

Internet Digital Video Recording System



Users Manual and Installation Guide

All information contained in this manual is subject to change

Varieon. Co. Ltd
<http://www.varieon.com>

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Safety Information for installation and Operation

- Do not disassemble this product.
- Avoid direct sunlight or placement in a high temperature environment.
- Do not place the Varieon DVR near magnetized or electrical appliances.
- Avoid installation in places exposed to high temperatures, dust or moisture.
- No moisture is allowed into the grooves that are designed for ventilation.
- Secure large enough space for system electrical wiring.
- Adequate ventilation is required.
- Do not place heavy objects on the system itself.

Support Information & Service Location

- Support information
Service Inquiry: Contact your local sales representative
Technical support (Regarding Back-up, software problem): Contact to Varieon. Co., Ltd.
- Contact Information
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1. INTRODUCTION

Varieon's DVR is the leading edge security solution system, which integrates standard CCTV equipment, and digital components to offer an all digital solution.

The extensive features of the equipment hardware are as follows:

- Greatly enhancing the capabilities of normal surveillance equipment such as CCTV/VTR.
- Offers many advantages traditional tape-based time-lapse VCRs can not. Semi-permanent to store information without the use of tapes.
- Easy to use as an exclusive Linux based system.
- Easy to install and inexpensive to maintain.

The features of the software are as follows:

System:

Embedded Linux based system

Graphical User Interface:

Multi-language support (Korean, English, Japanese, Spanish, Chinese, German)

User selectable screen theme

User selectable fonts (Size, Style, Color)

User selectable viewing mode (1/4/9/10/16 channel and Full Screen)

Channel rotation with user definable intervals

User definable camera ID (Font size, style, color)

On screen keyboard

Motion detection indicator for recording

Screen lock

PTZ controller module pop-up

Panic alarm button

Camera:

User definable camera ID

Individual camera image control (Brightness, contrast, color, tint)

User selectable individual camera resolution setting

Hidden camera function (Specific camera image can be hidden from the screen)

User selectable PTZ protocols and target address

Supports NTSC, PAL, SECAM

Recording:

MPEG-4 Codec for live recording.

Up to 16 channel simultaneous video/audio recording

Scheduled recording

Pre/Post alarm recording definable up to 600 seconds

User definable record quality (Bit-rate, key-frame gap, frames per second)

Time/Date stamp on image

Forced recording capable

Search:

Simultaneous multiple channel search capable

Search by specific date, time or event

Variable speed review

Individual frames

10 sec increments

1 minute increments

1.0 INTRODUCTION (continued)

- Review, print or archive images to CD, USB flash memory device, or floppy
- User selectable image ratio (4:3, 16:9)
 - Digital zoom in/out capable
- Search and review by event

Network:

- Transmit streaming video/audio via TCP/UDP
- User selectable transmit quality per client
- Limit number of concurrently connected clients
- User definable port number
- Identify and view connected clients
- User selectable port number for the web client
- User selectable forced web address
- File and data sharing in a Windows network environment

User configuration:

- Multi-level user access control
- Selectable function permission by user-level (Camera selection, streaming control, device configuration)
- Ability to limit access of data/device by user-level
- Ability to limit access to system resources by user-level (network files, modems, etc...)
- Individual login setup

Event/Handler System:

- Event:
 - User selectable event mapping
 - Motion detection for each camera
 - Sensor/Alarm input/output up to 16 sensor input and up to 16 alarm output
 - Hard disk status report
 - Camera signal status report
 - Automatic detection/notification of IP change
- Handler:
 - Select which event, and which cameras record per alarm.
 - Selectable output (DOUT)
 - Warning message and siren
 - Automatic e-mailing

Motion Detection:

- Motion detection for each camera
- Sensitivity and noise control function
- Auto noise filter calculation
- Multiple motion detection areas selectable
- Select whether to trigger recording with motion or not motion
- Preview motion detection selection area
- Schedule recording with motion detection

Sensor:

- User definable sensor ID
- Supports N/C or N/O sensors
- User selectable sensor monitoring interval
- Scheduling of sensor monitoring capable
- Sensor status check function

Alarm:

- User definable alarm output ID

1.0 INTRODUCTION (continued)

- User programmable alarm length/interval/number of warnings
- Alarm status check function
- Panic button

Warning Message:

- User customizable warning message by event type
- Custom message font, size, and color
- Sound by event type

Hard Disk:

- IDE/SCSI auto detection
- Supports NFS sharing
- Assign channels to specific disks with limiting capability
- User selectable disk usage order

PTZ control function:

- Current support for 35 different PTZ protocols
- Control camera movement in 8 different directions
 - Auto-pan on/off
 - Focus far/near
 - Zoom in/out
 - Light on/off

Network Interface:

- Support for multiple network interface
- Supports DHCP, Fixed, ADSL
- DHCP server capable
- Router function
- Modem support

Miscellaneous:

- User programmable time, date and time zone
- Atomic clock server time synchronization
- Save/print/review system log
- Automatic plug and play for hardware
- Software and hardware watchdog available.
- Automatic reboot function
- USB Flash memory support
- Support for flash memory hard drive (Compact flash)

Remote Client:

- Multi-platform remote client support Windows, Pocket PC, Linux
- Single host or Multi-host, multiple camera support
- User selectable view type (1/4/9/16/64/100/256)
- User selectable network streaming quality
- Remote system control and configuration
- Remote search and review
- On-image display of camera ID, and status (i.e. bit-rate, fps, etc...)
- Remote capture and printing capable
- Remote triggering of alarm
- Simultaneous multi-channel image control
- User selectable image ratio (4:3, 16:9)
- Full screen mode
- Adjustable buffer size for incoming stream

2. Main Program

2.1. Main Screen Introduction

Main Screen Functions

-  Full screen button: Displays full screen of selected view.
-  1 channel (1X1) display layout: Displays only 1 channel.
-  4 channel (2X2) screen. Displays 4 total channels.
-  9 channel (3X3) screen. Displays 9 total channels
-  16 channel (4X4) screen. Displays 16 total channels.

Figure 2.1.a



2.1.1. Camera Select Panel

- CAMERA SELECT PANEL: Each rectangular indicator lamp, on the left side of the camera number, will show the camera status. (Red - recording, Green Motion detection, Yellow – Sensor detection)
- The user may select which cameras to view by clicking on the desired number.

Figure 2.1.1a



2.1.2. Power button

-  Turn off or restart the system

2.1.3. Pan/Tilt Sub-Control Panel



The Pan/Tilt control panel appears by pressing this button.

- ARROW: Arrow direction shows Pan/Tilt direction. Click arrow button in the desired direction.
- AUTO-PAN: Pan/Tilt moves from left to right automatically. Press [ON] button and the function will be enabled. Press [OFF], disabled. (Not available for all cameras)
- FOCUS: Controls the focus-in, focus-out action of the PTZ camera
- ZOOM: Controls the zoom-in, zoom-out action of the PTZ camera.
- LIGHT: Light of camera can be turned on or off, if so equipped. Press [ON] button and the function will be enabled. Press [OFF], disabled.

Figure 2.1.3a



2.1.4. Alarm Sub-Control Panel



The Alarm control panel appears by pressing this button.

- ALARM NUMBERS: Pressing on these buttons will trigger the alarm associated to this number.
- PRESET NUMBERS: Pressing on these buttons will trigger the selected camera to move to the presets configured in the PTZ configuration.

Figure 2.1.4a



2.1.5. IP address



Indicates the IP address of the DVR unit. It will not appear if network configuration is not set properly. If no network connection is detected then this will display as "http://255.255.255.255"

2.1.6. Date/Time



Displays the current Date/Time of the DVR system

2.1.7. Main Buttons

Main Button Overview

- RECORD: Start recording all the channels immediately regardless of any settings
- SEARCH: Open the search window
- ROTATE: Screen will cycle through all the cameras on the display
- LOCK: Hide current monitoring screen
- CONFIG: System configuration button

Figure 2.1.7a



2.2. Search Screen



2.2.1. **Screen split-view option** : Same as the main screen

2.2.2. **Camera selection** : Same as the main screen

2.2.3. Calendar

- Choose the date to search for data, by clicking on the date.

Figure 2.2.3a



2.2.4. Time/Minute/Second

Figure 2.2.4a

Time Overview



- The time shows 24 hour information for the selected date.
- Each color of the hour numbers indicates a certain status.
- Gray: Contains no data
- Red: Sections set to Video are displayed in Red.
- Blue: Sections set to Event are displayed in Blue.
- Blue letter on red background: Sections set to Video & Event are displayed in Blue and Red.
- Select a time frame with the mouse to see actual time (minute, second) information

2.2.5. Playback control

Playback Control Button Overview

-  Moves back 10 seconds
-  Moves back 1 minute
-  Moves back one frame
-  Play the video clip of selected cameras
Pressing repeatedly will play the video at respective speeds, while playing the video clip
Play speed changes as: 1 -> 2 -> 4 -> 8 -> 16 -> 1/4 -> 1/2 -> 3/4 -> 1 X
-  Moves forward 10 seconds
-  Moves forward 1 minute
-  Moves forward one frame
-  Pause the video clip
-  Exit searching window and return to the main window

Figure 2.2.5a



2.2.6. Other Buttons



Live View: During search, this button can be used to view the live images quickly.



EVENT LOG WINDOW:
This button will open the event log window. If there is any event data, it will appear here.
(See Figure 2.2.6a)



Clicking here will show the selected camera's image in the original screen format.



Displays the selected cameras as 4:3 screen format. (Standard NTSC TV Format)



Displays the selected cameras as 16:9 screen format. (Wide Screen Format)



These buttons can be used to zoom out or zoom in on the selected camera images.

Figure 2.2.6a

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Motion Detection	<input type="checkbox"/>															
Sensor (Digital Input)	<input type="checkbox"/>															
Alarm (Digital Output)	<input type="checkbox"/>															
Disk Failure	<input type="checkbox"/>															
Camera Signal Loss	<input type="checkbox"/>															
Phone	<input type="checkbox"/>															
Analog	<input type="checkbox"/>															

2.2.6. Other Buttons (continued)



These buttons enable the user to return the images to the original viewing size, or fit the images to screen size, respectively.



Press [SAVE] button and, the 'Save as' window will appear. This function will only save still images of the cameras being currently viewed. The images will be saved as 352 X 240 resolution. The two media formats supported for this feature is Floppy disk, and USB flash device.

Save Function Overview

- The file name will automatically be filled by default. The user may change this as desired.
- The file format can also be changed if so desired. The three selections are JPG, PNG, BMP
- Then the user must select the media type. Either floppy disk or USB Storage.
- The 'Enable Overwriting' feature allows the files on the media to automatically be overwritten if the same file name already exists.

Figure 2.2.6b

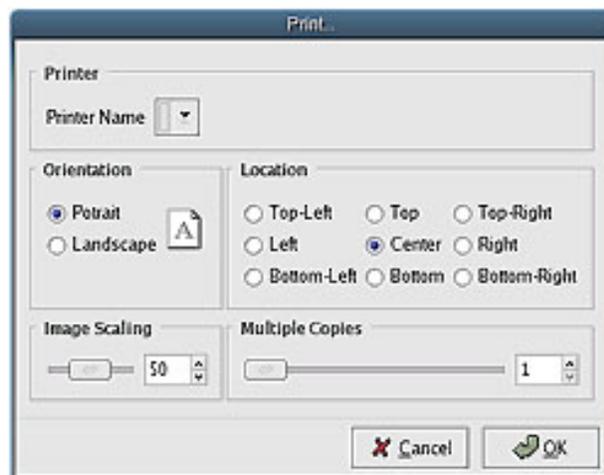


PRINT: The print wizard will appear and will prompt the user to select print settings.

Print Wizard Overview

- User can select different printers, if more than one printer is installed, under 'Printer Name'.
- The user will then need to select the desired format options.
- Once all this is complete the user will then click on the 'OK' button to print.

