

# **myNVR User's Guide**

## **(Rev 2)**



# Contents

## 1. Introduction

### 1.1. Important Notice

## 2. Installation of myNVR

## 3. Screen

### 3.1. Functional Buttons and Indicators

### 3.2. Video Display Window

### 3.3. Quick Control Pop-Up Menu

## 4. First Connection to Live Video

## 5. Detailed Description

### 5.1. Screen Layout

### 5.2. IP Set Up

#### 5.2.1. Selecting Address Group for the Connection

### 5.3. Configuration Data Back Up

### 5.4. Recording Schedule

### 5.5. Playback

#### 5.5.1. Playback in Graphic Mode

#### 5.5.2. Playback in Command Mode

### 5.6. Alarm Recording

### 5.7. HDD Management

### 5.8. Live Connection and Recording

### 5.9. Bidirectional Audio

### 5.10. Still Image Capture

### 5.11. Rotating the Video

### 5.12. Alarm Indication

### 5.13. Remote Relay On/Off

### 5.14. Video and Audio Adjustment

### 5.15. Pan/Tilt/Zoom and Focus Control

### 5.16 Remote Set Up

### 5.17 Remote Playback


# 1. Introduction

- myNVR is a PC application program targeted for building a real time video monitoring and recording solution based on DVRs distributed over the network.
  - Provides a simple way of building a network based video security system. To achieve the goal it is needed to :
    - Install DVRs over the network.
    - Install myNVR on a PC at the central monitoring site over the network
- myNVR includes key features needed on a centralized monitoring station
  - Event triggered and scheduled recording mode
  - Supports up to 16 live video channels together with bidirectional audio.
  - Playback mode
  - Alarm status indicator showing up the alarm status from each channel.
  - Remote Playback feature.

## 1.1. Introduction – Important Notice

- Time reference of myNVR
  - myNVR includes features that need time reference. myNVR refers to the time set on the PC for the operation. It is very important to keep the clock of the PC precise.
  - Time displayed beneath each screen in white color for real time connection is the time information sent from the DVR.
- Do not change the parameters related with network configuration while the myNVR has a video connection with corresponding device.

## 2. Installation of myNVR

- Install myNVR from the CD.
- Program installation will continue automatically and after the installation a launcher icon  will be created on your desktop.

