

Versatile/Lite H.264 DVR

OSD Setup Manual

Version 2.2

Table of Contents

Menu System Overview	7
< Username and Password >	7
< Key Usage >	7
Key Usage in OSD Menu	7
Key Usage in Virtual Keyboard.....	8
System Setup	9
< System/Version Info >	9
Model Name	9
Video System	9
Hardware.....	9
Software	9
MAC Address 1	10
Software Upgrade.....	10
Software Upgrade Via Internet	10
< Language >	10
< Date/Time >	11
Date / Time	11
Time Zone	11
Date/Time Display	12
Date Display Mode	12
Time Display Mode.....	12
Daylight Saving Time Setup	12
- Daylight Saving Time	12
- DST Start / End	12
- DST Bias.....	13
Network Time Protocol Setup.....	13
- NTP Server	13
- Automatically Time Sync.....	13
- Manually Time Sync.....	13
< Unit Name >	14
< Show Unit Name >	14
< User Management >	14
Password Protection.....	14
Auto Logout.....	15
Account Setup.....	15
Permissions Setup	15
Load Default Setting.....	16

< Network Setup >	16
LAN Select	16
LAN Setup	17
- DHCP	17
- IP	17
- Netmask	18
- Gateway	18
- DNS	18
- PPPoE Account	18
- PPPoE Password	19
- PPPoE Max Idle	19
- Connect At Booting	19
- Network Restart	19
Web Port	20
DDNS Setup	20
- Enable DDNS	20
- Service Provider	20
- Host Name	21
- DDNS Port	21
- DDNS Account	21
- DDNS Password	22
- Submit/ Update	22
- ezDDNS	22
UPnP Setup	22
- UPnP	23
- UPnP NAT Traversal	23
< RS485 Setup >	23
Unit ID	23
Baud Rate	23
Bits	23
Stop	23
Parity	23
< Audio Output/Key Beep >	24
Audio Output	24
Key Beep	24
Split Mode Audio	24
< UPS Setup >	25
UPS Protocol	25
Power Failure Scenario	25
UPS Shutdown Setting	25

- Min Remaining Battery Level	26
- Min Remaining Run Time	26
- Delay To Activate	26
UPS Info	26
- UPS Model	26
- UPS Protocol	26
- UPS Status	26
- Remaining Battery Level	27
- Remaining Run Time	27
- Query Time	27
Monitor Setup	28
< Show Camera Name >	28
< OSD Transparency >	28
< VGA Resolution >	28
< Show Color Bar >	28
< Mouse Sensitivity >	28
< Hide Status Bar >	29
< Status Bar Size >	29
Camera Setup	30
< Analog Camera >	30
Analog Camera Select	30
Dome Protocol	30
Dome ID	30
Camera Name	30
Hidden	31
Adjust Video	31
- Brightness	31
- Contrast	32
- Saturation	32
- Hue	32
- Reset	32
Copy Settings	32
Record Setup	33
< Record Mode Setup >	33
Record Resolution	33
Record Format	33
Max Rec. PPS	34
CBR/VBR	34
< Schedule Setup >	34
Day / Night Time Start / End	34

Weekend Schedule	35
Weekend Start / End.....	35
< Preset Record Configuration >.....	35
< Per Camera Config >	36
Camera Select.....	36
Normal PPS.....	36
Normal Qty	36
Event Max PPS	36
Event Qty.....	36
Event Active.....	36
< ezRecord Setup >	37
< Advance Schedule Setup >	38
Schedule Table.....	38
Recording Profile Setup.....	39
Holiday Seutp	39
< Data Lifetime Setup >	39
Data Lifetime Mode	40
Data Lifetime	40
Data Lifetime By Day.....	40
Data Lifetime By Channel.....	40
< Circular Recording >	40
< Audio Recording >.....	40
< Purge Data >	41
Purge All Data	41
Purge All Event Data	41
Purge Event Before	41
Start To Purge.....	41
Sequence Setup	42
< Main / Call Monitor Dwell >	42
< Main / Call Monitor Schedule >	42
Event Setup	43
< Internal Buzzer >.....	43
< Event Icon >	43
< Alert Notification Setup >.....	43
Alert Configuration Set	44
Alert Notification	44
Alert IP.....	44
Alert Port	44
Alive Interval.....	44
< Event Full Screen >.....	44

< Event Duration >	44
< Per Channel Config >	45
Channel Select	45
Video Loss Detect	45
Motion Detect	45
Detection Configuration	45
- Detected Area Setup	46
- Sensitivity	46
- Block Threshold	46
Alarm In	46
Alarm Out	47
Copy Event Settings	47
< E-mail Management >	47
E-mail Select	47
E-mail Activate	47
E-mail Address	48
E-mail Video Attachment	48
Event/Alarm Selection	48
SMTP Server Setup	49
- E-mail via SMTP	49
- SMTP Server	49
- SMTP Port	50
- SMTP Account	50
- SMTP Password	50
- Use SSL Connection	50
Database Setup	51
< Total / Free Size >	51
< Avail. Rec Time >	51
< Internal Disks >	51
< Data Protection >	52
< Repair On Power Loss >	53
Configuration	54
< Load Factory Default >	54
< Import Configuration >	54
< Export Configuration >	55
Copy Destination	55
Configuration Name	55
Begin Export	55
< System Log >	56
< Operation Log >	56

Export	57
< Select Device >	57
< Select Channel >	58
< From / To Time >	58
< Select Events >	58
< Data Type >	58
< Export Format >	59
< Digital Signature >	59
< Erase Disc >	59
< Begin Export >	59
POS Setup (Versatile H.264 DVR Only)	60
< POS Function >	60
< POS Overlay >	60
< Exception POS Setup >	60
Exception No.	61
Trigger	61
Exception String	61
By Numerals	61
< Input Setup >	62
Input source	62
Camera Selection	62
Text Filter	63
Manual Filter Setup	63
Input Process	63
Text Baud Rate	64
Text Bit	64
Text Stop	64
Text Parity	64
Shutdown	65
< Power Off >	65
< Reboot >	65
< Power Key Privilege >	65
Appendix A: Record Duration	66
Appendix B: DVRPlayer	68
Appendix C: USB Mouse Operation	73
Special Operations	73
Appendix D: HDD Copy Tool (EXT2IFS)	75

Menu System Overview

The detailed functions and settings of **Versatile/Lite 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 select an account to login. There are two preset accounts: “admin” and “user”. The next step is to enter a corresponding password. The preset password for the administrator account “admin” is “1234”, while the preset password for the account “user” is “4321”.



NOTE: It is strongly suggested to change the preset password to prevent unauthorized access to the unit.

An icon displayed at the status bar will show the authority level of the account. Under logout condition, the icon will show “Guest”. 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 when keys are not pressed for a preset period of time (default 5 minutes) 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 DVR 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.

!	@	#	*	-	_	+	=	,	.	/	←	
1	2	3	4	5	6	7	8	9	0	Del		
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
<<		>>		Space			Cancel		OK			

<To input characters>

Move the cursor by pressing Direction keys and press ENTER to select characters.

<To move the cursor in title entry field>

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.

<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.



NOTE: If a USB keyboard is connected and when any key on the keyboard is pressed, the cursor on the virtual keyboard will be automatically moved to <OK>.

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
Show Unit Name	No
User Management	
Network Setup	
RS485 Setup	
Audio Output/Key Beep	
UPS Setup	

< System/Version Info >

The System/Version Info 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	
Software Upgrade Via Internet	

■ **Model Name**

This item shows the model name of the DVR.

■ **Video System**

This item shows the current video system of the DVR.

■ **Hardware**

This item shows the hardware version of the DVR.

■ **Software**

This item shows the software version installed on the DVR.

■ **MAC Address 1**

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

■ **Software Upgrade**

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

Software Upgrade	
Upgrade Version	Select
XXXX-XXXX-XXXX-XXXX	No

Connect an USB storage device containing upgrade software to the DVR; 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 **Versatile/Lite 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 DVR 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 DVR is completely rebooted.



NOTE: Do not remove the external USB ThumbDrive / DVD+RW before the DVR 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.

■ **Software Upgrade Via Internet**

The item is used to upgrade the unit’s software via the internet. Select one of the listed software versions and choose <Yes>. The DVR downloads the software, updates the system files, and reboots automatically.

< **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. Login using account with proper privilege to enter the submenu. In System Setup menu, select <Date/Time> and press ENTER. The Date/Time menu displays as follows.

Date/Time	
Date	2011/02/21
Time	PM 10:39:26
Time Zone	OFF
Date/Time Display	ON
Date Display Mode	Y/M/D
Time Display Mode	12 HR
Daylight Saving Time Setup	
Network Time Protocol 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.



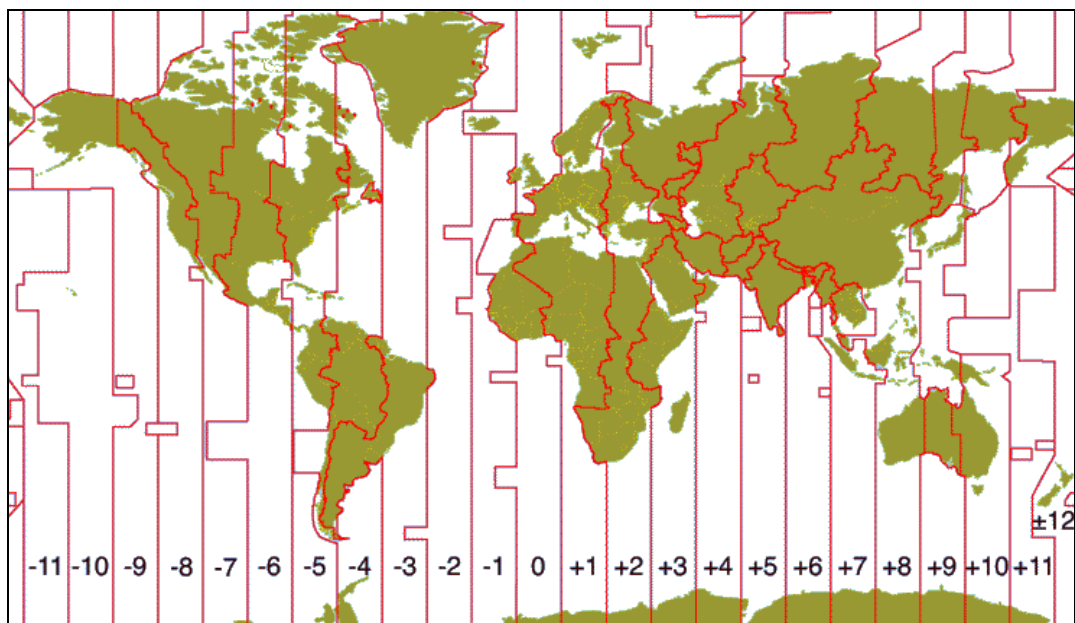
NOTE: To avoid database corruption, formatting the database is recommended after changing Date / Time setting.