Figure 2.2.6c



2.2.7. Backup



Backup: This button will open a backup wizard for the user. The user can then proceed to backup video data to a CD or DVD, or USB device.

Backup Wizard Overview

- The user will begin by clicking on the add button.
- The next step will be to select the beginning time slot, and the desired camera inputs to be backed up. This is accomplished by clicking on the desired date and time on the search window, and then clicking on the set button of the wizard. **(See Figure 2.2.7b)**
- Then the end time will need to be selected. This is accomplished by clicking on the desired date and time on the search window, and then clicking on the set button of the wizard. **(See Figure 2.2.7b)**
- Once that is complete the wizard will show the user how much disk space is required.
- Then the user will have the option of selecting to which device the backup information is stored. **(See figure 2.2.7c)**
- Once that is complete, the user may select to add more time slots if so desired.
- When that is complete the user will then need to finish the wizard to burn or save the data.

Figure 2.2.7a



Figure 2.2.7b



3.0 Setup (Configure)

3.1. Setup Display

Display Setup Screen

- LANGUAGE: Choose the language from the drop-down list.
- The UI (user Interface) front can also be changed. **(See Figure 3.1.1a)**
- ENABLE SCREEN LOCK BUTTON: This is used on the main screen to lock out viewing capability.
- CAMERA TITLE: This location is used for camera labels. This enables the user to place the label in the desired position. Once again the font, color, and background color can be changed.
- LAMP DELAY TIME: User selectable interval for the camera indicator status on the main screen.
- TOOLTIP DELAY TIME: User selectable delay for the tooltip to pop up when the mouse is over a button.
- ENABLE TV-OUT OSD FUNTION: (Only available on 16/480 system)
- ENAVBLE DEINTERLACING FILTER:(Enabling this will smooth out motion if necessary)
- ENABLE ON-SCREEN KEYBOARD:

Figure 3.1a

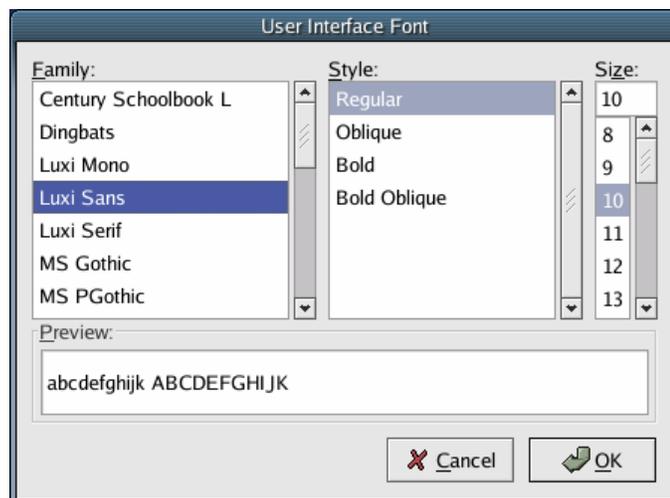


3.1.1. UI Font

User Interface Font

- User can select Font
- User can select Style
- User can select Size
- The preview window below will show how the selected font will appear.

Figure 3.1.1a

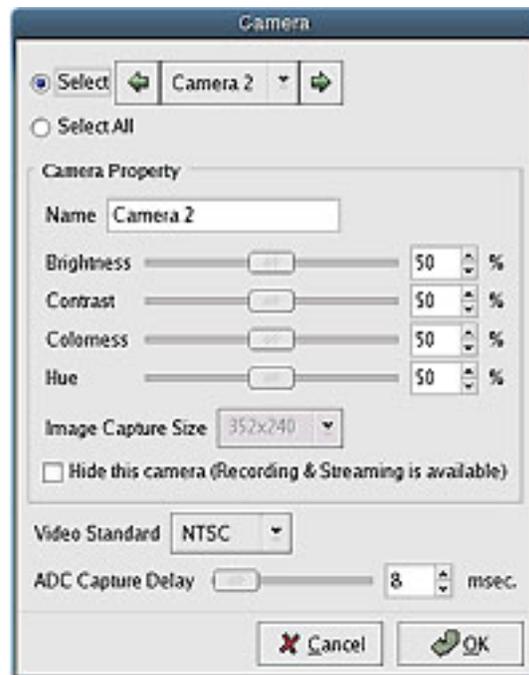


3.2. Camera

Camera Setup Screen

- CAMERA SELECTION: Choose camera to setup, user may also select to setup all cameras the same by selecting 'Select All'
- NAME: This is where the camera can be labeled. This label will display where the user selected the location back in the display setup. **(See Figure 3.1a)**
- CAMERA PROPERTY: The camera image can be adjusted if necessary using Brightness, Contrast, Color, Hue.
- HIDE THIS CAMERA: This option will black out the camera image on the main screen. If hidden, It will only appear when an administrator has logged on.
- VIDEO STANDARD: Choose the video standard. The supported standards are: PAL, NTSC SECAM.
- ADC CAPTURE DELAY: Set the time interval to read camera information.

Figure 3.2a



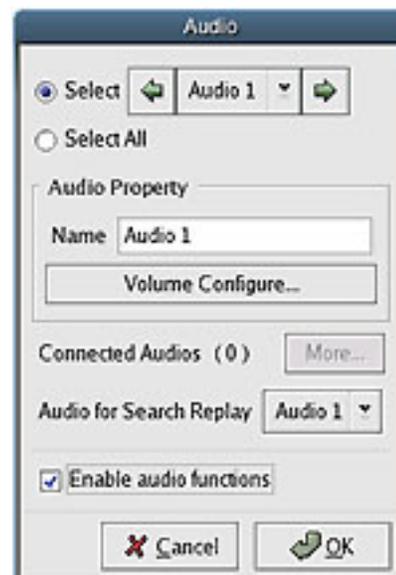
Note If the capture delay is set to short, the image might not appear properly.

3.3. Audio

Audio Window

- User can select which audio channel to setup. User can also select all channels at once.
- NAME: The name is set by default, but can be changed as desired.
- VOLUME CONFIGURATION: This will pop up another small window where the user can setup volume information.
- CONNECTED AUDIO: The system will show if any audio devices are attached.
- AUDIO FOR SEARCH OR REPLAY: Automatically will be the same as the channel name. These names will be available to associate with the camera channels.
- ENABLE AUDIO FUNCTIONS: This must be enabled before audio can be used or setup.

Figure 3.3a

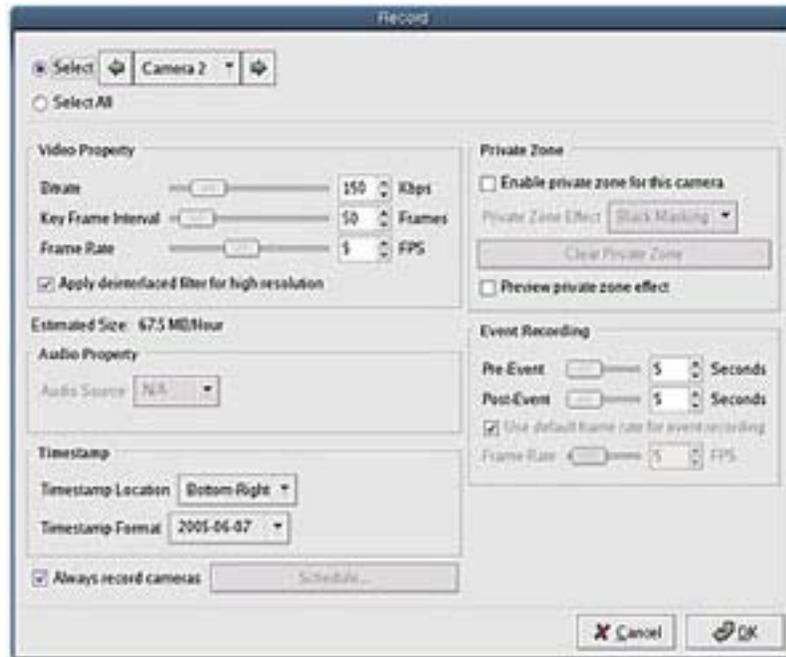


3.4. Record

Figure 3.4a

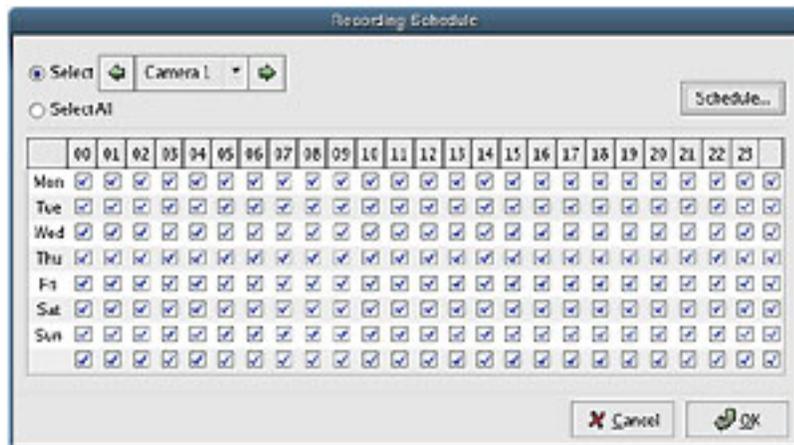
Record Settings

- CAMERA SELECTION: Choose camera to setup, user may also select to setup all cameras the same by selecting 'Select All'
- VIDEO PROPERTY: Here the user can change the Bit-rate, Key-frame, and Frame Rate. The bit-rate is the amount of data recorded per second. Generally the higher the number the better the picture. The key-frame is used by the system. If there is a lot of motion in a certain area, the lower number will allow for a better picture. The frame rate is the amount of frames recorded per second. The higher the number the more fluid the video, the lesser the number the more choppy the video will seem.
- APPLY DE-INTERLACE FILTER: This may allow for better viewing when using high resolution cameras.
- ESTIMATED SIZE: Shows the estimated disk space required for the selected video property settings.
- AUDIO PROPERTY: Select which audio channel to associate with the selected camera.
- TIMESTAMP: The user can select the timestamp location and the format.
- PRIVATE ZONE: If enabled for the selected camera, the user may select sections of the screen where the image will be un-viewable, and also not recorded. The user can select whether to use black or white or mosaic masking.
- CLEAR PRIVATE ZONE: This enables the user to reset the private zone.
- PREVIEW PRIVATE ZONE: Allows the user to see what kind of affect the masking will have before setting it.
- EVENT RECORDING: The default setting is 5 seconds for pre and post-event. This enables the system to retrieve and save the information before an event happens and after an event happens. The pre-event recording can allow the user to see 5 seconds before the event triggered. The post-event recording can allow the user to see video for 5 seconds after the event triggers. Frame rate can be changed also.
- ALWAYS RECORD CAMERAS: This can be set to enabled or on a schedule. If the schedule option is used, a separate window will appear where the user can select and make a schedule. Many different combinations are possible with the schedule option. For instance, the user can set the system to fully record all cameras for half a day, and then set the system to record only by motion detection at night where there is less activity. (See Figure 3.4b)



3.4. Record (Continued)

Figure 3.4b

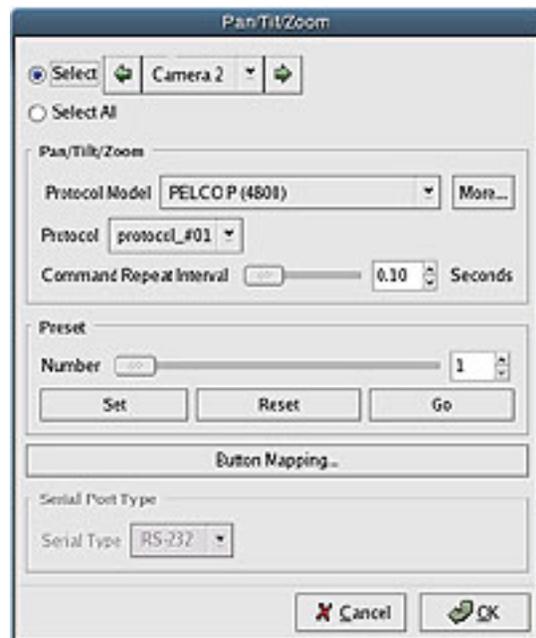


3.5. Pan/Tilt/Zoom

Figure 3.5a

Pan/Tilt/Zoom Overview

- CAMERA SELECTION: Choose camera to setup, user may also select to setup all cameras the same by selecting 'Select All'
- PROTOCOL MODEL: User may select the proper protocol for the camera.
- MORE: This opens a sub menu window. **(See Figure 3.5.1a)**
- PROTOCOL: User must select the address number to use for the selected camera.
- COMMAND REPEAT INTERVAL: This number controls how often the command is sent to the camera.
- PRESET: Any number of presets can be set by moving the camera to a position and then setting it.
- BUTTON MAPPING: The PTZ control panel's buttons, on the main screen, can be user programmed.



