PC Based Network Video Recorder

User's Manual

Quality Service Group

Product name: PC Based Network Video Recorder

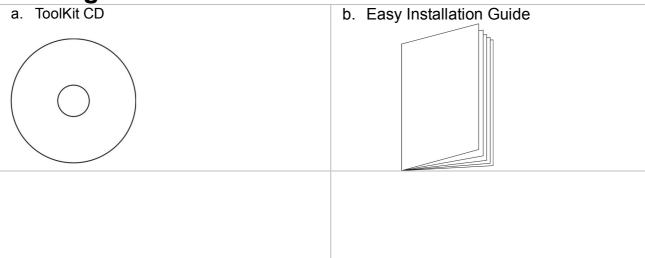
Release Date: 2011/7
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Package Contents

a. ToolKit CD



System Requirements

Oystem Requirements
Operating System:
Microsoft Windows XP
Microsoft Windows Vista
Microsoft Windows 7
Computer:
IBM PC/AT Compatible
CPU:
Pentium 3GHz or faster
Memory:
1024 MB or more
Monitor:
1024 x 768 pixels or more, 24-bit True color or better
<u>HDD</u>
2048 MB or more
Network Interface:
10/100Mbps Network interface card must be installed
Web Browser:
Microsoft Internet Explorer 6.0 SP2 or higher
Adobe Reader:
Adobe Reader 8.0 or higher
Audio:

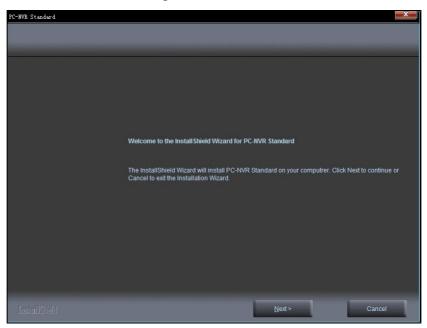
 The audio function will not work if a sound card is not installed in the PC. Audio may be interrupted depending on network traffic.

Software Installation

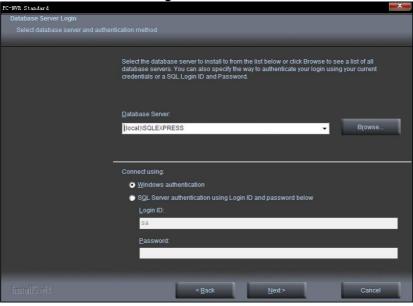
1. Insert the Installation CD into the CD-ROM driver. Run Auto-Run Tool directly from the CD-ROM to start the installation. When installing the Network Camera Toolkit for the first time, select a desired language for the interface. The available languages are listed in the scroll box. Click <Install PC-NVR> or <Install IP Utility>to install. If installing the PC-NVR program, follow the steps to install the PC-NVR on the desired computer. If installing the IP Utility, please refer to the Network Camera user manual.



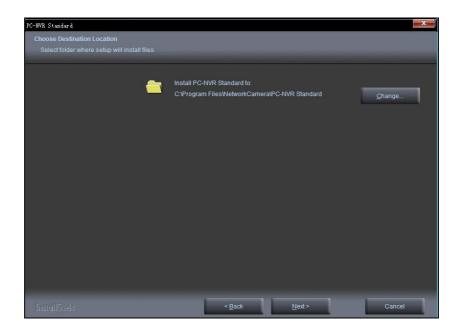
2. In the Install Shield Wizard dialog box, click <Next> to continue.



3. Click **Next**> to continue installation. If your device already exist another SQL server, you can click **Browse**> to search using.



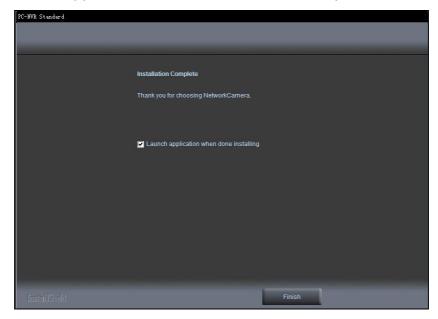
4. Click **Change**> to change the appointed folder where installation and program files will be stored. Click **<Next>** to continue.



5. Select to create shortcuts. Click <Next> to continue.



5. Click to launch the application, and click **Finish**> to complete the installation.



Start with PC-NVR

To launch PC-NVR, select PC-NVR from the start menu. The program should be installed under "C:\Program Files\NetworkCamera\PC-NVR Standard" unless the program was saved to a preferred directory. If a PC-NVR icon was installed on the desktop. Double click to open the icon.



For first time use, the user name and password are assigned as "admin/admin".
 Click <OK> to login.

*Check < Save user name and password > to automatically login when the PC-NVR starts.



Authentication

PC-NVR for sale has its own individual product key. The authentication window will pop-up if the users want to implement specific functions such as NVS, broadcast, etc. Please input the corresponding product key to finish the authentication.



Main Window



The usage and function of each button will be briefly described below:

Click this button to search for NetworkCamera devices within the LAN.

The button is moving round and round.

Volume decrease/Volume increase





Increase Brightness



Decrease Brightness



Live View - Click on the <Live View> icon to view live video feed. **Note:**After viewing recorded video, click this button to return to the live mode.
Note: The menu will jump if you use your mouse to click on this icon. The

(1) Enable all liveview

content of this menu is:

- (2) Enable all liveview and record
- (3) Enable all liveview and MD record
- (4) Disable all record





Setting - Click on the <Setting> icon to adjust the camera, file path, event, sequence, and login settings.