■ *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.

■ *Time Zone*

Press ENTER to set users' local time zone. Please refer to the following figure or visit www.greenwichmeantime.com to find out users' local time zone.





NOTE: <Time Zone> must be set to users' local time zone or the <Network Time Protocol Setup> will not be accessible.

■ **Date/Time Display**

Select <ON> or <OFF> to setup whether to display date/time information on the screen. Press ENTER and 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 HR> or <24 HR>. Use the UP / DOWN keys to change the format.

■ **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 01:00
DST End	Oct Last Sun 01:00
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.

- **Network Time Protocol Setup**

After time zone is set, the <Network Time Protocol Setup> option will be available.

Network Time Protocol Setup	
NTP Server	time.nist.gov
Automatically Time Sync	Off
Manually Time Sync	No

- **NTP Server**

Enter this item to setup a feasible time server. The default time server is time.nist.gov. Users can change it to any other time server if desired. IP addresses of other time servers are listed below for reference.

129.6.15.28	129.6.15.29	132.163.4.101
132.163.4.102	132.163.4.103	128.138.140.44
192.43.244.18	131.107.1.10	69.25.96.13
206.246.118.250	208.184.49.9	64.125.78.85
207.200.81.113	64.236.96.53	68.216.79.113

- **Automatically Time Sync**

Select <ON> and the time will be synced once an hour.

- **Manually Time Sync**

Select <Yes> to sync the time immediately.

< Unit Name >

Users are allowed to assign a unit name, up to 11 characters, to the **Versatile/Lite 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.

!	@	#	*	-	_	+	=	,	.	/	←	
1	2	3	4	5	6	7	8	9	0	Del		
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
<<		>>		Space			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.

< Show Unit Name >

This item enables the unit name of the **Versatile/Lite H.264 DVR** to be shown on the monitor. Select <Yes> to show or select <No> to hide.

< 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
Auto Logout	300 Sec
Account Setup	
Permissions 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.

■ **Auto Logout**

Users can setup time for automatic logout of system when no operation is performed. Select from <60 Sec>, <120 Sec>, <300 Sec> and <600 Sec>. Alternatively, select <Disable> and the system will not automatically logout.

■ **Account Setup**

Setup customized username, password, and authority level in this menu. Note that the account is case sensitive and password cannot contain the number “0”. Press Direction keys and ENTER to select items. The privilege level ranks from levels 1~8, which level 8 has the highest authority. Alternatively, select <Disable> to stop using the account.

Account Setup		
Account:	admin	Mod
Password:	****	Mod
Privilege:	Level 8	
	Confirm	
	Cancel	



NOTE: The account name and privilege level of the preset “admin” account cannot be changed.

■ **Permissions Setup**

Setup permitted authority level for accessing the functions listed in this menu. The functions include: Playback/Search, Hidden Camera, Dome Control, Live Operation, Call Control, Export Data, Menu Access, System Setup, Monitor Setup, Camera Setup, Record Setup, Sequence Setup, Event Setup, Database Setup, Configuration, POS Setup and Shutdown. Press Direction keys and ENTER to select from items. In accordance with users’ privilege level defined in <Account Setup>, the authority level here also ranks from levels 1~8, with level 8 as the highest level. Users will be able to access any function that is set to their equivalent level or lower. Alternatively, select <DISABLE> to allow free access.

Permissions Setup	
Item	Authority
Playback/Search	DISABLE
Hidden Camera	LEVLE8
Dome Control	DISABLE
Live Operation	DISABLE
Call Control	DISABLE
Export Data	DISABLE



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 users with proper privilege 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	
Web Port	80
DDNS Setup	
UPnP Setup	

■ **LAN Select**

This item allows users to select the network type among <LAN>, <PPPoE>, and <None>. If the internet connection is a local area network communication, please select <LAN>. If the internet connection is 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		35 Min
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 DVR boots up. When using DHCP, the settings are dynamic and will change every time the DVR power on or off, depending on the network's setup.

If the item is enabled (On), a dynamic IP will be assigned to **Versatile/Lite 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.

If the DVR 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 DVR. The IP address is the identifier for the DVR 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 DVR. 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 DVR. 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 DVR. To configure this item, DHCP must be set to <Off>.

If the server is unavailable when using DHCP, the DVR 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.

!	@	#	*	-	_	+	=	,	.	/	←	
1	2	3	4	5	6	7	8	9	0	Del		
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
<<			>>			Space		Cancel		OK		

- Use Direction keys to move the cursor to the desired character.
- Press ENTER to add the character to the 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 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. Users can select the idle time from 0 to 600 minutes.

- **Connect At Booting**

The DVR 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.

■ **Web 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 web port, move the cursor over <Web Port> and press ENTER, then adjust the setting by UP / DOWN keys.

■ **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
Service Provider	iview-ddns
Host Name	XXXX_XXXX
DDNS Port	80
DDNS Account	
DDNS Password	
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.

- **Service Provider**

There are three different service providers: <iview-ddns>, <dyndns> and <ChangeIP>. When <iviewddns> is selected, users can setup preferred <Host Name> and <DDNS Port>. After users submitted the setting, the DDNS address will be as <http://hostname.ddns.iview-ddns.com>.

Alternatively, when <dyndns> is selected, users need to first obtain accounts from the website <http://dyn.com/dns/>. The further required items are <Host Name>, <DDNS Account>, and <DDNS Password>.



NOTE: If <dyndns> is selected, <DDNS Port> and <ezDDNS> will be grayed out. The ezDDNS function is only available for the iviewddns provider.

- Host Name

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

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

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

!	@	#	*	-	_	+	=	,	.	/	←	
1	2	3	4	5	6	7	8	9	0	Del		
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
<<		>>		Space			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 **Versatile/Lite 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.

- DDNS Account

Users who are using DynDNS as the service provider have to input a DDNS account name. Follow the same step as described in <Host Name> setup to input a valid account name.

- **DDNS Password**

Users who are using DynDNS as the service provider have to input a DDNS password. Follow the same step as described in <Host Name> setup to input the password goes with the valid user name.

- **Submit/ Update**

When the settings are finished, move the cursor to this item and select <Yes> to submit the settings.



NOTE: If more than one **Versatile/Lite 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.

■ **UPnP Setup**

UPnP is the abbreviation for Universal Plug and Play, which is a technology that integrates a universal protocol for widespread plug-and-play devices to ease the network implementation. When a PC and a DVR both installed the UPnP function, the PC can automatically recognize the DVR in the same local area network. The advantage of this function is that PCs can connect to the DVR via the remote control software by directly clicking on the icon representing the DVR in <My Network Places> folder. The menu will be as the following.

UPnP Setup	
UPnP	On
UPnP NAT Traversal	No

- **UPnP**

Set the first item UPnP to <ON> and the DVR is now with UPnP function.

- **UPnP NAT Traversal**

The UPnP NAT traversal function will help to automatically setup a router if the DVR connects to the internet via a router. Select <Yes> and the settings of router will be taken care by the DVR itself.

< RS485 Setup >

This menu allows users to setup the parameters of the DVR'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 DVR. The ID is in the range of <1> to <255>.

- **Baud Rate**

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

- **Bits**

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

- **Stop**

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

- **Parity**

This item is used to specify the parity associated with this protocol. Options are <Odd>, <Even> and <None>.

< Audio Output/Key Beep >

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

Audio Output/Key Beep	
Audio Output	OFF
Key Beep	On
Split Mode Audio	OFF

■ **Audio Output**

This item is for setting the audio output mode. The audio will be outputted when the monitor shows a chosen channel in full screen. The available options are as below.

<Live/PB>: Select this option to play the recording sounds of live image in live mode, and sounds of recorded video in playback mode respectively.

<Always Live>: Select this option to play live sounds in both live mode and playback mode.

<Off>: Select this option to disable the audio output function.

■ **Key Beep**

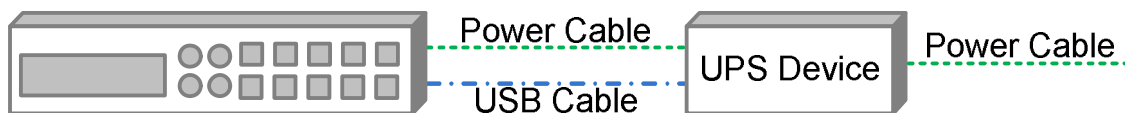
This item is used to enable or disable the key tone. Select <On> to enable the key tone, or <Off> to disable.

■ **Split Mode Audio**

This item allows users to select and output the audio of the selected channel while viewing multiple channels. Select <CH01> through <CH16> to output the preferred audio, or select <OFF> to disable audio output in multiple window viewing modes.

< UPS Setup >

When users wish to connect the NVR to the power source via an UPS device, the required connections are illustrated as the following figure. The USB cable is for data communication between the NVR and the UPS device.



The UPS Setup menu is as the following.

UPS Setup	
UPS Protocol	APC
Power Failure Scenario	Shutdown
UPS Shutdown Setting	
UPS Info	

■ **UPS Protocol**

This item is for users to select an appropriate UPS protocol. Note that if the UPS protocol is not selected, <UPS Info> will be grayed out and not available for setup.

■ **Power Failure Scenario**

For this item, users can choose what action the NVR should take when power failure occurs. If <Shutdown> is selected, users have to do further setting under <UPS Shutdown Setting>. Otherwise, select <None> and power of the NVR will be cut off when electricity of the UPS device totally runs out.

■ **UPS Shutdown Setting**

When <Power Failure Scenario> is set to <Shutdown>, this item will become available. Users have to setup under which condition should the NVR begin to automatically shutdown. The menu is shown as below.

UPS Shutdown Setting	
Min Remaining Battery Level	5 %
Min Remaining Run Time	5 mins
Delay To Activate	10 secs



NOTE: The NVR will begin to shutdown when one of the first two condition satisfied.

- **Min Remaining Battery Level**

For this item, users can decide the NVR should begin to shutdown when the remaining battery level reaches the specific percentage. The ranges are from 5% to 95%.

- **Min Remaining Run Time**

For this item, users can decide the NVR should begin to shutdown when the remaining run time reaches the specific value. The ranges are from 5 minutes to 30 minutes.

- **Delay To Activate**

This item allows users to set delay time before the NVR begin to shutdown. The ranges are from 10 seconds to 20 seconds.

- **UPS Info**

After UPS protocol is selected, this item will become available. Users can check out UPS related information as shown below.

UPS Info	
UPS Model	*****
UPS Protocol	*****
UPS Status	Lost Communication
Remaining Battery Level	77 %
Remaining Run Time	93 mins
Query Time	16 secs ago

- **UPS Model**

This item shows the model name of the UPS device.

- **UPS Protocol**

This item shows the protocol of the UPS device.

- **UPS Status**

This item will show the connection status between the NVR and the UPS device. Refer to below for the description of each displayed value.

