

NW9400 Manual

Version 2.8.0131

Rev 1.2

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System Requirements

All of the following information is highly recommended for optimum performance and to facilitate a solid understanding for usage and maintenance of this DVR system and its many capabilities. To save time in the future, you can print a copy of this document. Click on the **File** menu and select **Print**, select which printer you want to print from and click **Ok**.

Congratulations on your purchase of the DVR system. To properly operate and control the DVR system you have purchased, the following system requirements are considered to be the absolute minimum:

Server Hardware Requirements

- 256Mb of system RAM
- 1.8Ghz CPU
- 2 hard disk drives (1 for the O/S, 1 for the recorded video storage)
- 64Mb VGA card
- Video capture/compression card

Server Software Requirements

- Windows 2000/XP (at the time of this release Microsoft Windows Vista and beta packages have not been tested)
- DirectX 8.1 or higher

Client Hardware Requirements

- 50Mb of available HDD free space
- 256Mb of system RAM
- 1Ghz CPU
- 64Mb VGA card
- Network interface card

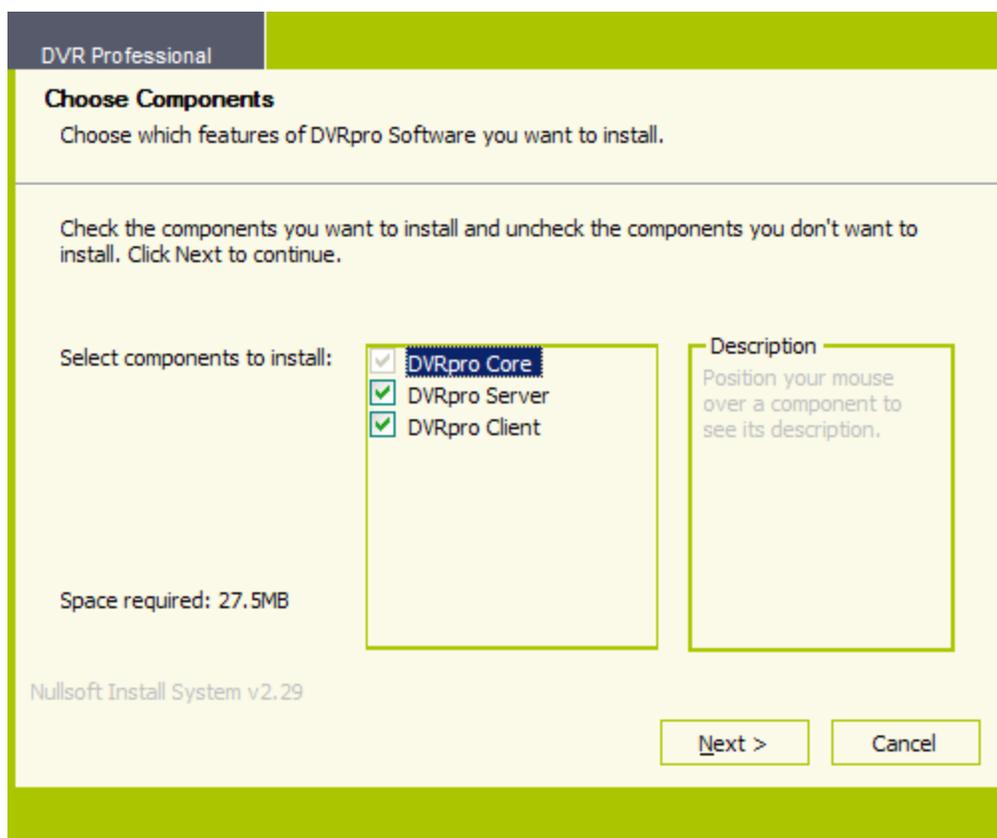
Client Software Requirements

- Windows 2000/Windows XP (at the time of this release Microsoft Windows Vista and beta packages have not been tested)
- DirectX 8.1 or higher

Installation

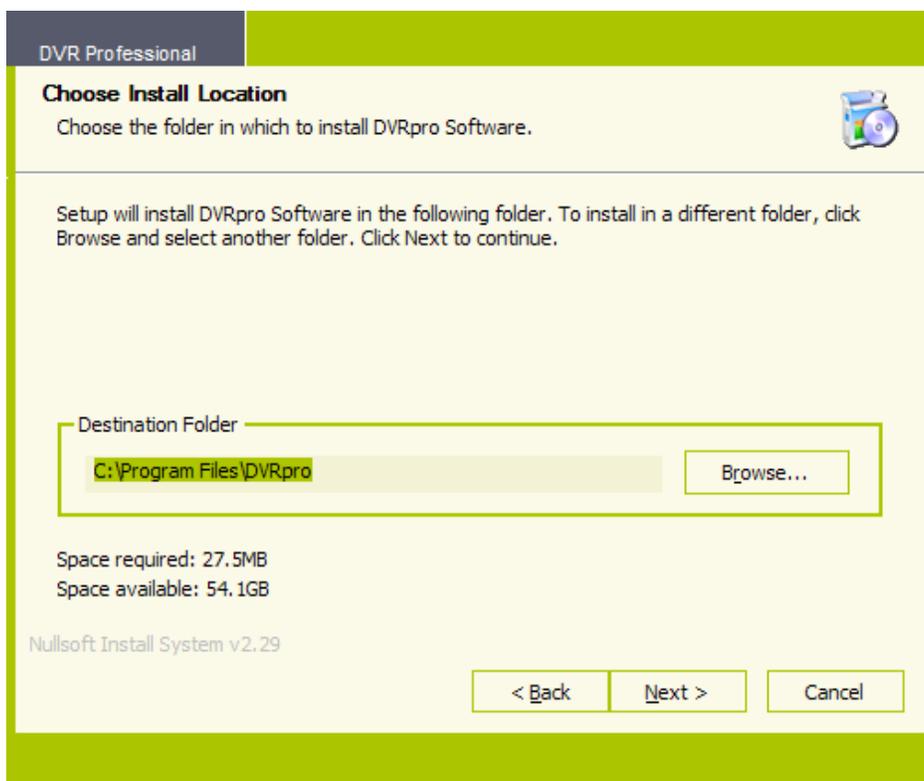
Install DVR Software

You should always attempt to install the DVR software application prior to installing the video capture card. The necessary drivers for the hardware are contained in these packages. Insert the DVR software installation disk into your CD/DVD drive. Select which software components you want to install. After you have made your selection, select the **Next** button to continue with the installation. (Fig. 1-0)

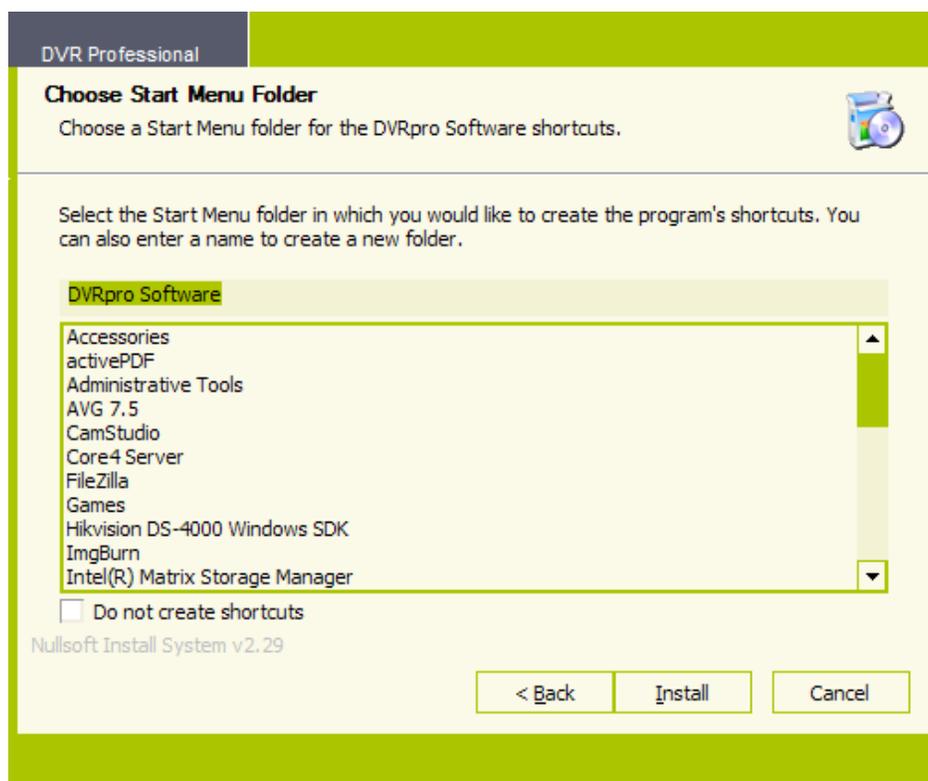


(Fig. 1-0)

Although the default installation location is "C:\Program Files\DVRpro" you can select any folder located on your primary hard disk drive. Once the location has been set, select the **Next** button. (Fig. 1-1) Now choose if you want shortcut components to install to the Windows Start Menu and select the **Install** button. (Fig. 1-2)

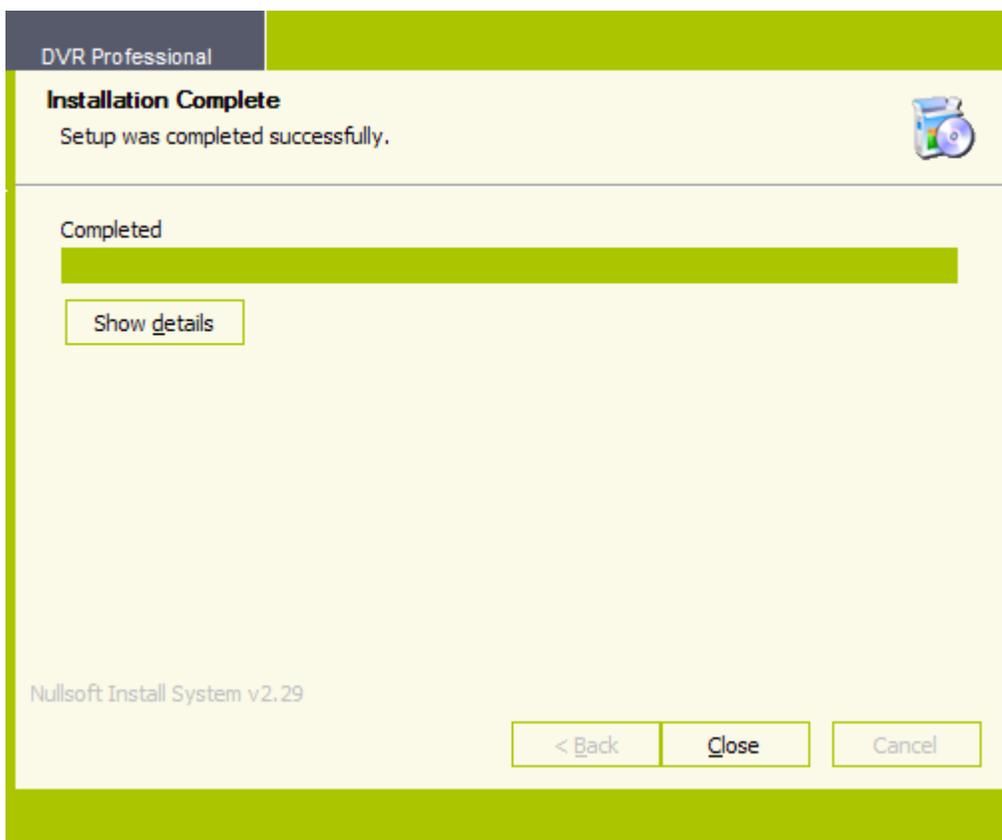


(Fig. 1-1)



(Fig. 1-2)

The DVR software will now be installed. Once the progress bar has completely filled in select the **Close** button to exit the installer. (Fig. 1-3) You are now ready to start the DVR application.

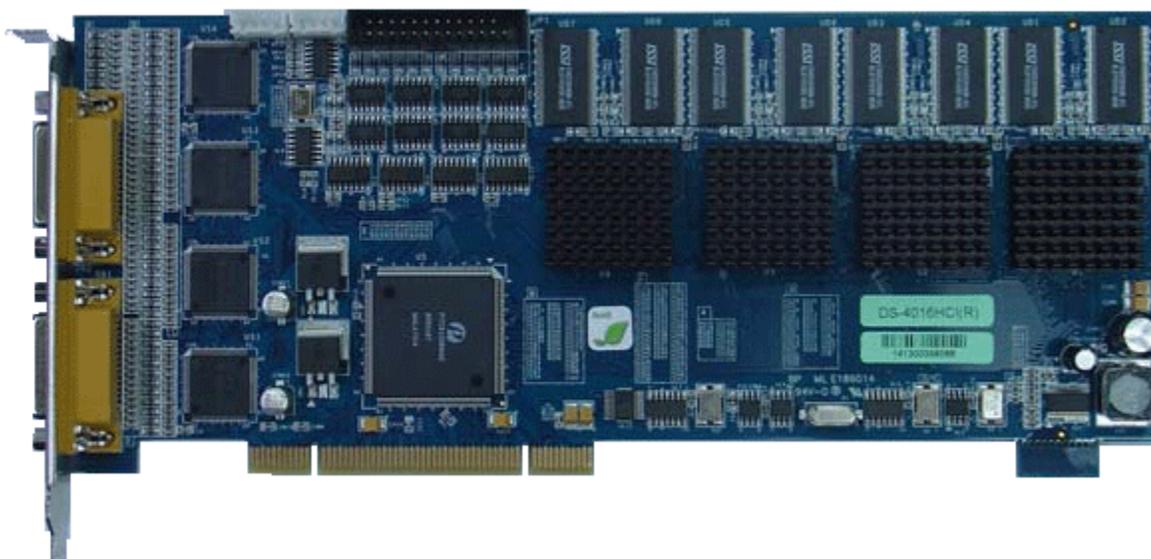


(Fig. 1-3)

Install DVR Hardware

Once the software installation has been completed, it is time to install the required video capture card and its associated driver. Turn off the system and disconnect the power cable. Wait at least 30 seconds to allow any remaining electrical power time to dissipate to prevent possible electrical shock to you or the hardware.

Remove the side/top panel of the case according to the manufacturer specifications. Insert the new video capture card being sure to properly seat the card in its appropriate slot. (Fig. 1-4) Depending on the video capture card, you may have to connect the separate Audio add-on adapter (not pictured).



(Fig. 1-4)

(Optional, but required for live preview audio) Install the gray Live Audio Cable to the white connector labeled 'out' on the video capture card. Install the other end of the Live Audio Cable to the black connector labeled 'CD-IN' on the motherboard. Refer to the motherboard manual for location (if any) of the 'CD-IN' connector.

If you are installing multiple video capture cards the audio from each card needs to be daisy chained in order to have live preview audio. Starting with the first video capture card install the Audio Link cable (short cable colored yellow, orange, red, and brown) to the white connector labeled 'out'. Install the other end of the Audio Link cable to the next video capture card's white connector labeled 'in'. Once the Audio Link cables have all be properly installed, continue the installation of the Live Audio Cable on the last video capture card as instructed.

After you have installed the video capture card re-assemble the case according to the manufacturer specifications. Now start up the DVR machine and install the drivers. You can use the Windows Device Manager to install the drivers manually or use the automatic driver install program located in the Drivers folder in the DVR software installation.

Initial Startup

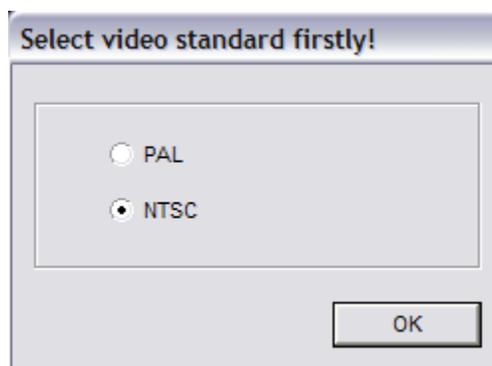
Initial Setup

Select the shortcut labeled 'DVRpro Server'. This icon is a blue monitor that says DVR located on the Windows Desktop. Once the application loads you will be presented with a log-in screen. The default selected username is Supervisor. The password for this user is left blank for the initial setup. To log-in select the **Ok** button. (Fig. 2-0)



(Fig. 2-0)

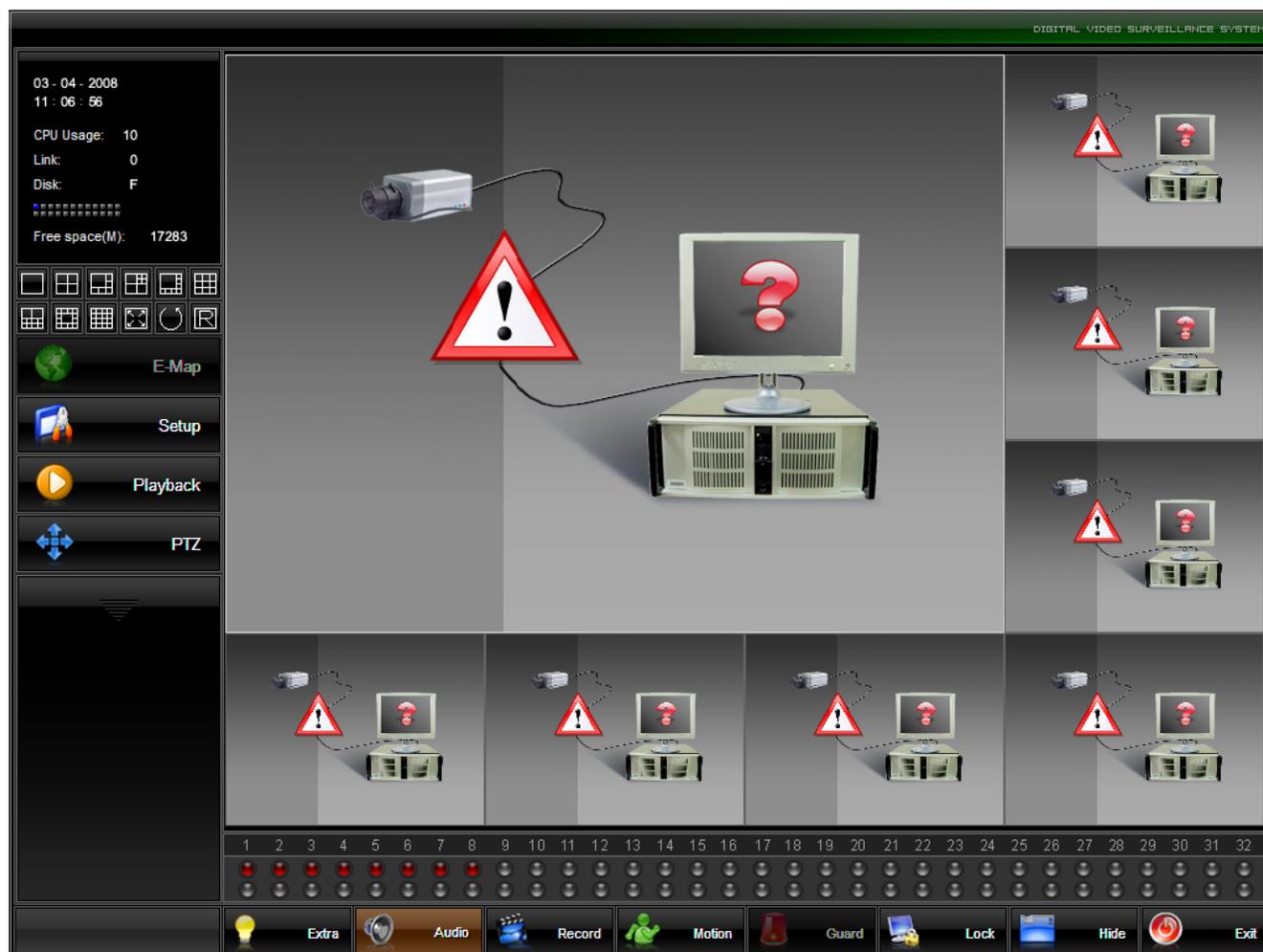
The first time the DVR Server application is run you must select your video standard. If you are inside the United States select the 'NTSC' radio button and click the **Ok** button to finish the Initial Setup. (Fig. 2-1)



(Fig. 2-1)

Main DVR Screen

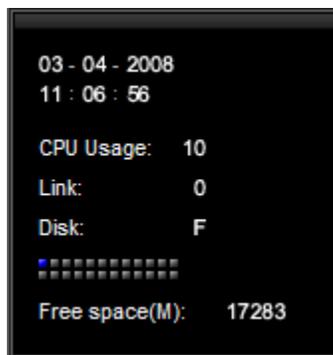
After you started the DVR Server application you will now be looking at the main DVR screen (Live Preview Mode). (Fig. 2-2) This screen contains the DVR Information Window (p. 14), the Camera Status LEDs (p. 14), the Channel Grid (p. 14), the Grid Layout buttons (p. 15), and the DVR Control buttons (p. 16).



(Fig. 2-2)

DVR Information Window

The top of the DVR Information Window display the current date followed by the current time below. The current time is formatted using the 24 hour time format. The CPU Usage is also displayed. This meter is displayed in % of CPU cycles used from 0% to 100%. Remote client connections are displayed underneath the CPU Usage meter and is labeled Link. This meter will increase by 1 for each channel that the Remote Client application or the Remote Web Client connects to. There are two rows of gray squares. This is the Available Storage display. For each partition configured as a storage location a gray square will light up blue. If the DVR Server application is currently writing video footage to that partition the blue square will be blinking green. The Available Storage display will also tell you which drive letter you are writing to and also how much storage space is currently free (in Mb). (Fig. 2-3)



(Fig. 2-3)

Camera Status LEDs

The Camera Status LEDs will tell you how each video recording channel is currently functioning. (Fig. 2-4)

- RED: Video signal lost.
- YELLOW: Motion mode recording.
- BLUE: Continuous mode recording.
- GREEN: Manual recording.
- BROWN: Guard Schedule activated.
- GRAY: Video signal confirmed, but not recording.



(Fig. 2-4)

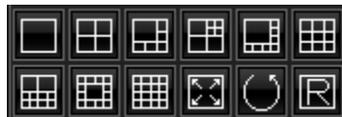
Channel Grid

The Channel Grid contains the Live Video Preview. This is where you will see all of your video camera feeds. You can select each channel by left-clicking the mouse to activate the Live Audio Preview for that channel if live audio is connected to the audio harness for that

individual channel. To maximize a video channel, double-click the video feed. To restore the Channel Grid double-click the video feed again. There is also a full screen mode that you can toggle by clicking the right mouse button on any video channel.

Grid Layout Buttons

The arrangement of the Channel Grid is easily configured by 12 buttons. (Fig. 2-5) Hover your mouse cursor over these buttons for a description of each of the layout button functions.



(Fig. 2-5)

The **Reset Screen Status** button allows you to quickly set the Channel Grid to the original layout as detected by the software on startup. This will allow you to set a grid configuration layout of more than 16 channels for a larger channel DVR Server. (Fig. 2-6)



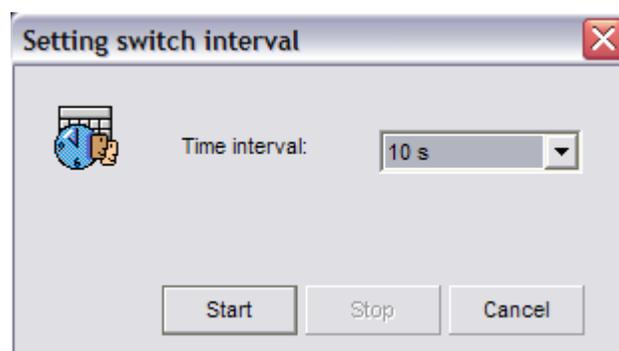
(Fig. 2-6)

If you choose to display one video channel at a time you can automatically cycle through all connected video feeds. The **Screen Auto Switching** button enables this feature. (Fig. 2-7)



(Fig. 2-7)

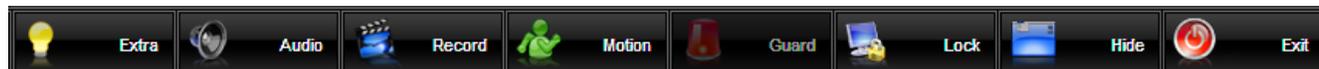
Once you select the **Screen Auto Switching** button the Setting Switch Interval dialog box appears. Here you are able to start and stop the screen switching. You can also set the time interval at which the screen will switch. (Fig. 2-8)



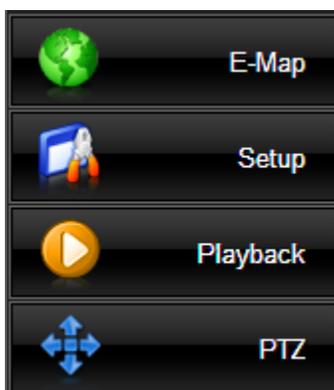
(Fig. 2-8)

DVR Control Buttons

These buttons will allow you to control and configure the DVR Server application. (Fig. 2-9), (Fig. 2-10)



(Fig. 2-9)



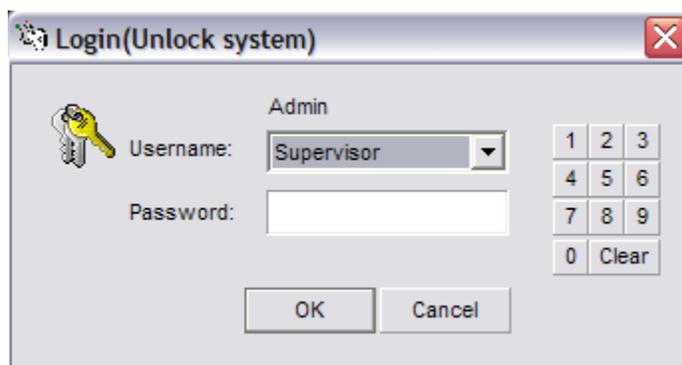
(Fig. 2-10)

The **Extra** button brings up the Extra Functions dialog box. (p. 43) The **Audio** button toggles the Live Audio Preview for all channels. A red button indicates that Live Preview is currently enabled. The **Record** button toggles manual recording the the currently selected video channel. The **Motion** button toggles motion based recording for the currently selected channel. The **Guard** button toggles the alarm sensors on and off. The **Lock** button toggles the availability of all buttons on the main DVR screen until the correct username and password are entered. (p. 17) The **Hide** button will minimize the DVR Server application. The **Exit** button will close the DVR Server application. (p. 17) The **PTZ** button will allow you to control PTZ cameras that are connected to the system. (p. 53) The **E-Map** button will bring up the electronic map. (p. 41) The **Playback** button will switch to the Playback mode. (p. 54) The **Setup** button will allow you to configure the system. (p. 18)

Locking/Unlocking and Exiting

The **Lock** button will allow the use to disable all buttons that appear on the main DVR screen. This locks out unauthorized access to the DVR Server application. Pressing the **Lock** button when the system is already locked brings up the Unlock System dialog box. (Fig. 2-11) Select your username from the Username drop down box, type in your password in the Password field and click the **Ok** button to unlock the system.