3.5.1. PTZ Sub Menu

Figure 3.5.1a

Pan Sub Menu Overview

- This menu can be used to modify a protocol and make a new one altogether. Creating a new protocol requires advanced knowledge of protocols. **(See Figure 3.5.2a)**



3.5.2. PTZ Commands

PTZ Commands Panel

- User must fill in all commands for the new protocol.
- Use this only if the proper protocol is not supported by the system.
- This control panel can also be used to edit a current protocol if necessary.

Figure 3.5.2a

The screenshot shows a window titled "Protocol Add/Modify" with a sub-header "STEP 2 - Pan/Tilt Commands". The window contains a table with columns for command names, command strings, Pre-Delay, and Post-Delay. The Pre-Delay and Post-Delay columns have spinners with up and down arrows. At the bottom of the window are three buttons: "Cancel", "Back", and "Forward".

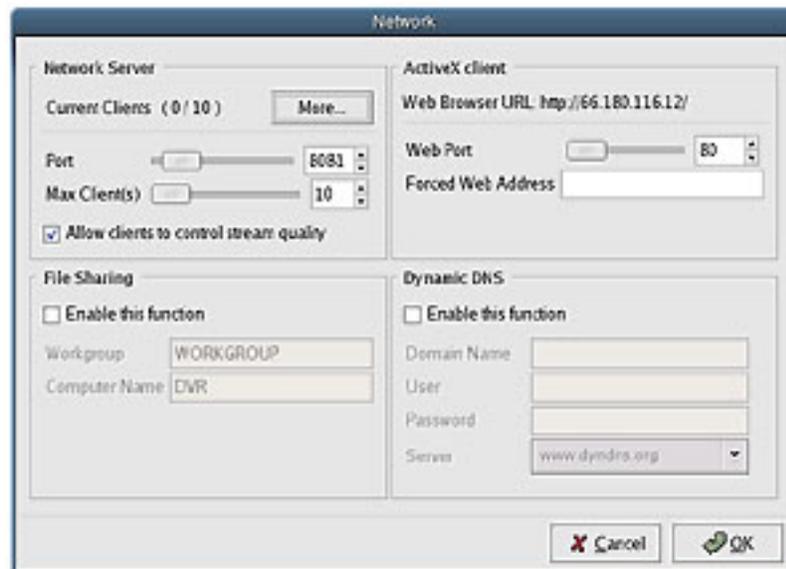
		Pre-Delay	Post-Delay
init		0	0
pan_left	01 8c 60 00 00 00 01 ed/01	0	0
pan_left_stop	01 80 30 00 00 00 01 b1	0	0
pan_right	01 8c 60 00 00 00 01 ed/01	0	0
pan_right_stop	01 80 30 00 00 00 01 b1	0	0
tilt_up	01 8c 60 00 00 00 01 ed/01	0	0
tilt_up_stop	01 80 30 00 00 00 01 b1	0	0
tilt_down	01 8c 60 00 00 00 01 ed/01	0	0
tilt_down_stop	01 80 30 00 00 00 01 b1	0	0
panit_left_up	01 8c 60 00 00 00 01 ed/01	0	0
panit_left_up_stop	01 80 30 00 00 00 01 b1	0	0
panit_left_down	01 8c 60 00 00 00 01 ed/01	0	0
panit_left_down_stop	01 80 30 00 00 00 01 b1	0	0
panit_right_up	01 8c 60 00 00 00 01 ed/01	0	0
panit_right_up_stop	01 80 30 00 00 00 01 b1	0	0
panit_right_down	01 8c 60 00 00 00 01 ed/01	0	0
panit_right_down_stop	01 80 30 00 00 00 01 b1	0	0

3.6. Network (Options)

Figure 3.6a

Network setup screen

- **CURRENT CLIENTS:** Shows how many clients are connected.
- **PORT:** Select which port is to be used when connecting through the client software.
- **MAX CLIENTS:** Limit the number of clients that can connect at any given time.
- **ALLOW CLIENTS TO CONTROL STREAM QUALITY:** This enables the remote clients to change the bit-rate and etc., when using the DVR Client software. This does not affect the DVR's settings. It only changes the stream output of the DVR.
- **FILE SHARING:** This function enables other computers to connect to the DVR's hard drive and share files. The system has integrated Samba, for seem-less connection to and from Windows based machines.
- **ACTIVE X CLIENT:** Shows the IP address of the DVR. This is the IP address the user must use in order to connect through Internet Explorer.
- **WEB PORT:** This is the port number that the Active-X client will use to connect to the DVR.
- **FORCED WEB ADDRESS:** Set web server name manually.
- **DYNAMIC DNS:** If enabled, this function will allow the DVR to automatically update the DYNDNS server with current IP information. This function is used when the DVR is connected to the internet with a dynamic IP address. Once registered with www.dyndns.org, the user can input the information and the DVR will automatically update the DNS server on a regular basis. This enables the user to remotely connect to the DVR without having to have a static IP address with their ISP.



3.7 User

User setup

- ACCOUNT: Shows the available account list. Create new account or remove.
- Type in the desired information.
 - User name:
 - Password:
 - Password Verify:
 - E-mail:
 - Description:The email address provided will be used to send warnings and other status updates.
- ROLE: Select which role the user will have. Clicking on 'More' will allow the user to create new roles or modify existing ones. **(See Figure 3.7.1a)**
- MODIFY: This button is used after making changes to username, password etc.
- ADD: This button is used to add users.
- NEW: This button is used to start a new user. Once all the information is complete, the 'Add' button needs to be clicked.
- REMOVE: This button is used to remove the selected user from the system.
- ENABLE USER AUTHENTICATION: This function is used to require the user to log in to the system before use and before changing configuration. Otherwise the system will be locked out.

Figure 3.7a

The screenshot shows a 'User' dialog box with the following fields and controls:

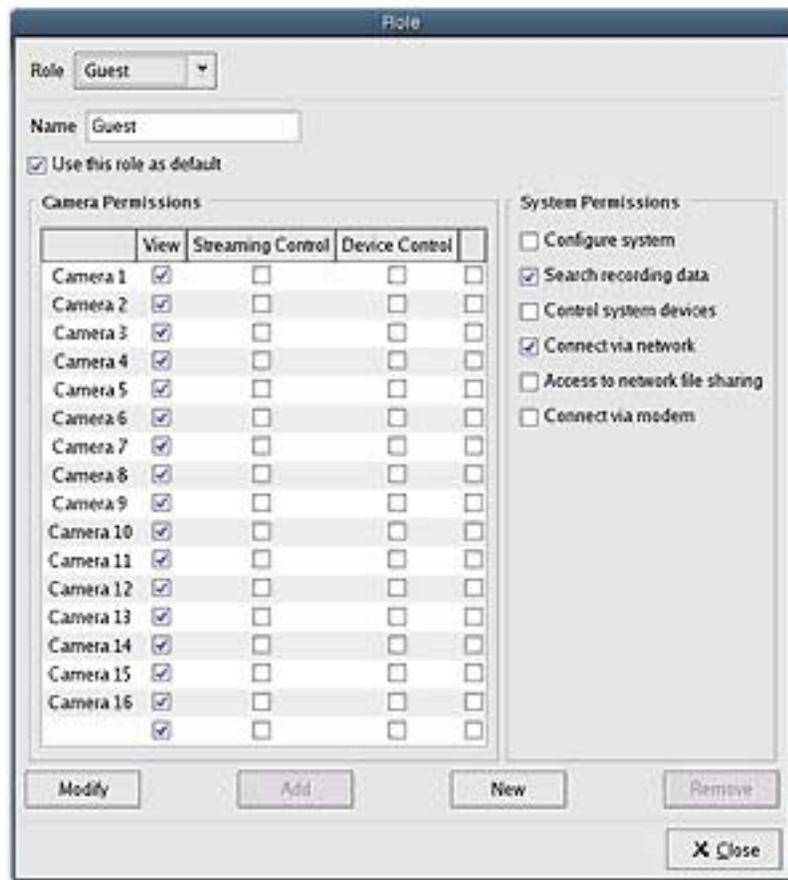
- Account:** A dropdown menu currently set to 'admin (Administrator)'.
- User:** A text input field containing 'admin'.
- Password:** An empty text input field.
- Password(Verify):** An empty text input field.
- E-Mail:** An empty text input field.
- Description:** A text input field containing 'Administrator'.
- Role:** A dropdown menu currently set to 'Administrator', with a 'More...' button to its right.
- Buttons:** A row of four buttons: 'Modify', 'Add', 'New', and 'Remove'.
- Checkbox:** An unchecked checkbox labeled 'Enable user authentication (login box)'.
- Footer:** 'Cancel' and 'OK' buttons.

3.7.1. Role Panel

Figure 3.7.1a

Role Configuration

- **ROLE:** Select role to modify.
- **NAME:** If creating a new role then this section is used to name the new role.
- **USE THIS ROLE AS DEFAULT:** This selection is used to make the current role the default applied to all new users.
- **CAMERA PERMISSIONS:** This section is used to allow the selected role to have access to certain functions.
- **MODIFY:** This button is only used to modify an existing role, once changes have been made.
- **ADD:** This button is used once a new role is setup and complete.
- **NEW:** This button is used to create a new role and clear out all settings. Once settings are set, the 'Add' button must be clicked in order for the role to be added to the system.
- **REMOVE:** This button is used to remove the selected role from the system.
- **SYSTEM PERMISSIONS:** This section is used to allow the selected role to have access to certain system functions.



Configure System: If checked, then the system will allow the selected role to make configuration changes.

Search Recording Data: If checked, the system will allow the selected role to search recorded data.

Control System Devices: If checked, the system will allow the selected role to control system devices. For example, alarms, sensor inputs etc.

Access to Network File Sharing: If checked, the system will allow the selected role to connect to the system hard drive through the network. The system hard drive will appear like any other network file system within the network.

Connect Via Modem: If checked, the system will allow the selected role to connect to the system through the use of the installed modem. (Optional modem expansion must be installed)

3.8 Event Configuration

3.8.1. Motion Detection

Motion detection setup

- CAMERA SELECTION: Choose camera to setup, user may also select to setup all cameras the same by selecting 'Select All'
- ENABLE MOTION DETECTION FOR THIS CAMERA: Enables, or disables the motion detection feature for the selected camera.
- SENSITIVITY: This setting affects how sensitive the system will detect pixel changes and movement.
- NOISE: This setting allows a certain amount of noise before motion is detected. For example: Fluorescent light flicker.
- CALCULATE NOISE: This feature will allow the system to automatically set the noise level.
- RESET MOTION DETECTION AREA: This button will clear the selected motion detection area on the screen.