Unknown

This will be displayed when there is no UPS device connected.

Lost Communication

This means there might be problems due to the USB cable connection between the NVR and the UPS device.

Online

This will be shown when everything is fine. Nothing to be worry about.

On Battery

This will means the power source is not available. The NVR is running based on the battery of the UPS device.

- Remaining Battery Level

This item shows the remaining battery level of the UPS device.

- Remaining Run Time

This item shows the remaining run time of the UPS device.

- Query Time

This item tells the last retrieving time of the UPS information. Normally, the information will be refreshed every 5 seconds when the UPS status is <Online> or <On Battery>. However, when there is error on USB cable connection and the UPS status shows <Lost Communication>, the query time will be more than 5 seconds.

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 Name	Yes
OSD Transparency	0 %
VGA Resolution	1024*768
Show Color Bar	
Mouse Sensitivity	100%
Hide Status Bar	No
Status Bar Size	Medium

< Show Camera Name >

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

< OSD Transparency >

This item allows users to set the OSD menu transparent in a certain degree, so that users can see the live images while configuring the OSD settings. The options are <0%>, <15%>, <30%>, <45%>, <60%>, <75%>, and <90%>.

< VGA Resolution >

This item allows users to select appropriate VGA resolution for the VGA monitor connected to the DVR. The options are <1024*768>, <1280*1024> and <1080P>.



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.

< Mouse Sensitivity >

This item allows users to set the sensitivity of the connected mouse. Starting from <10%>, with 10% increment, the maximum value is <100%>.

< Hide Status Bar >

Users can choose whether to hide the status bar. The default setting is <No>. If users decide to hide the status bar, set this item to <Yes>.

< Status Bar Size >

This item allows users to select the displaying size of the status bar. The default setting is <Medium>. The other available displaying sizes are <Small> and <Large>.

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.

< 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.

Camera Setup	
Analog Camera Select	CH01
Dome Protocol	None
Dome ID	0
Camera Name	CH1
Hidden	No
Adjust Video	
Copy Settings	

■ **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> and <Panasonic_N>. The default is set to <None>.

■ **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 Name**

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

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

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

!	@	#	*	-	_	+	=	,	.	/	←	
1	2	3	4	5	6	7	8	9	0	Del		
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
<<		>>		Space			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.

■ **Hidden**

This function allows users to set monitor display of the specific camera to be hidden while the DVR continues to record video. Choosing <Yes> means to hide monitor display of the selected camera; or choose <No> to remain monitor display of the specific camera non-hidden.

■ **Adjust Video**

Enter this menu to adjust video display settings.

Adjust Video	
Brightness	0
Contrast	0
Saturation	0
Hue	0
Reset	No

- **Brightness**

Move the cursor to the item and press ENTER for adjusting the brightness of the camera. Use UP / DOWN keys to adjust the numeric value. The range of brightness values is <-128> to <127>.

- **Contrast**

Move the cursor to the item and press ENTER for adjusting the contrast of the camera. Use UP / DOWN keys to adjust the numeric value. The range of contrast values is <-128> to <127>.

- **Saturation**

Move the cursor to the item and press ENTER to adjust the color saturation of the camera by using UP / DOWN keys. This value will be ignored on monochrome monitors. The range of saturation values is <-128> to <127>.

- **Hue**

Move the cursor to the item and press ENTER for adjusting the hue of the camera. Use UP / DOWN keys to adjust the numeric value. The range of hue values is <-128> to <127>.

- **Reset**

Select <Yes> for this item to reset the above video adjustment settings.

■ **Copy Settings**

This item allows users to copy the settings of the current selected analog camera to any other connected analog cameras. Enter this menu and select one or more target analog cameras. Then select <Confirm> to apply the settings.

Copy Settings							
COPY TO:							
01	02	03	04	05	06	07	08
09	10	11	12	13	14	15	16
Select All		Deselect All		Confirm		Cancel	

Record Setup

The total record time of **Versatile/Lite 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. Login using account with proper privilege 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	
Advance Schedule Setup	
Data Lifetime Setup	
Circular Recording	ON
Audio Recording	ON
Purge Data	

< Record Mode Setup >

Enter this menu to setup record resolution. 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	480
CBR/VBR	CBR

■ **Record Resolution**

Select resolution of the recorded video. If the recording is set to NTSC system, the selections are 720*480 (D1), 720*240 (Half D1), and 352*240 (CIF). If the recording is set to PAL system, the selections are 720*576 (D1), 720*288 (Half D1), and 352*288 (CIF).

■ **Record Format**

The video format will be H.264 compression. This item is read-only.

■ **Max Rec. PPS**

This item will remain constant. In most cases, each channel will be 30PPS for NTSC and 25PPS for PAL. The only two exceptions are 8CH and 16CH models of **Lite H.264 DVR**. Their D1 resolution only supports 15PPS for NTSC and 12.5PPS for PAL per channel.

■ **CBR/VBR**

This item allows users to select an encoding method for the unit.

CBR, standing for Constant Bit Rate, means a way to encode a file at a fixed rate. That also indicates a CBR file has consistent file size and quality.

VBR, standing for Variable Bit Rate, allocates an appropriate amount of data per second, depending on the complexity of the video file.

It's strongly suggested to use VBR encoding when reliable video quality is the top priority.



NOTE: Since a VBR file doesn't have a fixed size, the HDD space usage cannot be calculated and thus ezRecord function is not supported for VBR mode. Therefore, if ezRecord is selected as the preset record configuration, the option of this menu item will automatically be set as <CBR>.

< Schedule Setup >

This submenu is used to set the day and night time, or weekend recording schedule. The Day and Night schedules are for defining day time and night time; 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 06:00
Night Time Start	AM 06:00
Night Time End	PM 06:00
Weekend Schedule	On
Weekend Start	Fri PM 06:00
Weekend End	Mon AM 06:00

■ **Day / Night Time Start / End**

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

■ **Weekend Schedule**

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

■ **Weekend Start / End**

<Weekend Start> indicates the specific day and time when weekend schedule should begin, for example, Fri PM 06:00. <Weekend End> indicates the specific day and time when weekend schedule should end, for example, Mon AM 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. Several 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>, <Adv. Schedule> and <OFF>. For different preset configurations, the recording file size differs.

Refer to the table below for file sizes of a few simple preset configurations. For other preset configurations, file sizes are variable and further setup is required. <Event Only> will be described in <Event Setup> section. <ezRecord> will be explained in <ezRecord Setup> section. Instruction about <Adv. Schedule> can be found in <Advance Schedule Setup> section. When <OFF> is selected, refer to section <Per Camera Config> for more details.

Resolution	D1		Half D1		CIF	
DVR	Versatile	Lite	Versatile	Lite	Versatile	Lite
Best Quality	12 KB/Pic	15 KB/Pic	7 KB/Pic	8 KB/Pic	5 KB/Pic	6 KB/Pic
Standard	8 KB/Pic	9 KB/Pic	5 KB/Pic	6 KB/Pic	3 KB/Pic	4 KB/Pic
Extended	4 KB/Pic	3 KB/Pic	3 KB/Pic	4 KB/Pic	1 KB/Pic	2 KB/Pic
512Kbps DSL	3 KB/Pic	4 KB/Pic	3 KB/Pic	4 KB/Pic	3 KB/Pic	4 KB/Pic
256Kbps DSL	2 KB/Pic	3 KB/Pic	2 KB/Pic	3 KB/Pic	2 KB/Pic	3 KB/Pic
128Kbps DSL	1 KB/Pic	2 KB/Pic	1 KB/Pic	2 KB/Pic	1 KB/Pic	2 KB/Pic

< Per Camera Config >

This sub-menu is used to set the Day / Night / Weekend PPS and recording quality for each individual channel. <Preset Configuration> must be set to <OFF> in order to access these related settings. The menu is displayed as below.

Per Camera Config			
Camera Select	Day	Night	CH01 Weekend
Normal PPS	30	30	30
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 selection.

■ **Normal PPS**

<Normal PPS> is used to set the recording rate for normal status. Please note that the normal PPS for each channel cannot exceed 30 for NTSC / 25 for PAL.

■ **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) and <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
Average Normal PPS	3.75
Average Normal Quality	Best

Follow these steps to Setup ezRecord:

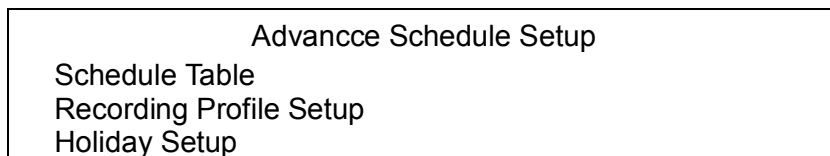
- Select <How Many Days To Record> and press ENTER, then press UP/DOWN to select a desired number of days. The average normal PPS & quality will be adjusted automatically. The maximum recording days depends on the storage size of the HDD. In other words, the larger the storage size, the more days the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

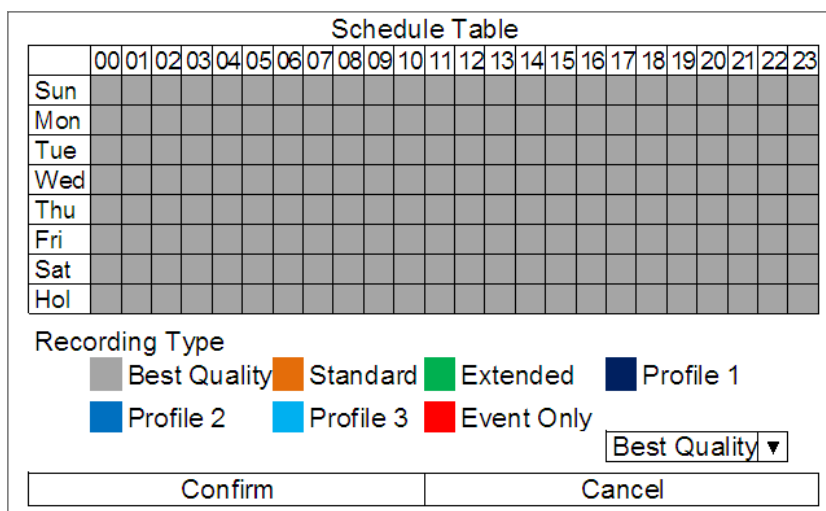
< Advance Schedule Setup >

When <Adv. Schedule> is selected as the option for <Preset Config>, users need to further configure the schedule and recording setting under this menu. The Advance Schedule setup menu is shown as below.



■ **Schedule Table**

In this menu, users can assign recording type for days in a week by hours. Moreover, the recording type for pre-defined holidays can also be specified here. Refer to the steps below to setup the schedule table.



- Click on a preferred recording type at the bottom.
- Click at any grid of time to assign the selected recording type.
- Click on any hour on the top to fill up the column.
- Click on any day on the left to fill up the roll.
- Click on the top left grid to always record with the selected recording type.
- Click on the <Confirm> button to save the setting.

