AVerMedia®
AVerDiGi EH5116 PRO

User Manual

FCC NOTICE (Class A)

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.

Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:

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.

European Community Compliance Statement (Class A)

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/EEC.

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.

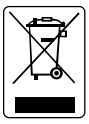
In no event will AVerMedia be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use this product or documentation, even if advised of the possibility of such damages.

TRADEMARKS

AVerMedia, being authorized AVerMedia Information, Inc. to use, is registered trademarks of AVerMedia TECHNOLOGIES, Inc. IBM PC is a registered trademark of International Business Machines Corporation. Macintosh is a registered trademark of Apple Computer, Inc. Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation. All other products or corporate names mentioned in this documentation are for identification and explanation purposes only, and may be trademarks or registered trademarks of their respective owners.

COPYRIGHT

© 2008 by AVerMedia INFORMATION, Inc. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means without the written permission of AVerMedia INFORMATION, Inc.



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 WITH 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 1

1.1 Package Content 1

1.2 Features and Specifications 1

1.3 Front Panel 2

1.4 Back Panel 5

1.5 Setting Up the DVR Unit 6

1.5.1 Installing the Removable Hard Disk 6

1.5.2 Install Internal SATA Hard Disk 8

1.5.3 Connecting Devices 10

1.6 Sensor, Relay and RS485 pinhole allocation 11

1.6.1 Sensor Pin Definition 11

1.6.2 Relay Pin Definition 11

1.6.3 RS485 Pin Definition 12

1.7 Familiarizing the Remote Control Buttons 13

Chapter 2 Using the DVR Software 15

2.1 The Way to Operate DVR 15

2.1.1 Using DVR Unit for First Time 15

2.2 Familiarizing the Buttons in Preview Mode 17

2.2.1 Setting Up and Using the Emap 18

2.2.2 Familiarizing the Buttons in PTZ Camera Controller 19

2.2.3 Using Event Log Viewer 20

2.3 Familiarizing the Buttons in Playback Mode 21

2.3.1 To Bookmark a Video Section 23

2.3.2 Using the Event Search 23

Chapter 3 Customizing the DVR System 24

3.1 System Setup 24

3.2 Camera Setup 27

3.2.1 To Setup IP Camera 27

3.2.2 To Setup Analog Camera 30

3.3 Recording Setup 31

3.3.1 Setup IP Camera Record Setting 31

3.3.2 Setup Analog Camera Record Setting 32

3.4 Network Setup 34

3.5 Schedule Setting 37

3.6 Backup Setup 38

3.6.1 Playback Backup Video 39

3.6.2 To Search Using the Event Search 41

3.6.3 To Search Using the Intelligent Search 42
3.7 Sensor Setting 43
3.8 Relay Setting 43
3.9 Alarm Setting 44
3.10 User Setup 48
Chapter 4 Using the UPC to Playback Backup File 49
4.1 Recommended system requirements 49
4.2 Installing the USB Playback Console 49
4.3 Running the USB Playback Console 50
4.3.1 To Cut and Save the Portion of the Recorded Video 52
4.3.2 Playback DVR Recorded File from Hard Disk 52
4.3.3 Playback Backup File(*.dvr) 53
4.3.4 To Backup Recorded File 53
Chapter 5 ImageVerification 55
5.1 To Run the ImageVerification 55
Chapter 6 iEnhance 56
6.1 To Use iStable 57
Chapter 7 Using the Remote Programs 58
7.1 Familiarizing the WebViewer Buttons 59
7.2 Familiarizing the Remote Console Buttons 61
7.2.1 To Setup Remote Console Setting 62
7.3 Familiarizing the WebViewer PTZ Buttons 63
7.4 Using the Remote Playback 63
7.4.1 Familiarizing the Local Playback Buttons 65
7.4.1.1 To Cut and Save the Wanted Portion of the Recorded Video 66
7.4.2 Familiarizing the RealTime Playback Buttons 67
7.4.3 Familiarizing the Download and Playback Buttons 68
Appendix A Registering Domain Name 70
Appendix B Network Service Port 71
Appendix C Using Functional Keys 72

Chapter 1 Introduction

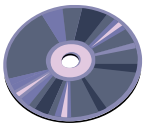
1.1 Package Content

(1)

(2)

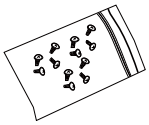
(3)

(4)



(5)

(6)



(7)

(8)

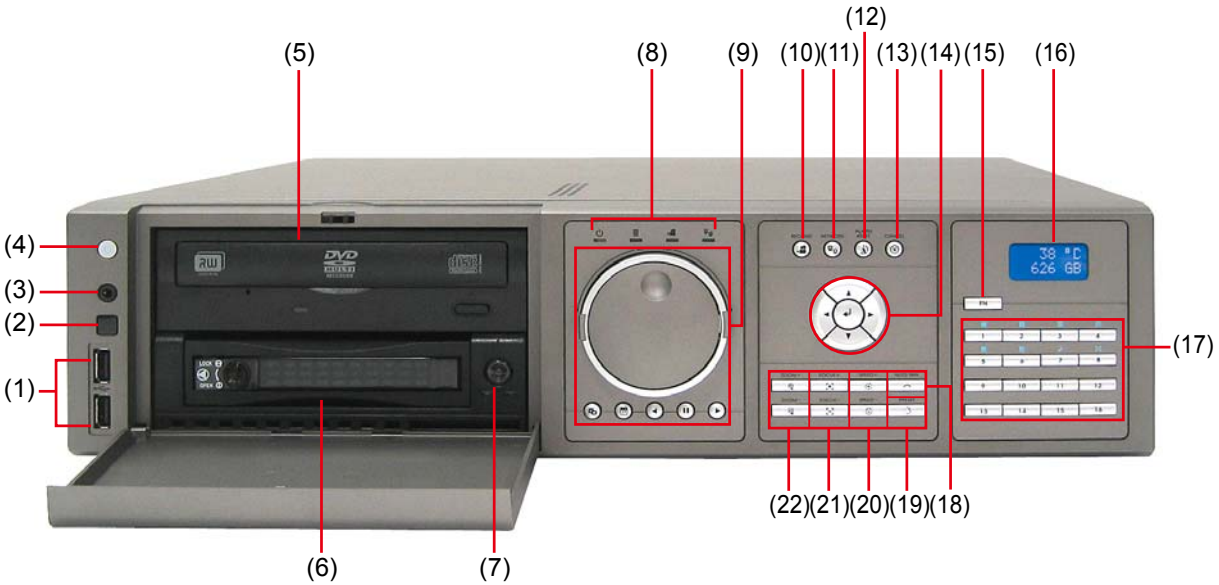
- ☐ (1) EH5116 PRO unit
- ☐ (2) Remote Control (batteries included)
- ☐ (3) Quick Installation Guide
- ☐ (4) Power Cord
  * The power cord varies depending on the standard power outlet of the country where it is sold.
- ☐ (5) Software CD (User Manual included)
- ☐ (6) SATA cable
- ☐ (7) 12 * screws for HDD installation
- ☐ (8) Audio cable (16CH audio in/1CH audio out/1CH MIC in)

1.2 Features and Specifications

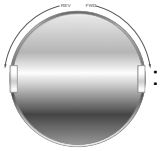
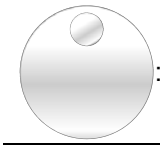
- ■ Supports 16CH analog or 16CH IP camera
- ■ UP to 2.3 MegaPixel IP camera supported
- ■ Gigabit LAN supported
- ■ TV and VGA output supported
- ■ Front panel LCD display supported
- ■ 16 Sensor in and 4 Relay out supported
- ■ Full function mouse and keyboard control from front panel USB port
- ■ USB backup to pen drive and external hard disk supported
- ■ DVD backup (up to 4.7GB)
- ■ Support 1 removable HDD and 3 internal HDD(Not inculded)
- ■ Supprot eSATA RAID
- ■ Playback application is included for playback video
- ■ Remote playback and backup
- ■ Jog/Shuttle for playback

- On-line firmware update
- JavaViewer on mobile phone and PDAViewer supported
- WebViewer on Internet Explorer supported
- Central Management System(CMS) supported
- Remote console supported
- Support network, playback, and recording simultaneously
- Full-screen resolution: 1024 x 768(VGA) / 720 x 480 (NTSC) / 720 x 576 (PAL)
- Recording frame rate:
  - ✓ 120fps D1 if all Analog camera
  - ✓ 240fps D1 if all IP camera
  - ✓ Analog camera 120fps D1 and IP camera 120fps D1 simultaneously if Analog and IP camera combo
- It can support IP camera resolution up to 1920 x 1200
- Scheduled recording (00:00~23:00 set by hour and week)
- Search for recorded video files by date/time/event
- Support daylight saving and network time synchronize

1.3 Front Panel

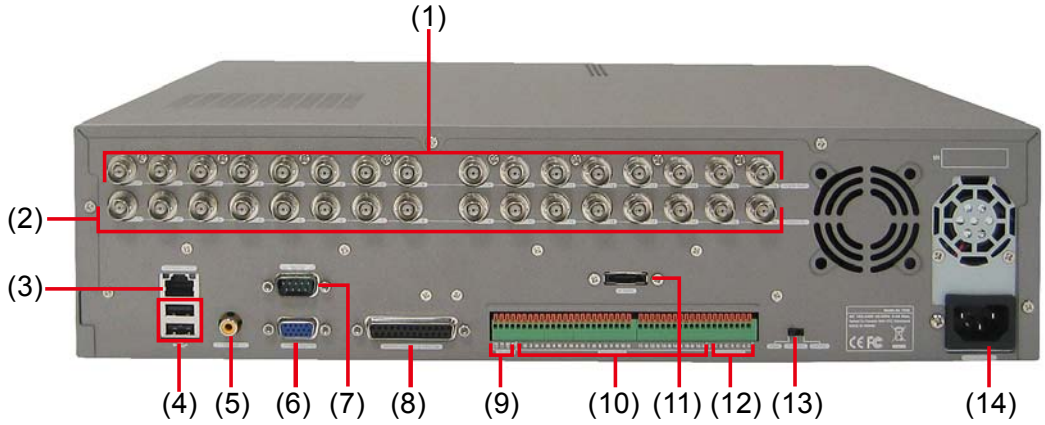


Name	Function
(1) USB 2.0 port	2 x USB 2.0 ports for connecting USB device, ex: USB pen drive, external hard disk, keyboard, mouse…and so on.
(2) IR Sensor	Receive signal from the remote control to operate the DVR unit
(3) IR Sensor port	For extended IR sensor cable(optional)
(4) Power	ON/OFF DVR unit
(5) DVR-ROM	To backup the recorded file to DVD±R/DVD±RW disk
(6) Removable Hard Disk Draw	To install hard disk for storage recorded video file
(7) Removable Hard Disk Power	Removable hard disk power switch

Name	Function
(8) Status LEDs	system status indicators: : System power indicator. Indicate running state of system. Lights when the system is running. : Removable hard disk indicator. Indicate running state of the hard disk. Lights when the HDD is running : Recording status indicator. Lights when the system is recording. : Network status indicator. Lights when remote accessing.
(9) Playback button	Playback control button in playback mode  : Speed shuttle for adjusting reversed and forward (2x, 4x, 8x, 16x or 32x) speed during playback. Turn left is reversed and turn right is forwarded.  : To move to next or previous frame during playback. Turning left is to go back to one previous frame and turning right is to go forward one frame. : Switch to playback mode or preview mode : To select the playback date and time : To temporary stop playback : To reverse playback : To play the recorded video
(10)	To start recording video
(11)	To enable network connection
(12)	To reset alarm status
(13)	Cancel a selection
(14)	**In PTZ mode:** To move PTZ camera lens to left, right, up and down Confirm or make a selection

Name	Function
(15) FN	A functional key for multiple system control - Press FN to enable multiple function modes and the FN button will light up blue. - To exit multiple function modes, press FN again. FN + 1 : Switch to single screen display mode FN + 2 : Switch to QUAD display mode FN + 3 : Switch to 9 spilt screen display mode FN + 4 : Switch to 16 split screen display mode FN + 5 : Switch to one single and 8 spilt screen display mode FN + 6 : Switch to one single and 12 spilt screen display mode FN + 7 : To enable auto scan function FN + 8 : Switch to full screen display mode
(16) LCD Display	Display DVR system status such as temperature and operate status
(17) Number button	1 ~ 16 - As a number key for entering password in playback and preview mode - Channel camera selection number in playback and preview mode - With FN button can switch to different screen display modes, only 1 ~ 8. - As a preset position with in PTZ control mode
(18) Auto Pan	To enable auto pan function
(19) PTZ Save	To save the preset position of PTZ camera. Adjust the PTZ camera lens to the position that user wants, and then press + number button (1~16) to save the preset position. (see also Chapter 2.1.3.2) When the PTZ camera in PTZ mode, press preset position number button to move the PTZ camera to preset position.
	Without setup preset position, the preset button ( ) will not be functional when user presses.
(20) Speed + / Speed -	To speed up movement of PTZ camera lens To speed down movement of PTZ camera lens
(21) Focus + / Focus -	To focus in PTZ camera lens To focus out PTZ camera lens
(22) Zoom + / Zoom -	To zoom in view of PTZ camera lens To zoom out view of PTZ camera lens

1.4 Back Panel



Name	Function
(1) Video Loop Out	Output the video signal to a CCTV monitor. Only output one channel signal at a time.
(2) CH1~ 16	Input the video camera signal and display it on channel 1~ 16
(3) LAN Port	For Gigabit Ethernet connection
(4) USB Port	For connecting USB interface devices.
(5) VGA Out	Output the video signal to a CRT or LCD monitor
(6) Audio Out	Output the audio signal to audio output device
The audio input device needs to be powered by external power.	
(7) RS232 port	For future functions using
(8) TV Out	Output the video signal to TV
(9) RS485	For PTZ camera connection (also see 1.5.3)
(10) Sensor In	Support up to 16 sensor devices
(11) eSATA port	For connecting with RAID system
(12) Relay Out	Support 4 relay devices (Relay: 1A @ 125V AC/30V DC)
(13) VGA/TV-NTSC/TV-PAL switch	Switch to select the video output. Make sure to set the video output before turning on the unit ■ **VGA:** DVR output the video to a LCD monitor or a CRT monitor ■ **TV-NTSC:** DVR output the video to a TV and video system is NTSC ■ **TV-PAL:** DVR output the video to a TV and video system is PAL
(14) Power Plug	Connect the power cord into this port

1.5 Setting Up the DVR Unit

1.5.1 Installing the Removable Hard Disk

The DVR unit allows user to install one hard disk in the removable drawer.

For hard disk spec, please referring to http://www.avermedia.com/AVerDiGi/Product/ → Embedded Hybrid DVR/NVR → AVerDiGi EH5116 PRO → Hardware Recommendations

The “compatible hard disks” indicated in the above recommendation list only means that these commercially available hard disks were tested with AVerMedia® products and functioned well under normal operation conditions. AVerMedia® does not guarantee or provide warranties, explicitly, implied or statutory with respect to the reliability of the hard disk function or its compatibility. In no event AVerMedia® shall be liable for damages, with respect to any business interruption of clients, lost profits, loss of programs or other data on your information handling system or otherwise. This includes direct, indirect, incidental, special, or consequential damages, resulting from the incompatibility caused by the usage of these hard disks, even if AVerMedia® has expressly advised about the risk of such damages. The entire risk arising out of the use of any information attached here with is borne by the recipient.

Follow the illustrated instructions below to install the hard disk:

1. Unlock the removable hard disk drawer

2. Open the removable hard disk drawer

3. And then, pull out the removable hard disk drawer

4. Remove the removable hard disk drawer cover

5. Carefully insert the hard disk in the removable rack

6. Turn the removable hard disk drawer over and screw hard disk with screws

7. And then, close the removable hard disk drawer cover

8. Slide the drawer back

9. Lock the removable hard disk drawer keylock

10. Power on the removable hard disk drawer

11. You may now connect all the cables and power on the DVR unit.

1.5.2 Install Internal SATA Hard Disk

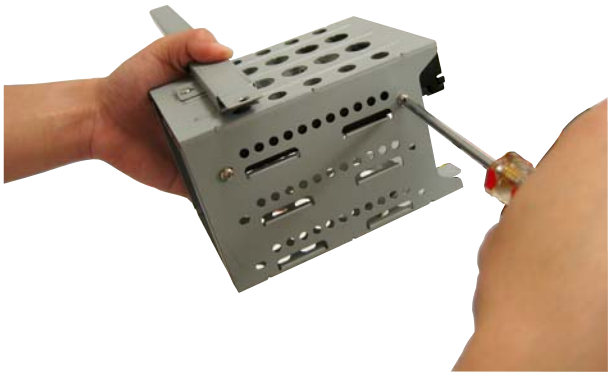
User can install up to 3 SATA hard disks inside the DVR unit if it is necessary. Please follow the below steps to install the hard disk.

1. Loosen all screws and push the cover backward and lift

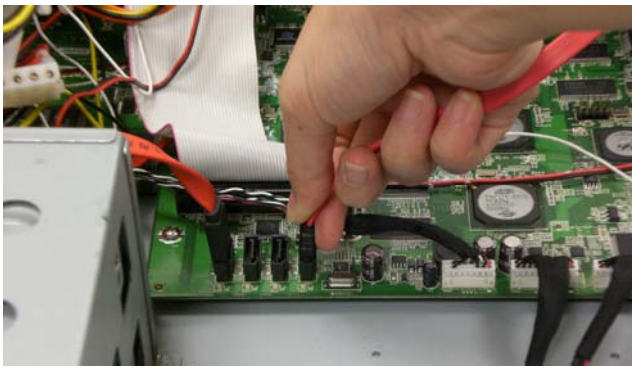
2. Loosen the screws of holder in order to take out the hard disk rack.

