speco technologies®

NVRP4

4CH Network Video Recorders

User's Manual

Aug. 2011

FCC NOTICE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission Statement

NOTE- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/television technician for help.

CE NOTICE

This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EC.

Warning - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to correct this interference.

DISCLAIMER

No warranty or representation, either expressed or implied, is made with respect to the contents of this documentation, its quality, performance, merchantability, or fitness for a particular purpose. Information presented in this documentation has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. The information contained in this documentation is subject to change without notice.

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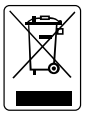


The mark of Crossed-out wheeled bin indicates that this product must not be disposed of with your other household waste. Instead, you need to dispose of the waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. For more information about where to drop off your waste equipment for recycling, please contact your household waste disposal service or the shop where you purchased the product.

Battery Safety Information

- Store the batteries in a cool dry place.
- Do not dispose of used batteries in domestic waste. Dispose of batteries at special collection points or return to point of sale if applies.
- Remove the batteries during long periods of non-use. Always remove exhausted batteries from the remote control. Battery leakage and corrosion can damage this remote control, dispose of batteries safely.
- Do not mix old and new batteries.
- Do not mix different types of batteries: alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium).
- Do not dispose of batteries in a fire. The batteries may explode or leak.
- Never short circuit the battery terminals.

WARNING

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

CAUTION

IF THERE IS ANY DAMAGE, SHORTAGE OR INAPPROPRIATE ITEM IN THE PACKAGE, PLEASE CONTACT YOUR LOCAL DEALER. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.

NOTICE

- INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.
- THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCE ONLY.

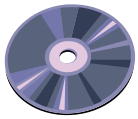
Table of Contents

Chapter 1 Introduction

NVRP4 brings you the newest version of a true Network Video Recorder. With its compact size, it provides 4 channel video and audio inputs and supports full range of IP cameras from all major manufactures worldwide, accepting H.264, MPEG4 and MJPEG video streaming formats.

1.1 Package Content


(1)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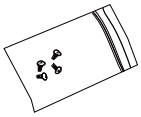
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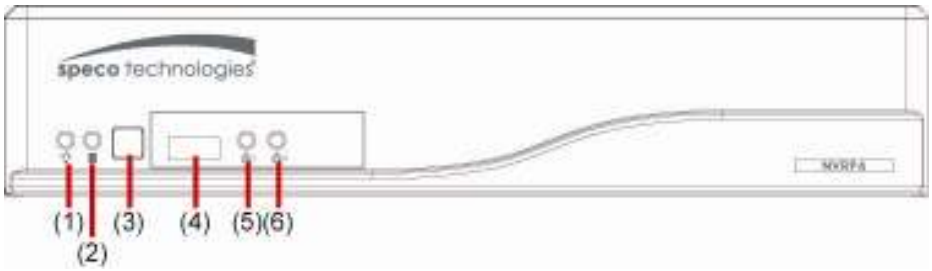
(9)

- ☐ (1) NVRP4 unit
- ☐ (2) Software CD (User Manual included)
- ☐ (3) Quick User Guide
- ☐ (4) USB optical mouse
- ☐ (5) Power Adapter
- ☐ (6) Power Cord
- ☐ (7) Screws for hard disk installation
- ☐ (8) Clamp (see Chapter 1.4.2.1 for installation)
- ☐ (9) Warranty card

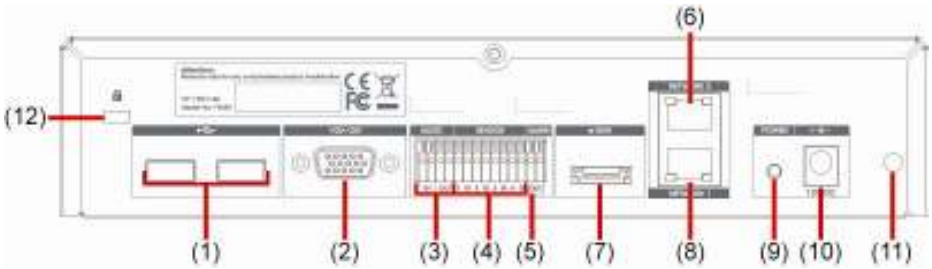
If there is any damage, shortage or inappropriate item in the package contents, please contact your local dealer.

1.2 Front Panel



Name	Function
(1) NVR Power LED	Light when the unit is power on
(2) HDD LED	Indicate the hard disk running state. Light is on when the HDD is running (Read/Write)
(3) IR Sensor	Receive signal from the remote control to operate the unit
(4) USB 2.0 Port	For flash drive/DVD-ROM connection
(5) Network 1 Indicator	Indicate the status of network 1 (Port LAN 1)
(6) Network 2 Indicator	Indicate the status of network 2 (Port LAN 2)

1.3 Back Panel



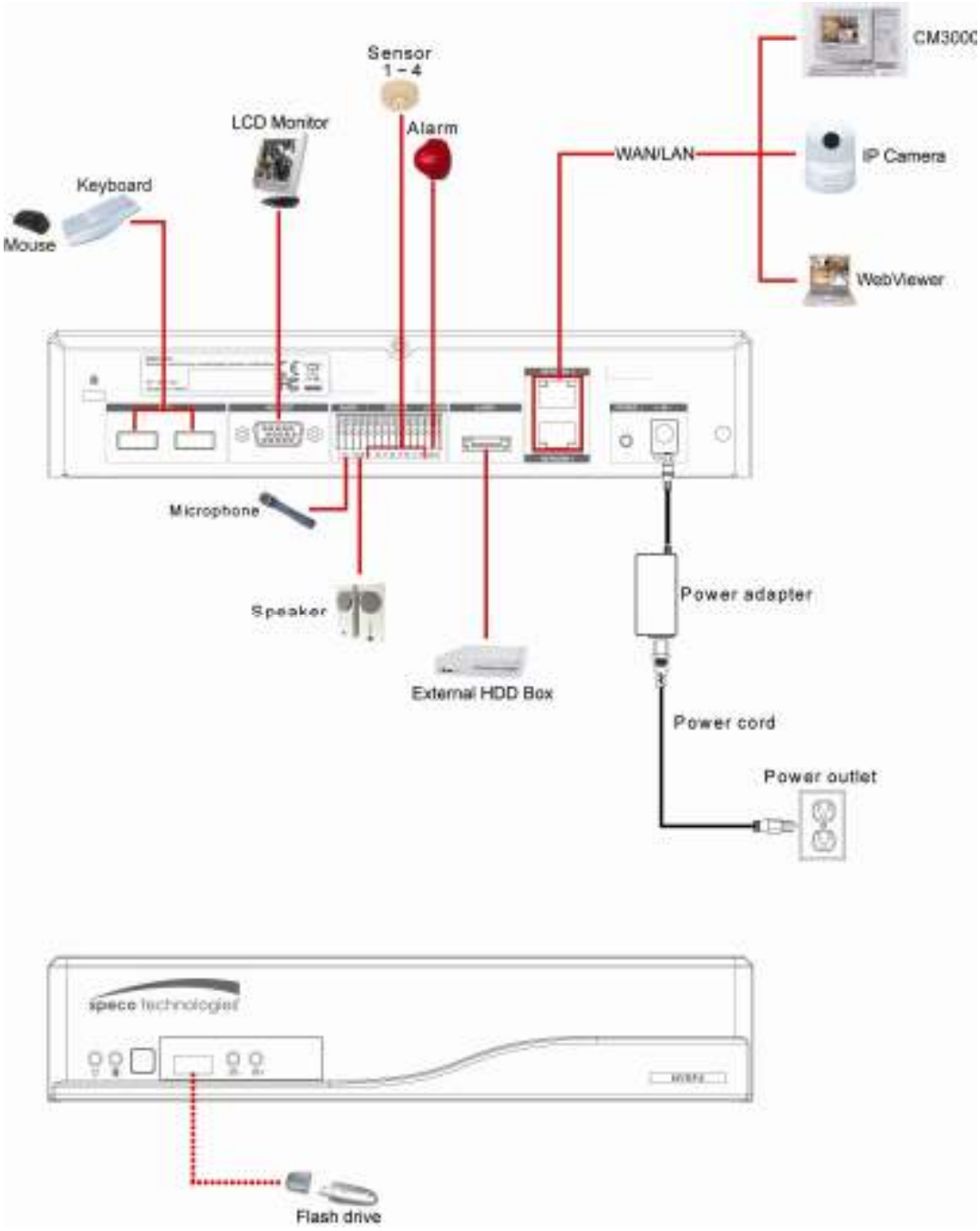
Name	Function
(1) 2 x USB 2.0 ports	For USB keyboard, mouse, and other USB device connections.
(2) VGA Out	Output the video signal to a CRT or LCD monitor
(3) Audio In/Out	- **Audio In:** Input the audio signal from audio input device such as microphone - **Audio Out:** Output the audio signal to a audio out device such as speaker The audio input/output device has its own power supply where necessary.
(4) Sensor In	Support 4 sensor devices
(5) Alarm Out	Support 1 relay device (Relay: 1A @ 125VAC / 30VDC)
(6) Gigabit LAN 2 port	- To connect the switch of your network for internet connection, remote accessing, and connection of IP camera. - LAN 2 support Static, DHCP, or PPPOE mode.
(7) e-SATA port	For connecting external RAID
(8) Gigabit LAN 1 port	- LAN connection only but default assign as a DHCP service port. User also can connect the IP camera through the Ethernet cable. - LAN 1 supports Static or DHCP mode.
(9) Power button	Press it to power on the NVR unit.
(10) 12V DC	Power cable connection
(11) Clamp hole	For clamp plug-in to clamp the power cord (see Chapter 1.4.2.1)
(12) Lock hole	For locking the NVR unit to avoid NVR unit been taken.

1.4 Setting Up the NVR Unit

1.4.1 Connecting Devices

The back panel of the NVR unit, user can connect 4 sensor devices, 1 alarm device, audio input/output device and an external HDD storage device. Two Gigabit LAN ports are provided to support the balance of the network bandwidth for IP camera connection and remote accessing. The USB ports can connect the mouse and keyboard for more easily to operate NVR server.

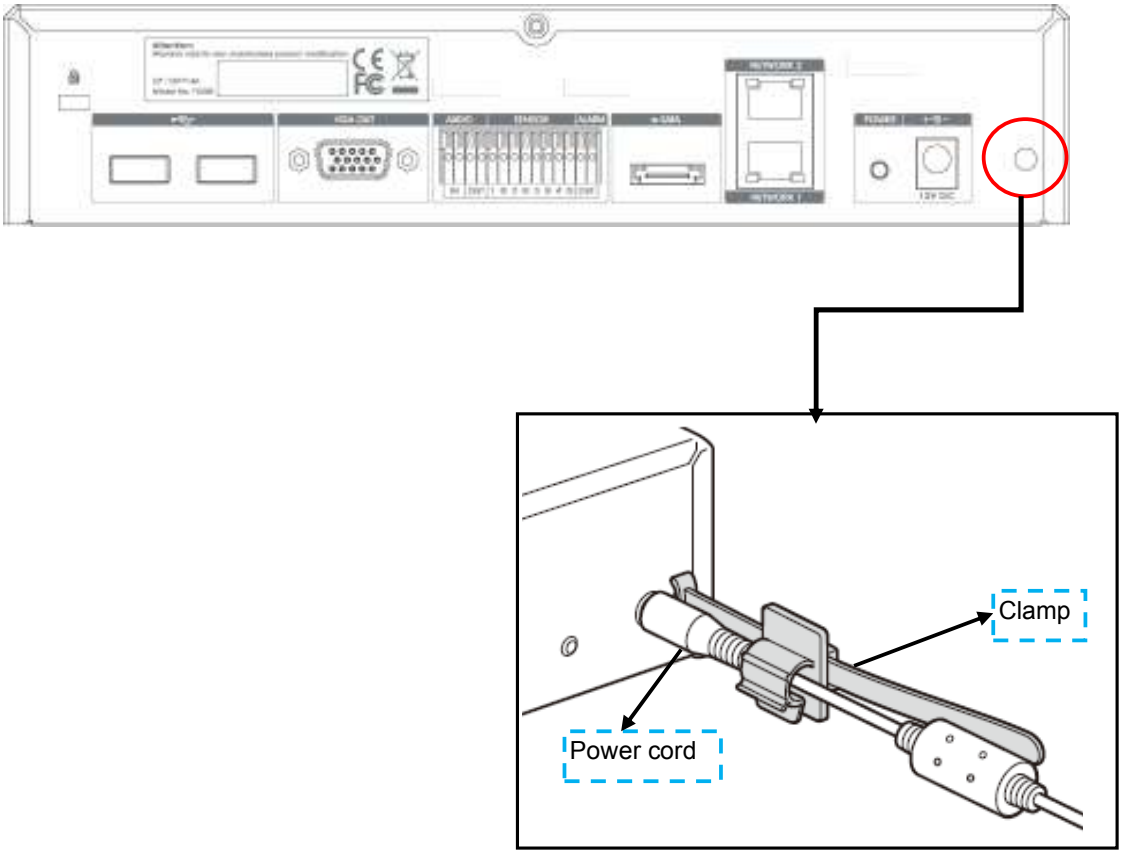
Follow the illustration below to make the connection:



Both LAN ports can be used for connecting with IP camera and remote access.

1.4.1.1 Clamping the power cord

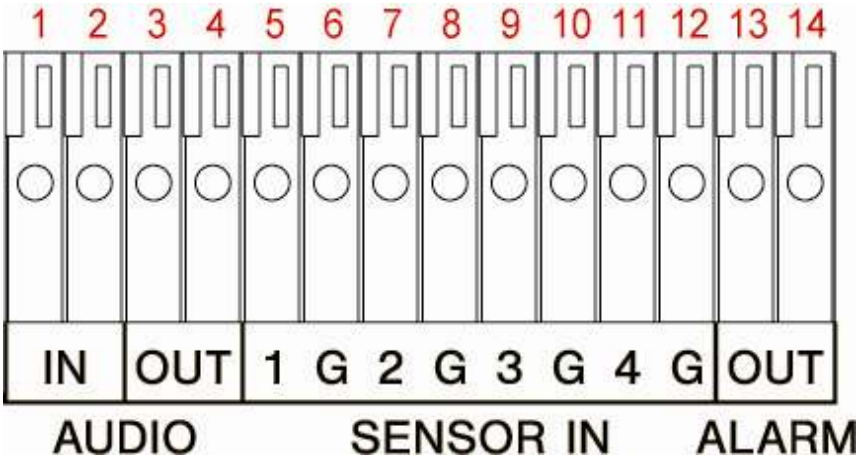
User can use the clamp that is included in the package to clamp the power cord to prevent the power cord from sliding out.



1.4.2 Connecting the Audio, Sensor and Relay Device

The Sensor, Alarm, and audio port enable you to connect 4 sensor inputs, 1 relay output, and 1 audio in and 1 audio out device. Just connect the external sensor, relay, and audio in/out device pin directly to the pinhole.

Check the table below and locate which pinhole is assigned to sensor input, relay output, and audio in/out.



The signal from the sensor (i.e. infrared sensors, smoke detectors, proximity sensors, door sensors, etc.) is being transmitted to the unit and this triggers the system to respond and send signal to relay device (i.e., alarm, telephone etc).

Audio in and out pinhole:

Pin #	Definition
1	Audio input signal
2	Audio Ground signal
3	Audio output signal
4	Audio Ground signal

Sensor and Alarm pinhole:

Pin #	Definition
5	Sensor 1 signal
6	Sensor 1 Ground signal
7	Sensor 2 signal
8	Sensor 2 Ground signal
9	Sensor 3 signal
10	Sensor 3 Ground signal
11	Sensor 4 signal
12	Sensor 4 Ground signal
13	Alarm signal
14	Alarm signal

Chapter 2 Operating the NVR unit

2.1 First Time Using the NVR Unit

1. Connect the mouse to the USB port located at front panel of the NVR unit.
2. Using the mouse and virtual keyboard (see also Chapter 2.1.1) to operate the NVR system.
3. Power on the NVR unit.
4. For security purposes, the NVR system would require you to enter User ID and Password before it can be accessed. (If this is the first time, enter the default ID [**admin**] and password [**admin**]).

Preview User Interface

5. Formatting the hard disk.
   a. Click **Setup** and enter the password
   b. Click **System** → **Add**
   c. Select the hard disk from device list and select **Format type**
   d. Click **Format** button to start formatting
   e. When formatting is done, click **OK**.
6. Setup the correct date and time.
   a. Click **Setup** and enter the password
   b. In **Time** section, click **Setting** button of **System Time**.
   c. Select the date and adjust the time, and then, click **OK**.
7. Connect the IP camera.
   a. Click **Setup** → **Camera**
   b. Select camera channel and type of camera – IP Camera
   c. And then, enable the camera
   d. Click **IP Setting**
   e. Enable **Protocol**, and then, select **protocol**, **mode**, **video format**, and **channel** of IP camera.
   f. Enter **IP address** or **URL** of IP camera.
   g. Enter **ID** and **password** if IP camera's access authority is required.
   h. Click **OK**.

i. Repeat step 7 to connect to another IP camera.

2.1.1 Using the Virtual Keyboard

User can use the Virtual Keyboard when the keyboard is not available. Just click  or right-click on the screen to call out the virtual keyboard. For uppercase, click **Caps** button. To exit, click **Esc**.

2.2 Familiarizing Yourself with the Buttons in Preview Mode

Name	Function
(1) Exit	Call up the Logout dialog box.  In the logout dialog box, you may do the following: - **Reboot:** To restart the NVR system. It is required to enter the password - **Power OFF:** To shutdown the NVR system. - **Login:** Using different ID to login to NVR system. - **Cancel:** To close the logout dialog.
(2) Split Screen Mode	Select from 2 different split screen types to view all the cameras or one camera on a single screen. It also allows you to switch and view different camera number. When user is in single screen mode, user can **right-click** and **drag** a square on the area you want to enlarge the view. Right-click on the screen again will return to the normal view.
(3) Record	Start/stop video recording.
(4) EMap	Display the map in each area, and the location of camera/ sensor/ relay and the warning (see also Chapter 2.2.1).
(5) Network	Enable/disable remote system access. This feature allows you to access NVR server from a remote location via internet connection. The default is disabled.
(6) Setup	Configure the system settings (see also Chapter 3)
(7) PTZ	To call out the PTZ control panel (see also Chapter 2.2.2)
(8) Preview	Switch to Preview mode. This allows you to view live camera display.
(9) Playback	Switch to Playback mode. This allows you to view the recorded video file. (See also Chapter 2.3).

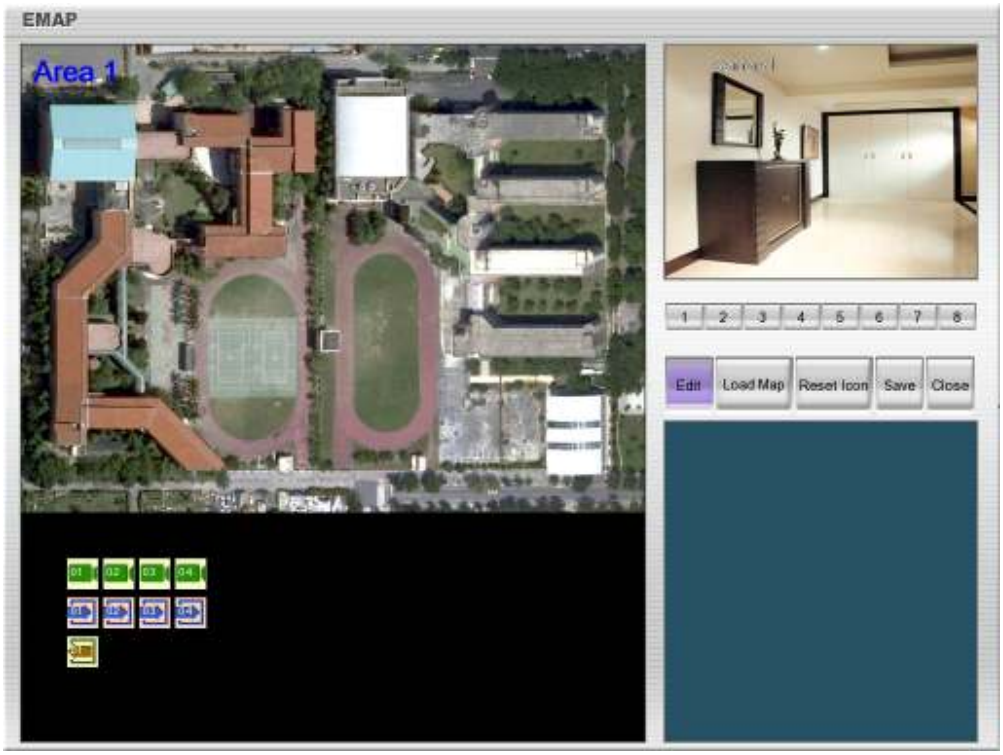
Name	Function
(10) Status bar	Display the recoding date, time and hard disk space of NVR unit.
(11) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(12) Snapshot	Capture and save the screen shot in *.jpg format.
(13) Event log	Show the record of activities that take place in the system. (see also Chapter 2.2.3)
(14) AutoScan	Start/Stop video screen cycle switch.
(15) Full screen	View in full screen. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon.  When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(16) Alarm	Alert and display warning information.
(17) Virtual Keyboard	If the keyboard is not available, you may use the virtual keyboard.

2.2.1 Setting Up and Using the Emap

Emap can hold up to 8 maps in *.jpg format. You may locate the camera, sensor and relay on the map.

2.2.1.1 To Set Up the Emap

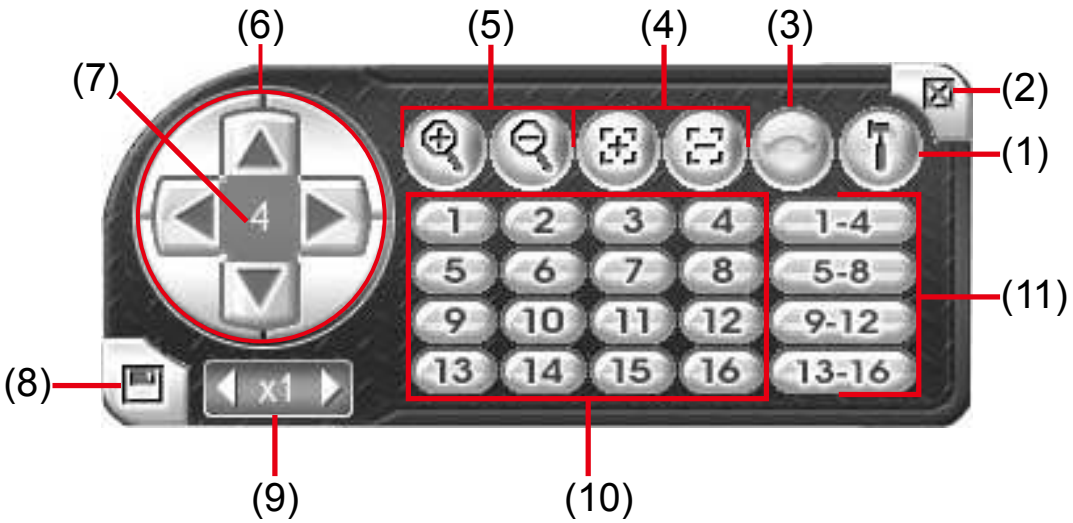
1. Click **Emap**.
2. When the Emap screen appears, click the area number (1 to 8 buttons) on where you want to insert the map.
3. Click **Load Map** to insert the map. When the open dialog box appears, locate and select the map and click **Open**.
4. When the inserted map appears on the Emap screen, click **Edit**. You may now drag and drop the camera, sensor, and relay icons to its place on the map. Icons on the map can be relocated anywhere. If you are going to relocate the icon on the map to other area, you need to drag the icon to the black pane at the bottom of the Emap screen and then switch to the area on where you want to locate the icon. To bring all the icons back to the black pane at the bottom of the Emap screen, click **Reset Icon**.
5. When you are done, click **Save** button to save the new setting. To exit Emap screen, click **Close**.



2.2.1.2 To Use the Emap

1. Click **Emap**.
2. In the Emap screen, click the camera icon to switch on the area where the camera is located on the map and to display the video at the upper right corner of the Emap screen. At the lower right corner of the Emap screen, it lists all the warning messages.
3. To view different Emap, click Emap number button (1 ~ 8).
4. Click **Close** to exit Emap screen.

2.2.2 Familiarizing Yourself with the Buttons in PTZ Camera Controller



Name	Function
(1) Setup	Configure PTZ cameras.(see also Chapter 2.2.2.1)
(2 Close	Exit PTZ camera controller.
(3) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Zoom +/-	Zoom in and out the image.
(6) Direction buttons	Adjust and position the focal point of the PTZ camera.
(7) Camera ID pane	Display the PTZ camera number that is being operated.
(8) Save Camera preset position	Save the PTZ camera preset position number. Select the camera and click the preset position number and save it.
(9) Camera lens speed controller	Adjust the moving speed of the PTZ camera lens.
(10) Camera preset position number	Move the PTZ camera to the preset point.
(11) Group AutoPan	Select to automatically operate PTZ camera in group.

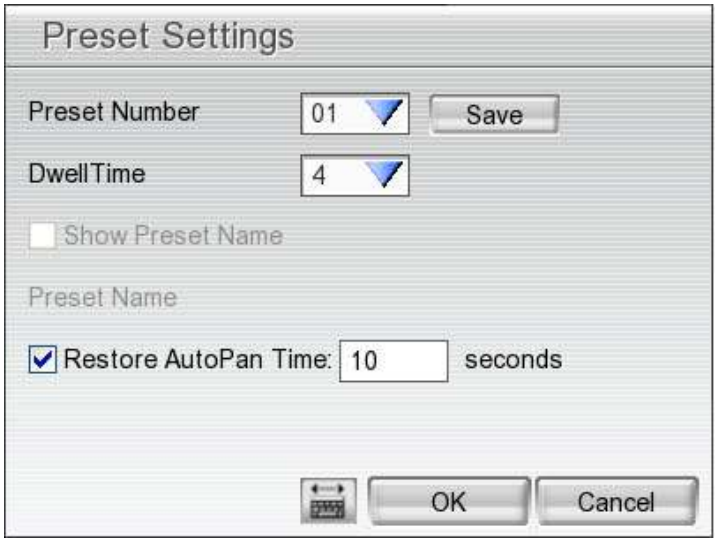
2.2.2.1 Setup the IP PTZ Camera

When IP PTZ camera has been successfully connected to the NVR system, user can use the PTZ function directly without any configuration. To make connection of IP PTZ camera, please refer to Chapter 3.2.1.

In PTZ camera panel, user can setup the preset position of the camera. The number of preset positions is dependent on the IP PTZ camera that the user has connected. User can refer to the user's manual of the IP PTZ camera to find out the number of the preset positions that are supported.

Please follow the below steps to configure the preset position.

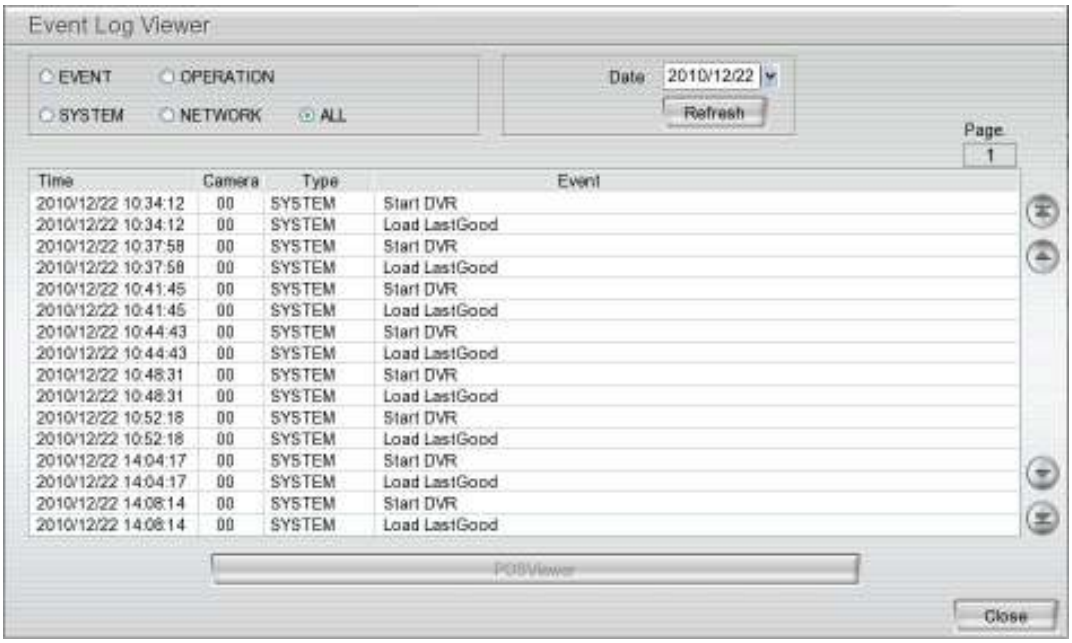
1. On Preview User Interface, select the channel that is an IP PTZ camera connection.
2. Click **PTZ** button from Preview User Interface and PTZ control panel will show up.
3. In the PTZ control panel, using the arrow button to adjust the position of IP PTZ camera.
4. And then, click **Setup** (see also Chapter 2.2.2). The Preset Settings window will show.