Schedule record - Click on the <Schedule Record> icon to schedule recording times for cameras on the network.



Playback - Click on the <Playback> icon to view recorded video stored in the HDD of the connected IP camera.



Event - List of system and camera event logs.



Snapshot - Click on the <Snapshot> icon to save a snapshot of the current window(s).

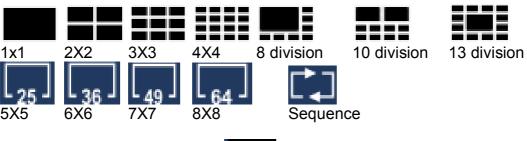


Emap - Click on the <Emap> icon to open the Emap program. The Emap is a program that allows the user to illustrate the positions of the cameras on a self selected image.



Lock - Click on the <Lock> icon to lock the PC-NVR without closing the program. To re-access the PC-NVR, the user will be prompted to enter the username and password.

Display Modes





Full Screen



Resort Camera

Display Modes - to view the image in a multiple window mode. The selections include 1-window, 4-window, 9-window, 16-window, 8-window, 10-window, 13-window, 25-window, 36-window, 49-window, and 64-window modes.

Sequence: This function is used to set the display sequence.

Full Screen: Enlarge the viewing window to fit full screen. Hit <Esc> to exit.

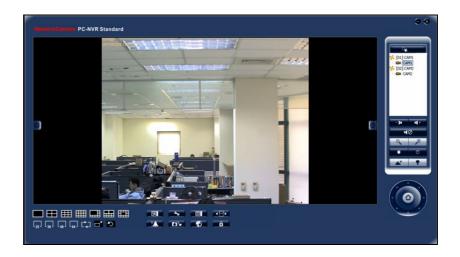
Resort Camera: Resort Display Window Grids; to rearrange camera images of connected sites in order.

Configure the PC-NVR

Live View

With the live view function, the user can view live video feed from any IP camera connected to the network. To operate this feature:

- Click on the Live View > button to see the live view. Right click on a
 desired grid and select < Disable Live View > from the pull down menu to disable
 live view.
- 2. Click CUPnP Search> button on the control panel to start searching for UPnP devices within the LAN.
- 3. Use the Display Modes to determine the amount of sites to view
- 4. The PC-NVR allows the user to assign any camera in the site tree to any grid in the main window.
 - Step 1: Selects the camera to be viewed from the site tree.
 - **Step 2**: Drag and drop the selected camera into the window to view.



Re-sort Camera

If the user rearranges the camera sites during live view, they can return to the original camera order by right clicking on any grid square and selecting <Re-sort camera>.



Zoom In – Double click on the desired grid, and use the scroll wheel on the mouse to zoom in and out of the live view window.



If the camera has pan, tilt, and zoom capabilities, the following control panel will be

displayed.



Zoom out / Zoom in - Click to manually adjust the zoom on the

desired grid.



Focus – Click to manually adjust the focus on the desired grid.



PTZ Panel- Click on the arrows to pan and/or tilt the desired camera.

Setting

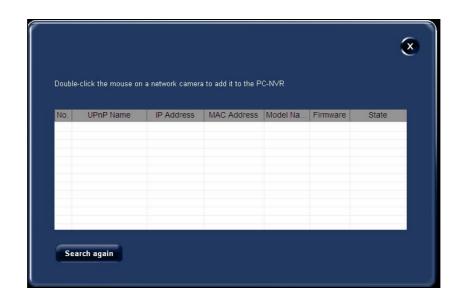
With the setting function, the user can manage up to 64 camera sites on the PC-NVR. It includes adding, removing or configuring cameras.

Add/Remove a Site

There are two ways to add a site.

1. Setup the Site via UPnP Device Search

a. Click CUPnP Search> button on the control panel to start searching for UPnP devices within the LAN.



b. Click and select the Network Camera from the survey list. Enter the user name, password and select the stream type from the drop-down menu. For first time use

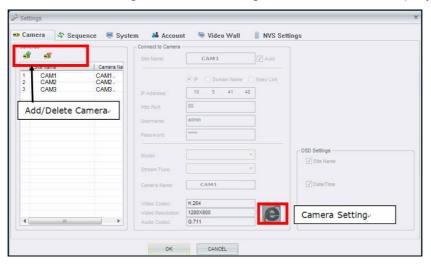
of an IP camera, the user name and password are "admin/admin".



Setup the Site Manually

Camera

a. Click on the Setting> icon and the figure below will be displayed.



Click state button to add a site. Click state to remove it.

b. To add a Network Camera to the PC-NVR, enter the required information, including the Site name, IP address, Domain Name or EasyLink Name, as well as the Http port, Username, and Password of the Network Camera. Click <Auto> to automatically retrieve the Site name from the UPnP name of the camera being added add to the PC-NVR. Select the <Model> and <Stream Type> of the IP Camera from the drop-down menu. Click <OK> to complete the setting.



Click to automatically open the Web GUI of the selected camera.

Talk

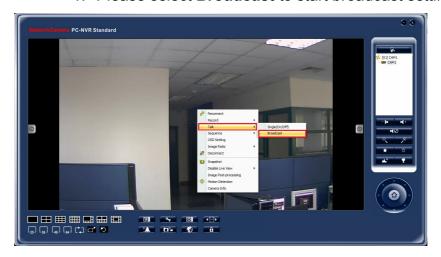
If there has connected cameras in PC-NVR, 2-Way audio is accessible to carry out.