3. Take out the hard disk rack from DVR unit and slide the hard disk into it.

4. Secure the hard disk both side



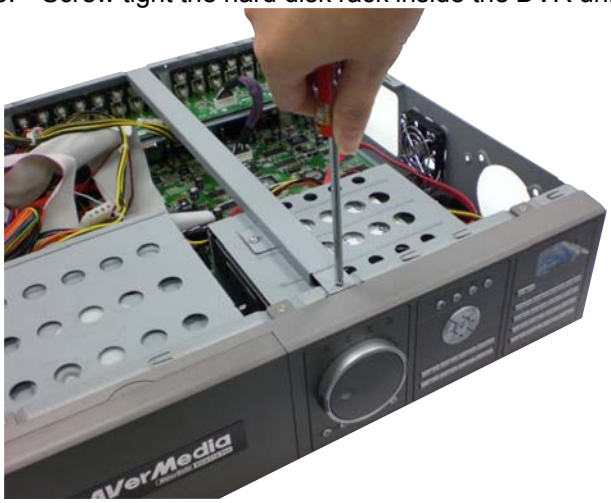
5. Plug the SATA cable into SATA connector on the PC board



6. Plug another side of SATA cable into hard disk

7. Plug the power cable into hard disk

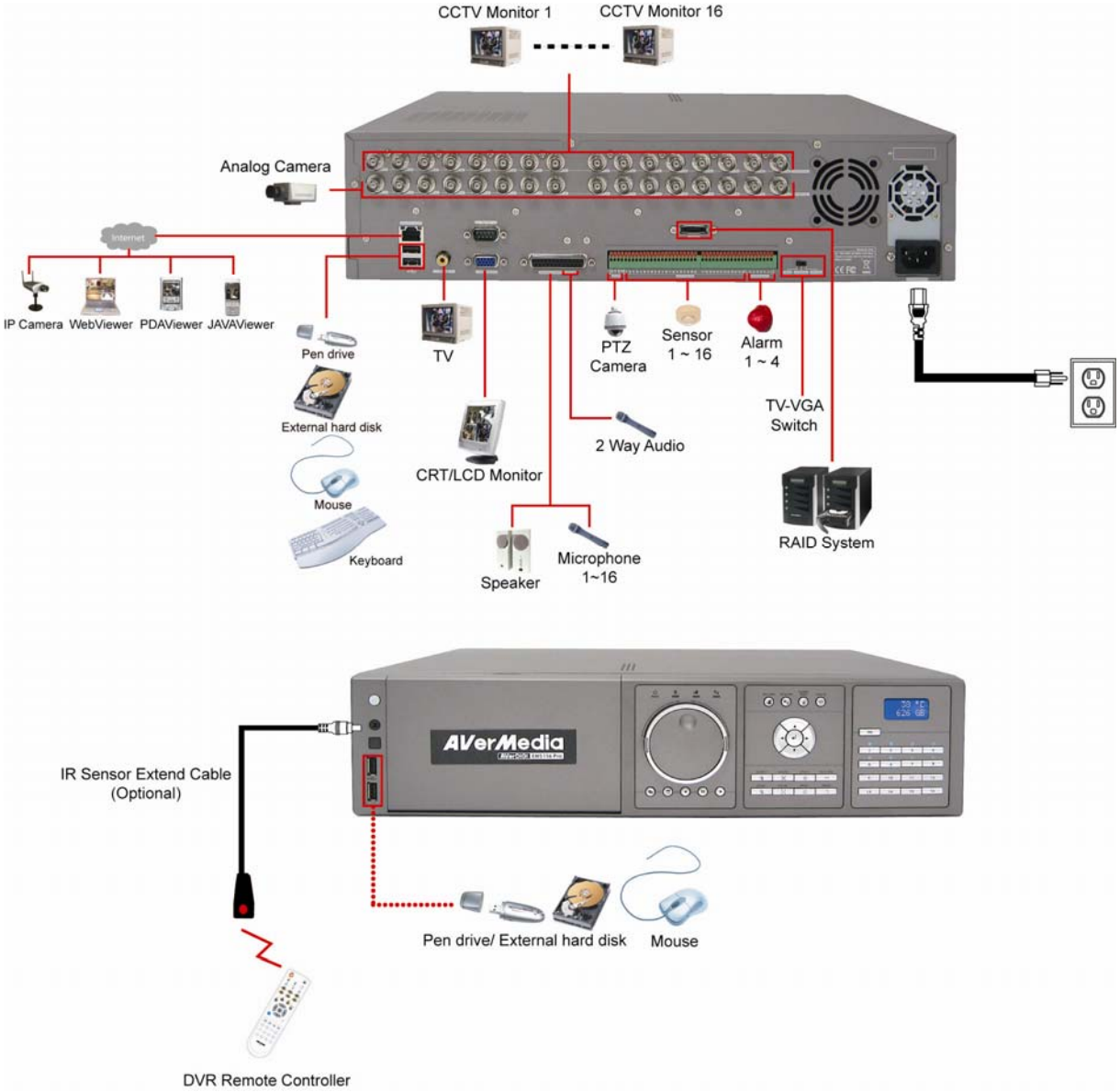
8. Screw tight the hard disk rack inside the DVR unit



9. Push the cover forward and secure the cover

1.5.3 Connecting Devices

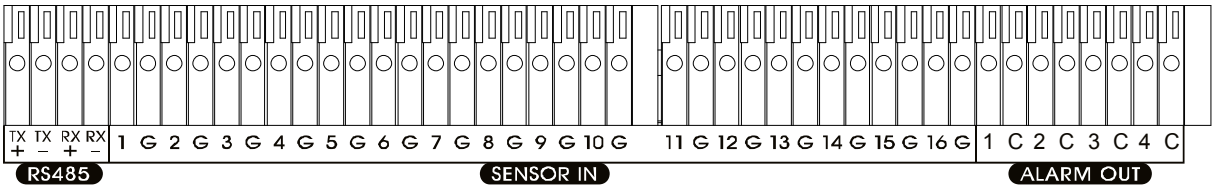
The back panel of the DVR unit, user can connect up to 16 cameras in combination of analog and IP camera. The DVR unit also can connect 16 sensor devices, 4 alarm devices, and output video to a TV or CRT/LCD monitor. For backup recorded video, plugging the pen drive or external hard disk through USB port, and then, use the bundled software enables user to transfer, playback and segment the video. Follow the illustration below to make the connection:



⚠	– Each time you change the video display output, the power must be turned **off** and switch the video display output, and then turn **on** the DVR unit. – Pen drive and external hard disk must be FAT32 format.
ⓘ	– All connected devices need to be powered by external power. – DVR unit can connect 16 cameras in analog and IP cameras combo.

1.6 Sensor, Relay and RS485 pinhole allocation

The Sensor and Alarm enable you to connect 16 sensor inputs, 4 relay outputs and 1 PTZ camera.. Just connect the external sensor, relay, and PTZ camera pin directly to the pinhole. Check the table below and locate which pinhole is assigned to sensor input and relay output.



1.6.1 Sensor Pin Definition

Sensor Pin #	Definition	Sensor Pin #	Definition
1	Sensor 1 signal	**9**	Sensor 9 signal
G	Sensor 1 ground	**G**	Sensor 9 ground
2	Sensor 2 signal	**10**	Sensor 10 signal
G	Sensor 2 ground	**G**	Sensor 10 ground
3	Sensor 3 signal	**11**	Sensor 11 signal
G	Sensor 3 ground	**G**	Sensor 11 ground
4	Sensor 4 signal	**12**	Sensor 12 signal
G	Sensor 4 ground	**G**	Sensor 12 ground
5	Sensor 5 signal	**13**	Sensor 13 signal
G	Sensor 5 ground	**G**	Sensor 13 ground
6	Sensor 6 signal	**14**	Sensor 14 signal
G	Sensor 6 ground	**G**	Sensor 14 ground
7	Sensor 7 signal	**15**	Sensor 15 signal
G	Sensor 7 ground	**G**	Sensor 15 ground
8	Sensor 8 signal	**16**	Sensor 16 signal
G	Sensor 8 ground	**G**	Sensor 16 ground

1.6.2 Relay Pin Definition

Relay Pin #	Definition
1	Relay signal
C	Relay Common
2	Relay signal
C	Relay Common
3	Relay signal
C	Relay Common
4	Relay signal
C	Relay Common

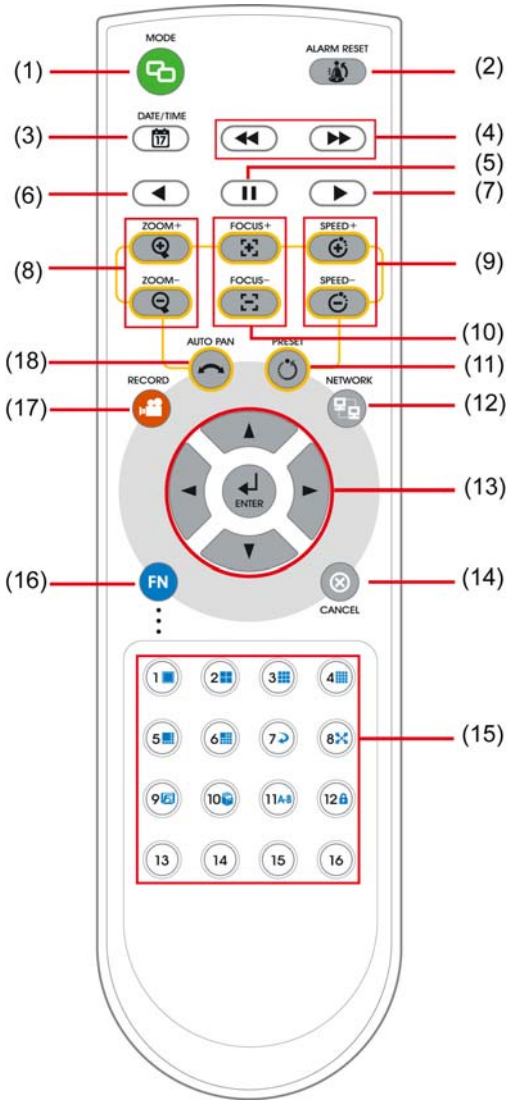
1.6.3 RS485 Pin Definition

When connect PTZ camera through RS485 interface, please refer to the following pin definition to connect the DVR and PTZ.

Pin #	DVR site	PTZ site
TX+	RS485 TX+ signal	RS485 RX+ signal
TX-	RS485 TX- signal	RS485 RX- signal
RX+	RS485 RX+ signal	RS485 TX+ signal
RX-	RS485 RX- signal	RS485 TX- signal

1.7 Familiarizing the Remote Control Buttons

Use the Remote control to operate the DVR unit.



Name	Function
(1)	Switch to playback mode
(2)	To reset alarm status
(3)	To select the time and date of playback file
(4)	Fast play the video playback at the speed of 2x, 4x, 8x, 16x, 32x, or 64x
	Decrease the video playback at the speed of 1/2x or 1/4x
(5)	To pause playing
(6)	To move the selection to the left
	To move the PTZ camera lens to the left
(7)	To move the selection to the right
	To move the PTZ camera lens to the right
(8)	To zoom in view of PTZ camera
	To zoom out view of PTZ camera
(9)	To speed up movement of PTZ camera lens
	To speed down movement of PTZ camera lens
(10)	To focus in PTZ camera lens
	To focus out PTZ camera lens
(11)	To move the PTZ camera to the preset position. Press + number button (1 ~ 16)
(12)	To enable network connection

Name	Function
(13)	To move PTZ camera to left
	To move PTZ camera to right
	To move PTZ camera to up
	To move PTZ camera to down
	Confirm or make a selection
(14)	Cancel a selection

Name	Function
(15)	1 ~ 16 - As a number key for entering password in playback and preview mode - Channel camera selection number in playback and preview mode 1 ~ 16 - As a preset position with in PTZ control mode 1 ~ 8 - With FN button can switch to different screen display modes and enable auto scan and full screen. (see also Chapter 1.7 #(16))
(16) FN	A functional key for different function control - Press FN and function button to enable functions and press again to exit. FN + 1 :Switch to single screen display mode FN + 2 : Switch to QUAD display mode FN + 3 : Switch to 9 spilt screen display mode FN + 4 : Switch to 16 spilt screen display mode FN + 5 : Switch to one single and 8 spilt screen display mode FN + 6 : Switch to one single and 12 spilt screen display mode FN + 7 : To enable auto scan function FN + 8 : To switch full screen display mode FN + 9 ~ 12 do not have any functions.
(17)	Start recording video
(18)	To enable auto pan function

Chapter 2 Using the DVR Software

2.1 The Way to Operate DVR

There are three ways can be managed the DVR unit:

1. **Using mouse and keyboard**
   Connecting the mouse and keyboard through USB interface, user can manage the DVR unit easily. For the first time using DVR unit, mouse and keyboard is the best way to set up all DVR relevant configurations.
2. **Using Remote Control**
   After DVR unit has been setup, user can use remote control to preview, playback, backup, reset alarm, output video and so on functions.
3. **Using Front Panel button**
   It's an optional way to operate DVR unit. Front panel button function acts as same as remote control.

For the first time using DVR unit, using mouse and keyboard to setup all configurations.

2.1.1 First Time Using the DVR Unit

1. Connect the mouse and keyboard to DVR unit(through USB interface)
2. Select the video output – VGA, TV-NTSC, or TV-PAL

VGA: DVR output the video to a LCD monitor or a CRT monitor
TV-NTSC: DVR output the video to a TV and video system is NTSC
TV-PAL: DVR output the video to a TV and video system is PAL

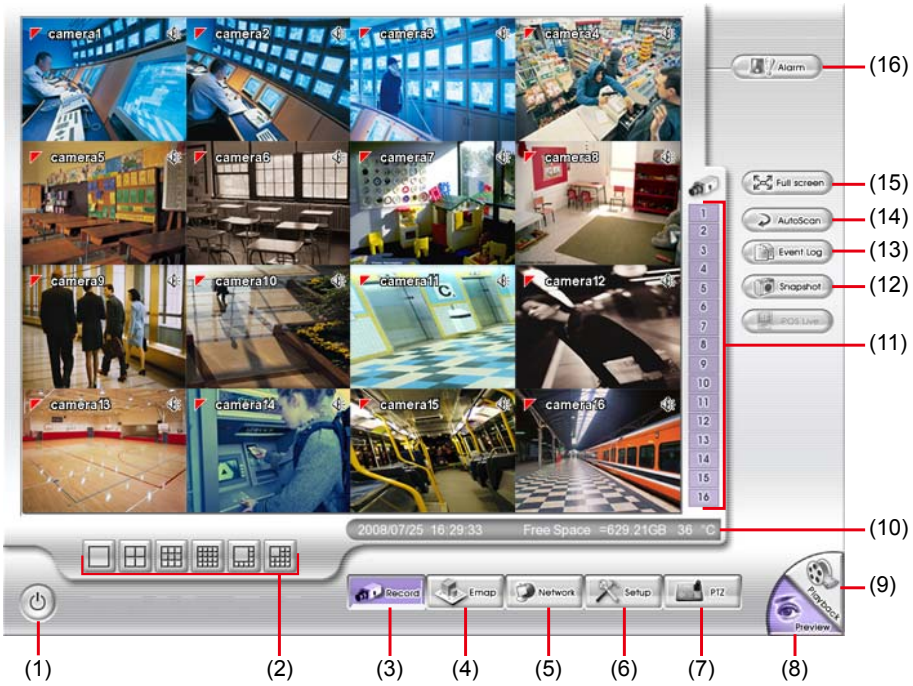
3. Power on the DVR unit.
4. For security purpose, the DVR system would require you to enter User ID and Password before it can be accessed. When the Authorization dialog box appears, select the User ID (**superuser** or **user)** and enter the Password. (superuser and user default password both are **111111**).
   After login, the main GUI as following shown:

5. The hard disk must be formatted before user can use it with DVR unit. Following the below steps to format 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 date and time in order to have correct recording time and date. Following the below steps to setup 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. Connecting the IP camera. Following the below steps to connect the IP camera.

- **To connect analog camera:**
  a. Plug the analog camera audio cable into DVR audio port.
  b. Click **Setup** → **Camera**
  c. Select camera channel and type of camera – Analog Camera
  d. And then, enable the camera
  e. Give a name of camera and enter shot description.
  f. Adjust the bright, contrast, hue, and saturation of camera
  g. Click **OK**
- **To connect 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**, **resolution**, 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. To connect another IP camera, follow the above steps.

- DVR unit can connect 16 cameras in analog and IP cameras combo.
- DVR unit doesn't supply the power to connected external device.

2.2 Familiarizing the Buttons in Preview Mode



Name		Function
(1)	Exit	**Reboot:** To restart the DVR system. It is required to enter the password **Power Off:** To shut down the DVR system. It is required to enter the password **Login:** Using different ID to login to DVR system. **Cancel:** To return to DVR application.
(2)	Split Screen Mode	Select from 6 different split screen types to view all the camera, or one camera over the other or alongside on a single screen. It also allows you to switch and view different camera number.

– When you are in single screen mode, **Right click** and **Drag** a square on the area you want to enlarge.

– When you are in single and full screen mode, partial enlarges does not support.