■ Recording Profile Setup

Enter this menu to setup normal and event recording options for profile 1, profile 2 and profile 3 for each channel. Follow the steps below to complete the setting.

Recording Profile Setup			
Camera Select	Profile 1	Profile 2	CH01 Profile 3
Normal PPS	30	30	30
Normal Qlty	Best	Best	Best
Normal Resolution	D1	D1	D1
Event Max PPS	30	30	30
Event Qlty	Best	Best	Best

- Setup PPS, quality and resolution of normal recording videos.
- Setup maximum PPS and quality of event recording videos.

■ Holiday Setup

The DVR also allows users to define holidays that require special monitoring and recording settings. The Holiday Setup menu is as below.

Holiday Setup	
Holiday List	
Add Holiday	01/01

- Next to <Add Holiday>, select a specific month and date and press ENTER to add the date as a holiday.
- Add more holidays via the step described above.
- Select <Holiday List> and press ENTER to see the specified holidays.
- Users can also remove holidays in the <Holiday List> menu.

< Data Lifetime Setup >

Data Lifetime indicates the duration that a video is saved and recallable in the HDD. Only those video recorded within 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.

Data Lifetime Setup	
Data Lifetime Mode	General
Data Lifetime	0 Days
Data Lifetime By Day	
Data Lifetime By Channel	



NOTE: If users 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.

■ **Data Lifetime Mode**

This item allows the user to choose preferred data lifetime mode. There are three types of data lifetime mode: General, By Day, and By Channel. When a specific mode is selected, the other two will be grayed out and cannot be accessed.

■ **Data Lifetime**

When data lifetime mode is set as <General>, this item will be accessible. Press ENTER to select this item and press UP / DOWN keys to set the data lifetime. The value ranges from <1> to <365> days. Alternatively, select <0> to disable this function.

■ **Data Lifetime By Day**

When data lifetime mode is set as <By Day>, this item will be accessible. Enter this menu and users can setup data lifetime of each weekday independently. The value ranges from <1> to <365> days. Alternatively, select <0> to disable this function.

■ **Data Lifetime By Channel**

When data lifetime mode is set as <By Channel>, this item will be accessible. Enter this menu and users can setup data lifetime of each channel independently. The value ranges from <1> to <365> days. Alternatively, select <0> to disable this function.

< Circular Recording >

Users can choose to record video in circular mode or in linear mode. If circular mode (set to <ON>) is selected, the DVR will store new video data to overwrite the oldest recorded video. If linear mode (set to <OFF>) is selected instead, the DVR will stop recording when HDD capacity is full. The percentage of HDD usage will be displayed as icons in the status bar. Furthermore, an alert icon will show up in the status bar when HDD usage reached 98%. In the mean time, an 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 DVR. 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	2000/01/01
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.

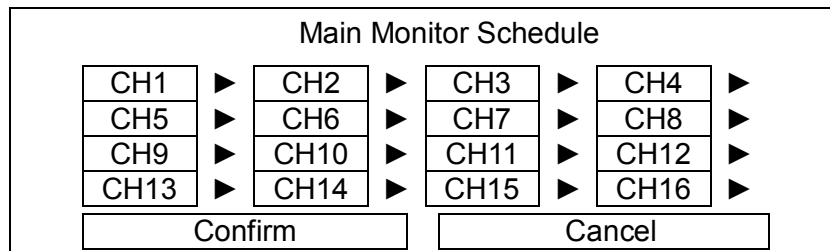
Sequence Setup	
Main Monitor Dwell	5 Sec
Main Monitor Schedule	
Call Monitor Dwell	5 Sec
Call Monitor Schedule	

< Main / Call Monitor Dwell >

The main/ call monitor can be set to display full screen video of all installed cameras in sequence. These items are used to set the dwell time, which is the duration of time elapsed before switching to the next channel. The dwell time ranges from 1 to 120 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.



Follow these steps to set a sequence:

- Press LEFT / RIGHT direction keys to move to previous / next sequence order.
- Press UP / DOWN keys to assign a channel to that order in the sequence.
- Continue the steps until the sequence is completed.
- To setup a sequence with less than the maximum number of entries, select <Circular> to end the sequence.

The maximum number of entries in a sequence equals to the number of channels. The sequence can include a specific camera or cameras multiple times.



NOTE: When the display mode is in multiple channels, the schedule setup here will not be followed. The display sequence will be in numeral order of all channels.

Event Setup

This menu allows users to determine **Versatile/Lite 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
Alert Notification Setup	
Event Full Screen	None
Event Duration	20 Sec
Per Channel Config	
E-mail Management	

< Internal Buzzer >

This item allows users to enable / disable internal buzzer of the **Versatile/Lite 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 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

< Alert Notification Setup >

This function allows users to send alert notifications to the CMS program which had been installed to the computer. For detailed setup instruction, please refer to the CMS user's manual.

Alert Notification Setup	
Alert Configuration Set	1
Alert Notification	OFF
Alert IP	0.0.0.0
Alert Port	9999
Alive Interval	120 Sec

■ **Alert Configuration Set**

<Alert Configuration Set> provides 3 combinations of Alert Notification, IP, and Port.

■ **Alert Notification**

4 options are included in this item; <OFF>, <Event>, <Alive>, and <Both>.

<**OFF**>: The Alert Notification is turned off.

<**Event**>: When the alarm is triggered, the DVR will send an alert message to the CMS.

<**Alive**>: The DVR will send an alive message to the CMS every *N* second just to show users that the connection between the DVR and CMS is in effect. The time interval *N* can be adjusted in <Alive Interval>.

<**Both**>: This enables the DVR to send both Event and Alive alert messages to the CMS.

■ **Alert IP**

The Alert IP must match the IP address of the computer.

■ **Alert Port**

The ports for DVR and the CMS Alert **MUST** be the same.

■ **Alive Interval**

Users can define the time interval (1 to 255 seconds) between each alive message. This item will not be accessible if the alert notification menu is set to <OFF> or <Event>.

< **Event Full Screen** >

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

Select <None> to disable this function, <Main> to display the alarm channel on Main Monitor when an alarm is triggered, <Call> to display the alarm channel on Call Monitor, or 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	CH01
Video Loss Detect	OFF
Motion Detect	OFF
Detection Config	
Alarm In	OFF
Alarm Out	ON
Copy Event Settings	

■ **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.

■ **Motion Detect**

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

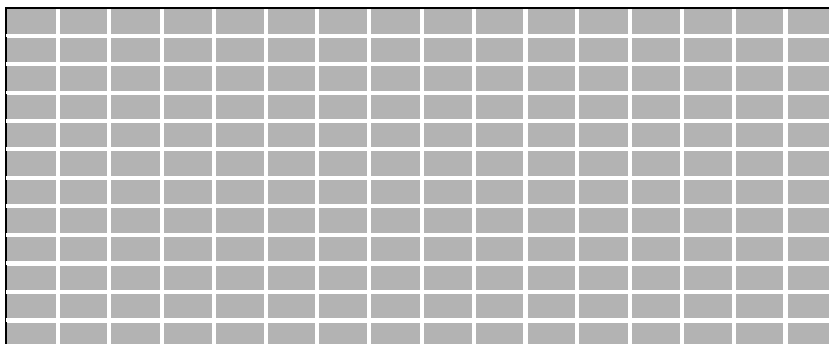
■ **Detection Configuration**

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	60 %
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 select or de-select 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 DVR will trigger the alarm when one grid is detected; and selecting <16> means the DVR 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.

■ **Copy Event Settings**

This item allows users to copy the event settings of the current selected analog camera to any other connected analog cameras. Enter this menu and select one or more target analog cameras. Then select <Confirm> to apply the settings.

Copy Event Settings							
COPY TO:							
01	02	03	04	05	06	07	08
09	10	11	12	13	14	15	16
Select All		Deselect All		Confirm		Cancel	

< **E-mail Management** >

There can be three sets of e-mails defined in this menu for receiving event/alarm notices.

E-mail Management	
E-mail Select	1
E-mail Activate	Off
E-mail Address	
E-mail Video Attachment	Off
Event/Alarm Selection	
SMTP Server Setup	

■ **E-mail Select**

Select a number to setup its e-mail related settings.

■ **E-mail Activate**

This item enables (On) / disables (Off) the e-mail notification of events/alarms. When an event/alarm is triggered and <E-mail Activate> is enabled, an e-mail regarding the event/alarm will be sent to the pre-defined e-mail address.



NOTE: In order to send an event notification e-mail successfully, be sure that the DVR is connecting to the internet.

■ **E-mail Address**

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

- Select <E-mail Address> 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 entry field.
- When it's done, move the cursor to <OK> and press ENTER to save the settings and exit.

■ **E-mail Video Attachment**

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

Select <On> to enable this function; or select <Off> to disable it.



NOTE: The video clips of the e-mail attachment will ONLY be in *.avi format. Please download the Divx Player from www.divx.com to play the *.avi files.

■ **Event/Alarm Selection**

This menu lists different types of events and alarms that users can choose whether to send notification e-mails when any of them occurred. Select <Yes> to enable e-mail notification of the chosen event/alarm. Otherwise, select <No> to disable it.

Event/Alarm Selection	
Event/Alarm	Selection
Motion Detect Event	Yes
Video Loss Event	Yes
Alarm Trigger Event	Yes
UPS Power Failure Alarm	No
System Fan Alarm	No
Disk Error Alarm	No



NOTE: The <Disk Map Change Alarm> refers to any addition, deletion or port change of installed HDD(s), both internal and external, comparing to the DVR's status before it was shutdown. If this alarm is set to <Yes>, the alarm e-mail will be sent out to inform users about the change of disk map of the DVR.

■ SMTP Server 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	
E-mail via SMTP	On
SMTP Server	
SMTP Port	25
SMTP Account	
SMTP Password	
Use SSL Connection	Off

- E-mail 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 the 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.

!	@	#	*	-	_	+	=	,	.	/	←	
1	2	3	4	5	6	7	8	9	0	Del		
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
<<		>>		Space			Cancel		OK			

- Use Direction keys to move the cursor to the desired 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.

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

- **Use SSL Connection**

SSL stands for Secure Sockets Layer, which provides communications security over the Internet. Select <On> for this item to enable SSL connection. Otherwise, select <Off> to disable SSL connection.

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	xxxGB
Free Size	xxxGB (Circular)
Avail. Rec Time	Circular
Internal Disks	
Data Protection	
Repair On Power Loss	On



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. “Circular” will be shown if the DVR is set to record in circular mode. Both of them are read-only.

< Avail. Rec Time >

This item indicates the available time duration for recording. If the DVR is set to record in circular mode, this item will show “Circular”. This information is read-only as well.



NOTE: If VBR mode is selected in <Record Mode Setup>, the available time will not be able to be calculated. Thus there will be no value displayed for this item.

