ernitec

ERIS H.264 DVR

OSD Setup Manual

Version 2

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Menu System Overview

The detailed functions and settings of **ERIS H.264 DVR** can be set by entering the intuitive Graphical User Interface (GUI) OSD setup menu. Collaborating with a USB mouse, setting up the DVR can be easy as operating on a PC. This chapter particularizes the items and options in the OSD setup menu.

< Username and Password >

Press MENU and input a valid username. There are two preset accounts: "admin" and "user". The default username "admin" can be inputted via pressing the hot key MENU, while "user" can be inputted via pressing the hot key SEARCH. Move to <OK> and press ENTER to proceed.

```
                        Input Username
     ┌──────────────────────────────────────────┐
     │                                          │
     │   A  B  C  D  E  F  G  H  I  J  K  L  M   │
     │   N  O  P  Q  R  S  T  U  V  W  X  Y  Z   │
     │   a  b  c  d  e  f  g  h  i  j  k  l  m   │
     │   n  o  p  q  r  s  t  u  v  w  x  y  z   │
     │   0  1  2  3  4  5  6  7  8  9  .  !  @   │
     │   #  -  _  ,  "  +  =  *                  │
     │          ◄    ►    Backspace    Delete    │
     │               Cancel    OK                │
     └──────────────────────────────────────────┘
```
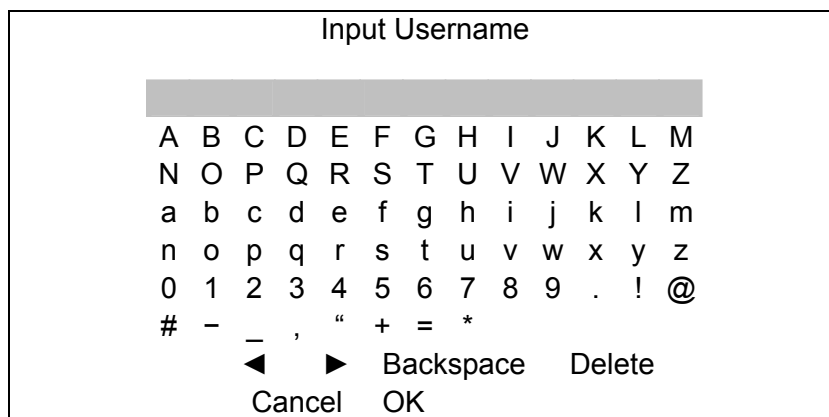
The next step is to enter a corresponding password. The preset password for "admin" is "1234", and the password "4321" is for "user".

```
           Password Verification
             _____
     Press Channel Keys To Enter Password
                (4-8 Digits)
         Press ◄ Key To Delete
```
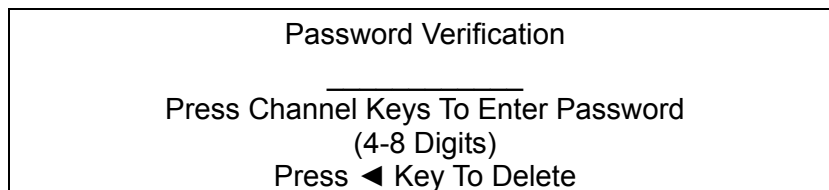
NOTE: It is strongly suggested to change the preset password to prevent unauthorized access to the unit.

An icon displayed at the upper-right corner of the screen will show the authority level of the account. Under logout condition, the icon will show "N". When an account is logged in, its authority level number (1~8) will be shown.

Before completely logout, other functions can also be accessed without having to login again. There are two ways to logout: manually logout by pressing ESC key at Live mode, or auto logout after 5 minutes idle time at Live/ Menu mode.

\<Key Usage\>

The key usage differs under the OSD menu and in the Virtual keyboard. The difference can be seen while setting some items, such as Unit Name and IP Address.

■ ***Key Usage in OSD Menu***

The following introduce some keys used frequently to setup the unit via the OSD menu.

\<Direction Keys\>

In the OSD menu, Direction Keys are used to move the cursor to previous or next fields. UP / DOWN are used to change the value in the selected field.

\<ENTER\>

In OSD menu or selection interface, press the key to make selection or save settings.

\<ESC\>

Press to cancel or exit from certain OSD menu without saving any changes.

■ ***Key Usage in Virtual Keyboard***

A virtual keyboard shows up while editing settings such as camera title, unit name, etc. The virtual keyboard displays as follows.

```
A  B  C  D  E  F  G  H  I  J  K  L  M
N  O  P  Q  R  S  T  U  V  W  X  Y  Z
a  b  c  d  e  f  g  h  i  j  k  l  m
n  o  p  q  r  s  t  u  v  w  x  y  z
0  1  2  3  4  5  6  7  8  9  .  !  @
#  -  _  ,  "  +  =  *
      ◄     ►    Backspace    Delete
         Cancel    OK
```

<To input characters>
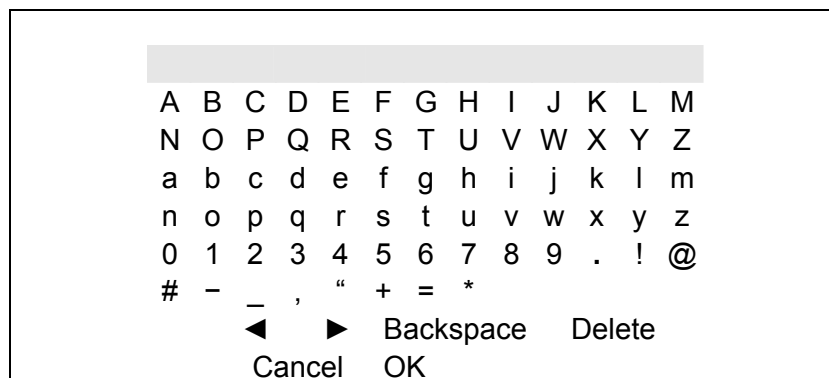
Move the cursor by pressing Direction keys and press ENTER to select characters. Alternatively, press channel keys 1~9 to directly enter number 1~9, press channel key 10 to directly enter number 0, or press "CALL" key to directly enter a period mark ".". The hot keys are for speeding up inputs of IP addresses or etc.

<To move the cursor in title entry>

Select <◄> / <►> and press ENTER to move the cursor to left / right in the title entry field.

<To delete previous character>

Select <Backspace> and press ENTER, or press DOME.

<To delete current character>

Select <Delete> and press ENTER..

<To exit the virtual keyboard>

Select <OK> and press ENTER to save the settings and exit, otherwise press ESC or select <Cancel> and press ENTER to exit without saving changes

System Setup

Select <System Setup> from the Main Menu and press ENTER to enter the System Setup menu. The items in the System Setup menu are described in the following sections.

```
                        System Setup
        System/Version Info
        Language                            English
        Date/Time
        Unit Name                           DVR
        User Management
        Network Setup
        RS485 Setup
        Audio Output/Key Beep
        IP Camera Support                   0
```

<System/Version Info>

The Version menu allows users to view system information such as hardware and software version. From the System Setup menu, select <System/Version Info> and press ENTER. The following menu is displayed. The first five items are "read only", thus CANNOT be changed. The items in this menu are described in the following subsections.

```
                     System/Version Info
        Model Name                              ****
        Video System                            NTSC
        Hardware                              **_**_**
        Software                       ****_****_****_****
        MAC Address 1                    **.**.**.**.**.**
        Software Upgrade via Local Device
```

- ### Model Name
     This item shows the model name of the unit.

- ### Video System
     This item shows the current video system of the unit.

- ### Hardware
     This item shows the hardware version of the unit.

- ### Software
     This item shows the software version installed on the unit.

■ *MAC Address 1*

This item identifies the first Media Access Control (MAC) address of the unit.

■ *Software Upgrade via Local Device*

This item is used for updating software of the **ERIS H.264 DVR** via local device. The menu is displayed as follows.

Software Upgrade via Local Device	
Upgrade Version	Select
xxxx-xxxx-xxxx-xxxx	No

Connect an USB storage device containing upgrade software to the unit; the available upgrade files will be listed in the menu. To update the system, select a file and use UP / DOWN keys to choose <Yes>. Press ENTER to confirm the selection and start the upgrade process. The **ERIS H.264 DVR** will download the software, update the system files, and reboot automatically.

The upgrade may take several minutes to save the changes in the memory of the system. After the unit is rebooted, please check the software version again.

NOTE: Power interruption is **NOT** allowed during the software update. Ensure that no power interruption can occur until the unit is completely rebooted.

NOTE: Do not remove the external USB ThumbDrive® / DVD+RW before the unit has completely shutdown (hard drive and fan are off). Removing the external USB ThumbDrive® / DVD+RW before shutdown can cause the system to update improperly.

<Language>

The Language item allows users to select the language for the OSD menu and screen messages. Language selection takes effect immediately when the selection is made. Press UP / DOWN to select from listed languages and press ENTER to confirm.

<Date / Time>

Users can set the current date, time and other OSD parameters in this menu. The Administrator's privileges are required for entering the submenu. In System Setup menu, select <Date/Time> and press ENTER. The Date/Time menu displays as follows.

```
                        Date/Time
Date                                      2005/02/21
Time                                      PM10:39:26
Date/Time Display                              1 Row
Date Display Mode                              Y/M/D
Time Display Mode                              12 HR
Date/Time Order                            Date First
Daylight Saving Time Setup
```

⚠ **NOTE:** The reset of date / time setting only applies to new video. The date and time of previously recorded video will not be changed.

⚠ **NOTE:** To avoid database corruption, formatting the database is recommended after changing Date/Time setting.

■ *Date / Time*

Select <Date> or <Time> and press ENTER to adjust the settings. LEFT / RIGHT keys are used to move the cursor to previous or next field, ENTER is for selecting, and UP / DOWN are used to change the value in the selected field.

■ *Date/Time Display*

The date/time display can be set to be shown in 1 row, 2 rows, or not shown. Use the UP / DOWN keys to change the setting.

■ *Date Display Mode*

This menu allows users to set the display type of the date. Three options are provided: <Y/M/D>, <M/D/Y> or <D/M/Y>. "Y" represents "Year", "M" represents "Month" and "D" represents "Day". Use UP / DOWN keys to change the setting.

■ *Time Display Mode*

Users can set the time format to <12 hour> or <24 hour>. Use the UP / DOWN keys to change the format.

■ *Date/Time Order*

This item is used to set the order of Date/Time display to <Date First> or <Time First>. Select this item and press UP / DOWN keys to change the setting.

■ *Daylight Saving Time Setup*

This function is for people who live in certain regions to observe Daylight Saving Time. The menu displays as follows:

Daylight Saving Time Setup	
Daylight Saving Time	OFF
DST Start	Apr. 1st Sun, 02:00
DST End	Oct. Last Sun, 02:00
DST Bias	60 Min

- **Daylight Saving Time**

   Select <ON> to enable, or <OFF> to disable the function. If the function is disabled, the DST Start / End time and DST Bias will be grayed out and cannot be accessed. If this function is enabled, the date/time information will be shown on the screen with a DST icon when playing back recorded video or searching video in the event list. "S" indicates summer time and "W" indicates winter time.

- **DST Start / End**

   These items are used to set duration of daylight saving time. Use LEFT / RIGHT to move the cursor to the previous or next field, UP / DOWN to change the settings.

- **DST Bias**

   This item allows users to set the amount of time to move forward from the standard time for daylight saving time. Available options are <30>, <60>, <90> and <120> minutes.

<Unit Name>

Users are allowed to assign a unit name, up to 11 characters, to the **ERIS H.264 DVR**.

Follow the steps below to edit the unit name.

- Select <Unit Name> from System Setup menu and press ENTER. A virtual keyboard displays as below.

```
                    Unit Name

    A  B  C  D  E  F  G  H  I  J  K  L  M
    N  O  P  Q  R  S  T  U  V  W  X  Y  Z
    a  b  c  d  E  f  g  h  i  j  k  l  m
    n  o  p  q  R  s  t  u  v  w  x  y  z
    0  1  2  3  4  5  6  7  8  9  .  !  @
    #  -  _  ,  "  +  =  *
           ◄    ►    Backspace    Delete
           Cancel    OK
```
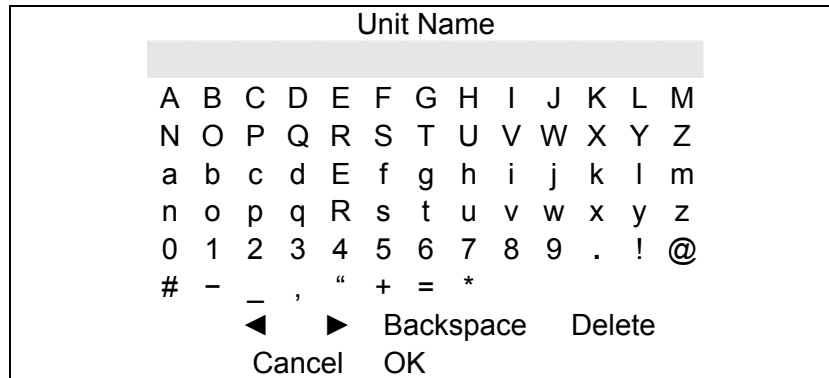
- Use Direction keys to move the cursor to the wanted character.
- Press ENTER to add the character to the entry field (up to 11 characters).
- When the unit name is entered, move the cursor to <OK> and press ENTER to save the settings and exit.

<User Management>

The DVR provides the option to create up to seven sets of usernames and passwords with customized authority, excluding the preset "admin" account. The menu is as the following.

```
                User Management
    Password Protection                    ON
    Account Setup
    Authority Setup
    Load Default Setting                   No
```
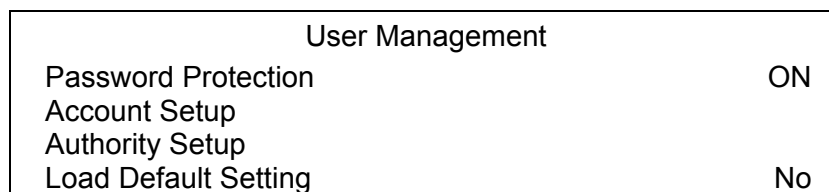
■ *Password Protection*

Select <ON> to request for username and password for accessing functions listed in Authority Setup menu, or select <OFF> to allow free access.

