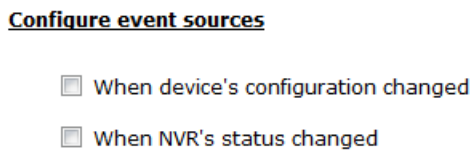
Next, define where the text will be displayed by either entering an X/Y value based on percentage or use the system pre-defined position from the drop-down menu.

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

Event sources & notifications

The "Event sources" 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.

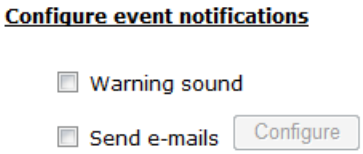
Event sources



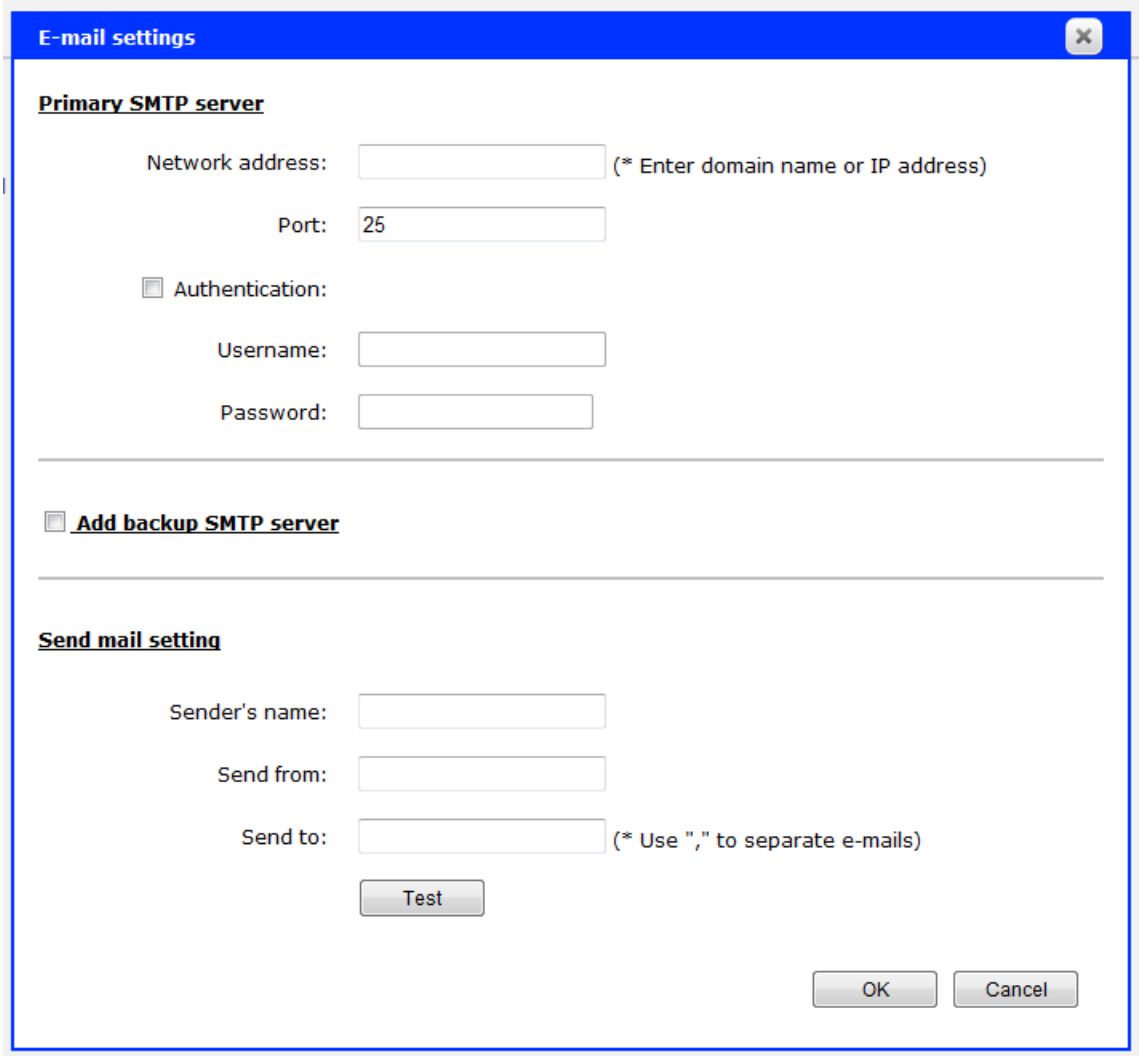
The 1st step is to define the condition to trigger event, we can finish up the event triggers by defining which system events should trigger the decoder to send out notifications.