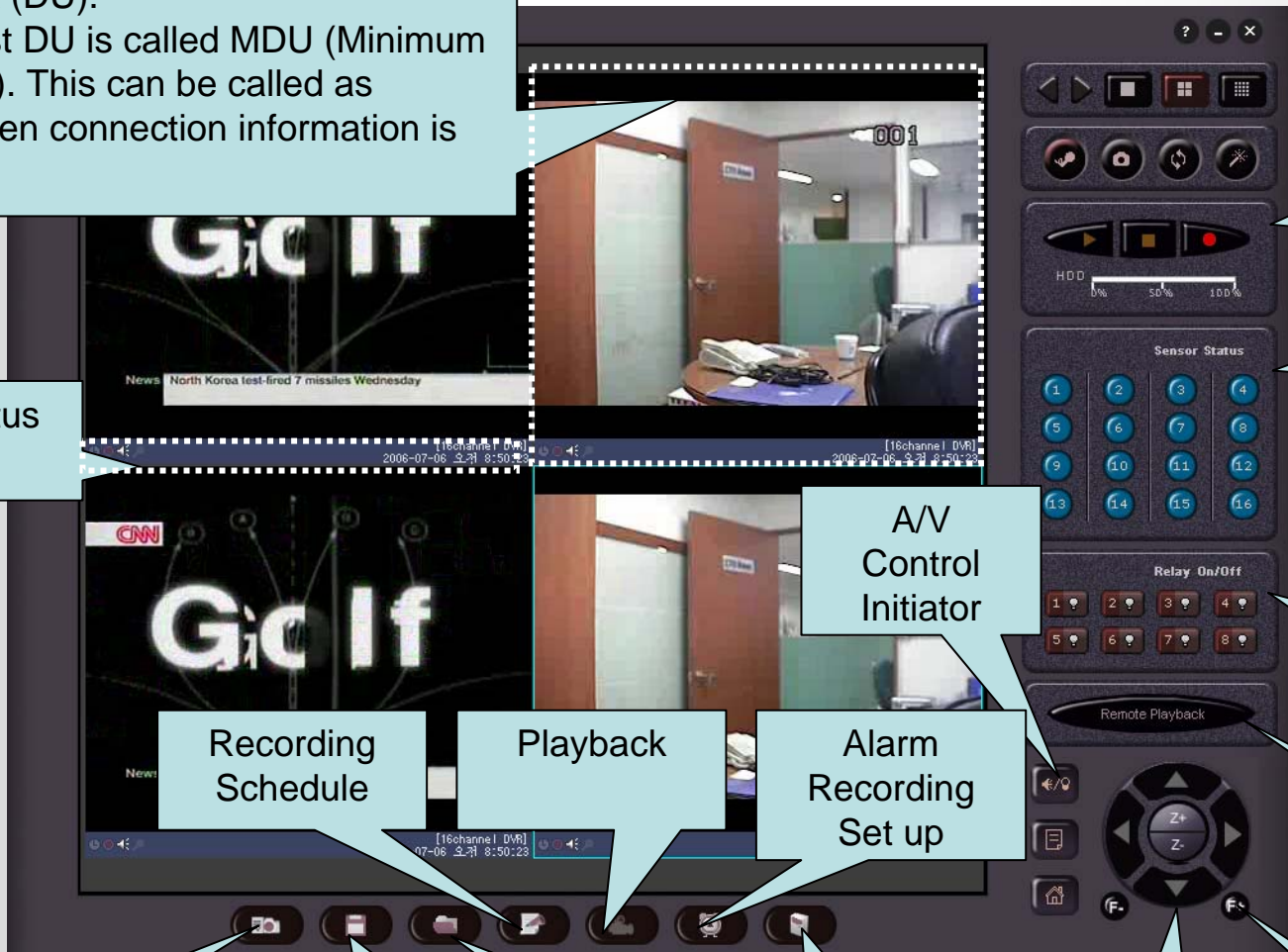
Mynvr.Ink

# 3.1. Screen – Functional Buttons and Indicators

Display Unit (DU).

The smallest DU is called MDU (Minimum display Unit). This can be called as Channel when connection information is set up

Channel Status Indicator



Connection & Recording control

Sensor State Indicator

AV Control Initiator

Remote Relay Control

Remote Playback

Recording Schedule

Playback

Alarm Recording Set up

IP Assignment

Save Configuration

Open Configuration

Recording folder control

PTZ Control

Focus Control

# 3.1. Screen – Functional Buttons and Indicators

The image shows a screenshot of a myNVR control interface. The interface is divided into several sections. On the left, there are four video feeds. The top-left feed shows a news anchor with 'CNN LIVE' and 'Germany' text. The top-right feed shows an office scene with '001' text. The bottom-left feed shows a news anchor with 'Germany 2006' and 'Business U.S. venture-backed IPOs almost double in Q2' text. The bottom-right feed shows an office scene with '001' text. On the right side, there is a control panel with various buttons and indicators. The control panel includes a 'Sensor Status' section with a 4x4 grid of buttons (1-16), a 'Relay On/Off' section with a 2x4 grid of buttons (1-8), and a 'Volume' section with a volume slider and 'Mute' and 'Mix' buttons. The 'Mute' button is a square with a diagonal line, and the 'Mix' button is a square with a checkmark. The 'Volume' section also includes 'Contrast' and 'Brightness' sliders. The interface also features a 'Manual Recording Control' section with a play/pause button and a 'Recording Folder Usage Indicator' section with a progress bar. The interface also includes a 'Bidirectional Audio ON/OFF' button, a 'Still Video Capture' button, a 'Live Connection' button, and a 'Stop Live Connection or Recording' button. The interface also includes a 'Rotate Video By 180 degree' button, an 'Admin Page Connection' button, and a 'Screen layout' button. The interface also includes a 'Mute audio' button and a 'Check to mix audio from all channels' button.

Bidirectional Audio ON/OFF

Rotate Video By 180 degree

Screen layout

Admin Page Connection

Still Video Capture

Manual Recording Control

Recording Folder Usage Indicator

Live Connection

Stop Live Connection or Recording

Sensor Status

Relay On/Off













Audio/Video Control Panel initiated by AV Control Initiator

Mute audio

Check to mix audio from all channels

## 3.2. Screen – Video Display Window

- Video display window is an area that displays video sent from the locations being monitored. The window can be divided into 16 sub-screens called Display Unit (DU). Each DU has video display area and status indicator area.
- Channel Status Indicator

	Indicates the presence of recording schedule. YES (  ) , NO (  )
	Being in recording (  ) / Not in Recording (  )
	Indicates whether audio is enabled (  ) or Not (  ) .
	Indicates whether bidirectional audio is enabled (  ) or Not (  ) .

- **Messages**

- When there is no live connection, the message area indicates whether connection information is programmed or not (Assigned/Not Assigned).
- When the channel is in live connection, the message area displays time and channel description. The time displayed in the message area is the time set on the device sending the video. Remember that this time can be different from the time set on the PC.

## 3.3. Screen - Quick Control Pop-Up Menu

- Locate the cursor on each DU and press right mouse button to enable Pop-up menu.
- Simple controls indicated on the right can be initiated for each channel.
- Move the cursor to desired operation and press left mouse button to start the operation.



## 4. First Connection to Live Video

1 Install myNVR and connect your PC to the network.

2 Set-up IP information for the connection

3 Click on Play Button.

4 Example of live connection.

5 Refer to the remaining part of the manual for further information.



# 5.1. Detailed Description - Screen Layout



Click Each Button for desired Screen Layout

1x1

2x2

4x4



# 5.2. Detailed Description – IP Set Up

Input parameters needed for the connection.

CLICK

Channel configuration window – Shows the list of channels that are configured for live connection

Switched Screen	#	Description	Address	Ch #	User ID	Password	StorePwD	RTSP	HTTP	Connection Type
	1		172.16.65.50	1	root	****	<input checked="" type="checkbox"/>	5540	80	TCP
	2		172.16.65.50	2	root	****	<input checked="" type="checkbox"/>	5540	80	TCP
	3		172.16.65.50	3	root	****	<input checked="" type="checkbox"/>	5540	80	TCP
	4		172.16.65.50	4	root	****	<input checked="" type="checkbox"/>	5540	80	TCP
	5			1			<input type="checkbox"/>			
	6			1			<input type="checkbox"/>			
	7			1			<input type="checkbox"/>			
	8			1			<input type="checkbox"/>			
	9			1			<input type="checkbox"/>	80		TCP
	10			1			<input type="checkbox"/>	80		TCP
	11			1			<input type="checkbox"/>			
	12			1			<input type="checkbox"/>			
	13			1			<input type="checkbox"/>			
	14			1			<input type="checkbox"/>			
	15			1			<input type="checkbox"/>	554	80	TCP
	16			1			<input type="checkbox"/>	554	80	TCP

Channel Number for multi channel device

RTSP Port number

IP Address

User ID

Password

check to store password

HTTP Port Number.