To exit the DVR Server application, simply select the **Exit** button. A dialog box similar to the Unlock System dialog box appears. Follow the same instructions to exit the DVR software.

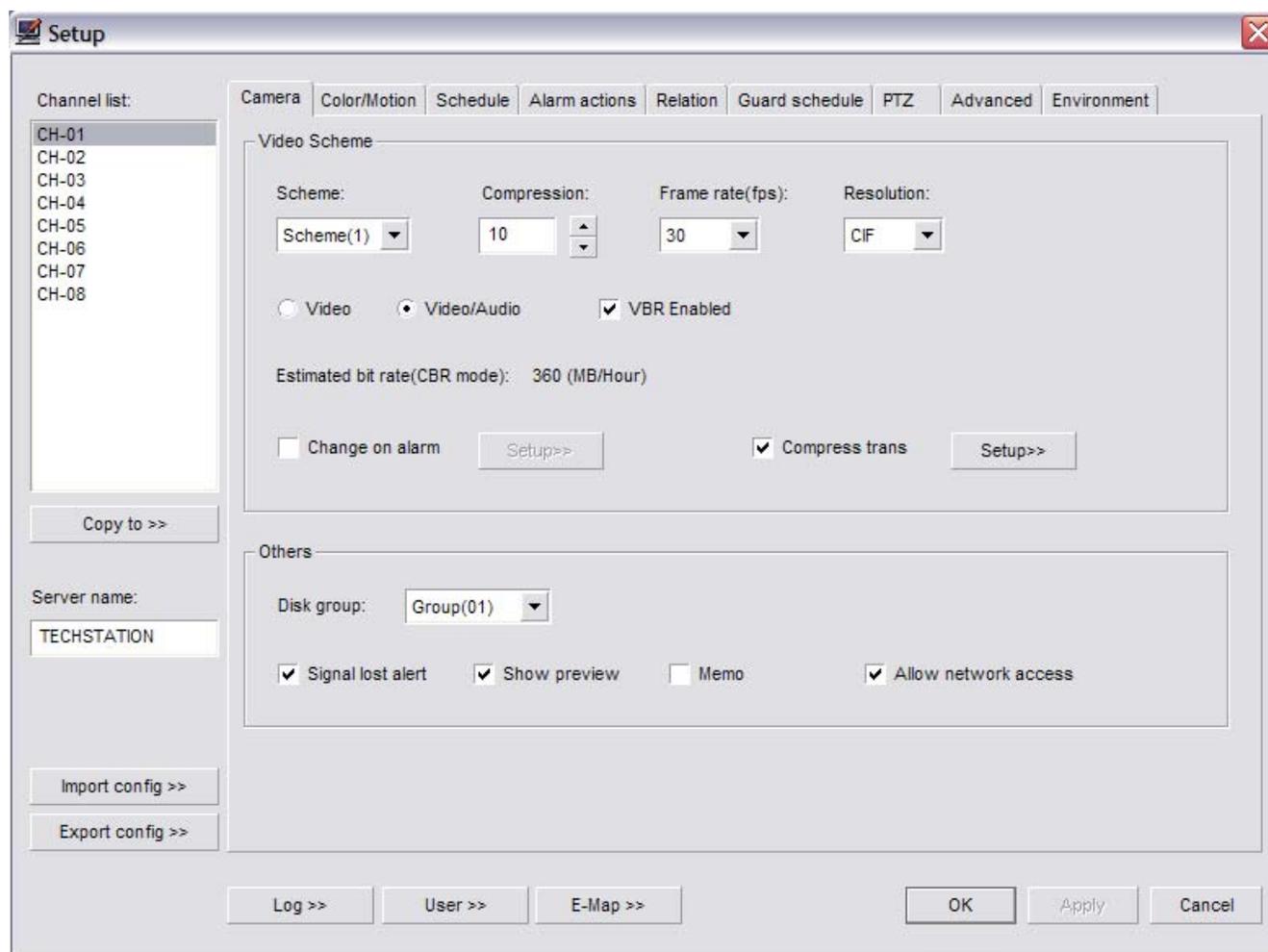


(Fig. 2-11)

Server Setup

Setup Button

Selecting the **Setup** button will open the Setup dialog box. The Setup dialog box is divided into nine different tabs: Camera (p. 18), Color/Motion (p. 20), Schedule (p. 21), Alarm Actions (p. 24), Relation (p. 27), Guard Schedule (p. 28), PTZ (p. 30), Advanced (p. 32), and Environment (p. 34).



(Fig. 3-0)

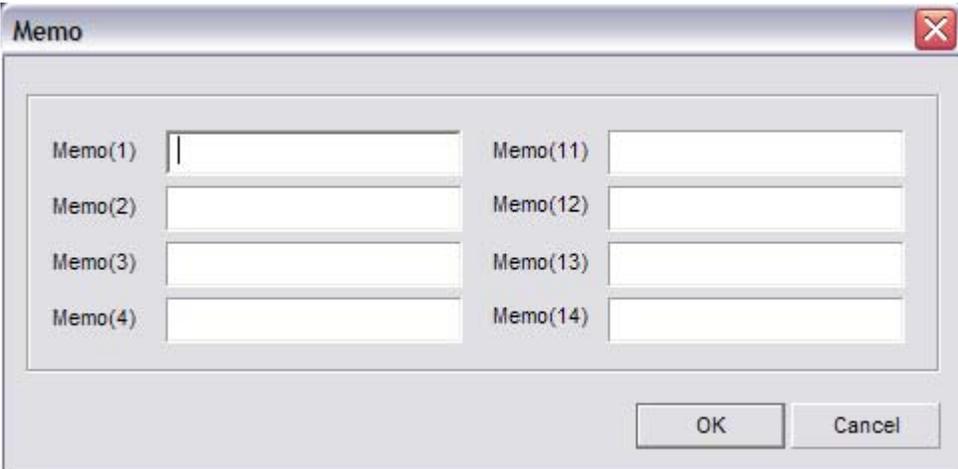
Camera Tab (Fig. 3-0)

Channel Selection: Using the Channel List you can select the desired channel by left-clicking on the channel name. You can configure different settings for each individual channel or apply them to multiple channels using the **Copy To** button.

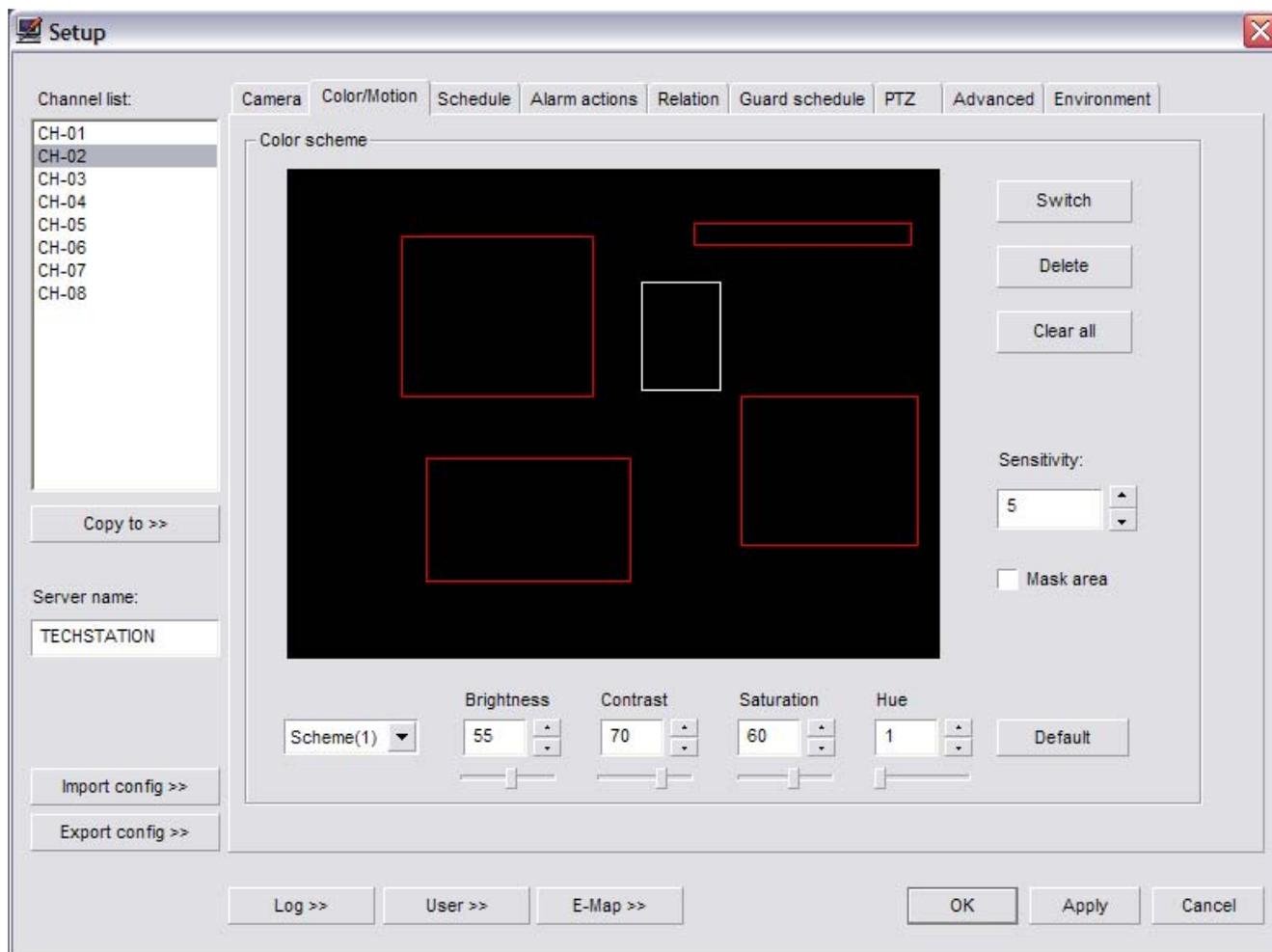
Video Scheme: You can configure up to three different video schemes. 10 levels of Compression are available. 1 is the highest compression which will give you the smallest file size but with lower video quality. You can set the Frame Rate from 1fps to 30fps. The higher the frame rate, the smoother the video. You can also choose to encode the video using VBR by enabling the VBR Enabled check box. VBR is Variable Bit Rate. During low motion situations the bit rate will decrease creating a smaller file size. Depending on the video capture card, there are up to five different resolutions available to record: QCIF – 176x144, CIF – 352x240, DCIF – 528x360, 2CIF – 704x240, and 4CIF – 704x480. The Video and Video/Audio radio buttons set the audio recording mode – either video recording only or video recording with associated audio channels. The Change On Alarm feature allows a separate Video Scheme to be used during an alarm condition. Use the **Setup** button next to the Change On Alarm check box to configure the video settings. Compress Trans, if enabled, allows you to set a different video quality for all the client connections by using the **Setup** button next to the Compress Trans check box. This allows you to raise or lower the client video quality to adjust the bandwidth usage for varying network speeds.

Others: The Disk Group drop down box selects which Disk Group each video channel records to. The Signal Lost Alert will write a log entry when a video feed is disconnected from the DVR when enabled. The Show Preview check box will toggle the Live Video Preview on the main DVR screen. The Memo feature allows an additional description for the video channel to be input when the **Manual Record** button is pressed. (Fig. 3-1) The Allow Network Access check box toggles the ability for remote clients to connect to the DVR Server.

Server Name: The Server Name identifies the DVR Server. By default this name is taken from the Computer Name that is configured in Microsoft Windows XP/2000.

A screenshot of a 'Memo' dialog box. The dialog box has a title bar with the word 'Memo' and a close button (red X). The main area contains two columns of text input fields. The left column has four fields labeled 'Memo(1)', 'Memo(2)', 'Memo(3)', and 'Memo(4)'. The right column has four fields labeled 'Memo(11)', 'Memo(12)', 'Memo(13)', and 'Memo(14)'. At the bottom right of the dialog box are two buttons: 'OK' and 'Cancel'.

(Fig. 3-1)

Color/Motion Tab (Fig. 3-2)

(Fig. 3-2)

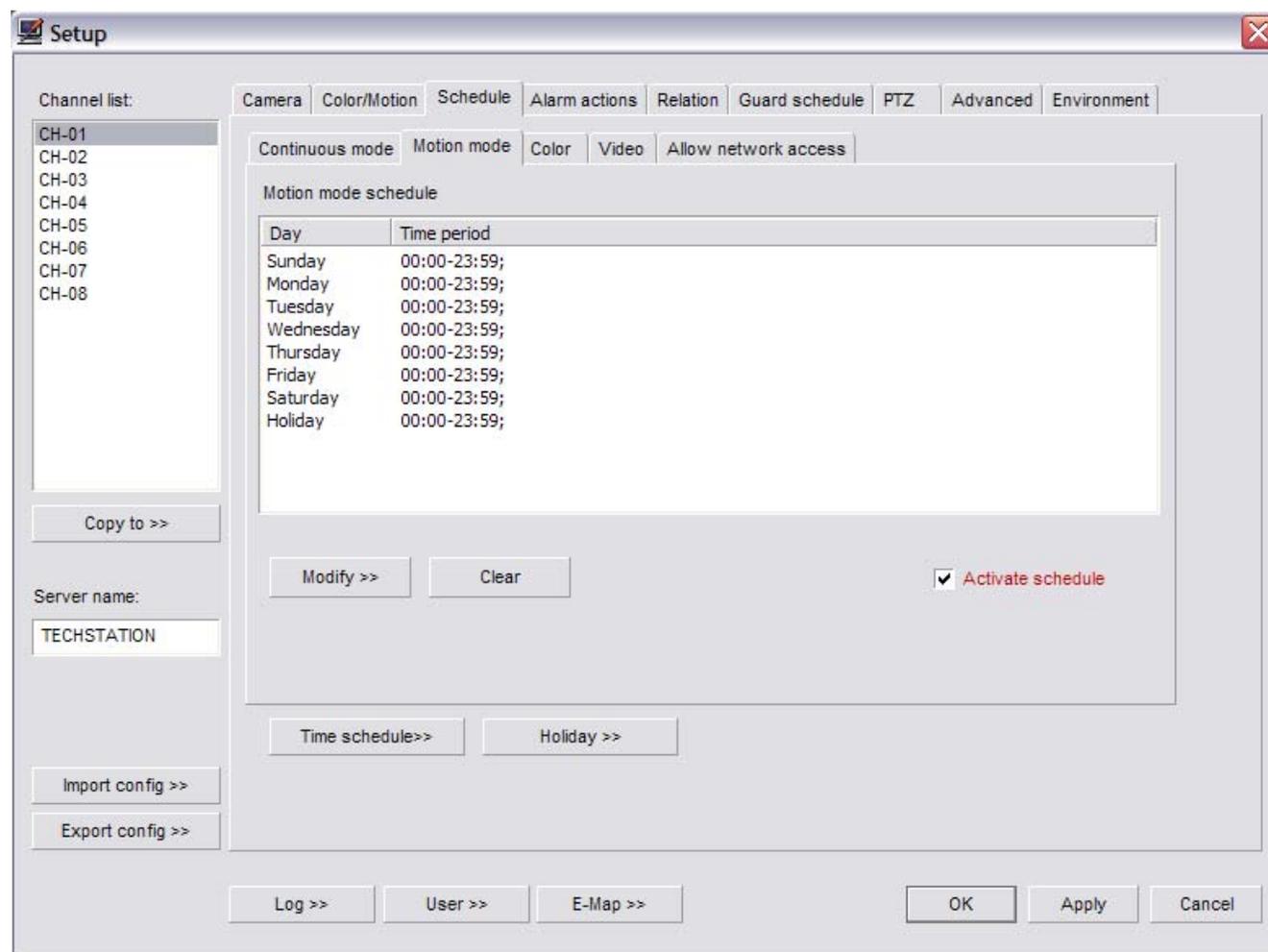
The Color/Motion tab can be used to setup the motion detection areas and the video signal parameters such as brightness, contrast, saturation and hue for each individual video channel.

Multiple motion detection zone can be configured for each selected video channel. A different motion sensitivity can be set for each of these zones. To create a motion detection zone left-click and drag a box around the desired area and set the desired sensitivity level. Set a lower sensitivity for objects that appear closer in the field of view and a higher sensitivity for objects that are further away in the field of view. To switch between motion detection zones use the **Switch** button. The currently selected motion detection zone will highlight white while the others will be red. The **Delete** button will remove the currently selected motion zone while the **Clear All** button will delete all motion detection zones. If no motion detection zones are configured, the entire video feed will act as a single motion detection zone. The **Mask** button will create a black square over the currently selected motion zone. This is a privacy mask and the same black box will appear in the recorded video.

There are 5 configurable Schemes for video signal parameters. You can adjust the brightness, contrast, saturation, and hue for varying video signal situations such as low light and direct sunlight. Pressing the **Default** button will restore the video signal settings back to the factory default for the currently selected scheme.

Schedule Tab (Fig. 3-3)

You can set separate schedules for Continuous Mode, Motion Mode, Color, Video, and Allow Network Access. Each different schedule tab has a user definable schedule.



(Fig. 3-3)

Pressing the **Clear** button will clear the schedule for the currently selected schedule tab. The Activate Schedule check box toggles each schedule on and off for each selected video channel in the Channel List. The **Modify** button will bring up the Set-up Time Schedule dialog box and will allow any of the 16 different time schemes to be applied. (Fig. 3-4)

Setup time schedule

Time period: Scheme(3)

Time period(1): 00 : 00 To 07 : 59

Time period(2): 12 : 00 To 13 : 59

Time period(3): 18 : 00 To 23 : 59

Time period(4): : To :

Time period(5): : To :

Time period(6): : To :

Time period(7): : To :

Time period(8): : To :

Copy to

Sunday Monday Tuesday Wednesday

Thursday Friday Saturday Holiday

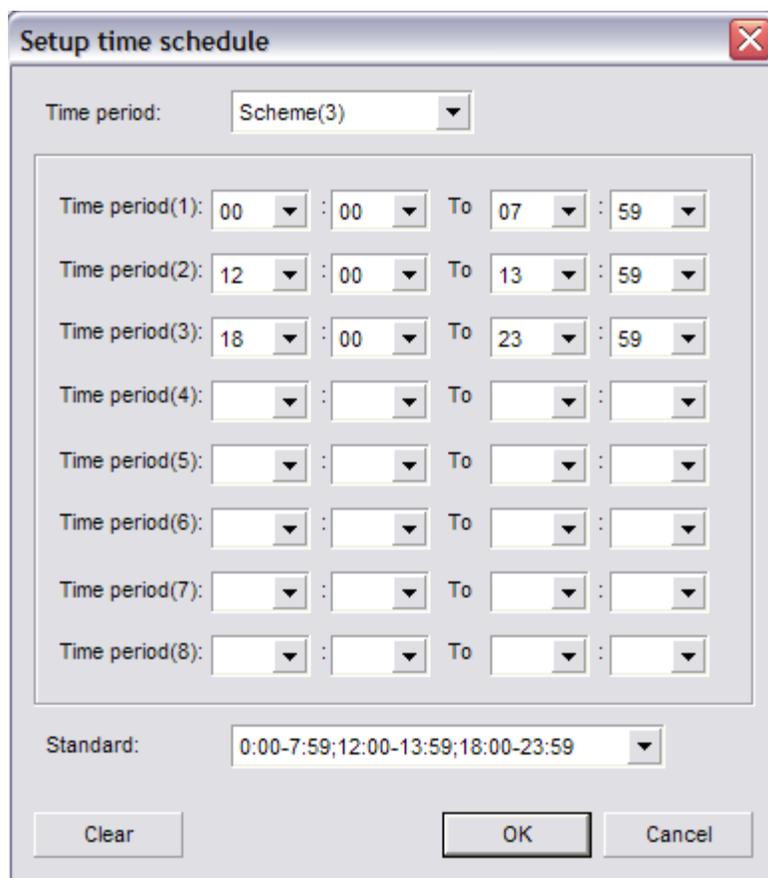
Select all Invert

OK Clear Cancel

(Fig. 3-4)

The Time Period drop down box will allow you to apply any of the 16 different time schemes. To apply the time scheme to any day simply check the box next to the day. Use the **Select All** button to quickly check all days including Holiday. Use the **Invert** button to change the day selection to the opposite of the currently selected. To clear the schedule select the **Clear** button.

The **Time Schedule** button brings up the Setup Time Schedule dialog box. (Fig. 3-5) Here you can change the configured time periods for each of the schemes. Use the Time Period drop down boxes to select the starting hour and minute and the ending hour and minute. You can use the Standard drop down box to quickly apply the pre-configured common time periods. Use the **Clear** button to erase all configured time periods for the selected scheme.



The "Setup time schedule" dialog box features a title bar with a close button. Below the title bar, there is a "Time period:" label followed by a dropdown menu showing "Scheme(3)". The main area contains eight rows, each representing a time period. Each row has a label "Time period(1)" through "Time period(8)", followed by two sets of dropdown menus for hours and minutes, a "To" label, and another two sets of dropdown menus for hours and minutes. The first three rows are populated with values: Time period(1) is 00:00 to 07:59; Time period(2) is 12:00 to 13:59; and Time period(3) is 18:00 to 23:59. The remaining five rows are empty. At the bottom, there is a "Standard:" label followed by a dropdown menu showing "0:00-7:59;12:00-13:59;18:00-23:59". At the very bottom, there are three buttons: "Clear", "OK", and "Cancel".

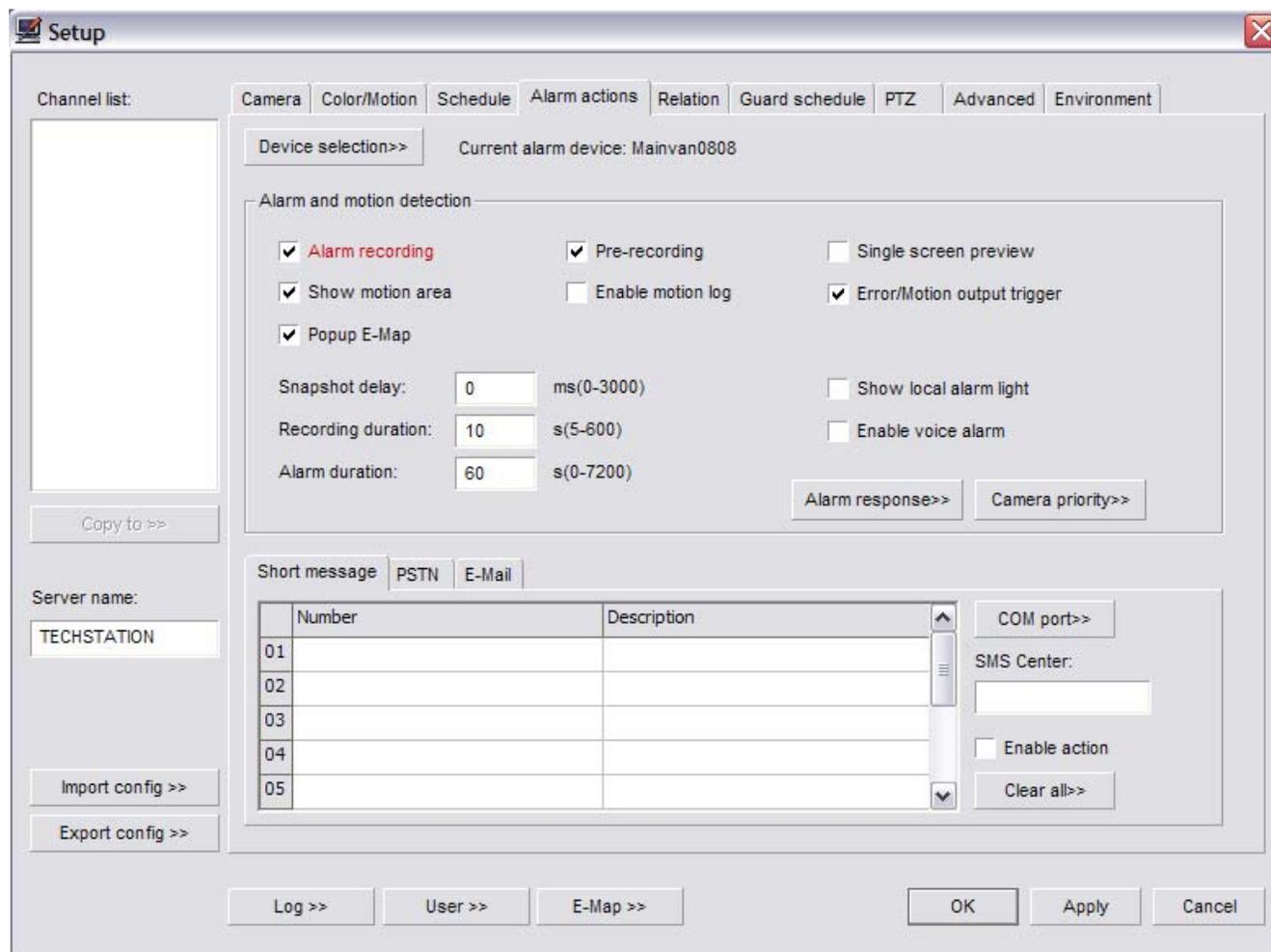
(Fig. 3-5)

The **Holiday** button will bring up the Holiday Setting dialog box. (Fig. 3-6) Use the Select A Date drop down box to bring up a graphical calendar to select individual dates. Click the **Add** button to add the date to the Holiday Date List. Use the **Clear** button to quickly erase all added dates from the list. To delete an individual date left-click the date, then click the **Delete** button.