Notifications

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.



E-Mail notification



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

- The NVD supports SMTP servers that use base64 or MD5 authentication methods.
- 3rd party free E-mail services such as Gmail (openssl) is supported.

Device Info

General information

Device name:	32CH_decoder
Model name:	32CH_decoder
Firmware version:	v1.0.0.71605
Device up since:	2014/08/26 10:22:12

Network information

Connection type:	Static IP
Device IP:	192.168.101.55
HTTP port:	80
Streaming port:	9877
MAC address:	00:22:4E:E1:01:03
UPnP port forwarding:	OFF

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.

Log

Log

Log

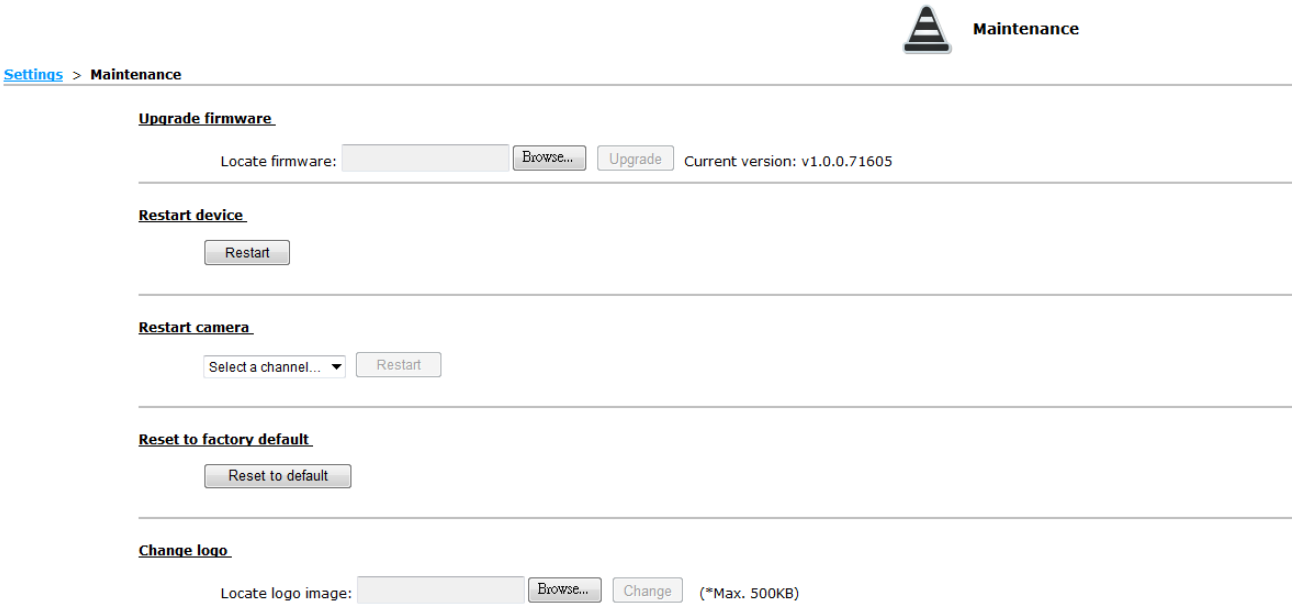
ID	Time	Type	Sub-type	CH	AP	IP	User
1	2014/08/26 19:22:05	Service	Reload Configuration				
2	2014/08/26 19:22:05	Service	Reload Configuration				
3	2014/08/26 19:22:04	Configuration	Channel added, or edited	1	Web	192.168.101.60	admin
4	2014/08/26 19:17:28	Service	Reload Configuration				
5	2014/08/26 19:17:28	Service	Reload Configuration				
6	2014/08/26 19:14:37	Configuration	Channel added, or edited		Web	192.168.101.60	admin
7	2014/08/26 12:59:58	User	User login		Web Event Receiver	192.168.101.60	admin
8	2014/08/26 12:59:57	User	User login		Web	192.168.101.60	admin
9	2014/08/26 12:59:39	User	User logout		Web Event Receiver	192.168.101.60	admin
10	2014/08/26 12:59:10	User	User login		Web Event Receiver	192.168.101.60	admin
11	2014/08/26 12:59:09	User	User login		Web	192.168.101.60	admin
12	2014/08/26 12:58:56	User	User logout		Web Event Receiver	192.168.101.60	admin
13	2014/08/26 12:57:56	User	User login		Web Event Receiver	192.168.101.60	admin
14	2014/08/26 12:57:53	User	User login		Web	192.168.101.60	admin
15	2014/08/26 11:48:17	User	User logout		Web Event Receiver	192.168.101.60	admin
16	2014/08/26 11:17:33	User	User login		Web Event Receiver	192.168.101.60	admin
17	2014/08/26 11:17:32	User	User login		Web	192.168.101.60	admin
18	2014/08/26 10:25:49	User	User logout		Web Event Receiver	192.168.101.60	admin
19	2014/08/26 10:24:07	Service	Some system logs are too old and have been cleared by system automatically				
20	2014/08/26 09:59:36	User	User login		Web Event Receiver	192.168.101.60	admin
21	2014/08/26 09:59:35	User	User login		Web	192.168.101.60	admin
22	2014/08/26 09:59:15	User	User login		Web	192.168.101.60	admin
23	2014/08/26 09:58:52	Service	Some system logs are too old and have been cleared by system automatically				
24	2014/08/26 09:29:16	Service	Some system logs are too old and have been cleared by system automatically				
25	2014/08/26 09:26:23	Service	Some system logs are too old and have been cleared by system automatically				
26	2014/08/26 09:26:19	Service	Reload Configuration				
27	2014/08/26 09:26:19	Service	Reload Configuration				
28	2014/08/26 09:26:18	Configuration	Network settings changed		Web	192.168.101.60	admin
29	2014/08/26 09:26:01	User	User login		Web Event Receiver	192.168.101.60	admin
30	2014/08/26 09:26:00	User	User login		Web	192.168.101.60	admin

|< Prev Next >| 1~30/40

Clear log Export log

"Log" keeps a record of what's been happening to the device and provides basic information for troubleshooting.