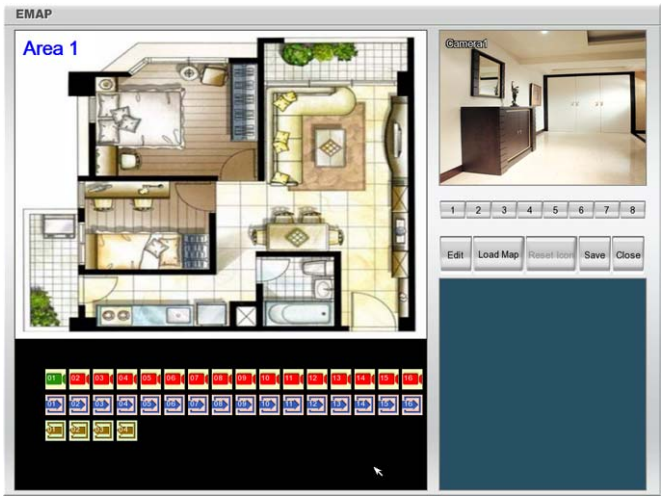
(3)	Record	Start/stop video recording.
(4)	EMap	Display the map in each area, and the location of camera/ sensor/ relay and the warning (see also Chapter 2.2.1).
(5)	Network	Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection. The default is enabling.
(6)	Setup	Configure the system settings. (see also Chapter 3)
(7)	PTZ	Access 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)
(10)	Status bar	Display the recorded date, time, hard disk space and temperature of 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)

Name	Function
(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 info. Only superuser can reset alarm status.

2.2.1 Setting Up and Using the Emap

E-Map can hold up to 8 maps in *.bmp/*.jpg format. You may locate the camera, sensor and relay on the map.

To Set Up the Emap

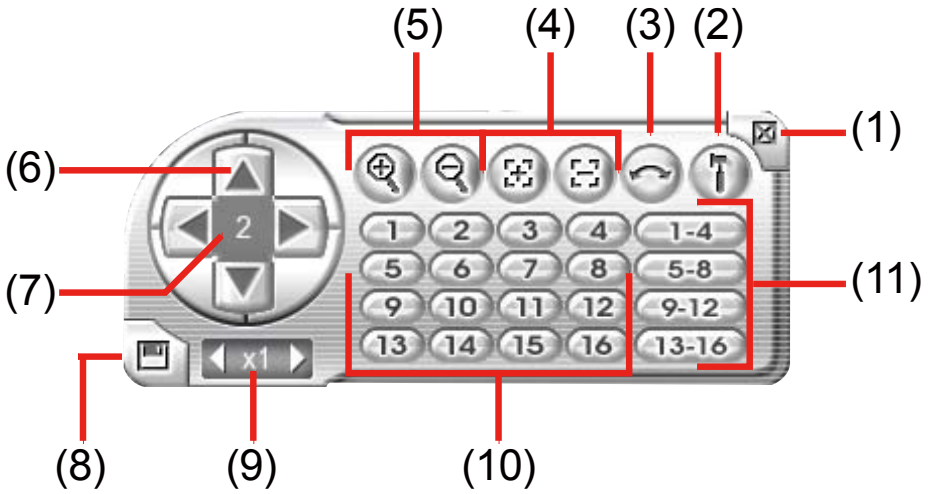


1. Click **Emap**.
2. When the Emap screen appears, click the area number (1 to 8 buttons) on where you want to insert the map.
3. Click **Load Map** to insert the map. When the open dialog box appears, locate and select the map and click **Open**.
4. When the inserted map appears on the Emap screen, click **Edit**. You may now drag 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 locate 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 close Emap screen, click **Close**.

To Use the Emap

1. Click **E-map**.
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 message.
3. Click **Close** to close Emap screen.

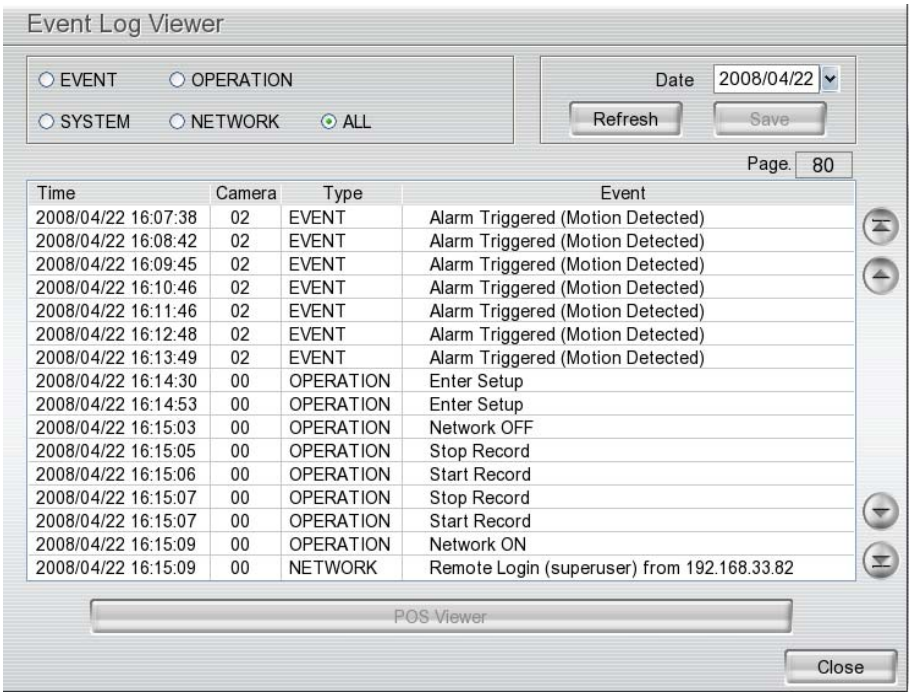
2.2.2 Familiarizing the Buttons in PTZ Camera Controller



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.

2.2.3 Using Event Log Viewer

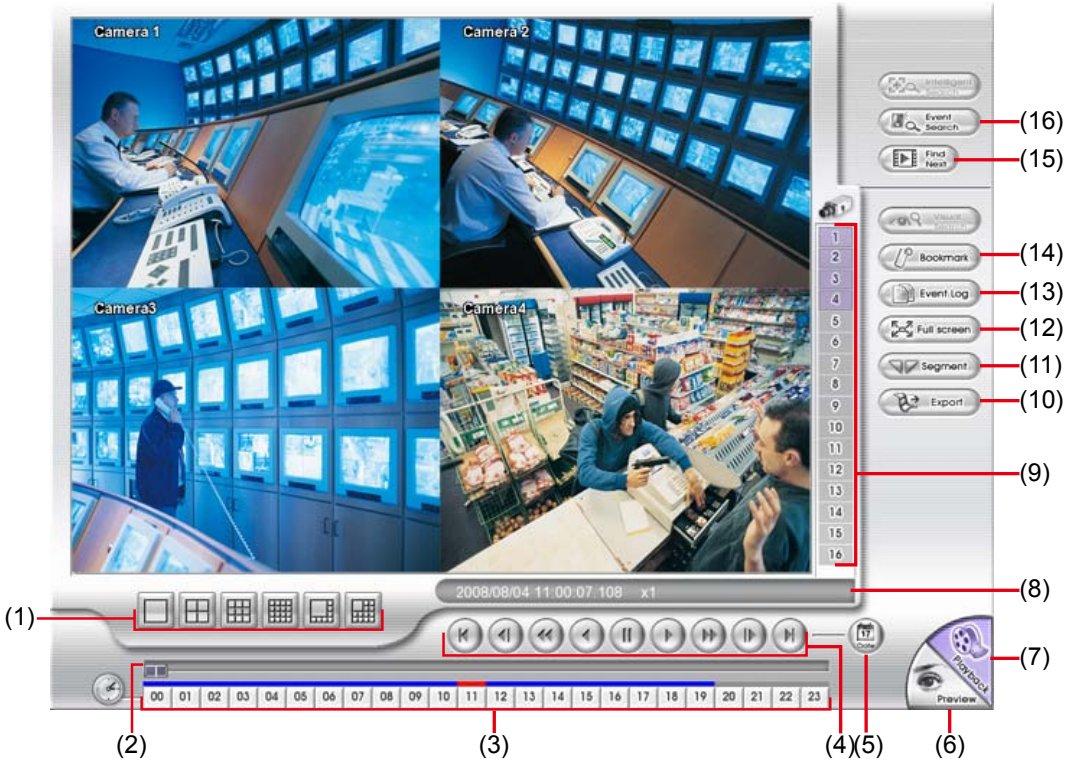
Show the record of activities that take place in the system.



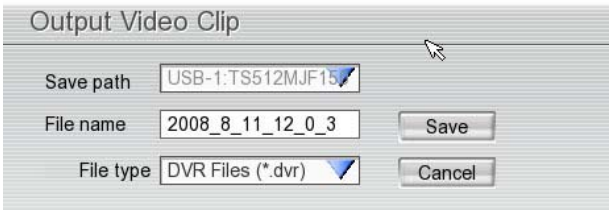
1. Click the Event Log button on DVR system main interface. The Event log viewer window will show up.
2. Select the Date to view.
3. To filter the records, select and click the select button to display Event, System, Operation, Network or All.
4. Use the scroll button to go next, previous, first, or last page of event list. Also, user can enter the page number in **Page** column to go to the page.

2.3 Familiarizing the Buttons in Playback Mode

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



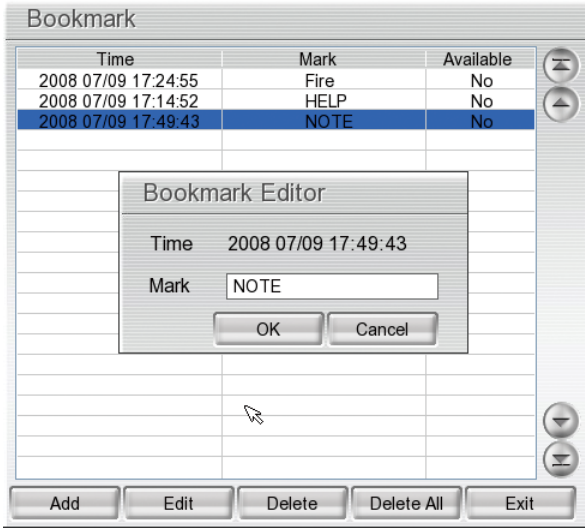
Name	Function
(1) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
	– When you are in single screen mode, **Right click** and **Drag** a square on the area you want to enlarge. – When you are in single and full screen mode, partial enlarges does not support.
(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) 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	**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, or 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 or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(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 16 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.

Name	Function
(6) Preview	Switch to Preview mode.
(7) Playback	Switch to Playback mode. This allows you 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 either in *.jpg format. ■ **Output Video Clip:** Save the segmented file in *.dvr format to external USB storage device.  ■ **Backup: Save** the playback file to USB device or DVD-ROM disk(see also Chapter 3.6)
(11) Segment	Keep a 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 cut. 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 cut. 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** button → **Output Video Clip** to save the video segment to the USB storage device.
(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. 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.

Name	Function
(14) Bookmark	Mark a reference point when reviewing the recorded video file to which you may return for later reference (see also Chapter 2.3.1).
(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 2.3.2)

2.3.1 To Bookmark a Video Section

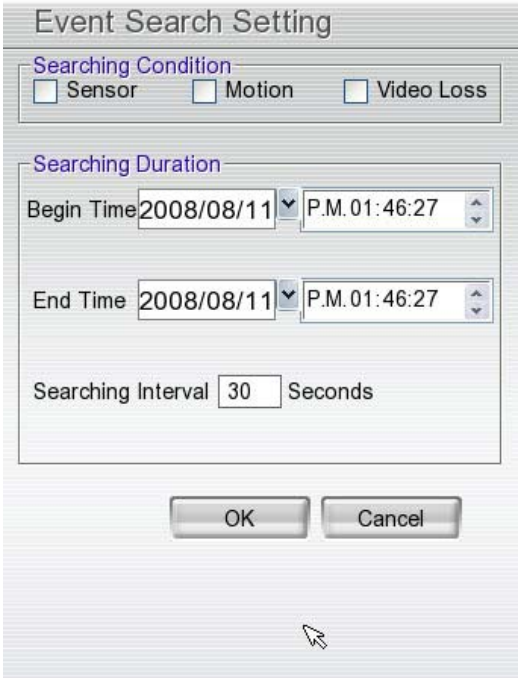
1. Click **Bookmark**. button
2. In the Bookmark dialog box, you may do the following:
   - **Add** to create the new reference mark in the bookmark list.
   - **Edit** to change the mark description.
   - **Delete** to remove the selected reference mark in the list.
   - **Delete All** to remove all 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.



2.3.2 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

.
4. You may also set to search and list all the result. Set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.
5. When the Event list appear, click and select the item you want to view.

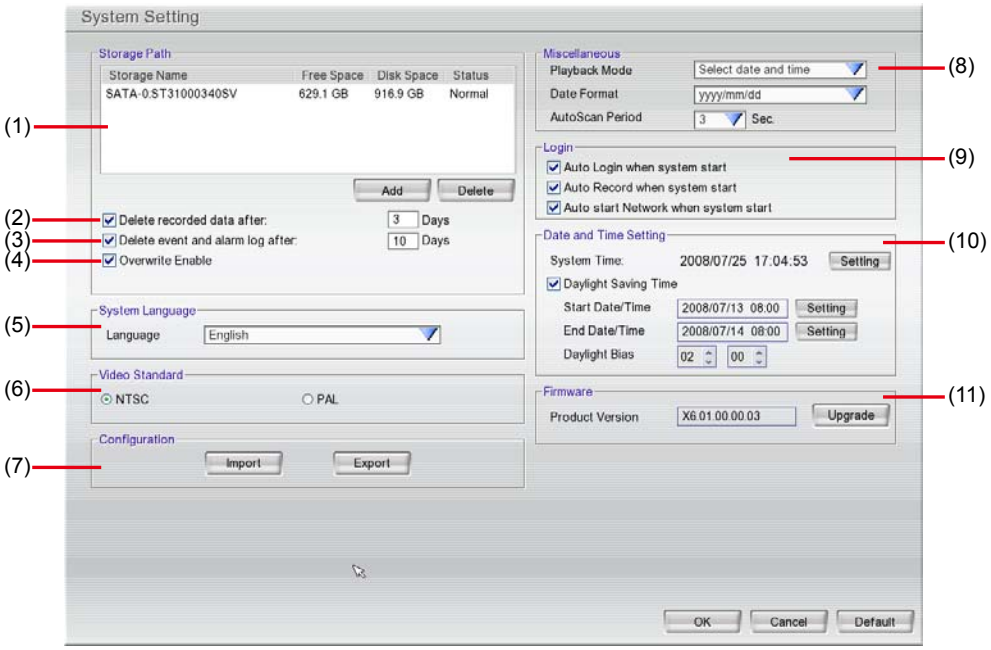


Chapter 3 Customizing the DVR System

In the Preview screen mode, click Setup button to customize your DVR. When the DVR configuration setup selection appears, select and click the buttons you want to change the setting.

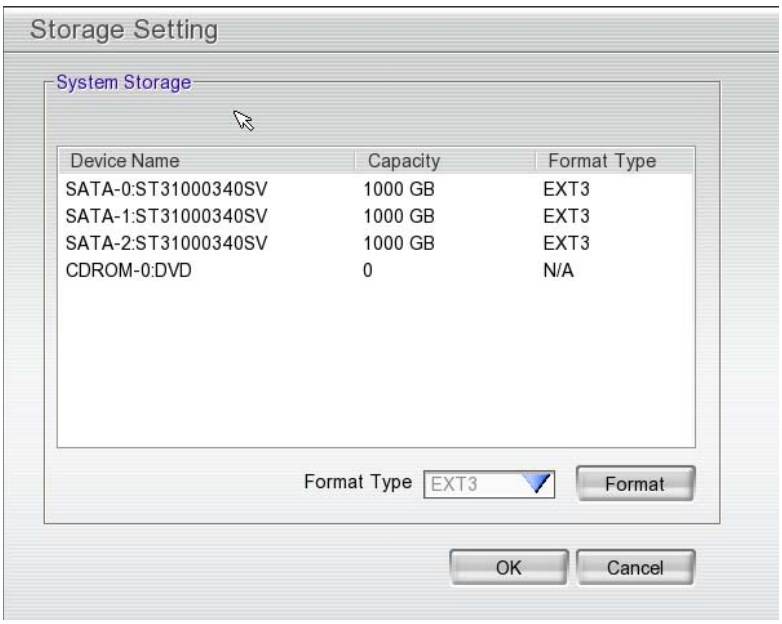
3.1 System Setup

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



(1) Storage Path

Set the directory on where to save the data. In case you have more than one storage path, the system automatically saves the data to the next storage path. To insert another storage path, click **Add** and select the storage path. To remove the selected path, click **Delete**.If the hard disk is the first time for DVR system, please format the hard disk before starting to use it. To format the hard disk, select the hard disk and **Format Type**, and then, click **Format** button.



(2) Delete recorded data after

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

(4) Overwrite Enable

When there is not enough free space to record one hour data, the system automatically replaces the oldest data.

(5) Language

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

(6) Video Standard

Change and select the proper video system according to your camera video system. If the video system setting is wrong, the video would appear abnormal.

(7) Configuration

Backup a copy of all the settings and allows you to regain the same settings back. To save the current settings, click **Export**. To replace the settings with the one you have saved, click **Import**.

(8) Miscellaneous

- **Playback mode:** Select the mode of playback the video.
  - **Select date and time:** Select the date and time which user wants to playback.
  - **Play the last file:** Automatically playback the 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 when OS start**
  Execute the DVR when the operating system is started.
- **Auto record when login**
  Automatically start video recording when the DVR is executed.
- **Auto start Network when login**
  Automatically start network connection when the DVR is executed.

(10) Time

Adjust the DVR system time and date. Click **Setting** to select the month, date, hour, and minute. Mark **Daylight saving** check box to enable daylight saving function. And then, select the **Start** and **End Time** by click **Setting**.

Daylight Bias: Assign a time that it is for daylight saving time offset in your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.

(11) Firmware

Upgrading the firmware of DVR system.