■ *Account Setup*

Setup customized username, password, and authority level in this menu. Press Direction keys and ENTER to select items. The username(ID) is case sensitive. The authority level ranks from level 1~8, and level 8 has highest authority. Alternatively, select <Disable> to stop using the account.

Account Setup			
Account	ID	PWD	Authority
admin	Edit	Edit	Level 8
user	Edit	Edit	Level 4
user1	Edit	Edit	Level 4
user2	Edit	Edit	Level 4
user3	Edit	Edit	Level 4
user4	Edit	Edit	Level 4
user5	Edit	Edit	Level 4
user6	Edit	Edit	Level 4
user7	Edit	Edit	Level 4

NOTE: The username and authority level of the preset "admin" account cannot be changed.

■ *Authority Setup*

Setup permitted authority level for accessing the functions listed in this menu. The functions include: Playback/Search, Dome Control, Call Control, Export Data, Menu Access, System Setup, Monitor Setup, Camera Setup, Record Setup, Sequence Setup, Event Setup, Database Setup, Configuration, Text Setup, and Shutdown. Press Direction keys and ENTER to select from items. The authority level ranks from level 1~8, and level 8 has highest authority. Alternatively, select <Disable> to allow free access.

Authority Setup	
FIRST PAGE	
Item	Authority
Playback/Search	Level 4
Dome Control	Level 4
Call Control	Level 4
Export Data	Level 4
Menu Access	Level 4
System Setup	Level 4
Monitor Setup	Level 4
Camera Setup	Level 4
Record Setup	Level 4

NOTE: The "Menu Access" cannot be set to <Disable>.

When the account does not have authority to access certain functions, an error message will be displayed on the screen.

■ *Load Default Setting*

This item is for restoring the default settings. Select <Yes> to load default setting or select <No> to exit.

<Network Setup>

The Network Setup menu allows the administrator to configure the network by specifying the network related settings, such as IP address and Netmask, etc. Check with the network administrator and/or network service provider for more specific information. The menu is as the following. Items in this menu are described in the following sections.

```
                        Network Setup
        LAN Select                              LAN
        LAN Setup
        Trigger Port                             80
        Email Address
        SMTP Setup
        DDNS Setup
```

■ *LAN Select*

This item allows you to select your service type among <LAN>, <PPPoE>, and <None>. If you are using a local area network communication, please select <LAN>. If you are using a broadband medium, such as DSL Line or cable modem, please select <PPPoE>.

PPPoE stands for Point-to-Point Protocol over Ethernet.   It is a specification for connecting the users on an Ethernet to the Internet through a common broadband medium.

If <None> is selected, then there is no need to set further LAN or PPPoE settings. Therefore, the second item <LAN Setup>will be inaccessible.

■ *LAN Setup*

The network related settings in the LAN Setup menu should be associated with the network service type. Select <LAN Setup> in Network Setup menu and press ENTER to set the parameters. The menu displays as follows.

```
                        LAN Setup
        DHCP                                     OFF
        IP                              192.168.1.150
        Netmask                         255.255.255.0
        Gateway                           192.168.1.1
        DNS                                   0.0.0.0
        PPPoE Account
        PPPoE Password
        PPPoE Max Idle                         35min
        Connect At Booting                       Yes
        Network Restart                           No
```

- **DHCP**

    This item allows users to obtain a dynamic IP address from DHCP (Dynamic Host Configuration Protocol) server when the unit boots up. When using DHCP, the settings are dynamic and will change every time the unit power on or off, depending on the network's setup.

    If the item is enabled (ON), a dynamic IP will be assigned to **ERIS H.264 DVR**. In this case, users do not need to set a static IP and the Ethernet settings, including IP address, Netmask, Gateway, and DNS settings will be read-only. The default setting is <ON>.

    If the unit is using a permanent address, disable DHCP (OFF) to manually set IP Address, Netmask, Gateway, and DNS. See the network system administrators or IT personnel for appropriate values.

- **IP**

    This item is used to configure the IP (Internet Protocol) address of the unit. The IP address is the identifier for the unit on a TCP/IP LAN. Please note that to set a static IP address, DHCP must be set to <OFF>.

- **Netmask**

    A netmask is a 32-bit mask used to divide an IP address into subnets and specify the networks available hosts. Its value is defined by the network administrator. It takes the form as ***.***.***.***, for example, 255.255.255.255.

    This item allows users to enter the value of the Netmask for the unit. Please note that to configure this item, DHCP must be set to <OFF>.

- **Gateway**

    Gateway is a node on a network that serves as an entrance to another network. Users are allowed to specify the IP address of the gateway or router associated with this unit. To configure this item, DHCP must be set to <OFF>.

- DNS

DNS is the abbreviation for "Domain Name Server", which is an Internet service that translates domain names into IP addresses. The advantage of using DNS is that domain names are easier to remember.

This item allows users to specify the IP address of the Domain Name System associated with the unit. To configure this item, DHCP must be set to <OFF>.

If the server is unavailable when using DHCP, the unit will search for the network server and boots up more slowly. This network search continues until it times out.

- PPPoE Account

The item allows users to setup the PPPoE login username.

⚠ **NOTE:** For accessing the PPPoE settings, select <PPPoE> as the Network Type in Network Setup menu.

To setup the login username, follow the steps:
- Select <PPPoE Account> from LAN Setup menu and press ENTER. A virtual keyboard displays.

```
                 PPPoE Account

    A  B  C  D  E  F  G  H  I  J  K  L  M
    N  O  P  Q  R  S  T  U  V  W  X  Y  Z
    a  b  c  d  e  f  g  h  i  j  k  l  m
    n  o  p  q  r  s  t  u  v  w  x  y  z
    0  1  2  3  4  5  6  7  8  9  .  !  @
    #  -  _  ,  "  +  =  *
            ◄    ►    Backspace    Delete
              Cancel    OK
```

- Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the character to the username entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the setting and exit.

- **PPPoE Password**

  The item allows users to setup the PPPoE password. Follow these steps to setup the login password.

  - Select <PPPoE Password> from LAN Setup menu and press ENTER. A virtual keyboard displays.

  - Use Direction keys to select from characters.

  - Press ENTER to add the selected character to the password entry field.

  - When it's done, move the cursor to <OK> and press ENTER to save the setting and exit.

- **PPPoE Max Idle**

  The item indicates the duration that the modem connection remains active if there is no acknowledgement from the remote PC. You can select the idle time from 0 to 600 minutes.

- **Connect At Booting**

  The unit is allowed to automatically connect to the internet when booting up. Select <Yes> to connect at booting, otherwise select <No>.

- **Network Restart**

  Network restart is required after network settings are changed. Select <Yes> to restart the network connection.

■ *Trigger Port*

To avoid the default service port (port 80) being jammed, this item enables users to change port 80 to another port.

To change the trigger port, move the cursor over <Trigger Port> and press ENTER, then adjust the setting by UP / DOWN keys.

■ *Email Address*

This item is used to edit the e-mail address where alarm event information will be sent. Follow these steps to setup the e-mail address.

- Select <Email Address> from Network Setup menu and press ENTER. A virtual keyboard displays.

- Use Direction keys to move the cursor for selecting from characters.

- Press ENTER to add the selected character to the password entry field.

- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

■ *SMTP Setup*

Simple Mail Transfer Protocol (SMTP), a protocol for sending e-mail messages between servers. SMTP is a relatively simple, text-based protocol that one or more recipients of a message are specified and the message text is transferred.

Select < SMTP Setup> from Network Setup menu and press ENTER; the menu displays as follows.

```
                       SMTP Setup
   Email via SMTP                          ON
   SMTP Server
   SMTP Port                               25
   SMTP Account
   SMTP Password
```

- **Email via SMTP**

  The item enables users to determine if the unit sends e-mail via SMTP. Select <ON> to send e-mail via SMTP using direction keys; if not, select <OFF>.

- **SMTP Server**

  This item enables users to set the SMTP server. Contact your network service provider for more specific information.

  Follow the steps to setup the SMTP Server.
  - Select <SMTP Server> from SMTP Setup menu and press ENTER. A virtual keyboard displays.

```
                      SMTP Server


   A   B   C   D   E   F   G   H   I   J   K   L   M
   N   O   P   Q   R   S   T   U   V   W   X   Y   Z
   a   b   c   d   e   f   g   h   i   j   k   l   m
   n   o   p   q   r   s   t   u   v   w   x   y   z
   0   1   2   3   4   5   6   7   8   9   .   !   @
   #   −   _   ,   ”   +   =   *
            ◄     ►    Backspace    Delete
               Cancel    OK
```

  - Use Direction keys to move the cursor to the desired character.
  - Press ENTER to add the selected character to the username entry field.
  - When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

- SMTP Port

The item is used to change SMTP port to another port, if necessary. SMTP usually is implemented to operate over Internet port 25.

To change the SMTP port, move the cursor to <SMTP Port> in SMTP Setup menu and press ENTER. Use UP / DOWN keys to change the values in the selected field.

- SMTP Account

The item allows users to setup the SMTP username. Follow these steps to setup the login username.

- Select <SMTP Account> from SMTP Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to move the cursor for selecting from characters.
- Press ENTER to add the selected character to the password entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

- SMTP Password

The item allows users to setup the SMTP password. Follow these steps to setup the password.

- Select <SMTP password> from SMTP Setup menu and press ENTER. A virtual keyboard displays.
- Use Direction keys to move the cursor for selecting from characters.
- Press ENTER to add the selected character to the password entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

■ *DDNS Setup*

Dynamic Domain Name System (DDNS) allows a DNS name to be constantly synchronized with a dynamic IP address. In other words, it allows those using a dynamic IP address to be associated to a static domain name so others can connect to it by the domain name.

Once the setting is completed, the DDNS address will be:
http://hostname.ddns.iview-ddns.com
Fore example, if the chosen host name is "**H264DVR**", then the address will be:
http://**H264DVR**.ddns.iview-ddns.com

Select <DDNS Setup> from Network Setup and press ENTER. The menu displays as below.

DDNS Setup	
Enable DDNS	ON
Host Name	XXXX_XXXXXX
DDNS Port	80
Submit/Update	No
ezDDNS	No

- Enable DDNS

The item is used to enable or disable the Dynamic Domain Name Service. Select <ON> to enable the service, or <OFF> to disable.

- Host Name

The item allows users to setup a domain name, which is used for entering the **ERIS H.264 DVR** through internet on the remote PC.

To setup the host name of the unit, follow the steps.

- Select <Host Name> from DDNS Setup menu and press ENTER. A virtual keyboard displays as below.

Host Name												
A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
a	b	c	d	e	f	g	h	i	j	k	l	m
n	o	p	q	r	s	t	u	v	w	x	y	z
0	1	2	3	4	5	6	7	8	9	.	!	@
#	−	_	,	"	+	=	*					
	◄	►	Backspace		Delete							
	Cancel	OK										

- Use Direction keys to select character.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

⚠ **NOTE:** Each **ERIS H.264 DVR** should have a unique host name.

- DDNS Port

The item allows users to setup the port for DDNS. Press UP / DOWN Direction keys to change the port.

- **Submit/ Update**

    When it's done, move the cursor to this item and press ENTER to submit the settings.

    ⚠ **NOTE:** If more than one **ERIS H.264 DVR** has the same domain name, only the first one will be submitted successfully.

- **ezDDNS**

    ezDDNS enables the users to register for host name automatically. Press ENTER and select <Yes>. The following screen will be displayed:

ezDDNS Submit/update ok! Host name is XXXX_XXXXXX Press any key to return

    ⚠ **NOTE:** The DVR must be connected to the *Real IP address, or be assigned a specific port using **Port Forwarding technique.
    *A "**Real IP**" is an IP address that is assigned to users by the ISP.
    A "Virtual IP" is an IP address assigned either manually or through DHCP. When users are assigned a Virtual IP, users must use **Port Forwarding technique to assign a specific port to DVR.

<RS485 Setup>

This menu allows users to setup the parameters of the unit's RS-485 communication port. From System Setup, select <RS485 Setup> and press ENTER. The following menu is displayed.

RS485 Setup	
Unit ID	224
Baud Rate	9600
Bits	8
Stop	1
Parity	None

■ *Unit ID*

This item is used to change the RS-485 ID address of the unit. The ID is in the range of <1> to <255>. The default is <224>.

■ *Baud Rate*

The Baud rate options for associated with the protocol are <2400>, <4800>, <9600>, <19200>, <38400>, and <57600>. The default is <9600> baud.

■ *Bits*

Users can specify the bits in a word associated with this protocol. The available options are <6>, <7> and <8> bits. The default is <8> bits.

■ *Stop*

Users can specify the stop bit associated with this protocol. Options are <1> and <2> stop bits. The default is <1> stop bit.

■ *Parity*

This item is used to specify the parity associated with this protocol. Options are <ODD>, <EVEN>, and <NONE>. The default is <None>.

<Audio Output/ Key Beep>

Enter this menu to setup the audio output or key beep.

Audio Output/Key Bep	
Audio Output	OFF
Key Beep	ON

■ *Audio Output*

This item is used to set the audio output mode. The available options are as below.

- **Live/PB**

  Select this to play the recording sounds of live image in live mode, and sounds of recorded video in playback mode respectively.

- **Always Live**

  Select this to play live sounds in both live mode and playback mode.

- **OFF**

  Select this to disable the audio output function.

■ *Key Beep*

This item is used to enable or disable the key tone. Select <ON> to enable the key tone, or <OFF> to disable.

<IP Camera Support>

Enter this item to add IP cameras to the DVR. Setting this item to <0> will make DVR act as a traditional analog DVR. Select any other number to add corresponding number of IP cameras to the DVR.