Maintenance



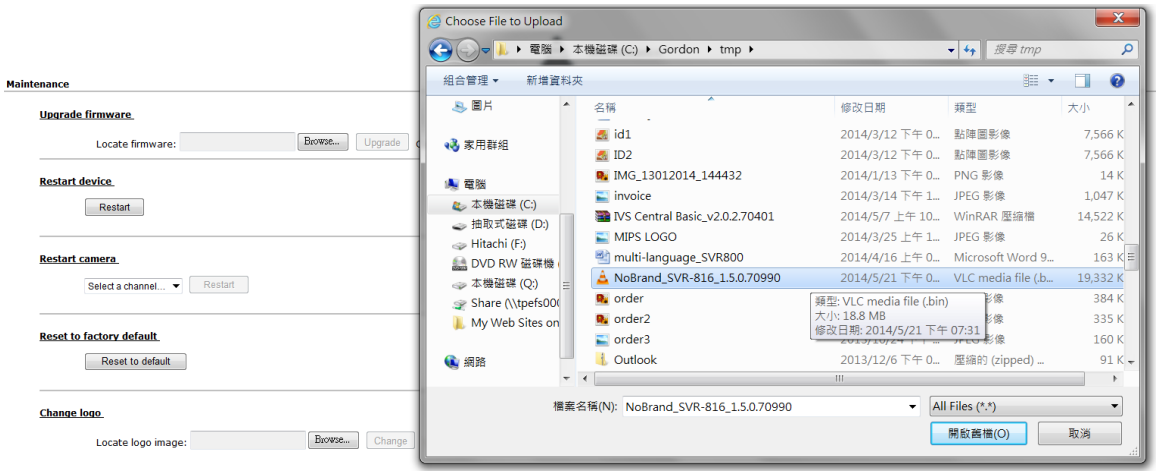
"Maintenance" provides functions for users to:

- Perform Firmware Upgrade
- Restart the NVD when necessary
- Restart cameras directly from the NVD
- Reset the NVD's settings to their factory default values
- Change device's logo

Firmware Upgrade

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

***** the firmware file comes with a ".bin" file extension.***



Click "Browse…", 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)