< Internal Disks >

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

Internal Disks			
Device Name	Active	Detail	Action
#: xxxxxxx-xxxxxx	Yes	No	None

The information of the built-in HDDs will be listed by model name and status. If no storage device is connected to the DVR, 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.

<Device Name> and <Active> are read-only. The number in front of the device name represents the SATA port that the HDD is connected to. If no storage device can be found, the message “No available items!” will be displayed.

Active

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

Detail

This item enables users to see the S.M.A.R.T. info of all the internal disks. Press ENTER and select <Yes>, then the S.M.A.R.T. info of the selected internal disk will be displayed on the screen.

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 DVR, **ALWAYS** remember to remove it from the database first.

< Data Protection >

Enter this menu to select the data users wish to protect from data purging or overwriting.

Data Protection				
Date	Time	Event	Loc.	Lock
2010/12/06	PM 01:29:08	Yes	INT01	NO
2010/12/06	PM 01:42:41	Yes	INT01	NO
2010/12/07	AM 09:36:02	Yes	INT01	NO
2010/12/07	PM 12:45:31	No	INT01	NO
2010/12/07	PM 12:55:56	No	INT01	NO
First Page				
<input type="button" value="<<<"/> <input type="button" value="<<"/> <input type="button" value="<"/>		<input type="button" value=">"/> <input type="button" value=">>"/> <input type="button" value=">>>"/>		

The first column shows the date/time information. The second column shows whether the data contains event videos. The third column shows the location where the data is stored. From the fourth column, users can change the option to <YES> to protect the selected data. When the data is no more important, users can change the option back to <NO>.

< Repair On Power Loss >

This item enables the DVR to do auto HDD scan after powered on, if the DVR previously experienced unexpected power loss or was not shutdown properly. If auto scan failed, formatting of HDD is required. The preset is <On>. This helps to secure the data saved in the HDD. Therefore, it is suggested to keep this function enabled.



NOTE: If password protection is enabled, login with authorized account will be prompted before HDD format. Regarding details of HDD scan, please refer to the User's Manual for more information.

Configuration

The Configuration menu can be used to restore the default factory settings, import/export configuration, and view/export system log. 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	
System Log	
Operation Log	Off

< 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 DVR 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 DVR. 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 of the imported configuration is different from the DVR's current configuration, a warning message will be shown and the system will reboot.



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

< Export Configuration >

Users are allowed to save a DVR 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 DVR 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.

< System Log >

Select <System Log> and a list of system logs will be displayed on the screen. Users can export the system log as a data file to an external storage device. Connect a USB storage device and select <Export> to export the system log file to the USB storage device. Alternatively, press COPY can also export the system log file. Note that in the mean time, a digital signature file will also be exported.

< Operation Log >

Set <Operation Log> to <On> and operation logs will start to be recorded in the system log. Alternatively, set to <Off> and operation logs will not be part of the system log.

Export

The Export menu enables users to export recorded video with or without digital signature to a USB storage device, or to a DVD+RW. Make sure an external storage device is available and connected to the appropriate port for video export.

When the recorded video is exported with digital signature, the output will be four files, including *.gpg, *.avi (*.drv), *.sig and readme.txt. Exporting a video whose size is 1GB with digital signature may take about 30 minutes.



NOTE: The inserted DVD+RW will be ejected when its capacity is 99% full.

Export							
Select Device							
Select Ch:	Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	All
From:					2011/02/19	AM	07:50:05
To:					2011/02/28	PM	03:09:18
Select Events							
Data Type							Normal
Export Format							DRV
Digital Signature							No
Erase Disc							No
Begin Export							No



NOTE: The system log will keep records of all video exportations, including duration, start time, and end time.

< Select Device >

The available external devices for exporting video will be listed by name and free size in Select Device menu. The Select Device menu displays as follows.

Select Device			
Device Name		Available	Sel
xxx-xxx-x-x-xx		256 MB	No
xx-xxx-xx-xxxx		1.5 GB	No

Device Name

The item shows the name of the available devices.

Available

The item shows the free space of the available devices.

Sel

Set this item to <Yes> to set the selected device as the exporting destination.



NOTE: The item <Erase Disk> from Video Export menu will be grayed out when the selected device is not a DVD+RW or when the device is not selected yet.

< Select Channel >

The item is used to select channels for export. Move the cursor to the desired channel using LEFT / RIGHT keys, select or de-select a channel by pressing ENTER.

< From / To Time >

These items are used to set the time which data export begins and ends. Move the cursor using Direction keys, and press ENTER to select the date / time items; adjust the selected date and time value by UP / DOWN keys.



NOTE: When the Start / End Time are set, remember to select the exporting Data Type.

< Select Events >

Select the item to display the event list for exporting event video. Move the cursor to scroll the event list and press ENTER to select the events users want to export.



NOTE: Users will not be allowed to access <Select Events> if <Data Type> is set to <Normal>.

< Data Type >

This item is used to select exporting video type. The options are <Normal> (export normal video only), <Event> (export event video only) and <Both> (export both normal and event video).



NOTE: If users want to export selected event video using the item <Select Event>, users have to set <From> and <To> to the same day and time. Otherwise, not only the selected event video will be exported to the selected destination, but also other event videos recorded during the period between <From> and <To>.

< Export Format >

This item is for selecting exporting video format. The options are <DRV>, <AVI>, and <Original>. The DRV and AVI files are compressed video files while the original files are raw data of the unit's recorded video.

The DRV and original files can only be played back with the remote monitoring software and **DVRPlayer**, and multiple cameras video can be played back from one file. The AVI files can be played back with Windows Media Player. Note that if multiple channels are exported for AVI files, each channel is exported to a separate file.

< Digital Signature >

The Digital Signature function enables users to export video clip with the unit's unique signature key. It aims to authenticate that a video clip was exported from the unit and it has not been modified. Users can export video clips with or without a digital signature file (*.sig). Set the item to <Yes> to export with the signature file, or <No> to export without it.

Make sure that an external storage device, such as a USB Hard Drive or USB ThumbDrive, is available and connected to the appropriate port for export.

For more information on verifying digital signature, see [Appendix B: DVR Player](#).

< Erase Disc >

This function is used to remove information found on a DVD+RW disk prior to writing new information. Select <Yes> and press ENTER. The data on the DVD+RW will be erased when the exporting process begins.



NOTE: This item will be grayed out when the selected device is not a DVD recorder or when the device is not selected yet.

< Begin Export >

Set this item to <Yes> and the DVR will prepare to export the select recorded video. The Backup Confirmation window will be displayed for users to double confirm data of the exporting video. Press ENTER to confirm and the exportation will begin.

POS Setup (Versatile H.264 DVR Only)

The <POS> function is only available for **Versatile H.264 DVR**. It provides a connection between a DVR and a Point-of-Sale equipment, such as cash registers. With this function, the financial transaction data can be linked to specific camera images and recorded to the DVR. To enable this function, enter OSD setup menu and select <POS>. Press Enter and the menu will be shown as follows. Items in this menu are described in the following subsections.

	POS	
POS Function		On
POS Overlay		Live & PB
Exception POS Setup		
Input Setup		

< POS Function >

This item is used to enable/disable this function. Select <On>, the text database will be created on the hard disk.

< POS Overlay >

This item is for users to choose which mode users want to display the POS overlay on the monitor. Select <Live> to display the POS overlay in Live mode only; select <PB> to display the POS overlay in Playback mode only; and select <Live & PB> to display in both modes.



NOTE: POS overlay only shows in full screen mode.



NOTE: PB overlay is available only under x1 playback speed.

< Exception POS Setup >

This sub-menu is used to define the conditions that will be treated as an “Exception” and thus trigger an action (the function will be implemented later).

	Exception POS Setup	
Exception No.		1
Trigger		On
Exception String		NO SALE
By Numerals		OFF
Value		
Value (Upper Limit)		

■ ***Exception No.***

Select an exception number for further settings. Users can select from <1> to <16>.

■ ***Trigger***

Select <On>, those transactions which contain “Exception Strings” and which meet the “Numerals” conditions will be marked as exceptions in the text database and will trigger preset actions such as alarm output.

■ ***Exception String***

This item allows users to define Exception String. The “Exception String” is case-sensitive. Only exactly matched ones will be marked as exceptions.

■ ***By Numerals***

“Exception String” must be defined before “By Numerals” takes effect. If “By Numerals” is enabled, only transactions which meet both “Exception String” and “By Numerals” condition will be marked as exceptions and thus trigger an action. Users can select from the following options:

OFF:

The function is disabled.

Specific:

The value of transaction meets a specific value will be marked as an exception. The specific value needs to be set through the following sub-menu <Value>.

Greater Equal Than:

The value of transaction greater than or equal to a certain value will be marked as an exception. The specific value needs to be set through the following sub-menu <Value>.

Less Equal Than:

The value of transaction less than or equal to a certain value will be marked as an exception. The specific value needs to be set through the following sub-menu <Value>.

Inside The Range:

The value of transaction within a certain range will be marked as an exception. The specific value needs to be set through the following sub-menus <Value> and <Value (Upper Limit)>.

Outside the Range:

The value of transaction outside a certain range will be marked as an exception. The specific value needs to be set through the following sub-menus <Value> and <Value (Upper Limit)>.



NOTE: Transactions will only be marked as exceptions in the text database after “Exception String” and “By Numerals” are set AND “Trigger” is <ON>. The data that has been stored before will not be marked as exceptions.

< Input Setup >

This item is used to choose the connection method between the POS Device and the DVR. Also some relative settings of the connection method can be configured.

Input Setup	
Input Source	Direct Connected
Camera Selection	1
Text Filter	ASCII
Manual Filter Setup	
Input Process	Canonical
Text Baud Rate	9600
Text Bits	8
Text Stop	1
Text Parity	None

■ **Input source**

Select whether the input source is directly connected or connected with the Data Converter. If the input source is directly connected, users may need to go to the next item, Camera Selection, to select a corresponding camera.

■ **Camera Selection**

Select a camera to display the POS overlay.

■ **Text Filter**

This item is used to choose the text filter. The supported models for pole display and printer are listed below.

Pole Display	Printer	POS Machine
Cache Technology VFD-202T	Citizen CBM-1000 II	Acula AQ-812
Citizen C2202	Citizen CT-S300	IBM SurePOS 700
Digipos CD5220	Dell T200	Samsung ER-380M
Emax Pole Display	Epson TM-T88II/ TM-T88III/ TM-T88IV	Samsung ER-655
Epson DM-D Series	Epson TM-T90	Senor POS
Logic Controls LD9000	Epson TM-930 II	
Logic Controls PD3000	Epson RP-U420	
Logic Controls PD6000	IBM SureMark TF6	
Logic Controls TD3000	IBM SureMark TM6	
Magellan	Ithaca iTherm 280	
Partnertech CD5220	Ithaca POSJet 1000	
Posiflex ICD-2002	POS-X Xr500	
Posiflex PD 302	Samsung SRP350	
Posiflex PD 303	Sensor TP-288	
Posiflex PD-2100	Star TSP100 futurePRNT	
Posiflex PD-2200	Star TSP600	
POS-X Xp8000	Star TSP700	
Scales	Star TSP800	
Sibnet	TPG (Axiohm) A794	
STAR SCD400-PD	WP-520(ESC/POS)	
Soteke VFD2025		
Soteke VFD2029		
TEC		
Toledo 8217		
TYSSO VFD Series		
Ultimate Technology PD1100XL		
Wedderburn DS-770		

■ **Manual Filter Setup**

After entering the Manual Filter Setup menu, users should key in hexadecimal digits. The menu of the item is shown as follows.