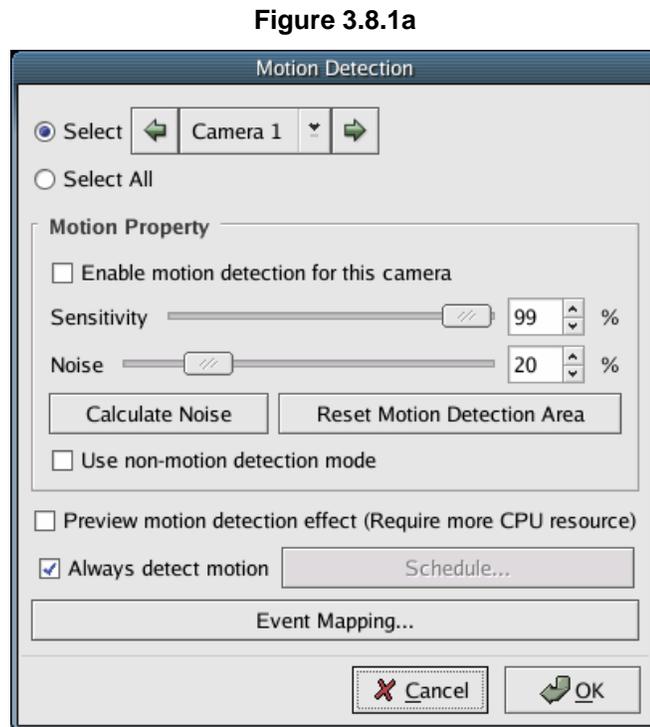


Figure 3.8.1a

- Motion detection sections can be added infinitely. There is not a limit to how many sections a camera can have. By default the whole camera picture is set as one section, If it is necessary to only use certain parts of the picture as motion then the user may just click and drag on the screen where desired. (See Figure 3.8.1b)
- PREVIEW MOTION DETECTION EFFECT: This function will show the areas set to motion detection, and whether or not there is current motion detected in those areas.
 - UUSE NON-MOTION DETECTION MODE: This is exactly opposite of the motion detection mode. This will trigger the system to start recording if there is no motion in the selected areas. This can be used for instance in a factory with robotic machines. If the machines fail and stop moving then the system will trigger non-motion and start recording or can trigger an event.
 - ALWAYS DETECT MOTION: If this is enabled then the selected camera will always record according to the motion detection setting. A schedule can be set also. (See Figure 3.4b)

Figure 3.8.1b

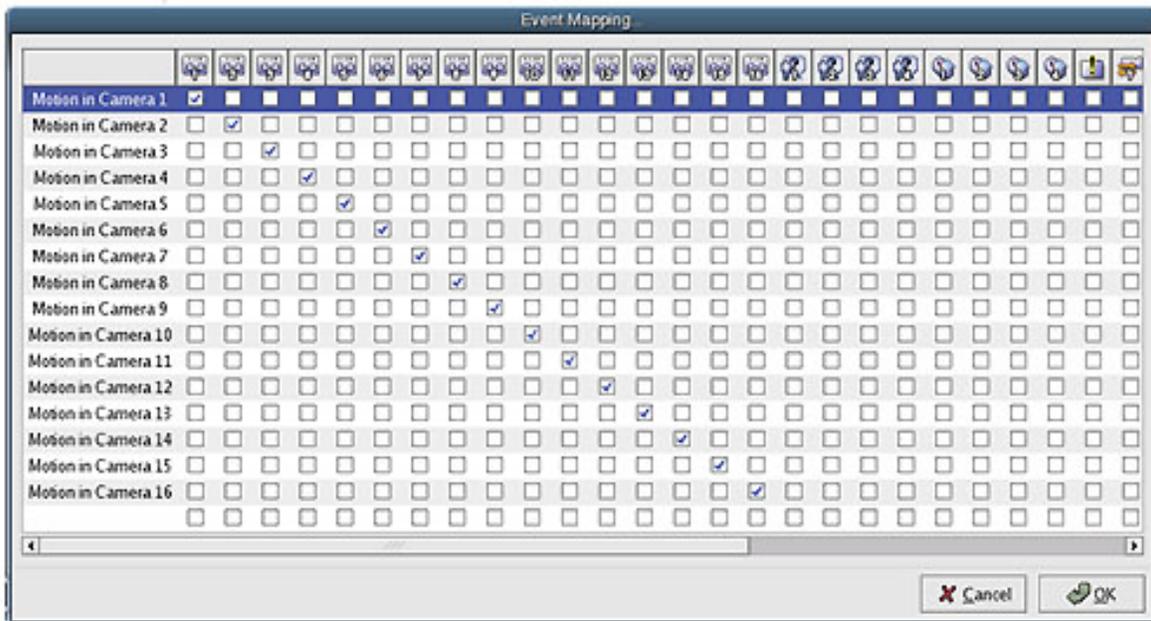


3.8.1. Event Mapping (continued)

Event Mapping Configuration

- Using the motion detection settings, when the selected area detects motion or non-motion, the system can be triggered to execute an event. An event can be anything from recording, alarm outputs, warning messages etc. **(See Figure 3.8.1c)**
- Using the check boxes, will associate the corresponding cameras, or events.
- Available cameras are displayed on the left side and system action to be performed is on top.

Figure 3.8.1c



RECORD ICON: Records images of chosen camera. Click this option to enable or disable the camera's recording function.



ALARM ICON: Invokes alarm



WARNING WINDOW: Invokes warning message



SNMP: Can interface with an SNMP server to send an message.

3.8.2. Sensor (Digital Input)

Sensor setup

- SENSOR SELECTION: Choose sensor to setup, user may also select to setup all at the same time by selecting 'Select All'
- NAME: Input desired name
- SENSOR TYPE: There are two options here. N/C and N/O (normally closed, and normally open)
- SENSOR CHECK INTERVAL: The interval at which the system will go through and check the status of the sensor.
- ALWAYS CHECK SIGNALS: User may define when to check the sensors or schedule a time to check the status.
- EVENT MAPPING: Again when the sensor is triggered, the system can perform other actions. (Refer to Figure 3.8.1c)

Figure 3.8.2a

Note Sensor and Alarm features are only available if the system is equipped with the optional Alarm/Sensor daughter card.

3.8.3. Alarm (Digital Output)

Output Setup

- ALARM SELECTION: Choose alarm to setup, user may also select to setup all at the same time by selecting 'Select All'
- NAME: Input desired name
- ALARM DURATION: Once triggered, the duration of the output can be set.
- ALARM INTERVAL: This is the time between repeat signals.
- ALARM COUNT: This function sets how many times the alarm is repeated once triggered.
- ALARM TEST: Using this function, the user can test and activate the selected alarm output.
- QUICK ALARM BUTTON: Programming of the alarm buttons on the main page is possible using this function. (SEE FIGURE 2.1.4A)

Figure 3.8.3a

Note Sensor and Alarm features are only available if the system is equipped with the optional Alarm/Sensor daughter card.

3.8.4. Warning Message

Figure 3.8.4a

Warning Message Configuration

- SELECT: Select the event to change the warning message for.
- MESSAGE: The warning message can be edited in the preview box.
- FONT & COLOR: The color and font can be changed as desired.
- SOUND: A sound can be associated to the warning message.
- Once an event is triggered, the associated warning message will appear on the main screen to notify the system operator, and also can send an e-mail to the address provided in the user setup.



3.8.5. Disk Failure

Figure 3.8.5a

Disk Failure Window

- Disk Failure event mapping can be used to trigger an event in case a disk fails.
- Event Window (See Figure 3.8.1c)



3.8.6. Camera Signal Loss

Figure 3.8.6a

Camera Signal Loss Window

- CAMERA SELECTION: Choose camera to setup, user may also select to setup all cameras the same by selecting 'Select All'
- DETECT SIGNAL LOSS FOR THIS CAMERA: Enabling this feature will allow the system to check for a valid signal from the camera.
- DURATION: If the camera signal is lost for more than this allotted time, then the system will trigger an event.
- EVENT MAPPING: (See Figure 3.8.1c)



3.8.7. Pan/Tilt/Zoom Link

Pan/Tilt/Zoom Link Window

- SELECT: Select the PTZ link that needs to be modified. Or all links can be modified at once.
- After the camera number, the selected action can be changed to what is desired.
- The number of times the action happens can also be changed.
- Any PTZ action is available to be used.
- This feature is useful in instances where one PTZ camera can be used to monitor different sections. This is useful in instances where multiple PTZ cameras are installed. So that when one camera moves from one area to another, a different camera can then be rotated into the area that the first camera no longer views.

Figure 3.8.7a



3.8.8. Analog Input

Analog Input Window

- SELECT: Select which analog input to configure.
- ANALOG PROPERTY: Adjust the values as necessary or as required by the device.
- USE ANALOG CARD'S DIO INTERFACE: The DIO interface can be used for analog input.

Note In order to use analog devices, the optional daughter card must be installed in the system. Not all devices supported.

Figure 3.8.8a

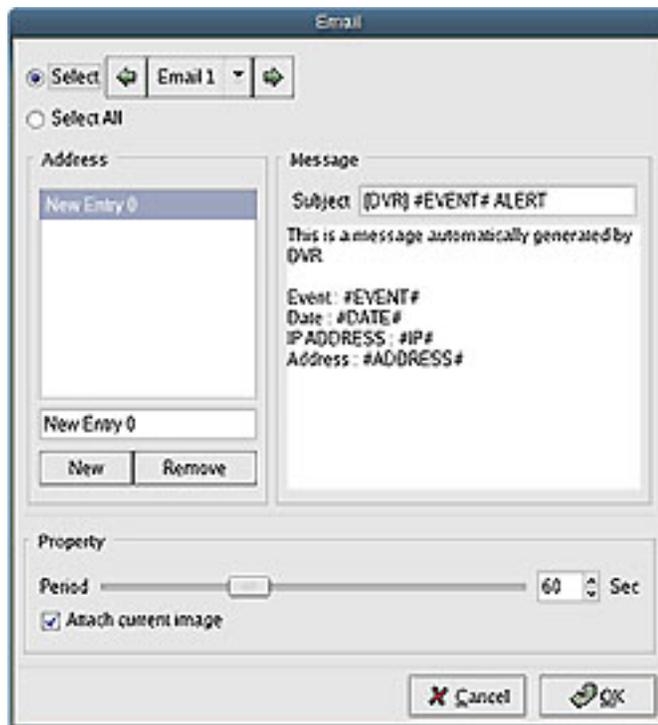


3.8.9. Email

Figure 3.8.9a

E-mail Message Settings

- SELECT: Select e-mail message to edit.
- NEW: This button is used when a new e-mail message needs to be created.
- REMOVE: This button is used to remove any existing messages.
- MESSAGE: The default message is already configured to send the DVR name, the event, and the alert through the e-mail. If other information is desired then it can be added here.
- PERIOD: This is the interval at which the e-mail is sent repeatedly.
- ATTACH CURRENT IMAGE: This will enable the system to send the current image, of the system, that triggered the event or alert.