Not used.

Click to set default ID and password for the configuration

Click to save the configuration

Click to read the configuration

Click to import resource list from a file.

Click to export resource list into a file.

Click to delete selected item.

Click to copy the selected item in the Channel resource window into configuration window

Click to copy the selected video channel into the channel resource window

Apply the configuration and exit.

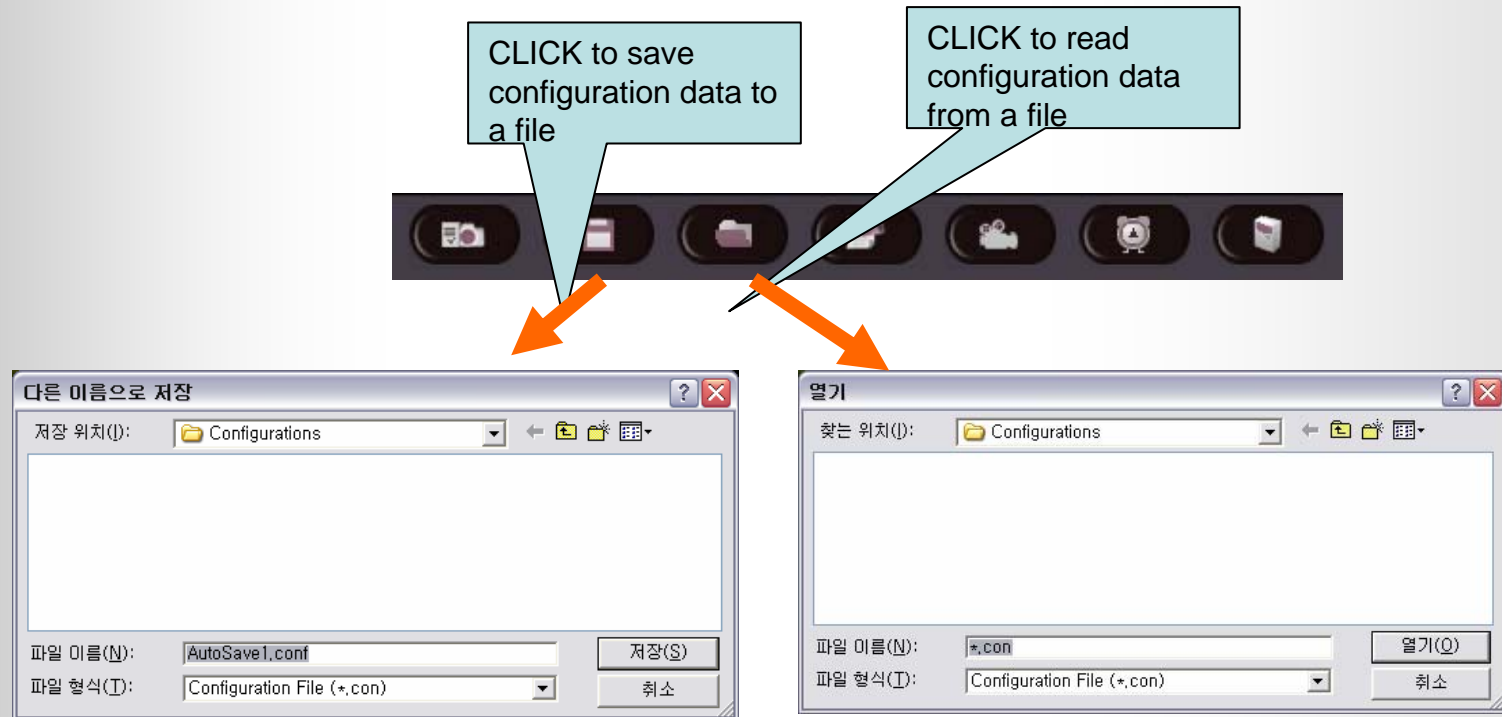
Neglect the configuration and exit.

Channel Resource window – Stores connection information for available video sources

- ! IP can be replaced with host name when the device is registered with the DDNS server.
- !! Input RTSP or HTTP port number when port forwarding is enabled using IP sharing device

## 5.3. Detailed Description – Configuration Data Back Up

Configuration data for the connection can be stored into a file.



## 5.4. Detailed Description – Recording Schedule

### •Set up recording schedule

1 CLICK to start scheduling

#### Caution :

•Recording is done only on the channels under live connection.

2 Select for one time recording set up

Select for recording for a time zone everyday.

Select for recording for a time zone on specified dates of a week.

4 Select channels to record. For the selection check at the box for desired channel. Check "all" to select all of the channels.

5 Click to apply the change.

Click to neglect the change.