Single: Implement 2-Way audio with single camera. Select '**Single(On/Off)**'. Please see below photo.



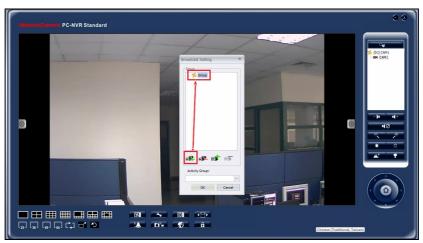
Broadcast: 2-Way audio with several cameras.

1. Please select **Broadcast** to start broadcast setting.

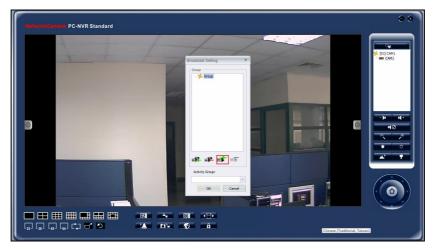




2. Please select to create group



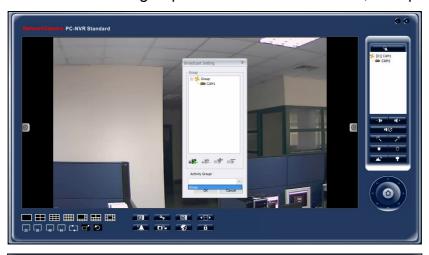
3. Select to add camera



4. Add camera to broadcast list, then press 'OK'.



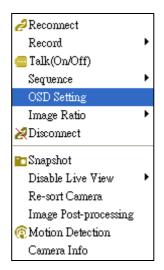
5. Select group to start broadcast service, then press 'OK'.





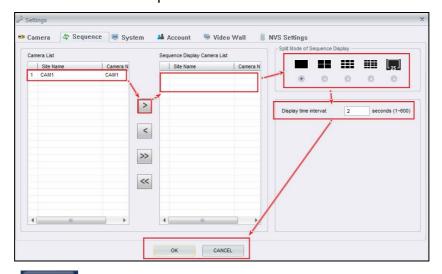
OSD Settings

"On-screen display" displays the camera data, which includes site-name, UPnP name and Date/Time, of a connected IP camera on the live view screen. Click to select the options on the camera setting page or right click on a desired grid and select < OSD setting > from the pull down menu.



Sequence

This function is used to set the display sequence for live view of the cameras. There are two ways to add cameras to the sequence.



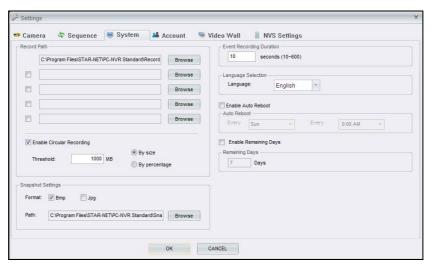
- 1. Click on the Setting> icon and choose <Sequence> to setup the sequence. Select a camera and move from the "Camera List" to the "Sequence Display Camera List" in the preferred sequence order. The user can setup the display time interval (from 1 to 600 seconds) and split mode of sequence display (1*1, 2*2, 3*3, 4*4, and
 - 5*5). Click <OK> to save the settings. Click on the button to start the sequence.
- Right click on a desired grid and select <Sequence> → <Add to Sequence> to add, or
 <Remove from Sequence> to remove. Note that when the sequence is added, a capital "S" will be shown on the icon.

System

Record Path

The file path menu defines the storage located of recorded videos and snapshot. It is recommended to use the default folders.

 <C:\Program Files\NetworkCamera\PC-NVR Standard\Record> is the default path for recorded videos. The recorded videos can be stored in more than one folder.



Check the "Enable" box and click <Browse> to set more destination folders.

When motion detection is enabled, the <Event Recording Duration> can be used to define the amount of time for post-event recording. The duration must between 10 seconds to 600 seconds.

Language Selection – Select the desired language from the drop-down menu.

Circular Recording

The "Circular" is used to adjust the HDD space usage of the PC-NVR. If "Circular" is enabled, then once the free space remaining in the destination folder falls below the threshold, the "Circular" will overwrite the oldest video and snapshot files in the storage folder with new videos and snapshots files. The user can adjust the threshold by megabytes or percentage of the file size.

Auto Reboot – Modify the process to reboot PC-NVR

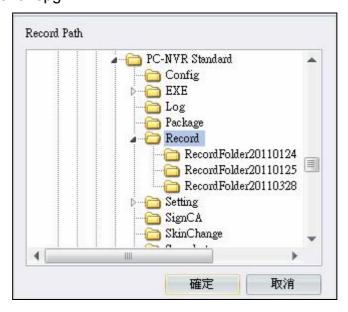
Remaining days – Decide the period to store the video clips

Snapshot Settings

<C:\Program Files\NetworkCamera\PC-NVR Standard\Snapshot> is the default path for

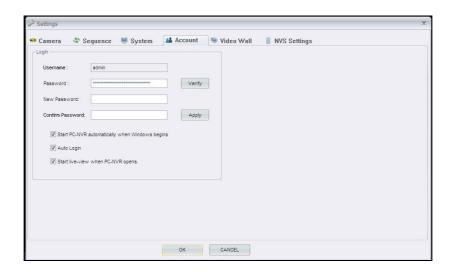
snapshots.

Click <Browse> to set desired destination folder as shown below. If the boxes are checked to save snapshots as Bmp and Jpg, the snapshots will be saved to two folders: one for Bmp and one for Jpg.