5. Select the **Preset Number** to assign a number for the PTZ camera current position. And then, click **Save** to save the setting.
6. Set the **DwellTime** for how long the PTZ camera stays in that position before it moves to the next one.
7. Repeat step 3 to 6, if you want to save another preset position.
8. **Restore AutoPan Time:** set a time period for restoring auto path function after the PTZ camera has been moved manually. Mark the check box and set the time period in second.
9. Click **OK** to complete the setting.

2.2.3 Using Event Log Viewer

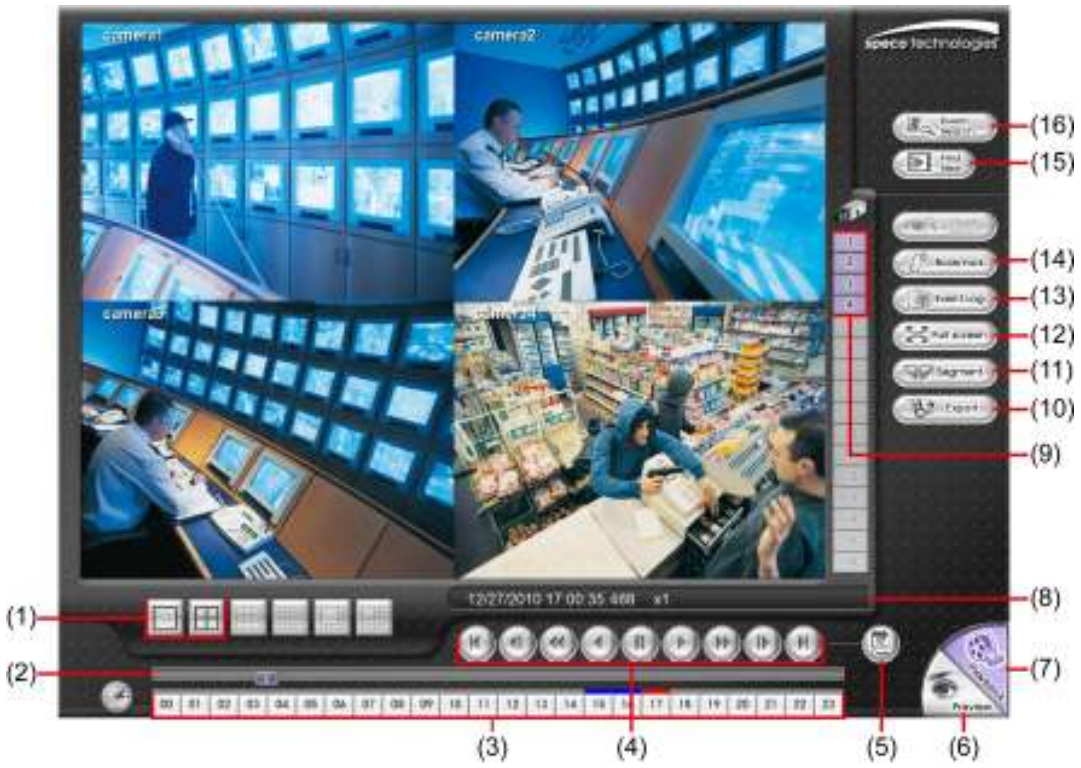
Show the record of activities that take place in the system.



1. Click the **Event Log** button on NVR system main interface. The Event log viewer window will show up.
2. Select the **Date** to view.
3. To filter the records, select and click the select button to display **Event**, **System**, **Operation**, **Network** or **All**.
4. Use the scroll button to go next, previous, first, or last page (, , ,)of event list.
5. To find event log by keyword, enter keyword in **Find Text** column and click **Search**.
6. The events list which display on the screen can be saved as text file format. To save the events list, click **Save** button.

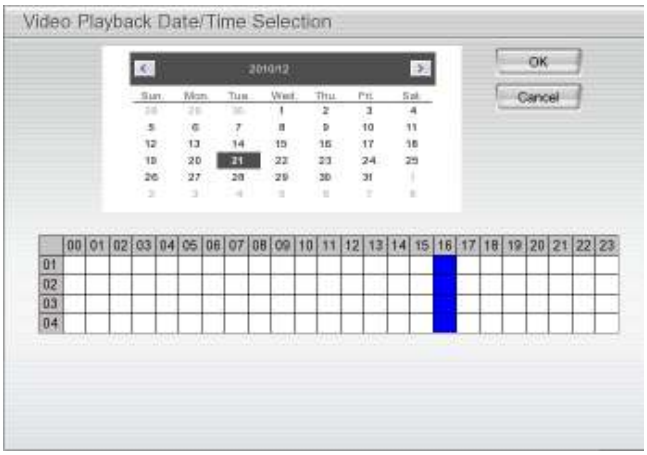
2.3 Familiarizing Yourself with the Buttons in Playback Mode

To switch in Playback mode, click **Playback** button at the lower right corner of Preview mode user interface.



Name	Function
(1) Split Screen Mode	Select from 2 different split screen type to playback the recorded video file of all cameras or one camera on a single screen. When user is in single screen mode, user can **right-click** and **drag** a square on the area to enlarge the view. Right-clicking on the screen again will return to the normal view.
(2) Progress bar	Shows the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
	The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.
(4) Playback Control Buttons	From left to right order: **Begin:** Go back to the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the reduce speed from 64x, 32x, 16x, 8x, 4x, 2x, 1x, 1/2x, 1/4x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x, 32x, or 64x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

Name	Function
(5) Date	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.



The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 04 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(6) Preview	Switch to Preview mode.
(7) Playback	Switch to Playback mode to view the recorded video file.
(8) Status bar	Display the recorded date, time and play speed.
(9) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(10) Export	Export includes Snapshot, Output Video Clip, and Backup function. ■ **Snapshot:** Capture and save the screen shot in *.jpg format. ■ **Output Video Clip:** Save the segmented file in *.dvr format to external USB storage device (see also Chapter 2.3.1). ■ **Backup:** Save the playback file to external USB device or external DVD burner.
(11) Segment	Keep a portion of the recorded video (see also Chapter 2.3.1).
(12) Full screen	View in full screen. To return, press the right button of the mouse or ESC on the keyboard or click the arrow icon.

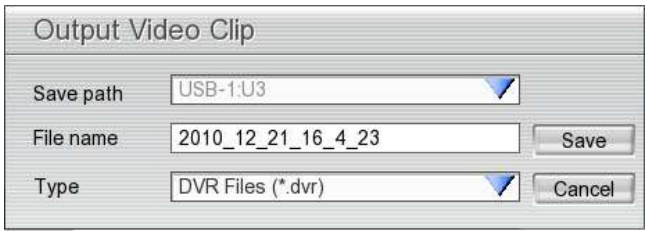
Name	Function
	When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or All.
(14) Bookmark	Mark a reference point when reviewing the recorded video file to which you may return for later reference (see also Chapter 2.3.2).
(15) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Event Search function.
(16) Event Search	Search from the recorded activities that were recorded in event log (i.e., Sensor, Motion, Video Loss)(see also Chapter 2.3.3)

2.3.1 To Segment and Save the Desired Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the segment. Then, click **Segment** to set the begin mark.

2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the segment. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click **Segment** button again.

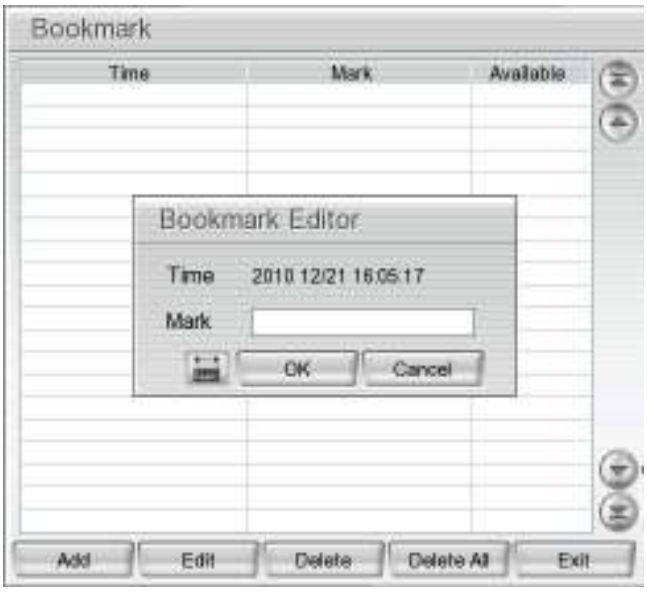
3. Click **Export** > **Output Video Clip** button to save the wanted portion.



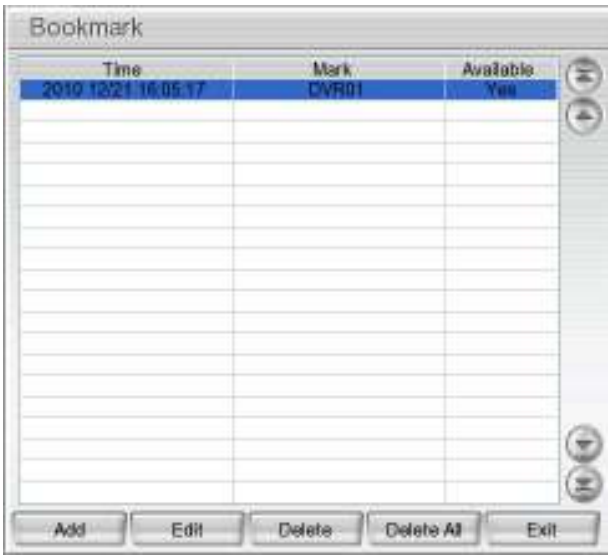
4. In the **Output Video Clip** dialog box, locate on where user wants to save the file, type the filename, and select the video format and click **Save** to save the video segment.

2.3.2 To Bookmark a Video Section

1. Click **Bookmark** button
2. In the Bookmark dialog box, you may do the following:
   - **Add** to create the new reference mark in the bookmark list. In Bookmark Editor window, enter the name or a short description in **Mark** column for this bookmark.
   - **Edit** to change the mark description.
   - **Delete** to remove the selected reference mark in the list.
   - **Delete All** to remove all the reference marks in the list.
   - **Exit** to close Bookmark dialog box.



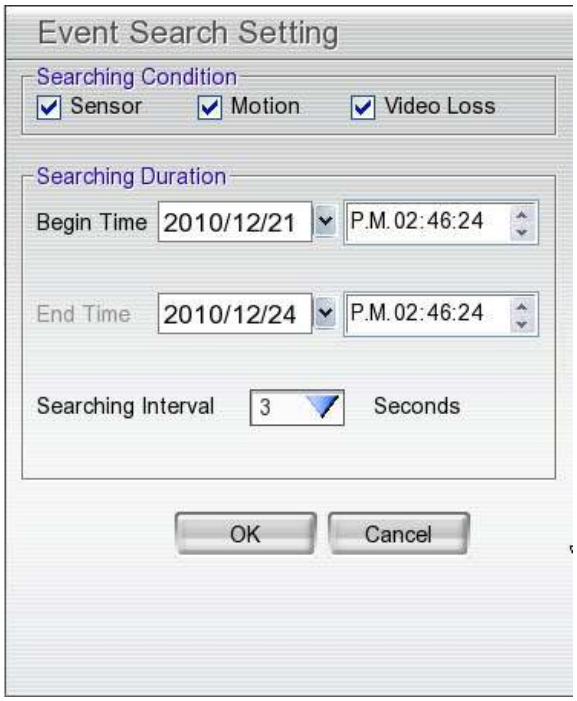
3. Select and click one in the bookmark list to review the file.



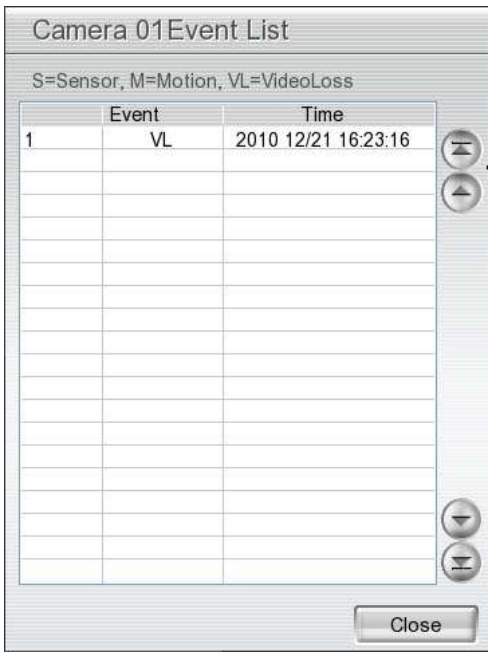
2.3.3 Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The Event Search Setting dialog box would appear on the screen.
3. In the Event Search Setting dialog box, check the type of condition you want to search. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click **Find Next** ( ) button.
4. You may also set the search to list all of the search results. Set the **Begin Time** and **End Time**. Set the **Searching Interval** time to the smallest event time, since if there is more than one event within the search interval, the event will not be listed. Then, click **OK** to start searching.

The NVR system will set the date of **End Time** at 3 days later of Begin Time automatically. If event data are less than 3 days, the NVR system will set End Time at current date. Time of End Time is adjustable.



5. When the Event list appear, click and select the item you want to view.

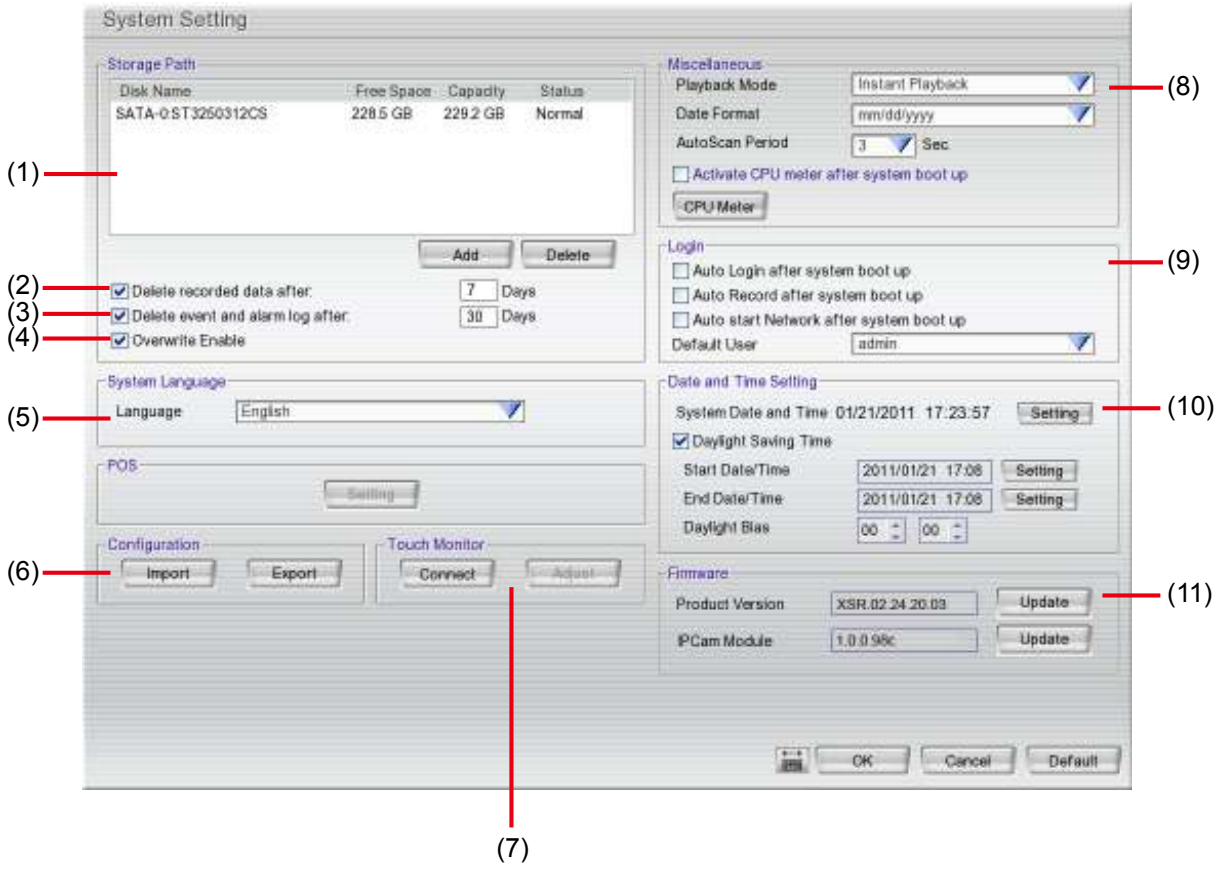


Chapter 3 Customizing the NVR System

In the Preview screen mode, click button to customize your NVR. Enter the ID and password to authenticate (Default ID is **admin** and password is **admin**).
When the NVR configuration setup selection appears, select and click on the button of the setting that you want to change.

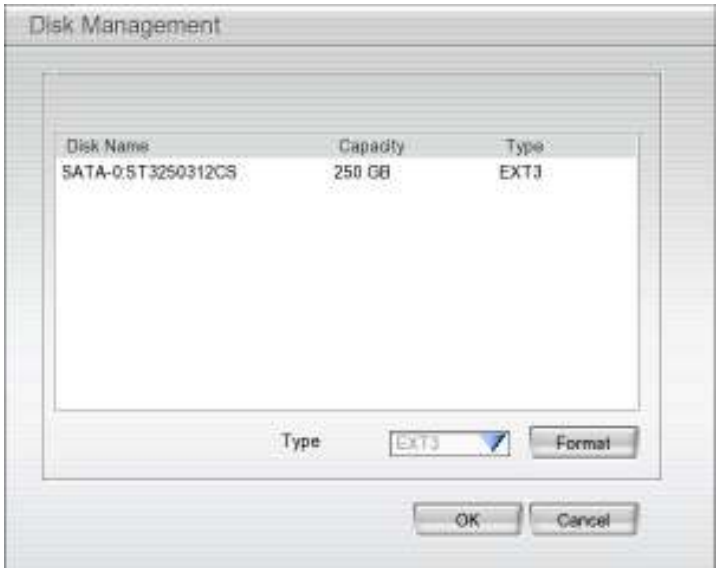
3.1 System Setup

In the System Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving.



(1) Storage Path
Indicates which HDD the data is being stored on. In case there is more than one storage device, the system automatically saves the data to the next storage device. To insert another storage device, click **Add** and select the storage path. To remove the selected path, click **Delete**.

If the hard disk is being used for the first time in the NVR system, please format the hard disk before use. To format the hard disk, click **Add** and select the hard disk and **Format** in Disk Management window, and then, click **Format** button.



(2) Delete recorded data after

If you want the system to automatically erase the data after certain days, enable the **Delete recorded data after** check box and enter the number of days in **Days** text box.

(3) Delete event and alarm log after

If you want the system to automatically erase the event and alarm log after certain days, enable the **Delete event and alarm log after** check box and enter the number of days in **Days** text box.

(4) Overwrite Enable

When the recording space is not enough to record one hour of data, the system will automatically replace the oldest data with the newest recorded data.

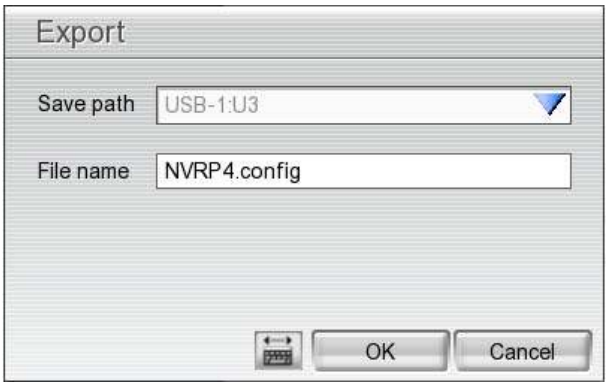
(5) Language

Customize the system to display the tool tips and dialogs based on the selected language. Default language is English.

(6) Configuration

Exports a copy of all the configuration settings and allows you to reload the same settings from a USB drive. To save the current settings, click **Export**. To replace the current settings with the stored settings on the USB drive, click **Import**.

Import User Interface



Export User Interface

(7) Touch Monitor

When NVR server is connected to a touch monitor, user needs to configure the touch monitor to communicate with the NVR.

1. Connect the touch monitor with NVR server.
2. Turn on the NVR server and touch monitor power.
3. Select **Setup** → **System** → **Touch Monitor** → **Adjust**.
4. The adjusting window will show up.

5. Click **+** one by one to complete the adjustment.
6. To disconnect touch monitor, click **Disconnect** button first, and then turn off the touch monitor and remove the connection between NVR server and touch monitor.

(8) Miscellaneous

- **Playback mode:** Select the mode of playback video.
  - **Select date and time:** Playback the recorded video beginning from the selected date and time.
  - **Play the last file:** Automaticallyy playback the recorded video from the last hour
  - **Instant Playback:** Automatically playback the video which has just recorded
- **Date Format**
  Select the date format which wants to display in select date and time playback mode
- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.

(9) Login

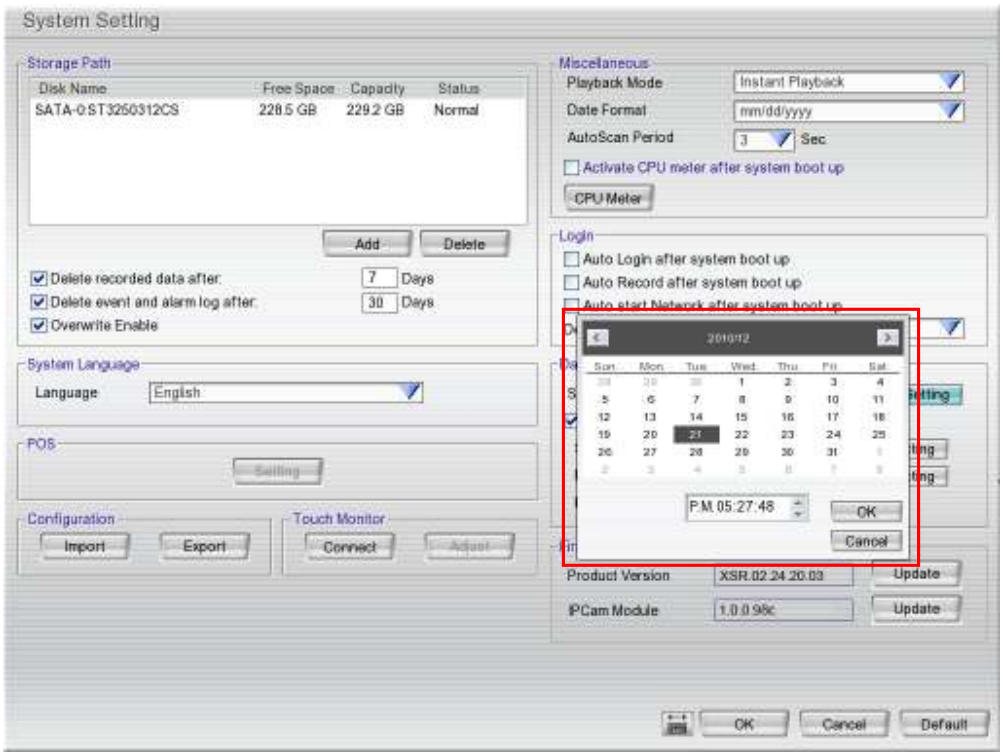
Enable the conditions in Login section you want the system to automatically carry out.

- **Auto Login after system boot up**
  Automatically logs in the user when NVR is powered up.
- **Auto Record after system boot up**
  Automatically starts video recording when NVR is powered up.

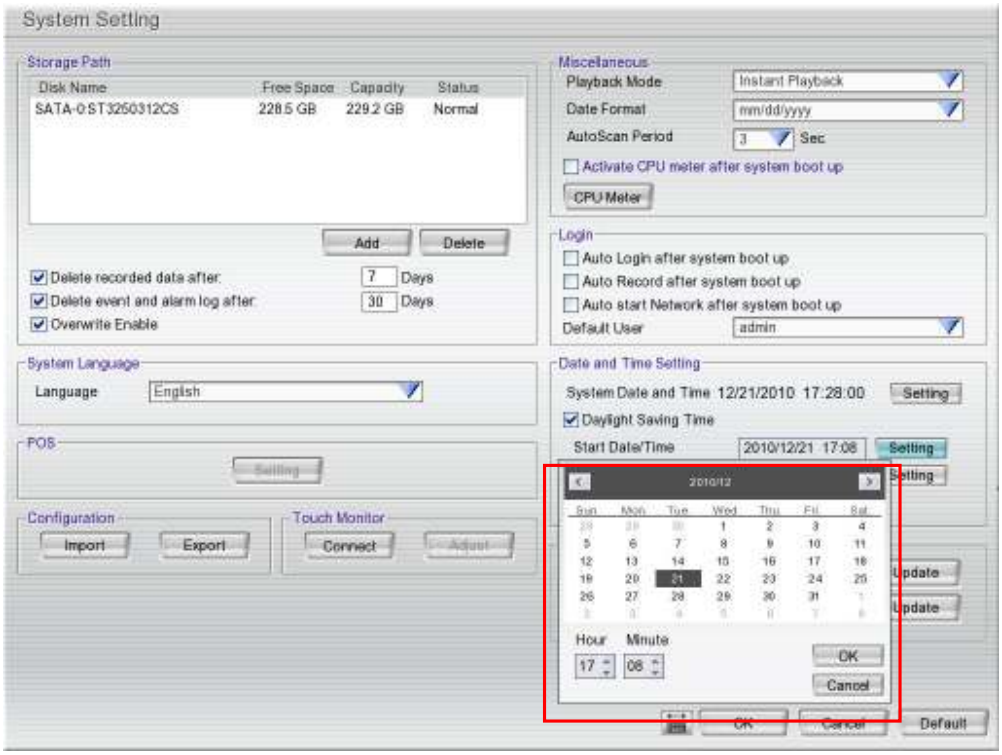
- **Auto start Network after system boot up**
  Automatically starts network connection when NVR is powered up.
- **Default user**
  Automatically log in to the selected default user when NVR is powered up.

(10) Date and Time Setting

- **System Date and Time:** Adjust the NVR system time and date. Click **Setting** button to select the month, date, hour, and minute.



- **Daylight Saving:** Check **Daylight saving** check box to enable daylight saving function. Then, select the **Start Date/Time** and **End Date/Time** by clicking on the **Setting** button.
- **Daylight Bias:** Select the daylight saving time offset for your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.



(11) Firmware

- **Product Version Update:** Upgrades the firmware of NVR system.
  1. Click **Update** button, a **Firmware Update** window will show up.

  2. Save the firmware in the root directory of the USB drive. Insert USB drive into NVR unit.
  3. Select the USB drive if there is more than one USB drive from the drop down list. The NVR unit will auto detect the firmware. The current firmware version will show in **Current firmware version** and the new firmware version will show in **new firmware version**.
  4. Click **OK** to start upgrading.
- **IPCam Module Update:** Upgrades the firmware of the IP camera.
  1. Click **Update** button, an **IPCam Module Firmware Update** window will show up.

2. Save the firmware in the root directory of the USB drive. Insert USB drive into NVR unit.
3. Select the USB drive if there is more than one USB drive from drop down list. The NVR unit will auto detect the firmware. The current firmware version will show in **Current IP Cam Module version** and the new firmware version will show in **New IP Cam Module version**.
4. Click **OK** to start upgrading.

3.2 Camera Setup

3.2.1 To Setup the IP Camera

(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. Disable when there is no video source on the camera channel so that the NVR does not detect video loss error on the channel.

(3) Input

Select the camera type as **IP Camera**.

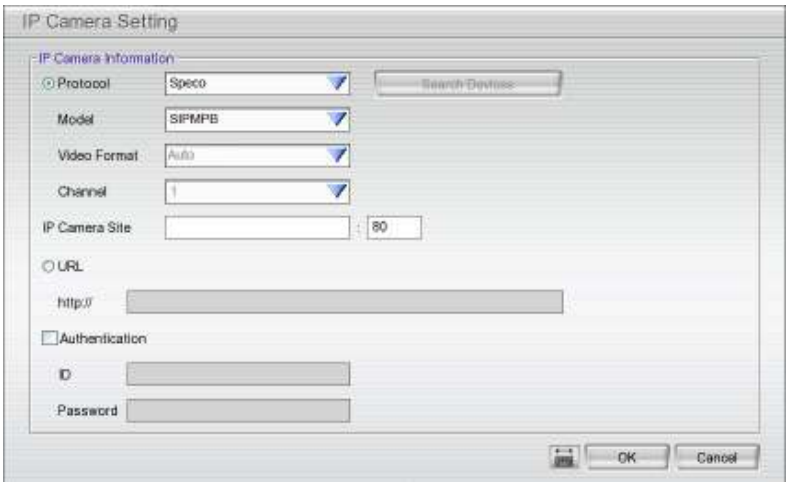
(4) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio of the camera.
- **Name**
  Change the camera name
- **Description**
  Add a short comment

(5) IP Camera Information

- **Use IP Camera Motion:** Check to enable the motion detection function of the IP camera if it is supported. To setup IP camera and display current IP camera information.

■ **IP Setting:** Click **IP setting** to add the IP camera.