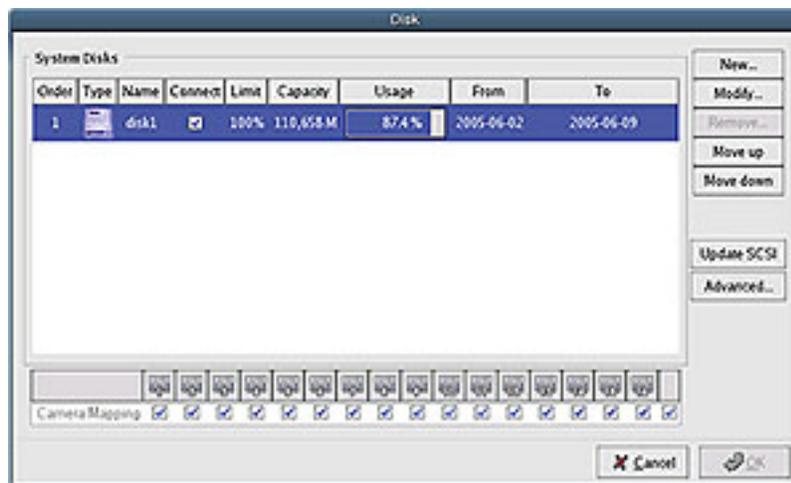
3.9 System Configuration

3.9.1. Disk

Figure 3.9.1a

Disk Setup

- SYSTEM DISKS: Shows the details of the selected disk(s).
- NEW: This is used to start the 'New Disk' wizard. The two types of disks that can be created are a Windows networked disk or a NFS disk. **(See Figure 3.9.1b)**
- MODIFY: This function is used to modify the properties of the selected disk.
- MOVE UP: Will move the selected disk up in priority order.
- MOVE DOWN: Will move the selected disk down in priority order.
- UPDATE SCSI: this function is used to update the SCSI information.



3.9.1. Disk (continued)

- ADVANCED: This function will open another pop-up window so that the user can change the host id information. Only expert network technicians should use this feature.

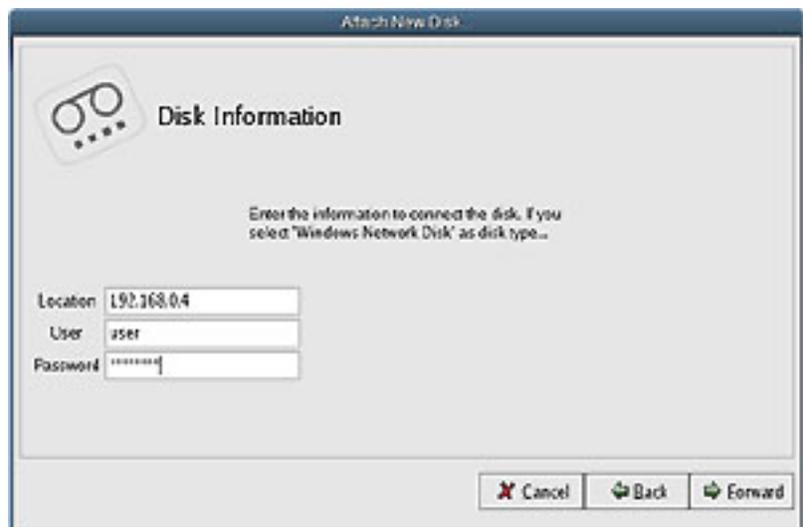
New Disk Setup

- DISK TYPE: Select which type of disk to create.
- LOCATION: User must input location information of the disk to be used. Usually the IP address and the directory name of the disk to be used.
- USER: To log into the network location, the user name and password information will need to be input.

Figure 3.9.1b



Figure 3.9.1c



3.9.1. Disk (continued)

New Disk Setup (continued)

- NAME: Select the name to be used to identify the disk.
- CONNECT THE DISK: Enabling this will allow the system to connect to this disk. If this is disabled then the system will not connect to this disk.
- CAPACITY LIMITATION: The user may select to limit the actual usage of the new disk. The units are by percent. If this is set to 50%, then only half the disk will be utilized for the use of the DVR.
- CAMERA MAPPING: This is where the individual cameras can be associated to this disk. For instance, it is possible to put 8 cameras on one disk and 8 on another.
- Once all the settings are complete, the user will then need to click on 'forward' and that will complete the setup. The setup procedure is the same for Windows network disk, and also NFS disk.

Note the system has Samba already integrated, to allow seem-less connections to Windows based machines.

Figure 3.9.1d



3.9.2. Serial Port

Serial Port Setup

- USE FRONTKEY FUNCTION: In order to use the Main Screen P/T/Z Controls, **Use frontkey function** must be checked. When frontkey Function is enabled, COM2 is not available because the front-key function requires its use.
- COM1: User selectable function for the serial port. The selections available are:
 - PTZ, Modem, SMS, Omron UPS, AIO BoardThe default 'PTZ' setting must be removed if using an onboard RS-485 output.
- COM2: User selectable functions for the serial port.
- ODCAP: Used for onboard RS-485 PTZ control.
- XECAP: Not currently available.

Figure 3.9.2a

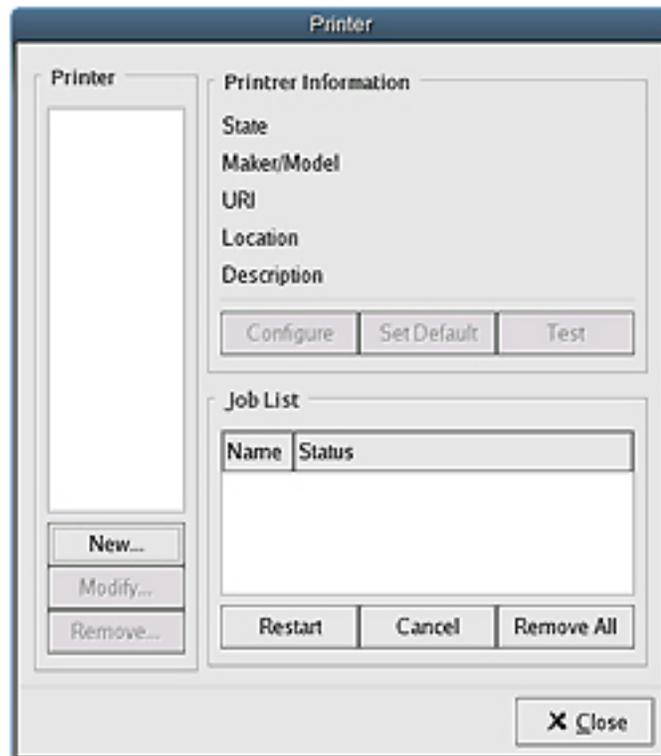


3.9.3. Printer Configuration

Printer Setup

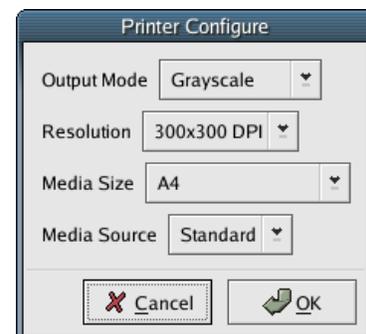
- NEW: This function is used to add a new printer. **(See Figure 3.9.3c)**
- MODIFY: This function is used to modify a selected printer.
- REMOVE: This function is used to remove a selected printer.
- CONFIGURE: This function is used to configure the selected printer. **(See Figure 3.9.3b)**
- RESTART: This function can be used to restart a print job if it fails.
- CANCEL: This function can be used to cancel a print job.
- REMOVE ALL: This function can be used to remove all print jobs.

Figure 3.9.3a



- OUTPUT MODE: This function can change the output to the printer. The options are:
Grayscale, Black & White, Color, Raw CMYK
- RESOLUTION: This function changes the resolution of the print out. The options are:
180 X 180, 360 X 360, 720 X 360 pixels
- MEDIA SOURCE: this function is used to select the media source. (Auto, or manual feed)
- MEDIA SIZE: This function is used to setup the size of media being used printing.

Figure 3.9.3b



3.9.3. Printer Configuration (continued)

New Printer Wizard

- Choose the connection of the printer to start the wizard.
 - The information necessary to install a local printer is: Manufacturer, Model, Connection type (USB or parallel).
 - The information necessary to install a network printer will include: Connection type (internet HTTP, apple socket, windows network printing through samba), Host name, shared printer name, username, and password)
-
- Network printer setup
 - AppleSocket/HP Jet Direct: When using apple computers or Jet Direct from HP
 - Internet Printing Protocol (HTTP): When using the Web Protocol
 - Internet Printing Protocol (IPP): When using IPP Protocol
 - Windows Printer via SAMBA: When using printer sharing on Windows
-
- Choose the make and model of printer and select proceed.
 - Once through the wizard click on 'OK' and the configuration will be complete
 - If there needs to be another printer added then repeat the whole process.

Figure 3.9.3c

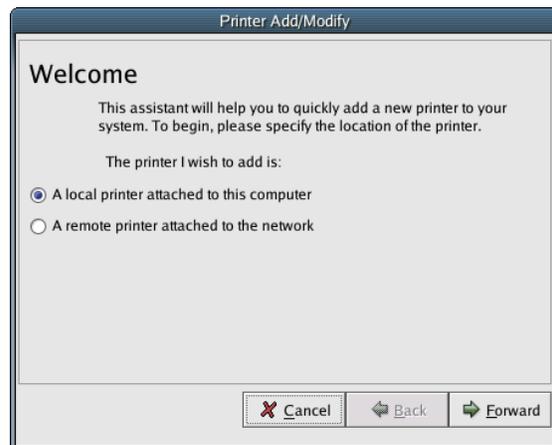
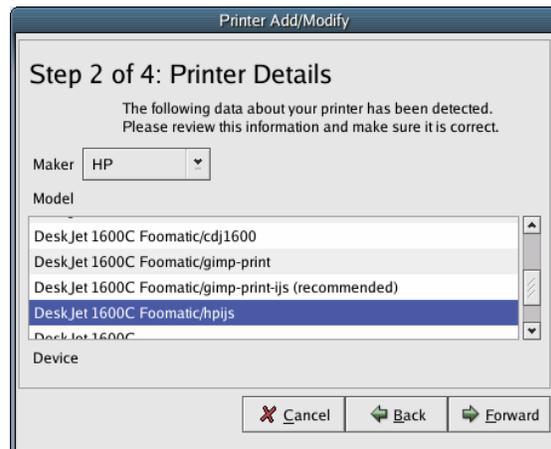


Figure 3.9.3d

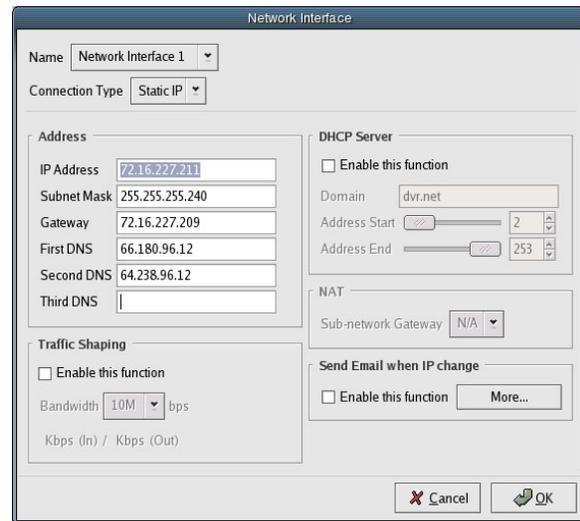


3.9.4. Network information

System network configuration

- NAME: This function is used to select which network connection is configured, if more than one exists.
- CONNECTION TYPE: This function is used to select the network connection type. Options available: DHCP, ADSL, STATIC
- If DHCP is selected then the 'Address' section will automatically be filled by the network DHCP server. (This feature is similar to the "Obtain IP address automatically" in Windows.
- If ADSL is selected then the user must input the username and password for the PPOE connection.
- If STATIC is selected then all the information in the 'Address' portion must be filled in manually.
- DHCP SERVER: This function allows the system to become a DHCP server. Use of this function is usually not necessary unless the system's integrated router function is used. This function to be configured by network technician only.
- NAT: This is another router function. This function is to be configured by network technician only.
- TRAFFIC SHAPING: This function can allow the user to limit the amount of bandwidth that the unit will use on the local network. This can be helpful if the network has limited bandwidth.
- SEND EMAIL WHEN THE IP CHANGES: This function can act almost like a DDNS server. If the unit is setup to use 'DHCP', and the IP address changes periodically, this function will email the new IP address to the specified email address.

Figure 3.9.4a



3.9.5. Modem

Modem Configuration

- MODEM LIST: Select the modem to be used from this list.
- DVR IP: This is the IP address that will need to be used when connecting through the DVR Client software.
- CLIENT IP: This is the IP address that will be assigned to the client that calls through the modem.