Account

Account is for the administrator management of the PC-NVR. The default username and password are set as "admin/admin". PC-NVR has a capability to Auto Login for one account. To change the password, the user must enter the user name, current password, new password, and confirm password. Click Apply once the information is entered.



Login

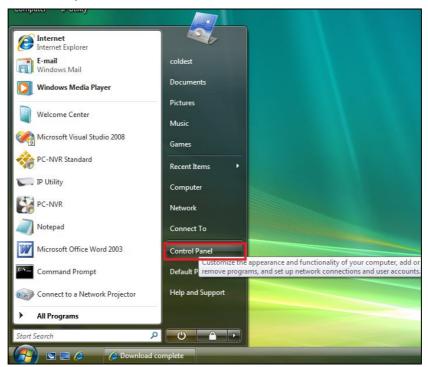
The user can click the option "Start PC-NVR automatically when Windows begins" to request the computer to open the PC-NVR when Windows is opened.

The user can click "**Auto Login**" to automatically login when the PC-NVR starts. To use this option, the user needs to verify a user name and password.

The user can click the option "Start live-view when PC-NVR opens" to automatically begin viewing live feed from the camera sites in the start group when the PC-NVR opens.

Click **<OK>** to save the settings.

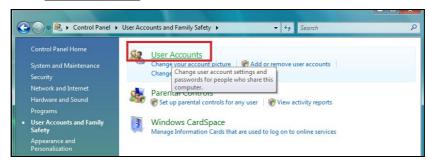
- ▲ Note If your system device is Windows Vista, please close the UAC function to avoid extra mistakes. Take SP2 for example in the following steps:
- (1) Please refer to the path as Start->Control Panel



(2) Please select **User Accounts and Family Safety**



(3) Please select **User Account**



(4) Please select Turn User Account Control in or off



(5) Please cancel <u>Use User Account Control (UAC) to help protect your computer</u>



Video Wall

A video wall consists of multiple computer monitors, video projectors, or television sets tiled together contiguously or overlapped to form one large screen.

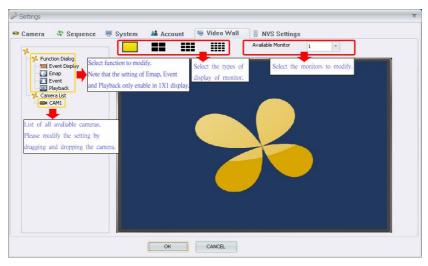
Note − Please restart PC-NVR after changing your device's resolution

Available Monitor — Select the monitor to modify the setting

Camera List - List for available cameras, user can assign those into schedule by dragging and dropping the mouse.



ullet Note $\,-$ The setting of Emap, Event, and Playback only enable in 1x1 display

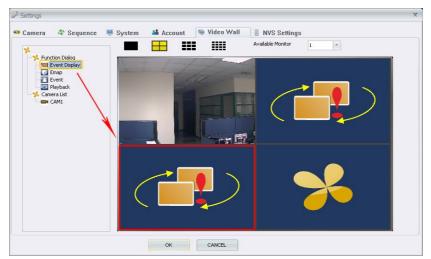


Function Dialog

According to user demand, Video Wall supports several functions to satisfy.

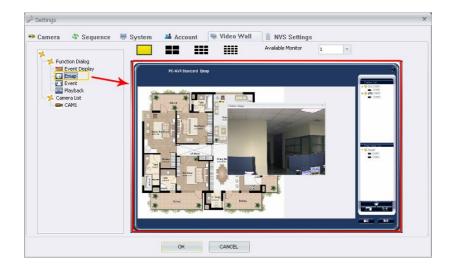
Event Display

User can assign cameras with motion detection to sequence display



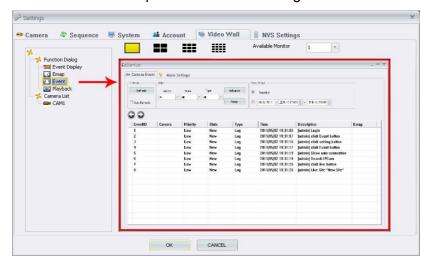
Emap

User can arrange monitors to start Emap service to realize the whole surrounding environment clearly.



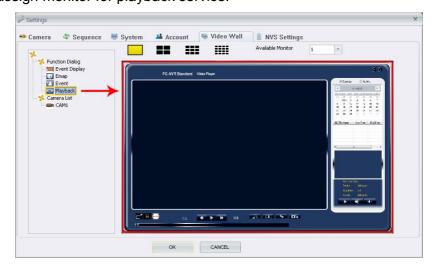
Event

User can assign monitors to show & update the latest message for PC-NVR



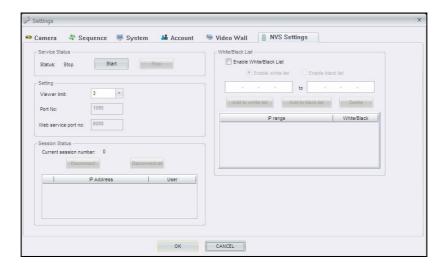
Playback

User also can assign monitor for playback service.



NVS Setting:

Allows another user to monitor immediately



Service Status

Enable the NVS settings, press **Start>** to begin the service or **Stop>** to disable the service.

Setting

Modify the maximum connections that can be accessed.

Session Status

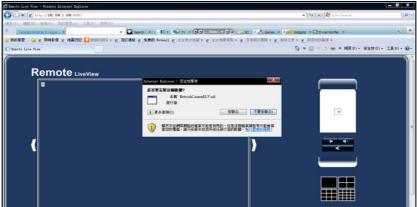
Display connection information.