1. Click the radio button of **Protocol** to setup IP camera.
2. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera.
3. Enter IP address and connecting port in **IP Camera Site** column.
4. Also, user can enter URL of IP camera instead of IP address.
5. If the IP camera has authentication request, please enable **Authentication** and enter **ID** and **Password**.
6. Click **OK** to connect with the IP camera.

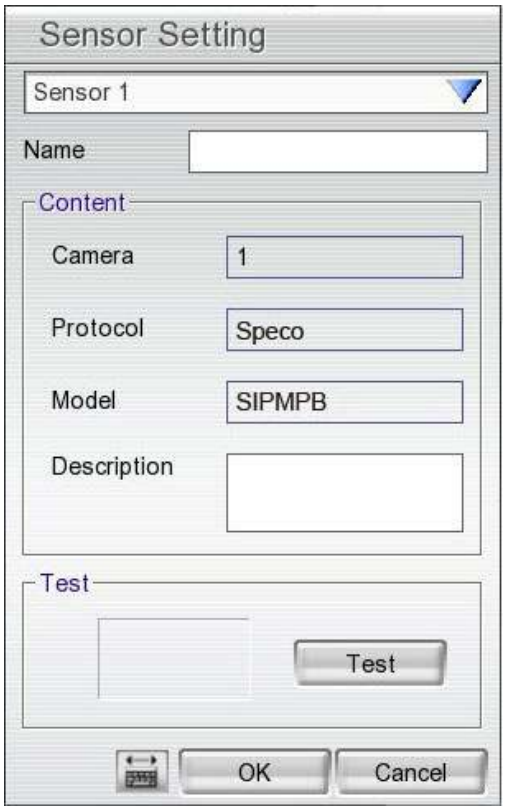
- **Detail:** To adjust IP camera parameters, click **Detail**.
- Click on **Default** to revert to the factory default values.

User can select **Video size**, **Frame rate**, **Bitrate mode** and **Quality** of camera. User can also adjust **Bright**, **Contrast**, **Hue**, **Saturation**, and **I/O Control** of the camera.

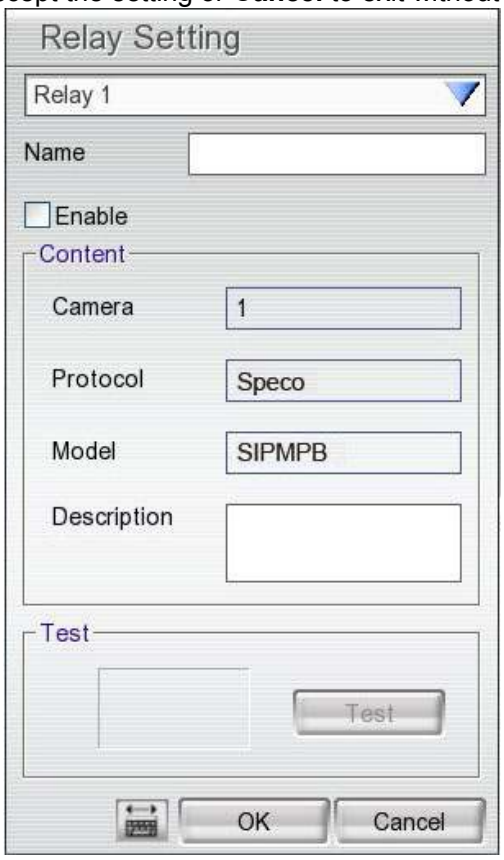
The selection and adjustment items may vary by the camera supported.

I/O Control: Setup the sensor and relay that is built into the IP camera.

- **Sensor Setting**
  1. Click **Sensor** button.
  2. Click the drop-down list and select the sensor ID number.
  3. Enter sensor name in **Name** column
  4. The system automatically detects the camera and input relates information. In the Content section, enter sensor **Description**.
  5. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
  6. Click **OK** to exit and accept the setting or **Cancel** to exit without saving the setting.



- **Relay Setting**
  1. Click **Relay** button.
  2. Click the drop-down list and select the relay ID number.
  3. Enter relay name in **Name** column
  4. The system automatically detects the camera and enters related information. In the Content section, enter relay **Description**.
  5. In the test section, click **Test** to check the relay status. **Red** is high and **Green** is low.
  6. Click **OK** to exit and accept the setting or **Cancel** to exit without saving the setting.



3.2.2 To Setup Camera from the Remote DVR

User can add the camera from another DVR through the network.

(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. Disable when there is no video source on the camera channel so that the NVR does not detect video loss error on the channel.

(3) Input

Select the camera type as **Remote DVR**.

(4) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio of the camera.
- **Name**
  Change the camera name
- **Description**
  Add a short comment
- **IP**
  Enter the IP address of the camera
- **Port**
  Enter the connection port of the camera
- **User ID**
  Enter the user id for authentication
- **Password**

Enter the password for authentication

- **Channel**
  Select the channel of connected camera
- **Connect**
  Click to connect the camera when all configurations are set.

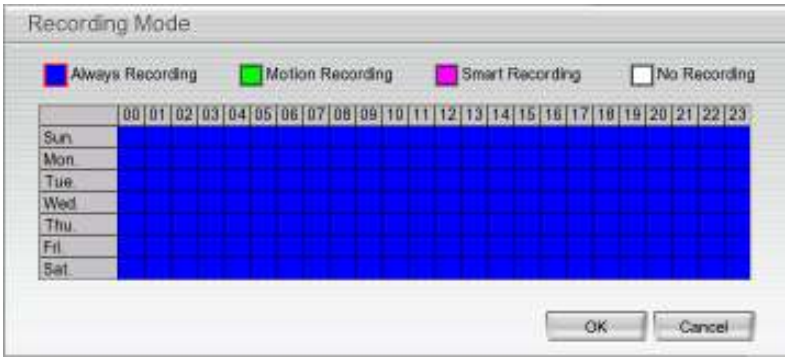
3.3 Recording Setup

(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks.



When the system starts recording a red triangle mark would appear at the upper left corner of the screen. The recording modes are listed below:

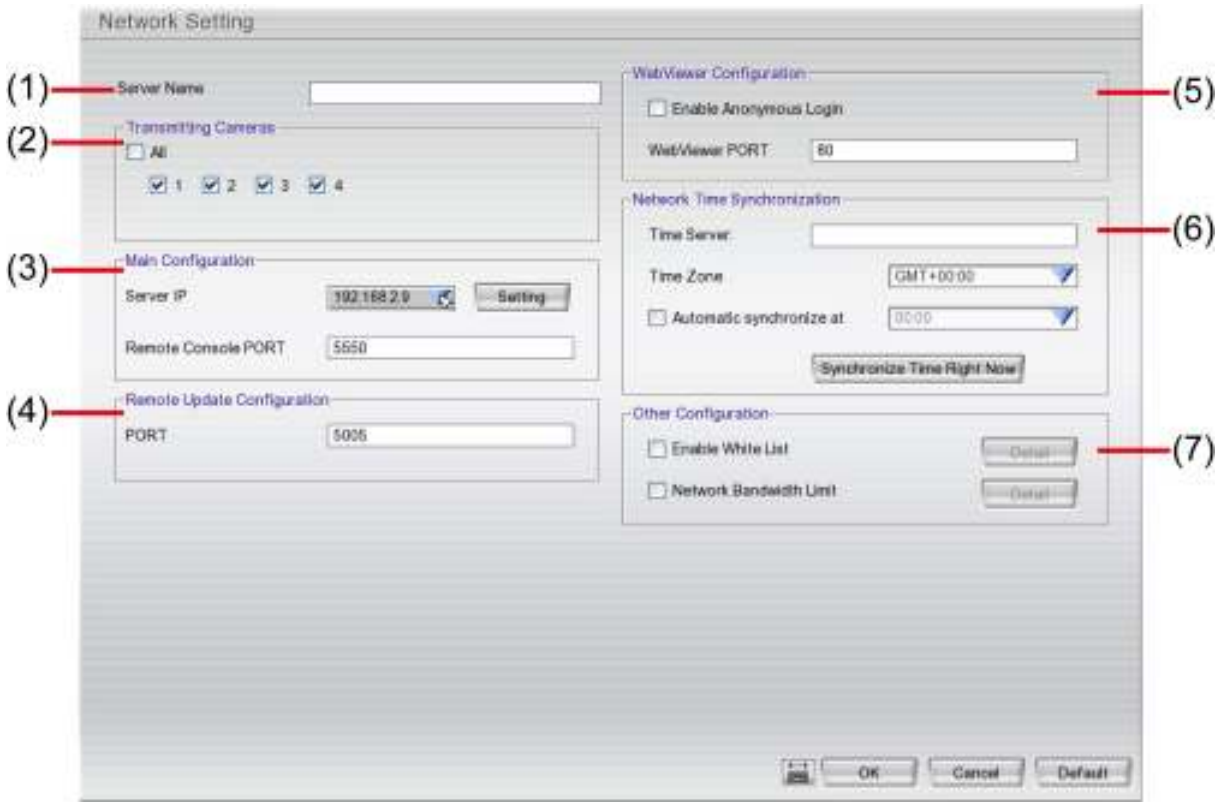
- **Always Recording**
  Always record the video from the selected camera and save it to the designated storage device
- **Motion Recording**
  Records the video from the selected camera when motion is detected by the system. Once motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**
  Automatically switch to record at the maximum frame rate once motion is detected, and switch to record at minimum frame rate when no motion is detected.
- **No Recording**
  The system does not record.

(3) Motion Detection

Adjust the sensitivity of the motion detection. The higher the sensitivity, the finer motions are detected. When motion is detected, a green triangle mark would appear at the upper left corner of the screen.

3.4 Network Setup

Click on **Default** to revert to the factory default values.



(1) Server Name

Assign a name for the NVR unit. Alphabetical and numerical letters only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section to enable each camera to be accessible via internet using WebViewer, Remote Console, CM3000(Gold),PDA Viewer and JavaViewer (still image). To select all the cameras, enable the **ALL** check box.

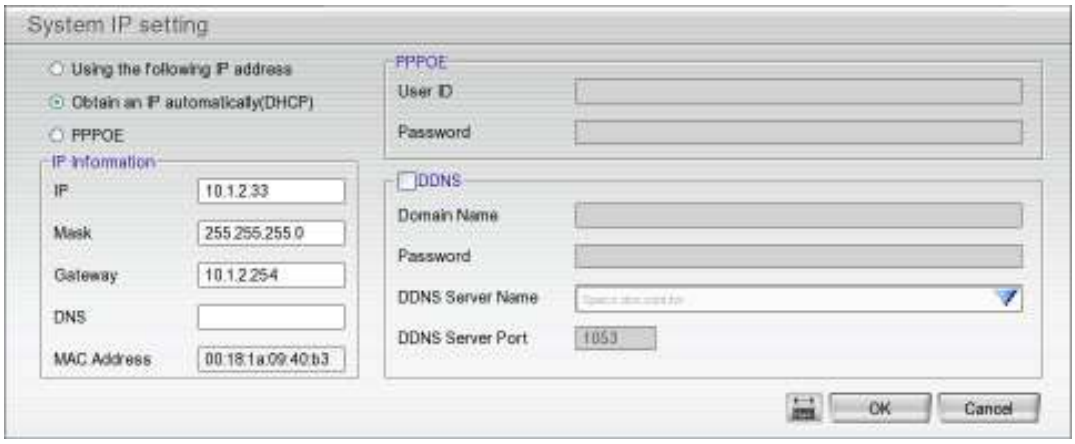
(3) Main Configuration

Set the NVR IP address and **Remote Console Port**. This is required for accessing NVR server from a remote location via internet.

The NVR system supports dual LANs; user can select the **Server IP** from the drop-down list and click **Setting** to configure the details. The dual LAN ports balance network bandwidth to avoid network traffic congestion.

- The default IP of the NVR server is 192.168.2.2 for LAN1 (lower LAN port in the back of the NVR) and 192.168.3.2 for LAN2 (upper LAN port in the back of the NVR).
- LAN1 can be set as Static or DHCP mode and supports only for LAN connection.
- LAN2 can be set as Static, DHCP, or PPOE mode and supports both WAN and LAN connections.

- Both LAN ports cannot be configured in the same LAN segment; this will cause network connection failure.
- When only using port **LAN2**, please set IP address of port **LAN1** in different LAN segment from port **LAN2**.



- **Using the following IP address:** Assigns an IP address for the NVR system. Fill in the IP related parameters in **IP information** section.
  - **IP:** Assign a static IP address to the NVR system.
  - **Mask:** Assign the subnet mask of the IP address of the NVR system.
  - **Gateway:** Enter the network gateway IP address

User only can setup one gateway for the NVR system. LAN2 is recommended for setting the gateway data because LAN2 has access to the internet.

  - **DNS:** Domain Name Server translates domain names (such as www.specotech.com) to IP addresses. Enter the IP address of DNS if it is available.
  - **MAC Address:** An identifier hardware address of NVR unit that is assigned by the manufacturer for identification. Auto filled by the NVR system.
- **Obtain an IP automatically (DHCP):** Assign the IP address by local DHCP server to NVR system.
- **PPPOE:** Point-to-Point Protocol over Ethernet is a network protocol for encapsulating PPP frames in Ethernet frames. It is used mainly with ADSL services. If your network is using ADSL service connecting to internet, and then, select PPPOE mode. Enter **User ID** and **Password** that is given by your ISP for PPPOE connection authority.
- **DDNS:** DDNS (Dynamic Domain Name Service) is a data query service mainly used on the Internet for translating domain names into Internet addresses. Users can register their own domain name on **http://speco.dss.com.tw**. (See Appendix A)
  - **Domain Name**
    Enter the domain name that the user had registered.
  - **Password**
    The password used to access DDNS when the domain name was registered.
  - **DDNS Server Name**
    Select your DDNS server. By default, there is only one DDNS server. May provide more DDNS servers in future.
  - **DDNS Server Port**
    Fill in the port that connects to DDNS server. Default is 1053.

(4) Remote Upgrade Configuration

Enter the port number that is used for remote firmware upgrade through the network.

(5) WebViewer Configuration

Activate **Enable Anonymous Login** to remotely access the NVR server without authentication. Fill in the **WebViewer PORT** for remote access connection through the network.

(6) Network Time Synchronization

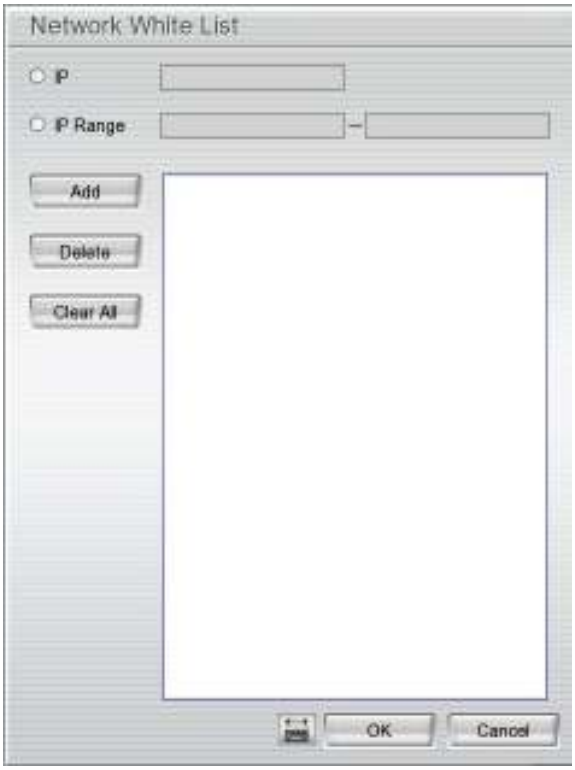
Synchronizes the NVR system time to the network time server. Fill in the **Time Server** IP address or domain name and select the **Time Zone**. User can enable **Automatic Synchronize at** to set automatic synchronization on a daily basis. Or, user can click **Synchronize Time Right Now** to synchronize time

right away.

(7) Other Configuration

- **Enable White List**

  An access permit list for the remote accessing of NVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.

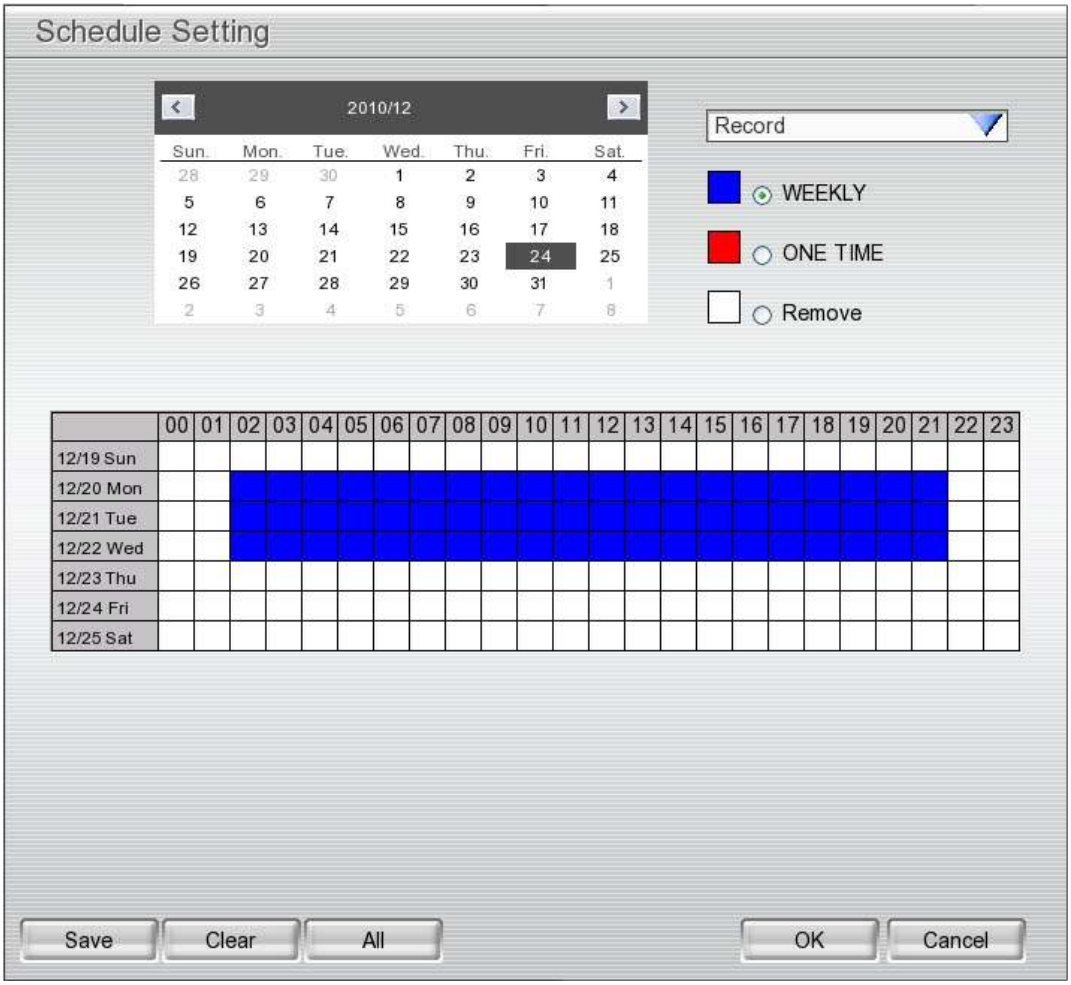


- **Network Bandwidth Limit**

  By Channel: Set the network bandwidth consumption limit by each channel.
  All: Set the total network bandwidth consumption limit.

3.5 Schedule Setting

Set schedule to record, enable network, reboot and disable alarm of all cameras either weekly or once. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.

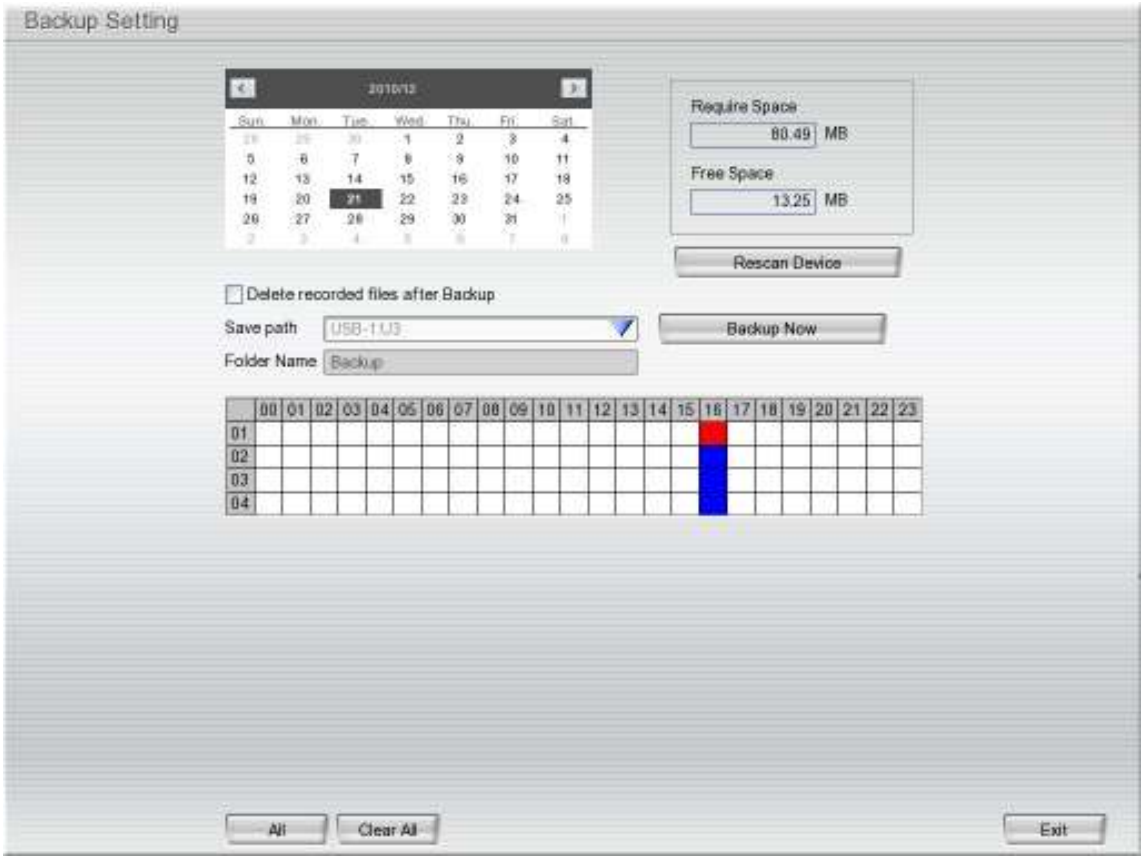


To Set the Schedule Setting:

1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.
   - **Record**
     Activate all the cameras to start video recording at the set time based on the Recording setting
   - **Enable Network**
     Activate NVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
   - **Reboot**
     Restart the PC at the appointed time.
   - **Disable Alarm**
     Deactivate the alarm at the set time temporarily.
3. Set the schedule as weekly or one time. Click ⊙ to make a selection.
4. Click on the blocks to set the schedule or click **All** to select all. To un-select the specific schedule blocks, click the **Remove** and click blocks to un-select. To store the setting, click **Save**. To remove the settings, click **Clear**.
5. To end Schedule Setting, click **OK** to exit and accept the setting or **Cancel** to exit without saving the setting.

3.6 Backup Setup

In the Backup Setting dialog box, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 04 represent the camera number. When you back up the file, you may find Qplayer application included in the backup folder. To run the Qplayer application, click Qplayer.exe in back folder. (See also Chapter 3.7.1)

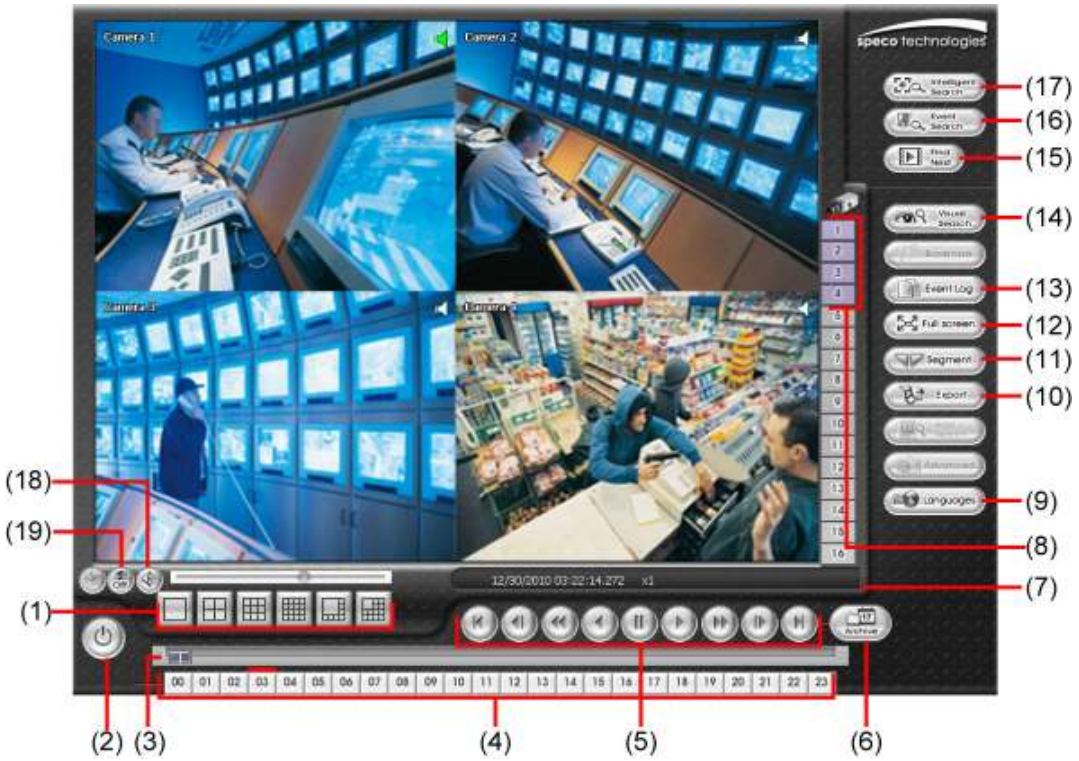


1. Select the date of the recorded file in the calendar you want to backup. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. The block in blue indicates there is recorded data. In the table above, click on the blue block to select the recorded file or click camera (01~04) or time (00~23) to select the whole row or column. The blue block turns red when it is selected. If you want to set the specific time, right-click on the selected block. Then, set the start time and end time.
3. Check the space needed for backup next to the calendar. Click **Rescan Device** to calculate the space for backup.
   - **Require Space**: Shows the total size of the backup file.
   - **Free Space**: Shows the available storage space.
4. If you do **NOT** want to keep the recorded file in the archive folder, enable **Delete files after Backup** check box.
5. Select the backup device – USB drive or DVD-ROM device.
6. NVR system will enter **Folder Name** automatically.
7. Click **Backup Now** button to start archiving the selected file.

3.6.1 Using QPlayer to Playback Backup Video

You can playback the backup files using QPlayer application on the PC. When you back up the recorded file, the QPlayer application is automatically included in the backup folder. With QPlayer, the mode is the same as in Playback mode and supports different split screen types to view all the video at the same time. However, that there are no Preview and Playback buttons.

To run the application, go to backup folder and double-click **Qplayer .exe** to run the QPlayer.



Name	Function
(1) Split Screen Mode	Select from 1 and 4-split screen type to playback the recorded video file.
ⓘ	- If there are only 4 cameras, when user selects the 8, 9, 13, and 16-spilt screen mode, only 4 channels have video display and rest of channels will be black screen. - To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.
(2) Exit	Close the application
(3) Progress bar	Shows the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
ⓘ	The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.
(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2X, 1/4X, 1/8X, 1/16X, or 1/32X. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x, or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to indicate where to start playing the recorded video file. – **Day Light Saving:** the playback calendar will show the available video records during day light saving time period. – **OPEN FILE:** user can open the recorded file from other storage location on hard disk. – **Channel 01~16/Channel 17~32:** Click it to switch between channel group 01~16 and channel 17~32 on calendar if NVR server supports more than 16 channels. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 04 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates where to start playing the recorded video file.

(7) Status bar	Display the status of the recorded date, time and play speed.
(8) Camera ID	Shows the number of cameras that are being viewed. When you are in single screen mode, click on the camera ID number to switch and view other cameras.
(9) Languages	Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.
(10) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ **Snapshot:** Captures and saves the screen shot in *.jpg format. ■ **Print:** Prints the screen shot. ■ **Output Video Clip:** Saves the segmented file in *.dvr, *.avi, or *.mpg format.
(11) Segment	Keep a portion of the recorded video (see also Chapter 3.6.2).

Name	Function
(12) Full screen	View in full screen mode. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon.  When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Event Log	During backup, the NVR system will also include event logs. User can view the event log of activities that took place in the system. To filter these records, select and click the option button to only display Event, System, Operation, Network or POS.
(14) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 3.6.3)
(15) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(16) Event Search	Search from the recorded activities that were recorded in event log (i.e., Sensor, Motion, Video Loss). (See also Chapter 3.6.4)
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.6.5).
(18) Audio	Enable/disable volume
(19) De-interlace	To enhance the video quality, set the de-interlace mode to #1 if you are capturing motionless picture, and #2 if capturing lots of movement.