Manual Filter Setup	
Header 1	
Header 2	

■ **Input Process**

If users will be using a Pole Display from a PC based POS, select <Canonical>. <Non-Canonical> is to be selected when using a Pole Display from a Standalone POS.

■ ***Text Baud Rate***

This item allows users to setup the baud rate of RS232 which connects the POS Device and the DVR.

■ ***Text Bit***

This item allows users to setup the bits of RS232.

■ ***Text Stop***

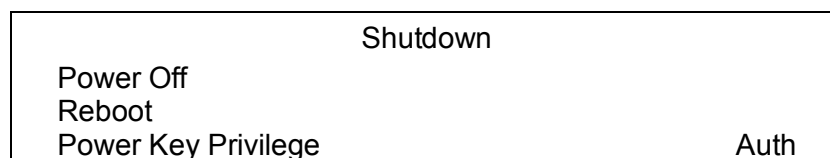
This item allows users to setup the stop of RS232.

■ ***Text Parity***

This item allows users to setup the parity of RS232.

Shutdown

This item is used to shut down or reboot the DVR. If the **Versatile/Lite 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 DVR.



< Power Off >

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

< Power Key Privilege >

According to the setting of this item, users are able to quick shutdown the DVR via long pressing the Power Key. This item defines the action of the power key. The options are <Auth>, <Confirm>, <Direct>, and <Disable>. The following explains each option.

<Auth>: This will ask users to login with an authorized account, when Password Protection function is enabled. If Password Protection function is disabled, the action will be the same as the next option <Confirm>.

<Confirm>: When this option is selected, a confirmation message will be shown after pressing and holding the Power Key. Users can confirm or cancel the quick shutdown function.

<Direct>: For users who wish to enable the quick shutdown function without any confirmation or login process, select this option and the DVR will automatically shutdown after pressing and holding the Power Key.

<Disable>: Select this option to disable the quick shutdown function.

Appendix A: Record Duration

The record duration varies based on the HDD capacity and the settings of resolution, recording quality and events. The following tables give a sample calculation of record duration according to different HDD capacities with different settings of resolution and recording quality, excluding consideration of events. The recording quality refers to the quality 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 usages. Audio recording requires 8 KB per second (or 0.7 GB per day) for data storage.

Record Duration (Days) for Versatile H.264 DVR

D1	Recording Quality Mode									
	Low (4 KB)		Fair (6 KB)		Mid (8 KB)		High (10 KB)		Best (12 KB)	
	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL
500 GB Internal Storage										
With Audio	2.72	3.22	1.85	2.20	1.40	1.67	1.13	1.35	0.95	1.13
Without Audio	2.90	3.48	1.93	2.32	1.45	1.74	1.16	1.39	0.97	1.16
1 TB Internal Storage										
With Audio	5.48	6.49	3.73	4.44	2.83	3.37	2.28	2.72	1.91	2.28
Without Audio	5.84	7.01	3.90	4.67	2.92	3.51	2.34	2.80	1.95	2.34

Half D1	Recording Quality Mode									
	Low (3 KB)		Fair (4 KB)		Mid (5 KB)		High (6 KB)		Best (7 KB)	
	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL
500 GB Internal Storage										
With Audio	3.55	4.19	2.72	3.22	2.20	2.62	1.85	2.20	1.60	1.90
Without Audio	3.87	4.64	2.90	3.48	2.32	2.78	1.93	2.32	1.66	1.99
1 TB Internal Storage										
With Audio	7.15	8.45	5.48	6.49	4.44	5.27	3.73	4.44	3.34	3.83
Without Audio	7.79	9.35	5.84	7.01	4.67	5.61	3.90	4.67	3.22	4.01

CIF	Recording Quality Mode									
	Low (1 KB)		Fair (2 KB)		Mid (3 KB)		High (4 KB)		Best (5 KB)	
	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL
500 GB Internal Storage										
With Audio	9.16	10.54	5.12	6.00	3.55	4.19	2.72	3.22	2.20	2.62
Without Audio	11.60	13.92	5.80	6.96	3.87	4.64	2.90	3.48	2.32	2.78
1 TB Internal Storage										
With Audio	18.45	21.25	10.31	12.09	7.15	8.45	5.48	6.49	4.44	5.27
Without Audio	23.37	28.04	11.69	14.02	7.79	9.35	5.84	7.01	4.67	5.61

Record Duration (Days) for Lite H.264 DVR

D1	Recording Quality Mode										
	Low (3 KB)		Fair (6 KB)		Mid (9 KB)		High (12 KB)		Best (15 KB)		
	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	
NTSC: 240PPS PAL: 200PPS											
500 GB Internal Storage											
With Audio	6.56	7.65	3.55	4.19	2.43	2.89	1.85	2.20	1.49	1.78	
Without Audio	7.73	9.28	3.87	4.64	2.58	3.09	1.93	2.32	1.55	1.86	
1 TB Internal Storage											
With Audio	13.23	15.41	7.15	8.45	4.90	5.82	3.73	4.44	3.01	3.59	
Without Audio	15.58	18.70	7.79	9.35	5.19	6.23	3.90	4.67	3.12	3.74	

Half D1	Recording Quality Mode									
	Low (4 KB)		Fair (5 KB)		Mid (6 KB)		High (7 KB)		Best (8 KB)	
	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL
NTSC: 480PPS PAL: 400PPS										
500 GB Internal Storage										
With Audio	2.72	3.22	2.20	2.62	1.85	2.20	1.60	1.90	1.40	1.67
Without Audio	2.90	3.48	2.32	2.78	1.93	2.32	1.66	1.99	1.45	1.74
1 TB Internal Storage										
With Audio	5.48	6.49	4.44	5.27	3.73	4.44	3.34	3.83	2.83	3.37
Without Audio	5.84	7.01	4.67	5.61	3.90	4.67	3.22	4.01	2.92	3.51

CIF	Recording Quality Mode									
	Low (2 KB)		Fair (3 KB)		Mid (4 KB)		High (5 KB)		Best (6 KB)	
	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL	NTSC	PAL
NTSC: 480PPS PAL: 400PPS										
500 GB Internal Storage										
With Audio	5.12	6.00	3.55	4.19	2.72	3.22	2.20	2.62	1.85	2.20
Without Audio	5.80	6.96	3.87	4.64	2.90	3.48	2.32	2.78	1.93	2.32
1 TB Internal Storage										
With Audio	10.31	12.09	7.15	8.45	5.48	6.49	4.44	5.27	3.73	4.44
Without Audio	11.69	14.02	7.79	9.35	5.84	7.01	4.67	5.61	3.90	4.67

Appendix B: DVRPlayer

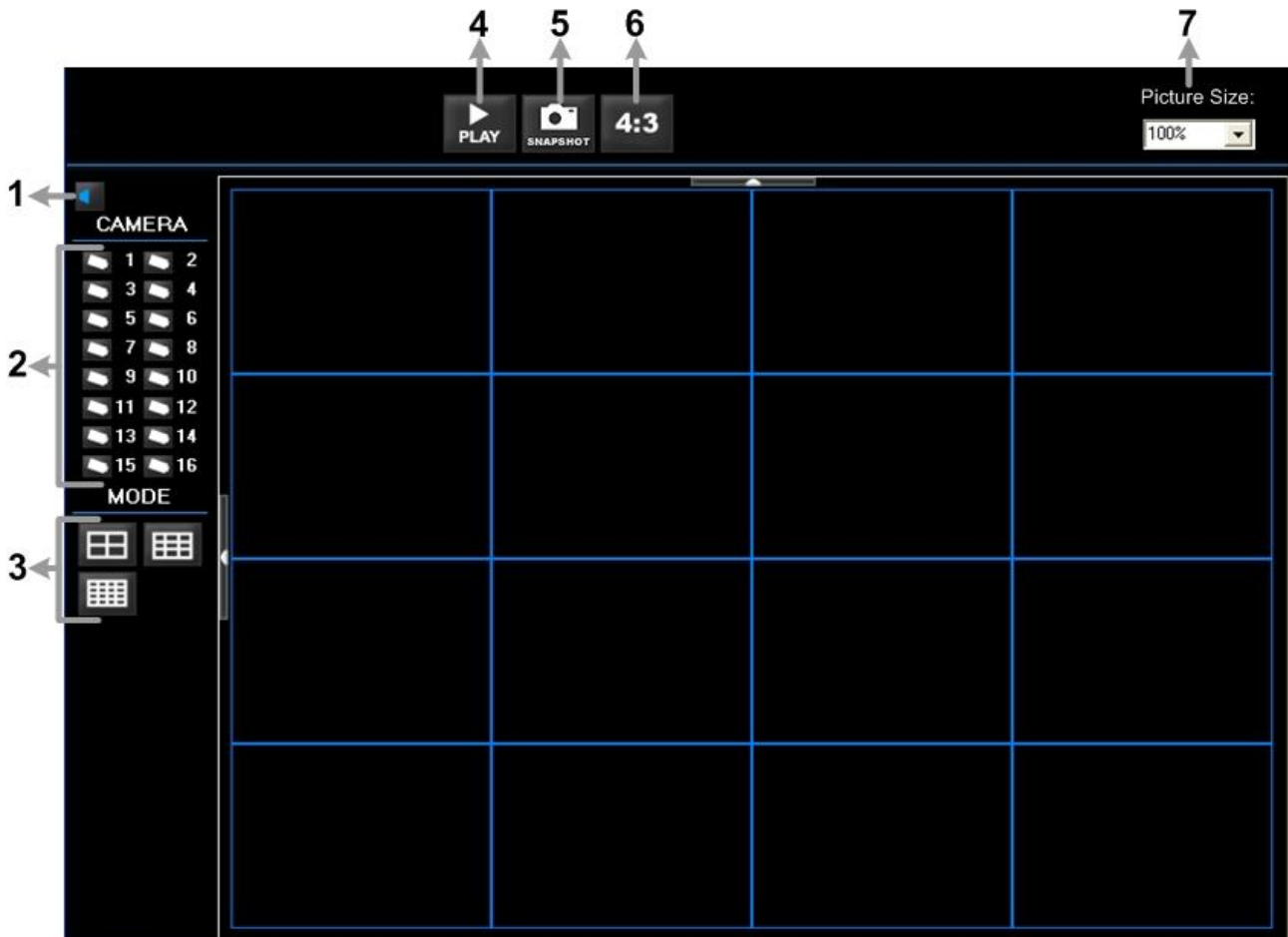
DVR**Player** is a software that enables users to playback the *.drv files recorded by the DVRs at a PC site.