3 Start and stop time for one time recording in year(4), month(2), date(2), hour(2), minute(2), and second(2). Numbers in the parenthesis are the number of digits assigned for entering each field. **The start time for this example is 17:57:00 of 10<sup>th</sup> of Aug, 2005.**

Recording Schedule

Set #1

One time  2005 8 10 17 : 57 : 00  
- 2005 8 10 19 : 00 : 00

Daily  0 : 0 : 0 - 0 : 0 : 0

Weekly  0 : 0 : 0 - 0 : 0 : 0

Sun  Mon  Tue  Wed  Thu  Fri  Sat

all

Apply

<input checked="" type="checkbox"/>	[1] Untitled - IP:172.16.65.50, PORT:5540
<input checked="" type="checkbox"/>	[2] Untitled - IP:172.16.65.50, PORT:5540
<input checked="" type="checkbox"/>	[31] Untitled - IP:172.16.65.50, PORT:5540

## 5.5. Detailed Description – Playback

- Playback video recorded in the HDD of the PC

1 Stop live connection and click to start playback

Caution :

- Playback does not apply to the files recorded on the DVR
- Stop Live connection before playback.

Command mode control window

There are two ways of selecting file to playback, which are command mode and graphic mode...

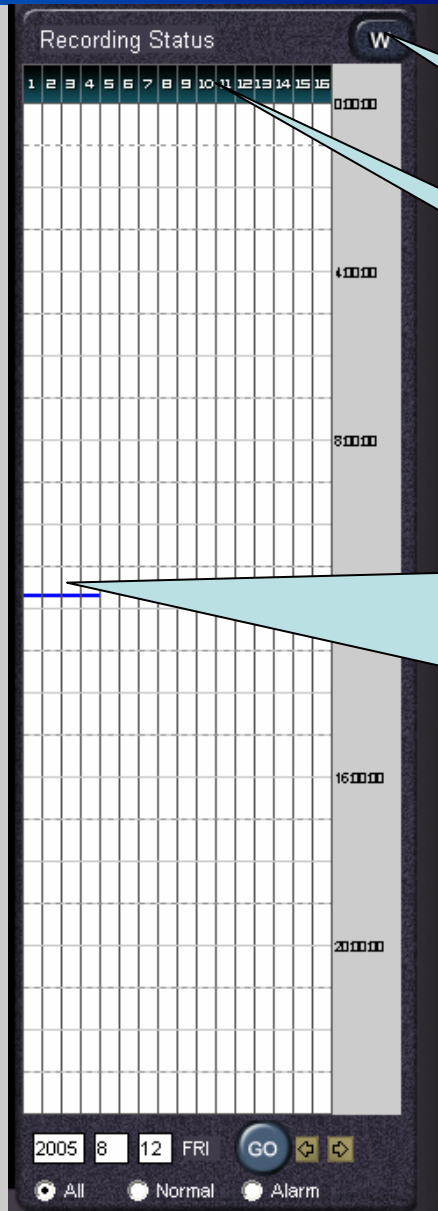
Graphic mode control window

2

Make selection using either mode than click for the playback.

The screenshot displays the myNVR playback interface. At the top, there is a navigation bar with icons for camera, file, folder, document, and other functions. The main area is divided into several sections: a central playback control window, a recording status grid, and a multi-camera video feed. The playback control window is titled "Playback" and includes fields for "Jump to" (2005 7 13 11 : 43 : 28), "Select Alarm", "Open File", and "Play Speed" (1x Play). Below these are several circular buttons for playback control and an "X" button. The recording status grid shows a calendar view with a blue bar indicating recording activity. The bottom of the screen features a status bar with the date "2005 8 12 FRI" and a "GO" button.

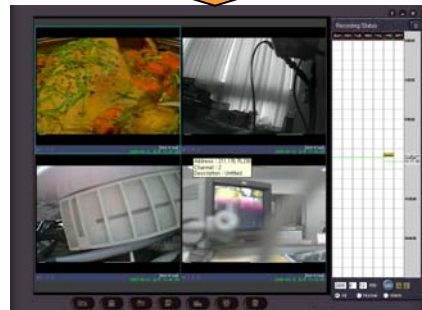
## 5.5.1. Detailed Description – Playback in Graphic Mode



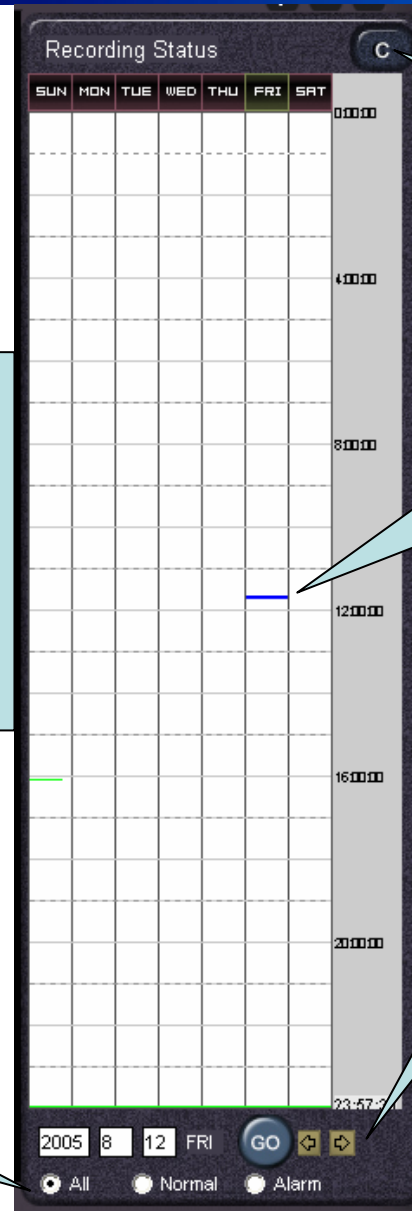
Click to display recording summary of a week.