3.6.2 To Cut and Save the Portion of the Recorded Video

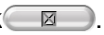
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause to select the beginning of the segment. Then, click **Segment** to set the begin mark.

2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause to select the end of the segment. Then, click **Segment** to segment. To cancel segmentation, click **Segment** button again.

3. Click **Export** > **Output Video Clip** button to save the segmented portion.
4. In the **Save As** dialog box, locate on where you want to save the file, type the filename, and select the video format.

3.6.3 Using the Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.

3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every Minute of that hour, 10 Seconds, 3 Seconds, and every Second of that minute. Use  and  to go to the next and last page of the time page. To go back to the last time selected (hour, minute, or second), click  . To close event search, click  .

3.6.4 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The Event Search text (red) would appear at the lower left corner of the screen.
3. In the Event Search Setting dialog box, check the type of condition you want to search. The video search would stop at the frame that matches the condition. To keep on searching click **Find Next** ().
4. You may also set to search and list all the result. In the **Search Duration** section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time to the smallest event time, since if there is more than one event within the search interval, the event will not be listed. Then, click **OK** to start searching.

5. When the Event list appear, click and select the item you want to view.

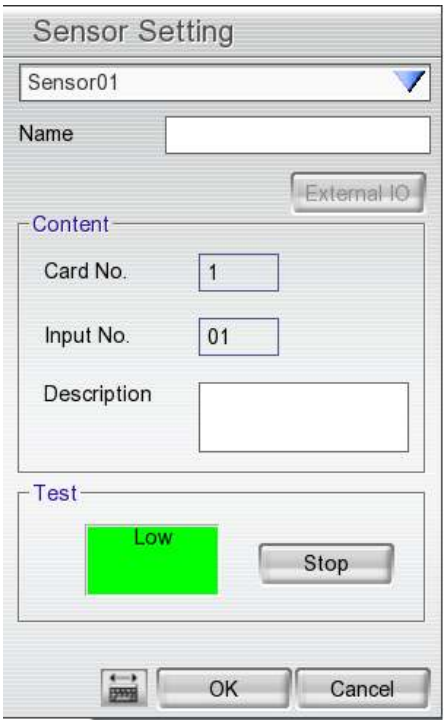
3.6.5 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click **Find Next** ( ). You may also set to search and list all the result. Check the **List** box. In the **Search Duration** section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time to the smallest event time, since if there is more than one event within the search interval, the event will not be listed. Then, click **OK** to start searching.

3.7 Sensor Setting

The I/O device must be installed to use this function.

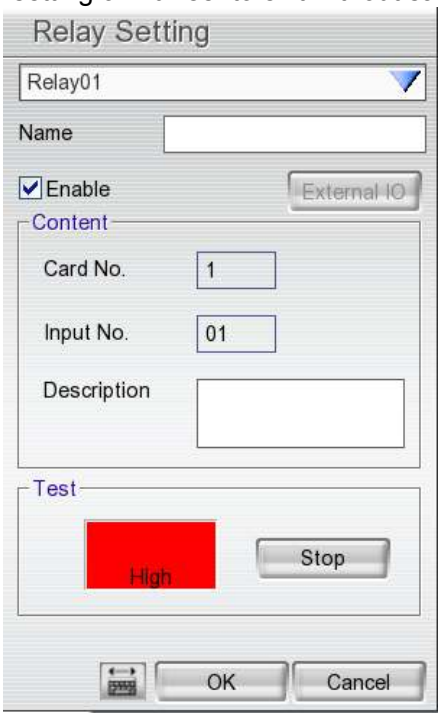
1. The system automatically detects the I/O device that is connected to the NVR system and is displayed on the drop-down list column. Click the drop-down list and select the sensor that the user wants to configure.
2. Enter sensor name in **Name** column.
3. In the **Content** section, enter **Description** of sensor.
4. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
5. Click **OK** to exit and accept the setting or **Cancel** to exit without saving the setting.



3.8 Relay Setting

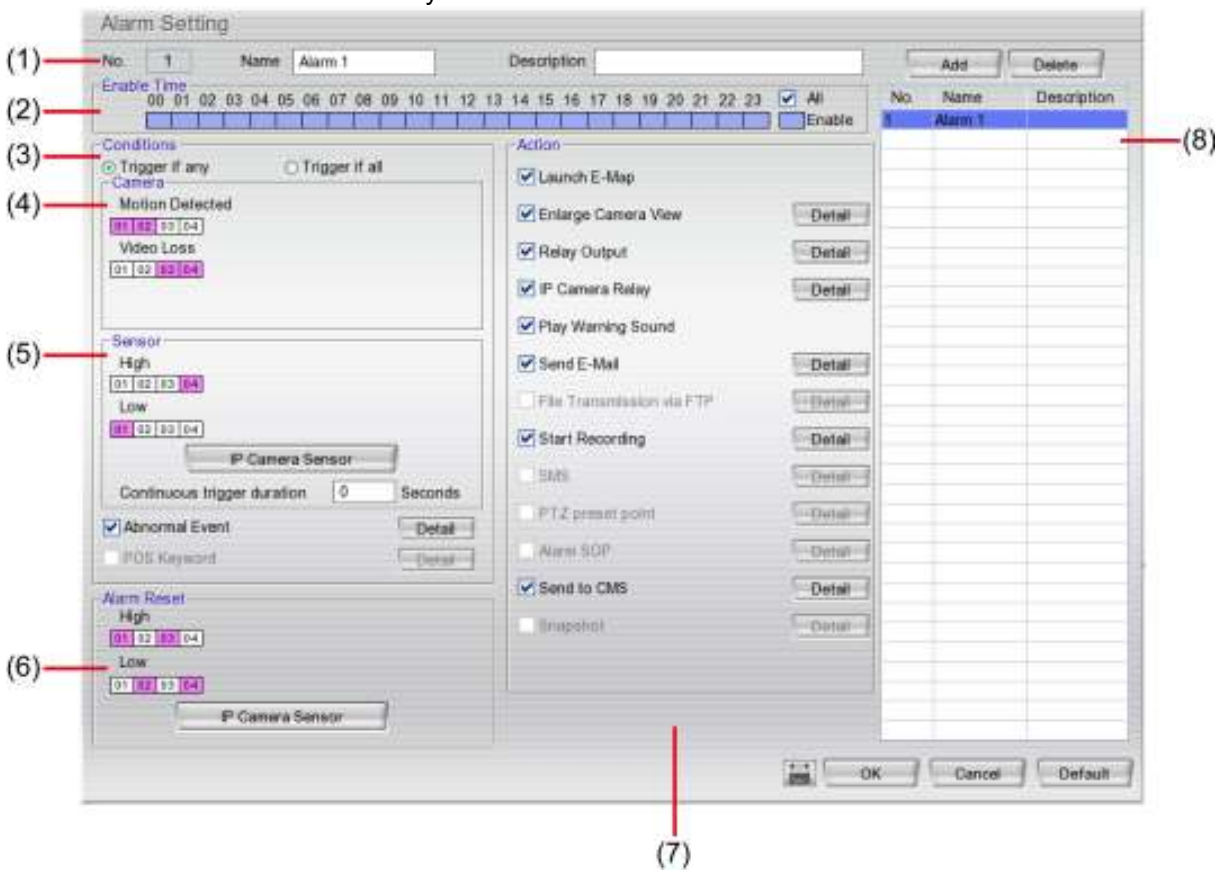
The I/O device must be installed to use this function.

1. The system automatically detects the I/O device that is connected to the NVR system and is displayed on the drop-down list column.
2. Enter relay name in **Name** column.
3. In the **Content** section, enter **Description** of relay.
4. In the test section, click **Test** to trigger relay. **Red** is high and **Green** is low.
5. Click **OK** to exit and accept the setting or **Cancel** to exit without saving the setting.



3.9 Alarm Setting

- In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving. Click on **Default** to revert to the factory default values.



1. Click **Add** to insert and set a new alarm setting. Click the items in the **(8) Alarm Setting List** if you want to modify the alarm setting.
2. In **(1) No./Name/Description** enter alarm name and description. Alarm **No.** will be created by NVR system.
3. In **(2) Enable Time**, the number from 00 to 23 represents the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls under one of the conditions or "**Trigger if all**" to activate if it falls under all conditions.
5. In **(4) Camera** section, select and click on the camera number (01 to 04) in **Motion Detected** and **Video Loss** to set the condition for the system to trigger alarm.
6. In **(5) Sensor**, select and click on the sensor number to set the condition for the system to trigger alarm. If the sensor status is normally high, set the sensor condition to low.
   - **IP Camera Sensor:** To adjust sensor output of the IP camera to high/low.
   - Enable/disable the **Abnormal Event** check box, to set the condition of the event for system to trigger alarm.

- **Reboot:** when the NVR system reboots without an abnormal condition, the system will send out the alarm message.
- **Abnormal Reboot:** when the NVR system reboot under an abnormal condition, the system will send out the alarm message.
- **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
- **Network is switched off:** when the network connection of NVR system is lost, the system will send out the alarm message.
- **Hard Disk failed:** when the hard disk does not work normally, the system will send out the alarm message.

- **Continue trigger duration:** Set up the trigger duration time. If the sensor is triggered and stays triggered for this period of time, the alarm will be sent.

7. In **(6) Alarm Reset**, click the camera number to reset the condition of the alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor's status is normally high, the alarm will reset to low.
8. In **(7) Action**, set the alarm action for the system to perform when the alarm condition is activated.
   - **Launch Emap:** Display mini Emap screen.
   - **Enlarge Camera View**
     Switch to only display video in Preview mode from where the alarm is activated.
     a. Select the camera from drop down list to specify which camera video to be enlarged on the screen when the alarm is triggered.
     b. **Retrieve time:** set the time duration before system switches back to original Preview mode. If the retrieve time is un-checked, the alarm video will stay enlarged until user switches back to Preview mode manually. The retrieve time range is 0~ 600 seconds.

- **Relay Output**

  Enable/disable the relay operation when the alarm is activated and to extend the duration of the relay output time.

  1. Next to the Relay Output check box, click **Detail**.
  2. In the Alarm Relay dialog box, select from the available relay list and in the ON column, set to enable/disable the relay operation when the alarm is activated.
  3. In the Retrieve time check box, you may enable/disable to extend the duration of the relay output and set the duration in second.
  4. Click **OK** to exit and accept the setting or **Cancel** to exit without saving the setting.

- **IP Camera Relay**

  Set to enable/disable the relay operation when the alarm is activated.

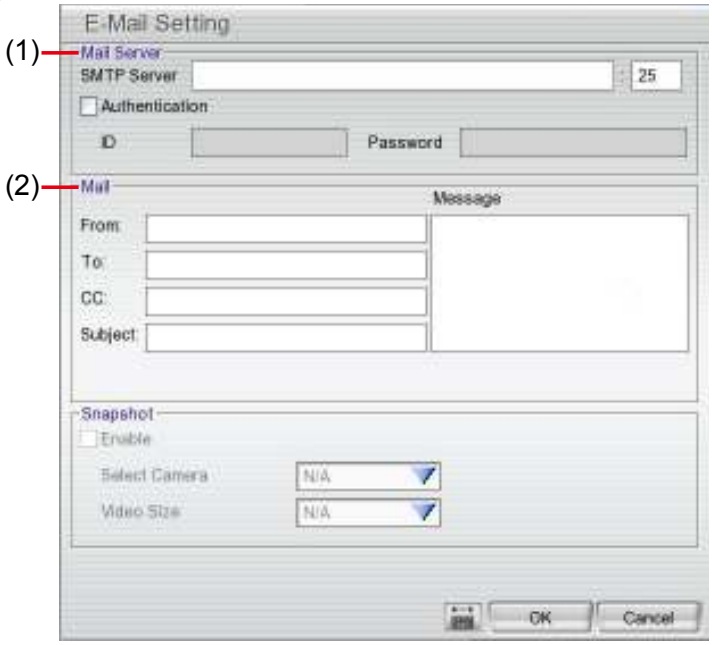
- **Play Warning Sound**

  Play alarm sound.

- **Send E-mail**

  Send an electronic message. Next to the Send Email check box, click **Detail**.

  In the E-mail Setting dialog box, click **OK** to exit and save the setting or **Cancel** to exit without saving the setting.



(1) Mail Server

Enter the **SMTP Server** and **port**. If your e-mail system requires user identification, enable **Authentication** check box and enter **ID** and **Password**.

(2) Mail

Fill the mailing information.

From: Enter the sender e-mail address.

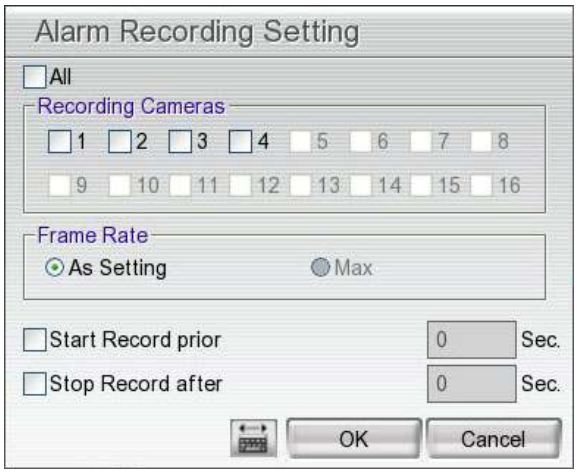
To and CC: Enter the recipient email address and separate it with comma or a semicolon (;).

Subject: Enter the message title.

Message: Type the message.

- **Start Recording**

  Record the video from the selected camera.



  1. Next to the Start Recording check box, click **Detail**.
  2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
  3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting.
  4. In the **Start Record prior** text box, check and set the time in seconds for the program to begin recording before the alarm is triggered. The time range is 1~10 seconds.
  5. In the **Stop Record after** text box, check and set the time in seconds for the program to continue recording after the alarm condition has ended. The time range is 1~999 seconds. If **Stop Record after** is not checked, the alarm recording will continue to record until alarm is reset.
  6. Click **OK** to accept the new settings or **Cancel** to exit without saving.

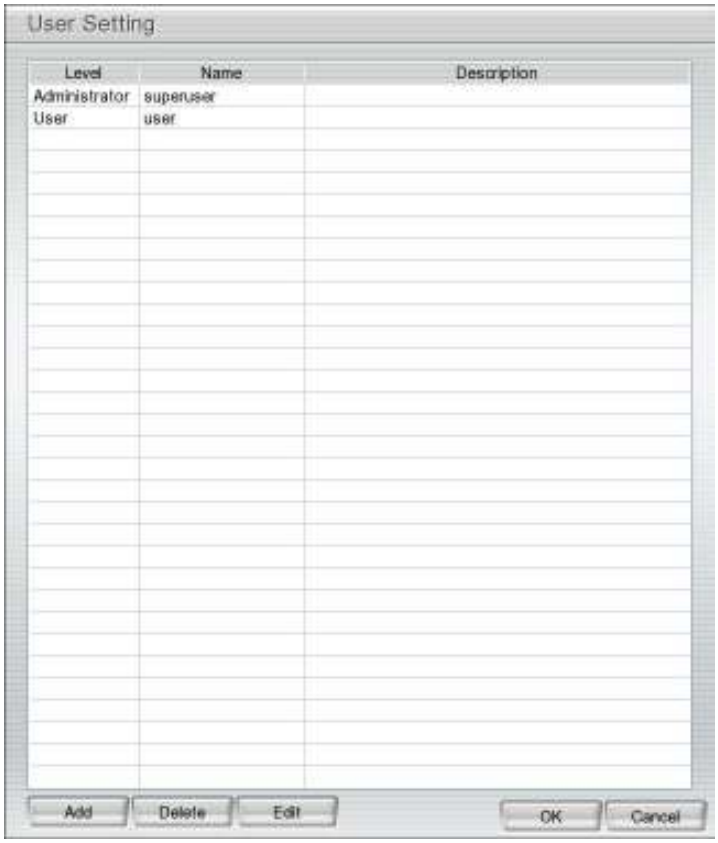
- **Send to CMS (Central Management System)**

  Enable/disable the selected camera to send video to CMS when the alarm is activated.

  Next to the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings or **Cancel** to exit without saving.

3.10 User Setup

Only administrator level authority can access User Setting. The maximum number of user accounts available is 32. In the User Setting dialog box, click **Add** to insert a new user, **Delete** to remove the selected user, **Edit** to modify the user rights, **OK** to exit and accept the setting, or **Cancel** to exit without saving the setting.



To Add a User Account:

1. In the User Setting dialog box, click **Add**.
2. Select and fill in the following information.

(1) Authorization level

Select the status of the user.

(2) Control Right

Enable the items that would allow the user to access.

(3) Web Viewer

Enable/disable Web Viewer control rights that allow the user to operate from a remote location using internet explorer.

- **Remote Console**
  Allow the user to remotely modify NVR system settings.
- **Remote LogViewer**
  Allow the user to view the event log from remote site.
- **IP Camera**
  Enable/disable user to add new IP camera when using the Web Viewer.
- **Remote Access Time**
  Enable **Infinite** check box to access NVR without time limit. If you want to set time limit, enter the number of minutes in **Minute** text box.

(4) Visible Camera

Select the camera number that would allow the user to access or view. To select all the cameras, enable the **ALL** check box.

(5) Time Span

Set the time period that allows the user to access the NVR program only within this specified period. Mark **Enable** check box and select the **Activation Date** and **Expiry Date**.

(6) Name

Enter the user name.

Description

Enter the user description.

Password

Enter the user password.

Confirm Password

Enter the same user password for confirmation.

Chapter 4 Using the USB Playback Console

4.1 Recommended system requirements

- ☐ Pentium®4 2.4GHZ or above
- ☐ Windows®2000/ XP/ Vista/ 7
- ☐ DDR 256 MB
- ☐ Graphic function must support DirectDraw
- ☐ Audio card or built-in
- ☐ Speaker
- ☐ 1 available USB2.0 port

4.2 Installing the USB Playback Console

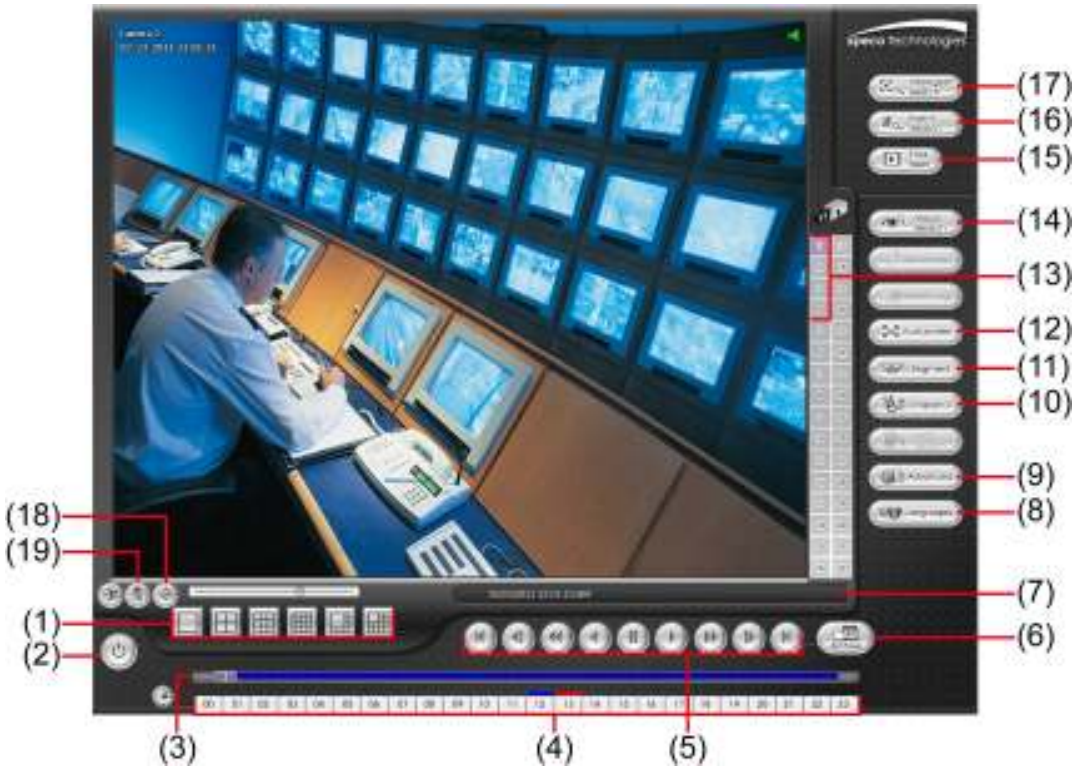
To install the USB Playback Console:

1. Place Installation CD into the CD-ROM drive. When the installation main screen appears, click **Install USB Playback Console** and then follow the on-screen instructions.
2. Select the language you prefer.

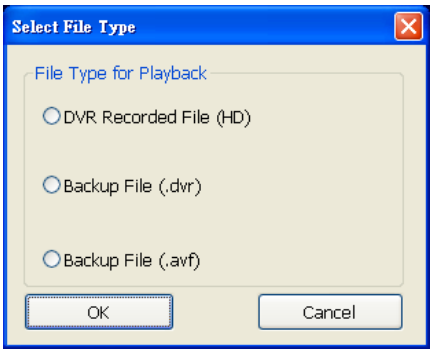
3. Click **OK** to install the application.
4. Click **Exit** to close the installation main screen.
5. Connect the external USB enclosure with the recorded files to the PC. Also, user can install the hard disk that contains recorded files inside the PC.

4.3 Running the USB Playback Console

To run the application, click the  icon on the PC desktop. The USB Playback Console Interface will be different according to the file type **(DVR Recorded File (HD)** or **Backup File (.dvr))**



Name	Function
(1) Split Screen Mode	Select from different screen view to playback the recorded video file of the entire camera or one camera on the screen. If NVR server only supports 4 channels, the channel screen 5~16 will be no video display.
(2) Exit	To close the application.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek to any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame. The Hour button will be available when file source is **Backup File (.dvr)** and backup file is open by **date**.
The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file during that period of time. While the red bar indicates that you are currently viewing the recorded video file.	
(5) Playback Control button	From left to right order: **Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame by frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, 1/16x, or 1/32x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file.

Name	Function
(5) Playback Control button	**Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x, or 32x. **Next:** Go to the next frame by frame. **End:** Go to the end of the recorded video file.
(6) Archive	To select the video file source for playing.  - **DVR Recorded File (HD):** To playback the recorded video from the hard disk which was recorded on the NVR system. (see also Chapter 4.3.2) - **Backup File (.dvr):** The backup file saved in *.dvr file format. (see also Chapter 4.3.3) - **Backup File (.avf):** The backup file saved to external USB storage device in *.avf format. Select the file source folder and click **OK** to playback (NVRP4 **does not support** *.avf file format).
(7) Status bar	Display the recorded date, time and play speed.
(8) Language	To switch language of function tips.
(9) Advanced	Advanced functions include : ■ **HDD Backup:** open HDD Backup application. (see also Chapter 4.3.4) ■ **iEnhance:** open iEnhance application. (see also Chapter 5) ■ **AVF to AVI:** Transferring the AVF file to AVI file format (NVRP4 does not support this function)
(10) Export	Export includes Snapshot, Print, Output Video Clip, and Export KML function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output Video Clip:** Save the segmented file in *.dvr, *.mpeg, or *.avi format (see also Chapter 4.3.1).
(11) Segment	Keep a portion of the recorded video (see also Chapter 4.3.1).
(12) Full screen	Use the entire area of the screen to only display the video. To return, press the right button of the mouse or **ESC** on the keyboard. When you switch to full screen in multiple-screen mode, left click to toggle to only display one channel of video or multiple-channel mode or all.
(13) Camera ID	Show the number of cameras that are being viewed. When in single screen mode, click the camera ID number to switch and view other cameras. The Camera ID will be available when source file is **DVR Recorded File (HD)**.
(14) Visual Search	Search from a specific camera by Date, Hour, Minute, and Second (See also Chapter 3.6.3). The Visual Search function will be available when file source is **Backup File (.dvr)** and file open is by **date**.
(15) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function. When file source is **DVR Recorded File (HD)**, the Find Next is not available.
(16) Event Search	Search from the list of activities that were recorded in event log (i.e., Sensor, Motion, Video Loss). (See also Chapter 3.6.4) When file source is **DVR Recorded File (HD)**, the Event Search is not available.

Name	Function
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.6.5). When file source is **DVR Recorded File (HD)**, the Intelligent Search is not available.
(18) Sound /Sound bar	Turn on and off sound Increase and decrease the volume
(19) De-interlace	To enhance the video quality. Set the de-interlace mode to #1 if capturing motionless picture and #2 if capturing lots of movement.

4.3.1 To Cut and Save the Portion of the Recorded Video

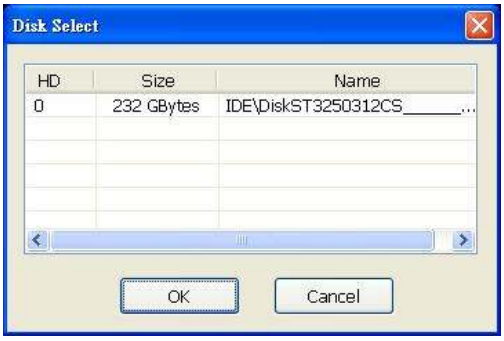
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the segment. Then, click **Segment** to set the begin mark.

2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the segment. Then, click **Segment** to set the end mark. To cancel segmentation, click **Segment** button again.

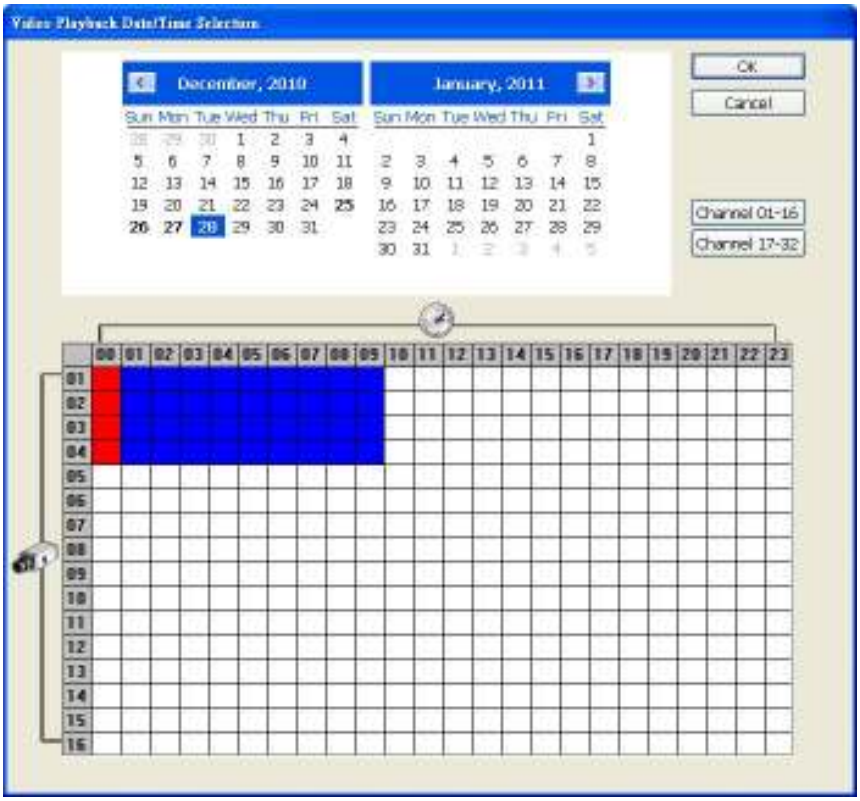
3. Click **Export** > **Output Video Clip** button to save the segmented portion.
4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format (*.dvr, *.mpeg, or *.avi).

4.3.2 Playback DVR Recorded File from Hard Disk

1. Please have the hard disk which contains the recorded video data installed on your PC or use external USB enclosure to connect to your PC.
2. Run the USB Playback Console program or click **Archive** from UPC program User Interface.
3. Select **DVR Recorded File (HD)** and click **OK**.
4. Select the hard disk drive from **Disk Select** window and click **OK**.