1. Click **Update** button, a **Firmware Upgrade** windows will show up.

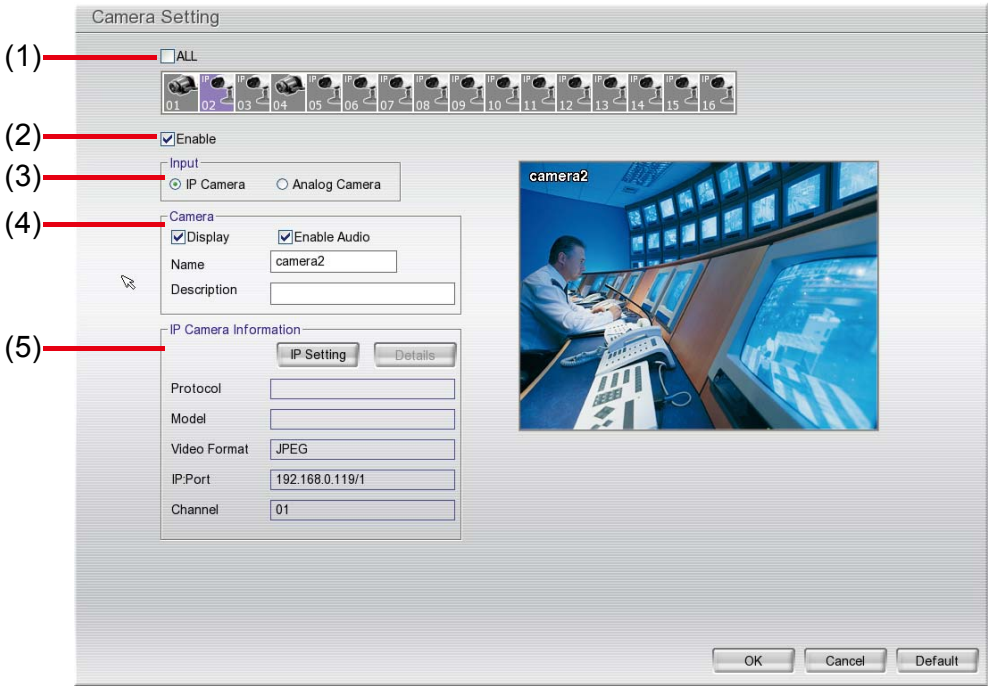
2. Save the firmware on USB root direction of USB disk. And then, plug USB disk into DVR unit.
3. Select the USB disk if there is more than one USB disk from drop down list. The DVR unit will auto detects the firmware.
4. Click **OK** to start upgrading.

3.2 Camera Setup

The DVR system supports 16 cameras in combination of analog and IP cameras, only analog cameras, or only IP cameras.

3.2.1 To Setup IP Camera

Click **Default** will back to the factory default value.



(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 won't detect it as video loss error.

(3) Input

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

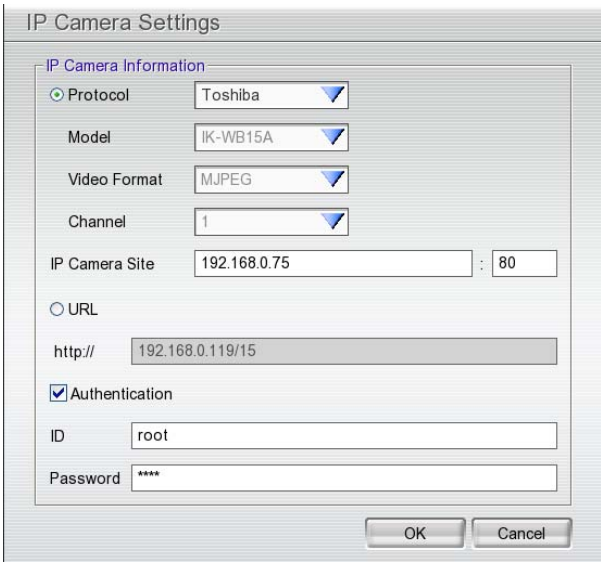
(4) Camera

- **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

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 start setup IP camera.
2. Select the **Protocol**, **Model**, **Video Format**, **Resolution**, 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 authority 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 **Default** will back to the factory default value.

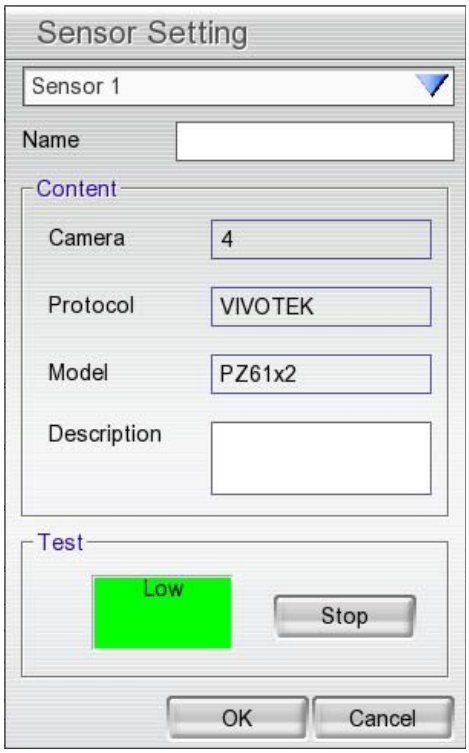
User can select **Video size**, **Frame rate**, **Bitrate mode** and **Quality** of camera. Also, user can adjust **Bright**, **Contrast**, **Hue**, **Saturation**, and **I/O Control** of the camera.

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

I/O Control: Setup the sensor and relay that is embedded on the IP camera.

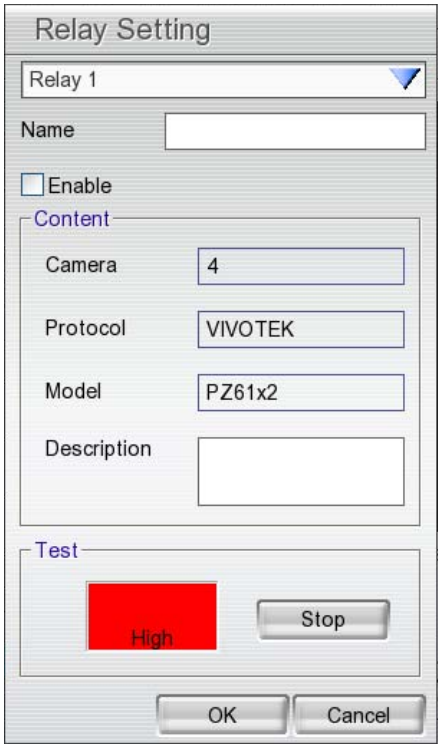
- **Sensor Setting**
  1. Click **Sensor** button.
  2. Click the drop-down list and select the sensor ID number.
  3. Enter sensor name in **Name** column

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 and **Cancel** to exit without saving the setting.



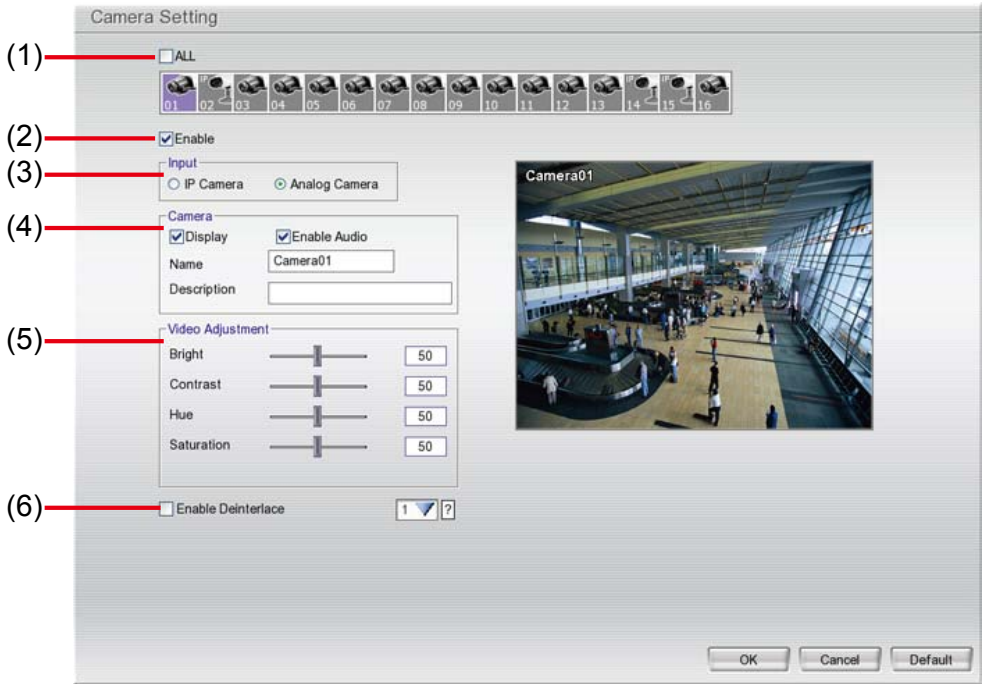
■ **Relay Setting**

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 input relates 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 and **Cancel** to exit without saving the setting.



3.2.2 To Setup Analog Camera

Click **Default** will back to the factory default value.



(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 won't detect it as video loss error.

(3) Input

Select the camera type as **Analog 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) Video Adjustment

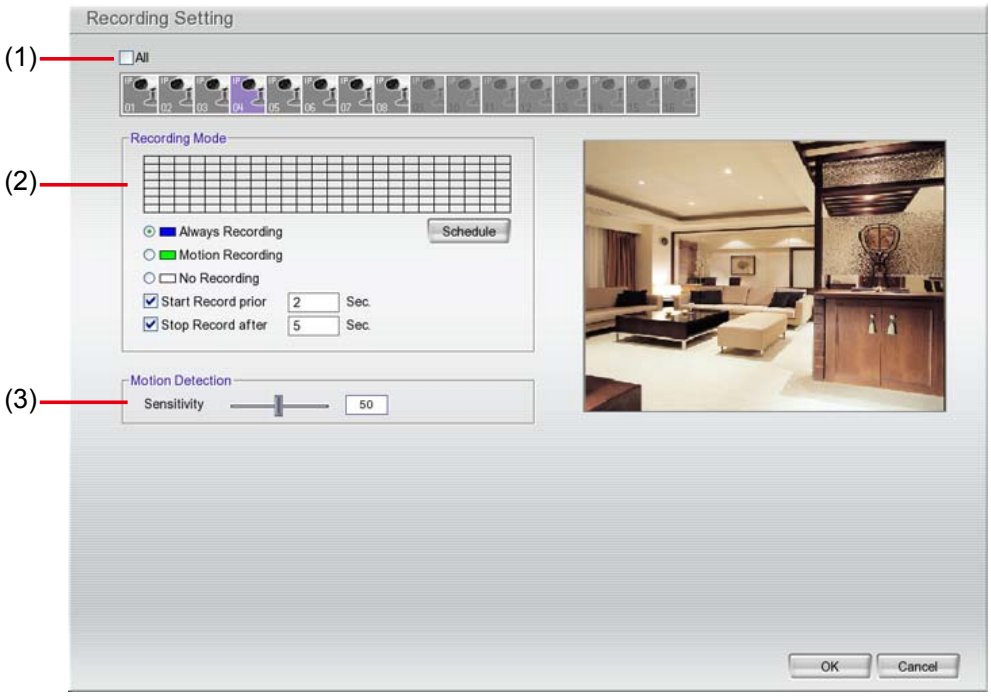
Adjust the Brightness, Contrast, Hue and Saturation of the camera.

(6) Enable Deinterlace

Enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

3.3 Recording Setup

3.3.1 Setup IP Camera Record Setting



(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:

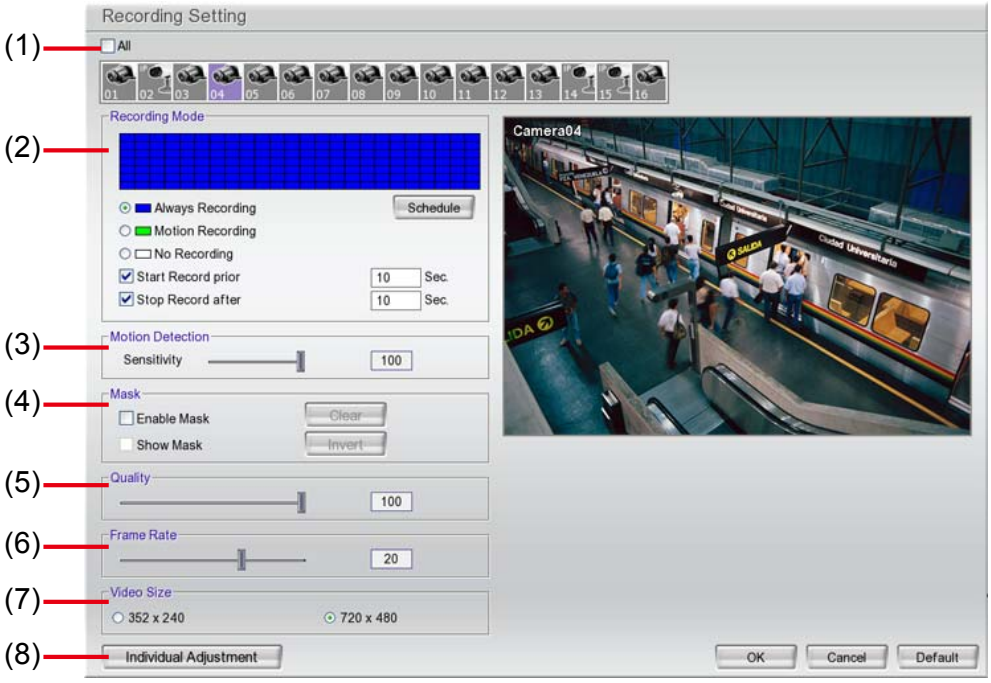
- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **No Recording**
  The system won't do any recording.

(3) Motion Detection

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

3.3.2 Setup Analog Camera Record Setting

Click **Default** will back to the factory default value.



(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 a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **No Recording**
  The system won't do any recording.

(3) Motion Detection

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

(4) Mask

Mark an area on the screen to disregards the motion in the marked area and to only monitor outside

the marked area. Enable the **Enable Mask** and click-and-drag an area on screen that user wants to mask. To clear all mask area, click **Clear** button. To inverse the mask area, click **Invert** button. The original selected area will exchanged with un-selected area. To show the mask area on preview screen, enable **Show Mask**. The mask is able to see on the screen only when preview screen is in single screen mode

(5) Quality

Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

(6) Frame Rate

Set the maximum and minimum number of frames to be recorded during motion and motionless state. The frame rate ranges from 1 to 30 for NTSC and 1 to 25 for PAL. The higher the frame rate, it uses more hard disk space.

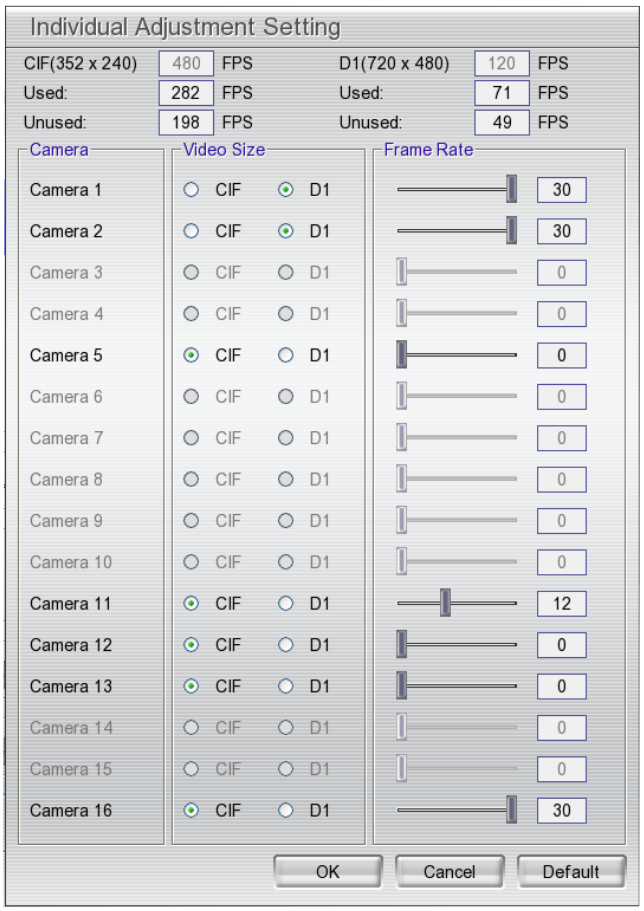
(7) Video Size

Select the size of the video and click the ⊙ button. The higher the size, the larger the file it create.

(8) Individual Adjustment

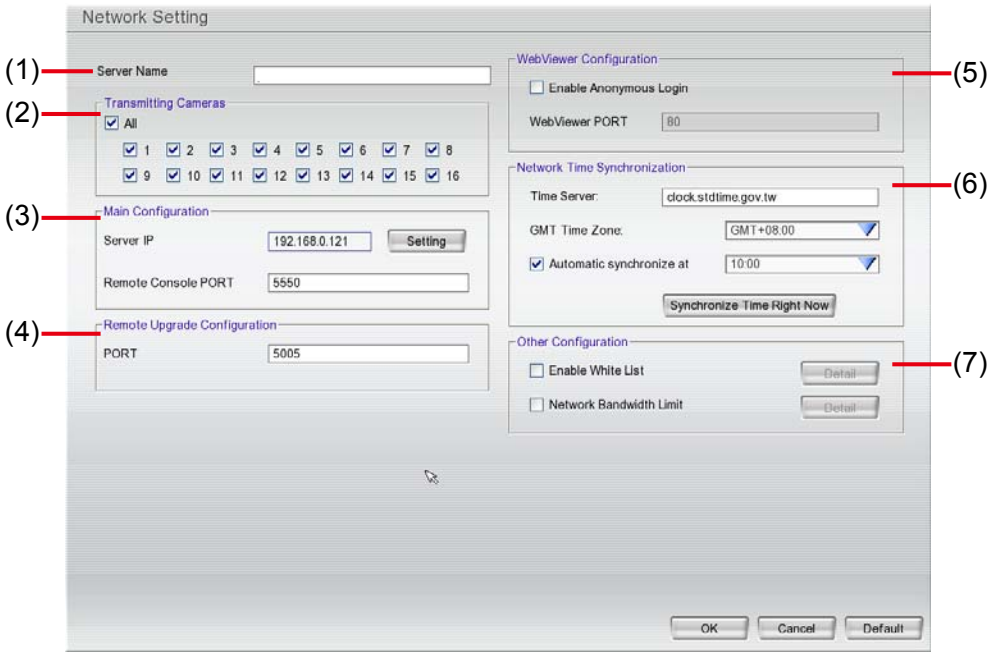
Each camera can adjust video size and frame rate individually. Click **Default** will back to the factory default value. The frame rate usage is shown in **Used** and **Unused** columns by CIF and D1 mode.