The "Holiday setting" dialog box has a title bar with a close button. It is divided into two main sections. On the left, under the label "Date list:", there is a list box containing two dates: "02-21-2008" and "02-03-2008". On the right, under the label "Select a date:", there is a dropdown menu showing "2/ 3/2008". Below the dropdown menu is a button labeled "<< Add". At the bottom of the dialog, there are four buttons: "Delete", "Clear", "OK", and "Cancel".

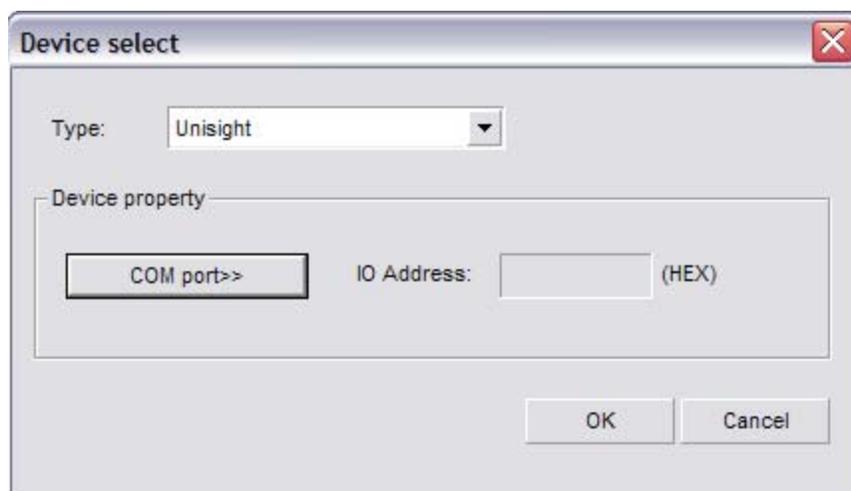
(Fig. 3-6)

Alarm Actions Tab (Fig. 3-7)

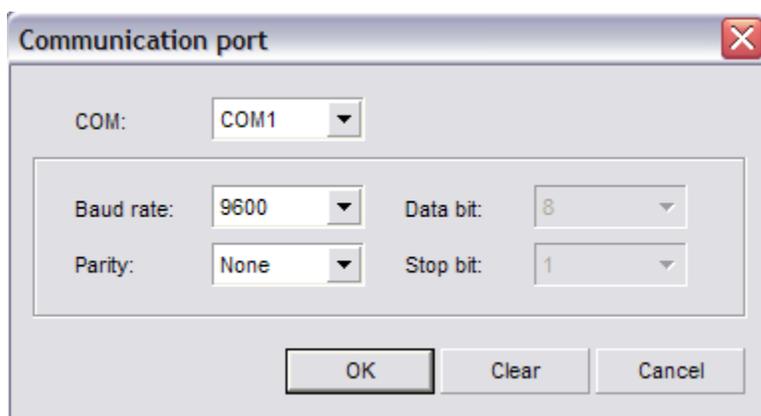
(Fig. 3-7)

The **Device Selection** button will bring up the Device Select dialog box. (Fig. 3-8) Select your supported alarm relay controller from the Type drop down box. To configure the communication settings for your alarm relay controller select the **COM Port** button which will bring up the Communication Port dialog box. (Fig. 3-9) Set the correct device settings, refer to the manufacturer's specifications, using the associated drop boxes.

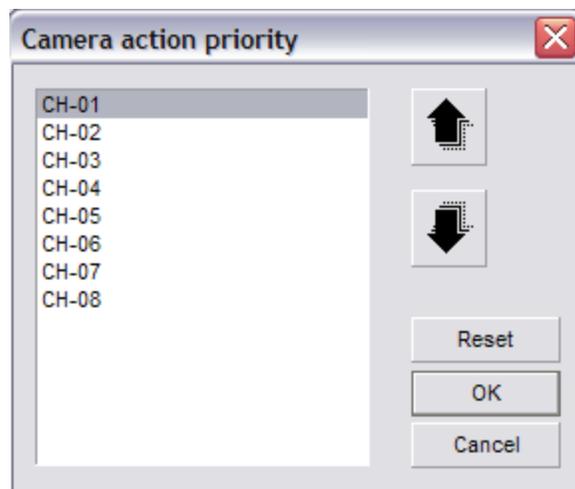
The **Camera Priority** button will open the Camera Action Priority dialog box. (Fig. 3-10) Here you can raise or lower the priority of individual channels. When the Single Screen Preview feature is enabled, the channel with the highest priority will remain visible. This feature brings the alarm condition to your attention and will not change without user input, either by double-clicking the single screen or by selecting one of the **Grid Layout** buttons.



(Fig. 3-8)

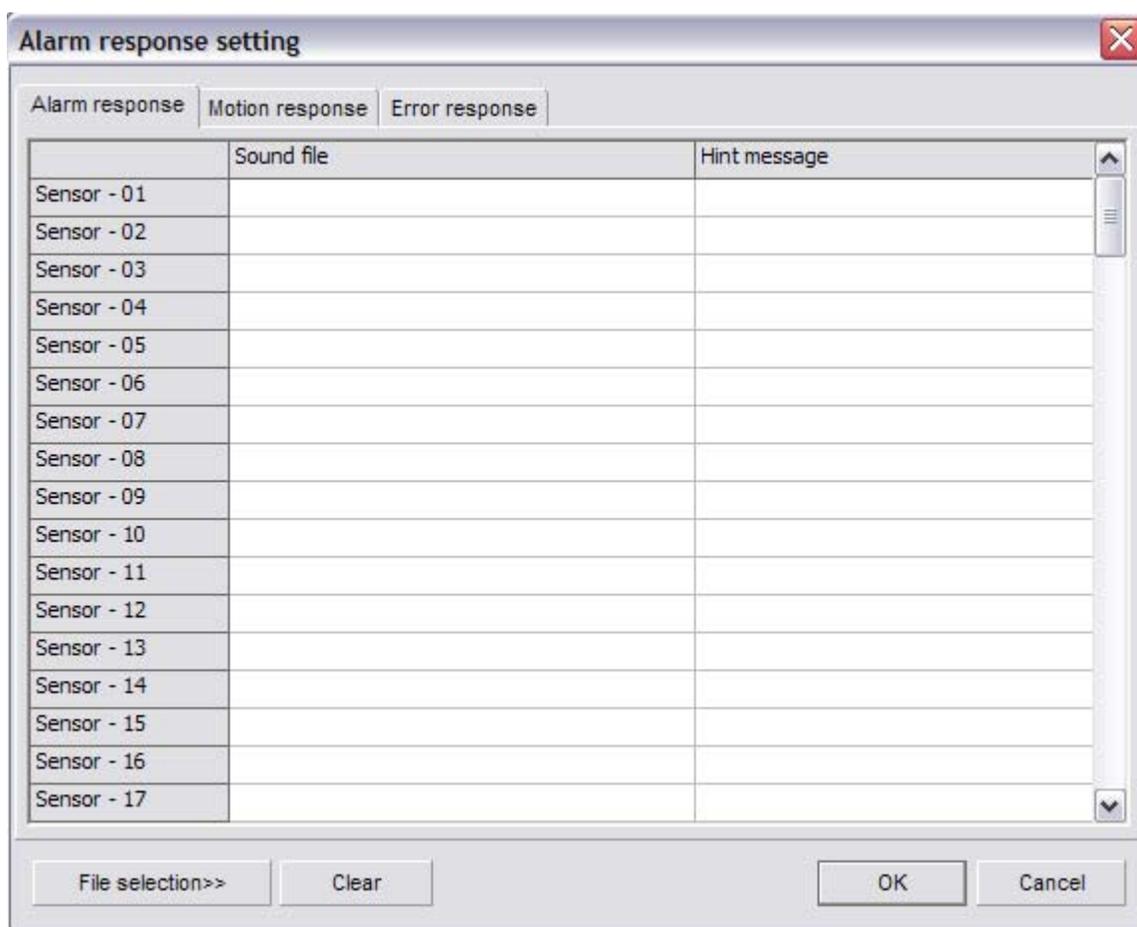


(Fig. 3-9)



(Fig. 3-10)

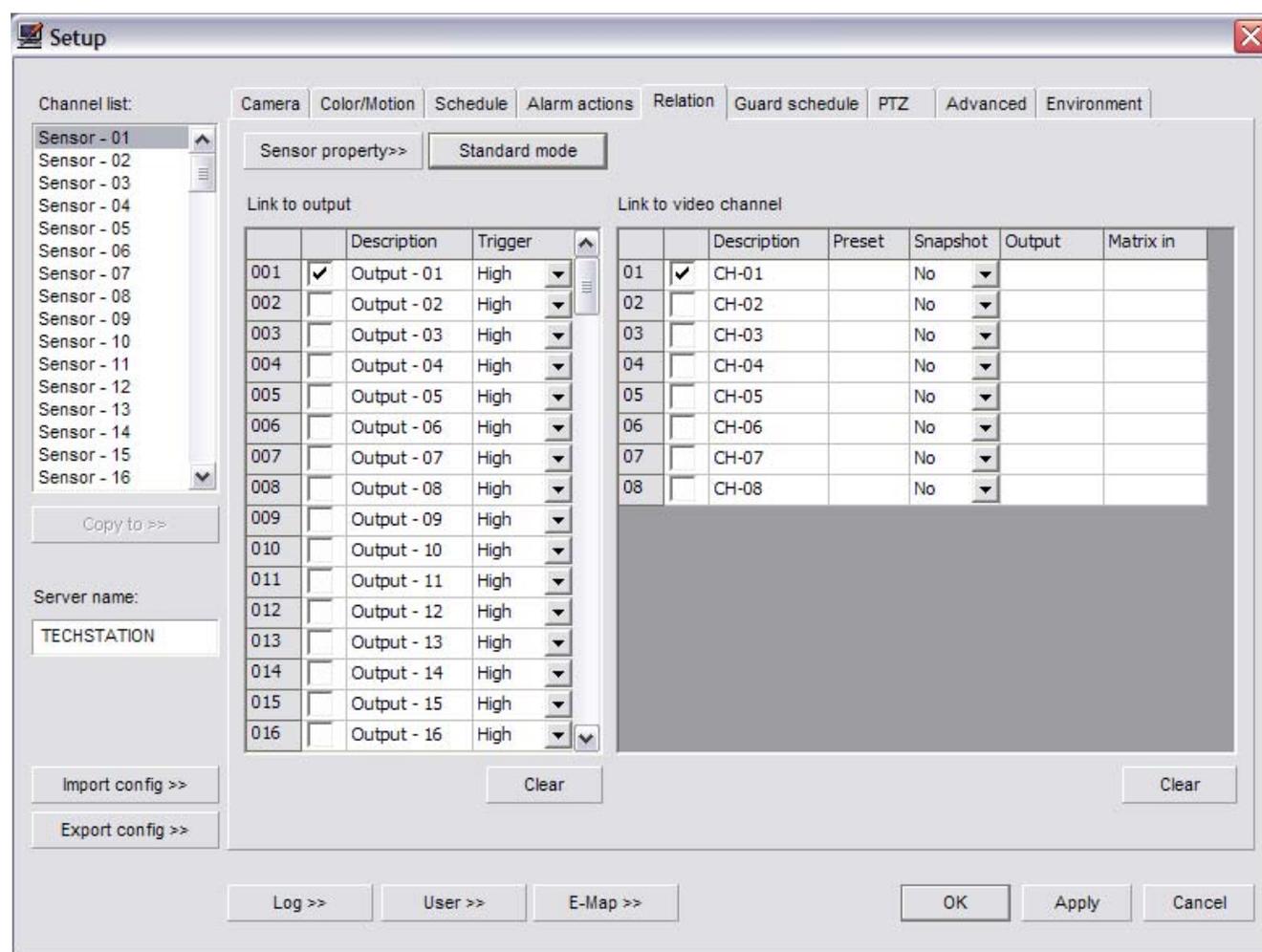
The Alarm Recording check box will toggle alarm recordings. Alarm conditions include motion detection and external sensor triggers. The Show Motion Area check box toggles the motion detection zone box on the Live Preview. (p. 13) The Enable Motion Log check box will enable the motion detection based alarm condition triggering. This must be enabled for the E-map feature to pop-up on motion detection. It is also required for motion detection based E-mail triggering. The Single Screen Preview feature will maximize any video channel that detects motion. If more than one video channel detects motion the Single Screen Preview will show the video channel with the highest priority based on the Camera Priority. (p. 24) The Error/Motion Output Trigger check box will enable motion detection based external alarm relay controller triggering. This must be enabled if you want motion detection to trigger an external alarm device. The Show Local Alarm Light check box toggles the display of a visual alarm light in the center of the screen during alarm conditions. The Enable Voice Alarm check box toggles an audible sound that plays through the speakers connected to the DVR Server when an alarm condition is detected (motion detection/alarm trigger). To select the sound to be played select the **Alarm Response** button. (Fig. 3-11)



(Fig. 3-11)

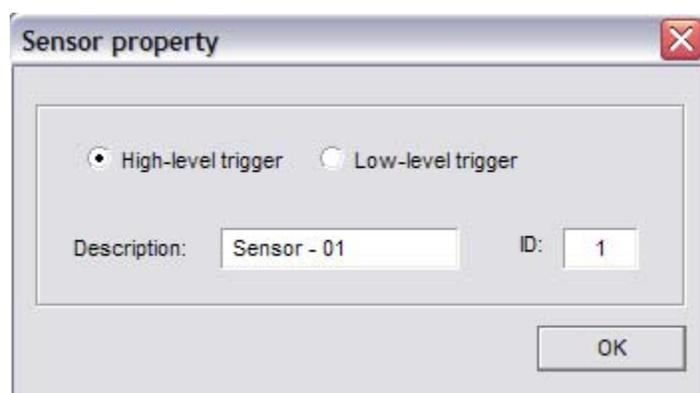
The Alarm Response tab will allow you to set separate sound files for each sensor connected through the alarm relay controller when they are triggered. The Motion Response tab will allow you to set separate sound files to be played for each individual channel when motion is detected. The Error Response tab will allow you to set a single sound file for any error condition that occurs. To configure a sound file left-click on the desired sensor/channel and select the **File Selection** button. The standard Windows Open dialog box opens. Navigate to the directory where your sound file is located and highlight it. Once the sound file is highlighted, select the **Open** button to apply that sound file. The Popup E-Map check box enables the automatic showing of the E-Map when an alarm condition is detected. (p. 41) The Pre-recording check box, when enabled, will record 10-20 seconds of video before the alarm condition happened. This will help aid in determining what events led up to the alarm condition.

Relation Tab (Fig. 3-12)



(Fig. 3-12)

The Relation tab allows you to configure any supported alarm relay controller device that you have connected to the DVR Server. To configure an individual sensor connected to the alarm relay controller select the sensor from the Sensor list. Once the sensor is highlighted select the **Sensor Property** button. The Sensor Property dialog box will appear. (Fig. 3-13) Determine if your sensor is a high or low level trigger and select the appropriate radio button. The ID field corresponds to which input you have your sensor connected to on the alarm relay controller. Input the proper number in the ID field. Using the Description field, you can give your sensors different names. Once you have your sensor configured select the **Ok** button to return to the Relation tab.

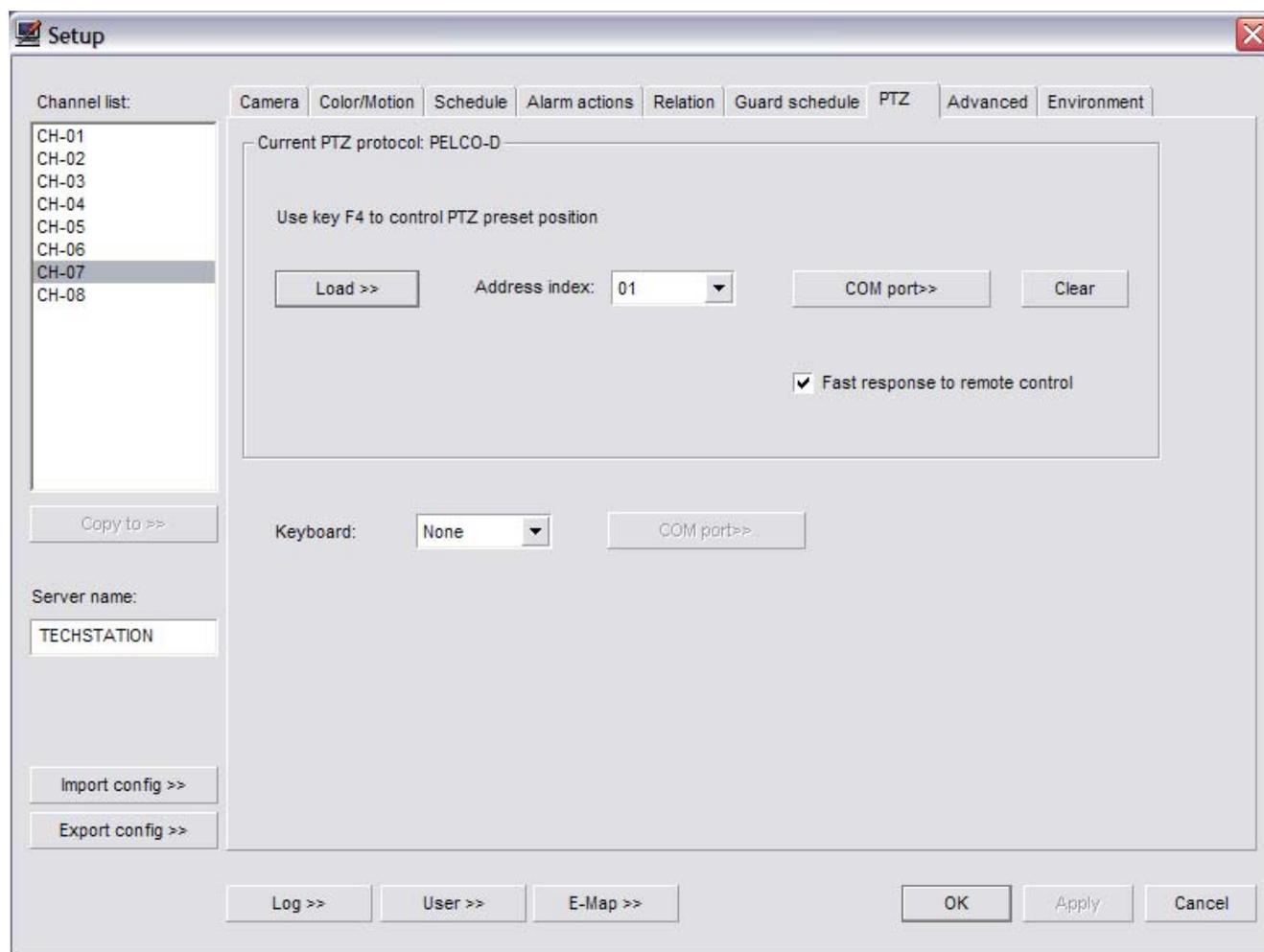


(Fig. 3-13)

You can link each individual sensor to either a video channel or an alarm output on the alarm relay controller. To configure the alarm outputs select the output number that the alarm device is connected to on the alarm relay controller by checking the box in Link To Output. Enter a description and select either High or Low for the Trigger. You can also select a High Level Pulse or a Low Level Pulse. The Pulse will trigger the output for a short time and then turn off. You can link several alarm outputs to a single sensor. To link a sensor to a video channel for recording select the sensor from the Sensor List. Then check the box next to the desired video channel under the Link To Video Channel. The Preset column allows you to enter a PTZ Preset Position number (p. 44) that the PTZ camera will automatically move to when the sensor is triggered. The Snapshot column will allow you to save a snapshot when the sensor is triggered. The Output column allows you to assign an alarm output number that will trigger the corresponding alarm device connected to that specific output on the alarm relay controller. The Matrix In column will display the video channel number that is entered on Public View 01. (p. 48)

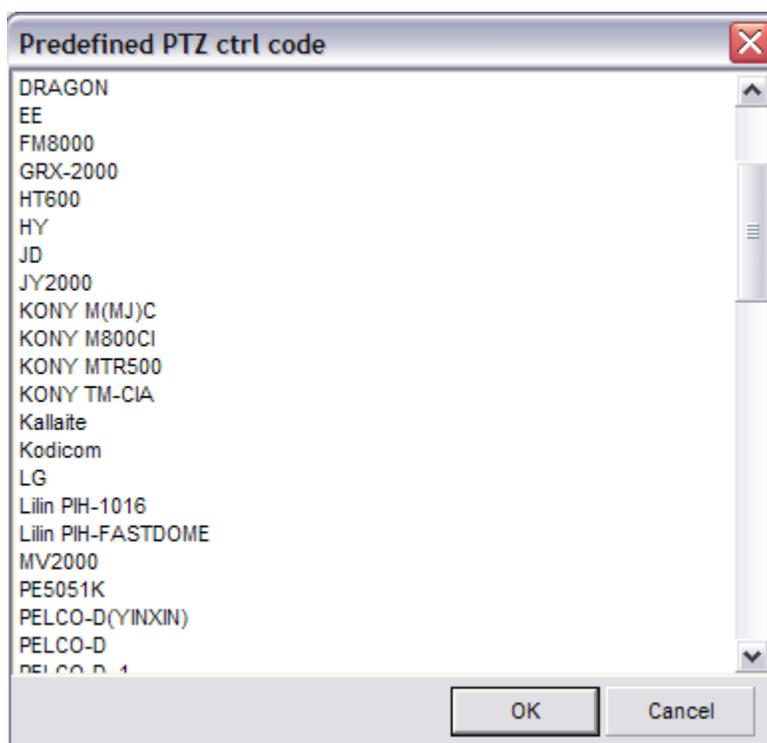
Guard Schedule Tab

The Guard Schedule tab is where you configure the schedule for each sensor connected to the alarm relay controller. Unless a schedule is set and activated, the sensor(s) attached to the alarm relay controller will be disabled. Refer to the Schedule Tab section for setup. (p. 21)

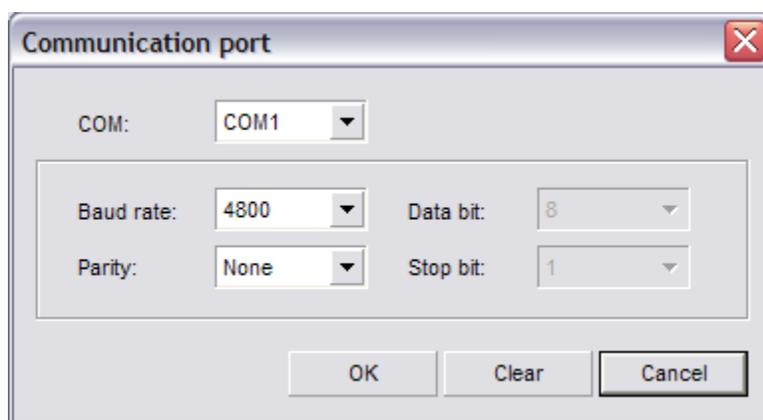
PTZ Tab (Fig. 3-14)

(Fig. 3-14)

To configure a PTZ camera select the video channel that the PTZ camera is connected to in the Channel List. Select the **Load** button to bring up the Predefined PTZ Ctrl Code dialog box. (Fig. 3-15) Locate the supported PTZ camera by scrolling down the list and select it by left-clicking, then select the **Ok** button. Once the protocol is configured, assign the correct address to the PTZ camera using the Address Index drop down box. Select the **COM Port** button to bring up the Communication Port dialog box. (Fig. 3-16) Configure each drop down box as specified by the PTZ camera manufacturer and select the **Ok** button to return to the PTZ tab.