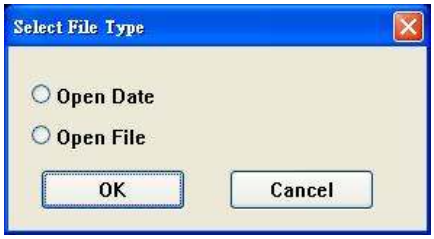


5. The Video Playback Date/Time Selection window will appear. Select the date and time and click **OK**.

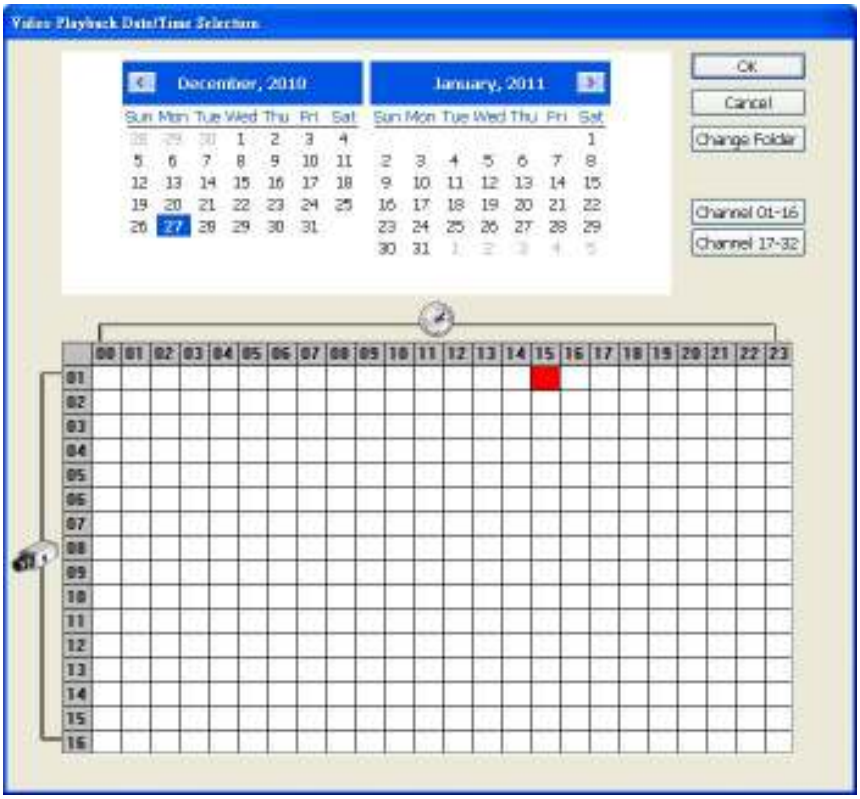


4.3.3 Playback Backup File(*.dvr)

1. Click Open File button.
2. Select **Backup File (*.dvr)** and click **OK**.
3. Select to open by date or by file.



4. **Open Date:** Locate the backup file and select the date folder.
5. Playback Date/Time Selection window will appear. Select the date and time and click **OK**.

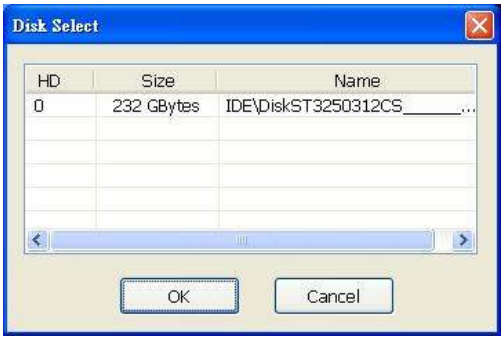


6. **Open File:** Locate the backup file folder and click **OK**.

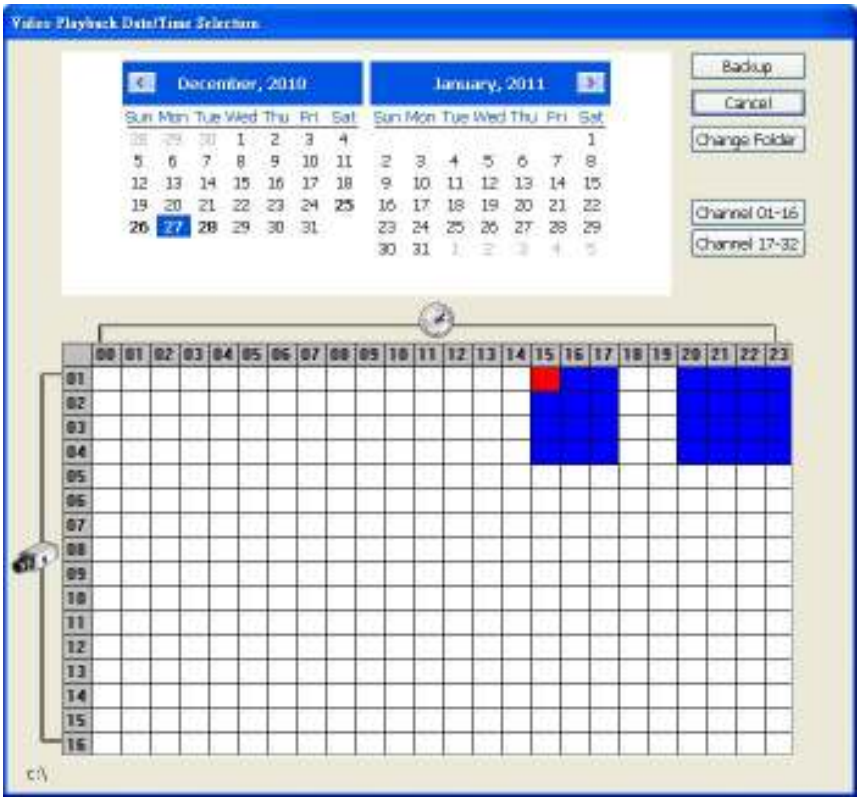
4.3.4 To Backup Recorded File

HDD backup function allows user to backup recorded file from hard disk.

1. Click **Advance** >> **HDD Backup** on UPC User Interface.
2. Select the source hard disk.



3. In Backup date/time selection window, select the date and time. 00-24 represents hours and 01-04 represents channels. Blue block means there is recorded file. Red block means the block has been selected. Click-and-drag can select multiple blocks at once. If user wants to change the backup file location, click **Change Folder** to select new save location.



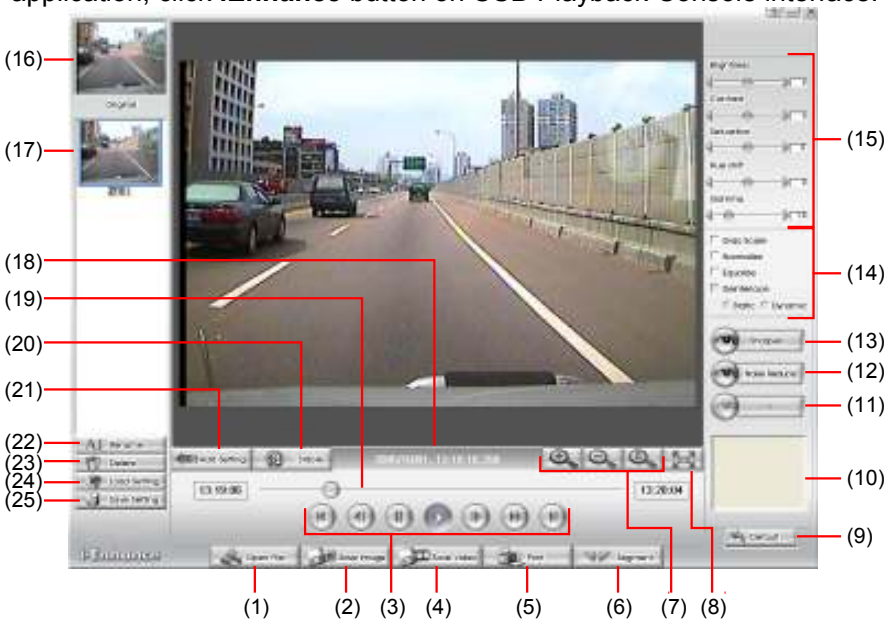
4. Click **Backup** to start backup file.

5. When backup completes, the complete information window will display.

Chapter 5 iEnhance

The bundled iEnhance is a video editing tool and can only be used with *.dvr video file. It allows you to adjust the video picture quality, segment and save the selected portion of the video, zoom in and out, and print or save the screen shot. You can also save the setting and apply it on other files.

To run iEnhance application, click **iEnhance** button on USB Playback Console interface.



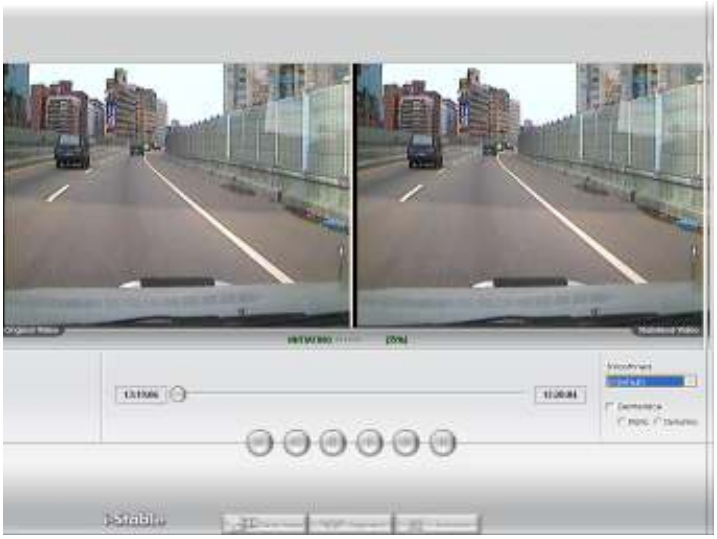
Name	Function
(1) Open File	Access *.dvr video file.
(2) Save Image	Capture and save the screen shot in *.bmp format.
(3) Playback Control Buttons	From left to right order: **Begin:** Move at the beginning of the video file. **Previous:** Go back to previous frame. **Pause:** Briefly stop playing the video file. **Play:** Play the video file. **Faster:** Play the video file at the faster speed. **Next:** Go to the next frame. **End:** Go to the end of the video file.
(4) Save Video	Save the edited or segmented video in *.avi format.
(5) Print	Print the screen shot.
(6) Segment	Mark the beginning and the end of the selected portion of the video. Two triangle marks will appear on the slider. To cancel video segmentation, click this button again.
(7) Zoom Buttons	Enlarge, reduce, and set the image back to normal size.
(8) Full Screen	Use the entire screen to only display the video.
(9) Default	Set the video back to original state and delete all the changes in the history box.
(10) History Box	List all the actions.
(11) Undo	Delete the last action.

Name	Function
(12) Noise Reduce	Reduces the noise in the image.
(13) Sharpness	Improves the overall image by enhancing edges thus providing more depth to the image.
(14) Effects	**Gray Scale:** converts the image into black and white (monochrome). **Normalize:** adjusts the brightness intensity. **Equalize:** automatically adjusts the images that are too dark. **De-interlace:** smooth out the overlying frames. ■ **Static:** de-interlace for motionless scene. ■ **Dynamic:** de-interlace for moving scene.
(15) Picture Adjustment	Adjust the Brightness, Contrast, Saturation, Hue and Gamma.
(16) Original Screen	Display the original state of the image.
(17) Temporary Setting Block	Display the sample settings. Click the sample to apply the setting on the current video.
(18) Status Bar	Display the date, and time of the video.
(19) Progress Bar	Show the progress of the file being played. You may move the bar to seek to any location on the track.
(20) iStable	To reduce the jolt in the recorded video.(also see Chapter 5.1)
(21) Add Setting	Include the new setting to the temporary setting block.
(22) Rename	Change the name of the selected setting in the temporary setting block.
(23) Delete	Permanently remove the selected setting in the temporary setting block.
(24) Load Setting	Call the saved settings.
(25) Save Setting	Store the settings in the temporary setting block.

5.1 To Use iStable

The iStable function can reduce the jolt in the recorded video.

1. Click **Open File** button and select the recorded video.
2. And then, click **iStable** button.
3. iStable window will show up.
4. Select the **smoothness** level – 1(Low), 2, 3, 4, and 5(High). The default value is 3.
5. Click Play button, and then iStable function will start to initialize the recorded video.
6. When the initialization is done, user will see the original and stabilized recorded video play in two windows.



Chapter 6 Using the Remote Programs

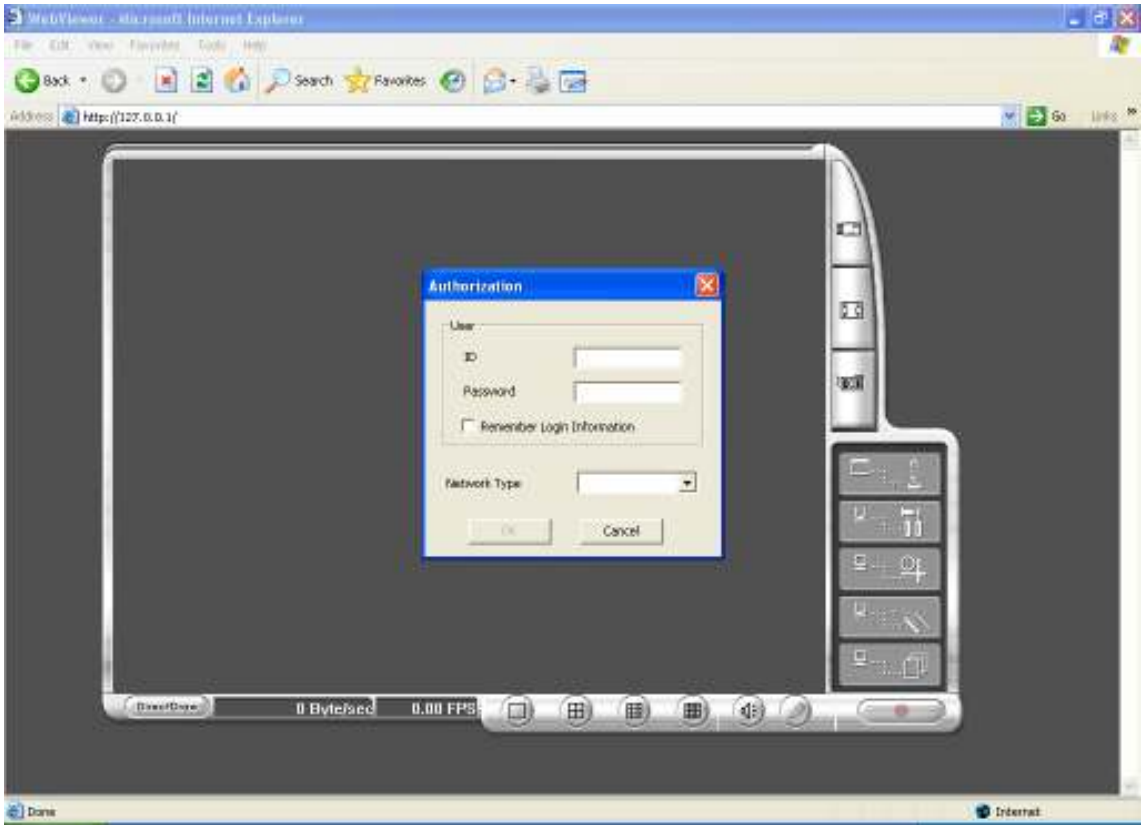
User can use Microsoft Internet Explorer to access NVR system by entering the IP address. To use this feature, make sure that the PC and NVR server are both connected to the internet and the Network feature is enabled.

When accessing this feature for the first time, you will be prompted by the browser to install WebCamX.cab.

Click Install when the Internet Explorer - Security Warning dialog box appears.

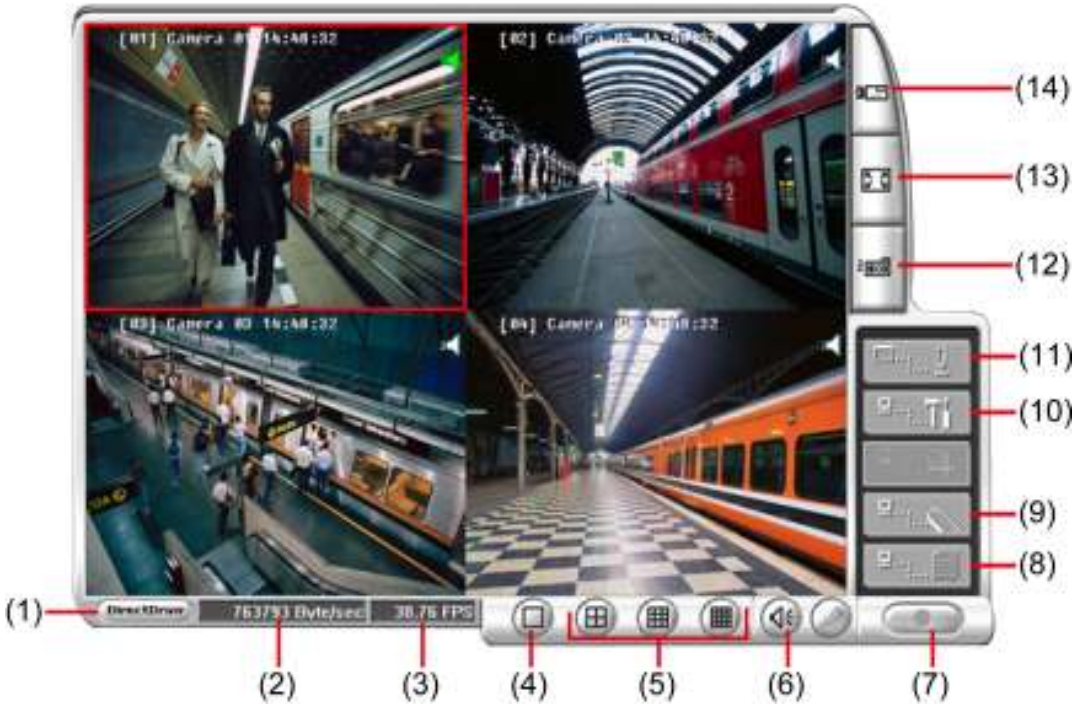
After installing the WebCamX.cab, connect to the NVR system. You will be prompted to enter account ID (default is **admin**), password (default is **admin**) and the type of network. **Admin** has the authority to remote setup the NVR system configuration on WebViewer.

Changing account password is strongly recommended.

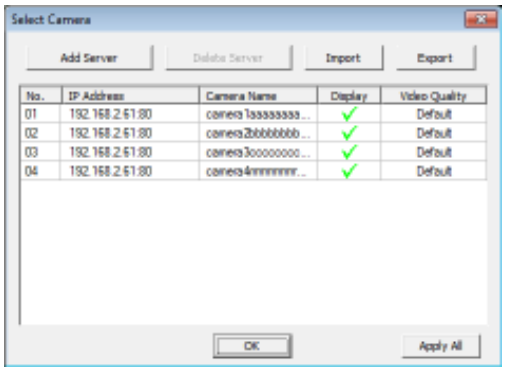


6.1 Familiarizing Yourself with the Buttons in WebViewer

Right-clicking on the WebViewer video screen, enables you to start video recording, change video quality, switch camera and enable/disable DirectDraw.



Name	Function
(1) DirectDraw	Enhance the video quality.
	Not all graphic cards can support this function. If you cannot see the screen displayed correctly or screen is distorted, please check with VGA card vendor.
(2) Received file size	Indicate the size of the data being sent per second.
(3) Camera frames	Indicate the number of frames per second.
(4) One screen view	To view single camera view on screen. User can right click on the screen to switch to different camera view.
(5) Split screen view	To view all cameras on screen simultaneously.
(6) Audio	Enable/disable audio remotely.
(7) Record	Record the video of the selected camera in AVI format. Click on the screen of the channel to record and press **Record** button.
(8) Remote Console	Initiate Remote Console. Allows user to control NVR server (see also Chapter 6.3).
(9) Event Log Viewer	Display the Event logs, Operation logs, System logs, and Network logs.
(10) Remote setup	Change the NVR server settings (see also Chapter 6.1.1)
(11) PTZ Control	Initiate PTZ camera controller (see also Chapter 6.2)
(12) Snapshot	Capture and save the screen shot in *.bmp format.
(13) Full screen	Use the entire area of the screen to only display the video. To return, Right click the mouse or press ESC on the keyboard.

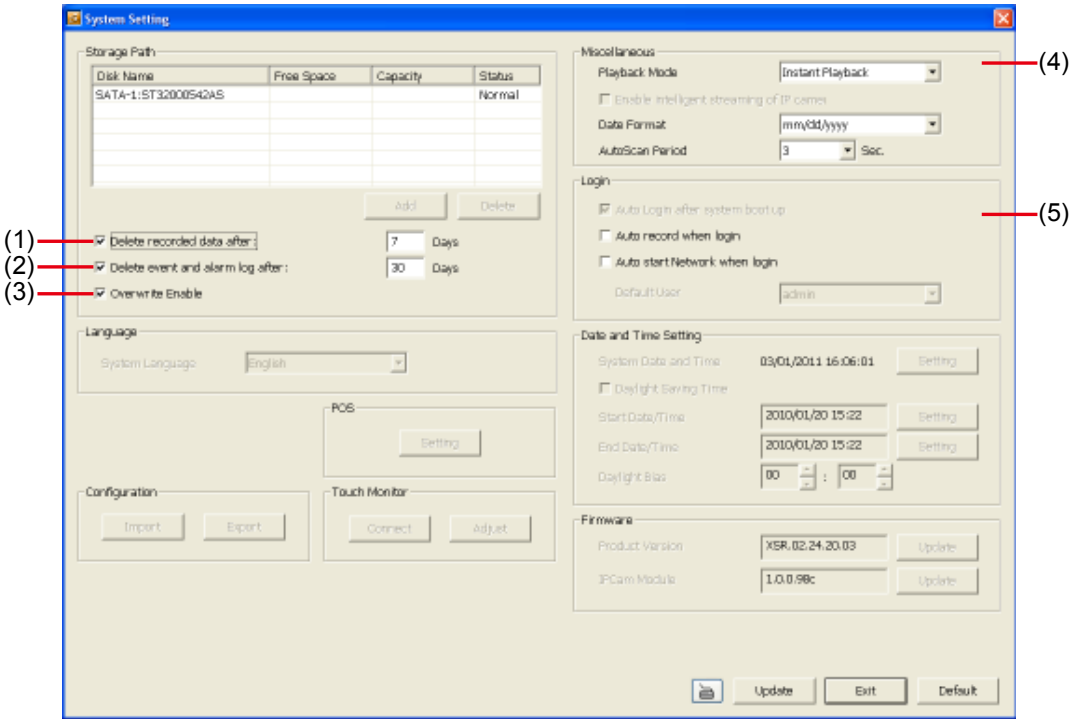
Name	Function
(14) Select cameras to view	Select to the view camera from different server. In Select Camera dialog box, Display column, click to enable/disable viewing the camera. Click **Add Server** and select the server type between NVR and IP Cam to add. Click **Delete Server** to delete the selected item. Click **Import** to load the previously saved list. Click **Export** to save the list. Click **Apply All** to change all the camera video quality based on the selected setting. Click **OK** to exit. 

6.1.1 To Setup Remote System Setting

The setting here applies to Remote NVR only. Click the selection to configure.

6.1.1.1 System Setting

- In the System Setting window, click **Update** to accept the new settings, click **Exit** to exit without saving, and click on **Default** to revert to the factory default values.



(1) Delete recorded data after

If you want the system to automatically erase the data after certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

(2) Delete event and alarm log after

If you want the system to automatically erase the event and alarm log files after certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box.

(3) Overwrite Enable

When the recording space is not enough to record one hour of data, the system will automatically replace the oldest data with the newest recorded data.

(4) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.

- **Playback Mode**

  Select the mode of playback for the video.

  - ✓ **Select date and time:** Playback the recorded video beginning from the selected date and time.
  - ✓ **Play the last file:** Automatically playback the video from the last hour
  - ✓ **Instant Playback:** Automatically playback the video which has just been recorded

- **Date Format**

Select the date format which will display in **Select date and time** playback mode

- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.

(5) Login

Enable the conditions in Login section you want the system to automatically carry out.

- **Auto Record after system boot up**
  Automatically start video recording when the NVR is powered on.
- **Auto start Network after system boot up**
  Automatically connect to network when the NVR is powered on.

6.1.1.2 Camera Setting

Select the camera from remote NVR servers to modify settings. In the Camera Setting window, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

IP Camera Setting

(1) Camera Icons

Select the camera number to adjust the video setting. To select all cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system will not detect it as video loss error.

(3) Input

Select the type of camera as IP camera. To modify camera of remote NVR, see Remote NVR Camera Setting.

(4) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- **Enable Audio**
  Enable/disable audio of the camera.
- **Name**
  Change the camera name
- **Description**
  Add a short comment

(5) IP Camera Information

Click **IP Setting** to setup the parameters of the IP camera.

1. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera.
2. Enter IP address and connecting port in **IP Camera Site** column.
3. Also, user can enter URL of IP camera instead of IP address.
4. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.
5. Click **OK** to connect with the IP camera.

Remote NVR Camera Setting

Select the camera to modify settings. In the Camera Setting window, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system will not detect it as video loss error.

(3) Input

Select the camera type as **Remote NVR**. For IP camera setting, see IP Camera Setting.

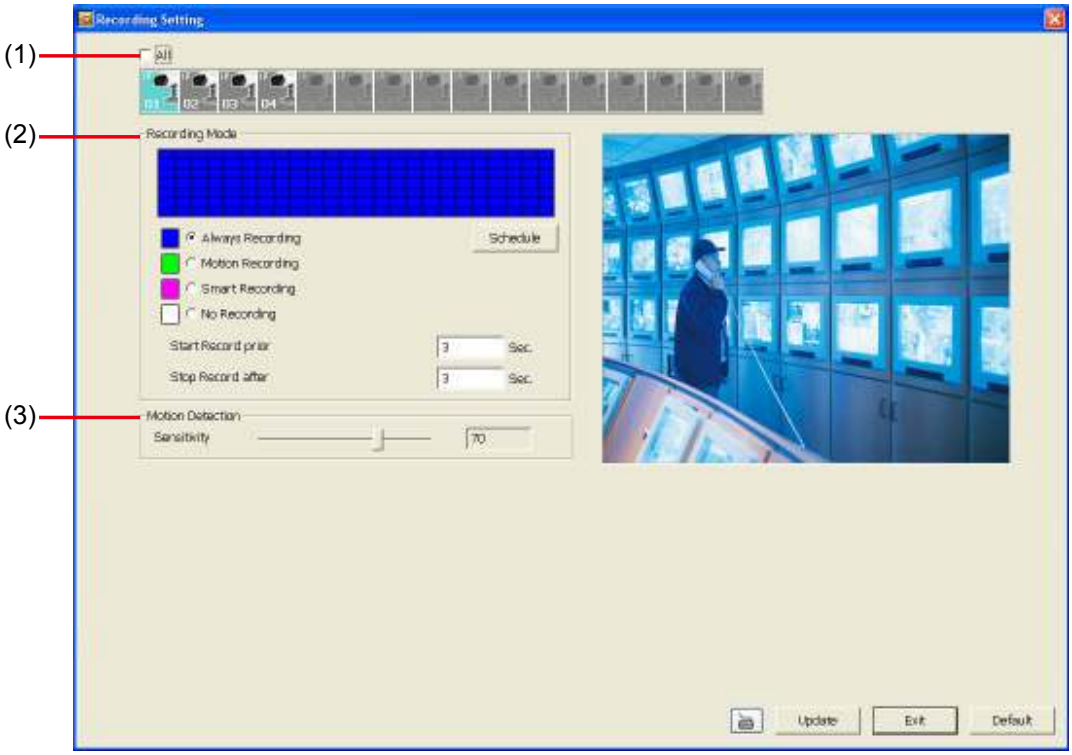
(4) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio of the camera.
- **Name**
  Change the camera name
- **Description**
  Add a short comment
- **IP**
  Enter the IP address of the camera
- **Port**
  The port for connection
- **User ID**
  Enter the user id that for connecting authority
- **Password**
  Enter the password that is for connecting authority
- **Channel**

Select the channel of connected camera

6.1.1.3 Record Setting

- In the Recording setup window, click **OK** to accept the new settings, click **Exit** to exit without saving, and click on **Default** to revert to the factory default values.

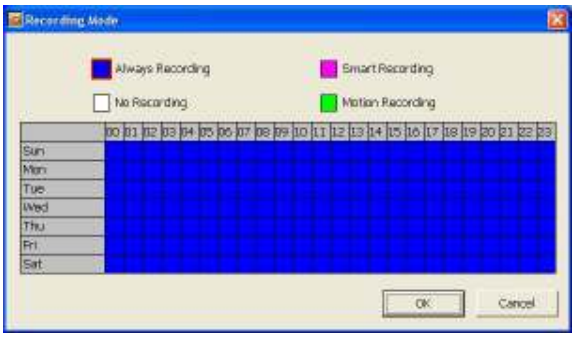


(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.



The recording modes are listed below:

- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once motion is detected, the system automatically saves the previous frames and stop based on the

Start Record Prior and **Stop Record After** settings.

- **Smart Recording**
  Automatically switch to record at the maximum frame rate setting when motion is detected and switch to minimum frame rate setting when there is no motion.
- **No Recording**
  The system will not do any recording.