Channel number

1. Move the cursor to appropriate position,
2. Press left mouse button and drag down to select a time zone
3. Release the button and press right mouse button and select "Play" to start playback.



Search filter



Click to display a summary of a day by channel.

Recorded time zone. Manual and schedule recording are indicated in blue while alarm file is indicated in red.

Select date



## 5.6. Detailed Description – Alarm Recording

### •Set Alarm Recording on the PC

1

CLICK to start alarm recording set up

Caution :

•This alarm recording set up applies only to the client side. And it does not affect alarm set up on the DVR

The screenshot shows the 'Alarm Recording' configuration window. It includes a 'Duration' field set to '10' with a 'Sec' label. Below it is an 'Alarm Sound' field with a file path 'C:\Program Files\Net\Video\My' and a 'File' button with a checkmark. A list of channels is shown with checkboxes: 'all' (unchecked), and four channels (1-4) with IP:211.178.75.230, PORT:6505. Channels 1, 2, and 3 are checked, while channel 4 is not. At the bottom are two buttons: a checkmark button and an 'X' button.

Duration for the alarm recording.

Select sound file for alarm notification.

Select channels to apply alarm recording.

Apply the change and return to the previous menu.

Ignore the change and return to the previous menu.

## 5.7. Detailed Description – HDD Management

- Set the size for recording the AV data on the PC and control overwrite mode

1 CLICK to start HDD management



Caution :

- This HDD management only to the client side. And it does not affect HDD on the DVR

2 CLICK to start HDD management

Size of HDD space to reserve for recording on the PC

Name of the folder to record the data into.

Disk Space for Recording

1 GB / 37.260 GB

C:\Program Files\NetVideo\MyNVR\Backup Folder

**❖ If Disk Full**

Replace oldest files

Stop recording

✓ X

Select action when the reserved disk space is full.

Apply the change and return to the previous menu.

Ignore the change and return to the previous menu.

# 5.8. Detailed Description – Live Connection and Recording

The screenshot displays a 4x4 grid of 16 video channels. The top row shows live feeds of a news studio. The right side of the interface features a control panel with an HDD progress bar, a 16-button sensor status keypad, an 8-button relay on/off keypad, a remote playback button, and a directional pad with Z+ and Z- buttons. Three callout boxes provide instructions: the first points to the top-left channel, the second points to the top-right channel, and the third points to the recording button on the control panel.

Click for live connection to all the channels. Connection information are programmed through IP assignment.

Click to disconnect live connection or recording

Click to record video and audio from all the live connection.

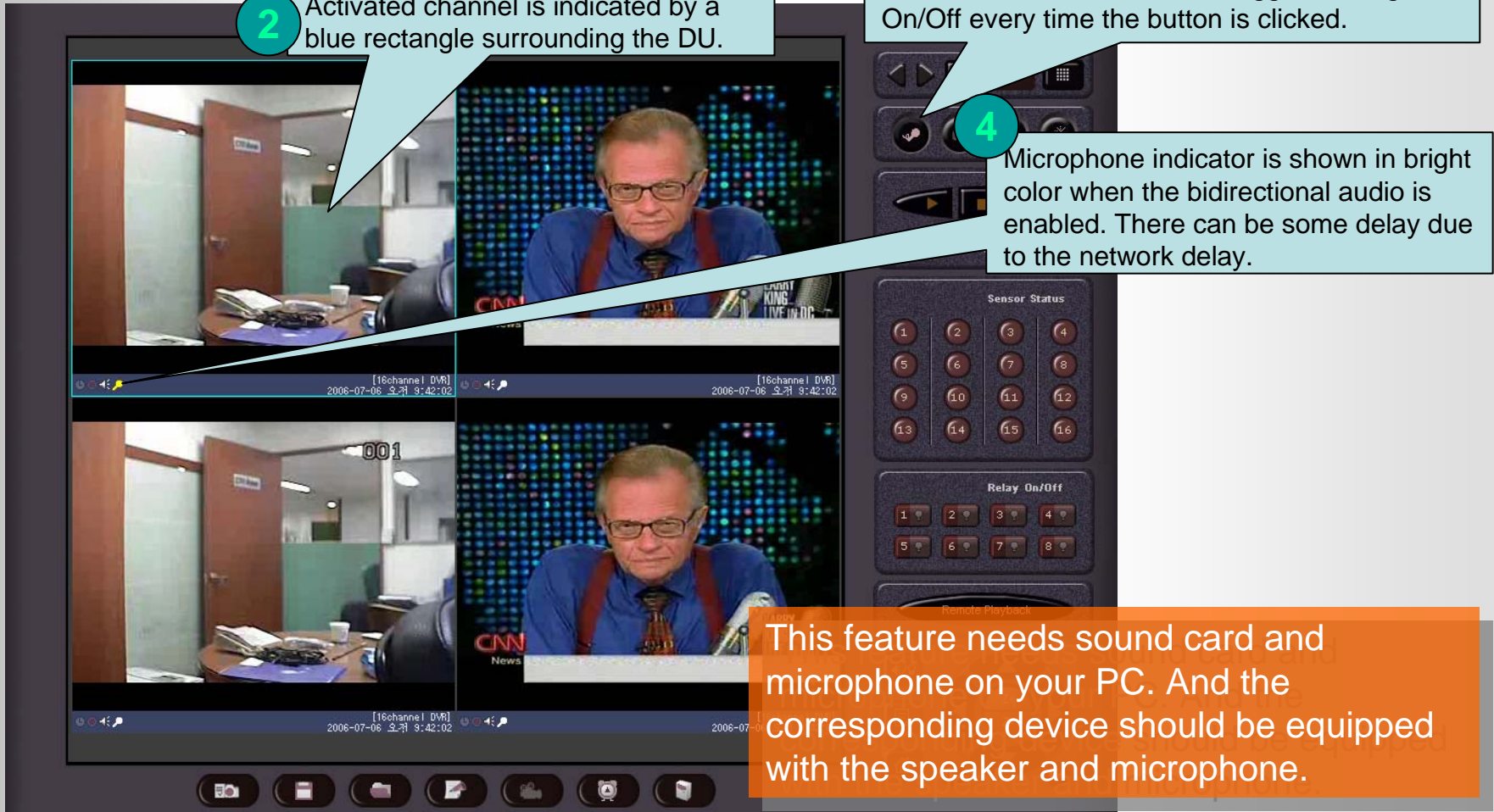
## 5.9. Detailed Description – Bidirectional Audio