NOTE: The DVR**Player** can ONLY accept and playback *.drv files.

First connect to the DVR via DVR**Remote**. Then download the DVR**Player**.zip file by clicking on the link provided on the DVR**Remote** main 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.

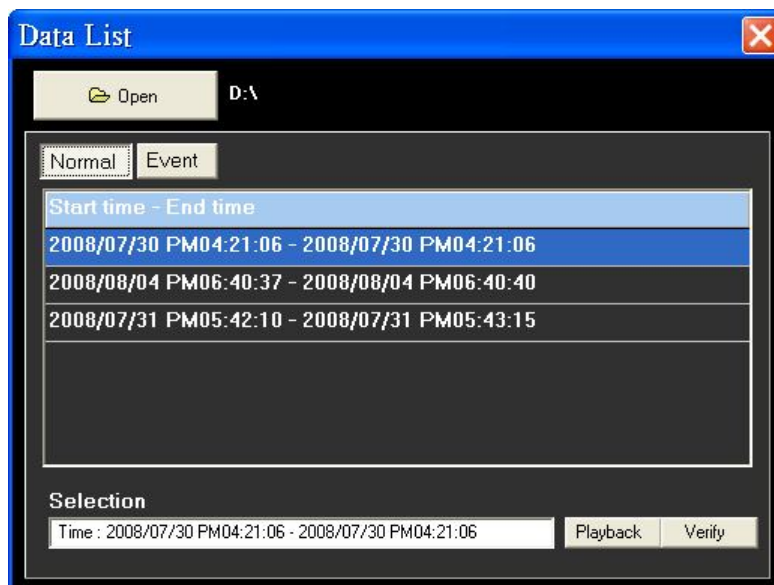


The functional items are:

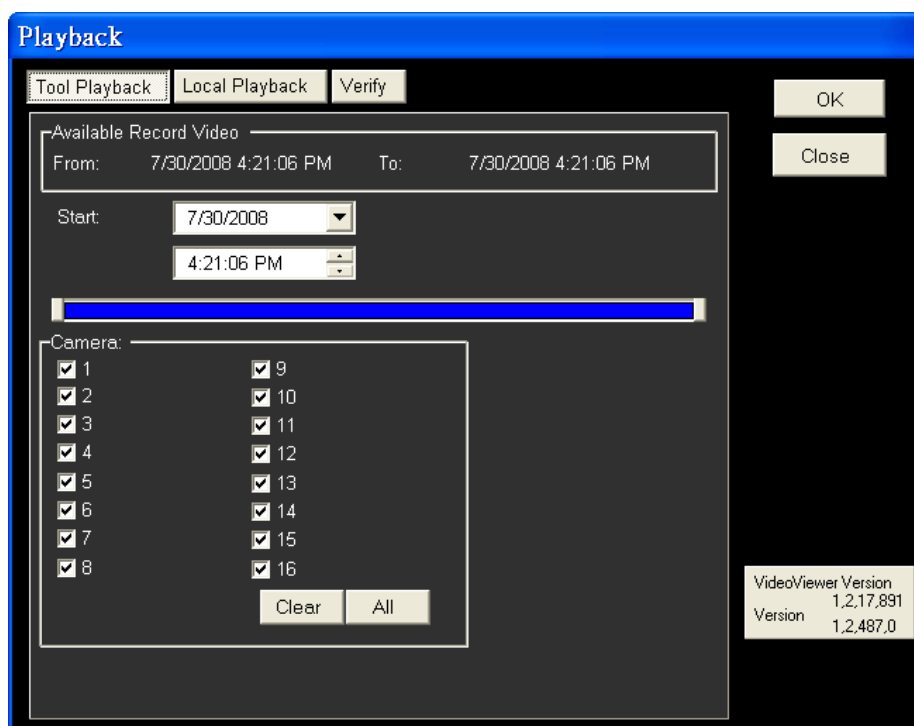
1	Audio On/Off	5	Capture Snapshot
2	Camera Selection	6	Change Viewing Aspect to 4:3
3	Mode Selection	7	Change Picture Size
4	Play Recorded *.drv Files		

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:



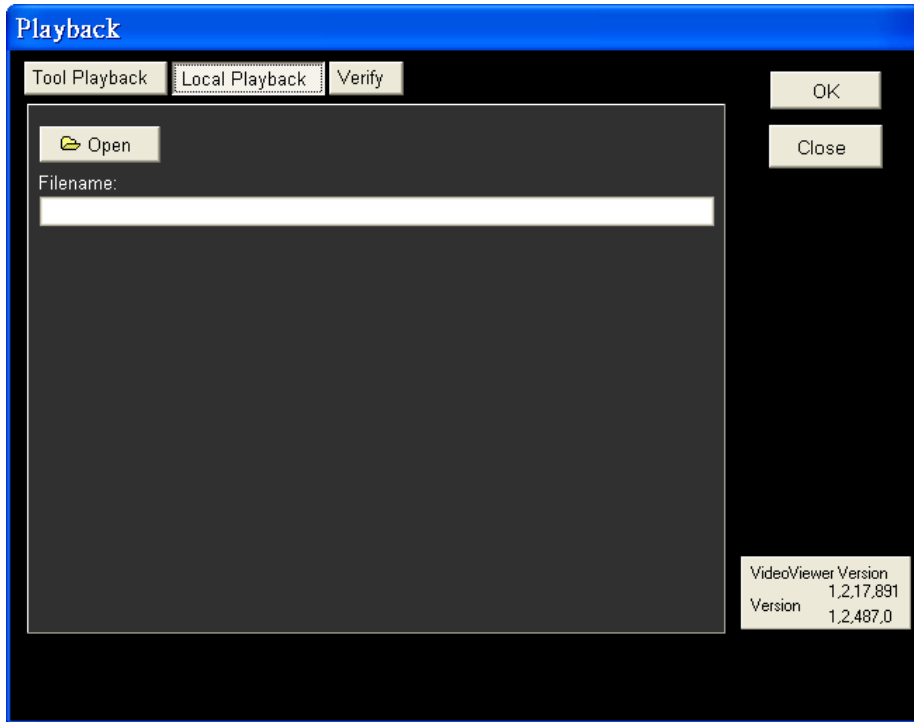
The “Data List” will show all recorded videos, “Normal” and “Event” separately, that are stored in the destination folder appeared at the top. Note that users can also click <Open> on the top to select a different folder which contains recorded videos. Select one from the list and click <Playback> at the bottom, then the “Playback” window will be shown as below:



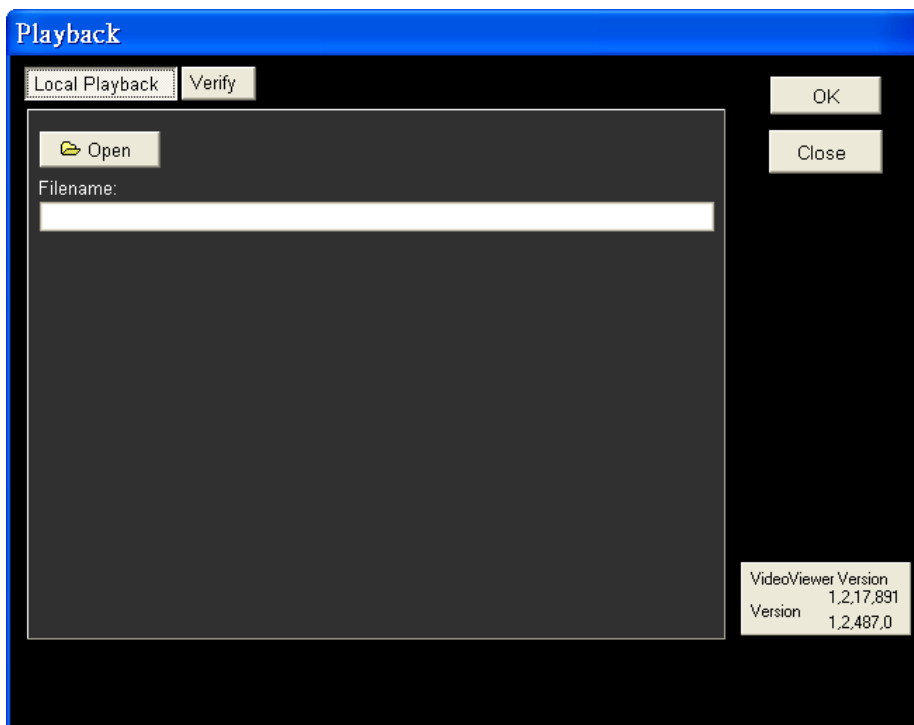
In the <Tool Playback> tab, users can set starting time and displaying cameras of the selected video. Then click <OK> on the upper right-hand corner of the window to start playback the video with selected starting time and displaying camera on the main window.

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.



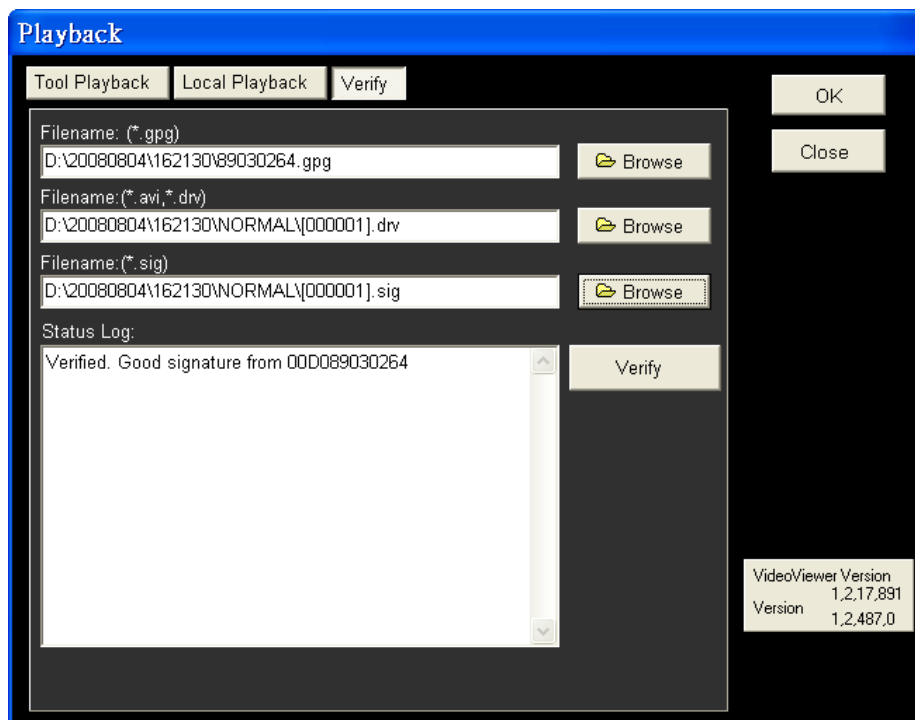
Note: If users click the close button at the top-right corner of the “Data List” window, the following “Playback” window with <Local Playback> tab and <Verify> tab only. The function of <Verify> tab will be described on the next page.