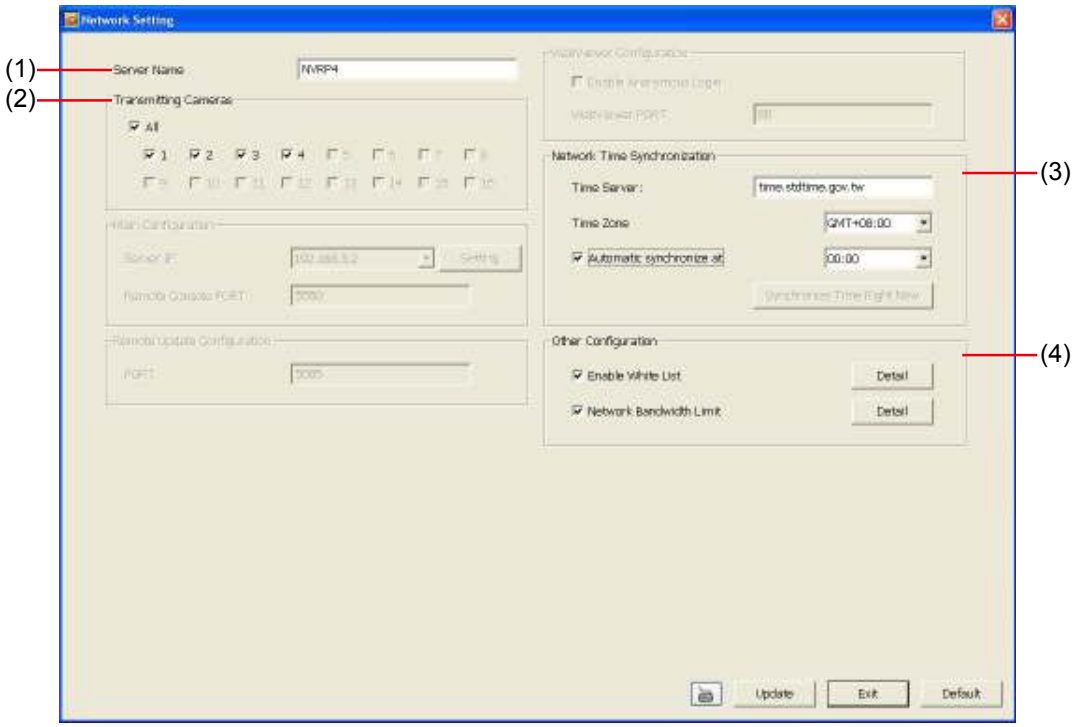
(3) Motion Detection

Adjust the sensitivity of the motion detection. The higher the value, the finer motion is detected. When it detects motion, a green triangle mark would appear at the upper left corner of the screen.

6.1.1.4 Network Setting

■ In the Network Setting dialog box, click **Update** to accept the new settings, click **Exit** to exit without saving, and click on **Default** to revert to the factory default values. For the network service ports that are used by the NVR server, please see Appendix A.

If user has changed the configuration causing the remote NVR's IP address to be changed, the remote NVR system will disconnect the remote access connection automatically.



(1) Server Name

Assign a name for the NVR unit. Alphabetical and numerical letters only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using WebViewer, Remote Console, PDA Viewer and JavaViewer (still image). To select all the cameras, enable the **ALL** check box.

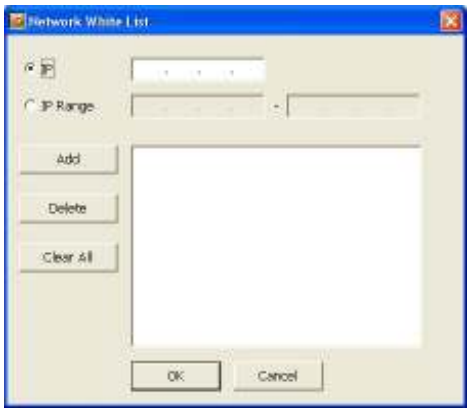
(3) Network Time Synchronization

Synchronizes the NVR system time to the network time server. Fill in the **Time Server** IP address or domain name. Select the **Time Zone** that NVR is located. And then, check the **Automatic Synchronize** time to set automatic synchronize time on a daily basis.

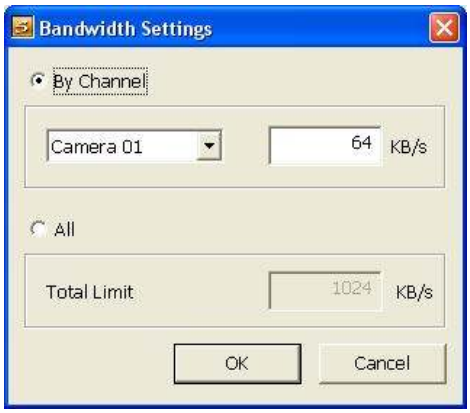
(4) Other Configuration

- **Enable White List**
  An access permit list for the remote accessing of NVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.

When user changed IP range in white list setting and it causes the IP address of PC that connected with remote NVR server has been excluded in white list, the remote NVR server will disconnect the connection automatically. Please change the IP address of PC to the IP range in white list and re-connect with remote NVR server.

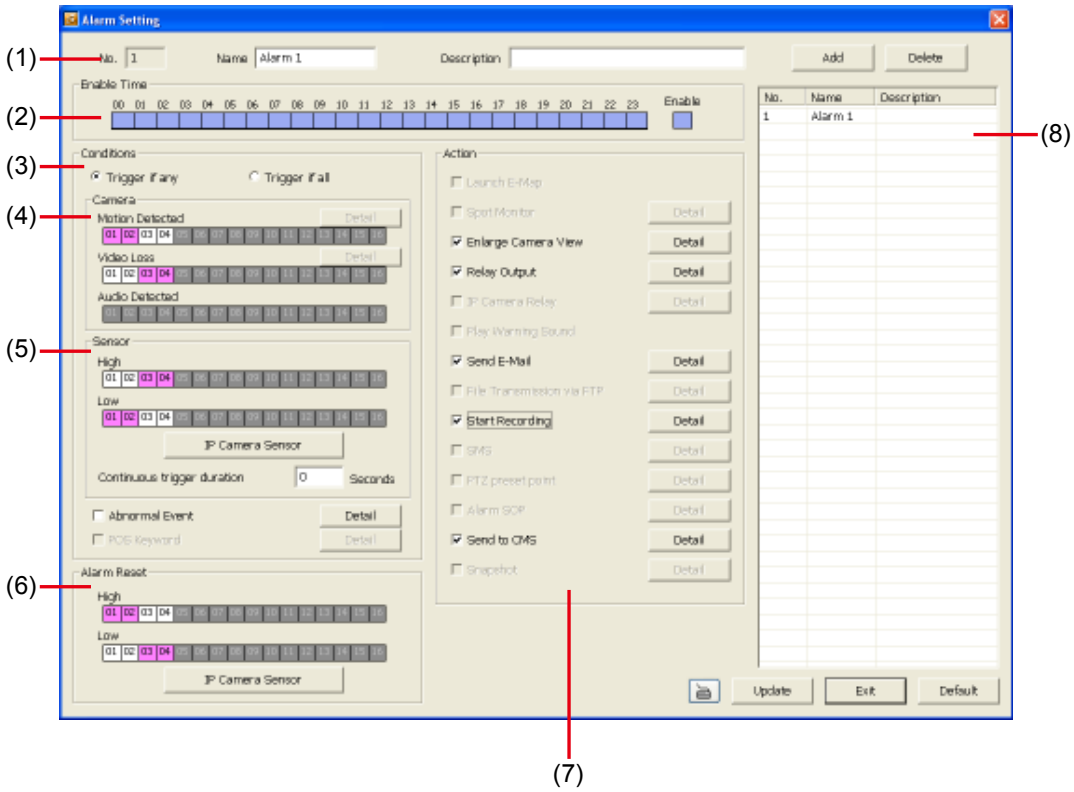


- **Network Bandwidth Limit**
  By Channel: Set the network bandwidth limit by each channel.
  All: Set the total network bandwidth consumption limit.



6.1.1.5 Alarm Setting

- In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **Update** to save the setting, **Exit** to exit without saving, and click on **Default** to revert to the factory default values.



1. Click **Add** to add a new alarm setting. Click the items in **(8) Alarm Setting List** if you want to modify the alarm setting.
2. In **(1) No./Name/Description** enter alarm name and description. Alarm **No.** will be created by NVR system.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated, the color of the block turns white.
4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls under one of the conditions or "**Trigger if all**" to activate if it falls under all conditions.
5. In **(4) Camera** section, select and click on the camera number (01 to 04) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
6. In **(5) Sensor**, select and click on the sensor number to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.
   - Enable/disable the **Abnormal Event** check box, to set the condition of the event for system to alarm.
     - **Reboot:** when the NVR system reboots under normal condition, the system will send out the alarm message.
     - **Abnormal Reboot:** when the NVR system reboots under abnormal condition, the system will send out the alarm message.
     - **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
     - **Network is switched off:** when the network connection of NVR system is lost, the system will send out the alarm message.
     - **Hard Disk failed:** when the hard disk does not work normally, the system will send out the

alarm message.

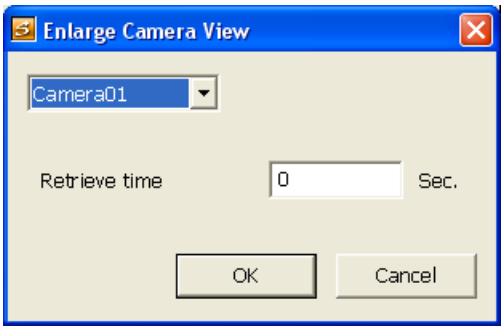
- **Continue trigger duration:** Set up the trigger duration time. If the sensor is triggered and stays triggered for this period of time, the alarm will be sent.

7. In **(6) Alarm Reset**, click the camera number to reset the condition of the alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor's status is normally high, the alarm will reset to low.
8. In **(7) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.

- **Enlarge Camera View**

  Switch to only display video in Preview mode from where the alarm is activated.

  a. Select the camera from drop down list to specify which camera video to be enlarged on the screen when the alarm is triggered.
  b. **Retrieve time:** set the time duration before system switches back to original Preview mode. If the retrieve time is un-checked, the alarm video will stay enlarged until user switches back to Preview mode manually. The retrieve time range is 0~ 600 seconds.

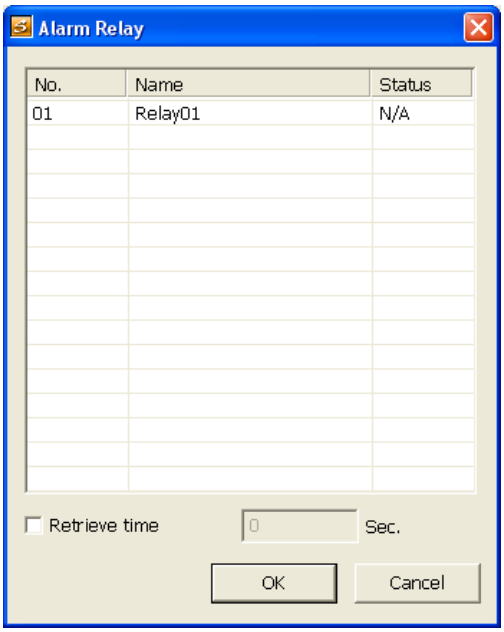


- **Relay Output**

  Set to enable/disable the relay operation when the alarm is activated and to extend additional time in second before it stops the relay operation.

  Enable/disable the relay operation when the alarm is activated and to extend the duration of the relay output time.

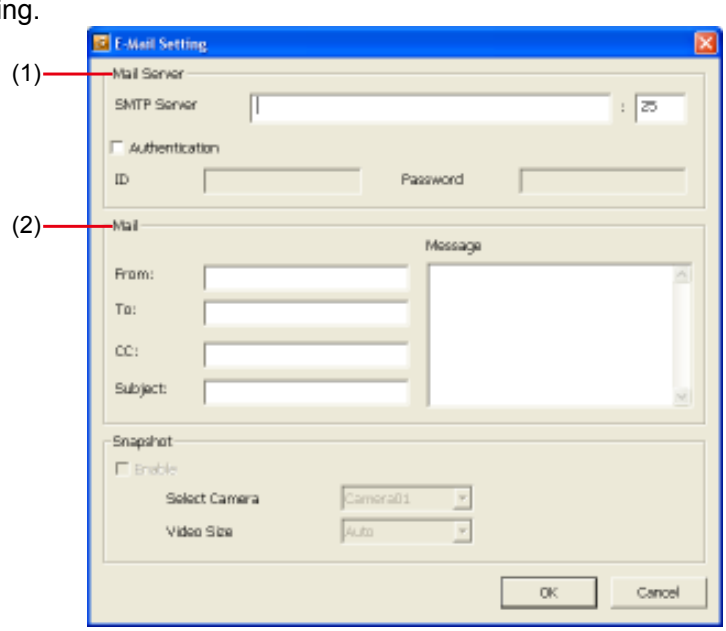
  1. Next to the Relay Output check box, click **Detail**.
  2. In the Alarm Relay dialog box, select from the available relay list and in the ON column, set to enable/disable the relay operation when the alarm is activated.
  3. In the Retrieve time check box, you may enable/disable to extend the duration of the relay output and set the duration in second.
  4. Click **OK** to exit and accept the setting or **Cancel** to exit without saving the setting.


Alarm Relay
No.
Name
Status
01
Relay01
N/A
Retrieve time
0
Sec.
OK
Cancel

- **Send E-mail**

  Send an electronic message. Next to the Send Email check box, click **Detail**.

  In the E-mail Setting dialog box, click **OK** to exit and save the setting or **Cancel** to exit without saving the setting.



(1) Mail Server

Enter the **SMTP Server** and **port**. If your e-mail system requires user identification, enable **Authentication** check box and enter **ID** and **Password**.

(2) Mail

Fill the mailing information.

From: Enter the sender e-mail address.

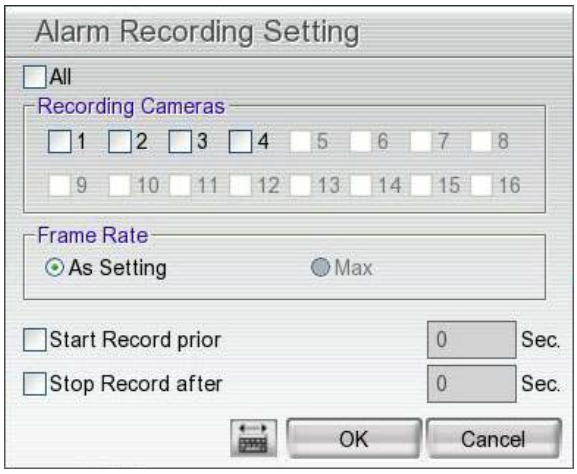
To and CC: Enter the recipient email address and separate it with comma or a semicolon (;).

Subject: Enter the message title.

Message: Type the message.

- **Start Recording**

Record the video from the selected camera.



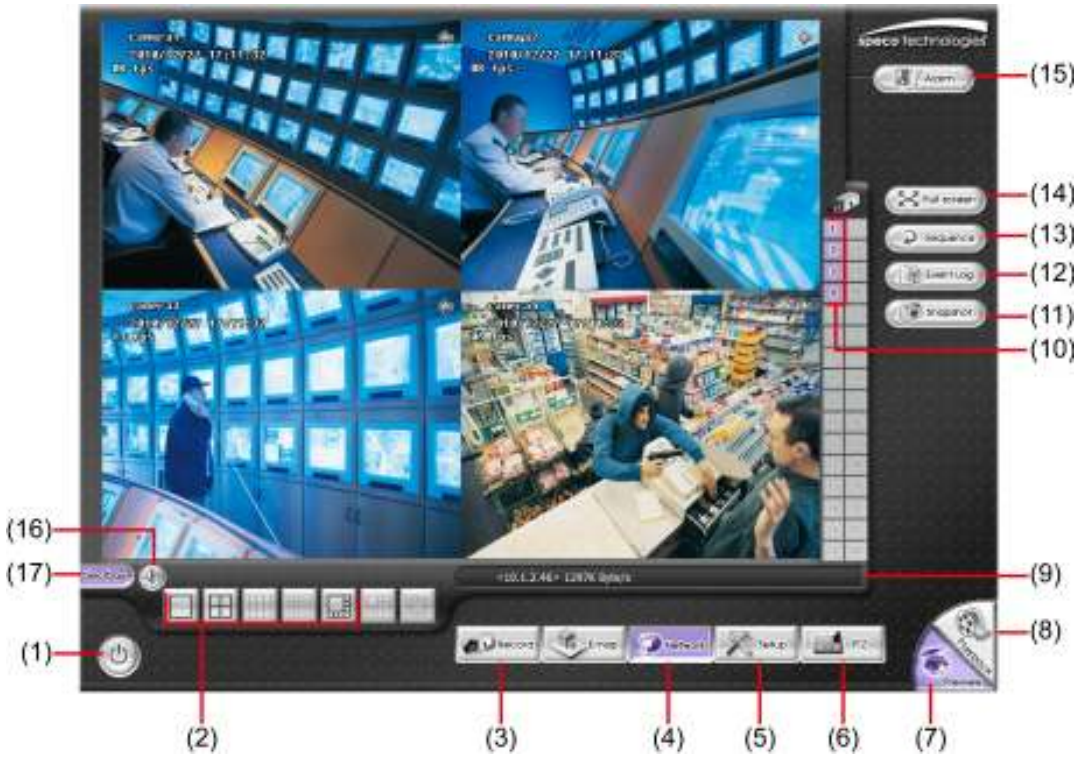
1. Next to the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting.
4. In the **Start Record prior** text box, check and set the time in seconds for the program to begin recording before the alarm is triggered. The time range is 1~10 seconds.
5. In the **Stop Record after** text box, check and set the time in seconds for the program to continue recording after the alarm condition has ended. The time range is 1~999 seconds. If **Stop Record after** is not checked, the alarm recording will continue to record until alarm is reset.
6. Click **OK** to accept the new settings or **Cancel** to exit without saving.

- **Send to CMS (Central Management System)**
  - Enable/disable the selected camera to send video to CMS when the alarm is activated.
  - Next to the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings or **Cancel** to exit without saving.

6.2 Familiarizing Yourself with the Buttons in WebViewer PTZ

Name	Function
(1) Direction buttons	Adjust and position the focal point of the PTZ camera. Click the center to pan automatically.
(2) Zoom +/-	Zoom in and out of the image.
(3) Select PTZ	Choose to enable/disable the PTZ camera. In the Select PTZ dialog box, Select column, click to enable/disable viewing and controlling the PTZ camera. Click **OK** to exit and save the setting or **Cancel** to exit without saving the setting.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) AutoPan Groups	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(6) Camera preset position number	Move the PTZ camera to the preset point. The reset point is based on the user setup by remote control at local site.

6.3 Familiarizing Yourself with the Buttons in Remote Console



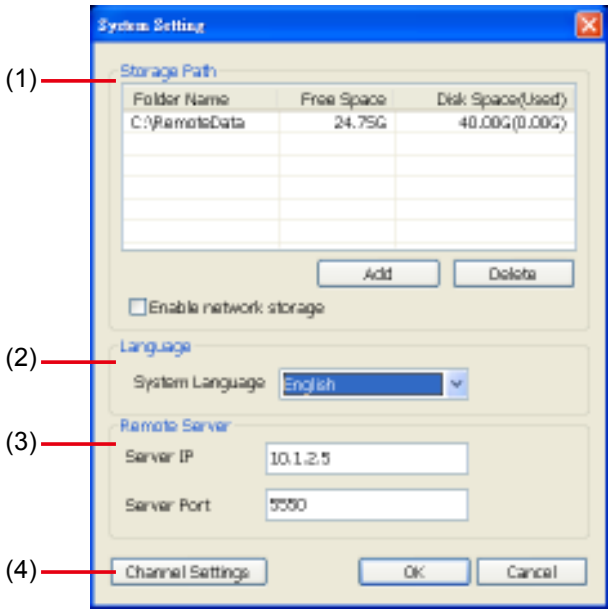
Name	Function
(1) Exit	Close the Remote Console.
(2) Split Screen Mode	Select from 1, 4, or 7+1 split screen type to playback the recorded video file.
(3) Record	Start/stop video recording.
(4) Network	Enable/disable remote system access. This feature allows you to access NVR server from a remote location via internet connection.
(5) Setup	Configure the Remote Console setting. (see also Chapter 6.3.1)
(6) PTZ	Access PTZ control panel (see also Chapter 6.3.2).
(7) Preview	Switch to Preview/Playback mode. This allows you to view live camera display.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see also Chapter 6.4)
(9) Status Bar	Display the current date, time and hard disk free space.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Event Log	Display the Event logs, Operation logs, System logs, and Network logs.
(12) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.
(13) Auto Scan	Start/stop video screen cycle switch.
(14) Full screen	Use the entire area of the screen to only display the video. To return, Right click the mouse or press **ESC** on the keyboard.
(15) Alarm	Alert and display warning info. Administrator and user both can reset the alarm.
(16) Audio button	Enable/disable the sound.
(17) DirectDraw	Enhance the video quality.

Name	Function

Direct Draw function supports certain VGA card. For more information, please contact your VGA card vendor.

6.3.1 To Setup Remote Console Setting

Click **Setup** button to open **System Setting** window. Click **OK** to exit and save the setting or **Cancel** to exit without saving the setting.



(1) Storage Path

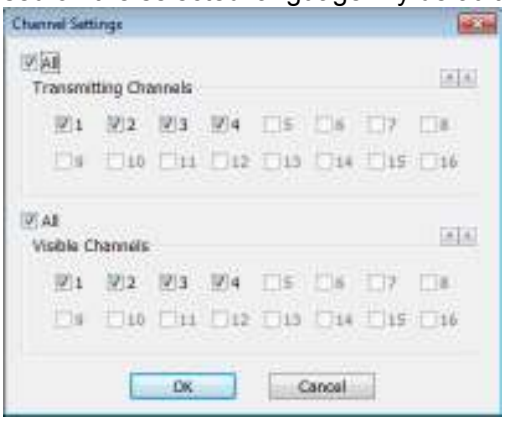
Set the directory where the recorded data will be saved. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path. By default the data is stored in C:\RemoteData, to insert another storage path, click **Add**. To remove the selected path, click **Delete**.

- **Enable** network storage
  Select the Enable network storage check box to send the recorded video in network-attached storage.

To add network storage, the Internet storage drive/folder must be mapped as Network Driver in NVR server. To know how to assign or connect to a network drive, please refer to your Windows help file and search “Map Network drive”.

(2) Language

Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.



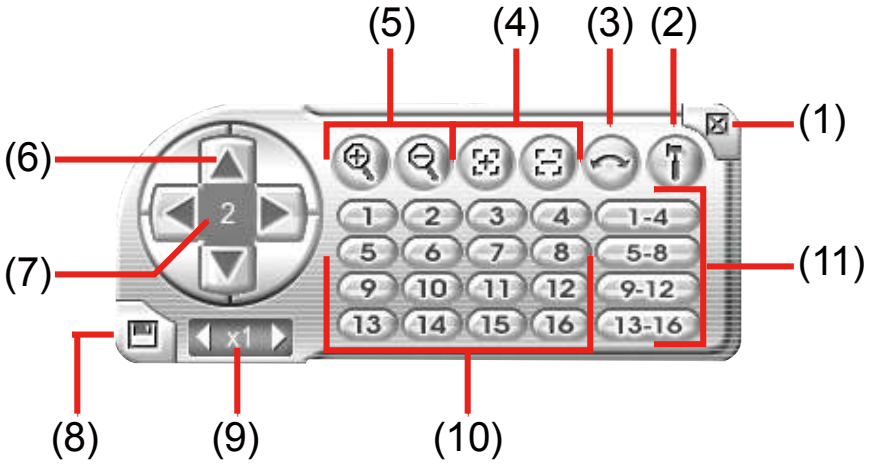
(3) Remote Server

Enter the NVR Server IP and Server Port number.

(4) Channel Settings

The numbers from 1 to 4 represent the camera ID. In Transmitting Channels section, enable the camera number to receive the camera signal from the server. In Visible Channels section, enable the camera number to view the camera signal on Remote Console screen. To select all the cameras, enable the **ALL** check box.

6.3.2 Familiarizing Yourself with the Buttons in PTZ Camera Controller

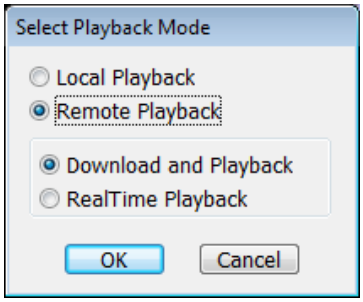


Name	Function
(1) Close	Exit PTZ camera controller.
(2) Setup	Configure PTZ cameras.
(3) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Zoom +/-	Zoom in and out the image.
(6) Direction buttons	Adjust and position the focal point of the PTZ camera.
(7) Camera ID pane	Display the PTZ camera number that is being operated.
(8) Save Camera preset position	Save the PTZ camera preset position number. Select the camera and click the preset position number and save it.
(9) Camera lens speed controller	Adjust the moving speed of the PTZ camera lens.
(10) Camera preset position number	Move the PTZ camera to the preset point.
(11) Group AutoPan	Select to automatically operate PTZ camera in group.

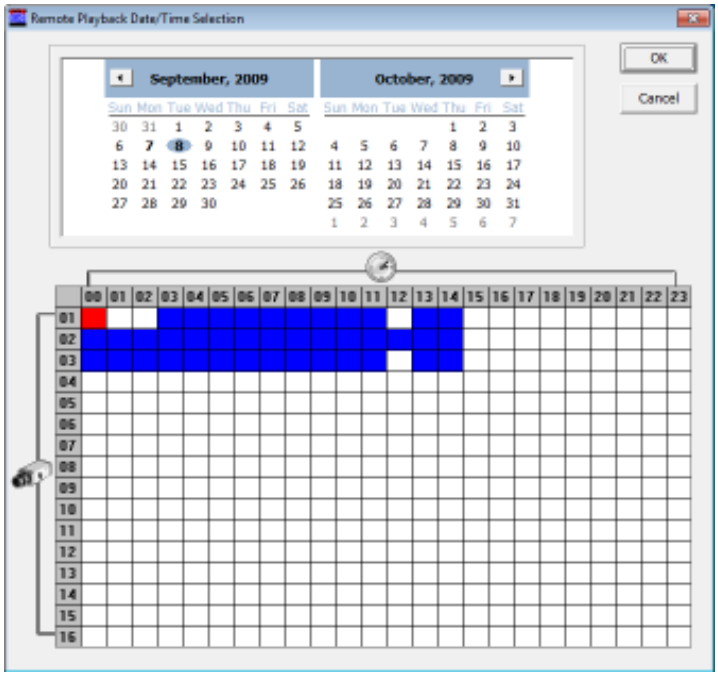
6.4 Using the Remote Playback

To use this feature, first you need to select the source of the file. In the Select Playback Mode dialog box, choose **Local Playback** to open the file that is recorded in the Remote Console, and **Remote Playback** to open the file that is recorded in the NVR server. When you choose Remote Playback, select **RealTime Playback** if your internet bandwidth is large enough, otherwise choose **Download and Playback**.

Click **OK** to proceed or **Cancel** to void this operation.



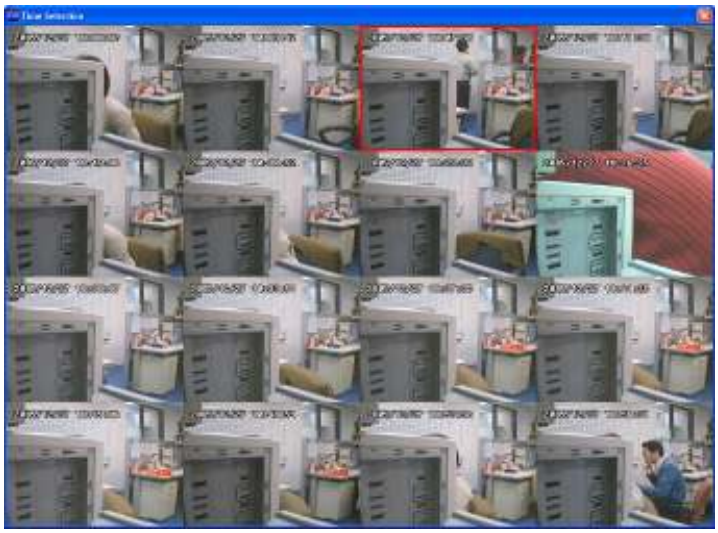
In the Video Playback Date/Time Selection, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 04 represent the camera number.



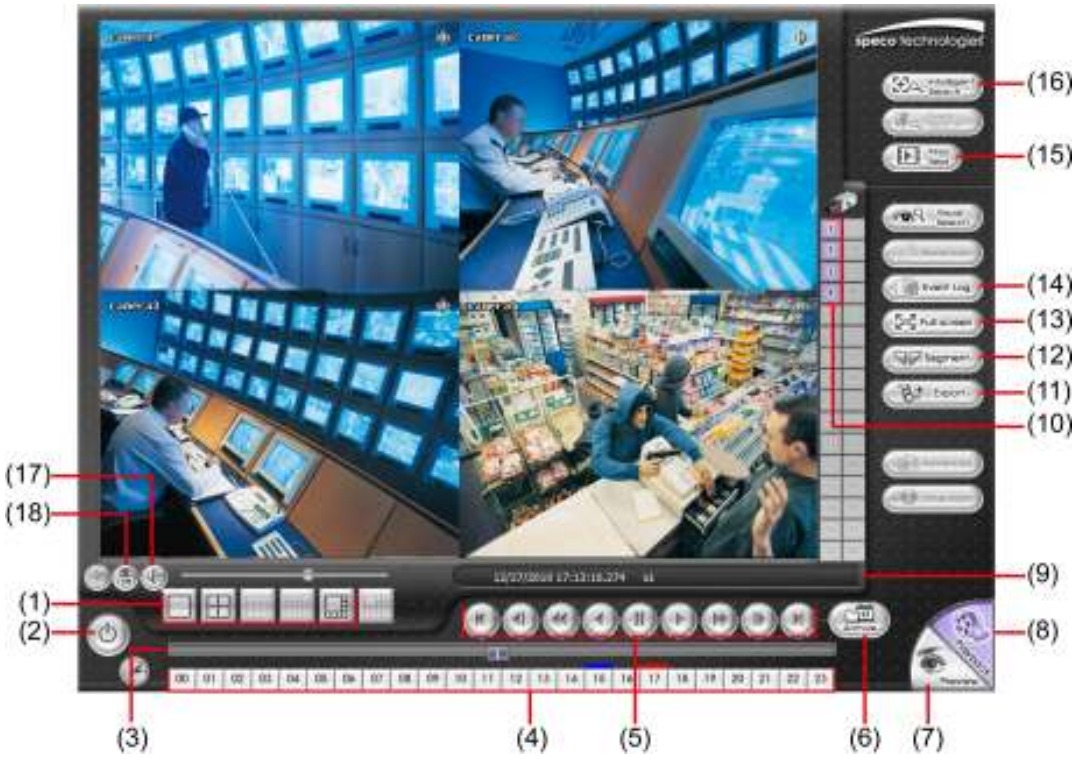
To Make a Selection:

1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select and open the recorded file. The blue block turns red when it is selected. The block that appears in white does not have data. You can only select one block when you choose Download and Playback.
3. Click **OK** to proceed or **Cancel** to void this operation.
4. If you select Download Playback and made the selection, the system divides the selected hour into 16 video thumbnails. In the Time Selection screen, click on the video thumbnail you want to download

(see also Chapter 6.4.3).