Backup & Restore

Backup
& Restore

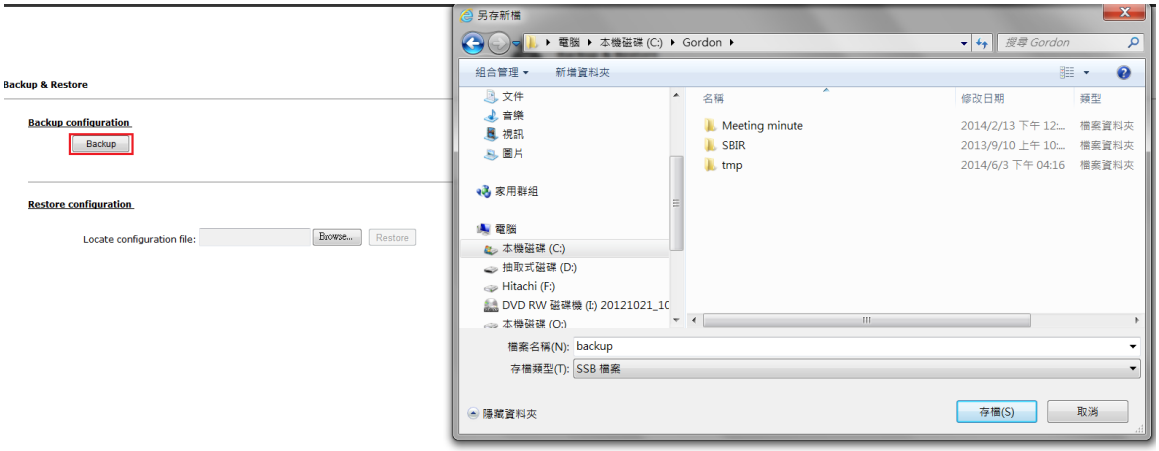
Backup configuration

Backup

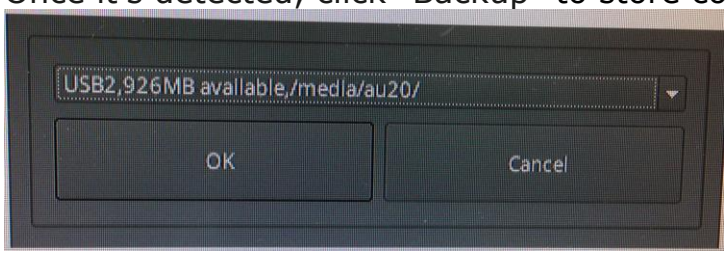
Restore configuration

Locate configuration file: Browse... Restore

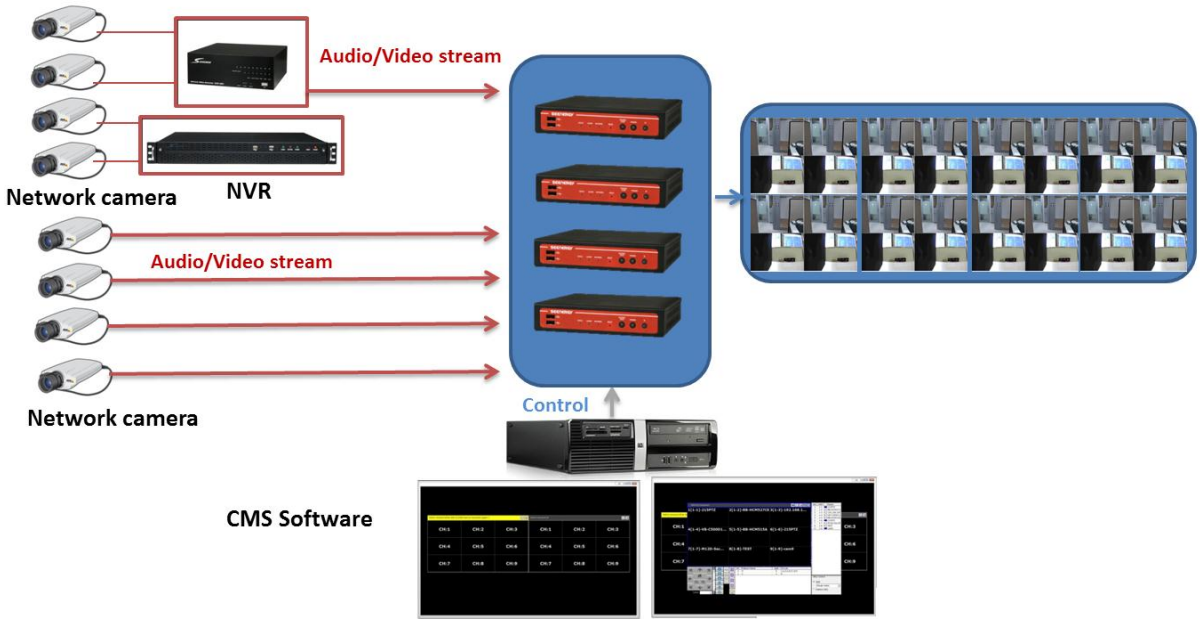
It is a function that allows users to backup the NVR's settings to a local hard drive.