After a number is selected, the following message will be displayed. Press ENTER to apply the changes, or ESC to exit.

```
                        Notice!!

           DVR must be reboot to apply the change

                ENTER: Yes     ESC: No
```

⚠ **NOTE:**
1. The existing database will NOT be re-formatted after switching to this function.
2. Alarm I/O, Motion detection function, and audio of the IP camera are NOT currently supported

Monitor Setup

The Monitor Setup menu allows users to adjust the quality of the displayed image. Select <Monitor Setup> from the Main menu and press ENTER. The following menu is displayed.

```
                    Monitor Setup
     Show Camera Title                      Yes
     Screen Center Adjust
     VGA Resolution                      800x600
     Show Color Bar                      Execute
```

<Show Camera Title>

This item allows users to choose whether to display the camera title on the screen or not. The default is <Yes>, which displays the camera titles with the video.

<Screen Center Adjust>

This item is used to adjust the screen center of the main monitor display area.

Follow the steps to set the center point.

- Select <Screen Center Adjust> from the Monitor Setup menu and press ENTER. The adjusting screen is as follows.

```
                Screen Center Adjust
                        ▲

     ◄                  +                  ►

                        ▼
```
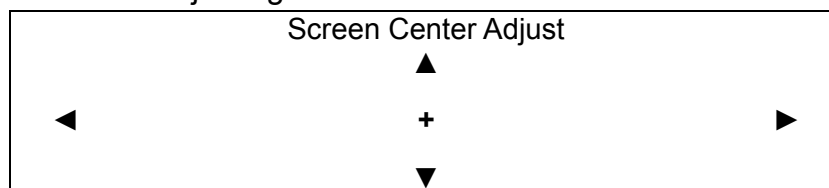
- Position the screen center position using the Direction keys.
- Press ENTER to exit when finished.

<VGA Resolution>

This item allows users to select appropriate VGA resolution for the VGA monitor connected to the unit. The options are <800×600> (default), <1024×768> and <1280×1024>.

⚠ **NOTE:** If the selected VGA resolution is too high that the monitor cannot support, the message "No Signal" will be shown on screen. Then please press ESC on the front panel to restore the original setting.

<Show Color Bar>

Choose this item to display color bar pattern on the screen. The color bar helps to adjust the monitor hue, saturation, text color, and display options. Press ESC to exit the color bar pattern display and return to the OSD menu.

Camera Setup

The items in the Camera Setup menu enable users to set camera parameters, including camera title, dome protocol and ID for each connected camera. There will be separate menus for analog cameras and IP cameras. Please refer to <Analog Camera> section if the connected camera is an analog camera, or refer to <IP Camera> when the connected camera is an IP camera.

<Analog Camera>

If the connected camera is an analog camera, please continue with this section. Items in this menu are described in the following subsections.

```
                        Analog Camera
        Analog Camera Select              CH1
        Dome Protocol                     None
        Dome ID                           0
        Camera Title                      CH1
        Covert                            No
        Brightness                        0
        Contrast                          0
        Saturation                        0
        Hue                               0
```

■ *Analog Camera Select*

This item is used to select a camera for setting the parameters. The related settings will follow the selected camera, such as dome protocol and camera title. Move the cursor to <Analog Camera Select> and press ENTER, then select a channel using UP / DOWN keys.

■ *Dome Protocol*

If the connected camera is a dome camera, select the communication protocol associated with the dome camera using ENTER and Direction keys. The available protocol includes <DSCP>, <AD422>, <Pelco D>, <Pelco P>, <Fastrax 2>, <JVC>, <Panasonic_C>, <Panasonic_N>, and <None> (default).

■ *Dome ID*
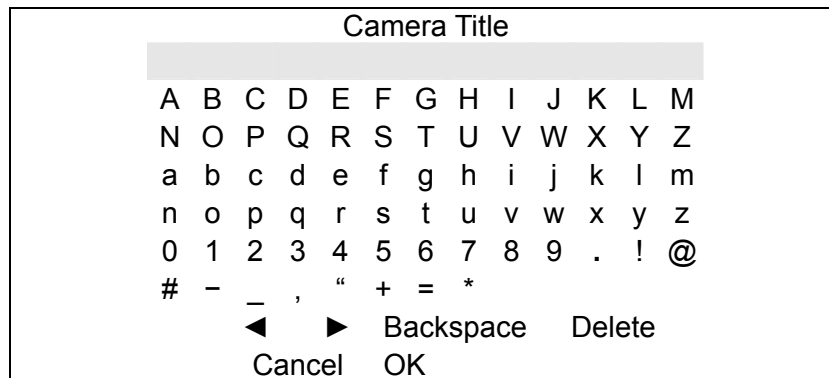
This item is used to assign an ID number to the selected dome camera. Note that ID number must match the ID address set by the dome camera.

■ *Camera Title*

This item allows the users to change the title of each connected camera. By default, the titles of cameras are numbered from 1 through 16 respectively. The title will be displayed on screen after the changes of the titles are set.

Follow these steps to enter a new title for a camera.

- Move the cursor to <Camera Title> and press ENTER. A virtual keyboard with alphanumeric characters is displayed as below.

```
                    Camera Title

         A  B  C  D  E  F  G  H  I  J  K  L  M
         N  O  P  Q  R  S  T  U  V  W  X  Y  Z
         a  b  c  d  e  f  g  h  i  j  k  l  m
         n  o  p  q  r  s  t  u  v  w  x  y  z
         0  1  2  3  4  5  6  7  8  9  .  !  @
         #  −  _  ,  "  +  =  *
               ◄    ►    Backspace    Delete
                  Cancel    OK
```

- Use Direction keys to select character.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

■ *Covert*

This function allows users to set the specific camera to be covert while the unit continues to record video. Choosing <Yes> means to cover the selected camera; and <No> to remain the specific camera non-covert.

■ *Brightness*

Select this item to adjust the brightness of the camera. Use UP / DOWN keys to adjust the numeric value. The range of brightness values is from <-128> to <127>.

■ *Contrast*

Select this item to adjust the contrast of the camera. Use UP / DOWN keys to adjust the value. The range of contrast values is from <-128> to <127>.

■ *Saturation*

Select this item to adjust the color saturation of the camera using UP / DOWN keys. This value will be ignored on monochrome monitors. The range of saturation values is <-128> to <127>.

■ *Hue*

Select this item to adjust the hue of the camera. Use UP / DOWN keys to adjust the value. The range of hue values is from <-128> to <127>

<IP Camera>

If you are using an IP camera, please continue with this section. After the <IP Camera Support> is set to any number greater than 0 and the DVR is rebooted, the user will be able to setup the IP camerajo. Items in this menu are described in the following subsections.

```
                        IP Camera
        IP Camera Select                    CH16
        IP Camera Title                     CH16
        Hostname/IP                         X.X.X.X
        Model
        Connection Setup
        Device Setup
        Activated                           No
        Status
```

■ *IP Camera Select*

Select the corresponding channels. If <IP Camera Support> is set to <1>, then last channel will be the corresponding channel for IP camera. When <IP Camera Support> is set to <2>, the last two channels can be used to setup the IP cameras, and so on.

■ *IP Camera Title*

This item allows the users to change the title of each connected camera. By default, the titles of cameras are numbered from 1 through 16 respectively. The title will be displayed on screen after the changes of the titles are set.

Follow these steps to enter a new title for a camera.

- Move the cursor to <Camera Title> and press ENTER. A virtual keyboard with alphanumeric characters is displayed as below.

```
                    IP Camera Title
        ┌─────────────────────────────────┐

        A  B  C  D  E  F  G  H  I  J  K  L  M
        N  O  P  Q  R  S  T  U  V  W  X  Y  Z
        a  b  c  d  e  f  g  h  i  j  k  l  m
        n  o  p  q  r  s  t  u  v  w  x  y  z
        0  1  2  3  4  5  6  7  8  9  .  !  @
        #  −  _  ,  "  +  =  *
              ◄    ►    Backspace    Delete
                  Cancel    OK
```

- Use Direction keys to select character.
- Press ENTER to add the selected character to the entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

■ *Hostname/IP*

This item allows users to enter the hostname or IP address of the IP camera (e.g. 192.168.1.123).

■ *Model*

Enter this item to select matching model of the IP camera. The DVR supports the following IP camera models: <NH Series>, <D7521>, <ViVoTek 7000>, <AXIS 200>, <SONY SNC>, and <ACTi Series>.

■ *Connection Setup*

This item allows users to setup the connection of the IP camera. Enter this item and the following menu will be displayed.

```
                   Connection Setup
      Account                             ****
      Password                            ****
      Management Port                      80
      Streaming Format                   MPEG4
      Advance Streaming Option            OFF
      Streaming Port                      8090
      Streaming Protocol               RTP+RTSP
      IP Dome Protocol                   None
```

- **Account**

  Enter the login account name of the IP camera.

- **Password**

  Enter the login password of the IP camera.

- **Management Port**

  The management port is the default port of the IP camera. Different IP cameras may have different management ports.

- **Streaming Format**

  Enter this item to select the streaming format of the IP camera. The DVR supports two types of streaming format: <MPEG4>, <H264> and <MJPEG>.

- **Advance Streaming Option**

  Select <OFF> and the Streaming Port and Streaming Protocol will be set automatically according to the camera model selected. Alternatively, select <ON> to manually set the Streaming Port and Streaming Protocol.

- **Streaming Port**

   Streaming port is used for transmitting video and related commands.

- **Streaming Protocol**

   Enter this item to select the streaming protocol of the IP camera. The DVR supports the following streaming protocols: <RTP+RTSP>, <RTP/RTSP>, <RTP/RTSP/HTTP>, and <HTTP>.

   NOTE: Please contact manufacturer of the IP camera for assistance if the IP camera's Management Port/ Streaming Port/ Streaming Format/ Streaming Protocol are unknown.

- **IP Dome Protocol**

   If the connected device is an IP Dome Camera, then select an appropriate IP Dome Protocol from the provided options.

■ *Device Setup*

Enter this item to setup the basic settings of the IP camera. Upon entering this item, the following message will be displayed.

Collecting data
Please wait!

If the connection cannot be detected, the following message will be displayed. Please check the <Hostname/IP>, <Model>, and <Connection Setup> again to make sure the settings are correct.

Cannot get config from the IP device

When the connection is detected, the following menu will be displayed.

Device Setup	
Product ID	****
Image Resolution	CIF
FPS	15
Compression	40
Quality	Best
Quality	0
Sharpness	20
Brightness	50
Contrast	30
Hue	40
Apply	No

⚠ **NOTE:** The contents of the Device Setup menu differ from camera model to camera model. For instance, when IP Camera Brand A is connected, all items may be available. However, when IP Camera Brand B is connected, the menu may contain only 8 items. Refer to the following comparing table for example.

<IP Camera Brand A>   <IP Camera Brand B>

Device Setup	
Product ID	****
Image Resolution	CIF
FPS	15
Compression	40
Quality	Best
Sharpness	0
Brightness	20
Contrast	50
Saturation	30
Hue	40
Apply	No

Device Setup	
Product ID	****
Image Resolution	CIF
FPS	15
Quality	Best
Sharpness	0
Contrast	20
Saturation	50
Apply	No

- **Product ID**

   This item will display the product name of the IP camera.

- **Image Resolution/ FPS/ Compression/ Quality**

   These can be used to setup the Image Resolution/ FPS (Frames Per Second)/ Compression/ Quality of the IP camera.

- **Sharpness/ Brightness/ Contrast/ Saturation/Hue**

   Move the cursor to the items and press ENTER to adjust the Sharpness/ Brightness/ Contrast/ Saturation/ Hue of the camera. Use UP / DOWN keys to adjust the numeric value.

- **Apply**

   Select <Yes> to apply the above settings, and the following message will be displayed.

Re-collecting data
Please wait!

When the settings cannot be applied, the following message will be displayed. Try to reduce the resolution or FPS of the IP camera. Note that the login account of the IP camera should has administrator authority.

> Cannot set the IP device

Otherwise, the <Device Setup> setting is completed.

NOTE: After changing any item under Device Setup menu, users MUST set <Apply> to <Yes> to apply the changes, or the settings will remain unchanged.

■ *Activated*

Access this item and select <Yes> to activate the connection to the IP camera. To deactivate the connection, select <No>

NOTE: Once the connection to the IP camera is activated, menu items <Hostname/IP>, <Model>, <Connection Setup> will be grayed out and cannot be accessed.

■ *Status*

After the connection to the IP camera is activated, users can check the connection status. The menu will be shown as below

.

Status	
Model	****
Streaming Format	MJPEG
Resolution	720*480
PPS	10
Bandwidth	20 KB/Sec
Pkg. lost rate	0.1%

The information shown on the monitor is "ready only".

Record Setup

The total record time of **ERIS H.264 DVR** will be effected by *HDD capacity, recording rate (Picture per Second), image quality settings,* and *event settings.*

The greater the recording rate and the higher the quality setting, the shorter the recording duration. Most of the related factors can be set here in this submenu.

The Record Setup menu allows users to set recording quality, recording schedules, and other recording parameters. Administrator's password is required to access Record Setup menu. In the Main menu, move the cursor to <Record Setup> and press ENTER. The following menu is displayed.

```
                        Record Setup
   Record Mode Setup
   Schedule Setup
   Preset Config                          Best  Quality
   Per Camera Config
   ezRecord Setup
   Data Lifetime                             0  Days
   Circular Recording                             ON
   Audio Recording                                ON
   Purge Data
```

<Record Mode Setup>

The Record Mode Setup menu is for selecting resolution and recording format. The relative record settings, such as preset configuration, will follow the record mode setting. The menu is displayed as the following.

```
                   Record Mode Setup
   Record Resolution                       720*240
   Record Format                              H264
   Max Rec PPS                                  60
```

■ *Record Resolution*
Select resolution of the recorded video. If the recording is set to NTSC system, the selections are 720*480, 720*240, and 352*240. If the recording is set to PAL system, the selections are 720*576, 720*288, and 352*288.

■ *Record Format*
Select format of the recorded video from <H264> and <MJPG>.

■   *Max Rec PPS*

This item will be automatically changed according to the setting of the previous two items.

After the Record Mode settings are changed and the ESC is pressed to return to the previous menu, a warning message will be shown as below. Press ENTER to confirm the selection, or press ESC to abort.

```
!!Warning!!
System will reboot
Because of different record mode
ENTER: Yes      ESC: No
```

NOTE: It is strongly recommended to backup the programmed configuration before making any changes on Record Mode settings.