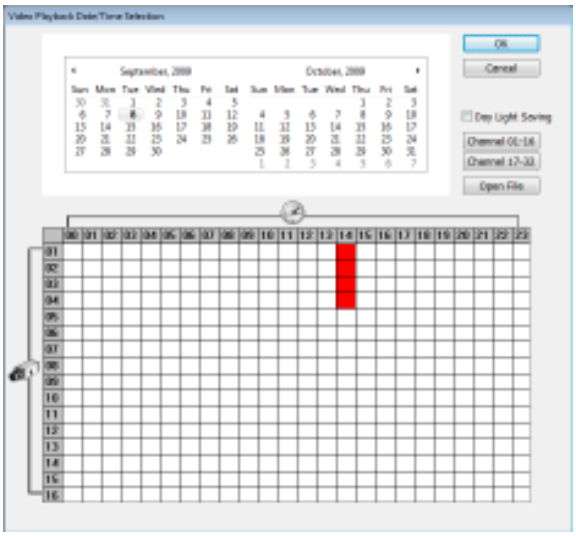


6.4.1 Familiarizing Yourself with the Buttons in Local Playback



Name	Function
(1) Split Screen Mode	Select from 1, 4, or 7+1 split screen type to playback the recorded video.
(2) Exit	To close the application
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. If there is no recorded data within the hour, there will be no color bar on top of the hour button. While the red bar indicates that you are currently viewing the recorded video file.

Name	Function
(5) Playback Control Buttons	From left to right order: **Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, 1/16x, or 1/32x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. – **OPEN FILE:** Click to open the recorded file from certain location. – **Channel 01~ 16** & **Channel 17 ~ 32:** Click to switch to different channel group of playback calendar if the NVR supports more than 16 channels. – Mark **Day Light Saving**, the playback calendar will show the available playback records during day light saving period. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 04 represent the camera ID. While the red colored column indicates on where to start playing the recorded video file. If there is no any video data, it will be no color bar on top of the date button.

(7) Preview	Switch to Preview mode.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the record date, time, HDD capacity in preview mode and play speed in playback mode.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg format. ■ **Print:** Print the screen shot. ■ **Output Video Clip:** Save the segmented file in *.dvr, *.avi, *.mpg format (see also Chapter 6.4.1.1).

Name	Function
(12) Segment	Keep a portion of the recorded video you want (see also Chapter 6.4.1.1).
(13) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard.
(14) Event Log	Show the record of activities that take place in the system
(15) Find Next	Search for the next event. You can use this when you are using Event Search function.
(16) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.6.5).
(17) Audio	Enable/disable volume
(18) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

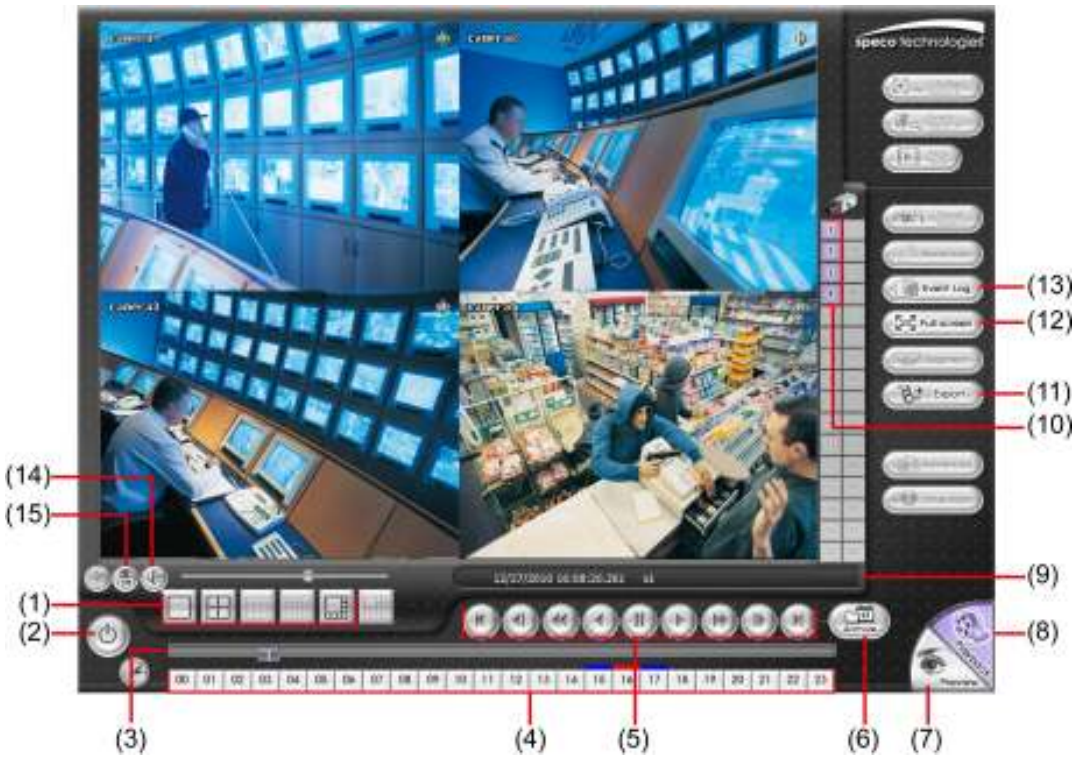
6.4.1.1 To Cut and Save the Wanted Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the segment. Then, click Segment to set the begin mark.

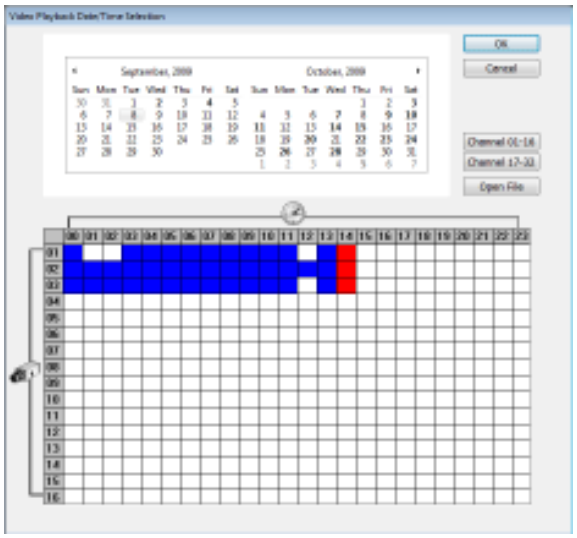
2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the segment. Then, click Segment to set the end mark. To cancel segmentation or set the segment marks from the start, click Segment button again.

3. Click **Export** >> **Output Video Clip** button to save the wanted clip.
4. In the Save As dialog box, locate on where you want to save the file, type the filename, and select the video format.

6.4.2 Familiarizing Yourself with the Buttons in RealTime Playback



Name	Function
(1) Split Screen Mode	Select 1, 4, or 7+1 split screen type to playback the recorded video file.
(2) Exit	To close the application
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.	
(5) Playback Control Buttons	From left to right order: **Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, 1/16x, or 1/32x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. − **OPEN FILE:** Click to open the recorded file from certain location. − **Channel 01~ 16** & **Channel 17 ~ 32:** Click to switch to different channel group of playback calendar if the NVR supports more than 16 channels. − Mark **Day Light Saving**, the playback calendar will show the available playback records during day light saving period. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 04 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Preview	Switch to Preview/Advanced mode.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the recorded date, time and play speed.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	**Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format.
(12) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Event Log	Show the record of activities that take place in the system
(14) Audio	Enable/disable volume
(15) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

6.4.3 Familiarizing Yourself with the Buttons in Download and Playback

Name	Function
(1) Exit	To close the application.
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, 1/16x, or 1/32x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(4) Status bar	Display the recorded date, time and play speed.
(5) Language	Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.
(6) Export	Export includes Snapshot, Print, and Output Video Clip function. ▪ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ▪ **Print:** Print the screen shot. ▪ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 6.4.1.1).
(7) Segment	Keep a portion of the recorded video you want (see also Chapter 6.4.1.1).
(8) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(9) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second.
(10) Audio	Enable/disable volume
(11) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

Chapter 7 Using Mobile Device to Access NVR Server

7.1 Using PDAViewer to Access NVR Server

Users can also use a PDA to access the NVR through the internet. Make sure that your PDA supports IE browser and is connected to the internet. To use this feature, you need to install the PDA Viewer software either thru ActiveSync connection or download it from the internet. Please check if your PDA meets the requirements below.

OS: Microsoft Pocket PC 4.20.0, Windows Mobile6 Professional CE OS 5.2.1437, MS Windows CE 4.0, PocketPC 2002/2003, Mobile 5 PDA version

CPU: ARM architecture

7.1.1 To install PDAViewer thru ActiveSync

1. Connect your PDA to your PC. Place the CD into the CD-ROM drive then click **Install Web Tool** >> **PDA Viewer** >> **PDAViewer.exe**. And follow the on-screen instructions.
2. Click **next** to continue. The system will then automatically install the application.
3. When you are prompted, click **Yes** to install the application using the default directory.

7.1.2 To install PDAViewer from the Internet

Make sure you are connected to the internet.

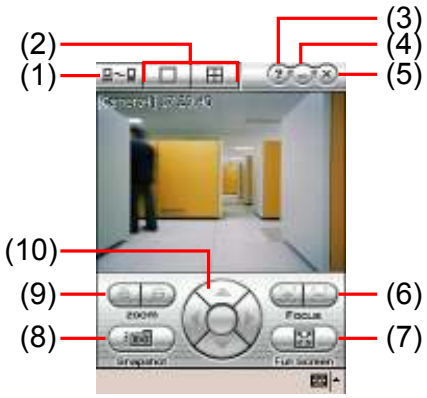
1. Open the web browser and enter the server IP. Then click the hyperlink **Download PDAViewer**.

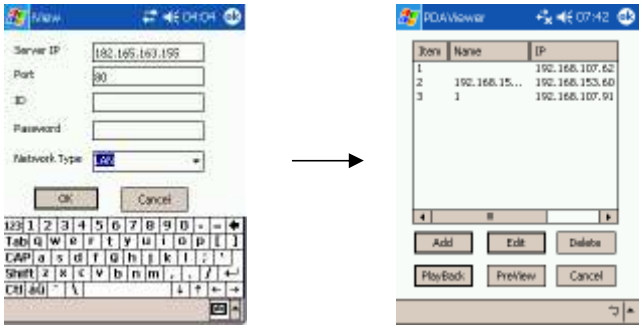
2. When the Download dialog box appears, enable **Open file after download** and click **Yes**.

3. After the installation, the PDAViewer icon will appear in the Programs list.

7.1.3 To Use the PDAViewer

1. Run the **PDAViewer** in the Programs.
2. Familiarizing Yourself with the Buttons in PDAViewer



Name	Function
(1) Connect	Hook up to the NVR server. Make sure you are connected to the internet. When the iView screen appears, click Add to add the NVR server.  Enter the server IP, port, user ID, password and select the connection type. Then, click **OK**.  User can playback the recorded video from remote NVR server in PDAViewer.(see also Chapter 7.1.4)
(2) Split Screen Mode	Select between 2 screen display types. It also allows you to switch and view different camera number or channels.
(3) About	Display the PDAViewer software version.
(4) Minimize	Reduce the size to taskbar.
(5) Exit	Close the PDAViewer.
(6) Focus	Adjust the focus of PTZ camera to produce clearer image.
(7) Full Screen	Use the entire screen to only display the video.
(8) Snapshot	Capture and save the screen shot in *.bmp format.
(9) Zoom	Zoom in and out the PTZ camera image.
(10) Direction buttons	Adjust and position the focal point of the PTZ camera.

3. To change the video quality, enable/disable audio, and to display a different camera, tap on the video screen for a few seconds and the popup menu will appear.

7.1.4 To Playback in PDAViewer

1. Run the **PDAViewer** in the Programs.
2. Hook up to the NVR server.
3. Click **Connect** icon and select the NVR server
4. Click **Playback** to enter playback option screen
5. Select the **camera**, **date**, and **time**
6. Click **Playback** to start playing the recorded video

7. While in playback, user can view and change status of the I/O devices
8. On the playback screen, tap on video screen and the popup menu will appear
9. Select **Remote IO**

10. The sensor and relay devices will be listed as below:

11. User can change the relay status. Select the relay and tap on video screen for a few seconds and the popup menu will appear, and then, select the status (ON, OFF, Trigger)

7.2 Using JavaViewer to Access NVR Server

Make sure the mobile phone supports Symbian Smart Phone OS and can be connected to the internet. Install the JAVA Viewer program that can be downloaded with the NVR server through the internet.

7.2.1 To install JavaViewer from the NVR Server

1. Open the web browser and enter the NVR server IP (http://NVR server IP: port/JAVA-Viewer.html). Then click **Connect**.
2. When the Download screen appears, select **JAVA-Viewer.jad** and download it to your mobile phone.
3. After the installation, the JavaViewer will be in your mobile phone system. To find where the JavaViewer program is located, please refer to your mobile phone user's manual.

7.2.2 To Use the JavaViewer

1. Run the JavaViewer program.

2. Enter the NVR IP address, port number, user ID, and password. Please refer to your NVR server setting for that information.

3. And then, select the Connect button to connect to the NVR server.

4. Click **Yes** to accept the data from NVR server.

5. When connection is successful, you will see the camera video on the screen.

6. To switch to a different camera view, select menu and select the channel.

7. The JavaViewer supports PTZ control function, you can refer to **Help** file for detailed function control key. Select **menu** and go to the bottom of the list to select the **Help** file.

7.3 Using iPhone to Access Remote NVR Server

Using the iPhone to connect to the remote NVR server through the internet to view live image.

7.3.1 Download the SpecoPC Application

To use this feature, it is required to download the SpecoPC application to your iPhone. There are 2 ways to download the SpecoPC application to your iPhone. User can chose either way to download.

I. Download through the PC

1. Connect your iPhone to the PC.
2. In iTunes Application, enter keyword “**speco**” to search.
3. The SpecoPC application will be found and display on iTunes Application.

4. Click SpecoPC application and click **GET APP** to download the application. And then, enter the **ID** and **Password** to download.

5. After downloading the SpecoPC application, click **Application** and check the SpecoPC application.

6. Click **Apply** button. The SpecoPC application will now be loaded onto your iPhone.
7. To use SpecoPC application, select the SpecoPC application icon on your iPhone. Please refer to Chapter 7.3.2 on how to use the SpecoPC application.

II. Using iPhone to Download

1. Please make sure your iPhone is connected to the internet.
2. Select **App Store** from the iPhone main screen.
3. Select **Search** and enter the keyword "**speco**" to search.
4. In the search result list, select the **SpecoPC**. User will see a brief introduction of the SpecoPC application. Select the **Free** button, the button will change to the **Install** button. Select **Install** to download the application.
5. And then, enter **ID** and **Password** for iTunes login to start the download process.
6. After download is completed, go back to iPhone main screen and user should see **SpecoPC** icon in the menu list. Select it to run the application. Please refer to Chapter 7.3.2 on how to use the SpecoPC application.

7.3.2 Using the SpecoPC Application

1. After SpecoPC application has been downloaded to your iPhone, select the SpecoPC application to execute.
2. In the login screen, enter the following information to make a connection with the remote NVR server. After all necessary information is entered, click **Login**.
   - **IP:** IP address of the remote NVR server.
   - **Port:** The connection port of the remote NVR server. The default value is 5550.
   - **ID:** The user account to login to the remote NVR server.
   - **Password:** The password for login authentication.

3. After login, user should see the live video on the iPhone screen.

4. Click the channel number (1 ~ 32) to switch view of each channel.
5. Click **<** or **>** to go back to last page or next page of channels.
6. To logout or disconnect with the current NVR connection, click **Exit** and return to the login screen. In the Login screen, user can connect to other NVR servers.
7. To close the SpecoPC application, press the button that is located at bottom of your iPhone.

Chapter 8 Web Tools

The bundled Web Tools included are Dispatch Server, Remote Backup, and Remote Setup programs. To install Web Tools, place the CD into the CD-ROM drive then click **Install Web Tool**. And then, select the application to install one program or install all programs (default).

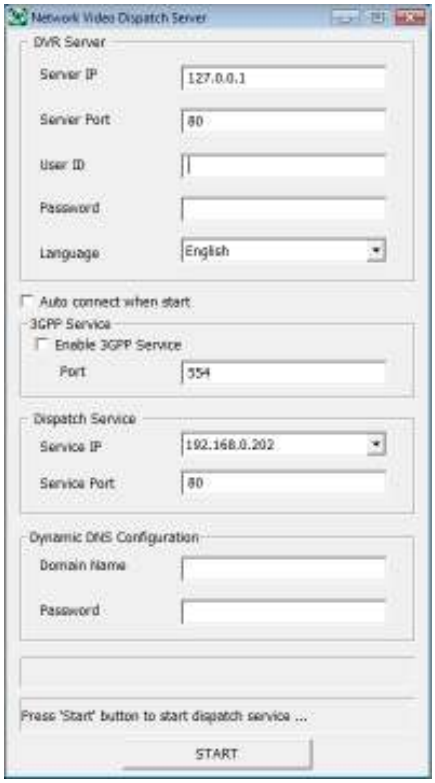
8.1 Dispatch Server

Dispatch Server is designed to reduce the network traffic of the NVR server. Instead of connecting directly to the NVR server, the client can connect to the computer that is connected to the NVR server using the Dispatch program.

To have better remote live and playback performance, it is suggested to connect NVR to Dispatch Server in LAN environment, and then connect remote client to Dispatch Server via either WAN or LAN.

8.1.1 To Run Dispatch program:

1. Make sure you are connected to the internet.
2. Click **Start**>**Programs**>**Web Tool**>**Dispatch**.
3. In the NVR Server section, enter the NVR server IP, port, user ID and password. You can also select to display the language you prefer.
4. **Auto connect when start:** Enable to automatically connect the dispatch server on start up
5. **3GPP Service**
6. Enable to allow the user the use 3GPP service to receive video stream from Dispatch server. The **Service Port** must same as RTSP port of 3GPP on NVR server.
7. In the **Dispatch Service** section, if you have installed more than one network card, select the Service IP number.
8. In the **Dynamic DNS Configuration** section, enter the DNS server Name and Password. The DNS server can be the remote storage server for sharing the NVR system load.
9. Click **START** to connect.

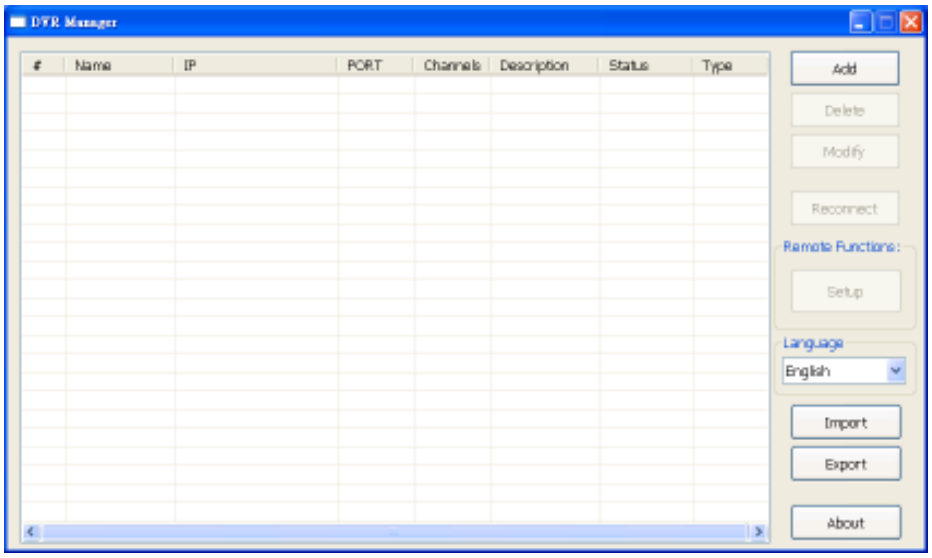


8.2 Remote Setup

Remote Setup is a tool for configuring NVR server from a remote site. To install Remote Setup application, insert the Installation CD into CD-ROM drive and click **Install Web Tool**. After installation, click  to start the Remote Setup application.

8.2.1 To Add NVR server

User need to add a NVR server and make connection in order to setup remote NVR server.



1. Click **Add**
2. In Edit NVR window, fill in the following items:
   - **Name:** give a name for remote NVR server for easy management
   - **IP:** fill in remote NVR server's IP address
   - **Port:** the port use to connect to remote NVR server. The port number is the same as the WebViewer port on the remote NVR server. The default is 80.
   - **User ID:** fill in the remote NVR server's login account
   - **Password:** fill in the remote NVR server's login password
   - **Description:** fill in a short description for the remote NVR server

3. Click **OK** to complete adding remote NVR server.
4. The added NVR server will be listed and auto connects to NVR server.
5. Once the connection is success, user can start configuring the NVR server.

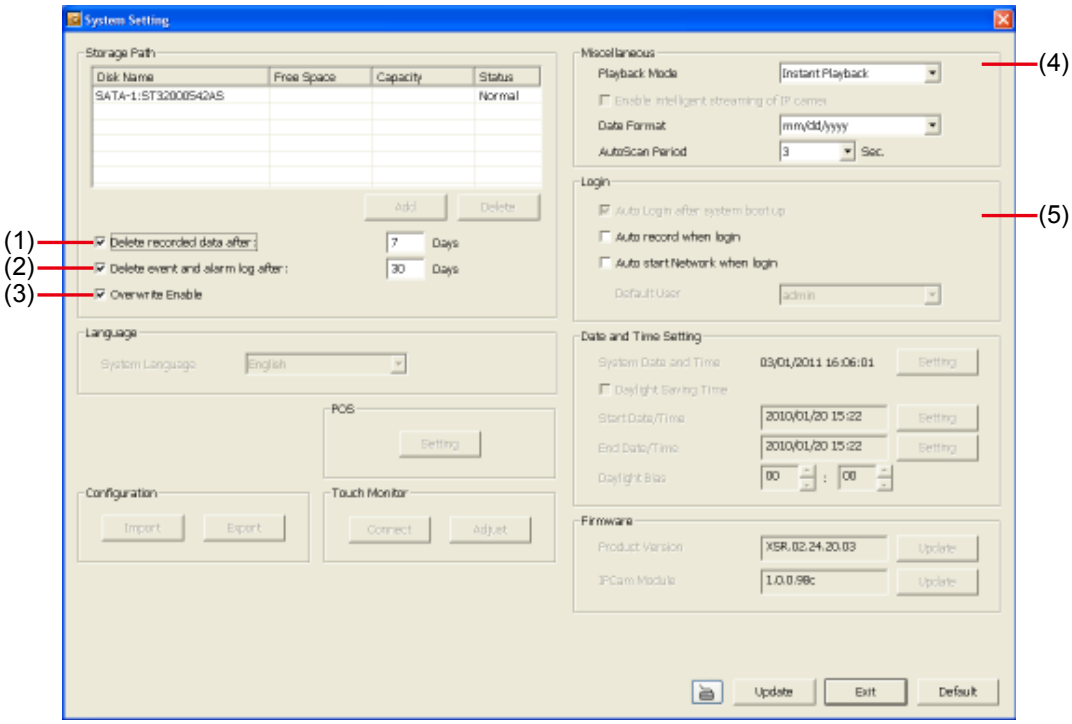
6. When connection is lost, click **Reconnect** to connect again.
7. To modify or delete the NVR server, select the NVR server from the list and click **Modify** to change the setting and click **Delete** to remove the NVR server.
8. User also can import the setting by clicking **Import** button. To save the setting to local hard disk, click **Export** button.

8.2.2 To Setup Remote System Setting

The setting here applies to Remote NVR only.

8.2.2.1 System Setting

■ In the System Setting window, click **Update** to accept the new settings, click **Exit** to exit without saving, and click on **Default** to revert to the factory default values.



(1) Delete recorded data after

If you want the system to automatically erase the data after certain days, enable the **Delete recorded data after** check box and enter the number of days in **Days** text box.

(2) Delete event and alarm log after

If you want the system to automatically erase the event and alarm log files after certain days, enable the **Delete event and alarm log after** check box and enter the number of days in **Days** text box.

(3) Overwrite Enable

When the recording space is not enough to record one hour of data, the system will automatically replace the oldest data with the newest recorded data.

(4) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.

- **Playback Mode**

  Select the mode of playback for the video.

  - **Select date and time:** Playback the recorded video beginning from the selected date and time.
  - **Play the last file:** Automatically playback the recorded video from the last hour
  - **Instant Playback:** Automatically playback the video which has just recorded

- **Date Format**

Select the date format which will display in **Select date and time** playback mode

- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.

(5) Login

Enable the conditions in Login section you want the system to automatically carry out.

- **Auto Record after system boot up**
  Automatically start video recording when the NVR is powered on.
- **Auto start Network after system boot up**
  Automatically connect to network when the NVR is powered on.

8.2.2.2 Camera Setting

Select the camera from remote NVR servers to modify settings. In the Camera Setting window, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

IP Camera Setting

(1) Camera Icons

Select the camera number to adjust the video setting. To select all cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system will not detect it as video loss error.

(3) Input

Select the type of camera as IP camera. To modify camera of remote NVR, see Remote NVR Camera Setting.

(4) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- **Enable Audio**
  Enable/disable audio of the camera.
- **Name**
  Change the camera name
- **Description**
  Add a short comment

(5) IP Camera Information

Click **IP Setting** to setup the parameters of the IP camera.

1. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera.
2. Enter IP address and connecting port in **IP Camera Site** column.
3. Also, user can enter URL of IP camera instead of IP address.
4. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.
5. Click **OK** to connect with the IP camera.

Remote NVR Camera Setting

Select the camera to modify settings. In the Camera Setting window, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

(1) Camera Icons

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system will not detect it as video loss error.

(3) Input

Select the camera type as **Remote NVR**. For IP camera setting, see IP Camera Setting.

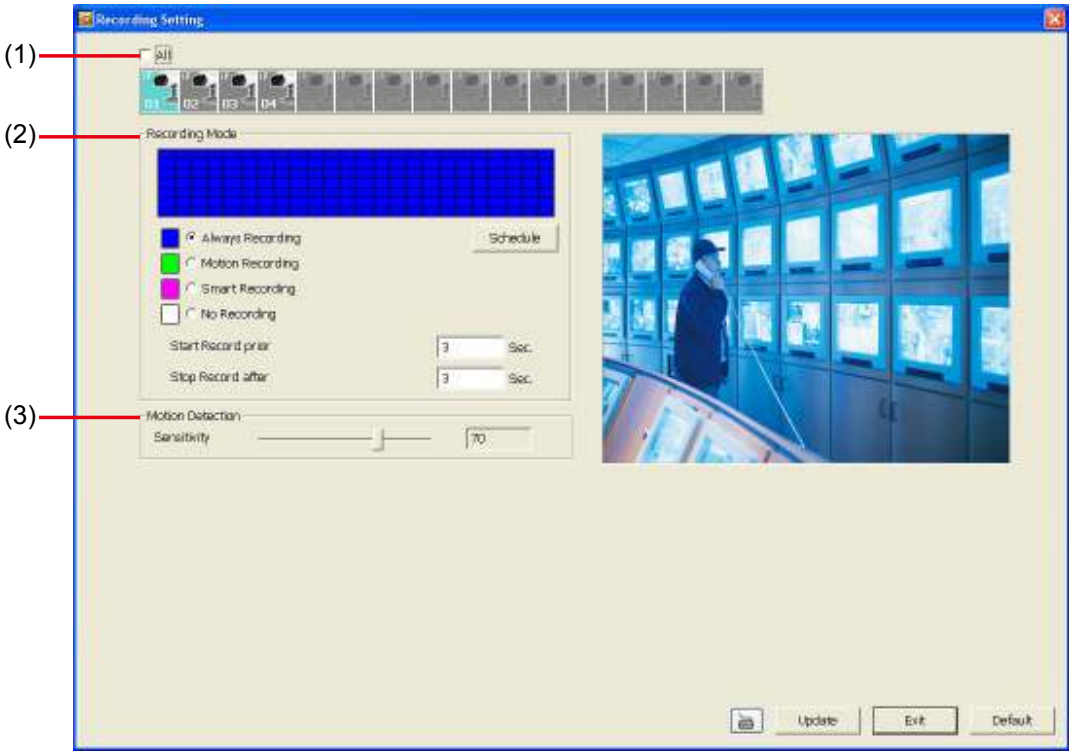
(4) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio of the camera.
- **Name**
  Change the camera name
- **Description**
  Add a short comment
- **IP**
  Enter the IP address of the camera
- **Port**
  The port for connection
- **User ID**
  Enter the user id that for connecting authority
- **Password**
  Enter the password that is for connecting authority
- **Channel**

Select the channel of connected camera

8.2.2.3 Record Setting

- In the Recording setup window, click **OK** to accept the new settings, click **Exit** to exit without saving, and click on **Default** to revert to the factory default values.