Only analog camera can adjust video size and frame rate.



3.4 Network Setup

Click **Default** will back to the factory default value.



(1) Server Name

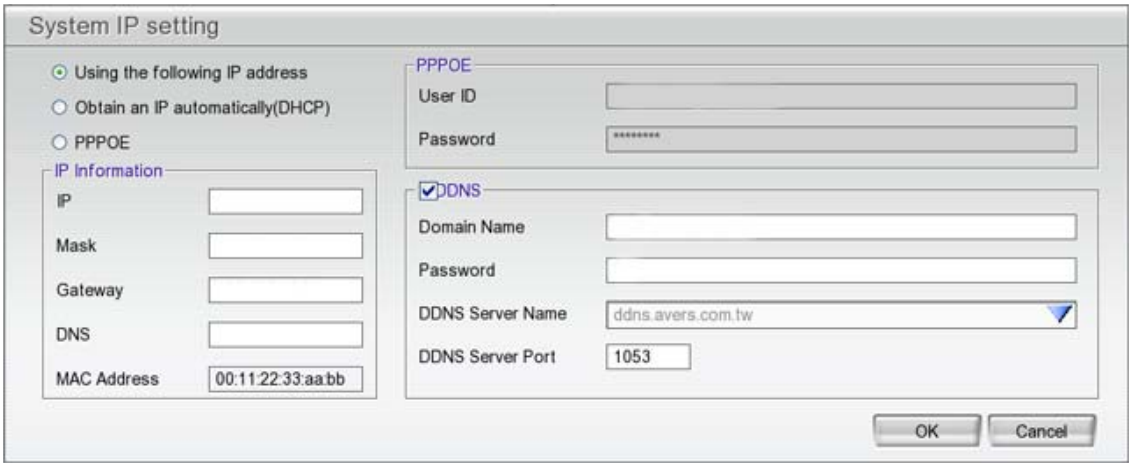
Assign a name for the DVR unit. Alphabet letters and numbers only.

(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) Main Configuration

Set the DVR IP address and **Remote Console Port**. You need this when accessing DVR server from the remote location via internet. Click **Setting** to setup DVR IP.



- **Using the following IP address:** Assigns an IP address for the DVR system. Fill in the IP related parameters in **IP information** section.
  - **IP:** Assign a constant IP address which a real IP address gives from ISP to DVR system.
  - **Mask:** It is a bitmask used to identify the sub network and how many bits provide room for host addresses. Enter the subnet mask of the IP address which user has assigned to DVR system.
  - **Gateway:** A network device acts as a passageway to internet. Enter the network gateway IP address

- **DNS:** Domain Name Server translates domain names (such as www.abb.com.tw) to IP addresses. Enter the IP address of DNS if it is available.
- **MAC Address:** An identifier hardware address of DVR unit that is assigned by the manufacturer for identification. User don't need to fill in, it will generated by system automatically.

- **Obtain an IP automatically (DHCP):** Assign the IP address by local DHCP server to DVR 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 connecting 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://ddns.avers.com.tw**. (See Appendix A)
  - **Domain Name**
    Enter the domain name that user has registered.
  - **Password**
    A password use to access DDNS that user has setup when register the domain name
  - **DDNS Server Name**
    Select your DDNS server. The default only has one DDNS server now. It may provide more DDNS in future.
  - **DDNS Server Port**
    Fill in the port that connects to DDNS server. Default is 1053.

(4) Remote Upgrade Configuration

A port is using for the remote firmware upgrade through network.

(5) WebViewer Configuration

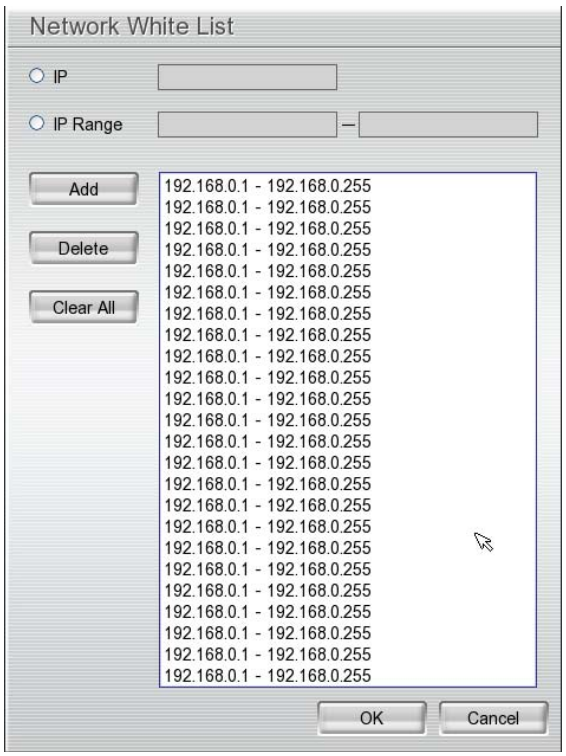
Activate **Enable Anonymous Login** to remotely access the DVR server without the need of password

(6) Network Time Synchronization

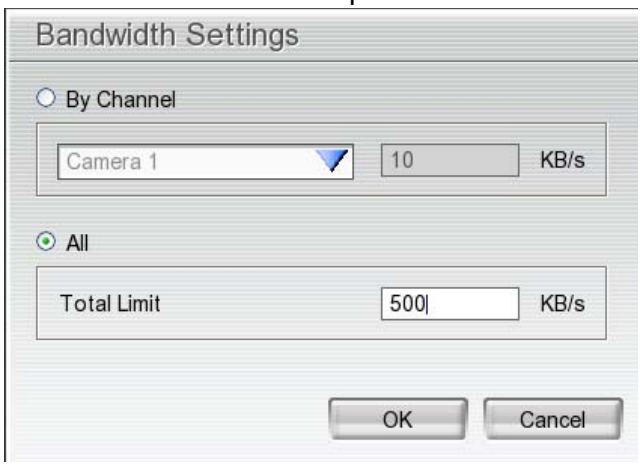
Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name and select the **Time Zone**. User can enable **Automatic Synchronize at** to set automatic synchronize time on a daily basis. Or, user can click **Synchronize Time Right Now** to adjust time right away.

(7) Other Configuration

- **Enable White List**
  An access permit list for the remote accessing of DVR 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.

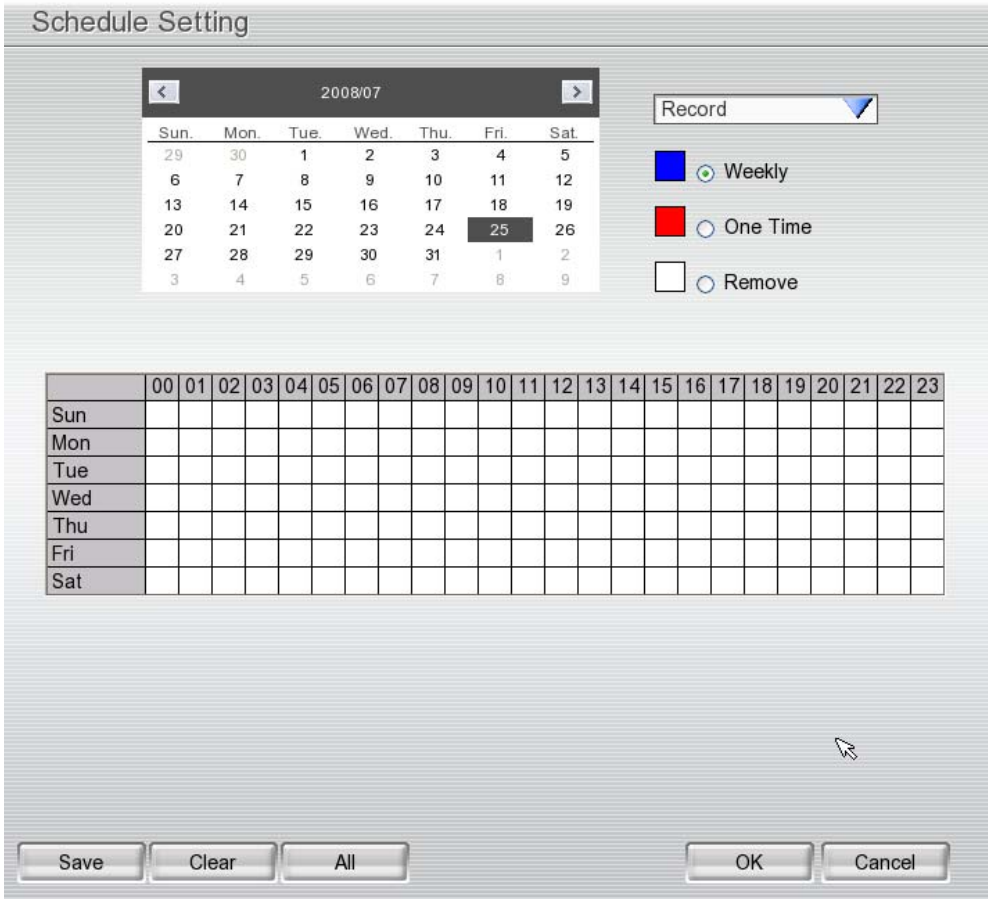


- **Network Bandwidth Limit**
  By Channel: Set the network bandwidth by each channel.
  All: Set the total network bandwidth consumption limit.



3.5 Schedule Setting

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

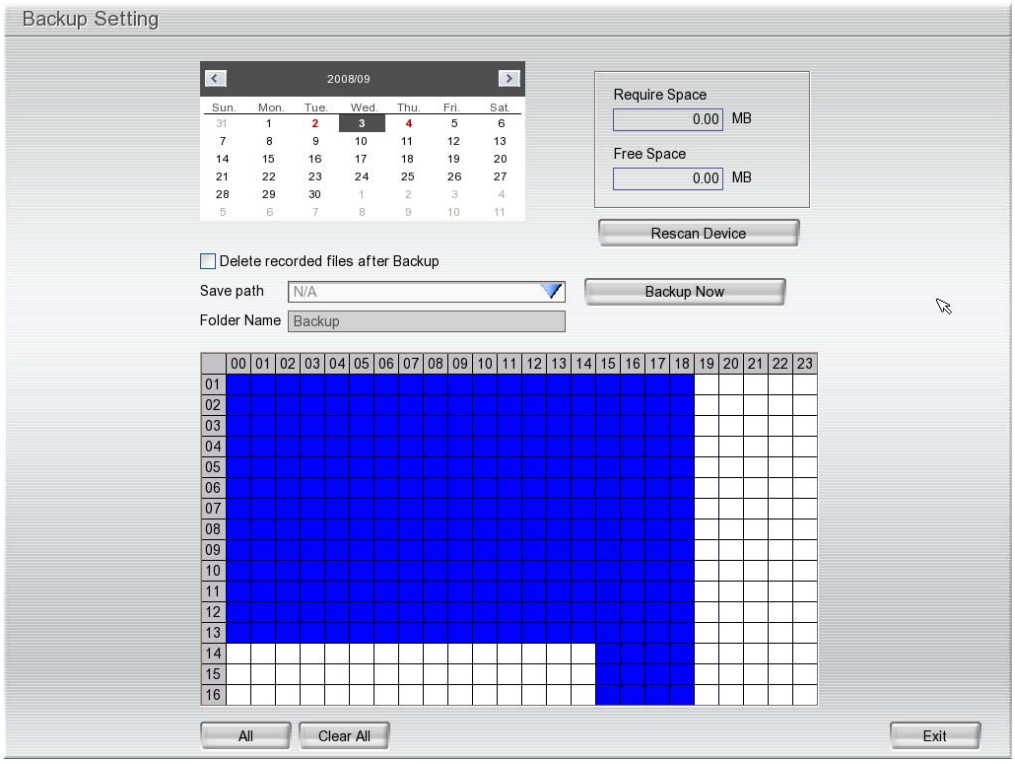


To Set the Schedule Setting:

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 DVR 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 it 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 and **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 16 represent the camera number. When you back up the file, you may find Qplayer application included in the backup folder. User need to execute the Qplayer installation on PC for playback.(see also Chapter 3.6.1)



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. In the table below, click on the blue block to select the recorded file or click camera (01~08) or time (00~23) to select the whole row or column. The blue block turns red when it is selected. The block that appears in white doesn't have data. If you want to set the specific time, right-click on the selected block. Then, set the time to start and end.
3. Check the space need for backup beside the calendar. Click **Rescan Storage** to calculate the space for backup.
   - **Require Space**: Show the total size of the backup file.
   - **Free Space**: Show the available storage space
4. If you do **NOT** want to keep the recorded file in the storage folder, enable **Delete files after Backup** check box.
5. Select the backup device – USB disk or DVD-ROM device.
6. DVR system will give **Folder Name** automatically.
7. Click Backup Now to start archiving the selected file.

3.6.1 Playback Backup Video

You can playback the backup files using QPlayer applications on the PC. When you back up the recorded file, QPlayer applications are automatically included in the backup folder. With QPlayer, it is the same as in Playback mode and supports 4 different split screen types to view all the video at the same time. The only difference is that there are no Preview and Playback buttons.

To run the application, go to backup folder and double-click **install_player** to intall QPlayer. After installation, double-click **QPlayer** icon on the PC desktop.

Name	Function
(1) Split Screen Mode	Select from six (6) different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.

- If there are only 8 cameras, you won't be able to switch to 16, and 13 split screen mode.
- To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.

(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) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

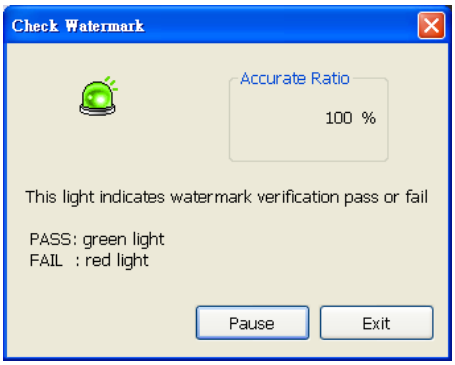
The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

(4) Playback Control Buttons	**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, or 1/8X. **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 16 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) Open	Access the backup video file.
(7) Status bar	Display the recorded date, time and play speed.
(8) 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.
(9) Language	Switch to different UI language
(10) 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 format.
(11) Segment	Keep a portion of the recorded video. Following the below steps 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 cut. 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 cut. 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** button → **Output Video Clip** 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.
(12) Full screen	View in Playback-compact 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.

Name	Function
(13) 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.
(14) Event Search	Search from the recorded activities that were recorded in event log (i.e., Sensor, Motion, Video Loss). (See also Chapter 3.5.2)
(15) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.5.3).
(16) 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.
(17) Watermark	DVR supports watermark-checking to identify the authenticity of playback video. DVR program can only verify when a single channel in full screen playback mode. To verify the playback video doesn't been modified. Click to verify the playback video. Watermark verification windows will show up as following: 

3.6.2 To Search Using the Event Search

6. Click on the video screen on where you want to search.
7. Click **Event Search**. The Event Search text (red) would appear at the lower left corner of the screen.
8. 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 .
9. You may also set to search and list all the result. Set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.
10. When the Event list appear, click and select the item you want to view.

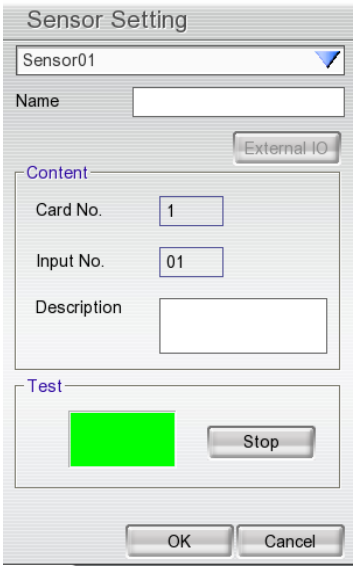
3.6.3 To Search Using the Intelligent Search

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 . You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.