Figure 3.9.5a



3.9.6. Time & Date

Time and Date Configuration

- User can select desired time and date according to the location.
- **SELECT TIME ZONE:** Select the region of the location desired (**See Figure 3.9.6b**)
- **SYNCHRONIZE CLOCK WITH INTERNET SERVER:** This allows the system to sync with an available timer server for accurate time.

Figure 3.9.6a

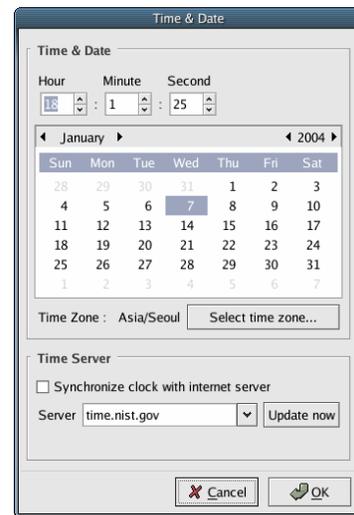
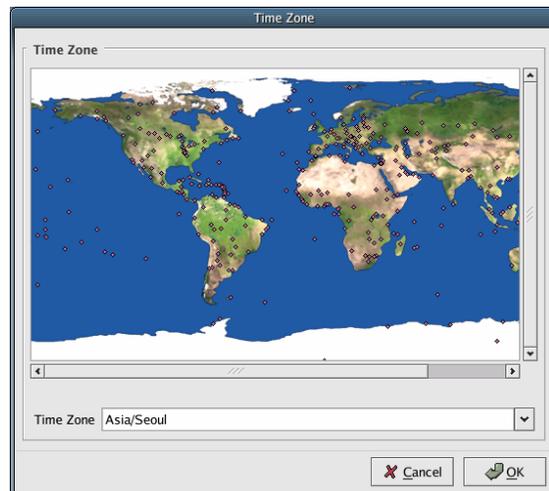


Figure 3.9.6b

- Shows the current selected time zone. The time zone can be changed by clicking on the map or using the pull-down menu.

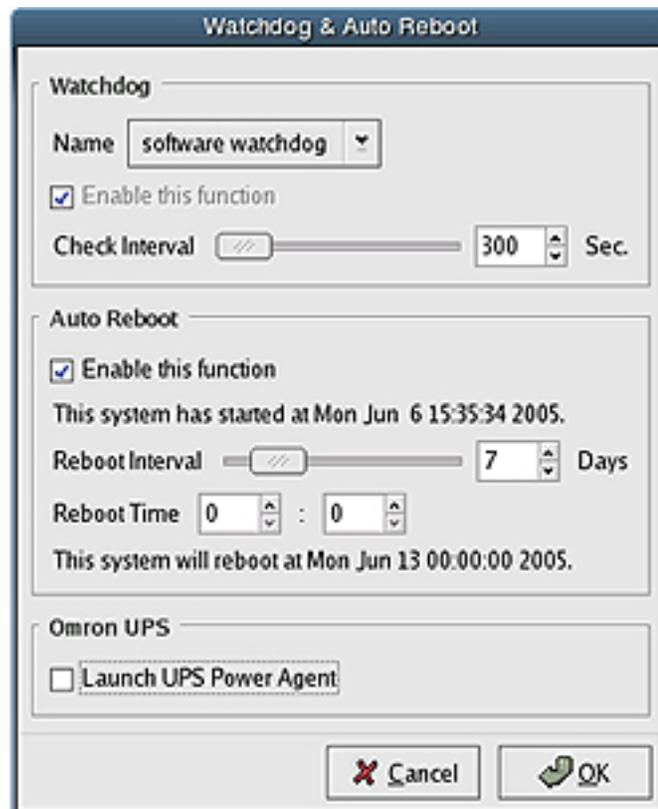


3.9.7. Watchdog & Auto Reboot

Watchdog & Auto Reboot Configuration

- NAME: Select which watchdog feature to configure. (Software, and Hardware)
- ENABLE THIS FUNCTION: This enables/disables the watchdog feature.
- CHECK INTERVAL: This is the interval in which the system will check all its functions to make sure everything is working properly. If anything is found to not meet requirements, then the system will automatically reboot.
- AUTO REBOOT: This can be enabled to reboot the system at a pre-determined time to enhance system stability.
- REBOOT INTERVAL: Set the interval of days to reboot.
- REBOOT TIME: Set the time of day for the system should reboot.
- OMRON UPS POWER: This function can be used to configure the UPS settings. (Backup Power)

Figure 3.9.7a



Note Not all systems can utilize the Hardware watchdog feature. All systems do have the capability to use the software watchdog feature.

4.0 Remote Client Software

Installation procedure for Windows based PC

- First obtain the installation CD that is provided with the unit.
- Insert CD into CD-Rom of the computer where the client software will be installed.
- Browse into CD into the directory 'clients'
- Under this directory there should be a file named 'dvrclient-windows-xxxxxxx.exe'
- Double click on this file and follow the instructions to install the software.

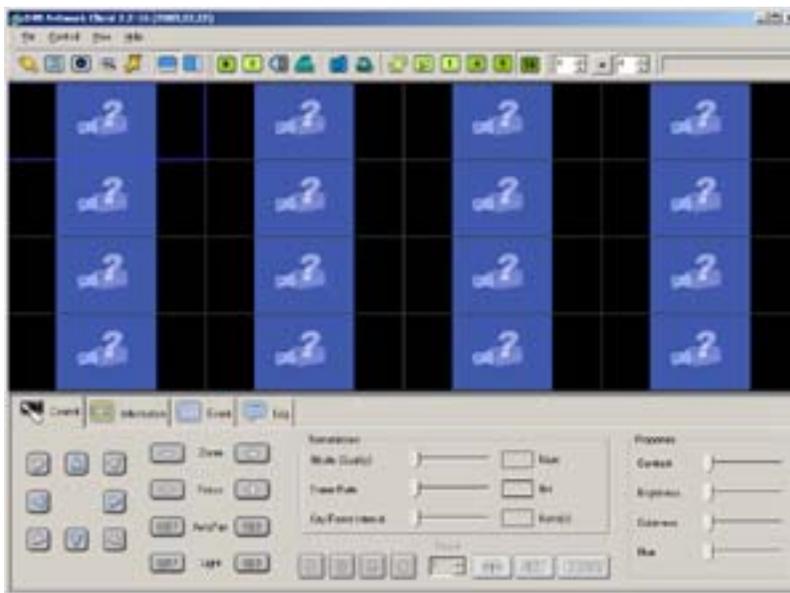
Installation procedure for Pocket PC devices

- First the Pocket PC device must be connected and synced to the PC
- Once this is complete, browse into the CD into the 'Clients' directory
- Under this directory there should be a file named 'dvrclient-pocketpcxxxxx.cab'
- Copy this file into the Mobile device.
- Once copied remove the Pocket PC device from it's cradle and browse into the folder in which the file was placed.
- With the stylus click on the .cab file and it will automatically convert and execute.
- Follow the on screen instructions and finish the installation.

4.0.1 Main Screen Introduction

Main Screen Functions Windows PC

- Main Menu Selections: File, Control, View and Help.
- Main Toolbar Selections.
- Bottom Status and control panel



Main Screen Toolbar for Windows PC



4.0.1 Main Screen Introduction (Continued)

Main Screen Functions for Pocket PC

- Menu
- Toolbar functions
- Camera selection

Main Screen Toolbar for Pocket PC



4.1.1 File Menu

File Menu Overview

- Server List...
- Disconnect
- Logout
- Users...
- Preferences...
- Remote Control
- Search Mode
- Save Still Image...
- Watermarking...
- Print...
- Single Host Mode
- Multi-Host Mode
- Exit

S <u>erver</u> List...	F2
Dis <u>connect</u>	
Logout	
<u>U</u> sters...	
P <u>re</u> ferences...	F3
<u>R</u> emote Control	
Search <u>M</u> ode	
Save Still I <u>m</u> age...	Ctrl+S
<u>W</u> atermarking...	
P <u>r</u> int...	
Single-Host Mode	
✓ Multi-Host Mode	
E <u>x</u> it	

4.1.2 Server List

Server List Overview (Windows)

Tool-Bar Button



- This is where the user must configure the settings for the DVR's to be connected.
- NAME: In this field the desired DVR name can be input.
- HOST ID: This field can be used to better identify the DVR.
- ADDRESS: This is where either the IP address is used or the web address can be input.
- PORT: This is the default port number to be used to connect to the DVR. This can be changed and configured to work with a firewall if present.
- USER: Enter the user name to be used to connect to the DVR.
- PASSWORD: Enter the password to be used with the username.
- UDP SELECTION: If desired this check box can be selected to allow a slight be faster connection to the DVR, but with less reliability.
- New, Add, Modify, Remove buttons: These buttons are used to enter in a new server or modify a server. Once the Server information is completely filled out or changed, the 'Add' or 'Modify' buttons must be used.

Name	Address	Port	User
admin	72.16.227.211	8081	admin

Server Information

Name: Host ID:

Address: Port:

User: Password:

Use UDP transmission if possible

New Add Modify Remove

Connect Close

Server List Overview (Pocket PC)

- The buttons and fields are used the same way as the above windows setup

DVR Server List 10:22 ok

Server List

smigol

Name:

Address:

Port:

User:

Password:

Use UDP transmission if possible

Add Modify Remove

Connect Close

Menu

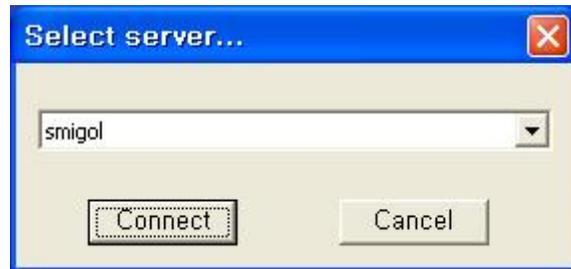
4.1.3 Connect and Disconnect

Connect and Disconnect Overview

Tool-Bar Button



- Use this button to make a connection to a server.
- From the drop down box select the name of the server to connect to.
- Once the desired server name is selected, click on the 'Connect' button to make the connection.



4.1.4 User Configuration

User Configuration Overview

- This user configuration is for the Remote Client software only.
- Different user levels can be configured for the Remote Client software, to limit the access to the software and its features.
- ACCOUNT: This is where the selected user can be grouped with pre-existing user levels.
- USER: Enter the desired user name here.
- PASSWORD: Enter the password the selected user name.
- PASSWORD(VERIFY): Re-enter the password for confirmation.
- DESCRIPTION: This field is just a notation field. For example, this field could be 'Day Manager' or etc.
- Modify, Add, New, Remove: These buttons are used after the field have been completed or changed. Once a new user is entered, then the 'Add' button must be clicked to add the user to the database. If one wants to remove a user then select the desired name to remove and then click on 'Remove'.
- When the software is first started, it will require the user to login. The default user and password is as follows: User : admin Password : admin.