<Schedule Setup>

This submenu is used to set the day and night time, or weekend recording schedule. The Day and Night schedules are used to define daytime and nighttime; the Weekend schedule can be modified for weekends and holidays.

Select <Schedule Setup> from the Record Setup menu and press ENTER; the following menu is displayed.

Schedule Setup	
Day Time Start	AM 06:00
Day Time End	PM 18:00
Night Time Start	AM 06:00
Night Time End	PM 18:00
Weekend Schedule	ON
Weekend Start	Fri 18:00
Weekend End	Mon 06:00

■   *Day / Night Time Start*

The <Day / Night Time Start> determines the beginning of day/ night recording time. The time is indicated in 1-minute increments. The time display format in this menu is based on the setting of <Time Display Mode> in <Date/Time> menu.

■   *Day / Night Time End*

The <Day / Night Time End> determines the end point of day/ night recording time. The time is indicated in 1-minute increments. The time display format in this menu is based on the setting of <Time Display Mode> in <Date/Time> menu.

■ *Weekend Schedule*

The <Weekend Schedule> determines whether a weekend schedule is in effect. Choose <ON> to take effect the related weekend settings.

■ *Weekend Start/ End*

The <Weekend Start> indicates the specific day and time when weekend schedule should begin, for example, FRI 18:00. The <Weekend End> indicates the specific day and time when weekend schedule should end, for example, MON 06:00. Time is indicated in 1-minute increments.

Note that the value users have set indicates when the regular Day and Night scheduling ends, and Weekend recording begins.

<Preset Record Configuration>

The <Preset Config> is used to select the preset recording quality and frame rate. Different preset recording quality levels are offered for users to choose: <Best Quality>, <Standard>, <Extended Record>, <Event Only>, <ezRecord >, <512Kbps DSL>, <256Kbps DSL>, <128Kbps DSL>, and <OFF>. According to various Record modes, the preset configuration options for normal and event status are described in terms of relative recording rate PPS (Picture Per Second) and recording size for each channel in the table below.

These preset conditions <Best Quality>, <Standard>, <Extended Record>, <Event Only>, <ezRecord >, <512Kbps DSL>, <256Kbps DSL>, and <128Kbps DSL> override any other quality and rate settings. Refer to the table below for file sizes of different preset conditions. Note that <Event Only> and <ezRecord> are not included in the table because there are further details for these two settings. <Event Only> will be described in <Event Setup> section. <ezRecord> will be explained in <ezRecord Setup> section.

NTSC	720 X 480 @ 30PPS	720 X 240 @ 60PPS	360 X 240 @ 120PPS
PAL	720 X 576 @ 25PPS	720 X 288 @ 50PPS	360 X 288 @ 100PPS
Best	20 KB/Pic	10 KB/Pic	5 KB/Pic
Standard	12 KB/Pic	6 KB/Pic	3 KB/Pic
Extended	4 KB/Pic	2 KB/Pic	1 KB/Pic
512Kbps DSL	4 KB/Pic		
256Kbps DSL	3 KB/Pic		
128Kbps DSL	2 KB/Pic		

NOTE: The total PPS is equally shared by all channels, which means, even if one channel has not been connected with a camera, the channel still reserves its share of PPS. However, if <ezRecord> is selected, the channels not connected to cameras will not be recorded. In other words, the total PPS will be shared by channels with cameras connected only.

<Per Camera Config>

This sub-menu is used to set the Day / Night / Weekend PPS and recording quality for each individual channel. The <Preset Configuration> must be set to <OFF> in order to access these related settings. The menu is displayed as below in Record mode: 720×240@60PPS in NTSC / 720×288@50PPS in PAL.

Per Camera Config			
Cameral Select			CH1
	Day	**Night**	**Weekend**
Normal PPS	7.5	7.5	7.5
Normal Qlty	Mid	Mid	Mid
Event Max PPS	30	30	30
Event Qlty	Best	Best	Best
Event Act	Both	Both	Both

■ *Camera Select*

The item is used to select a desired channel for setting the parameters. Move the cursor to <Camera Select> and press ENTER, then select a channel using UP / DOWN keys. Press ENTER again to confirm the setting.

■ *Normal PPS*

Normal PPS is used to set the recording rate for normal status.

Please note that the total normal PPS of all channels cannot exceed the maximum PPS of each Record mode. To increase one channel's PPS, others' may have to be reduced first. Event PPS is not restricted to this rule, since a smart event scheduler will handle to the total PPS with a correct weighting. For example, if channel 1 is set to event mode with 30PPS, the remaining 30 PPS will be equally distributed to other 15 channels, which means each channel will be set to 2 PPS.

■ *Normal Qlty*

This item is used to set the picture size for normal status recording. The available options are: <Low>, <Fair>, <Mid>, <High>, and <Best>.

■ *Event Max PPS*

<Event Max PPS> is used to set the event recording rate for Event status. Usually, the Event PPS is set equal to or greater than the Normal PPS. The setting is depending on users' application. If the Event PPS is set to <0>, the DVR will not record event video when alarms triggered.

■ *Event Qlty*

This item is used to set the picture size for event status recording. The available options are: <Low>, <Fair>, <Mid>, <High>, and <Best>.

■ *Event Active*

Users are allowed to choose which alarm type needs to be recorded. The available options are <Alarm> (alarm events only), <Motion> (motion detection events only), <Both> (alarm event + motion detection), and <None>. The default setting is <Both>, which includes Alarm and Motion events recording.

<ezRecord Setup>

This item aims to ease the complicated record settings, and to make the setup much easier. Note that this item can be accessed only when <ezRecord> is selected as the option for <Preset Config>.

Select <ezRecord Setup> from <Record Setup> and press ENTER, the menu is displayed as below:

```
                    ezRecord Setup
How Many Days To Record                    2 Days
Daytime Record                             Yes
Night Record                               Yes
Weekend Record                             Yes
────────────────   Record Info   ──────────────
Average Normal PPS                         3.75
Average Normal Quality                     Best
```

Follow these steps to Setup ezRecord:

- Select <How Many Days To Record> and press ENTER, then press UP/DOWN to select a desired number of days. The average normal PPS & Quality will be adjusted automatically. The maximum recording days depends on the storage size of the HDD. In other words, the larger the storage size, the more days the unit can record.

- Move to <Daytime Record> and press ENTER. This item is for users to select whether the DVR will record during daytime. If yes, use UP/DOWN to select <Yes> to enable daytime recording; or select <No> to disable.

- Repeat the same procedures for <Night Record> and <Weekend Record>, respectively. Note that <Weekend Record> will be inaccessible if <Weekend Schedule> in <Schedule Setup> is set to <No>.

- Select <Average Normal PPS> and press ENTER, then press UP/DOWN to choose a desired number of PPS. The <How Many Days To Record> will be computed automatically.
- Select <Average Normal Quality> and press ENTER, then press UP/DOWN to select a desired quality. The <How Many Days To Record> will be computed automatically.

NOTE: The current number of connected cameras will affect the recording quality automatically calculated by the <ezRecord Setup>. Therefore, when there are cameras disconnected or connected, the <ezRecord Setup> should be reset.

< Data Lifetime >

Data Lifetime indicates the duration that a video is saved and recallable in the HDD. Only those video recorded during Data Lifetime can be displayed on the screen and played back. The video exceeded Data Lifetime will be hidden and cannot be retrieved for playback. Press ENTER to select this item in Record Setup menu, and then use UP / DOWN keys to set the data lifetime. The value ranges from <1> to <365> days, or select <0> to disable the function.

NOTE: If you want to playback a video which is beyond the data lifetime, please extend the duration till the recording data/time of the video is included.

<Circular Recording>

Users can choose to record video in circular mode or in linear mode. If circular mode is selected, the unit will store new video data to overwrite the oldest recorded video. If linear mode is selected instead, the unit will stop recording when HDD capacity is full, and the internal buzzer will start beeping.

From the Record Setup menu, move the cursor to <Circular Recording> and press ENTER, then select <ON> / <OFF> using UP / DOWN keys.

< Audio Recording >

This item allows users to enable / disable Audio recording function of the unit. When it's set to <ON>, audio input is recorded and saved with the video. When it's set to <OFF>, audio is ignored.

<Purge Data>

This item is used to delete the Normal or Event videos. In <Record Setup> menu, move the cursor to <Purge Data> and press ENTER. The <Purge Data> menu is shown as below.

Purge Data	
Purge All Data	No
Purge All Event Data	No
Purge Event Before	2008/01/01
Start to Purge	No

■ *Purge All Data*

This item is used to delete all videos from the database. Use UP / DOWN keys to select <Yes> and start the deletion by setting <Start to Purge> to <Yes>.

■ *Purge All Event Data*

This item is used to delete all event videos from the database. Use UP / DOWN keys to select <Yes> and start the deletion by setting <Start to Purge> to <Yes>.

■ *Purge Event Before*

This item is used to delete event video before a specific date. Use LEFT / RIGHT keys to move the cursor to next or previous field, ENTER to select the item and UP / DOWN to adjust the value. Start the deletion by setting <Start to Purge> to <Yes>.

■ *Start to Purge*

After selected the videos to be deleted or chosen the date for deletion, set this item to <Yes> to start the deletion, or select <No> to cancel.

Sequence Setup

The Sequence Setup menu allows users to set the camera sequence schedule and dwell time for main and call monitor. Select <Sequence Setup> in main menu and press ENTER. The menu displays as follows.

```
                    Sequence Setup
Main Monitor Dwell                          5 Sec
Main Monitor Schedule
Call Monitor Dwell                          5 Sec
Call Monitor Schedule
```
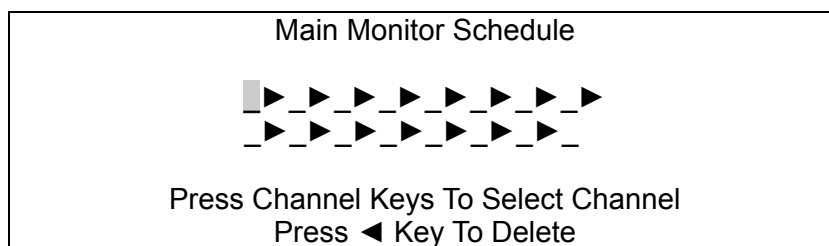
Items in the <Sequence Setup> menu are described in the following subsections.

<Main / Call Monitor Dwell>

The main / call monitor can be set to display full screen video of all installed cameras in sequence. This item is used to set the Main Monitor dwell time, which is the duration of time elapsed before switching to the next channel. The dwell time is in the range of 1 to 120 seconds. The default value is 5 seconds.

<Main / Call Monitor Schedule>

This item is used to set displaying sequence of connected cameras to be displayed on the main / call monitor in full-screen format. Move the cursor to <Main Monitor Schedule> and press ENTER. The menu is displayed as follows.

```
                Main Monitor Schedule

        ▐▶_▶_▶_▶_▶_▶_▶
        _▶_▶_▶_▶_▶_▶_▶_

        Press Channel Keys To Select Channel
              Press ◀ Key To Delete
```

Follow these steps to set a sequence:

- Press LEFT direction key to delete the original setting.
- Press the desired Channel keys to assign the camera to the position where the cursor stops.
- Continue the steps until the sequence is completed.

The maximum number of entries in a sequence equals to the number of channels. Users can select fewer than the maximum entries for camera sequence and leave the remaining entries blank. The sequence can include a specific camera or cameras multiple times.

Event Setup

This menu allows users to determine **ERIS H.264 DVR** behavior in response to alarm events. In the Main menu, move the cursor to <Event Setup> and press ENTER. The following menu is displayed. Items in the Event Setup menu are described in the following subsections.

```
                         Event Setup
    Internal Buzzer                            ON
    Event Icon                                 ON
    Email Notice                               OFF
    Email Attachment                           OFF
    Event Full Screen                          None
    Event Duration                             20  Sec
    Per Channel Config
```

<Internal Buzzer>

This item allows users to enable / disable internal buzzer of the **ERIS H.264 DVR**. If <ON> is selected, the buzzer is activated in response to alarm events. If <OFF> is selected, the buzzer is not activated.

<Event Icon>

This item enables (ON) / disables (OFF) the display of event icons on the main monitor when alarm events occur. The event icons are represented by a character according to the event types respectively. Refer to the following table for association of event icons and event types.

Event Icon	Event Type
A	Alarm in event
M	Motion detection event
L	Video loss event

< Email Notice >

The item enables (ON) / disables (OFF) the Email notification of an event. When an alarm event is triggered and <Email Notice> is enabled, an e-mail concerning the alarm event will be sent.

NOTE: In order to send an event notification e-mail successfully, ensure that the unit connects to the internet.

< Email Attachment >

The function allows the unit to send out brief AVI video regarding the event. The number of the attached AVI video will be equivalent to the number of cameras connected to the unit. For example, if the unit has been connected with 8 cameras, then 8 videos will be attached to the notice email. The total size of the video will be about 2 MB.

Select <ON> to enable this function; and <OFF> to disable it.

⚠ **NOTE:** The video clips of the Email Attachment will ONLY be in *.avi format. Please download the Divx Player from www.divx.com to play the *.avi files.

< Event Full Screen >

This function allows the unit to display the alarm channel in full screen size when an alarm is triggered.

Select <None> to disable this function; select <Main> to display the alarm channel on Main Monitor when an alarm is triggered; select <Call> to display the alarm channel on Call Monitor; and select <Both> to display the alarm channel on both Main Monitor and Call Monitor.

<Event Duration>

This item determines the duration of the buzzer and Alarm Out relay function after an alarm is triggered. The available event duration range is from 5 second to 999 seconds.

<Per Channel Config>

This menu is used to configure the <Video Loss Detect>, <Motion Detect>, <Alarm In> and <Alarm Out> settings for each channel. The menu is displayed as below.