(Fig. 3-15)



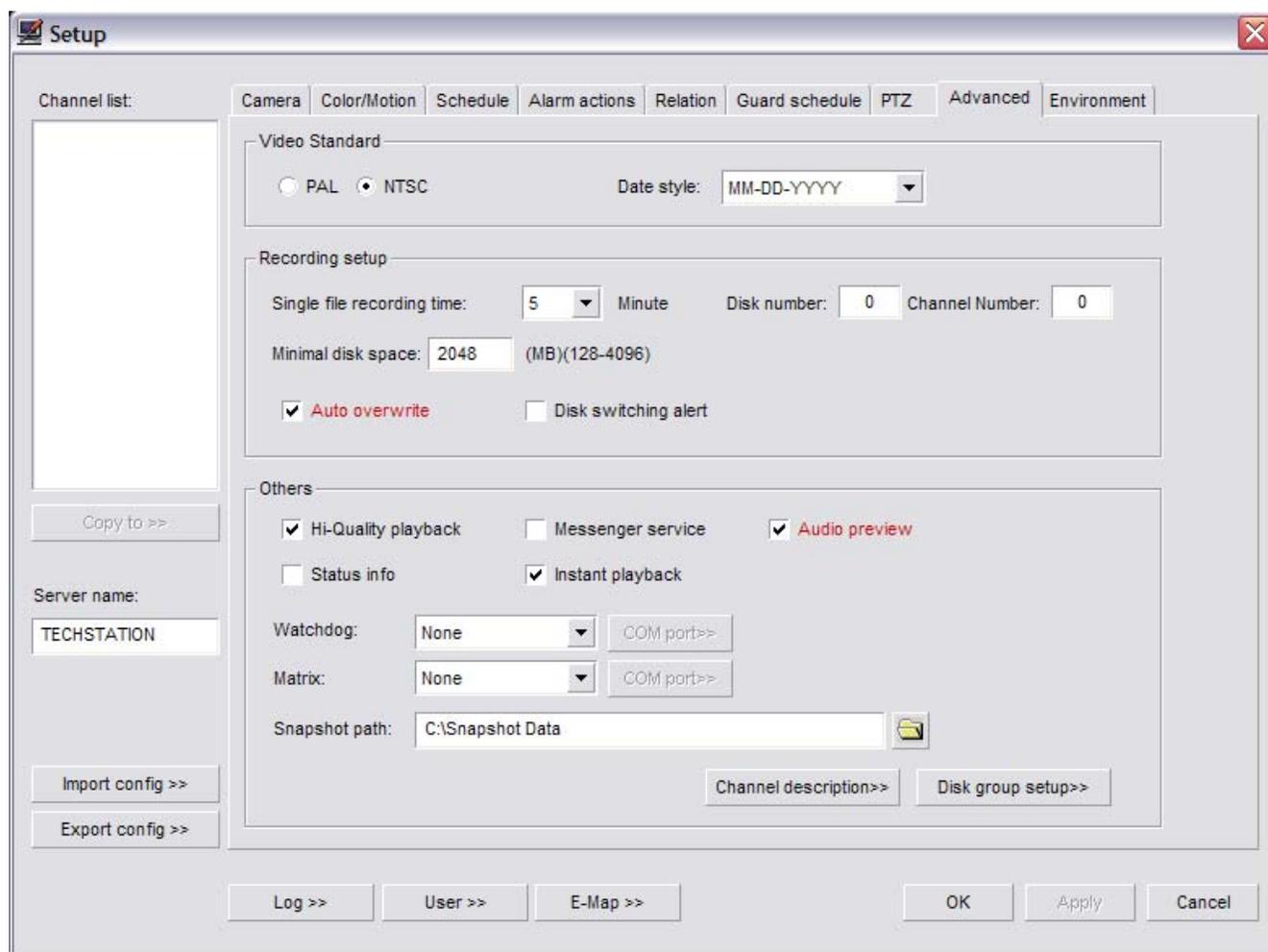
(Fig. 3-16)

To select an external PTZ control device, such as a PTZ joystick, select the supported device from the Keyboard drop down box and select the **COM Port** button to bring up the Communication Port dialog box. (Fig. 3-16) Configure each drop down box as specified by the manufacturer.

Advanced Tab (Fig. 3-17)

Video Standard: During the Initial Startup (p. 12) the video standard was already selected and should not need to be configured. Using the Date Style drop down box you can change how the date is displayed on the OSD.

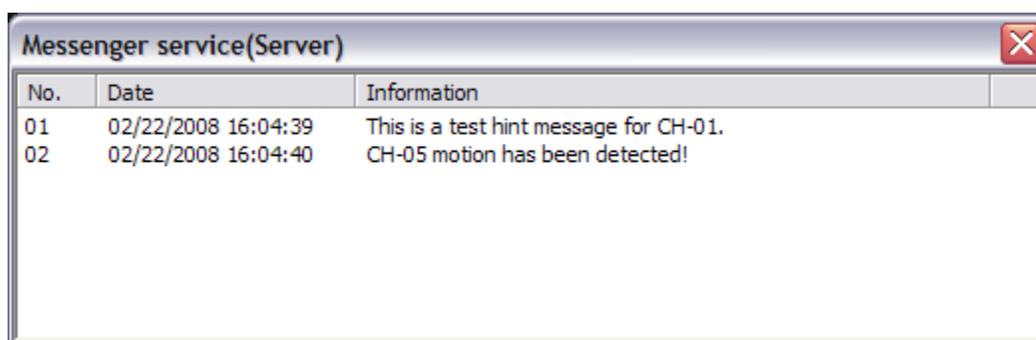
Recording Setup: The Single File Recording Time allows you to select the maximum amount of time before a new recording file is created. Remember that you cannot create a clip that spans multiple recording files and that the longer the Single File Recording Time is the longer it will take to load before playing back. The Minimal Disk Space is the amount of free space needed on a partition to record video to. Once this value is reached the DVR Server will automatically free up more disk space to continue to record. The Auto Overwrite feature will automatically free up disk space (this will delete the oldest video recording files) and continue to record. The Disk Switching Alert will open a message box every time the server starts recording video to a different partition. You must click the **Ok** button before the DVR Server will start recording again.



(Fig. 3-17)

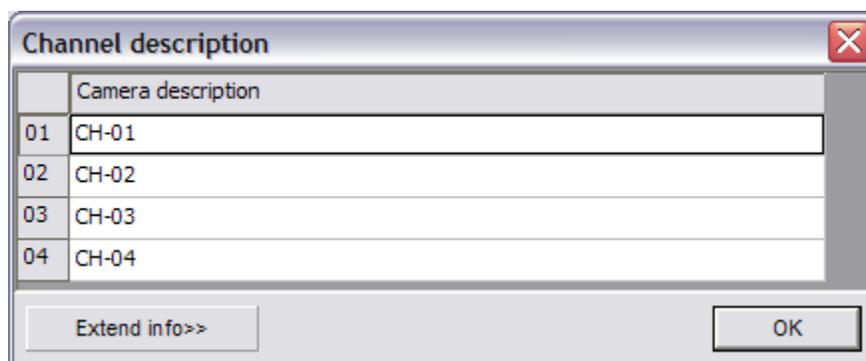
Others: The High-Quality Playback check box changes the playback quality. The

Voice Chat check toggles the ability to use a microphone and speakers to talk between the Server and the Client. The first time the Voice Chat (p. 48) is activated the Windows Sound Configuration will open and you will need to configure the microphone. The Messenger Service check box enables the Messenger Service dialog box pop-up. (Fig. 3-18) This dialog box will appear at the bottom of the screen and display various messages pertaining to the DVR Server. The Audio Preview check box will toggle the Live Preview Audio in the Main DVR Screen. The Status Info check box toggles the display of the recording status information on each video channel preview image. The Instant Playback check box toggles the Instant Playback feature. (p. 47)



(Fig. 3-18)

The Watchdog drop down box allows you to setup a hardware watchdog. Use the **COM Port** button next to the Watchdog drop down box to configure the watchdog settings according to the manufacturer. The Matrix drop down box will allow you to select any of the supported matrix cards. Depending on the manufacturer you may or may not need to configure the COM port settings using the **COM Port** button. The Snapshot Path is the absolute path where all the snapshots taken will be stored. To select a different location select the **Open** button (open yellow folder) and select the desired directory. To change the name of the video channels select the **Channel Description** button. (Fig. 3-19) Type in a name for each channel in the Camera Description field. You can add an extended description to each channel by clicking the **Extend Info** button. (Fig. 3-20) The Extended Info is only editable here in the Setup Menu, you cannot change the text while viewing the Extended Info in the Live Preview mode.

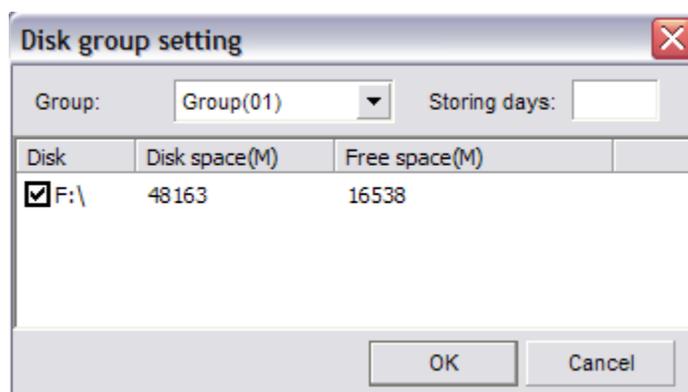


(Fig. 3-19)



(Fig. 3-20)

To configure the storage partitions select the **Disk Group Setup** button. (Fig. 3-21) Select a disk group from the Group drop down box. All available partitions will be displayed. Check/un-check the box next to each partition to add/remove it from the disk group. You can assign different disk groups to different video channels. (p. 19)



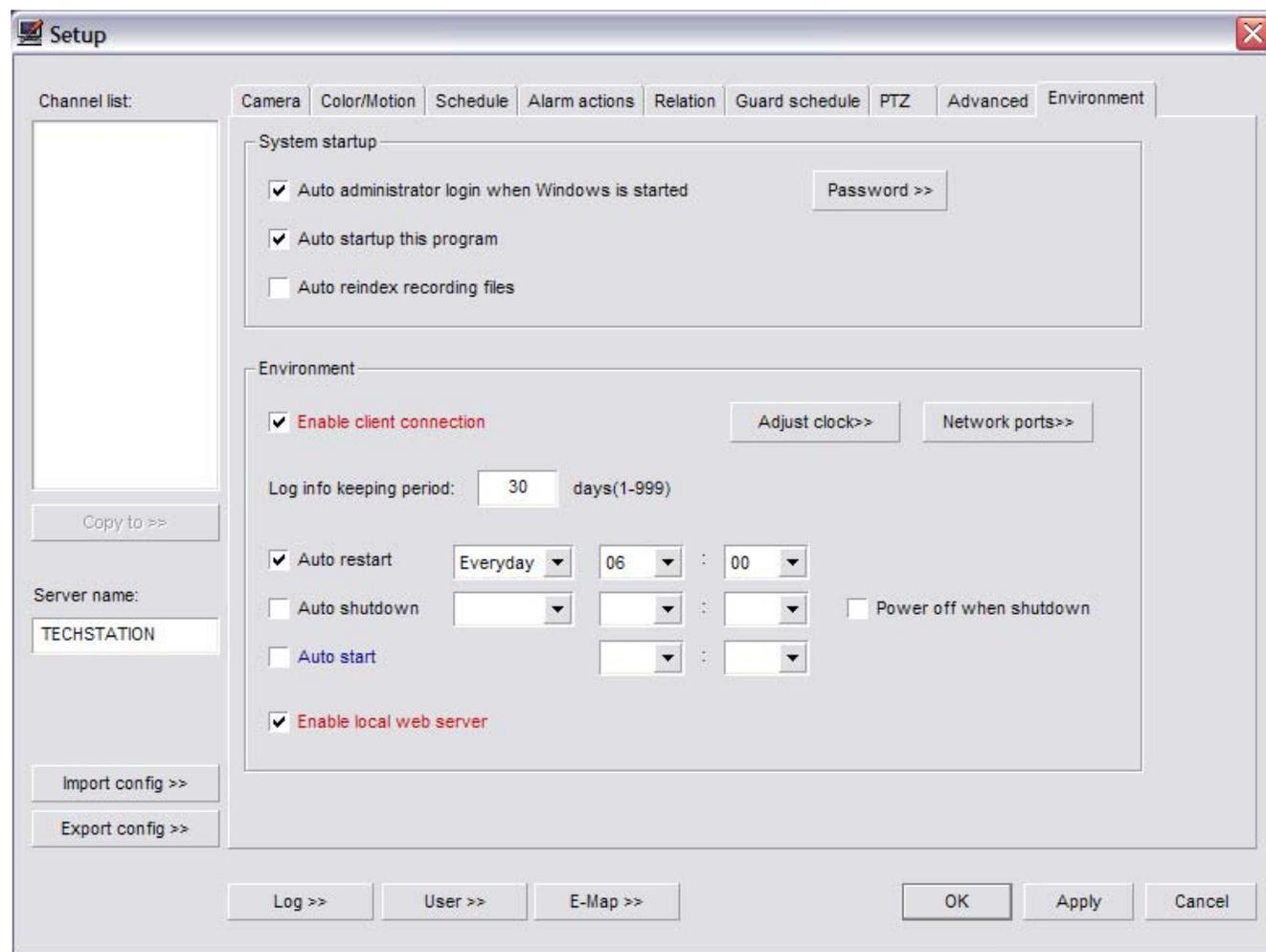
(Fig. 3-21)

The **Import Config** and **Export Config** buttons will appear on all tabs. You can choose to import or export your DVR Server configuration. This allows you to copy your configuration to another DVR Server to quickly setup multiple DVR Servers or to backup your settings in case of emergency. To export your configuration select the **Export Config** button. The standard Windows Save dialog box appears where you will be able to choose the name and location to save your configuration field to. To Import a configuration file select the **Import Config** button. The standard Windows Open dialog box appears where you will be able to select a compatible configuration file to import. Once you import a configuration file, the settings will be automatically applied.

Environment Tab (Fig. 3-22)

System Startup: To have the DVR Server application automatically log into Windows XP/2000 on startup check the Auto Administrator Login When Windows Is Started check box. If the DVR Server is to be added to a domain select the **Password** button and type in the domain password in the New Password and Retype fields. To have the DVR Server application start when Windows XP/2000 loads check the Auto Startup This Program check box. The Auto Reindex Recording Files check box will reindex all recorded video files after

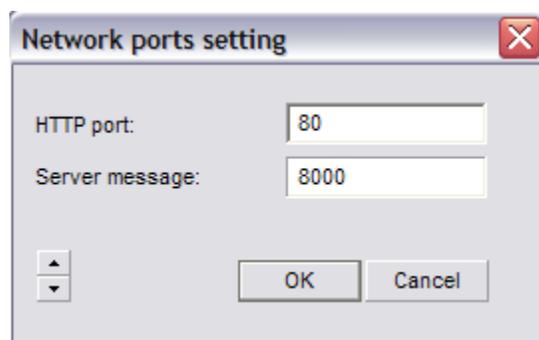
the DVR Server has finished loading.



(Fig. 3-22)

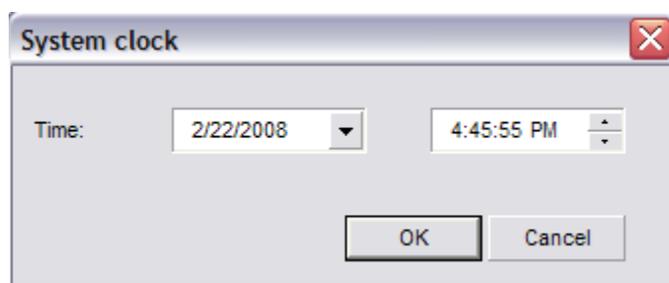
Environment: The Enable Client Connection check box needs to be checked to allow remote client users to successfully connect to the server. A log is created for every day that the DVR Server is running. To change the number of days that these logs are stored type in the desired number into the Log Info Keeping Period field. To have the DVR Server automatically restart check the Auto Restart check box. To specify when this restart will happen select the desired day, hour, and minute using the corresponding drop down boxes. It is recommended to restart at least once a week. To shutdown automatically check the Auto Shutdown check box and configure the day, hour, and minute drop down boxes. Auto Shutdown will only exit the DVR Server application. To have the entire PC turn off check the Power Off When Shutdown check box. The server application can be scheduled to automatically start at a specific time. To enable this feature check the Auto Start check box and select the desired hour and minute using the drop down boxes. For the Auto Start feature to function the PC must already be on and Windows XP/2000 must be running. To enable the DVR Web Server check the Enable Local Web Server check box. For the DVR Server/Web Server to be accessible from remote locations you must forward ports through

the router to the DVR machine. To configure which port is used select the **Network Ports** button. (Fig. 3-23) Input the desired port number of the HTTP Port, which is used for the Web Server, and the Server Message, which is used for the Client Application.



(Fig. 3-23)

To synchronize the system clock to the local time select the **Adjust Clock** button. (Fig. 3-24) The System Clock dialog box will appear and allow you to change the system time and date.

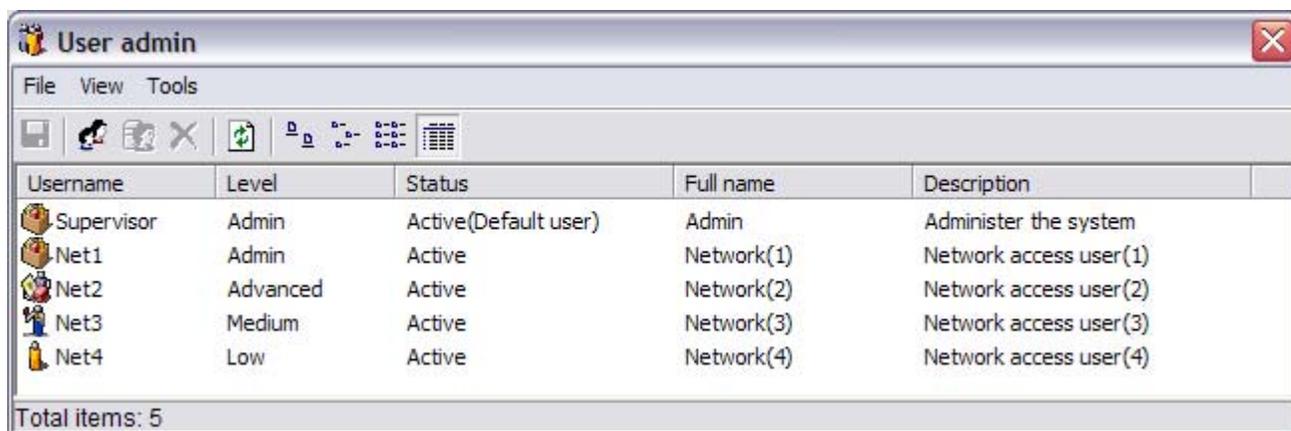


(Fig. 3-24)

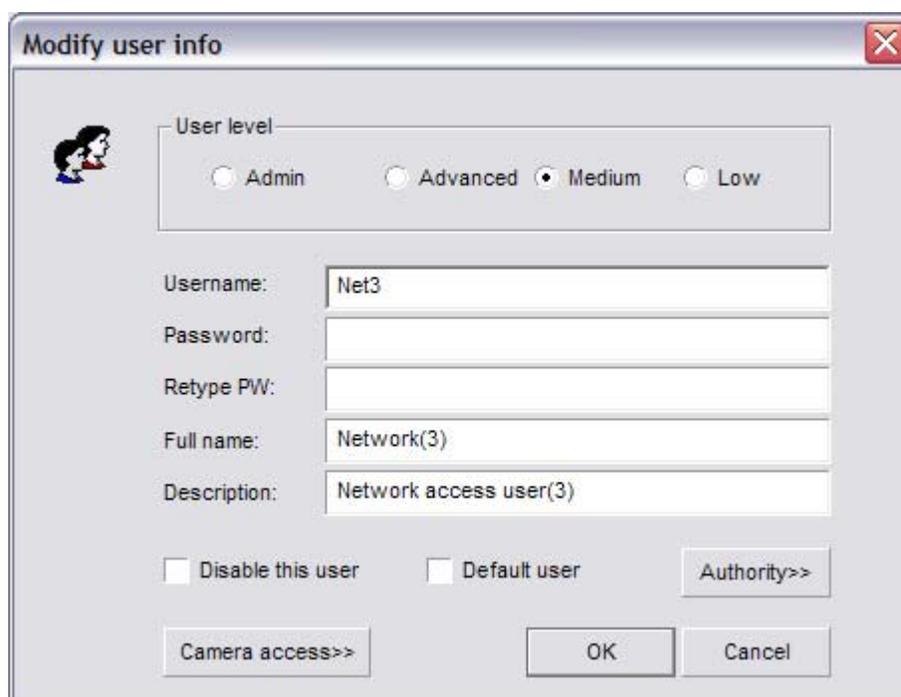
The Auto Reindex Recording Files check box will automatically start the reindexing process after the DVR Server application finishes loading. Due to imperfections in hard disk drive technology data corruption may occur. In this case you will need to reindex the recording files. The reindexing process scans each recorded video file and recreates the index file. Depending on how many recorded video files there are on the storage partitions this process may take up to two hours. If recorded video does not appear in the Playback mode or if the Playback mode takes more than five minutes to load it may indicate that there are missing or corrupt index files, you will need to reindex. During Daylight Savings when the time is set back one hour the DVR Server will have two recordings for that same hour. To correct this situation you must reindex.

User Button

The **User** button will allow you to add/delete users and to modify their permissions. There are several buttons on the top of the User Admin dialog box. (Fig. 3-25) Hover the mouse cursor over these buttons to see what each of them are. To delete a user from the system select the user from the list and select the **Delete** button. To configure an existing user select the **Modify** button. To add an additional user select the **Add User** button, the Add User dialog box will appear. (Fig. 3-26)

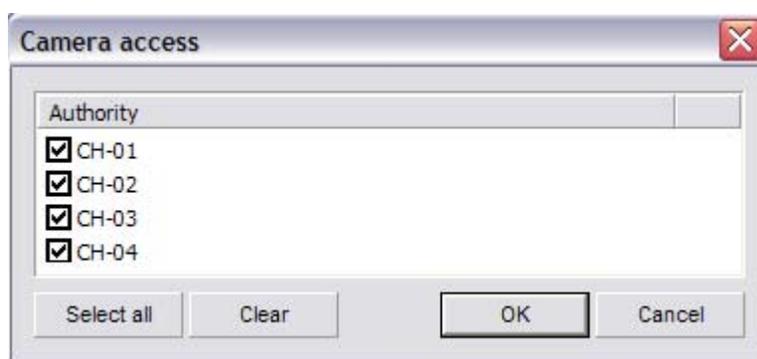


(Fig. 3-25)



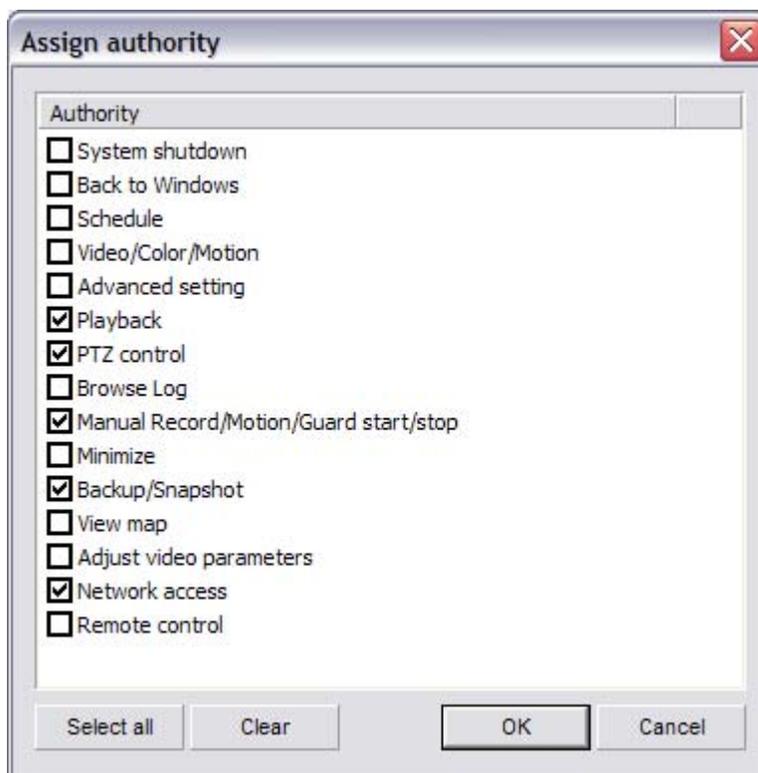
(Fig. 3-26)

Select the User level using the top radio buttons. The User Level determines client-side bandwidth priority. If a user with a higher User Level logs into the system and there is not enough bandwidth for all users, the user with the highest User Level will be allocated the required bandwidth. The users with a lower User Level will have their connection interrupted until other users disconnect from the system. Fill in the Username, Password, Retype Password, Full Name, and Description fields. You can disable a user by checking the Disable This User check box. This will not delete the user. To make a user the default user check the Default User check box. The default user is the user that automatically appears in the Lock/Exit dialog boxes. To enable specific cameras to be accessible by the user select the **Camera Access** button. The Camera Access dialog box appears. (Fig. 3-27) Check or un-check each camera that you want to enable/disable. To quickly enable all cameras select the **Select All** button. To quickly disable all of the cameras select the **Clear** button.