3.7 Sensor Setting

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

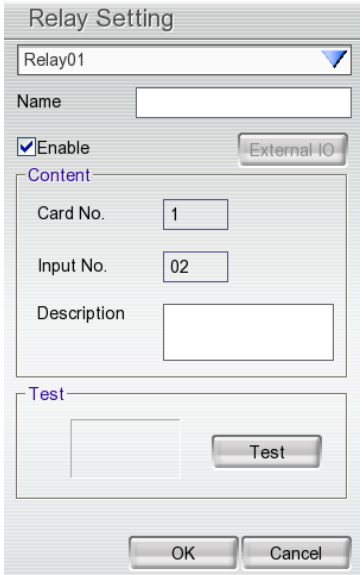
1. Click the drop-down list and select the sensor ID number.
2. Enter sensor name in **Name** column.
3. The system automatically detects the card and input number. In the **Content** section, enter **Description** of sensor.
4. In the test section, click **Test** to check the sensor status. **Red**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



3.8 Relay Setting

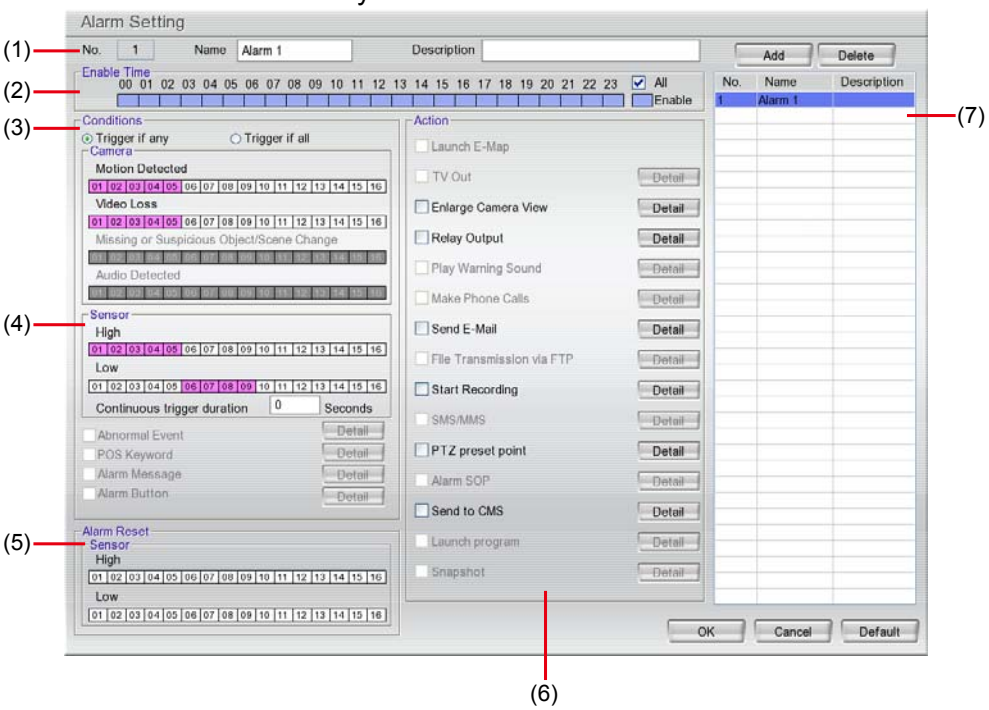
The I/O device must be installed to use this function.

1. Click the drop-down list and select the relay ID number.
2. Enter relay name in **Name** column.
3. The system automatically detects the card and input number. 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 and **Cancel** to exit without saving the setting.



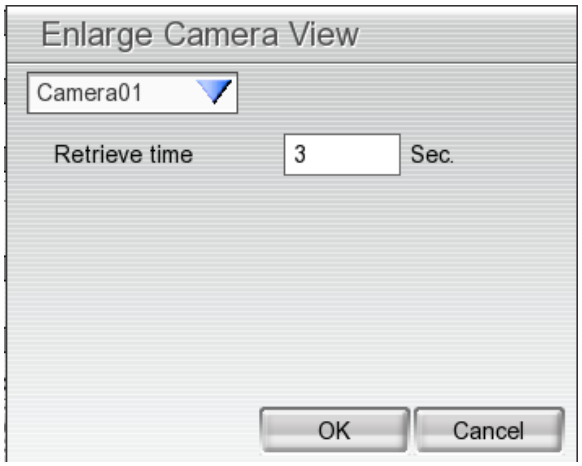
3.9 Alarm Setting

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 **Default** will back to factory default value.



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 DVR 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 to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions.
5. In **(4) Camera** section, select and click on the camera number (01 to 08) 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.
   - **Continue trigger duration:** Set a time period that when sensor has been trigger and stay in the same status for that period, then the alarm will be sent out.
7. In **(6) Alarm Reset**, click the camera number to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the alarm reset condition 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 screen when the alarm is triggered.

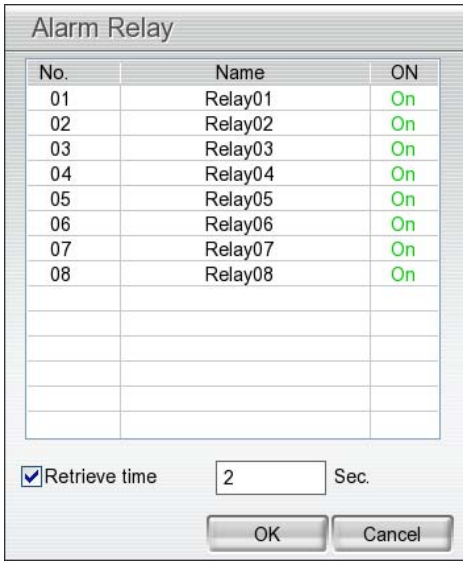
b. **Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-mark, the alarm video will keep enlarging until user switch back to Preview mode manually. The retrieve time range is 0~ 600 seconds.



- **Relay Output**

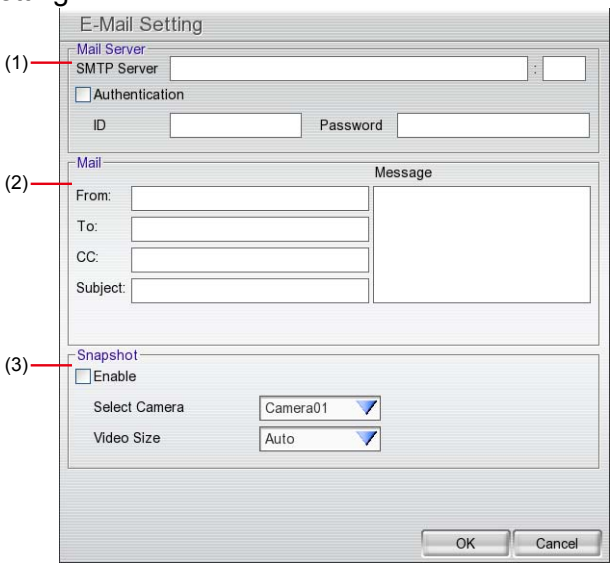
Set to enable/disable the relay operation when the alarm is activated and to extend additional time in second before it stops the relay operation.

1. Beside 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 relay operation time and set the duration in second.
4. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



- **Send E-mail**

Send an electronic text message. Beside the Send Email check box, click **Detail**.
In the E-mail Setting dialog box, click **OK** to exit and save the setting and **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.

(3) Snapshot

To take a snapshot when sends out the alarm mail with it.

Select Camera: Select the camera from drop down list to specify which camera video to be snapshot when the alarm is triggered.

Video Size: Select the size of video for snapshot.

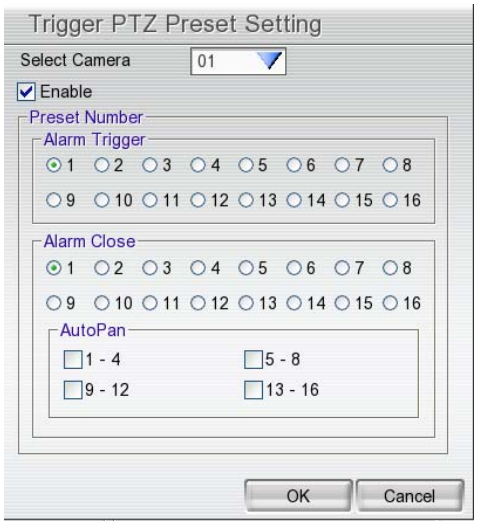
- **Start Recording**

Record the video from the selected camera.

1. Beside 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, mark and set the number in second for the program to begin recording after the alarm has been trigger. The time range is 1~10 seconds.
5. In the **Stop Record after** text box, mark and set the number in second for the program to continue recording after the alarm has ended. The time range is 1~999 seconds. If user doesn't mark and set the time, the alarm recording will continue recording until alarm is reset.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

- **PTZ preset point**

Position the PTZ camera based on the preset point setting. Beside the PTZ preset point check box, click **Detail**. In the Trigger PTZ Preset Setting dialog box, select the PTZ camera number then select the **Enable** check box. Select the position of the PTZ camera when the alarm is activated and ended. For the PTZ camera end point, user can also select on preset position or **Auto Pan** between preset position groups.



- **Send to CMS (Central Management System)**
  Enable/disable the selected camera to send video to CMS when the alarm is activated. Beside 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 and **Cancel** to exit without saving.

3.10 User Setup

Only superuser can access User Setting and change the password of superuser and user. Click **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting.

Chapter 4 Using the UPC to Playback Backup File

4.1 Recommended system requirements

- ☐ Pentium®4 2.4GHZ or above
- ☐ Windows®2000/ XP/Vista
- ☐ 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:

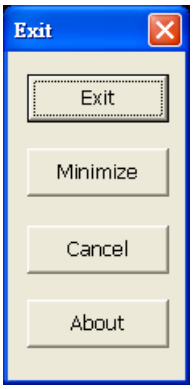
1. Place Installation CD into the CD-ROM drive. When the installation main screen appears, click **Install USB Playback Console** and then follow the on screen instructions

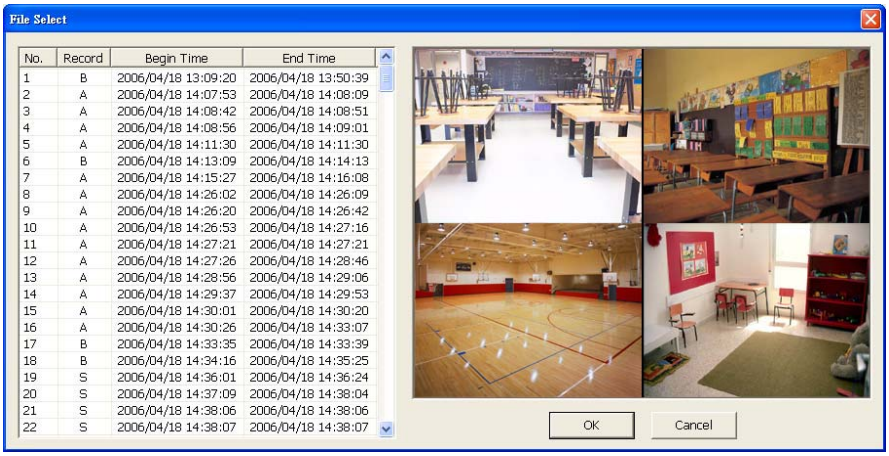
2. Select the language you prefer

3. Click **OK** to install the application
4. Click **Exit** to close the installation main screen.
5. You may now connect the external USB storage device that has saved recorded files to PC.

4.3 Running the USB Playback Console

To run the application, click the icon on the PC desktop

Name		Function
(1)	Exit	Exit/Minimize the application or chose Cancel to go back to the application. **About:** shows DVR application version information. 
(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)	Split Screen Mode	Select from different screen view to playback the recorded video file of the entire camera or one camera on screen.
(4)	Playback Controller	**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 2x, 4x, or 8x. **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, or 16x **Next:** Go to the next frame by 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.
(6) Open File	To select the video file source for playing. - **DVR Recorded File (HD):** To playback the recorded video from the hard disk which was recording video on the DVR system. (see also Chapter 4.3.2) - **Backup File(.dvr):** The file is backup and save in *.dvr file format. (see also Chapter 4.3.3)
(7) Status bar	Display the recorded date, time and play speed.
(8) 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.
(9) Language	To switch DVR application UI language.
(10) Adv. Function	Advanced function is including : **HDD Backup:** to call out HDD Backup application. (see also Chapter 4.3.4) **iEnhance:** to call out iEnhance application. (see also Chapter 5)
(11) 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 to AVI:** Save the segmented file in *.avi format
(12) Segment	Keep a portion of the recorded video (see also Chapter 4.3.1)
(13) 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 of the video in the multiple-screen mode or all.
(14) Event Log	Select the event you want to playback. The event list only available when user select to playback in **DVR Recorded File(HD)**. 

Name	Function
(15) Sound /Sound bar	Turn on and off the sound Increase and decrease the volume
(16) Watermark	To call out Image Verification application. (see also Chapter 6)

4.3.1 To Cut and Save the Portion of the Recorded Video

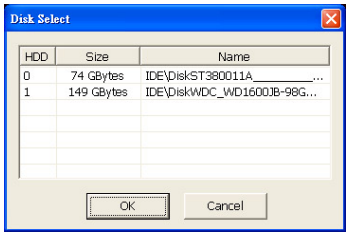
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.

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

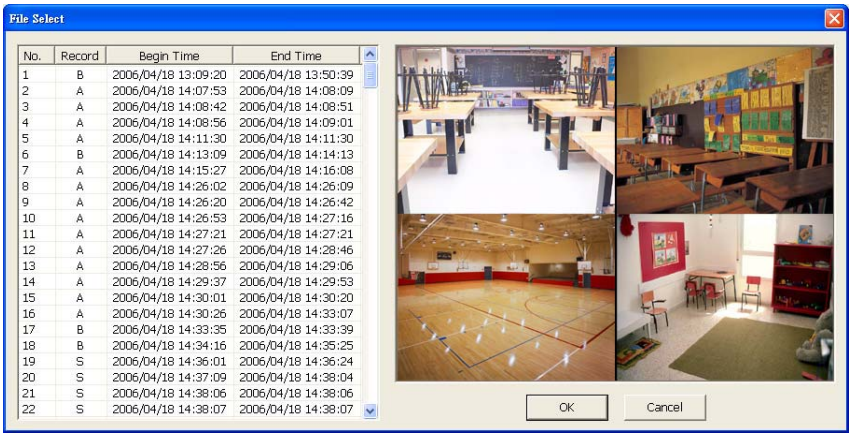
3. Click **Output** button to save the wanted portion.
4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format.

4.3.2 Playback DVR Recorded File from Hard Disk

1. Please have the hard disk which containing of recorded video data install on your PC or using external USB enclosure to connect to your PC.
2. Click **Open File** button
3. Select **DVR Recorded File(HD)** and click **OK**.
4. Select the hard disk drive from **Select Disk** window and click **OK**.



5. And then, the **Event List** window appears. Select the event that user wants to play and click **OK**.

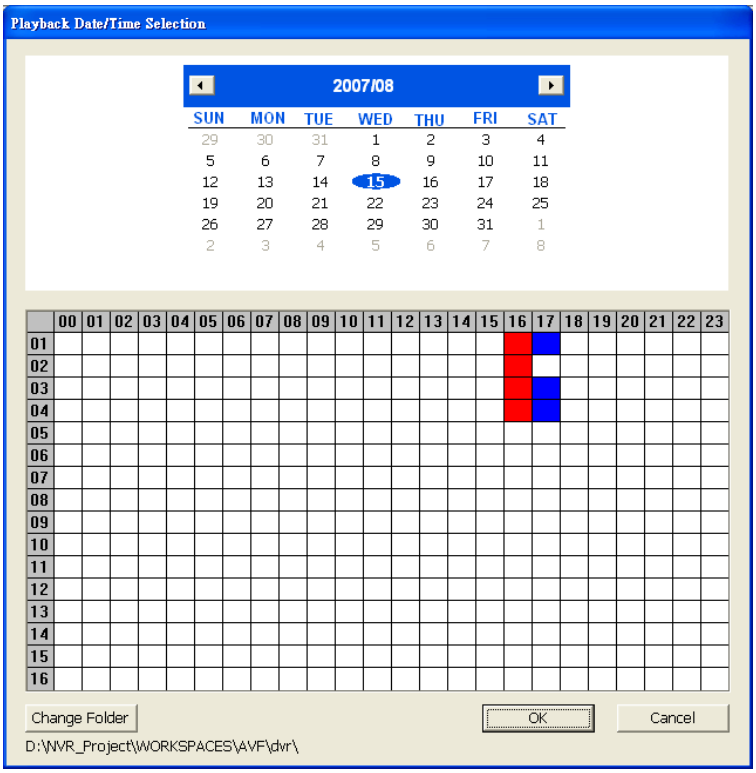


4.3.3 Playback Backup File(*.dvr)

1. Click Open File button.
2. Select **Backup File(*.dvr)** and click **OK**.
3. Locate the backup file folder and click **OK**.

> When open the backup video file, just locate the where backup file folder is.

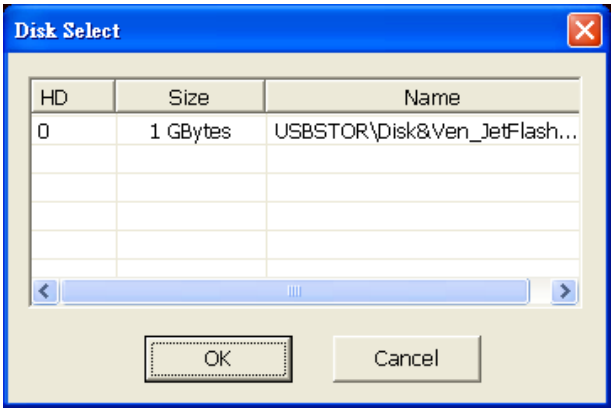
4. And then, Playback Date/Time Selection window appears. Select the date and time and click **OK**.