Users also can restore the NVR's settings from a previously saved configuration file



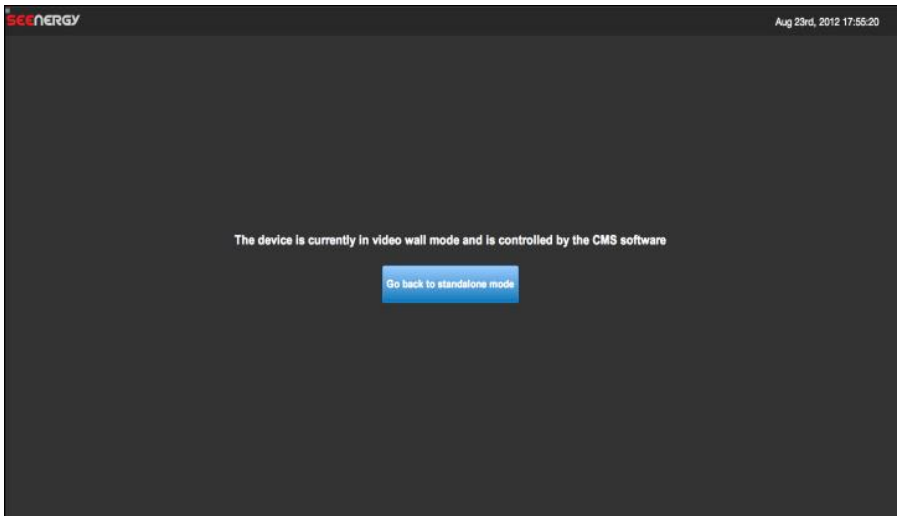
The configuration can be backed up to or restore from a USB disk. It is required to plug in a USB disk formatted in FAT32 prior to using the backup and restore functions.
Once it's detected, click "Backup" to store configuration file in USB disk.