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.

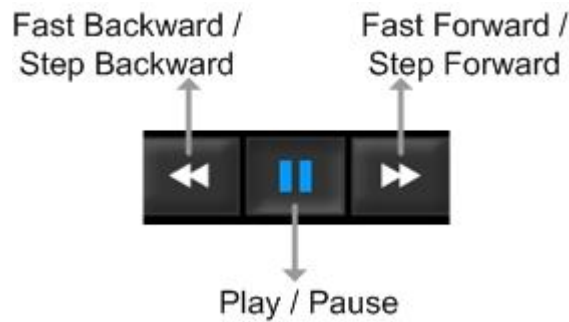
- Select any video from the Data List and click <Verify> at the bottom, then the “Playback” window will be displayed returning a GOOD or BAD signature result in the <Status Log> field. A GOOD signature indicates the exported clip has not been altered, whereas a BAD signature means the video might be changed at some point.



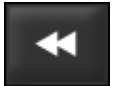



- Alternatively, click <Browse> to select the *.pgg, *.drv (or *.avi), *.sig files, which belong to the video to be authenticated, respectively. After all files are selected, click <Verify> button to start verifying digital signature.

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.

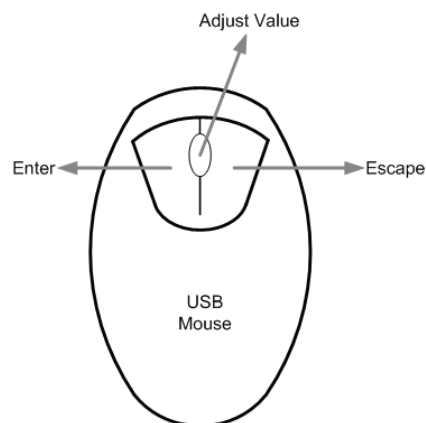
ICON	BUTTON	DESCRIPTION
	Fast Backward / Step Backward	<ol style="list-style-type: none"> 1. Click to playback the video backward. Click repeatedly to select the desired playback speed from 1X, 2X, 4X, 8X, 16X and 32X. 2. When the playback is paused, click once to move one step backward.
	Play	Click 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	<ol style="list-style-type: none"> 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 C: USB Mouse Operation

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 right side of the screen and a Live Panel will be displayed. The icons on the Live Panel are the same as the functional keys on the front panel of the DVR.

Clicking the left button functions the same as pressing the “ENTER” key. Clicking the right button functions the same as pressing the “ESC” key. 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.

Special Operations

There are two special operations provided when an USB mouse is connected. One is camera title alignment and the other is motion detection area setup.

Camera Title Alignment

Users are allowed to change the display position of camera titles of all channels. To change the camera title position of any single channel, left click on the camera title and drag to any preferred position. If users want to set all of the camera titles to the same position that is set for a specific channel, right click on the specific camera title and select <Align Here> from the pull-down menu. Users can also change the monitor type as BNC or VGA. The other options allow users to quickly set all camera titles to the preset positions at once.

Motion Detection Area Setup

When users are setting the motion detection area, an USB mouse can help to speedily complete the setup. Enter the OSD setup menu and go to the following path: <Main Menu> → <Event Setup> → <Per Channel Config> → <Detection Config> → <Detected Area Setup>. The screen is split into 16x12 grids, where the grids can be selected or deselected as motion detection area.

Left click once on any grid to select or deselect the specific grid. Moreover, left click and drag to choose multiple grids, then a pull-down menu will be displayed when the mouse button is released. Choose <BLOCK SELECT> to set the grids as motion detection area, or choose <BLOCK DESELECT> to deactivate the grids. Otherwise, choose <CANCEL> to do nothing.

Right clicking the USB mouse will display a different pull-down menu, which includes: <Select All>, <Deselect All>, and <Confirm>. Choose <Select All> to set all grids as motion detection area, or choose <Deselect All> deactivate all grids. When the setup is completed, choose <Confirm> to save the setting and return to the previous page.

Appendix D: 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 will introduce how to download, install, and setup EXT2IFS and the DVR's HDD.



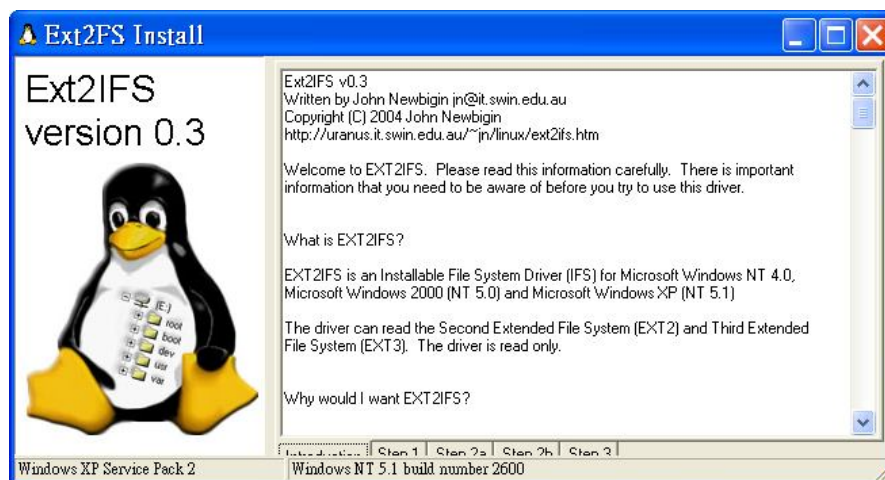
NOTE: This driver is also compatible for HDDs with EXT3 file system.

Installation of the DVR's HDD

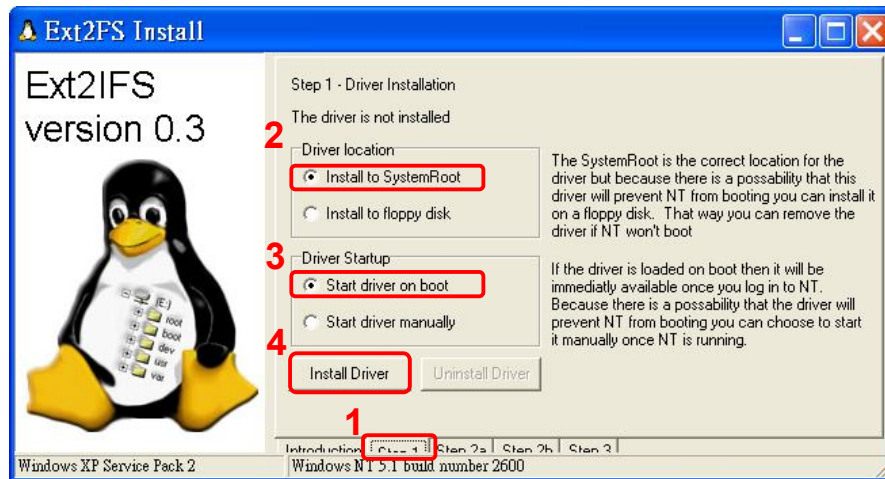
EXT2IFS can be found on the website: <http://uranus.it.swin.edu.au/~jn/linux/ext2ifs.htm>. A detailed description about the driver can also be found. Plug in the DVR's HDD to the PC, then follow the steps below.

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

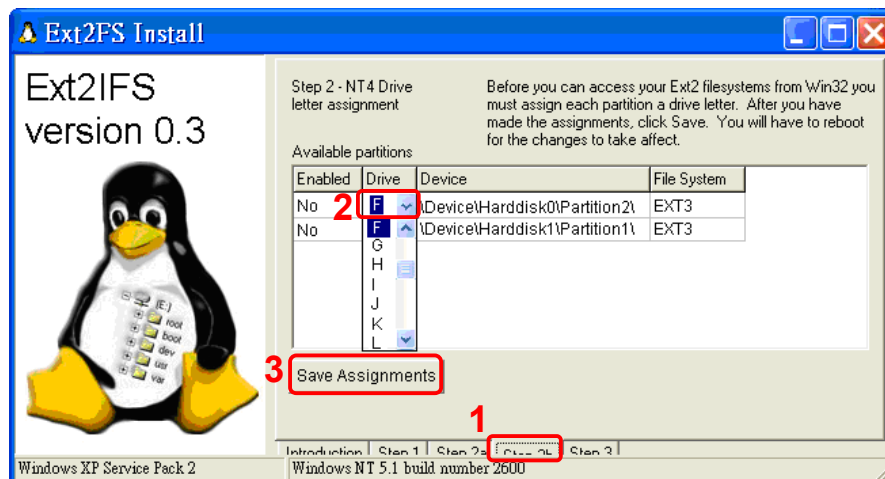
Step 2. Extract the EXT2IFS driver that was just downloaded. Open the extracted folder and double click on "service.exe", and the window below will be displayed.



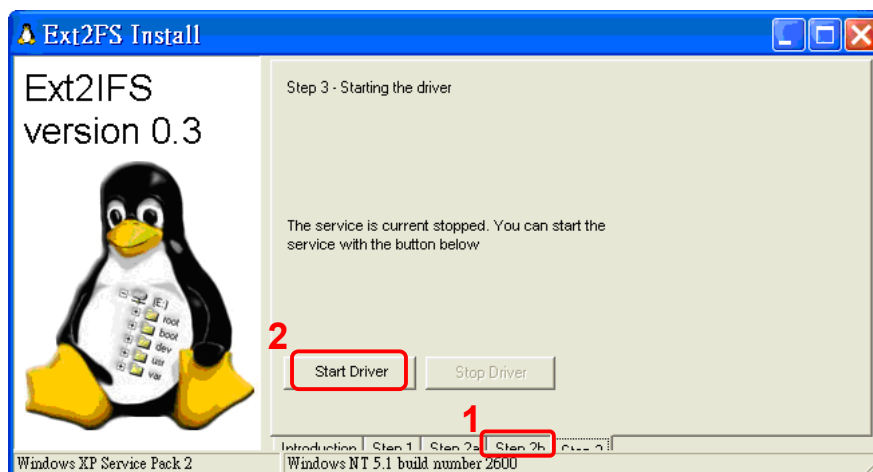
Step 3. Click <Step 1>, then choose <Install to SystemRoot> and <Start driver on boot> options, as shown below. Then, click <Install Driver> button.



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 DVRPlayer. Refer to **Appendix B: DVRPlayer** for detail instruction about the operation of the DVRPlayer.

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.