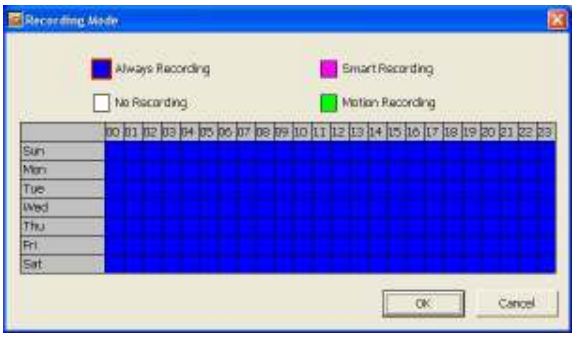


(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.



The recording modes are listed below:

- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once motion is detected, the system automatically saves the previous frames and stop based on the

Start Record Prior and **Stop Record After** settings.

- **Smart Recording**
  Automatically switch to recorded at the maximum frame rate setting when motion is detected and switch to minimum frame rate setting when there is no motion.
- **No Recording**
  The system will not do any recording.

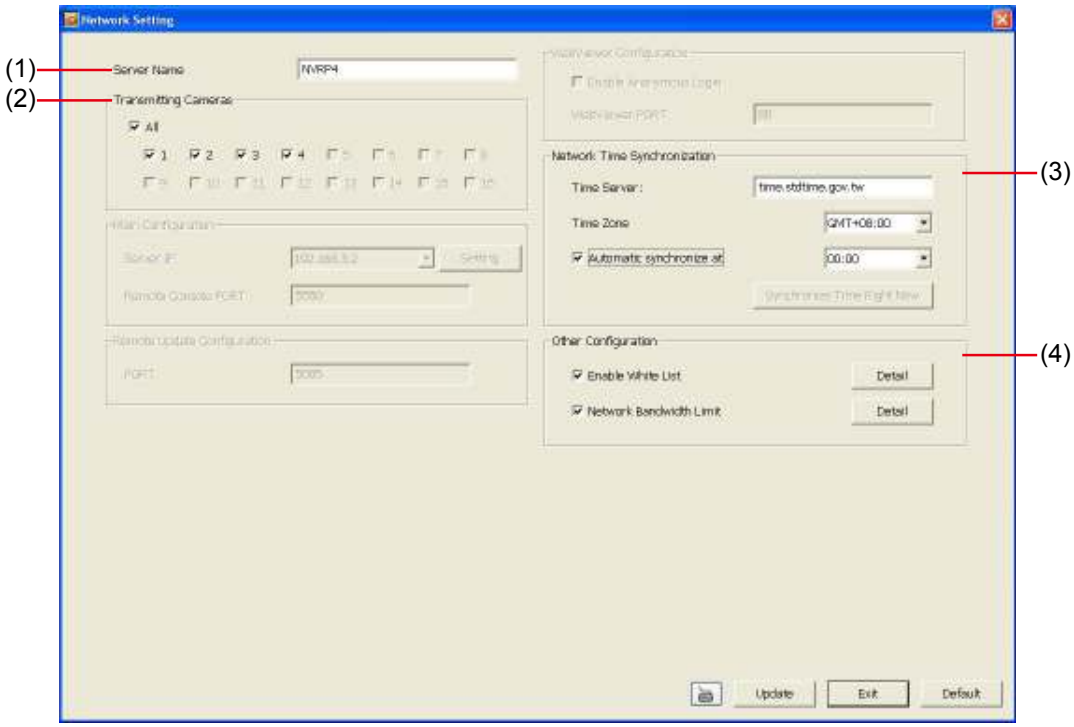
(3) Motion Detection

Adjust the sensitivity of the motion detection. The higher the value, the finer motion is detected. When it detects motion, a green triangle mark would appear at the upper left corner of the screen.

8.2.2.4 Network Setting

■ In the Network Setting dialog box, click **Update** to accept the new settings, click **Exit** to exit without saving, and click on **Default** to revert to the factory default values. For the network service ports that use by NVR server, please see Appendix A.

If user has changed the configuration causing the remote NVR's IP address to be changed, the remote NVR system will disconnect the remote access connection automatically.



(1) Server Name

Assign a name for the NVR unit. Alphabetical and numerical letters only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using WebViewer, Remote Console, PDA Viewer and JavaViewer (still image). To select all the cameras, enable the **ALL** check box.

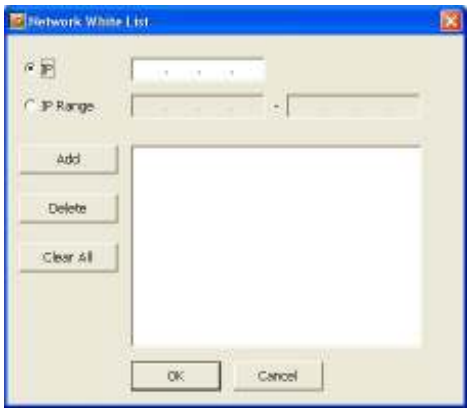
(3) Network Time Synchronization

Synchronizes the NVR system time to the network time server. Fill in the **Time Server** IP address or domain name. Select the **Time Zone** that NVR is located. And then, check the **Automatic Synchronize** time to set automatic synchronize time on a daily basis.

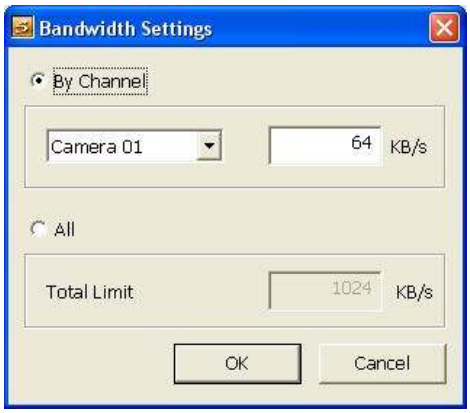
(4) Other Configuration

- **Enable White List**
- An access permit list for the remote accessing of NVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.

When user changed IP range in white list setting and it causes the IP address of PC that connected with remote NVR server has been excluded in white list, the remote NVR server will disconnect the connection automatically. Please change the IP address of PC to the IP range in white list and re-connect with remote NVR server.

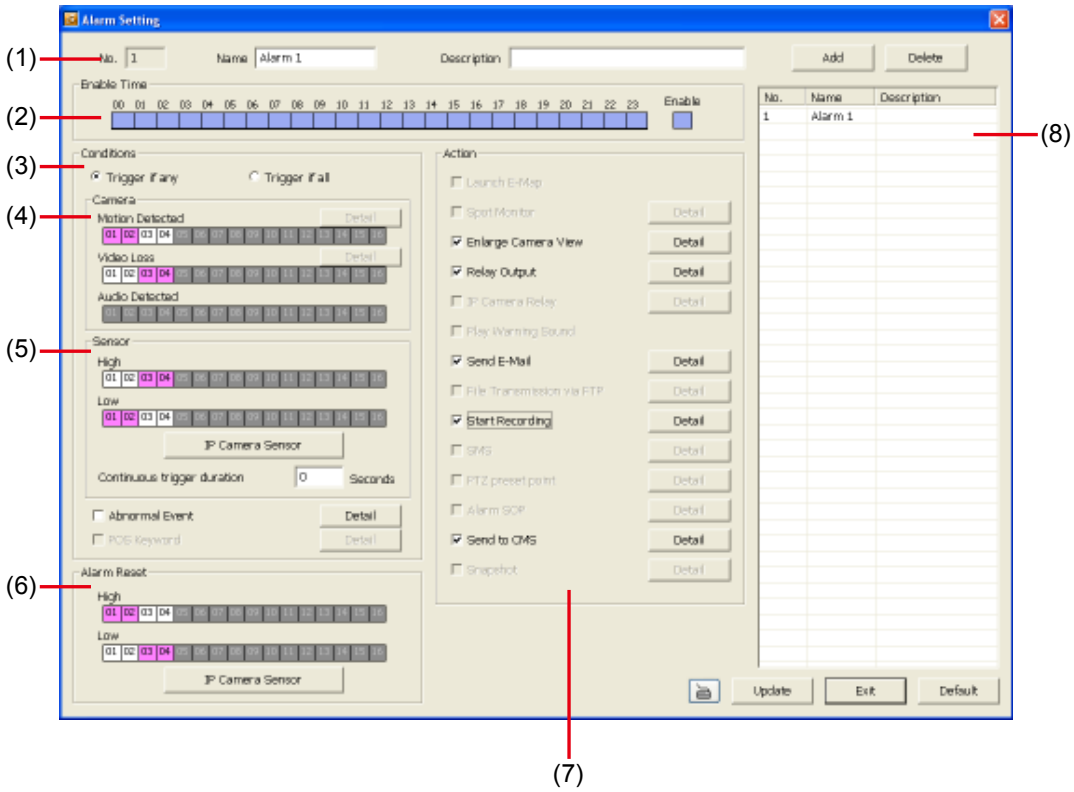


- **Network Bandwidth Limit**
  By Channel: Set the network bandwidth by each channel.
  All: Set the total network bandwidth consumption limit.



8.2.2.5 Alarm Setting

- In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **Update** to save the setting, **Exit** to exit without saving, and **Default** to revert to the factory default values.



2. Click **Add** to insert and set a new alarm setting. Click the items in **(8) Alarm Setting List** if you want to modify the alarm setting.
3. In **(1) No./Name/Description** enter alarm name and description. Alarm **No.** will be created by NVR system.
4. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
5. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls under one of the conditions or "**Trigger if all**" to activate if it falls under all conditions.
9. In **(4) Camera** section, select and click on the camera number (01 to 04) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
10. In **(5) Sensor**, select and click on the sensor number to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.
    - Enable/disable the **Abnormal Event** check box, to set the condition of the event for system to alarm.
      - **Reboot:** when the NVR system reboots under normal condition, the system will send out the alarm message.
      - **Abnormal Reboot:** when the NVR system reboots under abnormal condition, the system will send out the alarm message.
      - **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
      - **Network is switched off:** when the network connection of NVR system is lost, the system will send out the alarm message.
      - **Hard Disk failed:** when the hard disk does not work normally, the system will send out the

alarm message.

- **Continue trigger duration:** Set up the trigger duration time. If the sensor is triggered and stays triggered for this period of time, the alarm will be sent.

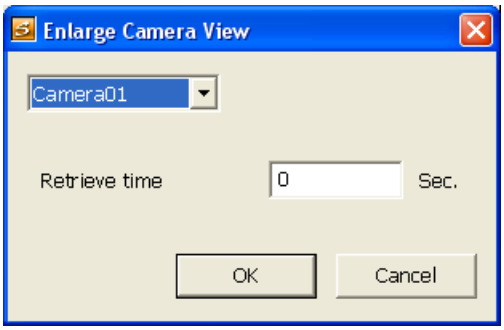
6. In **(6) Alarm Reset**, click the camera number to reset the condition of the alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor's status is normally high, the alarm will reset to low.
7. In **(7) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.

- **Enlarge Camera View**

  Switch to only display video in Preview mode from where the alarm is activated.

  c. Select the camera from drop down list to specify which camera video to be enlarged on the screen when the alarm is triggered.

  d. **Retrieve time:** set the time duration before system switches back to original Preview mode. If the retrieve time is un-checked, the alarm video will stay enlarged until user switches back to Preview mode manually. The retrieve time range is 0~ 600 seconds.

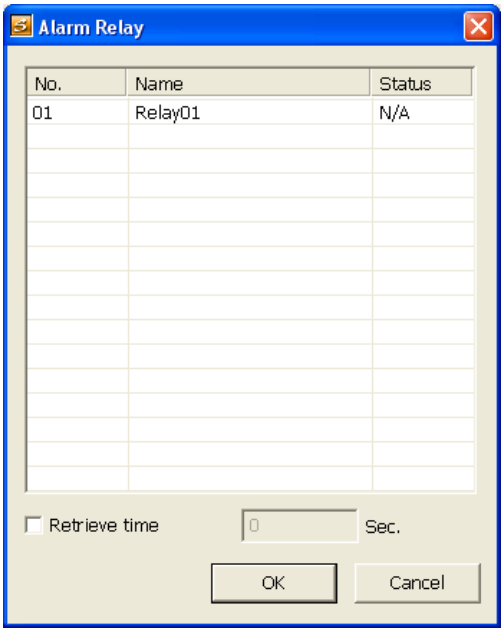


- **Relay Output**

  Enable/disable the relay operation when the alarm is activated and to extend the duration of the relay output time.

  5. Next to the Relay Output check box, click **Detail**.
  6. In the Alarm Relay dialog box, select from the available relay list and in the ON column, set to enable/disable the relay operation when the alarm is activated.
  7. In the Retrieve time check box, you may enable/disable to extend the duration of the relay output and set the duration in second.

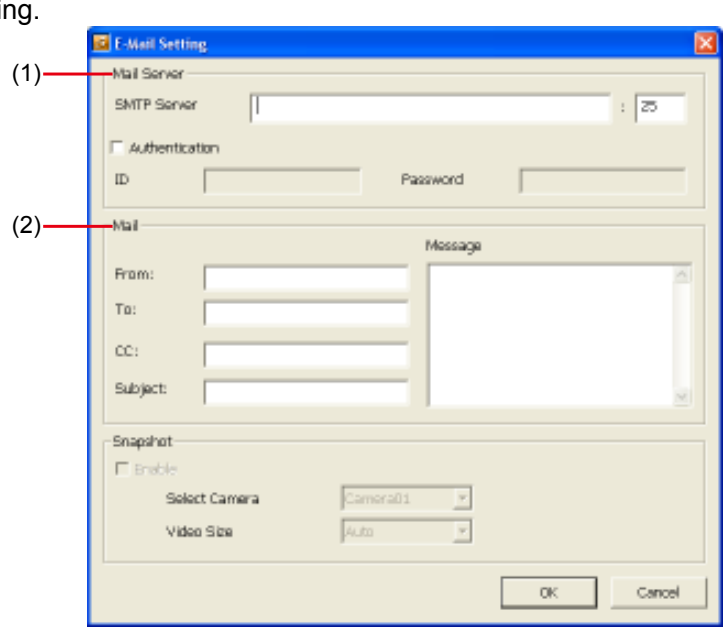
  1. Click **OK** to exit and accept the setting or **Cancel** to exit without saving the setting.



- **Send E-mail**

  Send an electronic message. Next to the Send Email check box, click **Detail**.

  In the E-mail Setting dialog box, click **OK** to exit and save the setting or **Cancel** to exit without saving the setting.



(1) Mail Server

Enter the **SMTP Server** and **port**. If your e-mail system requires user identification, enable **Authentication** check box and enter **ID** and **Password**.

(2) Mail

Fill the mailing information.

From: Enter the sender e-mail address.

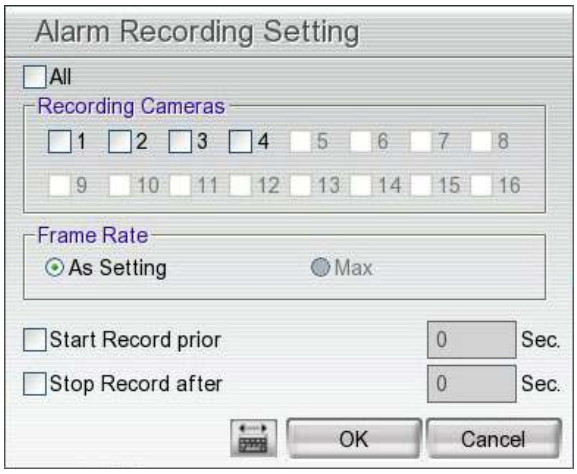
To and CC: Enter the recipient email address and separate it with comma or a semicolon (;).

Subject: Enter the message title.

Message: Type the message.

- **Start Recording**

Record the video from the selected camera.



1. Next to the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting.
4. In the **Start Record prior** text box, check and set the time in seconds for the program to begin recording before the alarm is triggered. The time range is 1~10 seconds.
5. In the **Stop Record after** text box, check and set the time in seconds for the program to continue recording after the alarm condition has ended. The time range is 1~999 seconds. If **Stop Record after** is not checked, the alarm recording will continue to record until alarm is reset.
6. Click **OK** to accept the new settings or **Cancel** to exit without saving.

- **Send to CMS (Central Management System)**
  Enable/disable the selected camera to send video to CMS when the alarm is activated. Next to the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings or **Cancel** to exit without saving.

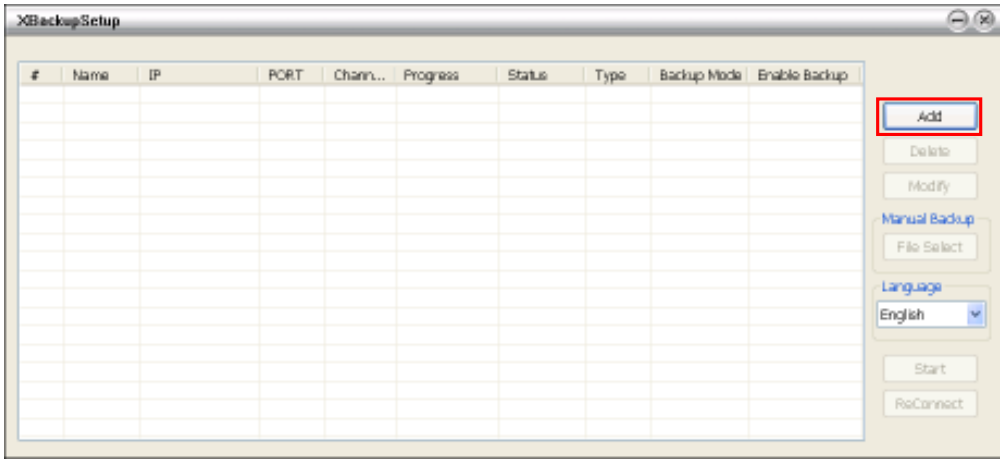
8.3 Remote Backup

Remote Backup is purely for backing up the *.dvr file from the NVR sever. You can select between Auto Backup and Manual Backup. Auto Backup continuously archives one hour of the recorded data at a time, starting from the specified date. As for Manual Backup, it only archives the recorded data of selected date.

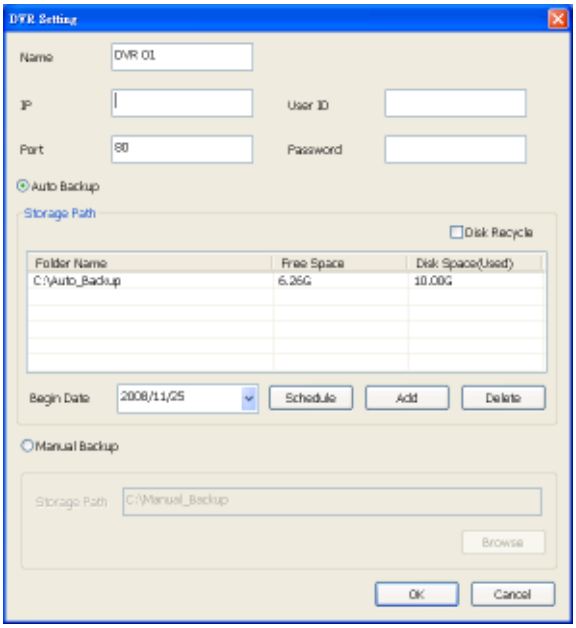
To back up the data, you must have at least 2G hard disk space.

8.3.1 To back up the recoded data from the NVR server:

1. Make sure you are connected to the internet.
2. Click **Start** >> **Program** >> **Web Tool** >> **Remote Backup**
3. To add the NVR server, click **Add**



4. In the Add New NVR window, enter the Name, IP, user ID, and password.



5. Select the Backup mode:

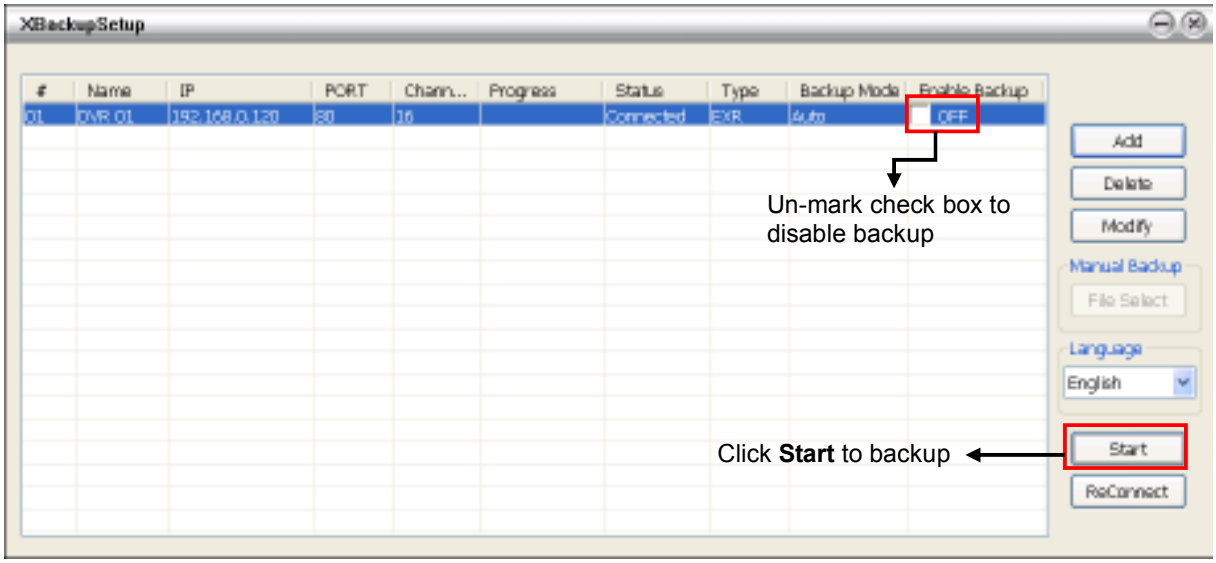
   Auto Backup mode: the backup will automatically execute when the setup is completed
   - In Begin Date drop down calendar, select the date from where to start
   - Click **Add** to set the storage path.
   - Click **Delete** to remove the selected storage path.
   - Click **Schedule** to select/unselect the time you want to backup. The red block turns white when it is unselected.

- Enable/disable **Disk Recycle** check box, to automatically overwrite the oldest file when there is not enough free space to backup the file.

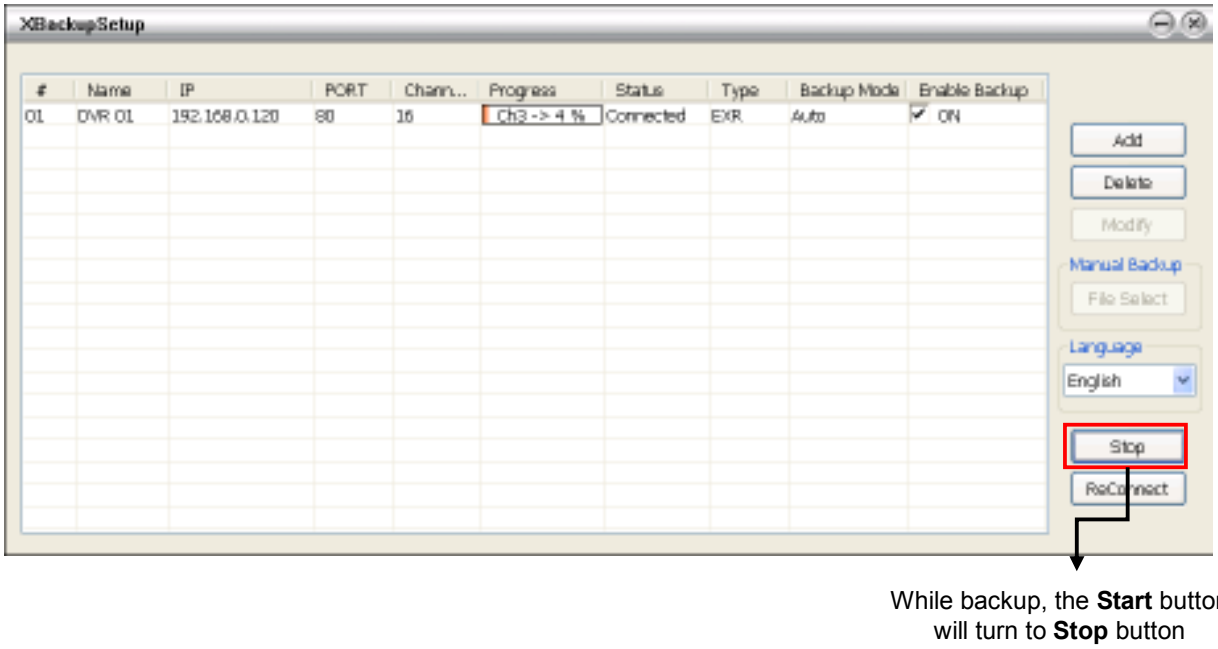
Manual Backup mode: the backup will begin when user presses the backup button

- Click **File Select** to choose the date, time and camera you want to back up.
- Click **Browse** to set the storage path.

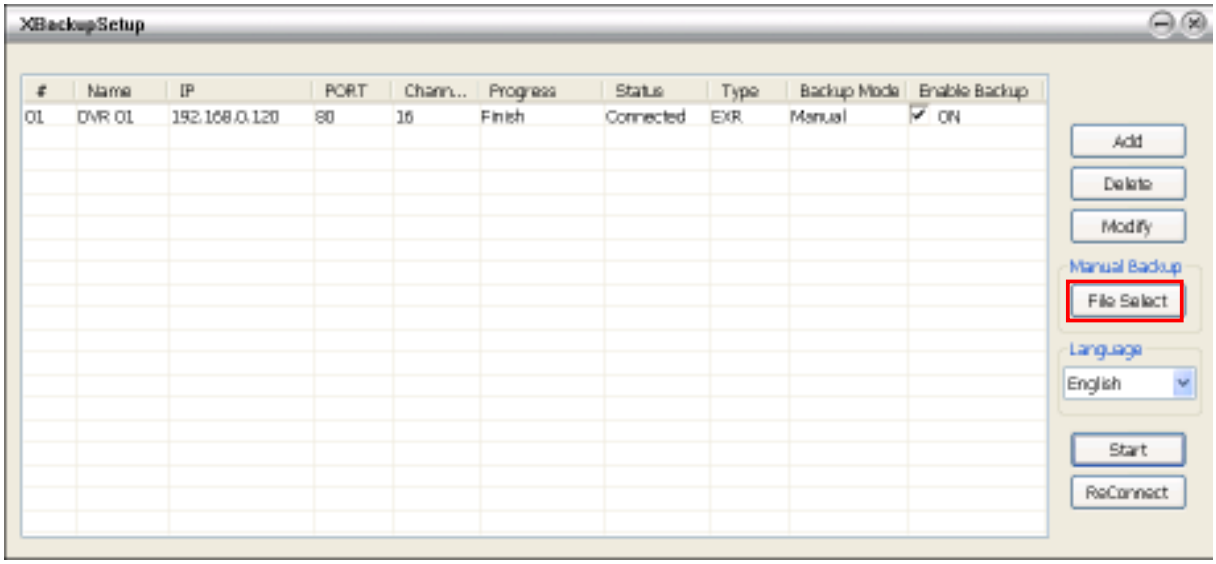
6. Click **OK** to complete adding NVR server. The added NVR server will display in Remote Backup main window.



7. Click **Start** to begin backup and click Stop to stop backup progress.



8. For manual backup, click **File select** button and select the NVR to backup.



Appendix A Registering Domain Name

DDNS (Dynamic Domain Name Service) is a data query service mainly used on the Internet for translating domain names into Internet addresses. It allows remote clients to intelligently search dynamic servers without any previous enquiry of the IP address of the servers.

In order to take advantage of this intelligent service, first register your domain name on the following Web site **http://speco.dss.com.tw**

1. **User Login**

   Browse the website **speco.dss.com.tw** with Microsoft IE browser to access the following dialog.

2. First input the MAC address of NVR unit as the **CD-Key No**. and select the **Product**. Then click **OK** to login or **Reset** to clear the previous input.

- To find the MAC address of NVR unit, please check the sticker on the back panel of NVR unit.
- Also, user can find the MAC address of NVR unit from the Main Configuration of Network Setting. Please select **SETUP** → **NETWORK** → **Main Configuration**.

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3. **User Information**

   Please provide the following user information, **Host Name** (user can choose any hostname that had not been previously chosen), **Password**, **E-mail**, **Company**, and **Country**. And then, click **OK** to complete the domain name registration.