Video Wall Mode



The decoder can be operated in video mode and controlled by CMS software. When decoder is controlled by CMS software, it switches to video mode automatically. If user turns off CMS, decoder will switch back to standalone mode.



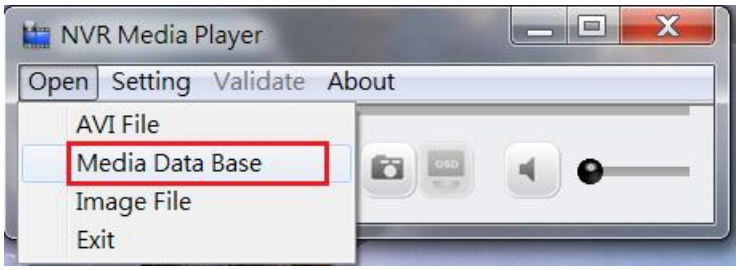
NVR Media Player

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

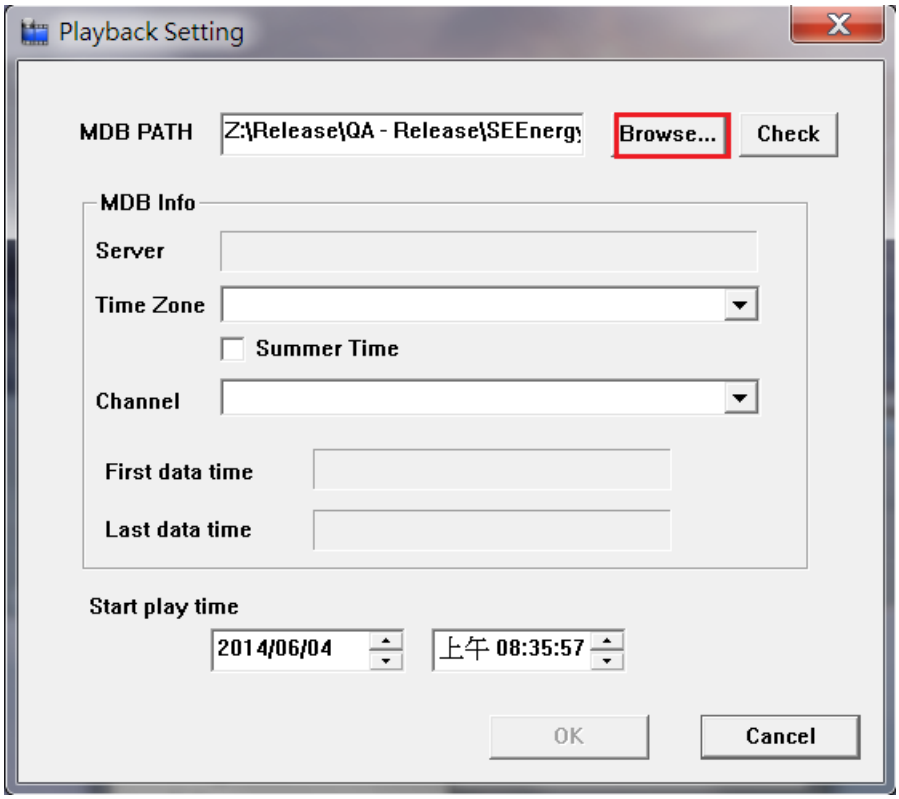
The NVR Media Player will be automatically installed after the CMS software is installed. You can find it in the Windows Start menu.