- A feature enabling bidirectional audio communication with corresponding device.

- 1 Locate the cursor on the corresponding channel and click.
- 2 Activated channel is indicated by a blue rectangle surrounding the DU.

- 3 Click to activate bidirectional audio communication. This feature toggles through On/Off every time the button is clicked.

- 4 Microphone indicator is shown in bright color when the bidirectional audio is enabled. There can be some delay due to the network delay.



## 5.10. Description – Still Image Capture

- A feature to capture and record still image from a live channel.

- 1 Locate the cursor on the corresponding channel and click.
- 2 Activated channel is indicated by a blue rectangle surrounding the DU.

- 3 Click to capture and store the still image from the corresponding live channel. Captured video is stored in bmp type.



## 5.11. Detailed Description – Rotating the Video

1 Locate the cursor on the corresponding channel and click.

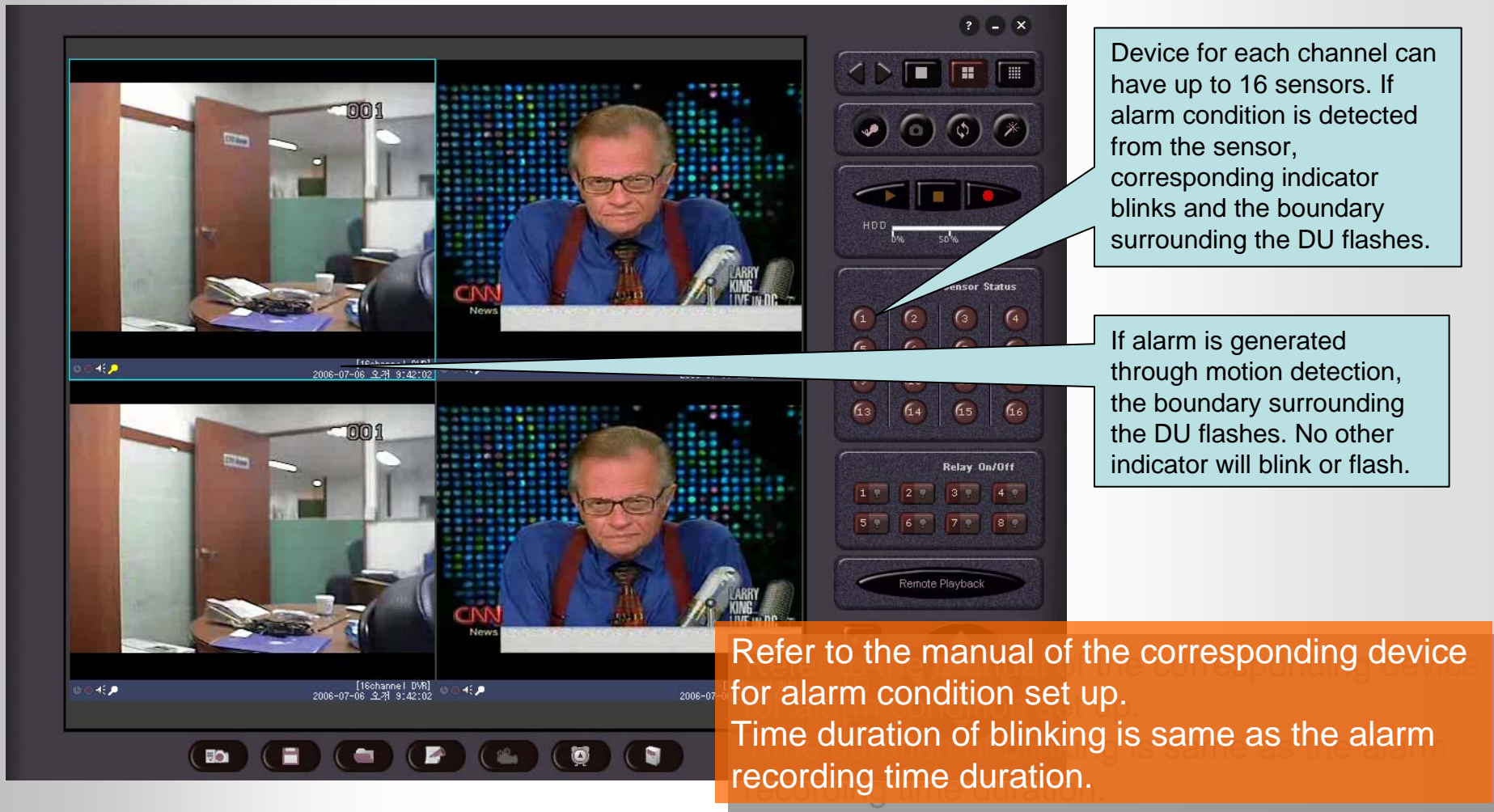
2 Activated channel is indicated by a blue rectangle surrounding the DU.