Per Channel Config	
Channel Select	CH1
Video Loss Detect	OFF
Motion Detect	OFF
Motion Detect Indicator	ON
Detection Config	
Alarm In	OFF
Alarm Out	ON

■ *Channel Select*

The item is used to select a desired channel for setting the parameters. Move the cursor to <Channel Select> and press ENTER, then select a channel using UP / DOWN keys. Press ENTER again to confirm the selection.

■ *Video Loss Detect*

This item allows users to enable or disable Video Loss as an alarm event. Select <ON> to enable Video Loss alarm events, or <OFF> to disable it.

■ *Motion Detect*

This item allows users to enable or disable motion detection function of **ERIS H.264 DVR**. Select <ON> to enable Motion Detect alarm events, or <OFF> to disable it. If motion detection function is enabled, it is required to define motion detection parameters such as detection area and sensitivity settings in <Detection Config>.

■ *Motion Detect Indicator*

This item allows users to display / hide the motion detection indicators. Select <ON> to display the indicators, or <OFF> to hide them.

■ *Detection Configuration*

If motion detection function is enabled, it is required to define the motion detection parameters such as detection area and sensitivity settings. Select a channel for setting the parameters, move the cursor to <Detection Config> and press ENTER. The Detection Configuration menu displays as follows.

Detection Config	
Detected Area Setup	
Sensitivity	88%
Block Threshold	4

- **Detected Area Setup**

After selected this item, the detected area is displayed as follows. The detection area consists of 192 (16×12) detection grids.
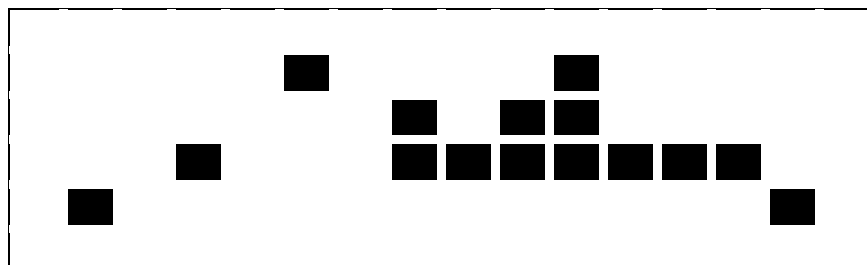
Use the Direction keys to move the cursor and press ENTER to enable or disable a grid. Press MODE to select all of the grids for detection; press MODE again to de-select all of the grids.

> **-**   **Sensitivity**
>
> This item is used to set the sensitivity of detection grids for the camera. A greater value indicates more sensitive motion detection. A motion alarm will be triggered once the amount of motion detected exceeds the Threshold value.
>
> Move the cursor to <Sensitivity> and press ENTER, and then use UP / DOWN keys to adjust the value. The value is increased by 4% increment.
>
> **-**   **Block Threshold**
>
> <Block Threshold> indicates the motion alarm triggered level; select from <1> to <16>. Selecting <1> means the unit will trigger the alarm when one grid is detected; and selecting <16> means the unit will trigger the alarm when 16 grids are detected. Move the cursor to <Block Threshold> and press ENTER, and then use UP / DOWN keys to adjust the value.

■ *Alarm In*

This item allows users to enable / disable alarm input detection. According to users' application, select <N/O> (Normal Open) or <N/C> (Normal Close) to enable the alarm input detection, or select <OFF> to disable the detection.

If <N/C> is selected without installing any device, an alarm will be triggered and the Event Icon will always display on the monitor until the selection is changed to <N/O> or <OFF>, or when a device is installed.

■ *Alarm Out*

This item allows users to enable / disable the alarm output on the selected channel to activate the relay. The signal can be a light or siren to caution an alarm event. Select <ON> to enable the alarm output, or <OFF> to disable it.

Database Setup

The menu displays information of internal and external HDDs. In the main menu, select <Database Setup> and press ENTER. The following menu is displayed.

```
                        Database Setup
       Total Size                              xxx  GB
       Free Size                               xxx  GB
       Avail. Rec Time                         Circular
       Internal Disks
```

⚠ **NOTE:** If the detection of HDDs fails, the message "HDD fail" will be displayed.

<Total / Free Size>

Total Size shows the total storage capacity of HDDs that have been added to the database. Free Size indicates free storage space available for recording in the database. Both of them are read-only.

< Avail. Rec Time >

The Avail REC Time indicates the available time duration for recording. If the unit is set to record in circular mode, the item will show "Circular". The information is "read only".

<Internal Disks>

Select <Internal Disks> to see information of the built-in HDDs. The menu is displayed as below.

```
                     Internal Disks
       Device Name              Active        Action
       xxx xxxxxxx-xxxxxx          Yes          None
```

The information of the built-in HDDs will be listed by model name and status. If no storage device is connected to the unit, the message "No Available Items!" will be displayed.

⚠ **NOTE:** If the file system of the internal HDDs is not compatible for the DVR, the system will format the internal HDDs automatically without notice.

Active

This item indicates if the HDD is added to the database. <Yes> means the HDD has been added to the database.

Action

This item allows users to add the HDD to the database or remove it from the database. The options are <None> (no action), <Add> (add the selected HDD to the database), <Remove> (remove the selected HDD from the database), <Format> (format the selected HDD).

NOTE: Before disconnecting an external HDD from the unit, **ALWAYS** remember to remove it from the database first.

Configuration

Users can restore factory default setting, import / export configuration in the Configuration menu. Select <Configuration> from the main menu and press ENTER. The following menu is displayed. Items in this menu are described in the following subsections.

```
                        Configuration
Load Factory Default                              No
Import Config
Export Config
```

<Load Factory Default>

This item is used to load the factory default setting. Select <Yes> to restore the factory default setting from the read-only memory, or select <No> to cancel.

<Import Configuration>

This item allows users to load a unit configuration that was saved in an external drive. To import a configuration that was previously exported, make sure the device with the saved configuration is connected to the unit. Select <Import Config> from the Configuration menu and press ENTER. The following menu is displayed.

```
                       Import Config
Config Name                                     Select
xxxx-xxxx                                         No
xxx-xx                                            No
```

Press UP / DOWN to select one of the available configuration files, and choose <Yes> to start importing the configuration.

⚠ **NOTE:** If the record mode and/or number of IP cameras of the imported configuration are different from the unit's configuration, the following message will be displayed.

```
            Warning!! System will reboot if
          record mode and/or IP camera number
                         differ.
          ENTER: Yes              ESC: No
```

⚠ **NOTE: DO NOT** remove the external device before the unit completely reboots, otherwise it will be formatted.

<Export Configuration>

The user is allowed to save a unit configuration by exporting it to an external drive, such as an USB Flash Drive. Before exporting the configuration, make sure the device in which the configuration will be saved is attached to the unit appropriately. Select <Export Config> from the Configuration menu and press ENTER. The following menu is displayed.

Export Config	
Copy Destination	
Config Name	
Begin Export	No

Items in this menu are described in the following sections.

■ *Copy Destination*

Enter this item to list available destinations (external storage devices) where the configuration can be exported. Press UP / DOWN to select a destination. Please note that saving a different configuration to the same destination with the same file name will overwrite the previous configuration file without warning.

Copy Destination	
Device Name	Select
xxxx-xxxx	No

NOTE: It is not allowed to select the built-in DVD+RW as a copy destination.

■ *Configuration Name*

This item allows users to assign a name to the exported configuration file. Use the virtual keyboard to enter the configuration file name. Note that the file name can only contain up to 15 characters, with no spaces.

■ *Begin Export*

Select <Yes> to begin exporting the configuration file, or select <No> to exit.

NOTE: It is strongly recommended to export configuration before upgrading the DVR system. Also, backup the configuration routinely is recommended as well, just in case for unexpected situation.

Shutdown

This item is used to shut down or reboot the unit. If the **Versatile H.264 DVR** must be shut down for any reason, please follow the proper shut down and power on procedures to avoid any potential damages to the unit.

Select <Shutdown> in the main menu and press ENTER to access the Shutdown menu, which displays as follows.

Shutdown	
Power Off	Execute
Reboot	Execute

■ *Power Off*

Press ENTER on this item to shut down the unit. Do not remove the power source during shutdown until the message "You can safely turn off DVR now!" displays.

■ *Reboot*

Press ENTER on this item to reboot the unit. The color bar and system checking information are displayed on the monitor until the unit is completely restarted.

Appendix A: ezRecord Diagram Samples

Diagram Sample(Full-D1)

NTSC:720x480@30PPS

PAL:720x576@25PPS
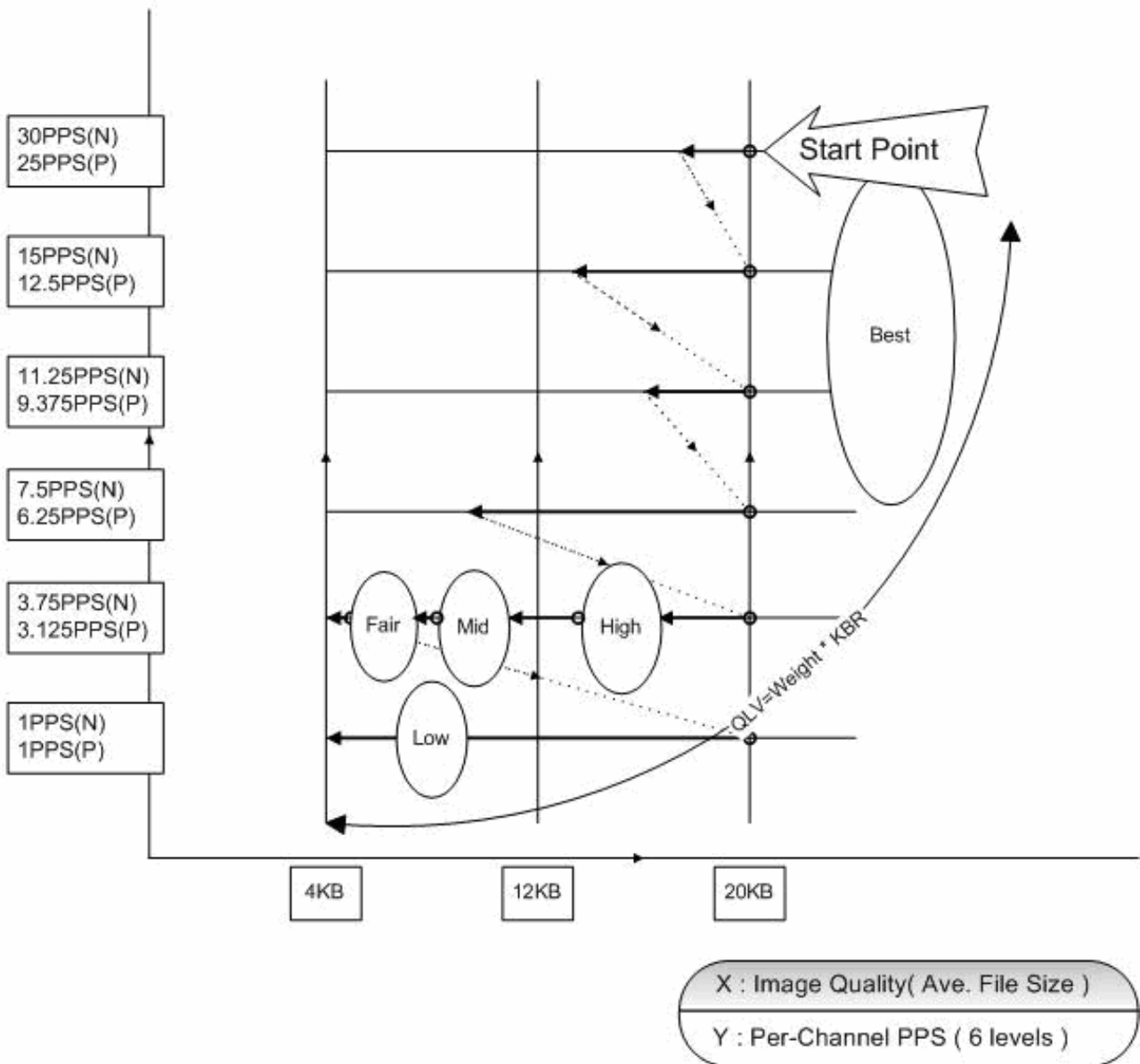
Diagram Sample(Half-D1)