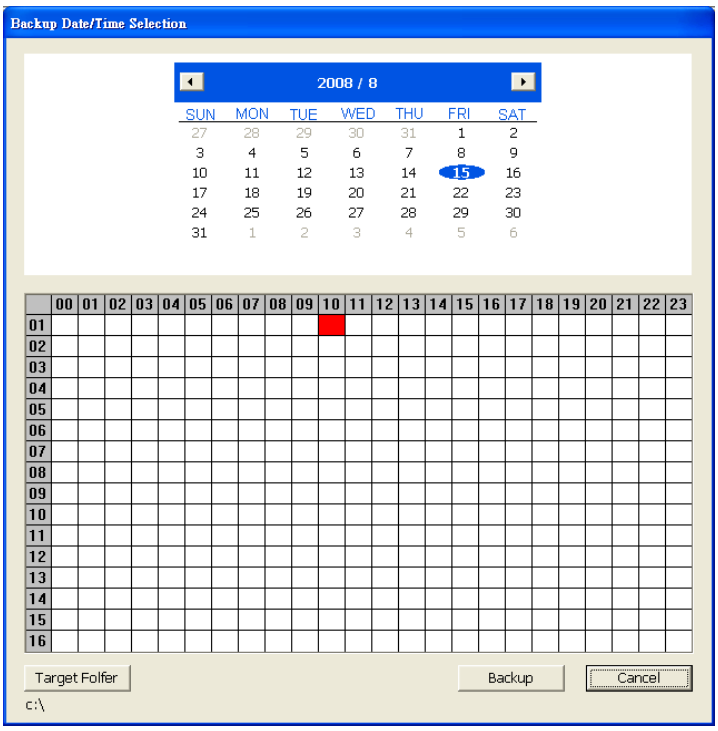
4.3.4 To Backup Recorded File

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

1. Click **Adv. Function** → **HDD Backup** on USB Playback Console UI.
2. Select the source hard disk.



3. In Backup date/time selection windows, select the date and time. 00-24 represents hours and 01-16 represents channels. Blue block means there has recorded file. Red block means the block has been selected. User can click-and-drag the select multiple block at once.



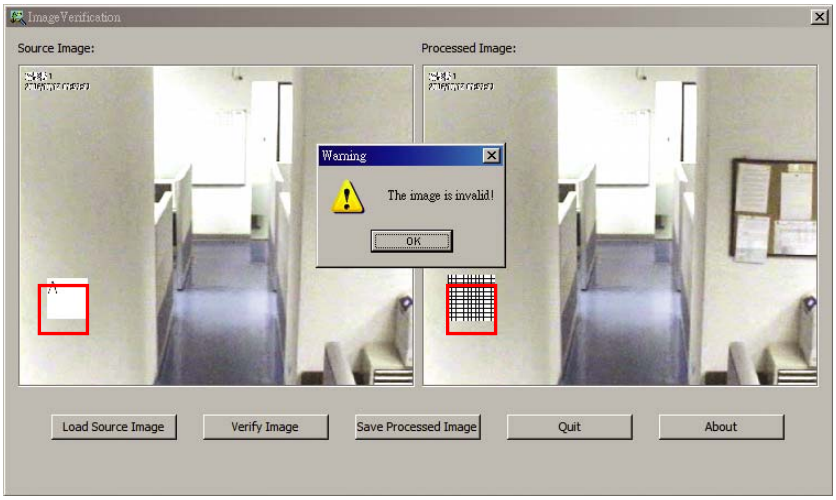
4. Click **Backup** to start backup file.
5. When backup complete, the complete information windows will display.

Chapter 5 ImageVerification

Image Verification is a watermark-checking program to identify the authenticity of a saved image (e.g. by snapshot). This program can only verify uncompressed bmp image files.

5.1 To Run the ImageVerification

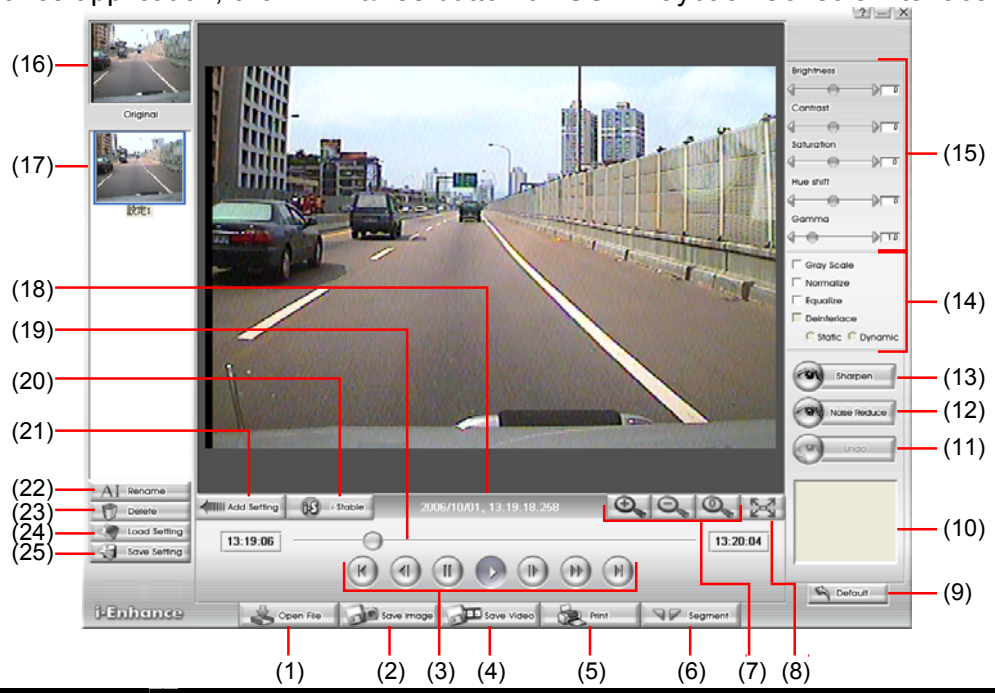
1. To run the ImageVerification application, click the **Watermark** button on USB Playback Application main interface.
2. In the ImageVerification screen, click **Load Source Image** and locate the image source.
3. Click **Verify Image** to begin the process.
4. Check the result in the **Processed Image** screen. If the picture is unmodified, the image in the **Source Image** and **Processed Image** screen would be exactly the same. If the picture is being modified, a warning dialog box would prompt and the modified area is highlighted.



Chapter 6 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 the image, 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.



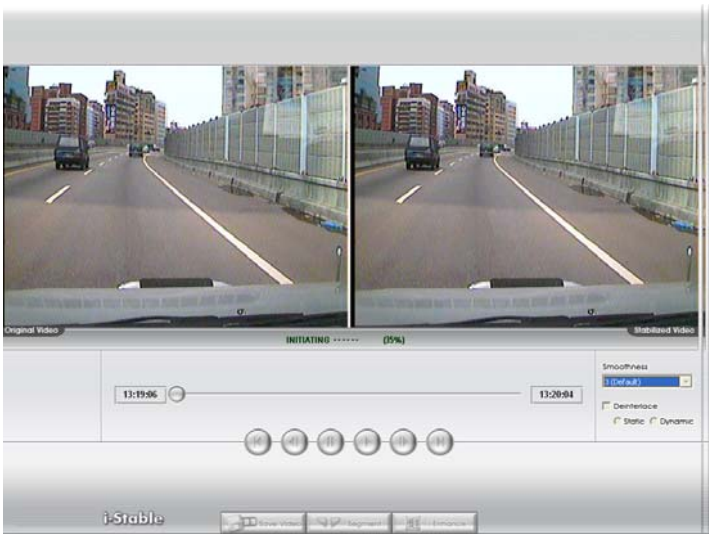
Name	Function
(1) Open File	Access *.dvr video file.
(2) Save Image	Capture and save the screen shot in *.bmp format.
(3) Playback Control Buttons	**Begin:** Move at the beginning of the video file. **Previous:** Go back to the previous frame. **Rewind:** Wind back the video file. **Pause:** Temporary stop playing the video file. **Play:** Play the video file. **Faster:** Play the video file at the speed of 2x, 4x, or 8x. **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.

Name	Function
(10) History Box	List all the actions.
(11) Undo	Delete the last action.
(12) Noise Reduce	Adjust the softness and repair the damaged colours.
(13) Sharpness	Improve the overall image by enhancing edges. This gives the image more depth.
(14) Effects	Gray Scale: convert the image into black and white (monochrome). Normalize: adjust the brightness intensity. Equalize: automatically adjust 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 at any location of the track.
(20) iStable	To reduce the jolt in the recorded video.(also see Chapter 7.1)
(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.

6.1 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 windows 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 initial the recorded video.
6. When the initialize is done, user will see the original and stabilized recorded video play in two windows. The original video on the right side of window and the stabilized video on the left side of window.

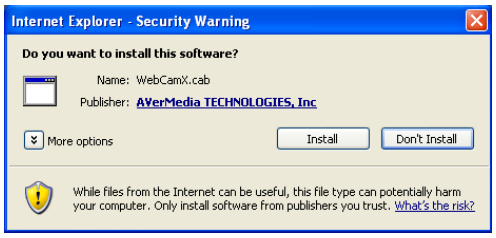


Chapter 7 Using the Remote Programs

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

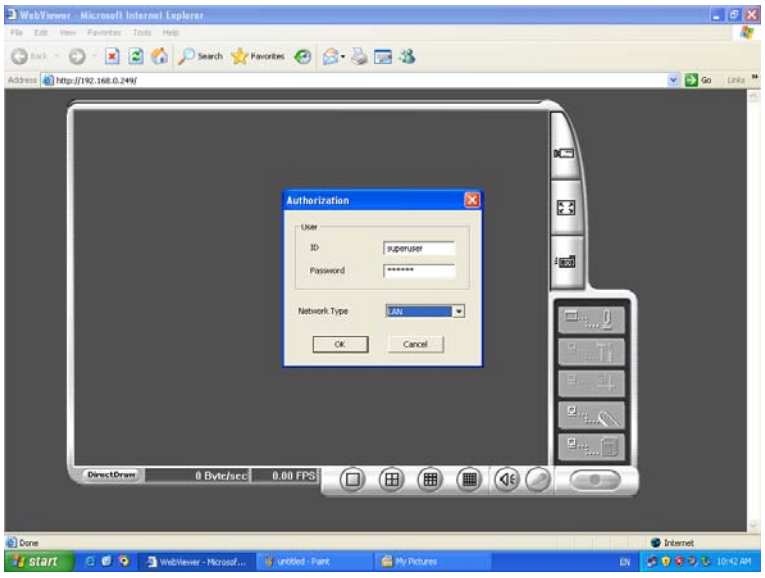
Accessing this feature for the first time you will be prompted by your browser to install WebCamX.cab, allow the installation and you should be able to connect and login afterwards.
For Windows 2000, click **Yes** when the Security Warning dialog box appears.

For Windows XP, click Install when the Internet Explorer - Security Warning dialog box appears.



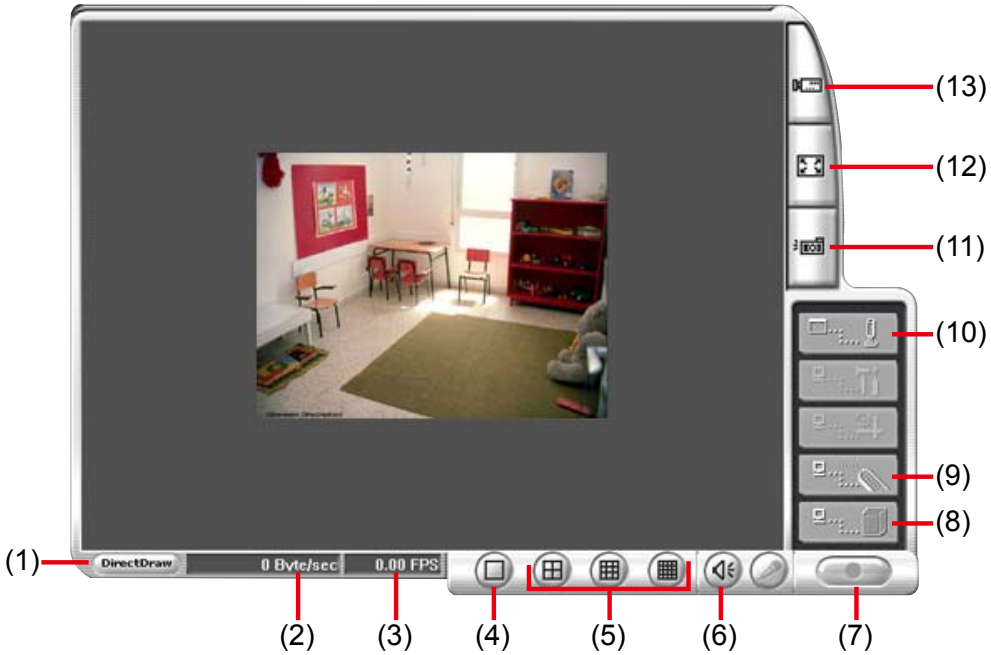
After installing the WebCamX.cab and when connecting to the DVR system, you are required to enter accont ID (superuser / user) and password (111111/111111) and select the type of network. **Superuser** has the authority to remote setup the DVR system configuration on WebViewer. **User** only can preview the video on WebViewer and Remote Console.

Changing account password is strongly recommended.

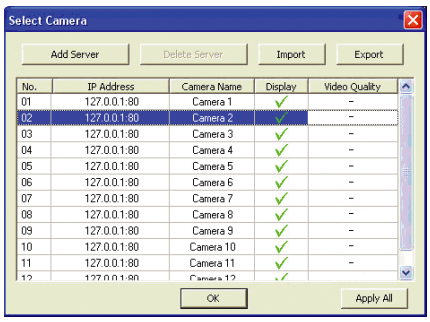


7.1 Familiarizing the WebViewer Buttons

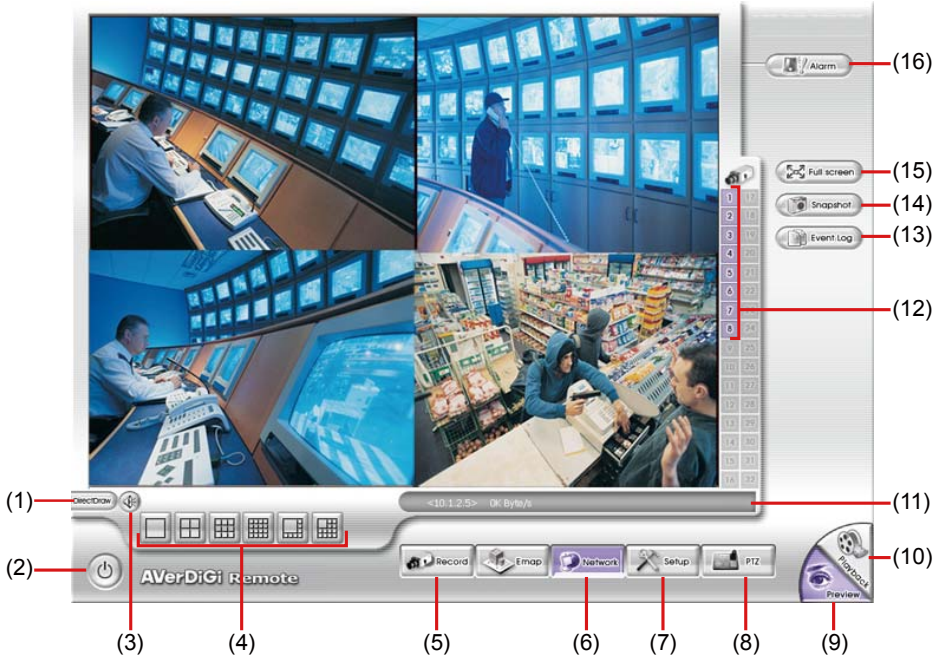
Right-clicking on the WebViewer video screen, enables you to start video recording, change video quality, switch camera and enable/disable DirectDraw.



Name	Function
(1) DirectDraw	Enhance the video quality.
	Not all graphic cards can support this function. If you can not see the screen display correctly or screen is messed, 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 remote sound.
(7) Record	Start to record the video of the selected camera in AVI format. Directly click screen to select the channel that user wants to record and press **Record** button.
(8) Remote Console	Initiate Remote Console. It allows you to control DVR server (see also Chapter 5.2).
(9) Event Log Viewer	Display the Event logs, Operation logs, System logs, and Network logs.
(10) PTZ Control	Initiate PTZ camera controller(see also Chapter 5.3)
(11) Snapshot	Capture and save the screen shot in *.bmp format.
(12) 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
(13) 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 DVR and IP Cam to add. Click **Delete Server** to delete the selected item. Click **Import** to load the previous 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. 

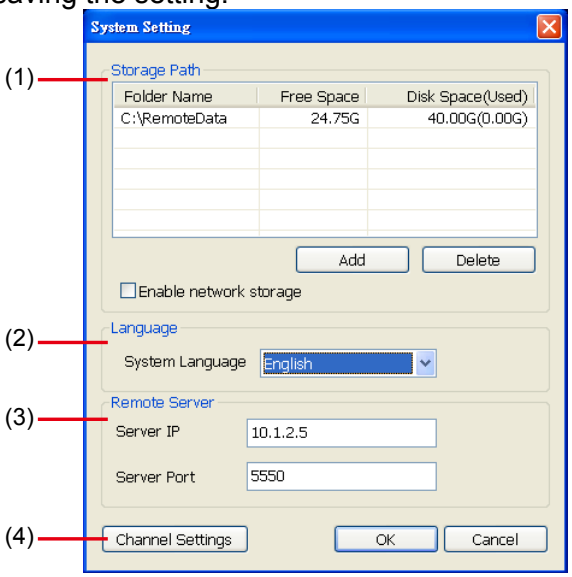
7.2 Familiarizing the Remote Console Buttons



Name	Function
(1) DirectDraw	Enhance the video quality.
Direct Draw function supports for certain VGA card. For more information, please contact your VGA card vendor.	
(2) Exit	Close the Remote Console.
(3) Audio button	Enable/disable the sound.
(4) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
(5) Record	Start/stop video recording.
(6) Network	Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection.
(7) Setup	Configure the Remote Console setting. (see also Chapter 5.2.1)
(8) PTZ	Access PTZ control panel. EXR supports IP camera PTZ function.(see Chapter 5.3)
(9) Preview	Switch to Preview/Playback mode. This allows you to view live camera display.
(10) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see also Chapter 5.4)
(11) Status Bar	Display the current date, time and hard disk free space.
(12) 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.
(13) Event Log	Display the Event logs, Operation logs, System logs, and Network logs.
(14) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.
(15) 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.
(16) Alarm	Alert and display warning info. Superuser and user both can reset the alarm.