3 Click to rotate the video by 180 degree.



## 5.12. Detailed Description – Alarm Indication

- If connected device generates alarm by sensor or motion detection, the alarm condition is transmitted to the myNVR. Upon sensor alarm, corresponding sensor indicator is lit red and the boundary of the DU is indicated as a flashing orange color. If alarm was caused by motion, sensor indicator will not change.



Device for each channel can have up to 16 sensors. If alarm condition is detected from the sensor, corresponding indicator blinks and the boundary surrounding the DU flashes.

If alarm is generated through motion detection, the boundary surrounding the DU flashes. No other indicator will blink or flash.

Refer to the manual of the corresponding device for alarm condition set up. Time duration of blinking is same as the alarm recording time duration.

## 5.13. Detailed Description – Remote Relay On/Off

- A feature for On/Off control of the relay remotely.



Up to 8 relays can be controlled remotely. Click for On/Off control of the relay.

- Refer to the manual of the corresponding device for setting up the relay.
- Regardless of the control, the status of relay can go back to the former status depending on the set-up of the relay. For example if relay is programmed for generating alarm signal, the status will change spontaneously upon alarm condition. It can also trigger alarm on the myNVR, too.
- There can be delay caused by the network.

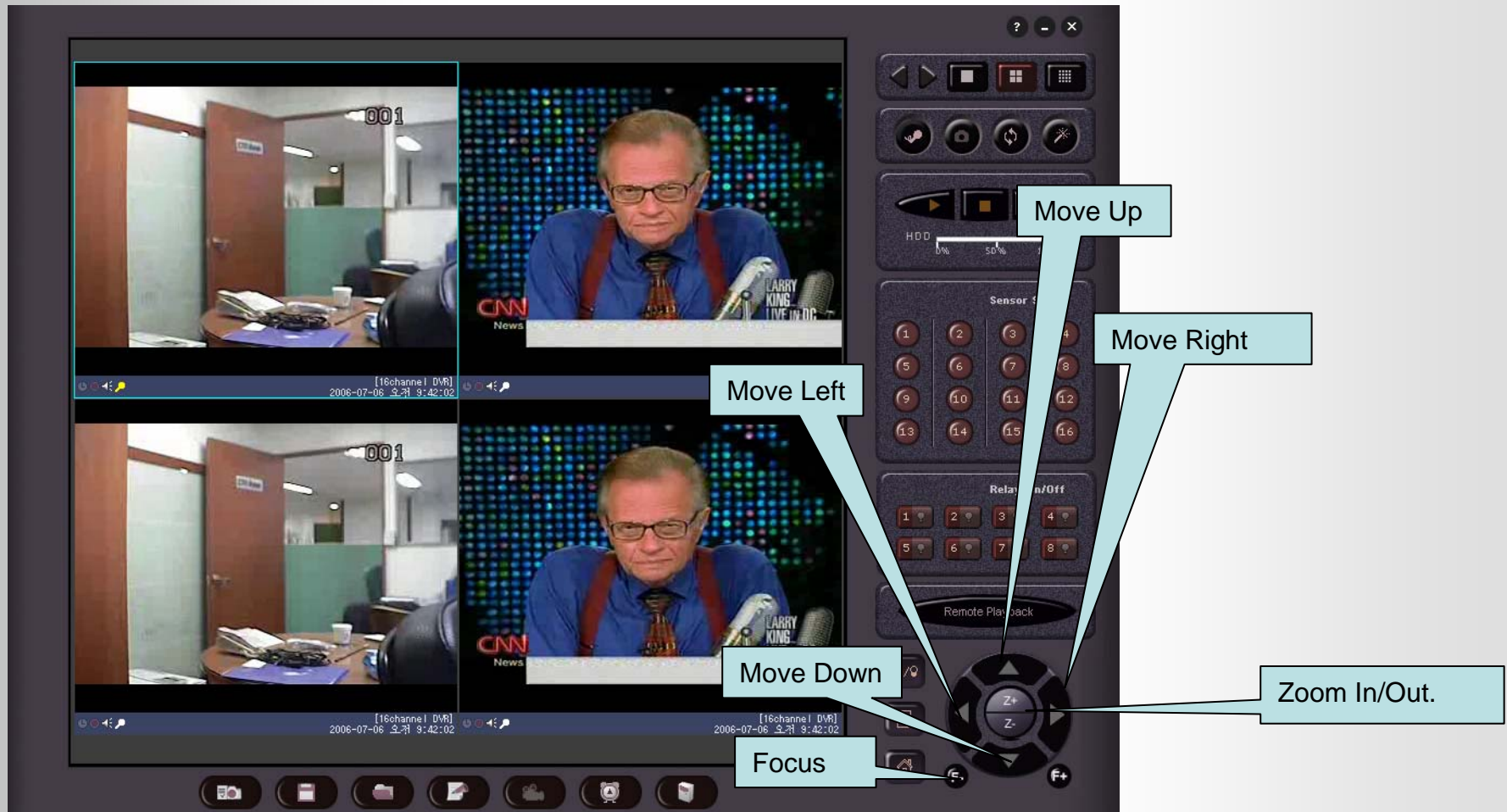
## 5.14. Detailed Description – Video and Audio Adjustment