Play the backup file with the NVR Media Player

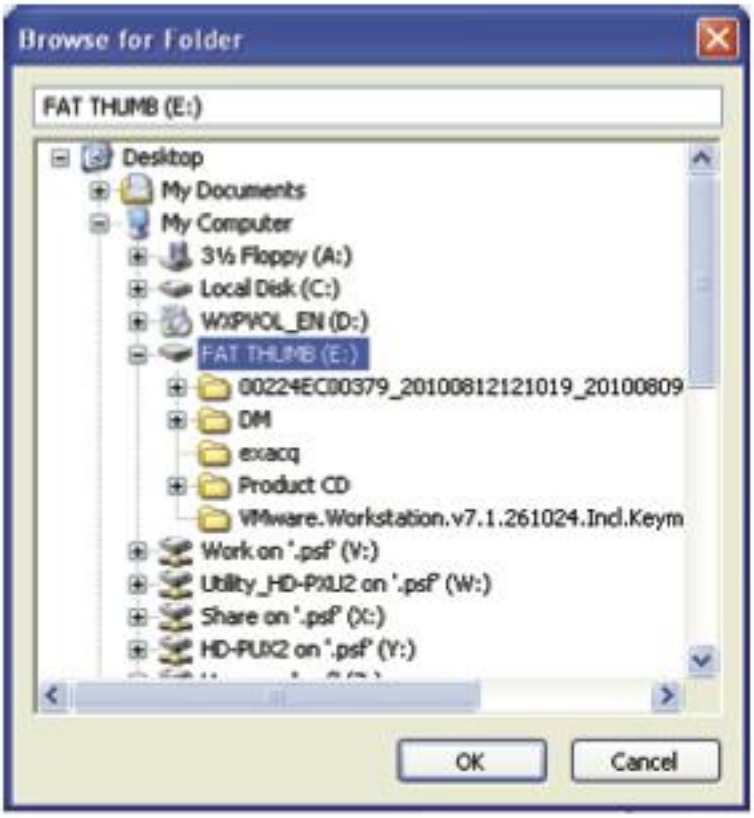
Play Media database



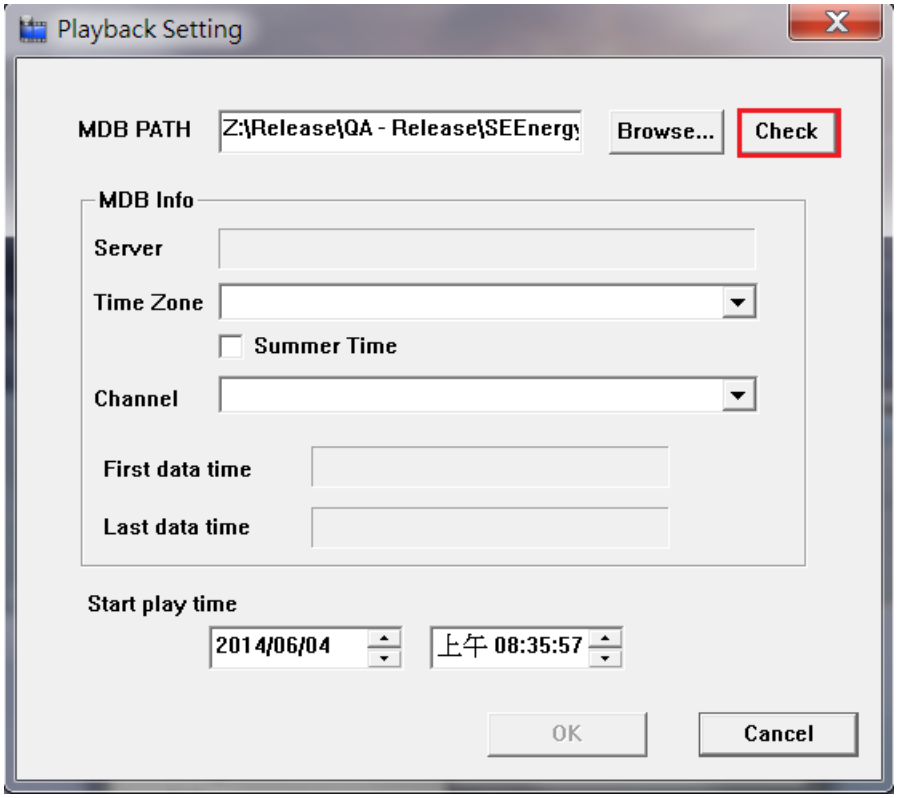
The backup files can be played with the NVR media player. To do, open the player and select "Open" >> "Media Database"