(Fig. 3-27)

To assign permissions to be granted to the user select the **Authority** button. The Assign Authority dialog box will appear. (Fig. 3-28) Check or un-check each of the selectable permissions for the user. To quickly remove all permissions select the **Clear** button. To quickly assign all permissions select the **Select All** button.

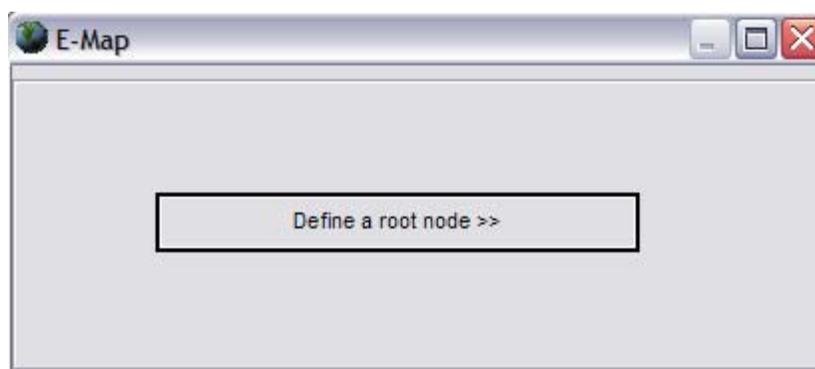


(Fig. 3-28)

To create a backup copy of the configured users select File and then Save As. The standard Windows Save dialog box opens. By default the user backup will save to the Config Files Backup directory inside the DVR Server folder. To restore a User Backup File select File, then Load. The standard Windows Open dialog box will appear. Select the *.usr file to import.

E-Map Button

If this is the first time you have configured the E-Map you will see the E-Map dialog box. (Fig. 3.29) The E-Map feature is an advanced camera/sensor/alarm electronic map capable of embedding smaller maps inside of larger maps.



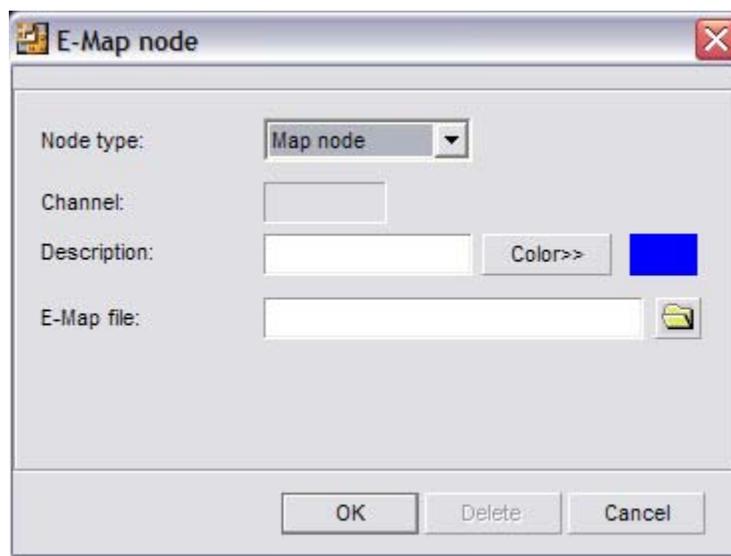
(Fig. 3.29)

Select the **Define A Root Node** button to select the root map, this root map can contain embedded maps, cameras, sensors, and alarms. The standard Windows Open dialog box will appear. The default directory for map images is “C:\Program Files\DVR\E-map”. Select the root map image from the list and select the **Ok** button. You will now see the E-Map dialog box with your root map image. The E-Map Control Buttons are on the bottom of the dialog box. (Fig. 3-30) From left to right these are Zoom In, Zoom Out, Return To Parent Map, Fullscreen, Standard Zoom, and Move Thumbnail Map.



(Fig. 3-30)

To embed a map image inside the root map image right-click on the root map image. The E-Map Node dialog box will appear. (Fig. 3-31) Select Map Node from the Node Type drop down box. Input a name for the child map in the Description field. You can change the color of the Description text by using the **Color** button. Select the **Open** button (yellow folder). The standard Windows Open dialog box will appear and you will be able to select the map image.



(Fig. 3-31)

Creating Cameras, Alarm Outs, and Sensors will create an icon on the E-Map that will act as a shortcut to the associated video recording channel. To add a camera to the E-Map right-click on the map image to open the E-Map Node dialog box. (Fig. 3-31) Select Camera from the Node Type drop down box. Type in the channel number in the Channel field and fill in the Description field. Once the camera icon shows up on the map image you can click and drag the icon to the desired location. Upon closing the E-Map Node dialog box you will be asked to save the changes.

To use the E-Map select the **E-Map** button on the DVR Main Screen. (p. 16) To view an embedded child map double-click the map icon. To bring up a video channel in Single Screen Preview double-click the camera icon. When you double-click the camera icon the E-Map will automatically close.

Log Button

The Log button will open the Log Viewer dialog box. (Fig. 3-32) The log file will provide more information about how the the DVR Server was functioning. Each log file is organized by date, there is one log file per day. You can sort by log entry type using the Type drop down box. You can also sort log entries by user with the Username drop down box. Use the **Save** button to create a backup copy of the log file.

Log viewer-[C:\Unisight Softwares\1.8.0131\Server Logs\02-29-2008.log]

File View Tools

02-29-2008	Type	Date	Description
02-28-2008	Warning	02/29/2008 14:59:12	This is a test hint message for CH-01.
02-27-2008	Warning	02/29/2008 14:59:11	CH-05 motion has been detected!
02-26-2008	Func	02/29/2008 14:59:06	Supervisor entered into system setting
02-24-2008	Func	02/29/2008 14:59:06	System restored
02-23-2008	Func	02/29/2008 14:59:06	Lock system key
02-22-2008	Warning	02/29/2008 14:59:01	CH-05 motion has been detected!
	Warning	02/29/2008 14:58:48	CH-05 motion has been detected!
	Warning	02/29/2008 14:58:31	CH-05 motion has been detected!
	Warning	02/29/2008 14:58:10	This is a test hint message for CH-01.
	Warning	02/29/2008 14:58:04	CH-05 motion has been detected!
	Info	02/29/2008 14:58:03	Disk group(1) current storage path is F:\
	Warning	02/29/2008 14:57:40	CH-05 motion has been detected!
	Func	02/29/2008 14:57:33	Unlock system key
	Func	02/29/2008 14:57:33	System minimized
	Func	02/29/2008 14:57:33	Supervisor left system setting
	Func	02/29/2008 14:57:31	Supervisor entered into system setting
	Func	02/29/2008 14:57:31	System restored
	Func	02/29/2008 14:57:31	Lock system key
	Warning	02/29/2008 14:57:24	CH-05 motion has been detected!
	Warning	02/29/2008 14:57:02	This is a test hint message for CH-01.
	Warning	02/29/2008 14:56:55	CH-05 motion has been detected!
	Warning	02/29/2008 14:56:54	This is a test hint message for CH-01.
	Warning	02/29/2008 14:56:38	CH-05 motion has been detected!
	Func	02/29/2008 14:56:06	Unlock system key
	Func	02/29/2008 14:56:06	System minimized
	Func	02/29/2008 14:56:06	Supervisor unlock system
	Func	02/29/2008 14:56:04	System restored
	Func	02/29/2008 14:56:04	Lock system key
	Warning	02/29/2008 14:56:00	This is a test hint message for CH-01.
	Warning	02/29/2008 14:55:55	CH-05 motion has been detected!

Type: <All>

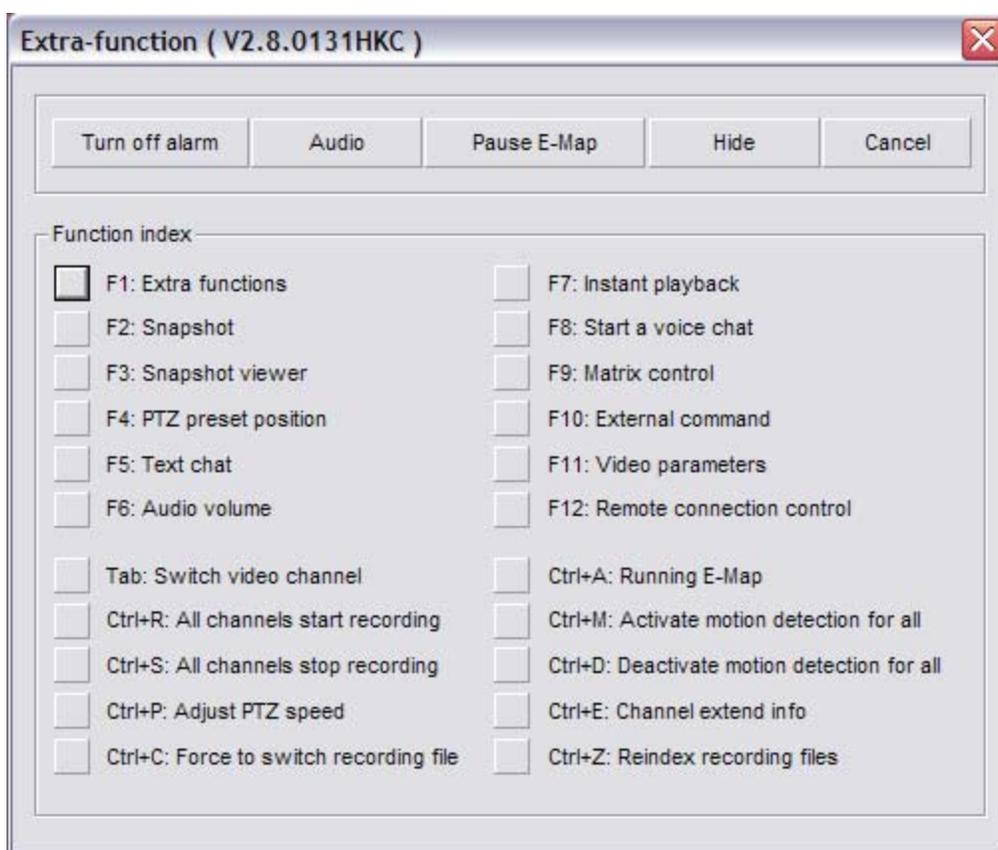
Username: <All>

Total items: 1488, Warning items: 1193, Error items: 0, Func items: 259

(Fig. 3-32)

Extra Button

The **Extra** button allows you to determine the version number that you are currently running. (Fig. 4-0) The version number will be displayed in the title bar after the Extra-function text. Each Extra Function has a shortcut key associated with it that is displayed before the button name. These buttons include Extra Functions (p. 44), Snapshot (p. 44), Snapshot Viewer (p. 44), PTZ Preset Position (p. 44), Text Chat (p. 45), Audio Volume (p. 47), Instant Playback (p. 47), Start A Voice Chat (p. 48), Matrix Control (p. 48), External Command (p. 50), Video Parameters (p. 50), Remote Connection Control (p. 50), Switch Video Channel (p. 50), All Channels Start Recording (p. 51), All Channels Stop Recording (p. 51), Adjust PTZ Speed (p. 51), Force To Switch Recording File (p. 51), Running E-Map (p. 51), Activate Motion Detection For All (p. 51), Deactivate Motion Detection For All (p. 52), Channel Extend Info (p. 52), and Reindex Recording Files (p. 52).



(Fig. 4-0)

Extra Functions

F1: This button will bring up the Extra Functions dialog box.

Snapshot

F2: This button will take a snapshot of the currently selected channel and will be save to the default directory of C:\Snapshot Data.

Snapshot Viewer

F3: This button will bring up the Image Viewer and allow you to view, edit, and print any snapshot taken. (Fig. 4-1) Select the File menu, then select Open to open a snapshot image. Once the snapshot is loaded you can use various editing tools to enhance the image.

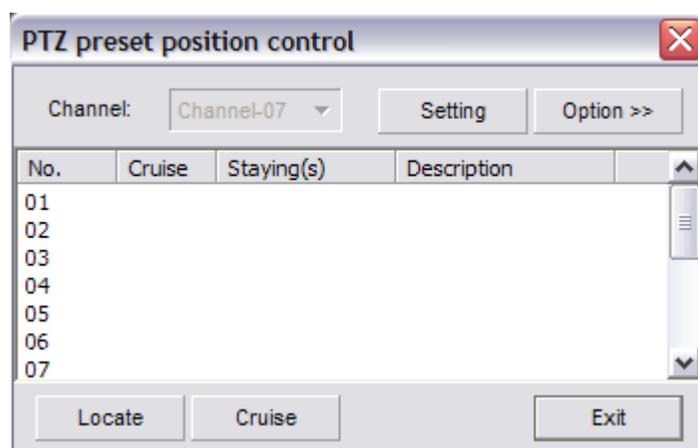


(Fig. 4-1)

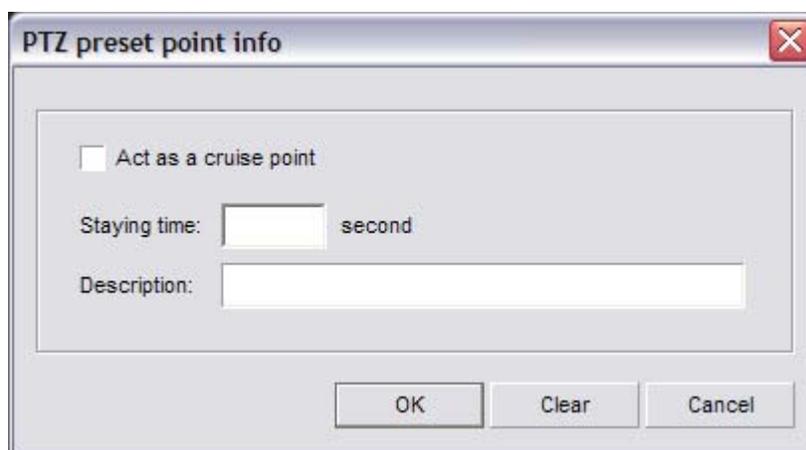
PTZ Preset Position

F4: This button will bring up the PTZ Preset Position Control dialog box. (Fig. 4-2) Begin by selecting the video channel that has a PTZ camera configured in the Live Preview. Select the PTZ button to display the PTZ camera controls. (p. 53) Point the PTZ camera at the desired location and select PTZ Preset Position in the Extra Functions dialog box or by pressing F4 on the keyboard. Left-click number 01 and select the **Setting** button. The **Setting** button stores the PTZ orientation to the selected number. Now select the **Option** button. This will open the PTZ Preset Point Info dialog box. (Fig. 4-3) To have this PTZ preset position be a cruise point check the Act As A Cruise Point check box. To have the PTZ camera pause at this point during cruising enter a number (in seconds) for the Staying Time field. The Description field allows you to assign a name to the cruise point. The **Clear** button will remove the PTZ cruise point information. These cruise points are stored in the PTZ camera itself and cannot be erased by the DVR Server application. To initiate the PTZ

Cruising feature select the **Cruise** button. Each time the DVR Server application is closed PTZ cruising is stopped and will not start until the **Cruise** button is selected again. To have the PTZ camera orientate to a saved PTZ Preset Point select the number of the preset and select the **Locate** button.



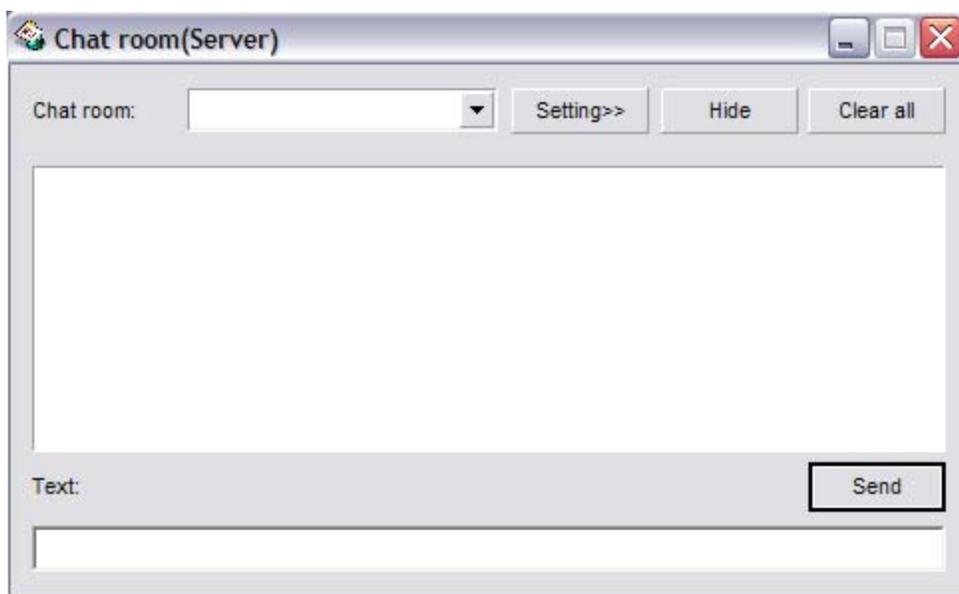
(Fig. 4-2)



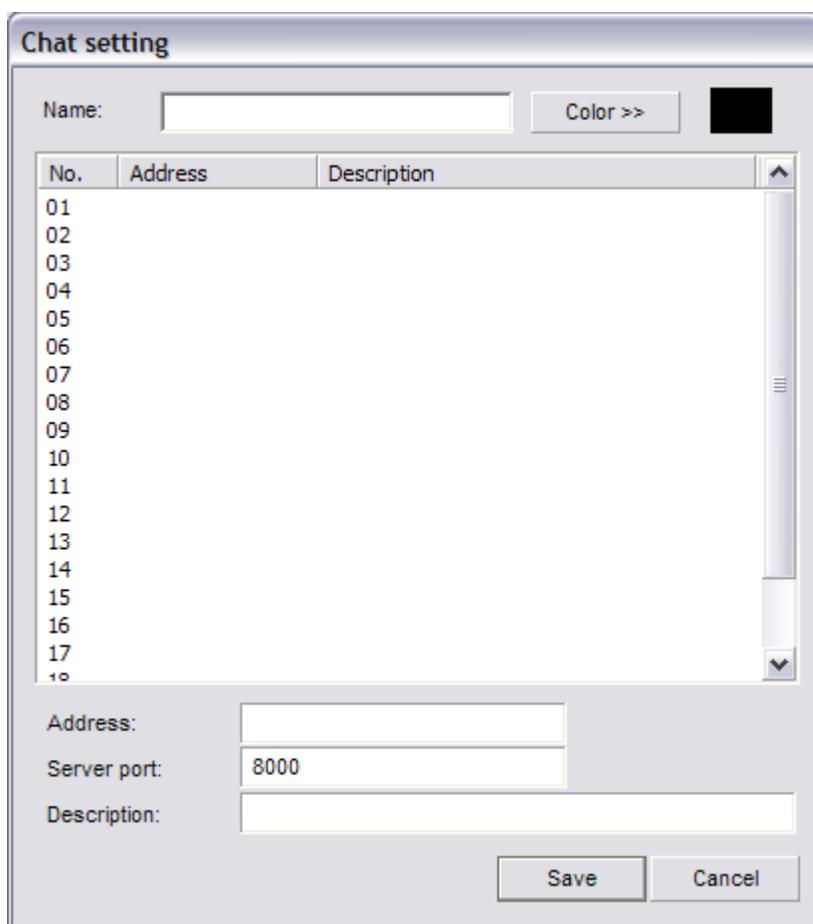
(Fig. 4-3)

Text Chat

F5: This button will bring up the Chat Room dialog box. (Fig. 4-4) To configure a chat room select the **Setting** button. The Chat Setting dialog box will appear. (Fig. 4-5) Set a name for the chat room using the Name field. Input the Address, Server Port, and Description using the fields at the bottom of the window. Select the text color using the Color button. This is the color of the text you type, the other users have their own separate colors. Select the **Save** button to return to the Chat Room dialog box. Type in a message in the bottom text field and select the **Send** button to have your message appear. The Clear All button will remove all sent/received text messages from the chat window.



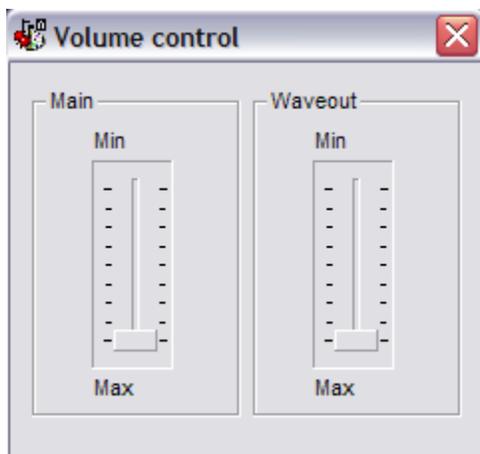
(Fig. 4-4)



(Fig. 4-5)

Audio Volume

F6: This button will allow you to adjust the volume of both the Waveout volume and Main Volume. (Fig. 4-6)



(Fig. 4-6)

Instant Playback

F7: This button will open the Instant Playback dialog box. (Fig. 4-7) Use the Time Slider under the video feed to quickly fast forward/backward. The buttons (from left to right) are Save, Fullscreen Mode, Decrease Speed, Play, Pause, Stop, Increase Speed, Snapshot, and Exit. The **Save** button will open the standard Windows save dialog box and allow you to backup the Instant Playback video. The **Fullscreen Mode** button will maximize the Instant Playback video. To return from Fullscreen Mode right-click the mouse button anywhere on the screen. Use the **Increase/Decrease Speed** buttons to make the video play faster or slower. You can play as slow as $\frac{1}{4}$ real time speed and as fast as 16x real time speed. The **Pause** button will freeze playback. The **Stop** button will stop playback and move the time slider to the beginning of the Instant Playback video. The Play button will resume playback starting where the time slider is positioned. The **Snapshot** button will take a still image and allow you to save it. The **Exit** button will close the Instant Playback dialog box.



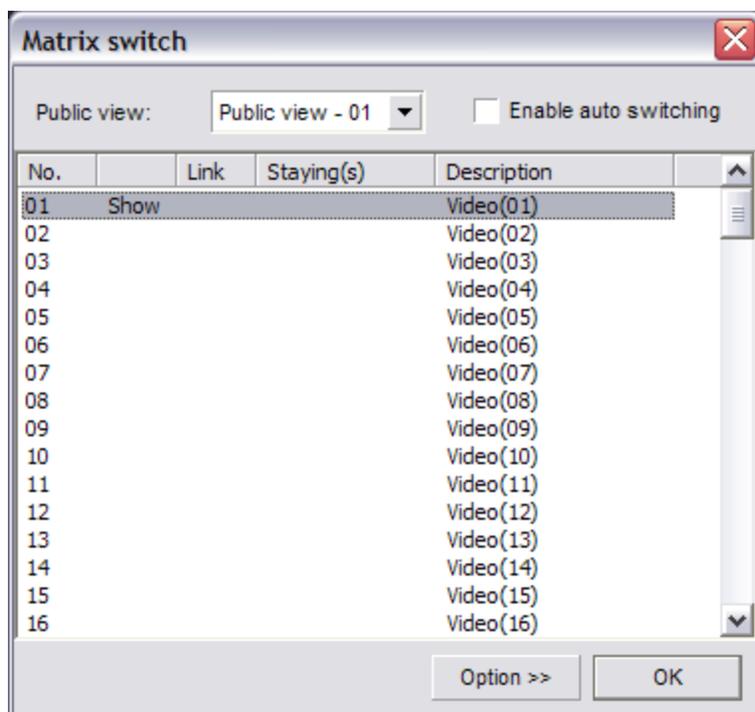
(Fig. 4-7)

Start A Voice Chat

F8: This feature is a 2-way full duplex voice chat. It is initiated on the client side. Refer to Start A Voice Chat. (p. 73)

Matrix Control

F9: This button opens up the Matrix Switch dialog box. (Fig. 4-8) The Public View drop down box will select the Public View grid number. Public View 01 is the analog monitor connected to the first port of the Matrix card. Public View 02 is the analog monitor connected to the second port of the Matrix card. Once you have selected the Public View select any video channel to be shown on that Public View by left-clicking the channel number from the list. Once selected it will display Show next to it.



(Fig. 4-8)

The **Option** button will open the Matrix Control Info dialog box for the currently selected video channel number. (Fig. 4-9) The Description field allows you to rename the video channel. The Relation To Public View check box will add that video channel number to the Auto Switching List. The Switch Interval field allows you to input the number of seconds you want that video channel to be displayed before switching to the next video channel. Select the **Ok** button to save the changes. The Enable Auto Switching check box on the Matrix Switch dialog box must be checked for the Public View to start the Auto Switch feature.



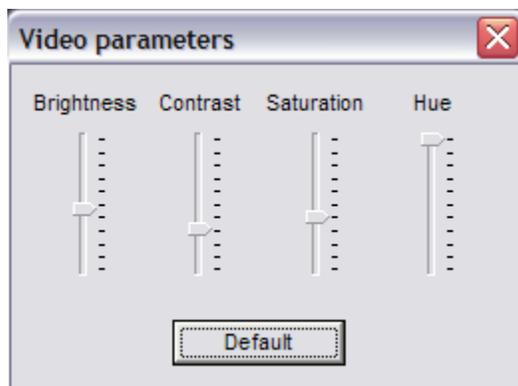
(Fig. 4-9)

External Command

F10: This button will execute any external command that has been configured.