7.2.1 To Setup Remote Console Setting

Click **Setup** button to call out the **System Setting** windows. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



(1) Storage Path

Set the directory on where to save the data. 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 DVR 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

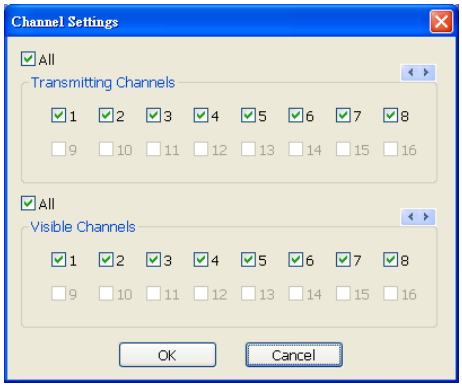
Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.

(3) Remote Server

Enter the DVR Server IP and Server Port number.

(4) Channel Settings

The numbers from 1 to 8 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.



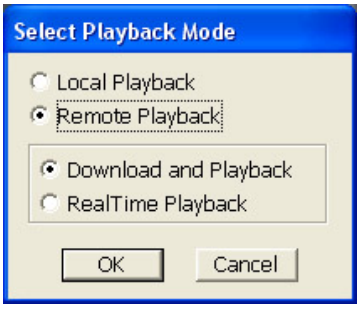
7.3 Familiarizing the WebViewer PTZ Buttons

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 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 and **Cancel** to exit without saving the setting.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Camera preset position number	Move the PTZ camera to the preset point. The reset point (1~9) is based on the user has setup by remote control at local site.

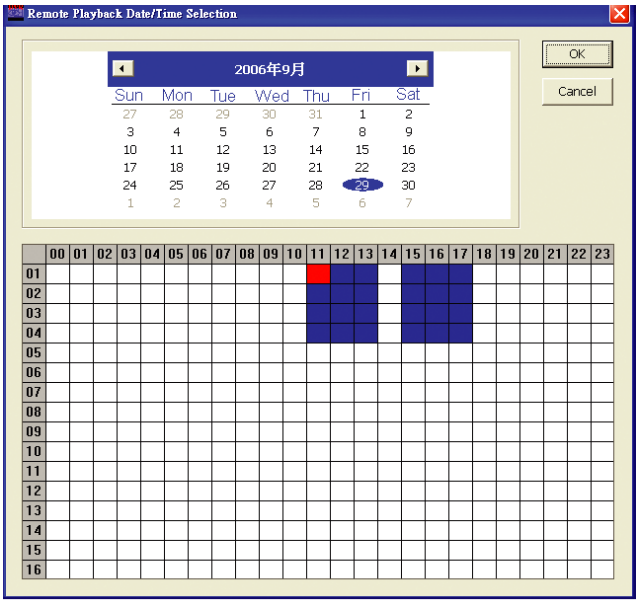
7.4 Using the Remote Playback

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 DVR server. When you choose Remote Playback, select **RealTime Playback** if your internet bandwidth is fast and big enough, otherwise choose **Download and Playback**.

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

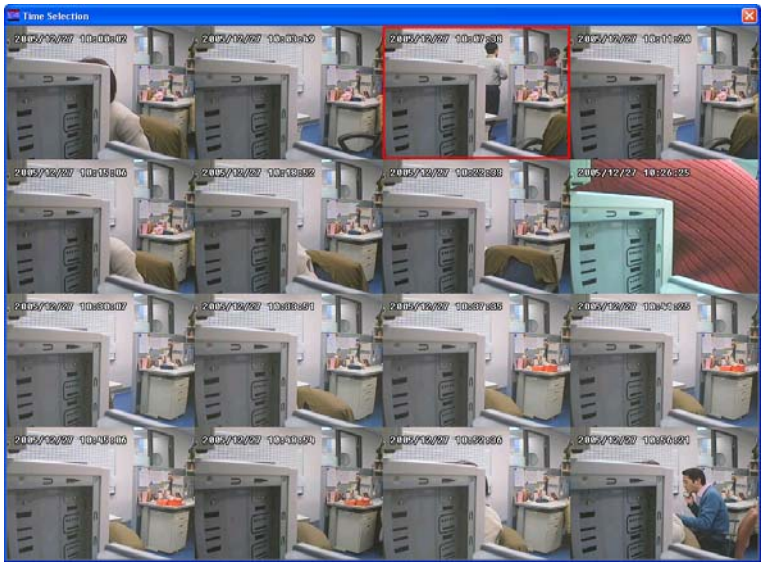


In the Video Playback Date/Time Selection, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 8 represent the camera number.

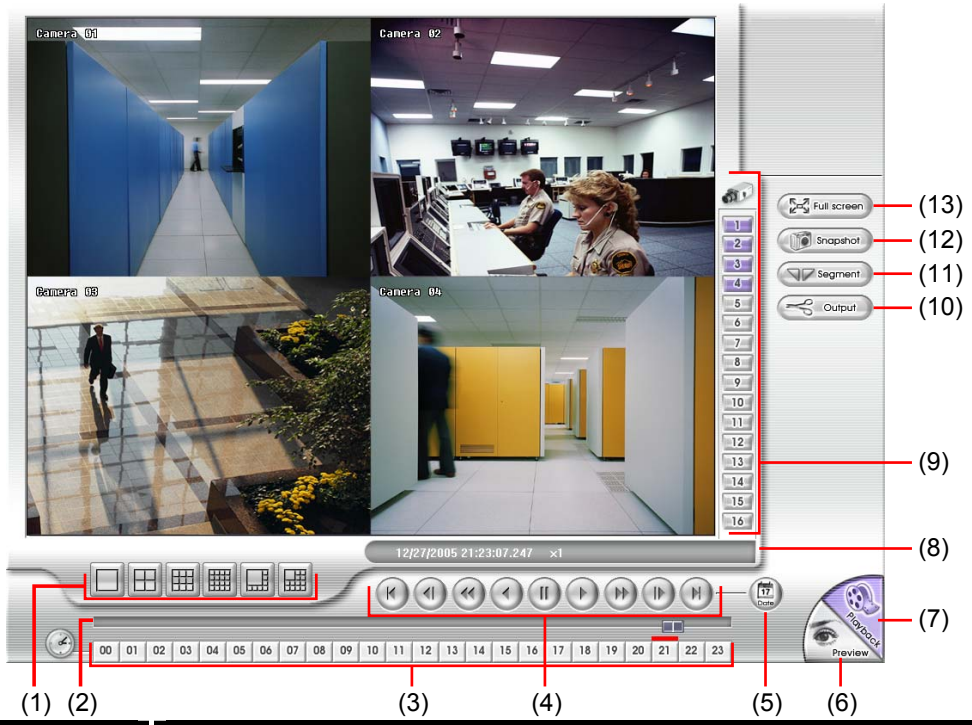


To Make a Selection:

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 doesn't have data. You can only select one block when you choose Download and Playback.
3. Click **OK** to proceed and **Cancel** to void this operation.
4. If you select Download Playback and after making 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 5.4.3).



7.4.1 Familiarizing the Local Playback Buttons



Name	Function
(1) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
	- If there are only 8 cameras, you won't be able to switch to 16, and 13 split screen mode. - To zoom in an area on the screen, Right click and Drag a square on the area you want to enlarge. To back to normal view, right click the channel screen again.
(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) 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.
(4) 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, or 1/8x. **Rewind:** Wind back the 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 video file.
(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 16 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.
(6) Preview	Switch to Preview mode.
(7) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(8) Status bar	Display the record date, time, HDD capacity in preview mode and play speed

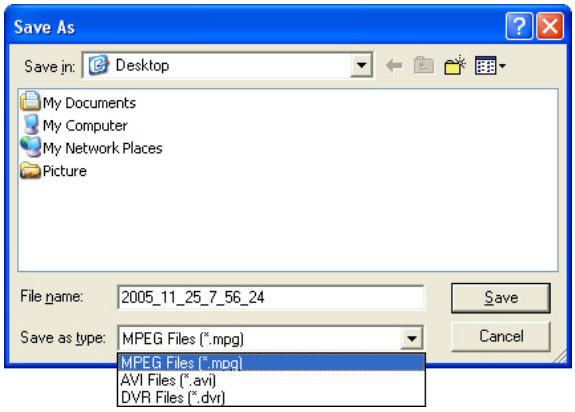
Name	Function
	in playback mode.
(9) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(10) Output	Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 5.4.1.1).
(11) Segment	Keep a portion of the recorded video you want (see also Chapter 5.4.1.1).
(12) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.
(13) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard.

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

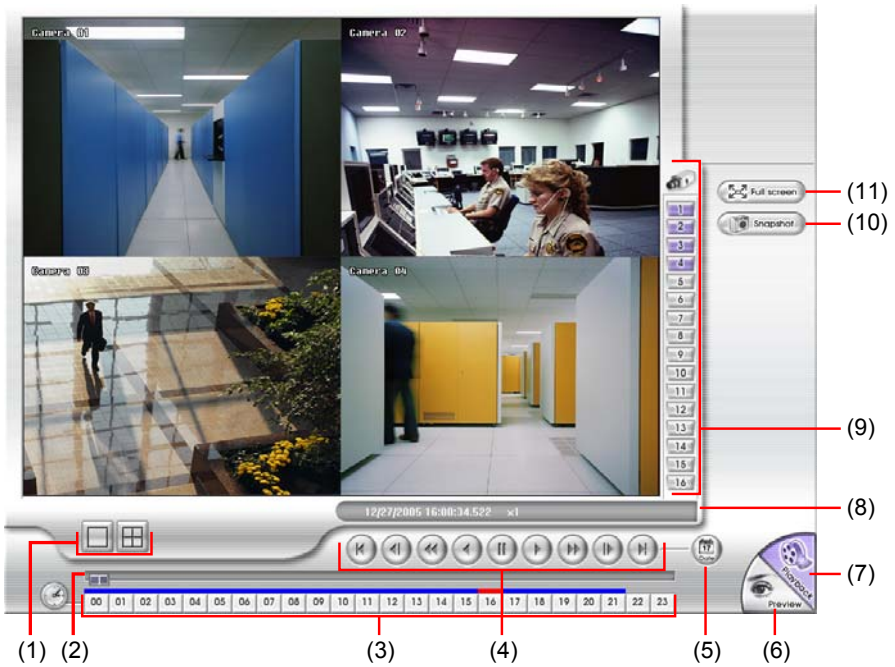
1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click Segment to set the begin mark.

2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. 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 **Output** 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.



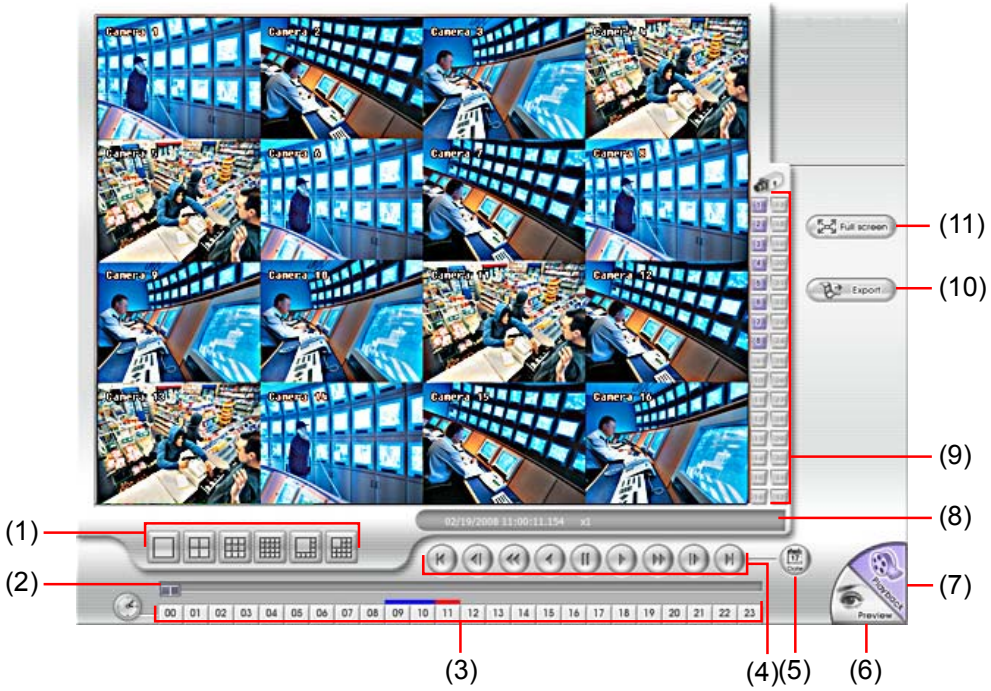
7.4.2 Familiarizing the RealTime Playback Buttons



Name	Function
(1) Split Screen Mode	Select from two (2) different split screen type to playback the recorded video file of all the camera, or one camera.
ⓘ	- If there are only 8 cameras, you won't be able to switch to 16, and 13 split screen mode. - To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.
(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) 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	**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, or 1/8x. **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.
(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 16 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/Advanced mode.
(7) Playback	Switch to Playback mode. This allows you 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) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.

Name	Function
(11) 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.

7.4.3 Familiarizing the Download and Playback Buttons



Name	Function
(1) Split Screen Mode	Select from six (6) different split screen types to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
- If there are only 8 cameras, you won't be able to switch to 16, and 13 split screen mode. - To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.	
(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) 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	**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, or 1/8x. **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.
(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 16 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.	

Name	Function
(6) Preview	Switch to Preview/Advanced mode.
(7) Playback	Switch to Playback mode. This allows you 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, Print, Output Video Clip, and Backup 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. Follow the below steps to output a video clip: 1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. 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 cut. 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** button → **Output Video Clip** 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.
(11) 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.

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 enquiring for servers' Internet addresses.

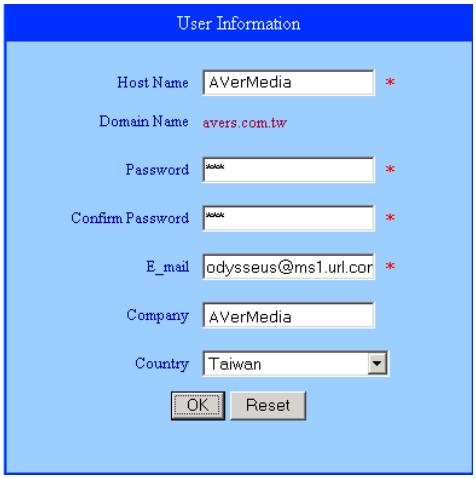
In order to take advantage of this intelligent service, first register your domain name on the following Web site **http://ddns.avers.com.tw**

1. **User Login**

   Browse the website **ddns.avers.com.tw** with Microsoft IE or Netscape Navigator to access the following dialog.

2. First input the CD-Key number and select the product name. Then click **OK** to login or **Reset** to clear the previous input.
3. **User Information**

   Please provide the following user information, **Host Name** (user can choose any name he/she likes except the one violence with other users), **Password**, **E-mail**, **Company**, and **Country**. And then, click **OK** to complete the domain name registration.



Appendix B Network Service Port

The following table shows the ports that DVR server uses for certain network service.

	Port#	Variable
Remote Console	5550	Y
WebViewer	80	Y
CM3000	80	Y
Firmware Update	5005	Y
DVR DDNS (Upload / Download)	53/1053	N

Appendix C Using Functional Keys

The DVR system provides shortcut keys. The table shows the function keys and descriptions.

Function Keys	Description
Q	Exit System
F1	Display system information
F2	Start recording
F3	Enable network function
F4	Access system settings
F5	Switch to playback mode
F6	Switch to Emap mode
F7	Access PTZ camera control panel
F8	Snapshot
F9	Switch to Full Screen
F11	Switch to AutoScan

WARRANTY NOTICE

LIMITED WARRANTY

AVerMedia INFORMATION, Inc. warrants this product to be free of defects resulting from faulty manufacture or components under the following terms:

WARRANTY LENGTH

Labor is warranted for (1) one year from the date of purchase

Parts are warranted for (1) one year from the date of purchase

Replacement products will be warranted for the remainder of the one year warranty period or (30) thirty days, whichever is longer

WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser

WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

1. Any product on which the serial number has been defaced, modified, or removed
2. Damage, deterioration, or malfunction resulting from:

   Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.

   Misapplication of service by someone other than the manufacturer's representative

   Any shipment damages (Claims must be made with carrier)

   Any other cause which does not relate to a product defect
3. Cartons, cases, batteries, cabinets, tapes, or accessories used with product
4. AVerMedia does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose

WHAT WE WILL AND WILL NOT PAY FOR

We will pay labor and material expenses for covered items. However, we will not pay for the following:

1. Removal or installation charges
2. Shipping charges
3. Any incidental charges

EXCLUSION OF DAMAGES

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY IN TORT RELATING TO THIS PRODUCT OR RESULTING FROM ITS USE OR POSSESSION.

LIMITATIONS OF IMPLIED WARRANTIES

There are no other oral or written warranties, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. Any implied warranties are limited in duration to one year from the date of purchase

STATE LAW AND YOUR WARRANTY

This warranty gives you specific legal rights, and you may also have other rights granted under state law. These rights vary from state to state

CONTACT INFORMATION

Taiwan & International
No. 135, Jian Yi Rd., Chung Ho City, Taipei, Taiwan
TEL: 886-2-2226-3630
FAX: 886-2-2226-7241
Web Site: http://www.avermedia.com / http://www.averdigi.com