NTSC:720x240@60PPS

PAL:720x288@50PPS
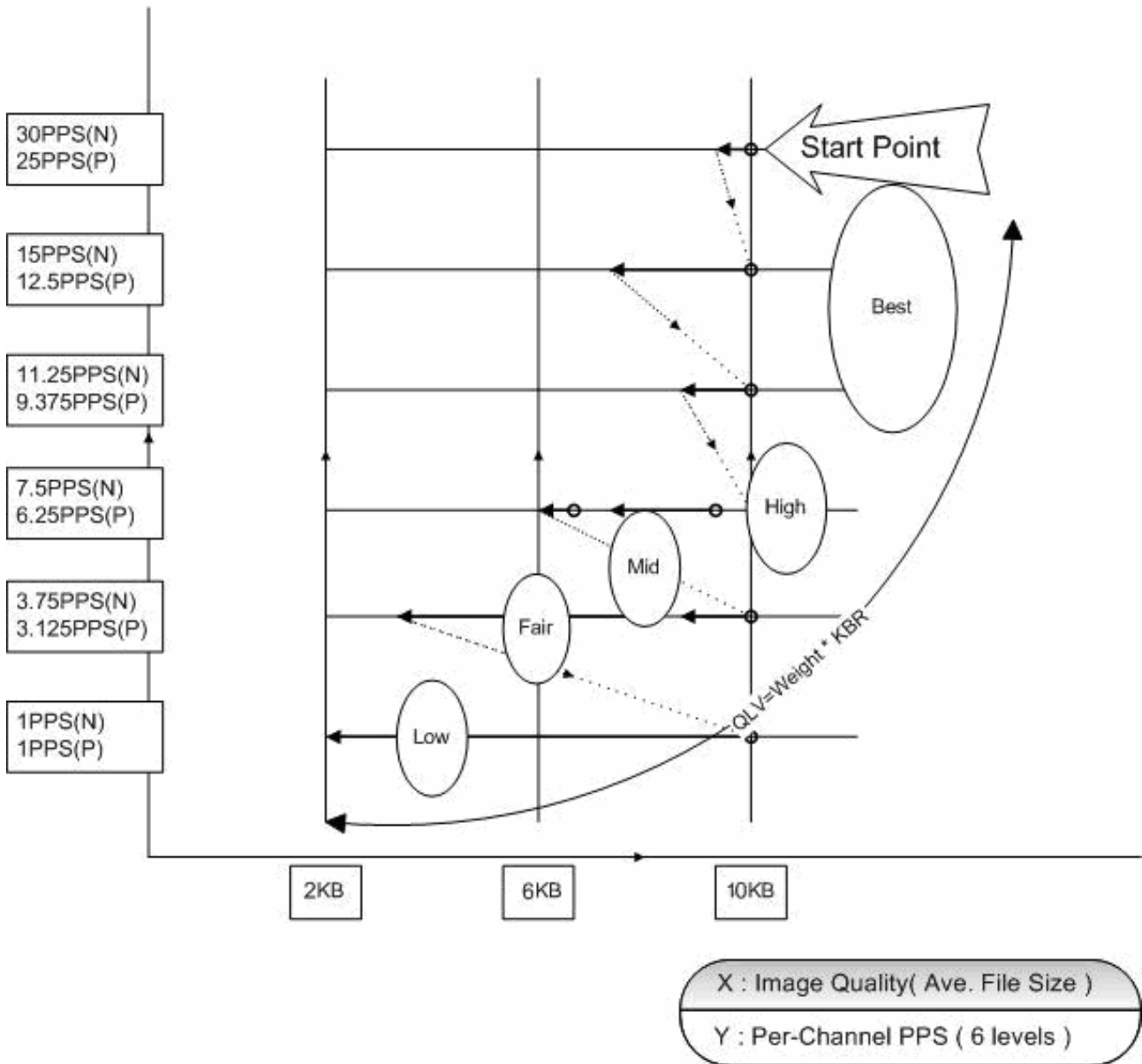
Diagram Sample(CIF)

NTSC:360x240@120PPS

PAL:360x288@100PPS
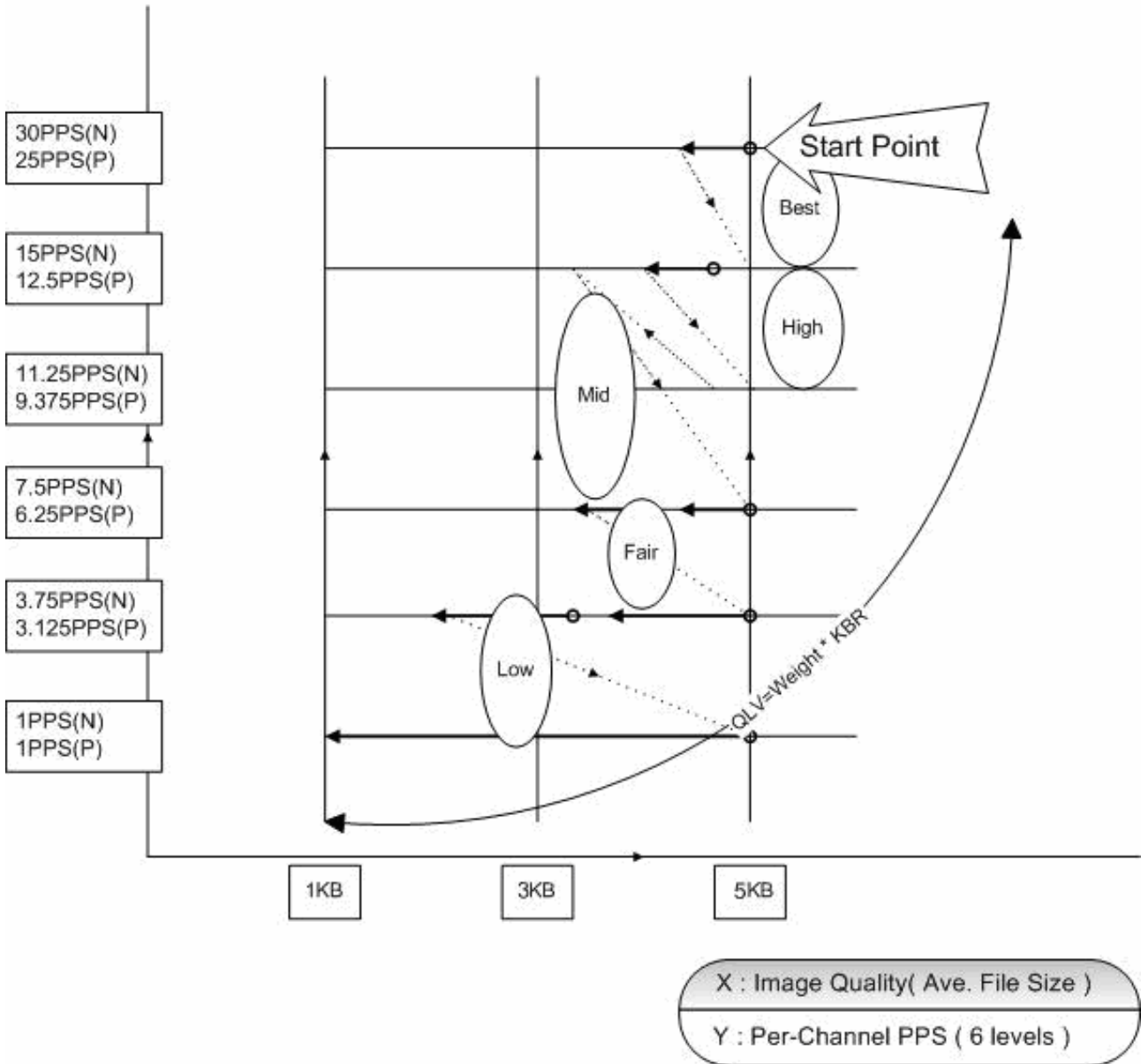
Appendix B: Record Duration

The record duration relates to recording rate, image quality, HDD capacity, and event settings. The following tables give sample calculation of record duration according to different recording rate, image quality, and HDD capacity, excluding consideration of events, for different models with different recording mode. The recording quality refers to the Normal Qlty setting of <Per Camera Config> in <Record Setting>, assuming all channel are set to the same quality at all times.

⚠️ **NOTE:** Record duration times are based on actual tests and represent average file sizes. Performance may vary depending on specific installations and use. Audio recording requires 8 KB per second (or 0.7 GB per day) for data storage.

I. Refer to the following tables for **H.264** recording:

Record Duration (Days): Full-D1, Global [Day, Night, Weekend] (without Audio)

Recording Rate		Recording Quality Mode									
Total PPS of all Channels		Low		Fair		Mid		High		Best	
		NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL
NTSC	PAL	(4 KB)	(4 KB)	(8 KB)	(8 KB)	(12 KB)	(12 KB)	(16 KB)	(16 KB)	(20 KB)	(20 KB)
320 GB Internal Storage											
30	25	29.43	35.32	14.72	17.66	9.81	11.77	7.36	8.83	5.89	7.06
15	12.5	58.87	70.64	29.43	35.32	19.62	23.55	14.72	17.66	11.77	14.13
7.5	6.25	117.73	141.28	58.87	70.64	39.24	47.09	29.43	35.32	23.55	28.26
500 GB Internal Storage											
30	25	46.39	55.66	23.19	27.83	15.46	18.55	11.60	13.92	9.28	11.13
15	12.5	92.77	111.33	46.39	55.66	30.92	37.11	23.19	27.83	18.55	22.27
7.5	6.25	185.55	222.66	92.77	111.33	61.85	74.22	46.39	55.66	37.11	44.53
750 GB Internal Storage											
30	25	69.93	83.92	34.97	41.96	23.31	27.97	17.48	20.98	13.99	16.78
15	12.5	139.87	167.84	69.93	83.92	46.62	55.95	34.97	41.96	27.97	33.57
7.5	6.25	279.74	335.69	139.87	167.84	93.25	111.90	69.93	83.92	55.95	67.14
1 TB Internal Storage											
30	25	95.74	114.89	47.87	57.45	31.91	38.30	23.94	28.72	19.15	22.98
15	12.5	191.49	229.78	95.74	114.89	63.83	76.59	47.87	57.45	38.30	45.96
7.5	6.25	382.97	459.56	191.49	229.78	127.66	153.19	95.74	114.89	76.59	91.91

Record Duration (Days): Half-D1, Global [Day, Night, Weekend] (without Audio)

Recording Rate		Recording Quality Mode									
Total PPS of all Channels		Low		Fair		Mid		High		Best	
NTSC	PAL	NTSC (2 KB)	PAL (2 KB)	NTSC (4 KB)	PAL (4 KB)	NTSC (6 KB)	PAL (6 KB)	NTSC (8 KB)	PAL (8 KB)	NTSC (10 KB)	PAL (10 KB)
320 GB Internal Storage											
60	50	29.43	35.32	14.72	17.66	9.81	11.77	7.36	8.83	5.89	7.06
30	25	58.87	70.64	29.43	35.32	19.62	23.55	14.72	17.66	11.77	14.13
15	12.5	117.73	141.28	58.87	70.64	39.24	47.09	29.43	35.32	23.55	28.26
7.5	6.25	235.46	282.56	117.73	141.28	78.49	94.19	58.87	70.64	47.09	56.51
500 GB Internal Storage											
60	50	46.39	55.66	23.19	27.83	15.46	18.55	11.60	13.92	9.28	11.13
30	25	92.77	111.33	46.39	55.66	30.92	37.11	23.19	27.83	18.55	22.27
15	12.5	185.55	222.66	92.77	111.33	61.85	74.22	46.39	55.66	37.11	44.53
7.5	6.25	371.10	445.32	185.55	222.66	123.70	148.44	92.77	111.33	74.22	89.06
750 GB Internal Storage											
60	50	69.93	83.92	34.97	41.96	23.31	27.97	17.48	20.98	13.99	16.78
30	25	139.87	167.84	69.93	83.92	46.62	55.95	34.97	41.96	27.97	33.57
15	12.5	279.74	335.69	139.87	167.84	93.25	111.90	69.93	83.92	55.95	67.14
7.5	6.25	559.48	671.37	279.74	335.69	186.49	223.79	139.87	167.84	111.90	134.27
1 TB Internal Storage											
60	50	95.74	114.89	47.87	57.45	31.91	38.30	23.94	28.72	19.15	22.98
30	25	191.49	229.78	95.74	114.89	63.83	76.59	47.87	57.45	38.30	45.96
15	12.5	382.97	459.56	191.49	229.78	127.66	153.19	95.74	114.89	76.59	91.91
7.5	6.25	765.94	919.13	382.97	459.56	255.31	306.38	191.49	229.78	153.19	183.83

Record Duration (Days): CIF, Global [Day, Night, Weekend] (without Audio)

Recording Rate		Recording Quality Mode									
Total PPS of all Channels		Low		Fair		Mid		High		Best	
NTSC	PAL	NTSC (1 KB)	PAL (1 KB)	NTSC (2 KB)	PAL (2 KB)	NTSC (3 KB)	PAL (3 KB)	NTSC (4 KB)	PAL (4 KB)	NTSC (5 KB)	PAL (5 KB)
320 GB Internal Storage											
120	100	29.43	35.32	14.72	17.66	9.81	11.77	7.36	8.83	5.89	7.06
60	50	58.87	70.64	29.43	35.32	19.62	23.55	14.72	17.66	11.77	14.13
30	25	117.73	141.28	58.87	70.64	39.24	47.09	29.43	35.32	23.55	28.26
15	12.5	235.46	282.56	117.73	141.28	78.49	94.19	58.87	70.64	47.09	56.51
7.5	6.25	470.93	565.11	235.46	282.56	156.98	188.37	117.73	141.28	94.19	113.02
500 GB Internal Storage											
120	100	46.39	55.66	23.19	27.83	15.46	18.55	11.60	13.92	9.28	11.13
60	50	92.77	111.33	46.39	55.66	30.92	37.11	23.19	27.83	18.55	22.27
30	25	185.55	222.66	92.77	111.33	61.85	74.22	46.39	55.66	37.11	44.53
15	12.5	371.10	445.32	185.55	222.66	123.70	148.44	92.77	111.33	74.22	89.06
7.5	6.25	742.19	890.63	371.10	445.32	247.40	296.88	185.55	222.66	148.44	178.13
750 GB Internal Storage											
120	100	69.93	83.92	34.97	41.96	23.31	27.97	17.48	20.98	13.99	16.78
60	50	139.87	167.84	69.93	83.92	46.62	55.95	34.97	41.96	27.97	33.57
30	25	279.74	335.69	139.87	167.84	93.25	111.90	69.93	83.92	55.95	67.14
15	12.5	559.48	671.37	279.74	335.69	186.49	223.79	139.87	167.84	111.90	134.27
7.5	6.25	1118.95	1342.74	559.48	671.37	372.98	447.58	279.74	335.69	223.79	268.55
1 TB Internal Storage											
120	100	95.74	114.89	47.87	57.45	31.91	38.30	23.94	28.72	19.15	22.98
60	50	191.49	229.78	95.74	114.89	63.83	76.59	47.87	57.45	38.30	45.96
30	25	382.97	459.56	191.49	229.78	127.66	153.19	95.74	114.89	76.59	91.91
15	12.5	765.94	919.13	382.97	459.56	255.31	306.38	191.49	229.78	153.19	183.83
7.5	6.25	1531.88	1838.26	765.94	919.13	510.63	612.75	382.97	459.56	306.38	367.65

Appendix C: DVRPlayer

DVR**Player** is a software that enables users to playback the *.drv files recorded by the DVRs at a PC site.

⚠ **NOTE**: The DVR**Player** ONLY accepts and playback *.drv files.

First connect to the DVR via DVR**Remote**. Then download the DVR**Player**.zip file by clicking on the link at the upper right-hand corner of the DVR**Remote** window. Extract the zip file to the same folder. Click on the DVR_Player.exe, and the main window of the DVR**Player** displays as shown below.