Video Parameters

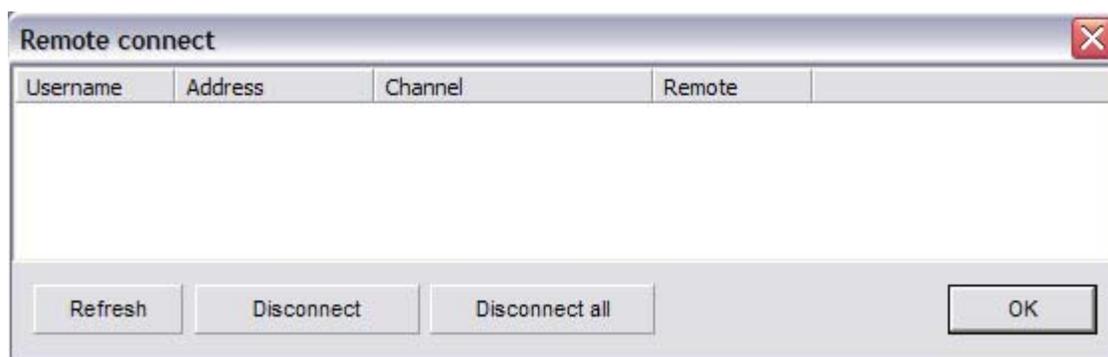
F11: This button will open the Video Parameters dialog box. (Fig. 4-10) You will be able to adjust the brightness, contrast, saturation, and hue for the currently selected video channel. Select the **Default** button to restore all parameters to their original values.



(Fig. 4-10)

Remote Connection Control

F12: This button will open the Remote Connect dialog box. (Fig. 4-11) This window will display each connected user, their IP address, and which video channel they are connected to. This list is automatically updated. To force an update and get the latest list select the **Refresh** button. To disconnect all connected remote clients select the **Disconnect All** button. To disconnect a single video channel connection select the desired channel and select the **Disconnect** button.



(Fig. 4-11)

Switch Video Channel

Tab: This button will cycle the video channel selection to the next video channel. You

will notice the white highlight box surrounding the currently selected video channel.

All Channels Start Recording

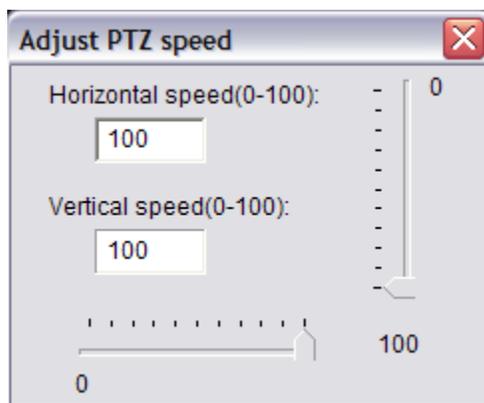
Ctrl+R: This button will start a recording in Manual recording mode on all channels if not currently recording. If a channel is disconnected recording will not start.

All Channels Stop Recording

Ctrl+S: This button will stop recording on all channels if not currently recording in Continuous Mode. If motion is detected the DVR Server will start recording again.

Adjust PTZ Speed

Ctrl+P: This button will allow you to change the speed at which the PTZ camera moves. This is especially useful when panning/tilting when zoomed in. Pressing Ctrl-P on the keyboard will bring up the Adjust PTZ Speed dialog box. (Fig. 4-12) Use the Horizontal/Vertical Speed sliders or enter a number in the Horizontal/Vertical Speed fields. This will not change the speed at which the PTZ camera moves when the PTZ camera in Cruising.



(Fig. 4-12)

Force To Switch Recording File

Ctrl+C: This button will create a new recording file for the currently selected video channel even if the Single File Recording Time (p. 32) has not been reached.

Running E-Map

Ctrl+A: This button will open the E-Map dialog box only if the E-Map has already been configured. (p. 41)

Activate Motion Detection For All

Ctrl+M: This button will start motion detection based recording on all channels if the

Motion Schedule is not already set.

Deactivate Motion Detection For All

Ctrl+D: This button will stop motion detection based recording on all channels if the Motion Schedule is not already set.

Channel Extend Info

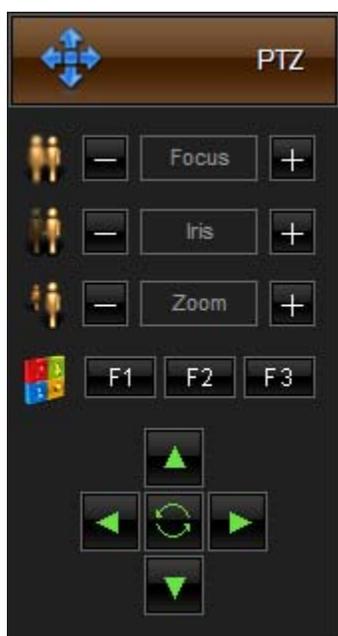
Ctrl+E: This button will open the Notice dialog box. This is only a display, the text is not editable. To edit the Channel Extend Info use the **Extend Info** button. (p. 33)

Reindex Recording Files

Ctrl+Z: This button will start the Reindexing process. (p. 36)

PTZ Button

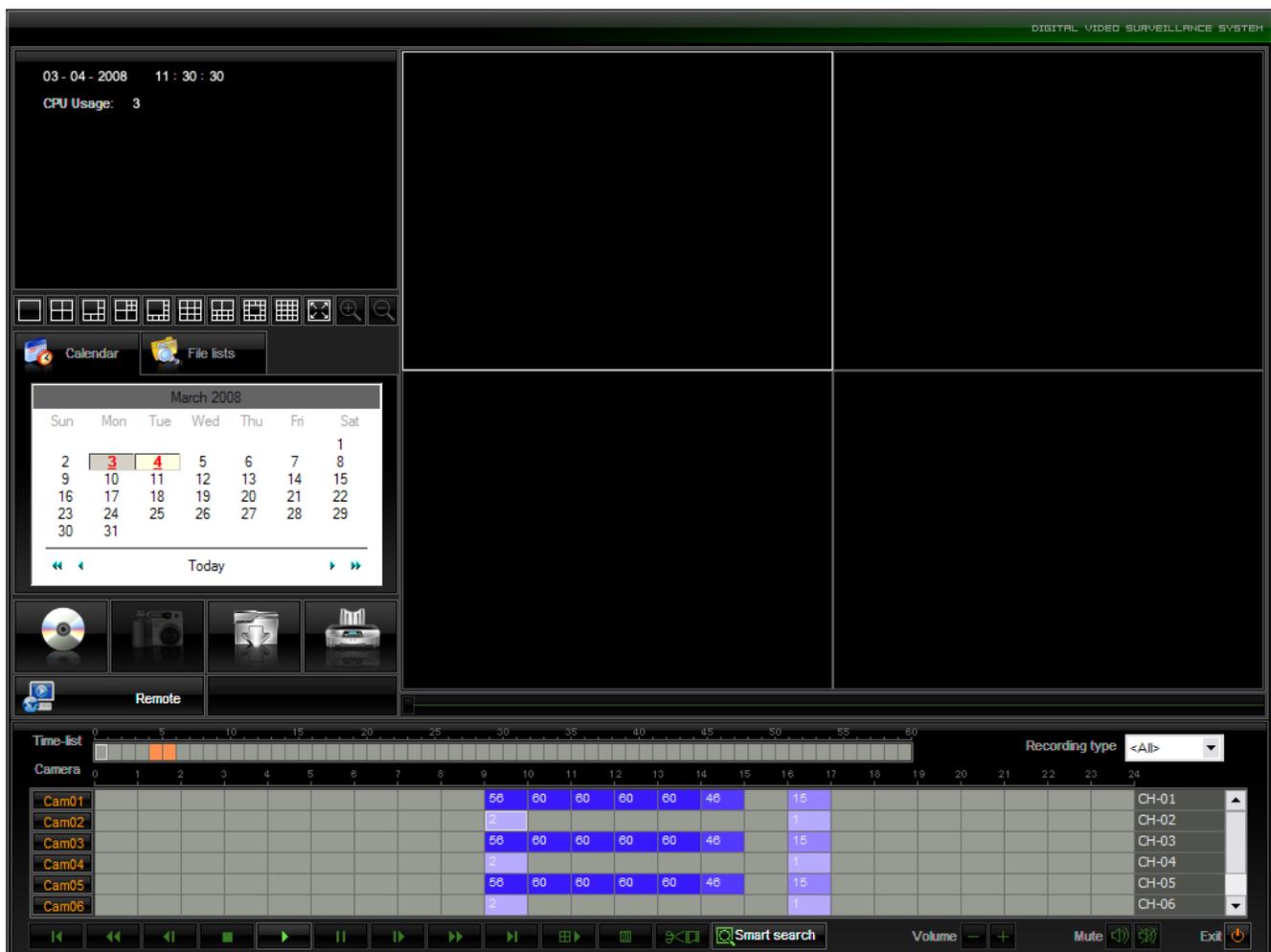
To gain control of a configured PTZ camera start by selecting the channel in the Live Preview. Select the **PTZ** button, the panel will expand the PTZ controls. (Fig. 5-0) Use the arrows to pan and tilt. The + and – buttons will focus, open/close the iris, and zoom in and out. The **Auto Rotation** button will slowly rotate the PTZ camera and may not be supported on all PTZ cameras. There are three other **Function** buttons that operate special PTZ camera functions such as wipe/clean glass and heater control. The **F1/F2/F3** buttons may not be supported on all PTZ cameras.



(Fig. 5-0)

Playback Mode

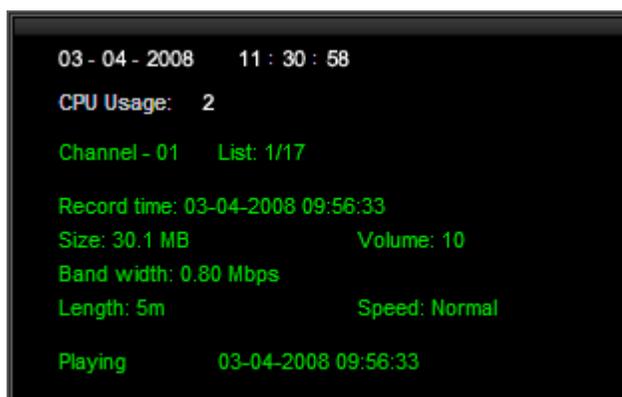
The Playback mode allows you to review and backup recorded video files. (Fig. 6-0) You can playback a maximum of 16 channels at once. You can fast forward at 16x. Take note that playback at 16x on all 16 channels would be the same as playing back 256 channels at normal speed. Playback at 4x on all 16 channels would be the same as playing back 64 channels at normal speed. The PC system used for playback may not have the system resources to playback that many channels at once or at that playback speed. Be sure to monitor your CPU Usage in the Playback Information Window (p. 55) when playing back recorded video files to avoid unwanted issues.



(Fig. 6-0)

Playback Information Window

The Playback Information Window displays the current date, time, and CPU usage in white on the top of the display. (Fig. 6-1) The channel number, video file size (in Mb), video file length (in seconds), bandwidth (in Mbps), video file start time, volume level, playback speed, and current playing time in green.



(Fig. 6-1)

Channel Grid

The channel grid contains the playback video. This is where you will see all of your video recordings. You can select each channel by left-clicking on the desired grid square, this will also activate the audio for that channel. There is a full screen mode that you can toggle by clicking the right mouse button on the video feed.

Grid Layout

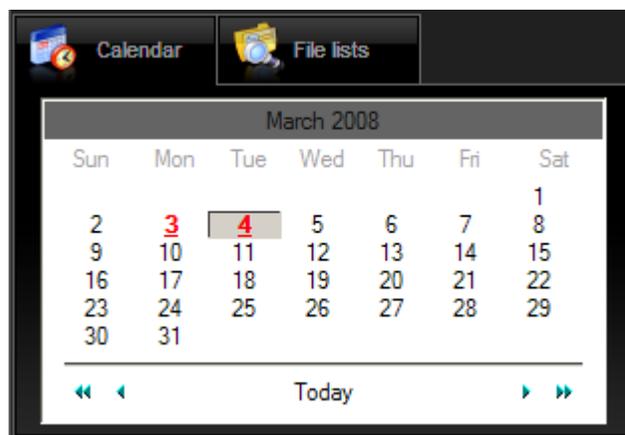
The arrangement of the Channel Grid is easily configured by 10 buttons. Hover your mouse cursor over these buttons for a description of each of the layout buttons. (Fig. 6-2) You can also zoom in and out by using the two buttons with the magnifying glass. Once zoomed in place your cursor over the edge of the video channel (the cursor will change to a pointing hand) and left-click to pan across the video feed.



(Fig. 6-2)

Calendar

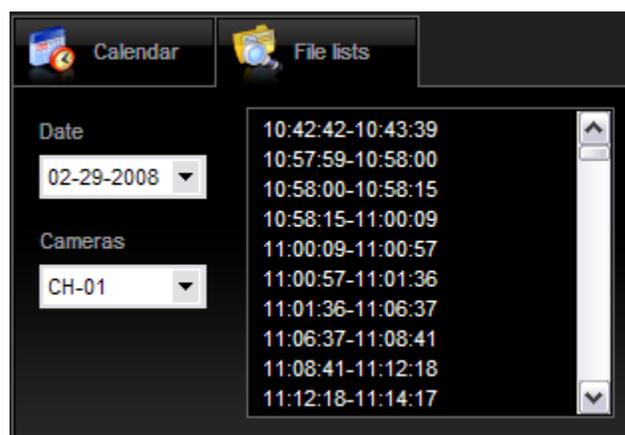
The calendar displays days that have recorded video footage in red, days with no video footage are displayed in black. (Fig. 6-3) To change months use the blue single arrow buttons. To change years use the blue double arrow buttons. To quickly change to the current date select the **Today** button.



(Fig. 6-3)

File List

You can also search for video recordings using the File List. (Fig. 6-4) Simply select the date from the Date drop down box and the channel name from the Cameras drop down box. You will see a range of time indexes. Each time index is a single video recording file. To playback a recorded file select the desired time index and select the **Play** button.



(Fig. 6-4)

Playback Controls

These controls will allow you to control the various aspects of playback. (Fig. 6-5) From left to right these are Previous File, Decrease Speed, Step Backward, Stop, Play, Pause, Step Forward, Increase Speed, Next File, Multiplay, and Stop All.



(Fig. 6-5)

Previous File – Jumps to the beginning of the previous video recording file.

Decrease Speed – Slows down the playback speed to a minimum of ¼ real time

speed.

Step Backward – Moves the time slider back one frame and also pauses the video playback.

Stop – Stops playback of the currently selected video recording file.

Play – Starts playback of the currently selected video recording file from the beginning of the file.

Pause – Freezes playback of the currently selected video recording file.

Step Forward – Moves the time slider forward one frame and pauses the video playback.

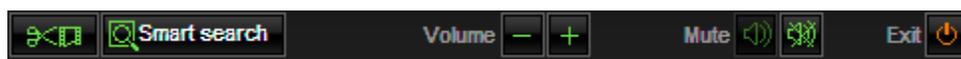
Increase Speed – Increases the playback speed up to 16x real time speed.

Next File – Jumps to the beginning of the next video recording file.

Multiplay – Starts playback of all selected video channels. To select/de-select a video channel left-click on the **Cam** buttons in the Camera column. To quickly select all video channels double-click any of the **Cam** buttons. To quickly de-select all channels right-click any of the **Cam** buttons.

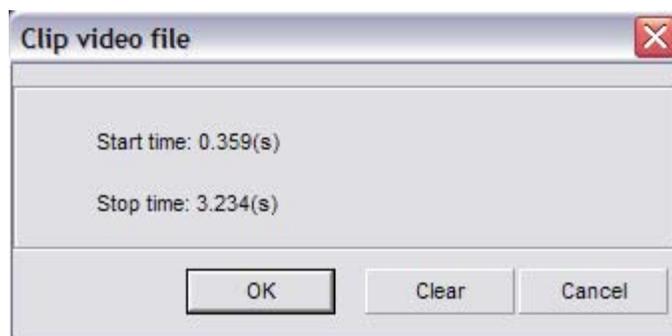
Stop All – Stops playback on all video channels.

The **Volume** Buttons will increase/decrease the volume of all video channels. The **Mute** buttons will enable/disable the audio playback. The **Exit** button will close the Playback mode and return to Live Preview. (Fig. 6-6)



(Fig. 6-6)

The **Clip** button will allow you create a clip of the currently playing video file. (Fig. 6-6) To start a clip select the **Clip** button. The Clip Video File dialog box will appear. (Fig. 6-7) A Start Time will be displayed but no Stop Time. Select the **Ok** button to start recording a clip. The Clip Video File dialog box will disappear. Once you have passed the video portion that you want in the clip select the **Clip** button again. The Clip Video File dialog box will appear. (Fig. 6-7) A Start Time and Stop Time with both be displayed. To save the clip select the **Ok** button. The Files Backup Manager will appear. (Fig. 6-8)

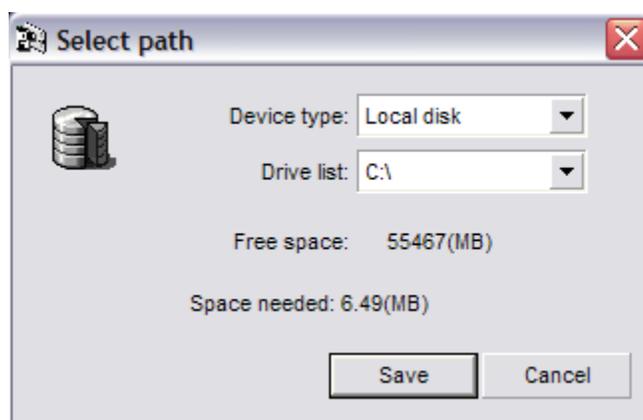


(Fig. 6-7)



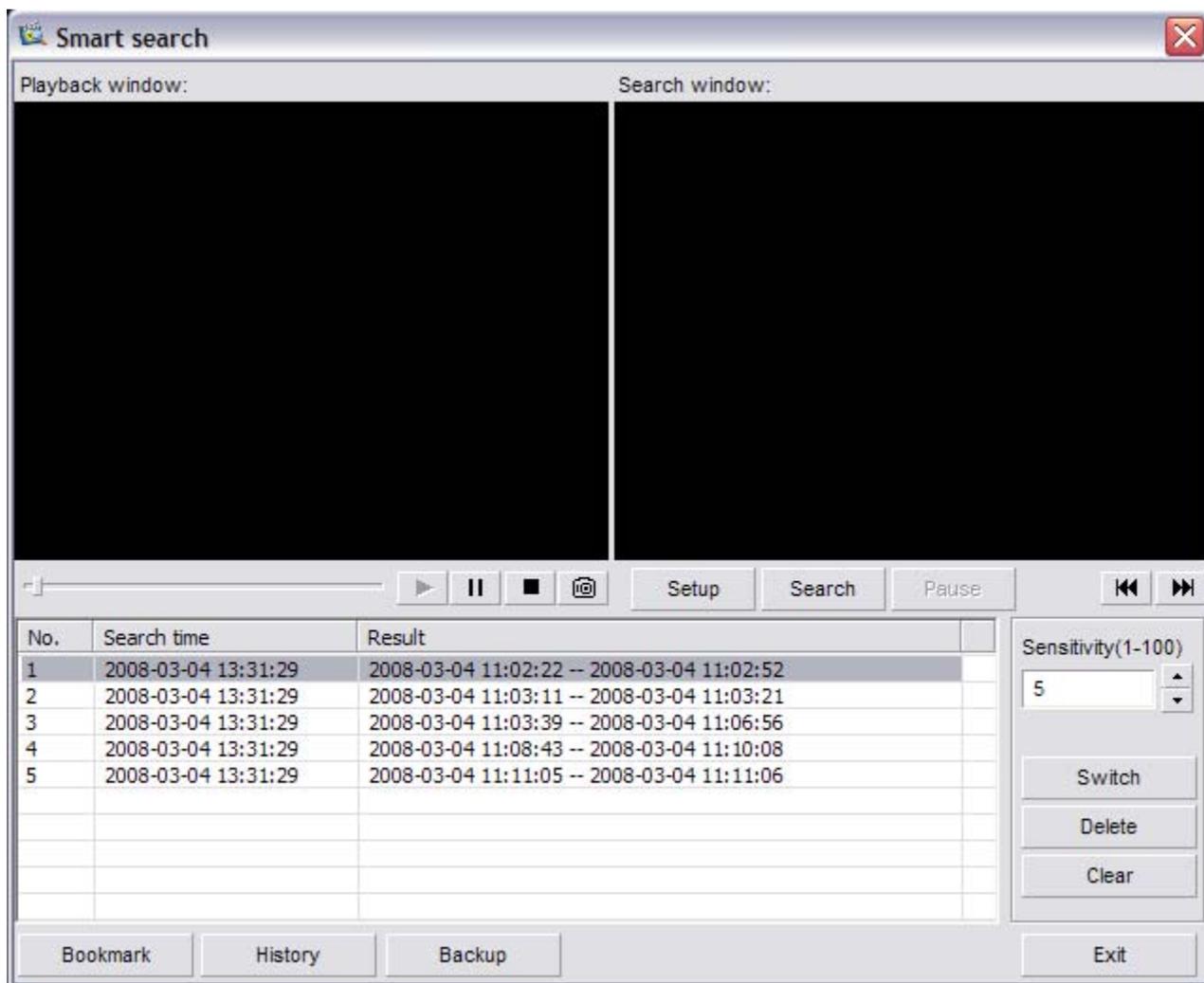
(Fig. 6-8)

Type in a name for the clip using the Filename field. Input a label using the Label field. Past labels will be displayed in the Label drop down box. Select the **Backup** button to continue. The Select Path dialog box will appear. (Fig. 6-9) Select the device to save the clip file to using the Device Type drop down box. Select the appropriate drive to save the clip file to using the Drive List drop down box. The Free Space and Space Needed displays will automatically update. Select the **Save** button to finish the clip creation process.



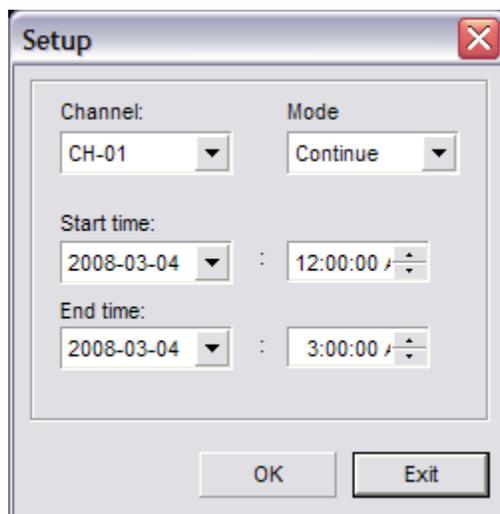
(Fig. 6-9)

The **Smart Search** button will open the Smart Search dialog box. (Fig. 6-10) The Smart Search is divided into two sections, the Video Preview Windows and the Smart Search Control Set. The Video Preview Windows display the Playback video and the Search video. The Control Set displays all the Smart Search buttons along with the Video Results. With the Smart Search feature you are able to search through previously recorded video files for motion in the motion zones you create. You can also backup a Smart Search session for later review.