4.1.5 Preferences

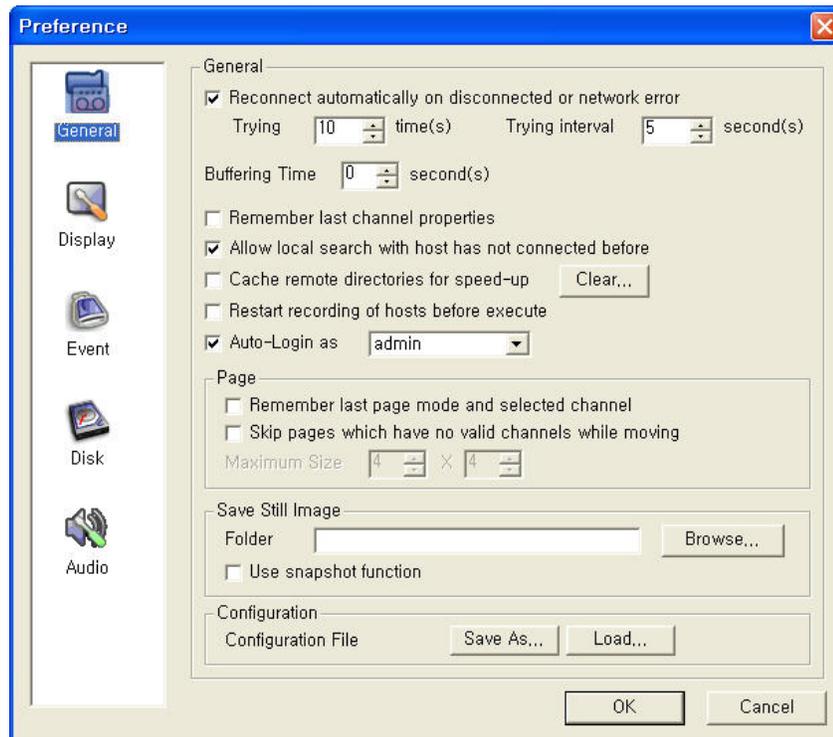
4.1.5a General

General Preferences Overview

Tool-Bar Button



- Reconnect: This selection is used to automatically have the software reconnect to a server if there is an error or a disconnection.
- BUFFERING TIME: This setting can be used to require the software to buffer all incoming video streams. If connecting to a lot



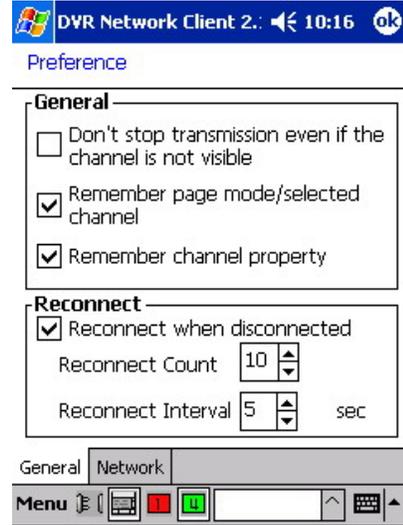
of different channels or DVR's then this setting will allow the video to play steady, without stopping. This setting is not normally used unless there is a bandwidth issue.

- REMEMBER LAST CHANNEL PROPERTIES: This setting is used to have the software recall all the last settings used to view the channels from all the DVR's. These settings include bit-rate, fps, and etc. So that when re-connecting to a particular channel or DVR, the software will automatically use the last used configuration when initially connecting.
- ALLOW LOCAL SEARCH: This setting will allow/disallow the Remote Client software to search on the DVR for video information.
- CACHE REMOTE DIRECTORIES FOR SPEED: This setting will allow the Remote Client software to cache the remote directories so that playback can be sped up.
- RESTART RECORDING OF HOSTS: This setting is only used if recording to the local disk through the Remote Client software.
- AUTO-Login AS: This allows the Remote Client software to always use a default login when starting the application. If different user levels have been configured, then do not use this setting as it will always login with the same credentials as the most recent login.
- REMEMBER LAST PAGE MODE AND SELECTED CHANNEL: This setting will remember the last page mode and selected channels that were viewed for the particular DVR. So when the next time the user connects to that DVR, the view will be the same. For example, if the user was connected to the DVR and was viewing 4 total channels 5 through 8 then the next time that the Remote Client software connects to that DVR it will automatically show channels 5-8 on the screen.
- SKIP PAGES WHICH HAVE NO VALID CHANNELS: This setting will usually avoid any channel numbers that do not have a valid video signal.
- SAVE STILL IMAGE: This folder can be preconfigured to always save the selected still images to a single directory.
- CONFIGURATION FILE: This file is the configuration file for the Remote Client software. This can be saved or copied to a different machine, so that the configuration can be the same.

4.15a General (continued)

General Preferences (Pocket PC)

- The general preferences are the same as the windows configuration.
- There are two tabs. General, and Network.
- Under the Network tab is where the buffering time can be set if necessary.



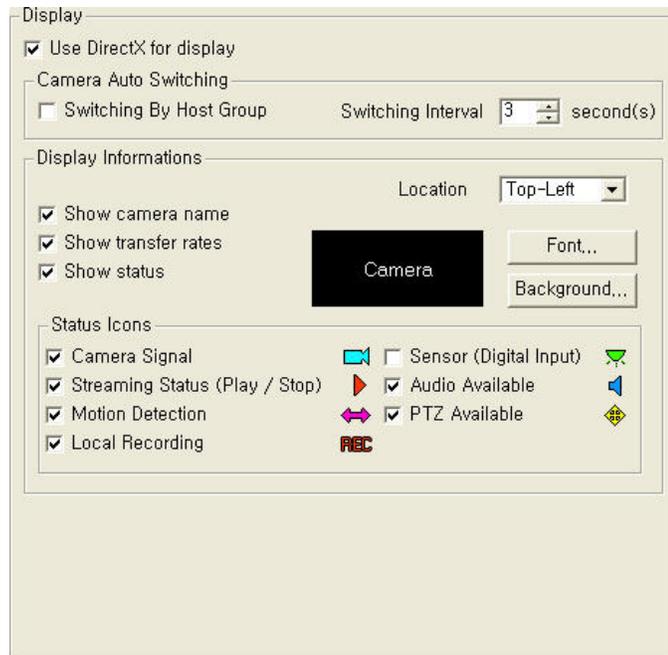
4.1.5b Display

Display Preferences Overview

Tool-Bar Button



- **USE DIRECTX FOR DISPLAY:** This will use DirectX for displaying the video images. Must have DirectX 7.0 or above installed.
- **SWITCHING BY HOST GROUP:** This feature is like camera rotation.
- **SWITCHING INTERVAL:** This is the time interval that will be used when rotating the camera views.
- **SHOW CAMERA NAME:** This will toggle the camera name on or off on the screen.
- **SHOW TRANFER RATES:** This will toggle the data transfer rates on or off on the screen.
- **SHOW STATUS:** This will toggle the status indicator on the channel screen.
- **LOCATION:** This will change the location on the channel screen where the above information will be placed.
- **FONT:** The user may change in font style that will represent the information.
- **BACKGROUND:** User may change the background color of the information that will be posted. In the instance that most of the video may be black then the background for the information above can be white so that the information may be more visible.
- **CAMERA SIGNAL:** These are status icons. The camera signal icon will indicate whether or not there is a valid signal.
- **STREAMING STATUS:** This will toggle on or off the streaming status icon.
- **MOTION DETECTION:** This will toggle on or off the motion detection status icon.



4.1.5b Display (Continued)

Display Preferences Overview (Continued)

- LOCAL RECORDING: This will toggle on or off the local recording status icon.
- SENSOR (DIGITAL INPUT): This will toggle on or off the sensor status icon.
- AUDIO AVAILABLE: This will toggle on or off the audio status icon.
- PTZ AVAILABLE: This status icon will indicate whether or not a PTZ is available for the channel.

4.1.5c Event

Event Preferences Overview

Tool-Bar Button



- **SELECT:** Use this selection to configure settings for a specific event type. The available events are: Sensor, Alarm, Disk Fail, and Video loss.
- **SELECT ALL:** Use this selection to configure all events at once.
- **ENABLE THIS FUNCTION:** This function will enable the event warning. If this is not checked then the warning message will not pop up. In order to use these message pop-ups the warning messages must be configured on the DVR that the Remote Client software will connect to.
- **FONT:** The font color of the message can be changed through this function.
- **BACKGROUND:** The background color can be changed through this function.
- **SOUND:** The user can use a custom sound for specific events.
- **POPUP CAMERA:** If this function is enabled then if a certain event is triggered, the Remote Client software will pop up the associated camera in a 1x1 view. The restore the view to the original viewing mode either double click on the screen or wait for the automatic resoration. Again the camera will have to be associated to the event on the DVR. The 'Restore after' setting will restore the view after the allotted time.
- **BORDER EFFECT:** If this function is used then if there is motion or and event detected for a certain channel, the channels main window will blink on the border. The blink interval and duration can be changed. This function can be used to allow a little less obtrusive warning, instead of a popup screen.

Warning Message

Select Motion Detection Select All

Message

Enable this function

Warning! %s Detected.

Font... Background...

Sound

N/A Test

Popup Camera

Enable this function Restore after 5 second(s)

Border Effect

Enable this function

Blink Interval 0.3 second(s) Effect Duration 5 second(s)

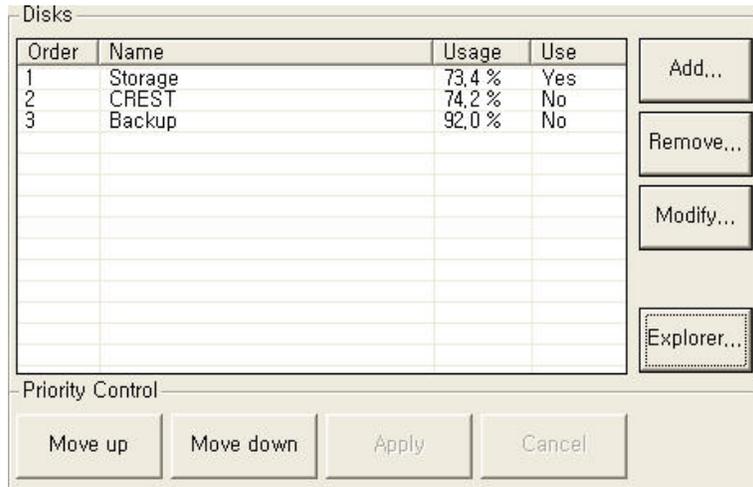
4.1.5d Disk

Disk Preferences Overview

Tool-Bar Button



- This is the Disk configuration for the local machine.
- The Remote Client software can be configured to record information to the local hard drive while the DVR is also recording to its own hard drive.
- The configuration is the same as the DVR please refer back to **3.9.1**. The main difference is that the storage location will usually be a local directory instead of a whole hard disk.
- EXPLORER: This button will browse to the selected directory using the Windows browser.



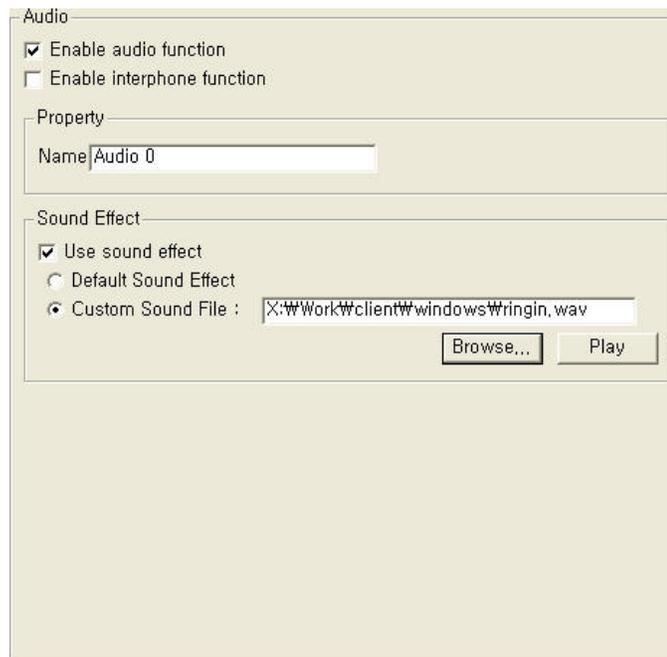
4.1.5e Audio

Audio Preferences Overview

Tool-Bar Button



- **ENABLE AUDIO FUNCTION:** This will enable the audio functions in the Remote Client software.
- **ENABLE INTERPHONE FUNCTION:** If enabled two-way communication will be available. Both the DVR and the PC running the Remote Client software must be properly equipped.
- **NAME:** This field can be used to name the specific audio channel.
- **USE SOUND EFFECT:** This will enable a sound to be played when the audio function is invoked.
- **DEFAULT SOUND EFFECT:** Enabling this will play the default sound when the audio is invoked.
- **CUSTOM SOUND FILE:** This field will enable the user to add a custom sound file to be used instead of the default sound when the audio function is invoked.