White/Black List

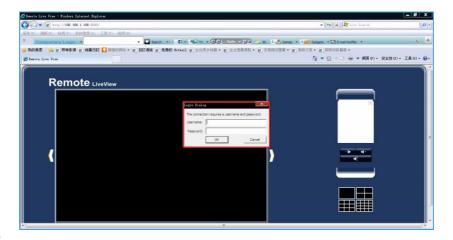
Allow/Block specific IP addresses during the service

Steps to start NVS

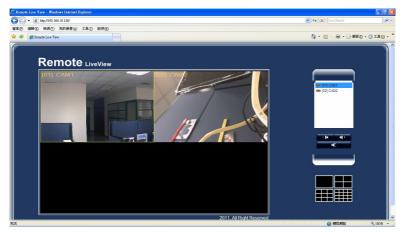
- (1) Please open the IE browser
- (2) Input IP address for PC-NVR
- (3) Agree the ActiveX authorization



(4) Enter the username and password of PC-NVR



(5) Live view



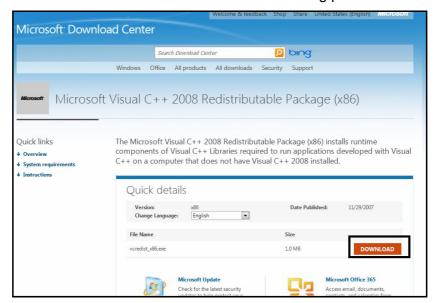
The root cause to fail the NVS service:

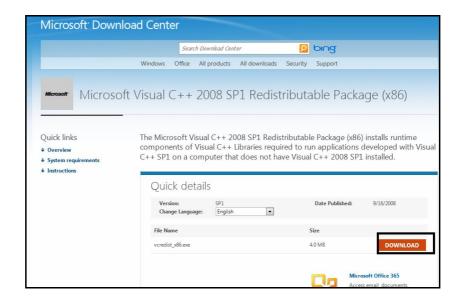
- (1) Reject the installing request for ActiveX authorization
- (2) Forget to close other IE browser pages during installing process
- (3) Windows need to be updated. Please follow below paths to download the file vcredist x86.exe.

http://www.microsoft.com/download/en/details.aspx?id=29

http://www.microsoft.com/download/en/details.aspx?id=5582

Please select DOWNLOAD to start & finish the software installing process

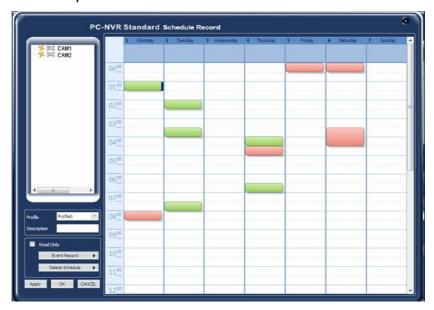




Schedule Record

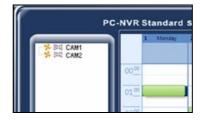
Click on the Schedule record> icon and the figure below will be displayed.

The user can schedule specific times for the camera to record videos.

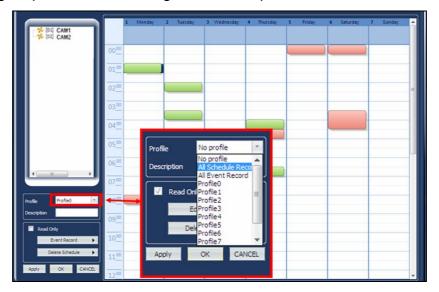


Create a recording schedule for a camera:

1. Select the desired camera



Select a profile from the "Profile" drop-down menu. Enter a description for the profile. Note: When a profile is created, it can be used by other cameras by repeating step one and choosing the desired profile.



3. Click and drag the mouse on the time frame table to schedule specific times for the camera to record video. **Note:** When the sites are being recorded, a will be displayed on the live view display window of the site.



- 4. When the user has finished creating a recording schedule for the desired camera, click <Apply> to save and continue using the schedule record setting for other cameras or click <OK> to save and exit the Schedule Record.
- 5. Recorded files will be saved to the default folder "\PC-NVR Standard\Record\".

Read Only - Allows the user to read the schedule only.

Edit Schedule

Select All Period

Schedule will be set to record normal and event videos at all times.

Schedule Record

Schedule to record only the normal videos within the selected time frame.

All Event Record

Schedule to record only the event videos all the times.

Event Record

Schedule to record only the event videos within the selected time frame.

Delete Schedule

• Delete One Period

Select to manually clear the schedule setting.

Delete All Period

Select to clear all the schedule settings.

Click **<Apply>** to save and keep editing the Schedule Record setting or click **<OK>** to save and exit the Schedule Record.

Instant Record

While the videos are scheduled to record, the user can choose to instantly record live video clips. Right click on a desired grid and select <Start Recording> to start recording and <Stop Recording> to stop recording.



Adjust the display size

The user can adjust the display size of the Live View window by right clicking on the window to display the camera control menu. Select <**Image Ratio**> to adjust the size. The image ratio includes: Original, Fit, Original all, and Fit all.