The main window of the DVR**Player** displays a list of cameras and mode selection buttons at the left-hand side. Using the mode selection buttons, users can select a desired viewing mode, including 4-window, 9-window and 16-window.
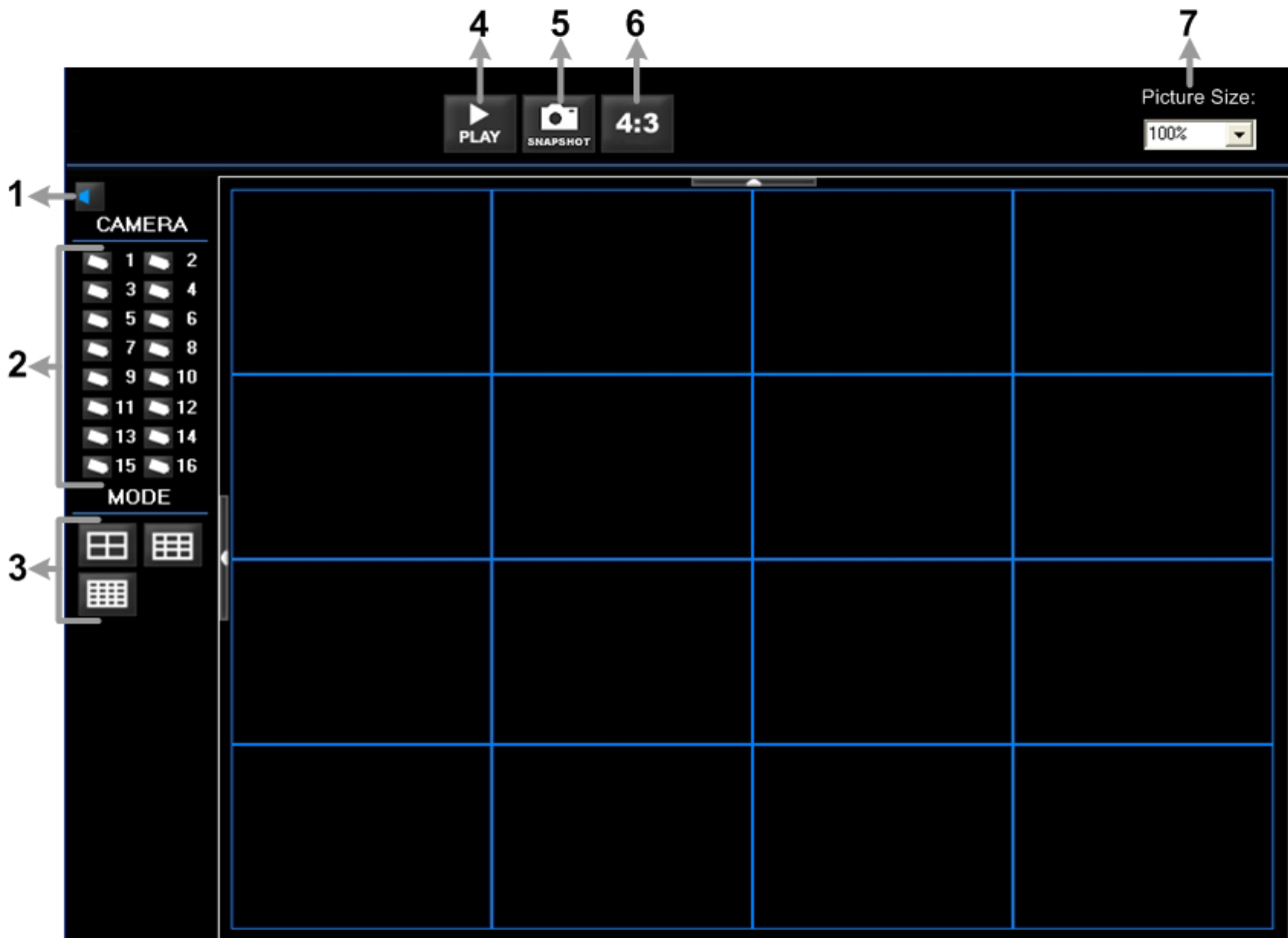
The functional items are:

1	Audio On/Off	5	Capture Snapshot
2	Camera Selection	6	Change Viewing Aspect to 4:3
3	Mode Selection	7	Change Picture Size
4	Play Recorded *.drv Files		

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Playback the videos on the Data List

Click <PLAY> on the toolbar at the top of the main window. The "Data List" window displays, shown as the figure below:
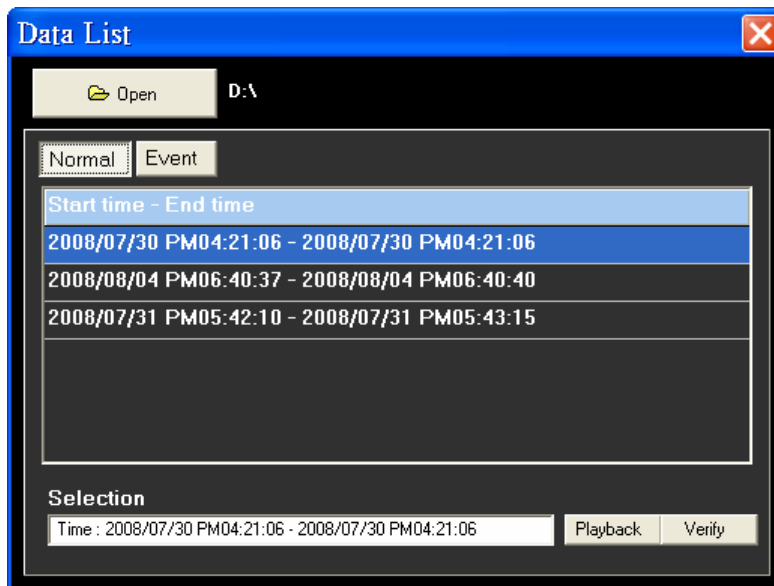
The "Data List" will show all recorded videos, "Normal" and "Event" separately, that are stored in the destination folder appeared at the top. Note that users can also click <Open> on the top to select a different folder which contains recorded videos. Select one from the list and click <Playback> at the bottom, then the "Playback" window will be shown as below:
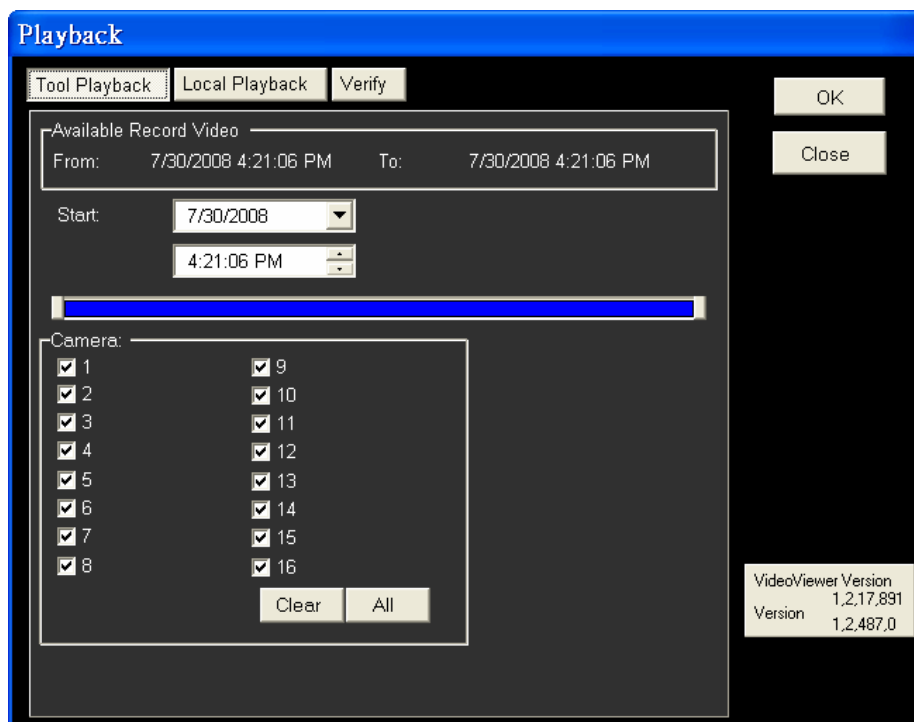
In the <Tool Playback> tab, users can set starting time and displaying cameras of the selected video. Then click <OK> on the upper right-hand corner of the window to start playback the video with selected starting time and displaying camera on the main window.

Local Playback the selected *.drv files

In the <Local Playback> tab, as shown below, users can click <Open> to select a specific *.drv file and click <OK> to playback the file on the main window.
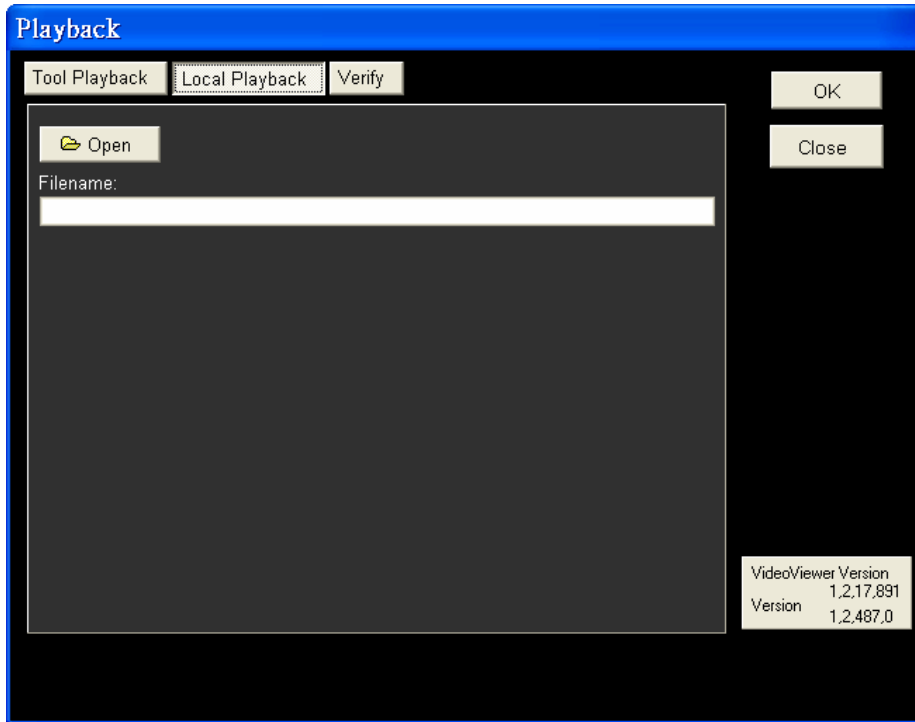
Note: If users click the close button at the top-right corner of the "Data List" window, the following "Playback" window with <Local Playback> tab and <Verify> tab only. The function of <Verify> tab will be described on the next page.
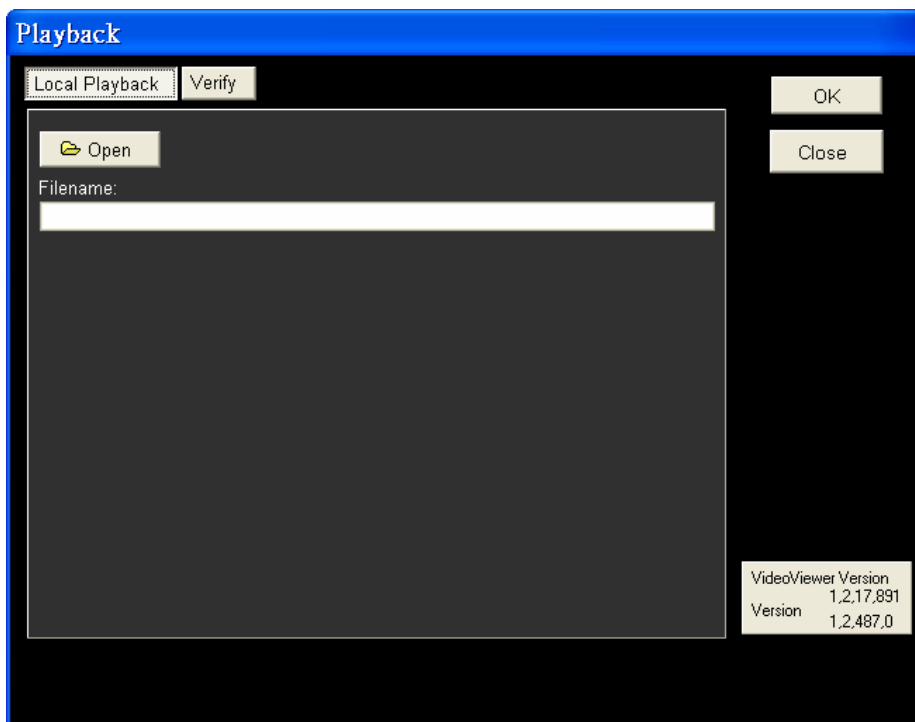
Verify digital signature of exported videos

In the <Verify> tab, as shown below, users can authenticate videos with digital signatures. Follow the steps below to complete the verification.