(Fig. 6-10)

To start a Smart Search select the **Setup** button. The Setup dialog box will appear. (Fig. 6-11) Select the video channel you want to search through using the Channel drop down box. Next fill out the Start Time by selecting a start date with the drop down box and a start time using the time field. Then fill out the End Time by selecting an end date with the drop down box and an end time using the time field. After you have selected your searching range select the **Ok** button. The Setup dialog box will disappear and you will now see a video feed playing in the Search Window. You can change the recorded video file playing in the Search Window using the **Previous Recorded Video File** and **Next Recorded Video File** buttons. (Fig. 6-12)

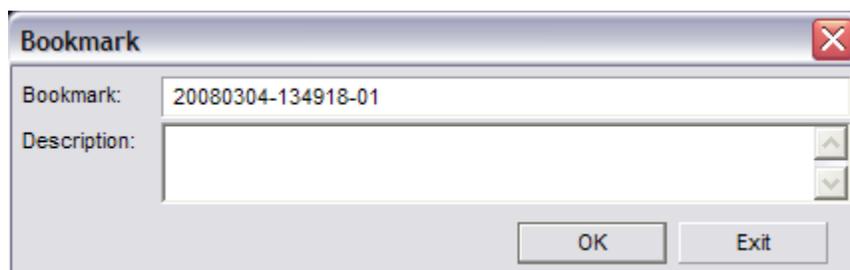


(Fig. 6-11)



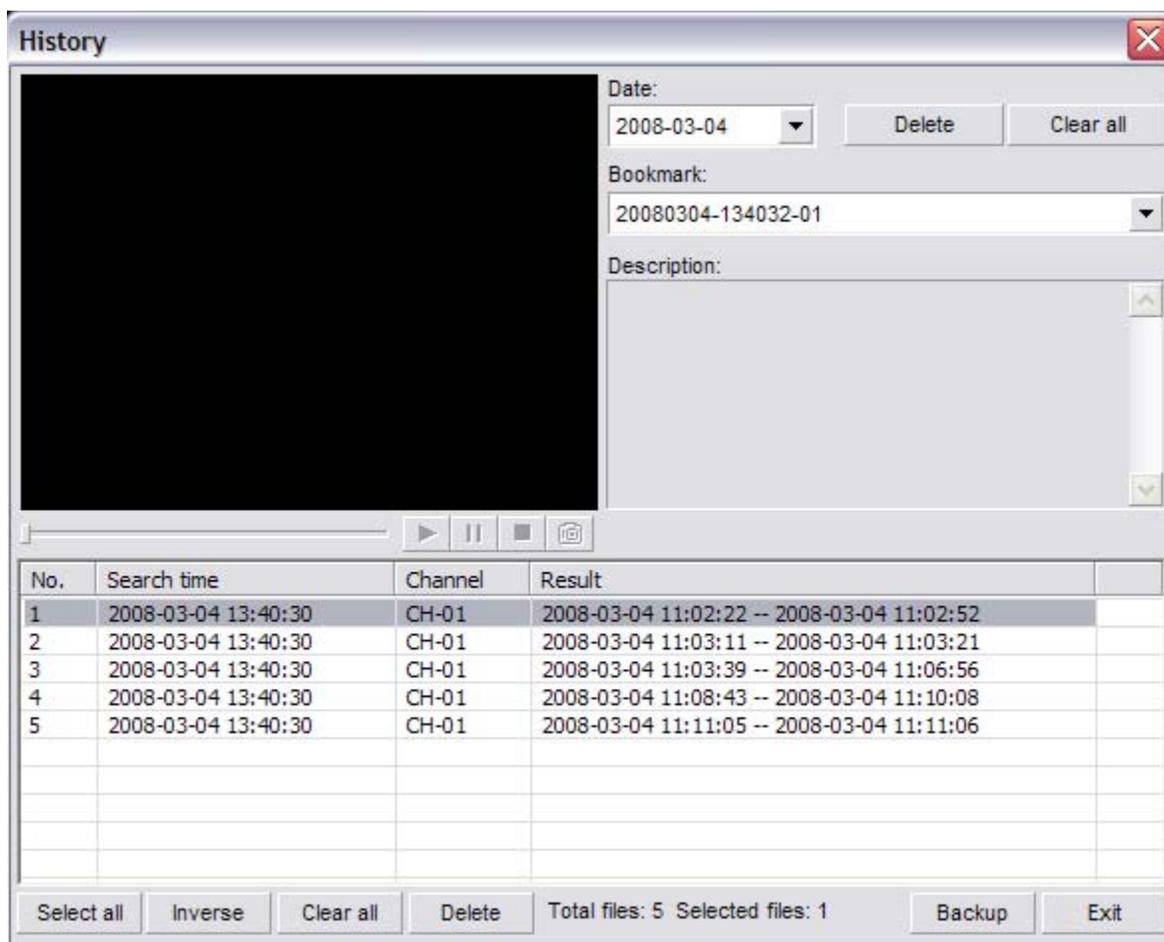
(Fig. 6-12)

You can now create one or more motion zones, each with individual sensitivity settings, to search through the recorded video files. The currently selected motion zone will be highlighted white, the rest will be red. To cycle through the motion zones, use the **Switch** button. To remove the currently selected motion zone select the **Delete** button. To clear all motion zones select the **Clear** button. Left-click and drag a motion zone around the desired area. A white square will appear. Set the sensitivity for the motion zone(s) and select the **Search** button, a progress bar will appear to display the search progress. While the search is being executed, you can temporarily pause by selecting the **Pause** button. To resume the search select the **Continue** button. Once the search has been completed, the video results will be displayed. To play a recorded video file highlight the desired file and select the **Play** button. You can also Pause and Stop the video. Select the **Snapshot** button to take a snapshot of the entire video frame. To backup any of the recorded video files select each recorded video file by left-clicking on them. To selected multiple recorded video files hold down the ctrl key and left-click on multiple recorded video files. Select the **Backup** button to backup the selected video files. You can save a Smart Search and review it at a later time. Select the **Bookmark** button to open the Bookmark dialog box. (Fig. 6-13) Input the name of your saved search in the Bookmark field. You can also type in a description of the saved search in the Description field. To save the search select the **Ok** button.



(Fig. 6-13)

To review a saved Smart Search click the History button in the Smart Search dialog box. The History dialog box will appear. (Fig. 6-14) Select the date in which the search was bookmarked using the Date drop down box, then select the name of the bookmark from the Bookmark drop down box. The **Delete** button will remove the currently selected bookmarked smart search. The **Clear All** button will delete all bookmarked smart searches. Use the **Select All** button to select all recorded video results. The **Inverse** button will change the selection to the exact opposite of the currently selected recorded video results. The **Delete** button will remove the selected recorded video file from the bookmarked smart search. You can also backup recorded video files from the History dialog box. Select the **Backup** button to backup the selected video recording files. Use the **Exit** button to close the Smart Search and History dialog boxes.



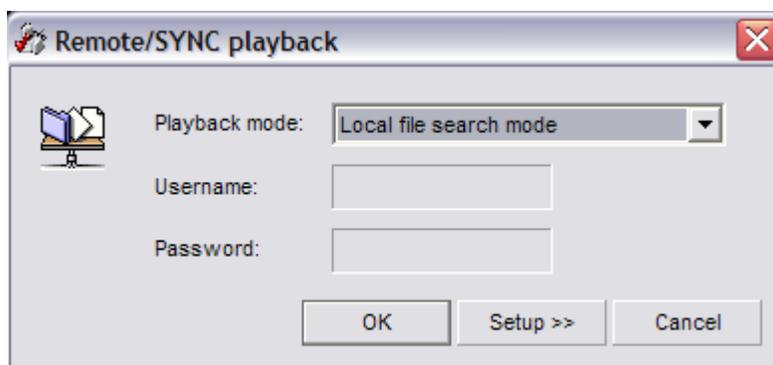
(Fig. 6-14)

Remote/SYNC Playback

In local Playback there are two modes, the Local File Search Mode and the Local Synchronizer Search Mode. Select the **Remote/SYNC Playback** button. (Fig. 6-15) The Remote/SYNC Playback dialog box will appear. (Fig. 6-16) Using the Playback Mode drop down box you can choose between the two modes. The Local File Search Mode will playback the recorded video files directly from the recorded video file. This means that if you set the Single File Recording Time to 30 minutes the DVR Server will load that entire 30 minute video recording file before it starts playing back. The larger the Single File Recording Time the longer it will take to load each recorded video file. The Local Synchronizer Search Mode will stream the video from the recorded video file. Playback will start immediately but many of the Playback Controls will be unavailable due to the video stream. Local Synchronizer Search Mode will also playback selected video recording files in synchronization whereas the Local File Search Mode will not synchronize the playback.



(Fig. 6-15)



(Fig. 6-16)

Snapshot

The **Snapshot** button will take a still image of the currently selected video file. (Fig. 6-17) You can then save this image for later review. (p. 44)



(Fig. 6-17)

Browse And Print Image File

The **Browse And Print Image File** button allows you to view previously saved snapshots and print them out. (Fig. 6-18) (p. 44)



(Fig. 6-18)

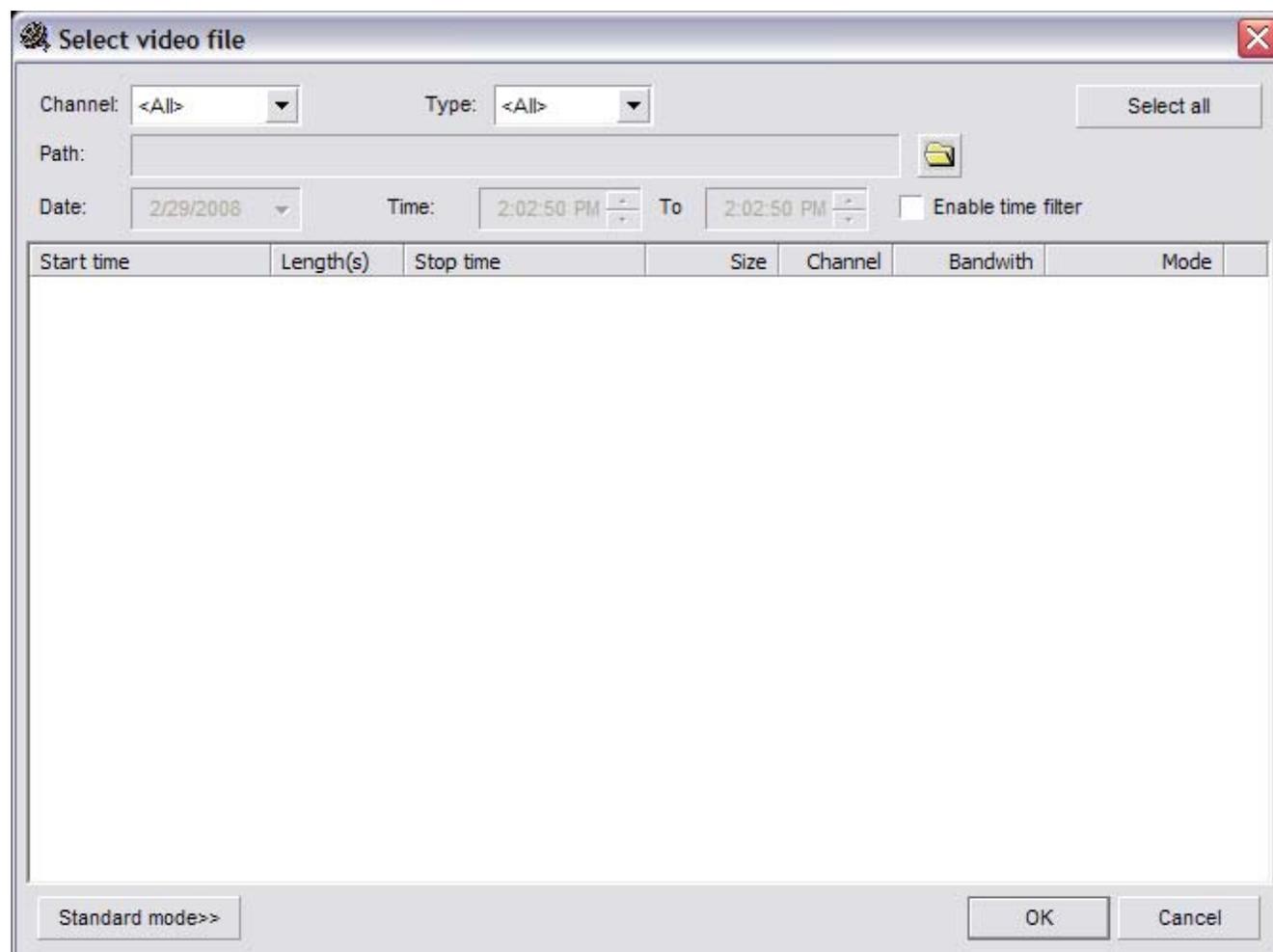
Manual Selecting File

If you have recorded video files stored in a location other than the default directory the video recordings will not show up in the Calendar or the File List. Use the **Manual Selecting File** button to access the recorded video files. (Fig. 6-19) To browse for recorded video files select the **Open** button (yellow folder). (Fig. 6-20) The standard Windows Browse dialog box will appear. Locate the folder that the recorded video files are stored in and select the **Open** button. You will be returned back to the Select Video File dialog box. You can sort the recorded video files by channel, recording type, and by time index. Once you locate the

recorded video file you wish to play left-click on it so that it highlights. Select the **Ok** button and the video file will begin to play.



(Fig. 6-19)



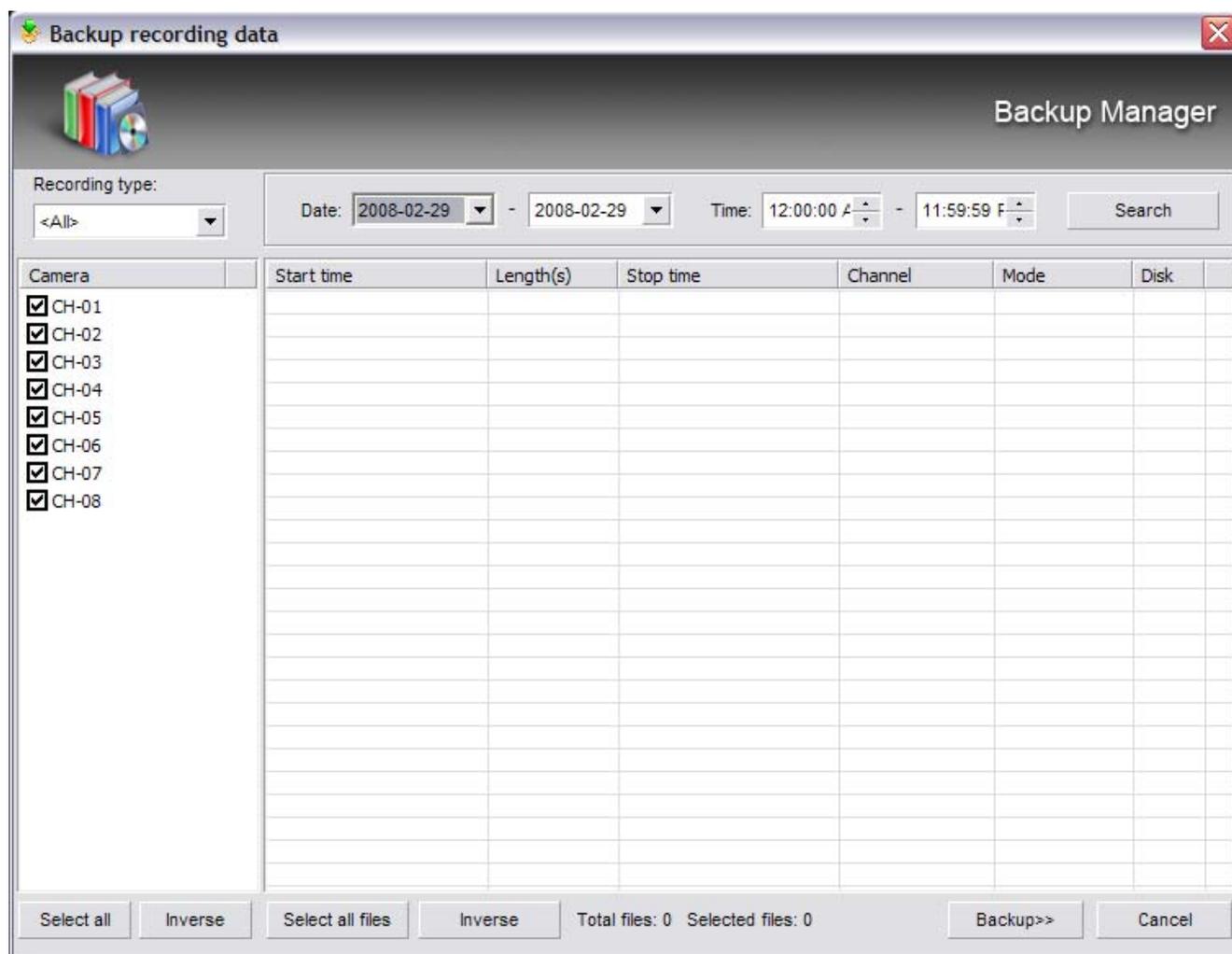
(Fig. 6-20)

Backup Files

The **Backup Files** button (Fig. 6-21) will open the Backup Recording Data dialog box. (Fig. 6-22) From here you are able to backup multiple cameras simultaneously. During the last part of the backup the player software is automatically copied over along with the recorded video files. No other software is needed to review the saved video on a different PC system.



(Fig. 6-21)



(Fig. 6-22)

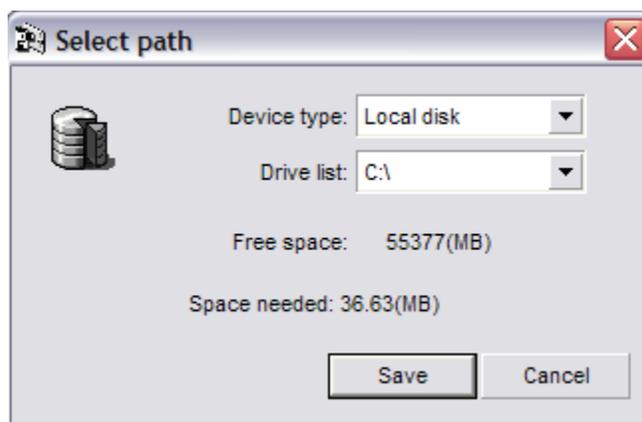
Use the Date drop down box to set a date ranger to filter the results. Use the Time fields to set a start time and end time to filter the results. The Recording Type drop down box will allow you to further filter the results by searching for only Motion/Manual/Continuous/Network/Alarm based recordings. To search through multiple cameras check the box next to the channel name. The **Select All** button will automatically check all cameras. The **Inverse** button will select the exact opposite of the currently selected cameras. Select the **Search** button to begin the recorded video file search. In the results the Start/Stop Time, Length, Channel, Mode, and Disk will be displayed. Left-click a video file to select it. Hold down the ctrl key and left-click to select multiple recorded video files to backup. The **Select All Files** button will select all results. The **Inverse** button will select the exact opposite of the

currently selected video files. The **Cancel** button will exit the Backup Recording Files dialog box. When you have selected the desired recorded video files select the **Backup** button. The Files Backup Manager dialog box appears. (Fig. 6-23)



(Fig. 6-23)

The **Backup Tools** button will open up Nero (if configured in .ini file) and allow you to add more files to a CD session. The **USB Devices** button will allow you to remove USB devices that you do not want to show up in the Device Type drop down box when finishing the backup process. Type in a name for the backup in the Label drop down box. Select the **Backup** button. The Select Path dialog box will appear. (Fig. 6-24)



(Fig. 6-24)

Select the backup device using the Device Type drop down box. If you select Compact Disc the Drive List drop down box will automatically select the CDR/W drive. Select the **Save** button to complete the backup process.

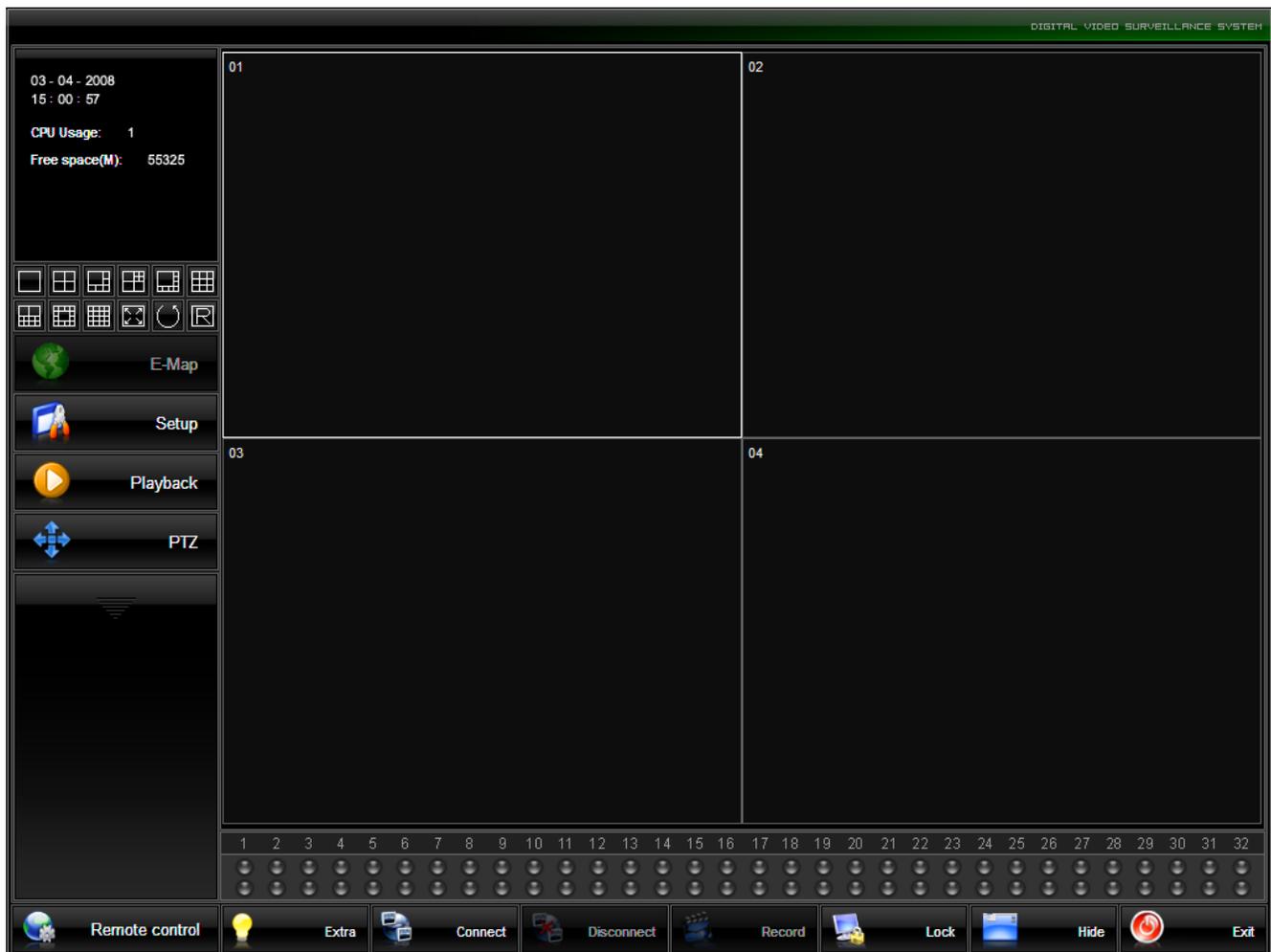
Client Setup

Installation

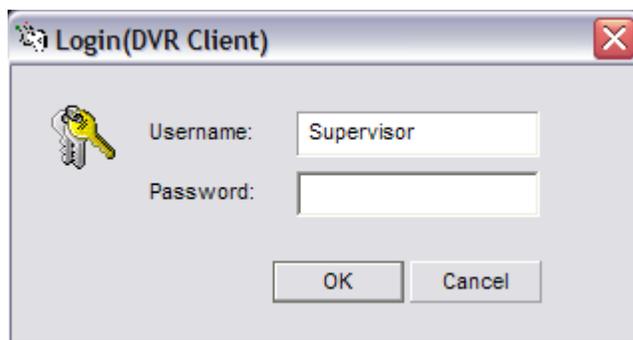
Client and Server applications are both included in a single installation package. Follow the Installation instructions. (p. 6)

Initial Startup

The first time the DVR Client application is run a username/password dialog box will appear. (Fig. 7-1) By default the username is Supervisor and the password field is left blank. Select the **Ok** button to login. After logging in you will see the DVR main screen. (Fig. 7-0) This screen contains the DVR Information Window (p. 68), Camera Status LEDs (p. 69), Channel Grid (p. 68), Grid Layout buttons (p. 68), and the DVR Control Buttons (p. 69).



(Fig. 7-0)



(Fig. 7-1)

Channel Grid

The Channel Grid contains the remote video preview. This is where you will see all of your connected video feeds. You can select each channel by left-clicking the mouse, selecting a channel will also activate the remote audio preview for that channel. Double-click a video channel to maximize it. To restore the Channel Grid double-click the video feed again. There is also a full screen mode that you can toggle by right-clicking on any video channel.

DVR Information Window

The current date and time are displayed here along with the CPU workload. (Fig. 7-2) Be sure not to overload the CPU. If the CPU Usage 100 the client machine may become unresponsive. The available hard disk drive space is also displayed here. The Free Space display is the free space available on the local hard disk drive, not the recording drive on the DVR Server.