4.1.6 Remote Control

Remote Control Overview



- When the remote control is invoked the software will bring up a VNC window showing the connected DVR on the screen.
- This feature is not recommended to be used for viewing purposes.
- This feature is used to make any configuration changes to the DVR.
- When using the remote control feature, the user will be able to control and use every feature of the connected DVR as if the user was in front of the actual DVR.
- The network configuration on the Remote Client PC side and the DVR side must be able to allow TCP port 5900 to be opened and assigned to the DVR in order for it to be able to be remote controlled.

4.1.7 Save Still Image

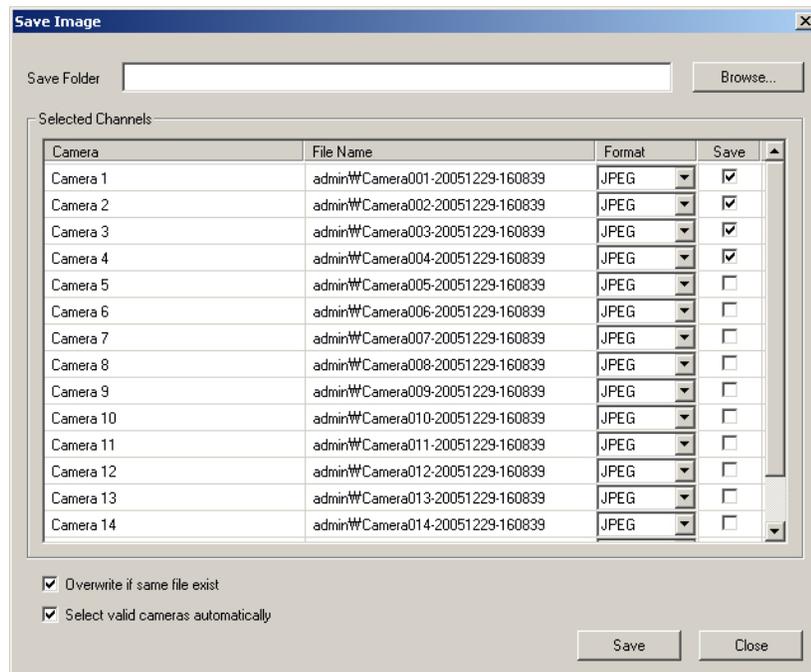
Saving Still Image Overview

Tool-Bar Button



- When the button is clicked this shown window will appear.
- Then the user may select the desired camera inputs to be captured, by placing a check mark in the 'Save' column.
- **SAVE FOLDER:** In this field, the user can select the folder the images will be saved to.
- **OVERWRITE IF SAME FILE EXIST:** If this field is selected then if the system

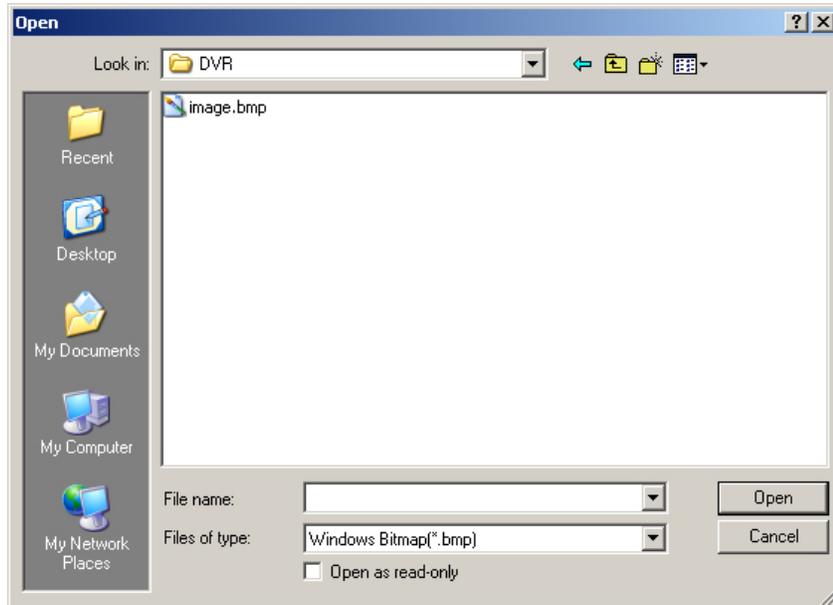
detects that the same file name exists then it will automatically overwrite the file. If this is deselected, then the system will not overwrite the file if the same file name exists.
SELECT VALID CAMERAS AUTOMATICALLY: If enabled this function will automatically place a check mark in the 'Save' column if a valid camera signal exists for that camera input number.



4.1.8 Watermarking

Watermarking Overview

- When the watermarking feature is invoked, the shown window will be shown
- The user will then need to select the image to be viewed or tested.



Watermark Testing

- Once an image is selected, the shown window will appear.
- DETECT: This will invoke the watermark detection process.
- REVERT: This button will revert the image back to the original view.
- SELECT COLOR: This button is used to select the color of the changes. If the image has been altered from its original state, this color will be used to mark on the image the unauthorized changes made to the image. In the shown image to the right the small red squares show how an altered image will appear.



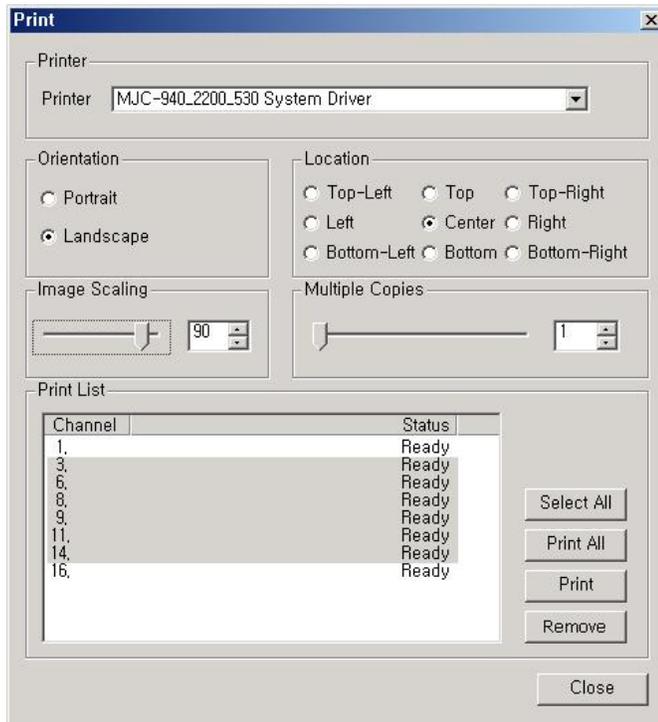
4.1.9 Print

Printing Overview

Tool-Bar Button



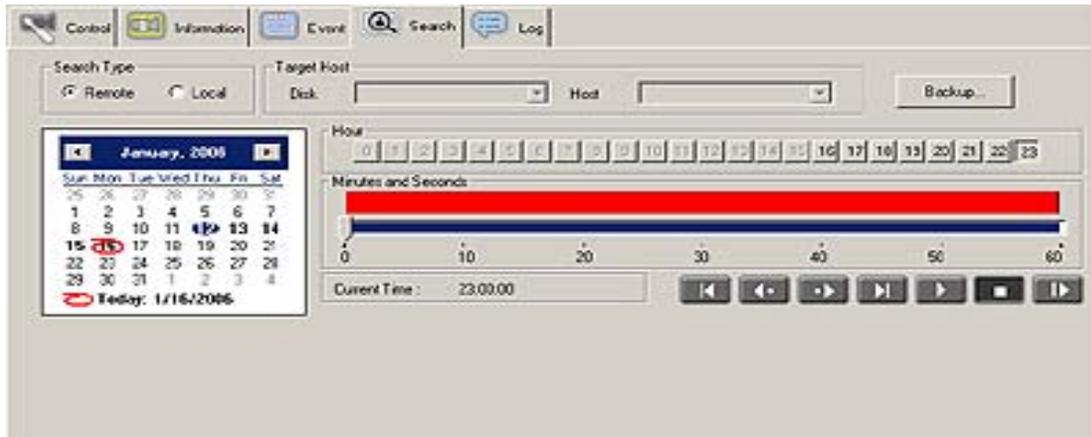
- Using this function will allow the user to print the current still images.
- **PRINTER:** This is where the user will select the printer to be used.
- **ORIENTATION:** The user will have the option to print the image either in Portrait mode or Landscape mode.
- **LOCATION:** The image location on the paper can be moved using this selection.
- **IMAGE SCALING:** The selected images can be scaled to be larger or smaller by using this slider bar.
- **MULTIPLE COPIES:** This is where the user may select to print more than one copy of the selected images.
- **PRINT LIST:** This window will show the valid channels that can be printed. The buttons on the right of the window can be used to select the desired channels, and print.



4.1.10 Search Mode

Search Mode Overview

Tool-Bar Button



- The above search mode will appear when the 'Search' button is clicked or if the selection is made through the 'File' Menu.
- The search function is the same as the DVR software. Please refer back to **2.2** for setup and instructions.
- When finished with the search mode clicking on the  button will return the software to live view mode.

WARRANTY

All Varieon products go through an extensive Quality Assurance program.

All Varieon products are subject to a one-year limited warranty as designed and supplied by Varieon co. ltd. The warranty covers workmanship and materials on all components of the system.

This warranty does not cover:

- Failure resulting from misuse, accident, modification, unsuitable and improper maintenance by the user
- Failure caused by alteration of the components
- Failure to follow the manual

Product Name		
Product Serial No.		
Warranty period		Valid for one full year from product purchase
Purchase date		Date:
Purchaser	Company Name	
	Name	
	Address	
	Phone No.	
Vendor	Company Name	
	Name	
	Address	
	Phone No.	

Varieon Co., Ltd.

Varieon, Inc. Limited Warranty

Varieon, Inc. warrants all its DVR products to be free from defect in material or workmanship, and will remedy any such defect according to the terms of this Limited Warranty. All Varieon DVRs are warranted for a period of ONE YEAR.

Varieon, at its discretion*, will replace or credit any defective component(s) of Varieon products at no charge for a period of 60 days from date of invoice. Beyond 60 days, Varieon will repair at no charge, any defective component(s) of Varieon DVR products for the initial twelve (12) months from the date of invoice.

*The following requirements must be followed in full or warranty service and/or shipments will not be honored. To make request for credit, replacement or claim for service under this Limited Warranty the original purchaser must obtain a Return Authorization Number (RA#) from Varieon and return the DVR product, shipping prepaid, in the original shipping container (or equivalent) assuming the risk of loss or damage in transit. The assigned RA# must be clearly marked on the outside of the shipping container, and all original parts, manuals, etc. must be included. A written receipt/invoice for the Varieon product, showing the date of purchase, dealer name, and both the model and serial numbers of this product must accompany any request for credit, replacement, or claim for work to be performed under this Limited Warranty. Varieon RA# will be honored domestically for 30 days and internationally for 45 days from date of issue.

This Limited Warranty shall not apply if the product has been damaged due to abuse, misuse, misapplication, accident, or as a result of service or modification by any other than an authorized Varieon Service Center. If a product is returned to Varieon for replacement or repair and no problem is found, the purchaser will be billed a \$50.00 fee for inspection as well as all associated freight charges. Any product that is returned to Varieon for replacement or credit without all original parts, manuals, etc. will be charged a 25% restocking fee and only receive partial credit.

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