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



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



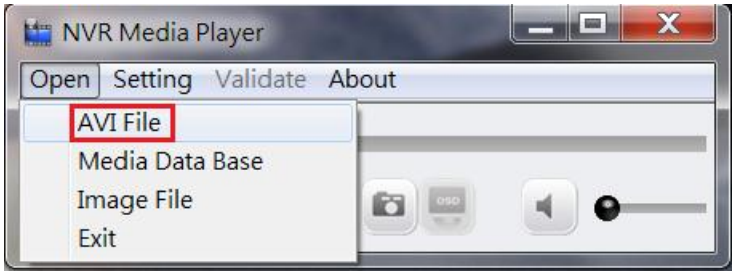
When done, click "Check" to validate the file.

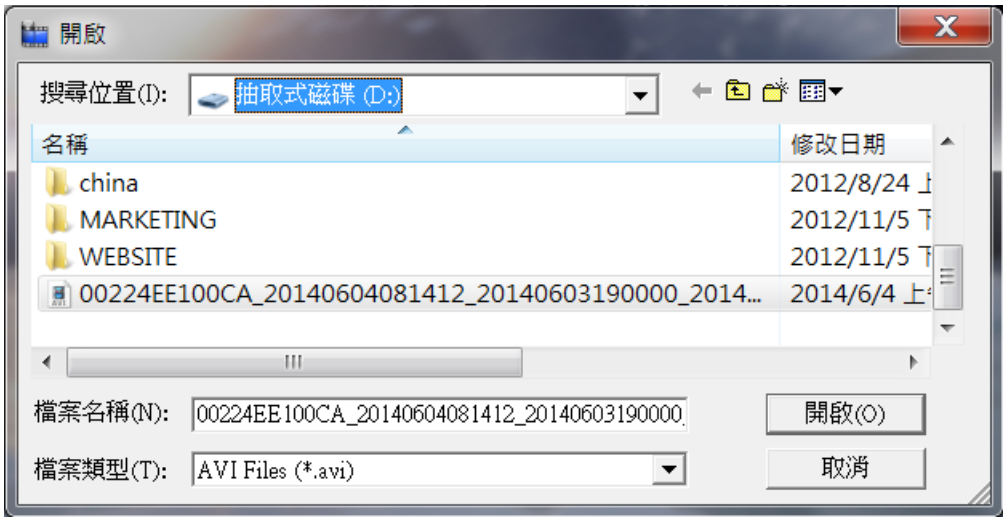
Once the file has been successfully verified, you should be prompted with the message shown below.

Select the time zone according to your current location.

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

Play Media database
Open the player and select "Open" >> "AVI File"

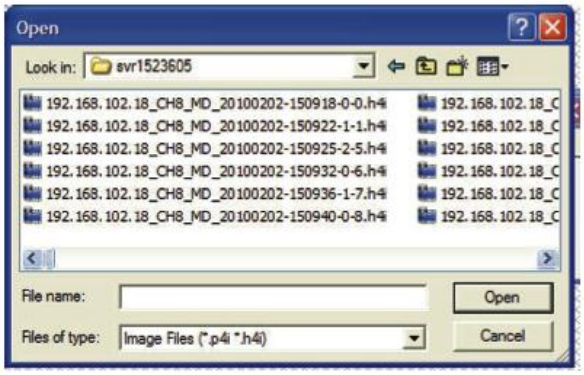




Select the AVI file

Click "Open" to play file

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