- Select any video from the Data List and click <Verify> at the bottom, then the "Playback" window will be displayed returning a GOOD or BAD signature result in the <Status Log> field. A GOOD signature indicates the exported clip has not been altered, whereas a BAD signature means the video might be changed at some point.
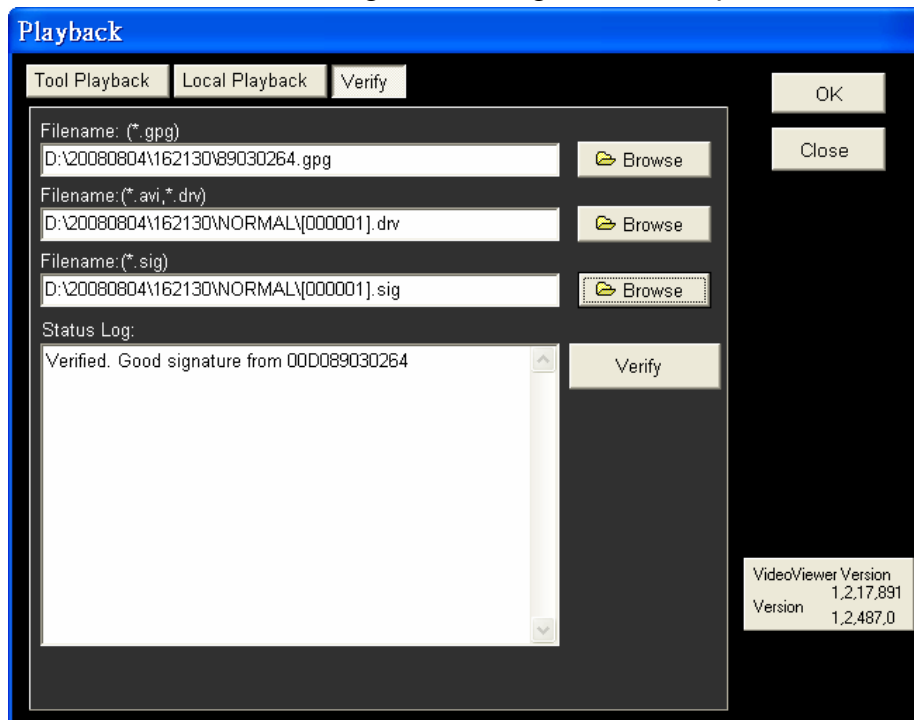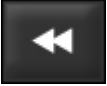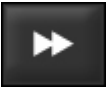
- Alternatively, click <Browse> to select the *.gpg, *.drv (or *.avi), *.sig files, which belong to the video to be authenticated, respectively. After all files are selected, click <Verify> button to start verifying digital signature.

Playback Controls

When the video starts to playback on the main window, the playback control buttons will be displayed on the toolbar at the top of the main window. Please refer to below picture:
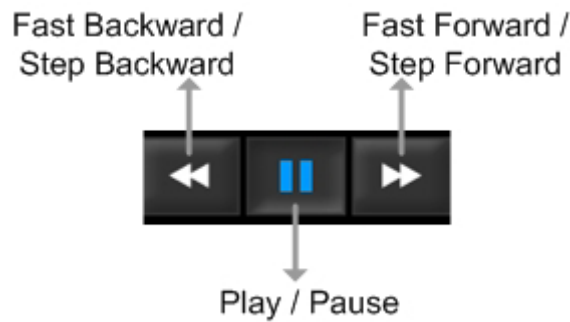

Refer to the following table for description of playback control buttons used while playing back the *.drv file.

ICON	BUTTON	DESCRIPTION
◀◀	Fast Backward / Step Backward	1. Click to playback the video backward. Click repeatedly to select the desired playback speed from 1X, 2X, 4X, 8X, 16X and 32X. 2. When the playback is paused, click once to move one step backward.
▶	Play	Click to resume the playback. The icon is displayed when the playback operation is paused.
❚❚	Pause	Click to pause the playback. The icon is displayed while playing back the video.
▶▶	Fast Forward / Step Forward	1. Click to playback the video forward. Click repeatedly to select the desired playback speed from 1X, 2X, 4X, 8X, 16X and 32X. 2. When the playback is paused, click once to move one step forward.

Appendix D: Operating USB Mouse on the DVR

Users can use an USB mouse to operate the DVR. To use the USB mouse, please read through the following descriptions.

Plug in an USB mouse to any USB port of the DVR. Move the USB mouse, and the cursor should appear. Move the cursor to the **top-left** of the screen, and 8 functional icons will be displayed, as shown below.
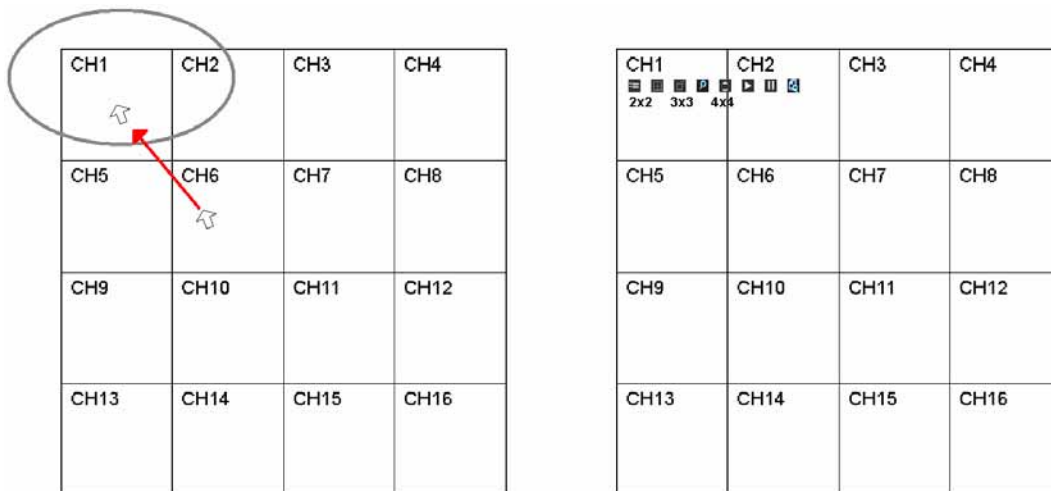

The description of the 8 functional icons on the upper row are listed as the below. They are similar to the function keys on the front panel.

1	Menu	5	Call
2	Mode	6	Play
3	SEQ	7	Pause
4	Zoom	8	Search

Click on the 3 icons on the lower row to display viewing modes 2x2, 3x3, and 4x4.

Clicking the left button of the USB mouse functions the same as pressing the "ENTER" key on the front panel of the DVR. Clicking the right button of the USB mouse functions the same as pressing the "ESC" key on the front panel of the DVR. The scroll wheel is used to change values. For example, if users want to change dome camera ID, enter the OSD setup menu and go to the following path:
<Main Menu> → <Camera Setup> → <Dome ID>
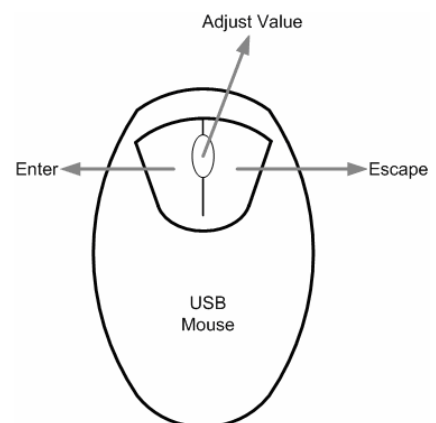
Left click on <Dome ID> and scroll the wheel up or down, the ID number will change as the scroll wheel moves. Stop moving the scroll wheel when the preferred ID number appears, then left click on the <Dome ID> and the ID number will be changed.

Appendix E: HDD Copy Tool (EXT2IFS)

The data system of the DVR's HDD is totally different from Windows® based PC. So if users just simply plug the HDD onto the PC, the PC will not recognize its existence. Hence, to access data from the DVR's HDD, users will need a special HDD Copy Tool driver called EXT2IFS. This appendix section will introduce how to download, install, and setup EXT2IFS and the DVR's HDD.
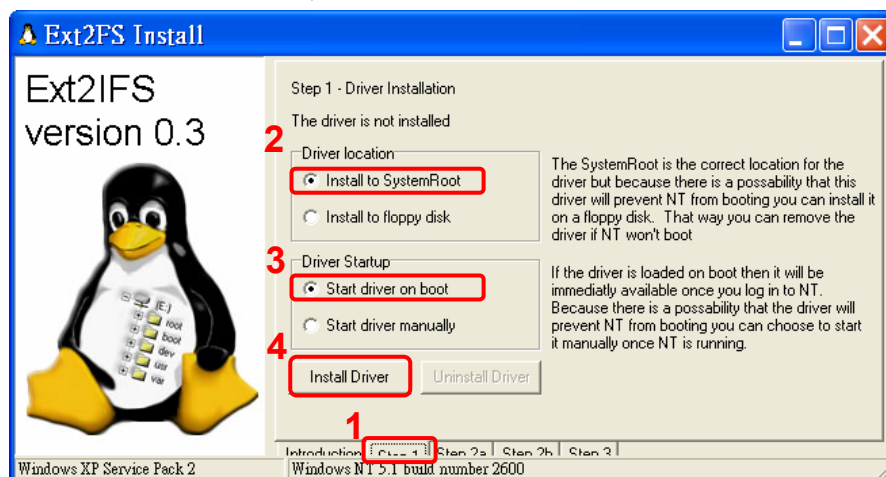
Installation of the DVR's HDD

EXT2IFS can be found on the website: http://uranus.it.swin.edu.au/~jn/linux/ext2ifs.htm. A detailed description about the driver can also be found. Plug in the DVR's HDD to the PC, then follow the steps below.

**Step 1.** Download EXT2IFS to the PC from the website listed above.

Step 2. Extract the EXT2IFS driver that was just downloaded. Open the extracted folder and double click on "service.exe", and the window below will be displayed.
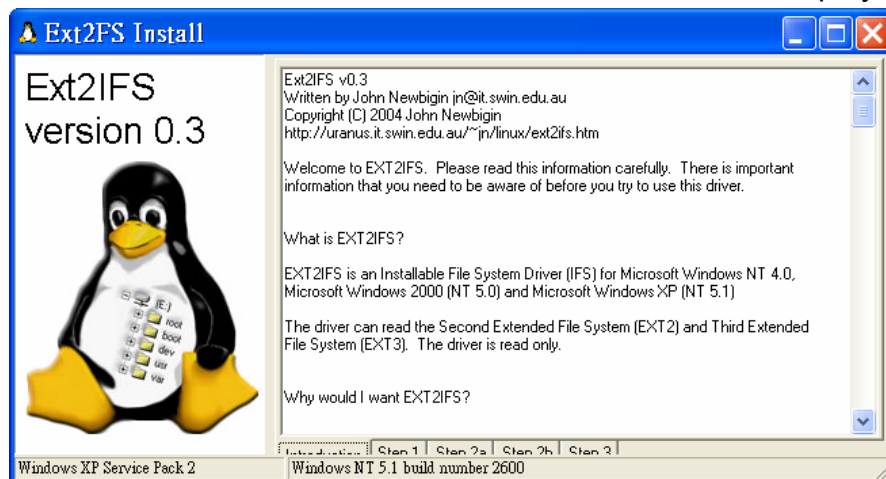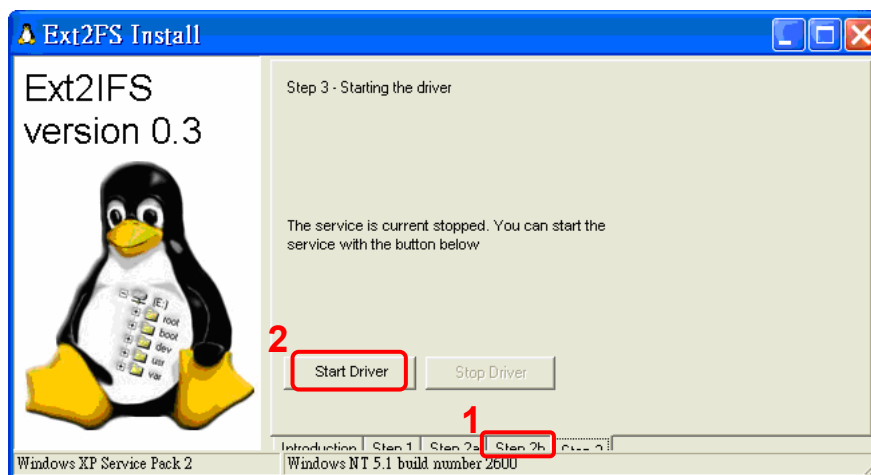

Step 3. Click <Step 1>, then choose <Install to SystemRoot> and <Start driver on boot> options, as shown below. Then, click <Install Driver> button.

Step 4. Click <Step2b>. Assign each partition to a drive letter. After the assignment of HDDs are made, click <Save Assignments> button.
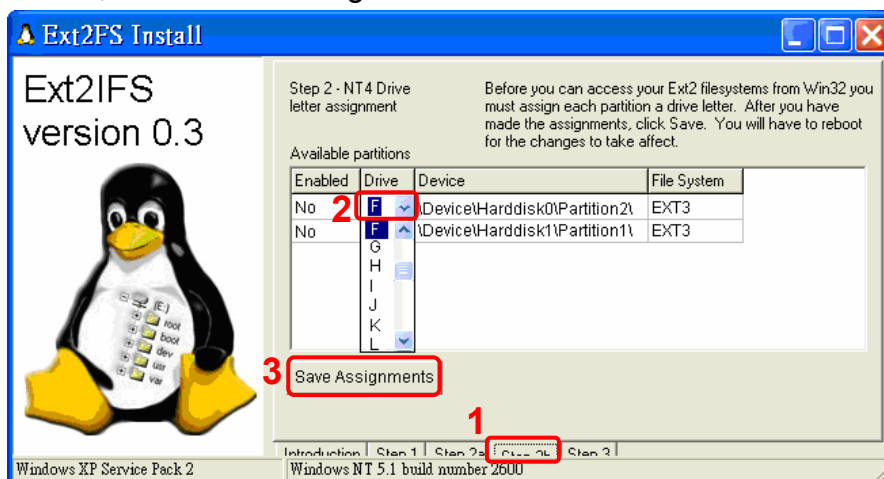
Step 5. Click <Step3>. Then, click <Start Driver> button. Now, reboot the PC for the changes to take effect. The HDD installation is now completed.

After the DVR's HDD is correctly installed, videos in the DVR's HDD can be played back by using the DVR**Player**. Refer to **Appendix C: DVRPlayer** for detail instruction about the operation of the DVR**Player**.

Removal of the DVR's HDD

To remove the HDD from the PC, follow the instruction below.

Re-open the EXT2IFS, and go to <Step 1> menu. Click "Uninstall Driver", and a message will be shown as: "The service is currently started. You will have to reboot before the service is completely uninstalled." Click on "OK" and turn off the PC. Remove the HDD from the PC, and reboot the PC. The removal of HDD is now completed.