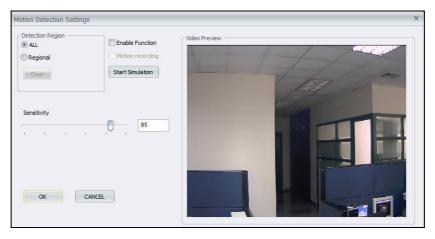


Motion Detection

Users can setup a camera to record motion detection at any site. Right click on a desired grid and select <Motion Detection> from the pull down menu.



Please see below pictures for the motion detection settings window. Under "Detection Region", users can click <ALL> to monitor the entire screen or click <Regional> to monitor up to eight individual regions. A blue grid will appear on the screen and the user can adjust the size. To delete, select desired grids and click on the <Clear> button to delete all selected areas. Alternatively, right click on any selected area to delete it individually.



Enable Function - Check to begin monitoring motion detection.

Motion Recording - Check to record an event video when motion is detected. The length of event video can be set by going to <Event Recording Duration> which is under System Setting.

Start Simulation - Click to simulate motion detection. As shown above, red boxes will mark when motion is detected in an area.

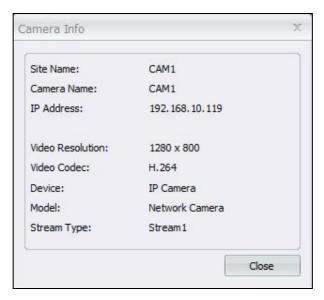
Stop Simulation - Click to stop the simulation.

Sensitivity - Setup a desired sensitivity level.

Click on <OK> to apply the settings, or click on <Cancel> to disregard and return to Live mode. The live monitoring screen will not show the blue boxes.

Camera Info

The Camera Info can be viewed in PC-NVR Standard. Right click on any desired grid and select <Camera Info.> from the pull down menu to view the information. Refer to the following for example:

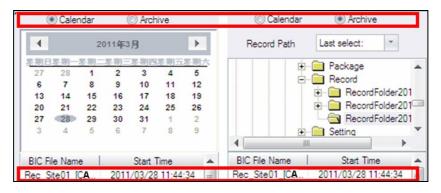


Playback

Click on the Playback> icon, the figure below will be displayed.

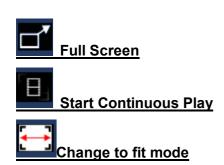


This function allows the user to retrieve and play videos stored on the HDD. There is a calendar right above the window in order to search recorded video. Otherwise, archive UI is available.



The preview snapshot pop-up after choosing the recorded video.





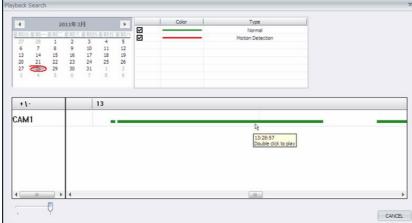


Search Image File

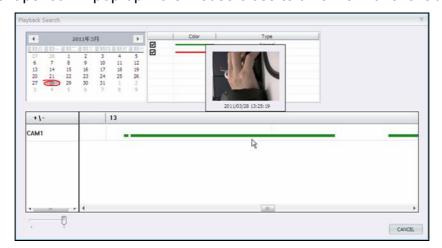
Click on the Search Image File> icon to search for recorded files by date.

Click the options to indicate normal and/or event video clips in the specific time frame.





The preview snapshot will pop-up if the mouse close to timeline with available video clips.



Double Click the blank area or modify left below bar to focus the period. Otherwise, change the category colors is available.

(1)Move the mouse to **Color**> bar on right below side of the window.

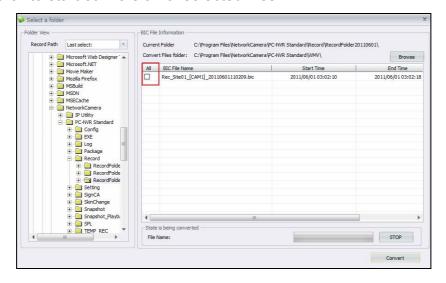


(2) Double click to adjust the color setting



Convert Image File

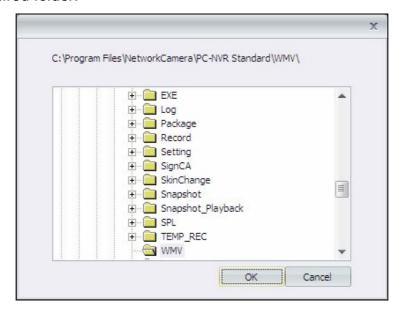
The **Convert Image File**> icon is used to convert recorded video files to WMV video format. Click the icon to open the video files and select the files to be converted. Click **Convert**> to start conversion of selected files.



There is a service to select all video clips by clicking "AII". If the user wishes to stop the conversion, click <STOP> to abort.

The converted files will be stored under folder C:\Program Files\NetworkCamera \PC-NVR Standard\WMV. To choose an alternate destination folder, click <Browse>

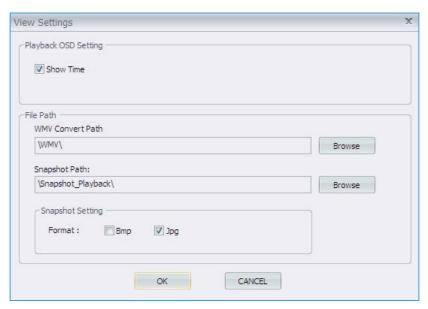
and chose a desired folder.



View Setting

Click on the **Setting** to choose to show or hide the time on the playback video. Check **Show Time**, and the time will be shown on the screen. Uncheck to hide the information.