The image shows a video player interface with two video thumbnails. The top thumbnail shows a news anchor on CNN, and the bottom thumbnail shows a desk scene. A control panel on the right side of the interface includes various settings. Callouts point to specific controls:

- Contrast control:** Points to the Contrast slider in the settings panel.
- Brightness control:** Points to the Brightness slider in the settings panel.
- Volume control:** Points to the Volume slider in the settings panel.
- Check to mute the audio:** Points to the Mute checkbox in the settings panel.
- Check to mix the sounds from all live channels:** Points to the Mute checkbox in the settings panel.

Audio will be available only when the corresponding device is programmed to enable the audio. Refer to the manual of the corresponding device.

## 5.15. Detailed Description – Pan/Tilt/Zoom/Focus control



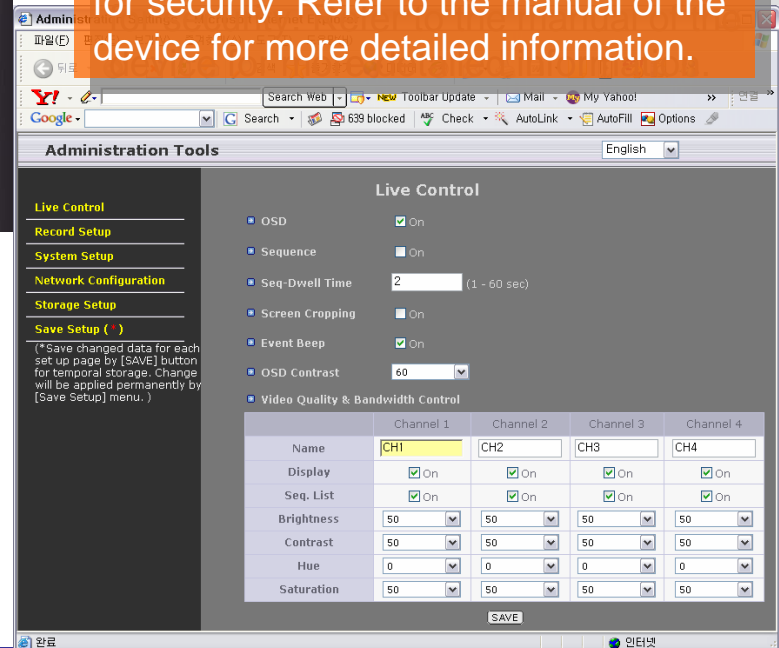
Buttons for the PTZ and Focus controls become active only when they are being clicked on. Releasing the button will cause stop of the designated action. Delay in the button function will be observed due to network delay.

# 5.16. Detailed Description – Remote Set Up



1 Highlight a channel which is in live connection and click to connect to admin page for remote set up.

2 Internet Explorer will be launched and connection to the admin page will be made. It is needed to enter ID and password for the administrator. Default values are "root" and "dw2001". You are requested to change these parameter after the connection for security. Refer to the manual of the device for more detailed information.



# 5.17. Detailed Description – Remote Playback

- A feature for playing back the video stored on the HDD of the DVR

**1** Stop Live Connection and Click on Remote Playback

Search List  
Select the desired data by checking at the box at the left. Cause of the recording is indicated by different color and word in RecType field.

Calendar for search date selection. Dates having recorded data are indicated by small colored square box.

Click to update search list

Stop playback or Recording.

Start playback.

Slow down the playback speed by clicking on proper speed during playback. To return to normal speed, click on FF button

Start recording of the video being played back on the PC HDD. Recorded video on the HDD can be played back as in section 5.5.2.

Go back to Live connection mode. You have to stop playback before going back to live mode.

# 5.17. Detailed Description – Remote Playback

Recording types are indicated by colors.  
**C:** continuous, **M:** Motion, **S:** Sensor, **R:** Manual.

Still Video capture :  
Highlight a channel and click on this button to capture a still video.

1 Click to on a date

2 Click to launch search window

3 Indicator for starting time  
3 Double click on the hour bar to select hour of the day.

4 Double click on to determine min:sec for the search

5 Click to start playback. While playing back this button will be pause button

Check at the box to enable playback for the channel. Check should be made before playing back the video. It is useful in saving network bandwidth

REW : Clicking on the button repeatedly will change the playback speed to -1, -2, -4, -8, -1..., in sequence

FF : Clicking on the button repeatedly will change the playback speed to +1, +2, +4, +8, +1..., in sequence

Click on arbitrary position on the bar to jump to arbitrary position. Playback will restart from time which corresponds to nearest multiple of 15 seconds.

Playback speed indicator