File Path determines where WMV conversion and snapshot files are saved on the computer HDD. Click on **Browse**> to select desired folders. In addition, snapshot pictures can be saved using Bmp and/or Jpg formats. After the settings are selected, click **OK**> to save.

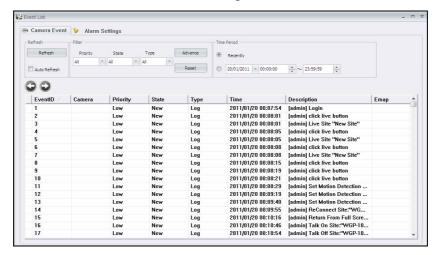


SnapShot

Click on the Snapshot to capture a snapshot of the playback screen. When the snapshot window is opened, the user can choose to rename the file or leave it as it is. Click on <OK> to save the snapshot or <CANCEL> to discard it.

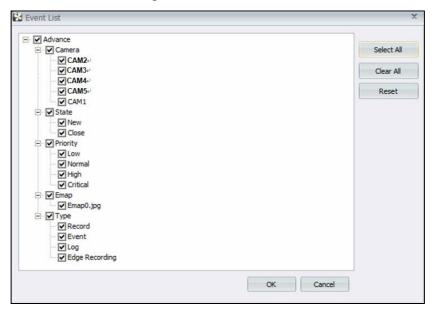
Event

Click on the Event> icon to list all log and event activities of the camera.



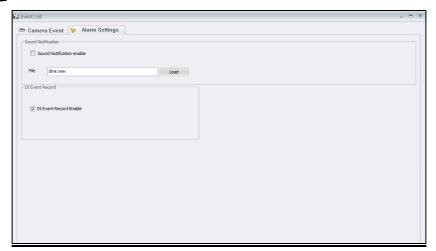
Camera Event

Click <Refresh> to refresh the list of events. The user can filter events two ways. The first is to use the three settings: priority, state, and type. The second is to filter using the "Advanced" settings. Click <Advanced> and the following menu will appear. The user can then select the filters for viewing the event list and click <OK> when done.



Under "**Time Period**," users can choose to view events from the most recently recorded or a specific time period. The user can change the status of an event log by moving the mouse pointer over the **State** column. When appears, click to change the status of the log.

Alarm Setting



Click to enable the sound notification. Click **<Load>** to select a sound file to be played when an alert event occurs. PC-NVR is able to DI service including

- (1)DI Event Log DI Event will save into Event logs.
- (2)DI Event Sound Alarm Enable to sound notification.
- (3)DI Event Record Enable to record video clips.

Please refer to below worksheet for DI's hot-key:

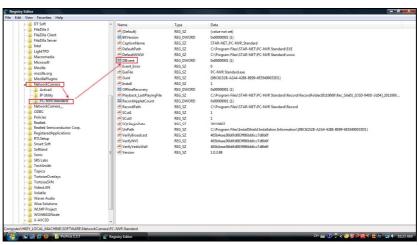
Hotkey	Description
	·
F5	Set selected camera DI Status to Low
F6	Set selected camera DI Status to High
F7	Set all cameras DI Status to Low
F8	Set all cameras DI Status to High
Ctrl+F5	Set selected camera DI detection disable
Ctrl+F6	Set selected camera DI detection enable
Ctrl+F7	Set all cameras DI detection disable
Ctrl+F8	Set all cameras DI detection enable
F9	Show DI Status in Video Frame(10 Sec)

How to start DI service:

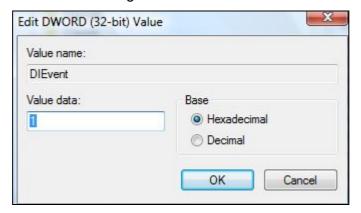
(1) Start search->"regedit"



(2) Please enter to configuration for DI service via HKEY_LOCAL_MACHINE\SOFTWARE\NetworkCamera \PC-NVR Standard

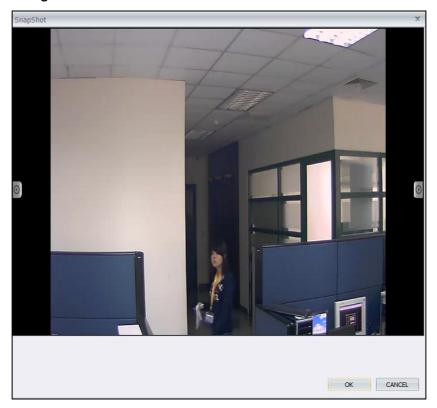


(3) Please select **DIEvent** to change **Value data** from 0 to 1



Snapshot

Click on the Snapshot> icon to capture a screenshot of the window that you are currently viewing.



The Snapshot function is a simple screen capture tool. The screenshots are saved to the default path <C:\Program Files\NetworkCamera\PC-NVR Standard\Snapshot> or an alternative file path chosen by the user.

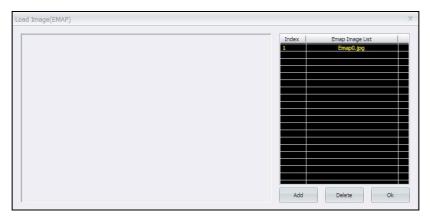
There are two ways to take a snapshot. The first is to click on the <Snapshot> icon. A snapshot will be taken and displayed in a new window. Click <OK> to save the file. The second way is to right click on the window, and select <Snapshot>. The file will be saved without displaying the image.

Emap

Click on the **Emap** icon to open the Emap program. The Emap is a program that allows the user to illustrate the positions of the cameras on a self selected image. If the PC-NVR Standard is being used to monitor multiple locations, the user can have multiple images to display the location of the cameras.



To add an image to the Emap, click on the figure below is the Load Image window to add or delete images. Click on <Add> to add an image.

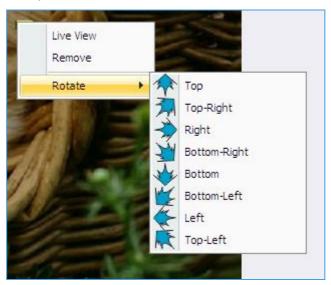


After the image is loaded, the filename of the image will be displayed on the list. "Index" indicates the order (starting from "1") of the files. Click <Ok> to save the settings.



Add cameras to the Emap by selecting **Emap List**> menu to list the Emap images. The user can select an image and it will be displayed in the Emap main window. Click **Camera**> on the control panel to list the site tree. Drag and drop a camera from the site tree to any desired position on the main image.

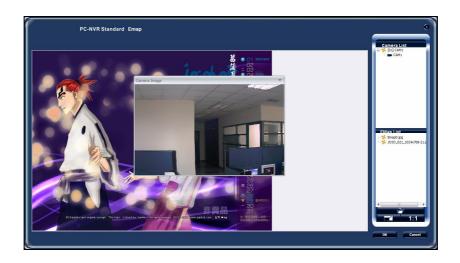
The users can drag-and-drop cameras to access Live View, to remove the camera, or to rotate its recording direction. The rotating directions include: Top, Top-Right, Right, Bottom-Right, Bottom, Top-Left, Left, and Bottom-Left.



When the mouse pointer scrolls over a camera icon in the image, an information dialog box will be displayed as below.



Double click on any camera icon in the image to display the live preview image of the camera. Right click on the camera preview window to display the camera control menu. The menu items includes: Snapshot, and Camera Info.



ACCOUNT MANAGE

This function is able to manage user's authority, including lower levels status and individual account. Only administrators have the right to modify all accounts. There are five levels status in default setting: Administrator, Power User, User, Operator, and Guest.

1. Click Setting Button and select Account Manage>



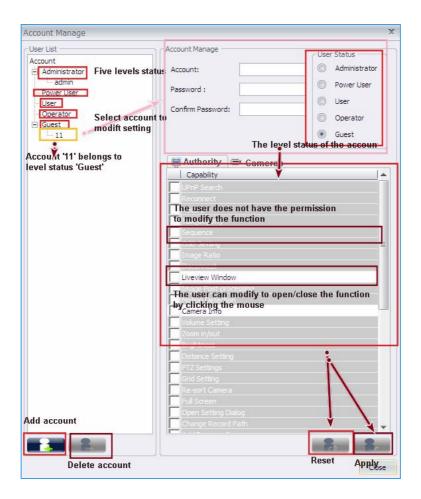
- 2. The following photo is the UI for account manage. Each levels status consist different accounts. Users are able to add account
 - /manage lower levels status accounts. User can modify username & password in **Account manage**>. **User Status**> shows the levels status of the account. Each function is able to open/close by ticking off the mouse. Functions with gray are to indicate unable-to-modify. Select **Cameras**> to decide if the camera is able to be operated or not.
- 3. There are two ways to add accounts:
 - 3.1 Select user status of new account, then set up username & password. Finally

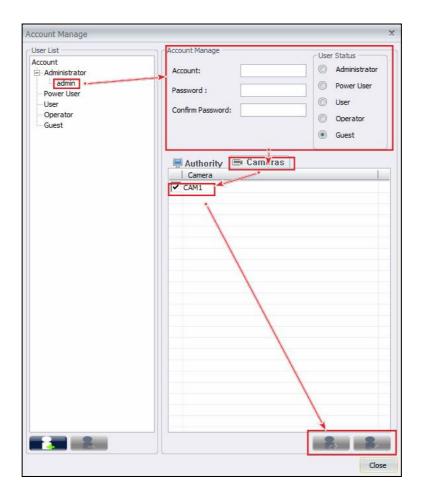
modify permission for each function. Click button to finish the setting.

3.2 Select the **<User List>** to decide the level status of new account. Then set up username & password. Finally modify permission for each function. Click



button to finish the setting.





4. Click button to apply the setting or return to default setting by selecting button.



If user is unable to NVS service, please contact higher levels status account to enable this function.

Lock

The Lock function is to protect the PC-NVR when the user needs to be away from the computer for any length of time. This function is the same as the computer's screensaver.

Click on the <a>



To unlock, click on the icon again. The user will need to enter the username and password to unlock the PC-NVR. A window as shown below will be displayed.



Hot-Key

In order to give more support and service for our customer, PC-NVR provides hot-keys to start function immediately. There are list for hotkeys:

Hotkey	Description
F2	Enable all Record
F3	Enable all MD Record
F4	Disable all Record
F5	Set selected camera DI Status to Low
F6	Set selected camera DI Status to High
F7	Set all cameras DI Status to Low
F8	Set all cameras DI Status to High
Ctrl+F5	Set selected camera DI detection disable
Ctrl+F6	Set selected camera DI detection enable
Ctrl+F7	Set all cameras DI detection disable
Ctrl+F8	Set all cameras DI detection enable
F9	Show DI Status in Video Frame(10 Sec)

Watch dog

The icon of watch dog always appears in right below side of screen for the sake of monitoring the PC-NVR's. Users are able to stop the monitor by selecting **Exit**> or get the information by **About**>. Please see below photo.