(Fig. 7-2)

Grid Layout Buttons

The arrangement of the Channel Grid is easily configured by 12 buttons. (Fig. 7-4) Hover your mouse cursor over these buttons for a description of each of the layout buttons. The **Auto Group Switching** button will cycle through each configured group. (Fig. 7-3) The **Disconnect All** button will close the connection to all connected video channels. (Fig. 7-5)



(Fig. 7-3)



(Fig. 7-4)



(Fig. 7-5)

Camera Status LEDs

There are four rows of Camera Status LEDs. (Fig. 7-6) The first row indicates channel 1-32. The second row indicates channel 33-64. You can connect to a maximum of 64 channels at once. The more channels you connect to the more system resources are needed to display the video feeds from the DVR Server. Each Camera Status LED will be a different color for each of the different connection types:

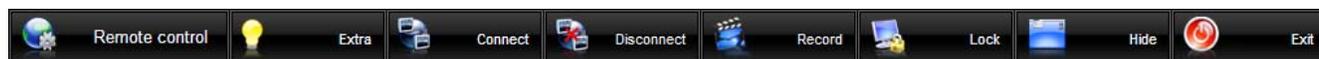
Color	Connection Indicator
GREEN	Connected
GRAY	No Connection
RED	Connection Lost/Failed
BLUE	Local Recording



(Fig. 7-6)

DVR Control Buttons

(Fig. 7-7), (Fig. 7-8) The **Extra** button opens the Extra Function dialog box and will also tell you the version number. (p. 44) The **Connect** button opens the Connect Server dialog box and will allow you to connect up to 64 different video channels. (p. 75) The **Disconnect** button will close the connection to the currently selected video channel. The **Record** button will toggle the recording status of the currently selected video channel. The Video recording will be saved to the local hard disk drive. The **Lock** button is used to lock and unlock the DVR Client application. (p. 17) The **Hide** button will minimize the Client application to the Windows System Tray. The **Exit** button will close the Client application. (p. 17) The **PTZ** button will allow you to move any PTZ camera configured on the DVR Server that you are connected to. (p. 53) The **E-Map** button will pop up the client-side E-Map. (p. 41) The **Playback** button will open the Playback mode. (p. 54) The **Setup** button will open the Setup dialog box where you can configure the client-side settings. (p. 75) The **Remote Control** button will open the Control Remote Host dialog box. (p. 72)



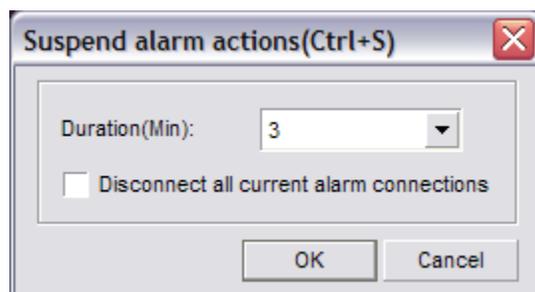
(Fig. 7-7)



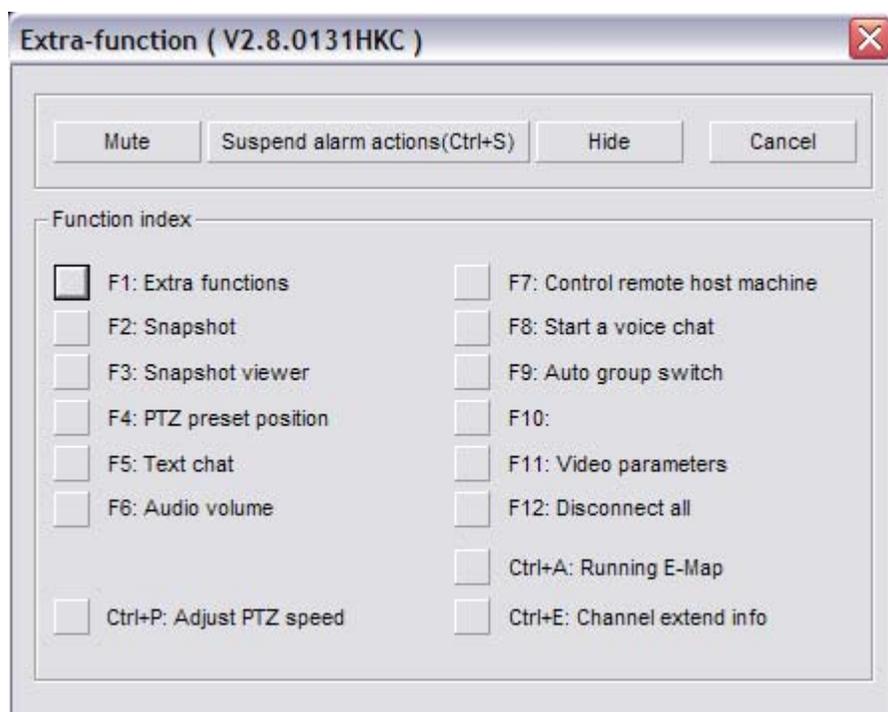
(Fig. 7-8)

Extra Button

The Extra Function dialog box lists keyboard shortcuts for various features. (Fig. 7-10) The **Mute** button will toggle the remote audio preview. The **Suspend Alarm Actions** button will bring up the Suspend Alarm Actions dialog box. (Fig. 7-9) Select the time period (in minutes) that the alarm will be temporarily disabled using the Duration drop down box. The **Hide** button will hide the Client application. The **Cancel** button will close the Extra Function dialog box.



(Fig. 7-9)



(Fig. 7-10)

Extra Functions

F1: This button will bring up the Extra Functions dialog box. (p. 70)(Fig. 7-10)

Snapshot

F2: This button will take a still image of the currently selected video channel.

Snapshot Viewer

F3: This button will bring up the Image Viewer dialog box. (p. 44)

PTZ Preset Position

F4: This button will bring up the PTZ Preset position Control dialog box. (p. 44) The PTZ Preset Points are stored in the PTZ camera itself and will be the same on the server side and client side.

Text Chat

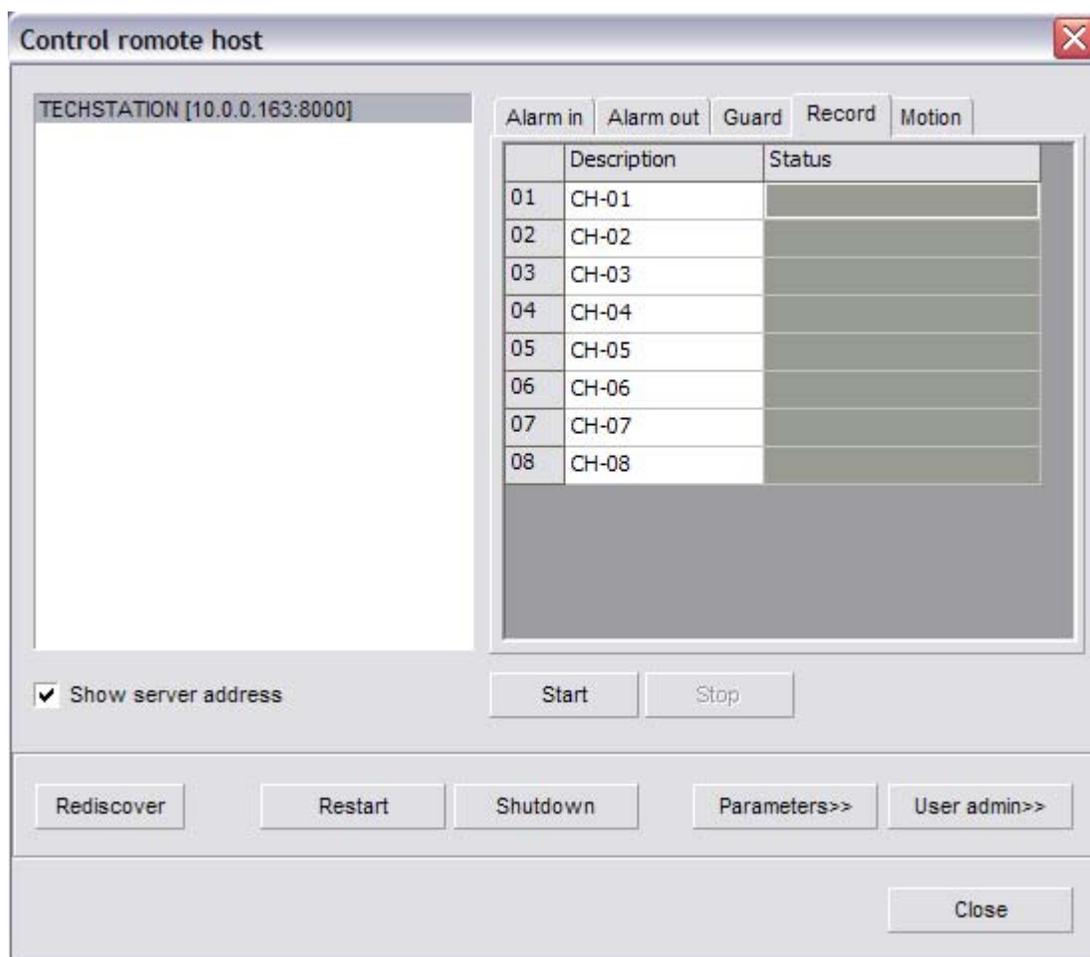
F5: This button will bring up the Chat Room dialog box. (p. 45)

Audio Volume

F6: This button will allow you to raise and lower the audio volume. (p. 47)

Control Remote Host Machine

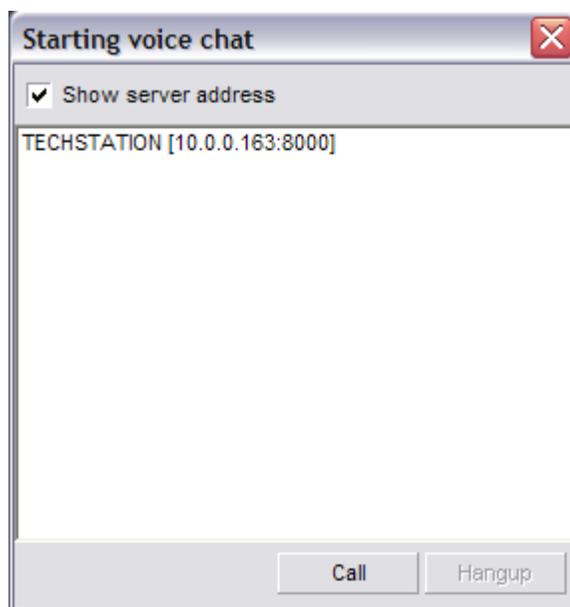
F7: This button allows for remote activation of certain features. (Fig. 7-11) The configured servers are listed on the left. To gain control of a remote DVR Server select the server name. The server IP address can also be displayed alongside the server name by checking the Show Server Address check box. There are five actions that you can control remotely: Alarm In, Alarm Out, Guard, Record, and Motion. To start or stop any of these select the desired field and select the **Start/Stop** button. Starting and Stopping depends on the current schedule, the **Start/Stop** button may be grayed out for some actions. You can also restart and shutdown the currently selected DVR Server by using the **Restart** and **Shutdown** buttons. The **Rediscover** button will automatically close the Control Remote Host dialog box and rebuild the server list. If you have configured a server and it does not show up on the server list select the **Rediscover** button. The **Parameters** button will load the Web Client Configuration interface on top of the client application. The **User Admin** button will load the Web Client User Admin interface on top of the client application.



(Fig. 7-11)

Start A Voice Chat

F8: This button will start a two-way voice chat with the DVR Server. This feature requires a set of speakers and a microphone on both the client-side and server-side. Once selected the Starting Voice Chat dialog box appears. (Fig. 7-12) Use the Show Server Address check box to display the IP address along with the server name. Select a server and left-click the **Call** button to initiate a voice chat. To stop the voice chat select the **Hangup** button. The DVR Server will not receive a notification that the voice chat has started, but the microphone and speakers will be activated and ready to use.



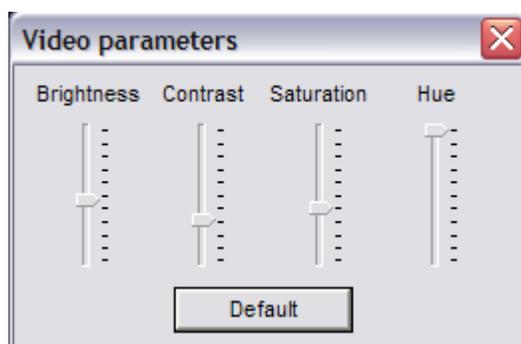
(Fig. 7-12)

Auto Group Switch

F9: This button will start the auto switching of any group configured to auto switch. You can have groups that do auto switch and groups that do not auto switch. You can have two channels switch while two other channels remain the same video feed.

Video Parameters

F11: This button will bring up the Video Parameters dialog box. (Fig. 7-13) You can adjust the brightness, contrast, saturation, and hue of the currently selected video channel by dragging the slider(s) up and down. If you change these video parameters they will also affect the remotely recorded video files.



(Fig. 7-13)

Disconnect All

F12: This button will disconnect all video channels from the connected server(s).

Adjust PTZ Speed

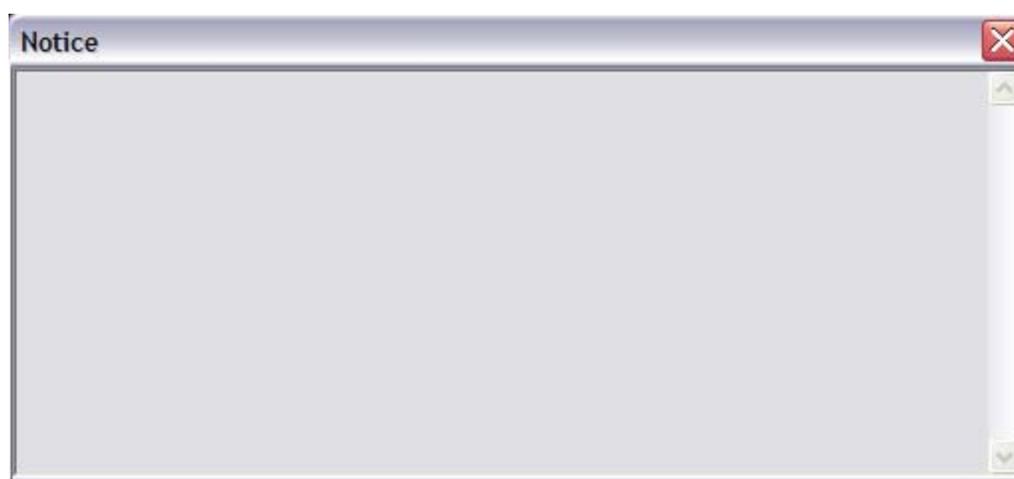
Ctrl-P: This button will bring up the Adjust PTZ Speed dialog box and allow you to change the speed at which the PTZ camera moves when you pan/tilt/zoom. (p. 51)

Running E-Map

Ctrl-A: This button will open the client-side configured E-Map.

Channel Extend Info

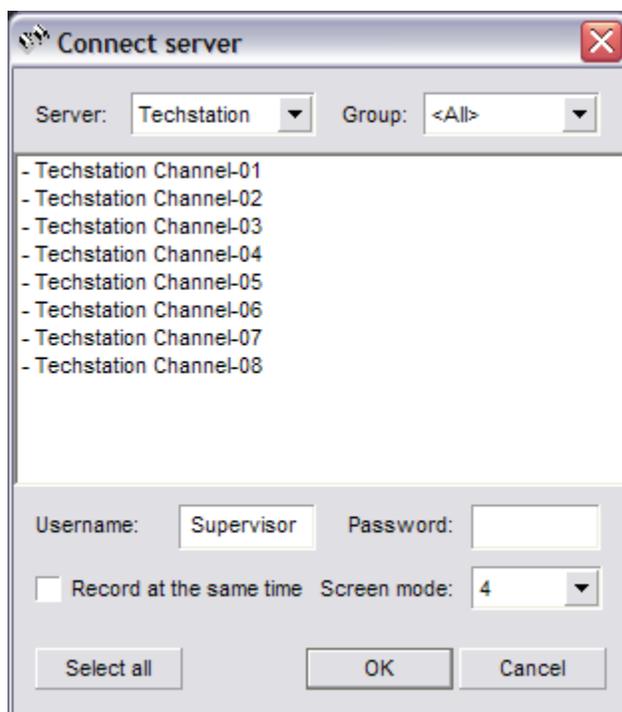
Ctrl-E: This button will open the Notice dialog box. (Fig. 7-14) The video channel's extended information is taken from the server-side and displayed on the client machine. Use the DVR Server application to configure the Channel Extend Info. (p. 33)



(Fig. 7-14)

Connect Button

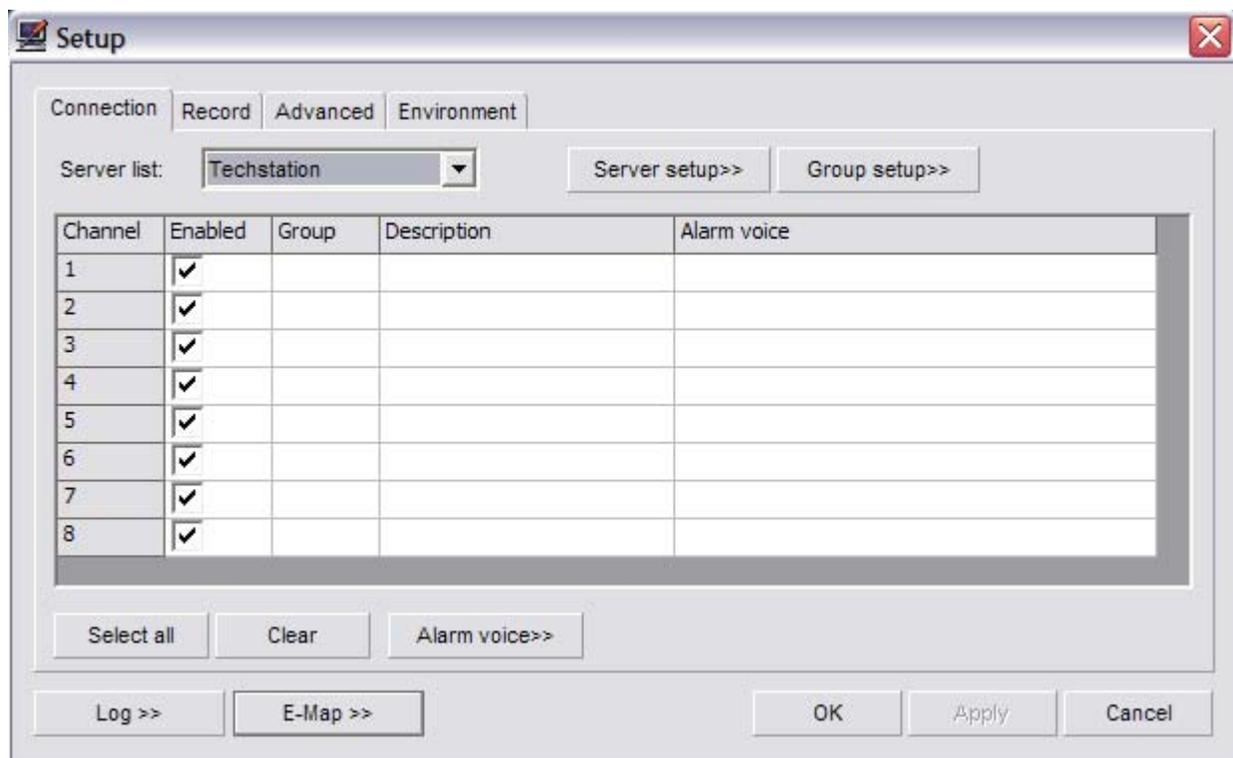
The **Connect** button will bring up the Connect Server dialog box. (Fig. 7-15) Use the Server or Group drop down box to select the desired server or group. Fill in the Username and Password fields with the right user info. Select each channel that you want to connect to by left-clicking them, they will highlight. You can also use the **Select All** button to quickly highlight all video channels. Check the Record At The Same Time check box to start local recordings of the connected video channels. The Disconnect Lower Level check box is used to automatically disconnect any user with a lower authority level if a user with a higher authority level tries to connect to the same video channel. This feature will utilize less bandwidth. Once the desired video channels are highlighted select the **Ok** button to connect to those video channels. Up to 64 remote channels can be connected to at one time. The **Cancel** button closes the Connect Server dialog box. You can automatically set the Channel Grid when connecting by using the Screen Mode drop down box.



(Fig. 7-15)

Setup Button

The **Setup** button will open the Setup dialog box. (Fig. 7-16) The client setup is divided into four tabs: Connection (p. 76), Record (p. 78), Advanced (p. 79), and Environment (p. 80).

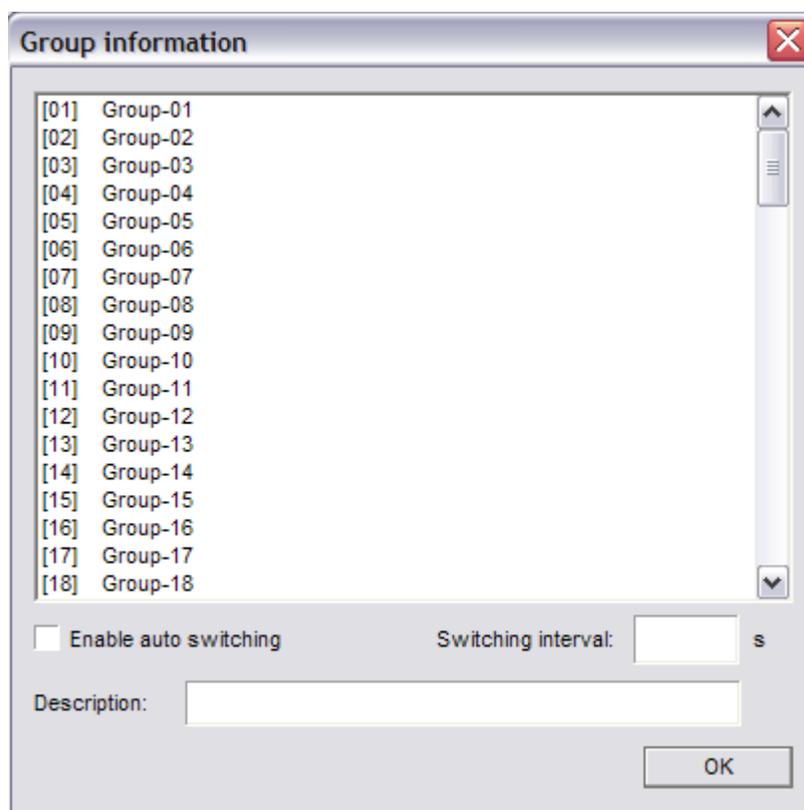


(Fig. 7-16)

Connection Tab

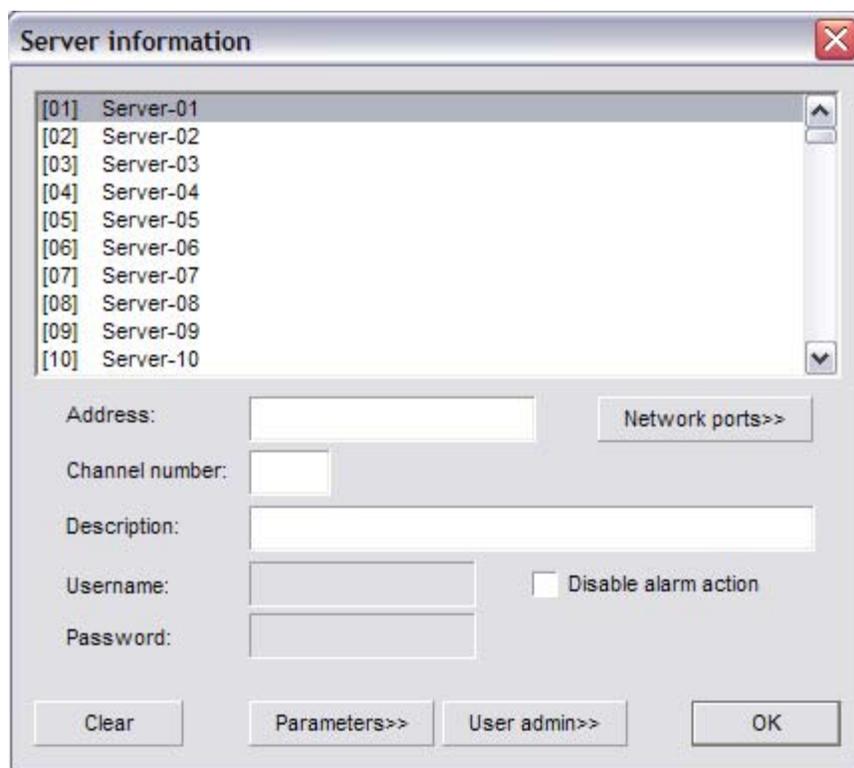
The Connection tab is where the remote client connections are configured. Select the desired server from the Server List drop down box. Each configured video channel for the selected server will be displayed. To enable or disable the video channel check or un-check the Enabled check box next to the video channel. To disable all video channels select the **Clear** button. To enable all video channels select the **Select All** button. Use the Description field to type in a description. The **Alarm Voice** button will allow you to select a .wav file to play during an alarm condition on that channel. Use the Group field to assign that channel a group number.

To configure a group select the Group Setup button, the Group Information dialog box will appear. (Fig. 7-17) Select a group by left-clicking on it. Once selected you can add that group to the Group Auto Switch list by checking the Enable Auto Switching check box. Use the Switching Interval field to input the number of seconds you want that group to display before switching to the next group. Use the Description field to change the name of the group. If you want to display 4 channels and have only the first channel auto switch configure 4 different groups. Under the Connection tab assign CH-01 and CH-02 to group 1. Assign CH-03 to group 2, CH-04 to group 3, and CH-05 to group 4. Select the **Apply** button, then the **Ok** button. Now select the **Auto Group Switching** button.

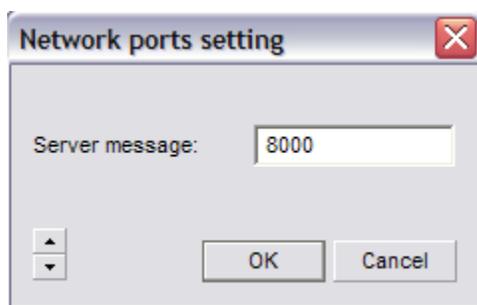


(Fig. 7-17)

To configure a server select the **Server Setup** button, the Server Information dialog box will appear. (Fig. 7-18) Left-click on one of the servers to select it. Fill in the Address field with the DVR Server's IP address or resolvable host name. If you are on the local area network use the local IP for the DVR. If you are connecting from a different location use the static IP assigned by your ISP. Type in the number of channels that the DVR server has in the Channel Number field. The Description field is used to change the name of the server on the Server List. The **Network Ports** button is used to configure which port to use for the connection. (Fig. 7-19) Fill in the port number configured on the server side (p. 34) in the Server Message field and select the **Ok** button. The Disable Alarm Action check box is used to temporarily disable the alarm actions while the client is connected. The **Clear** button will restore the defaults for that server connection. The **Log** button will open the Log Viewer dialog box. (p. 41) The **E-Map** button will open the E-Map dialog box and allow you to configure the client-side electronic map. (p. 39)



(Fig. 7-18)

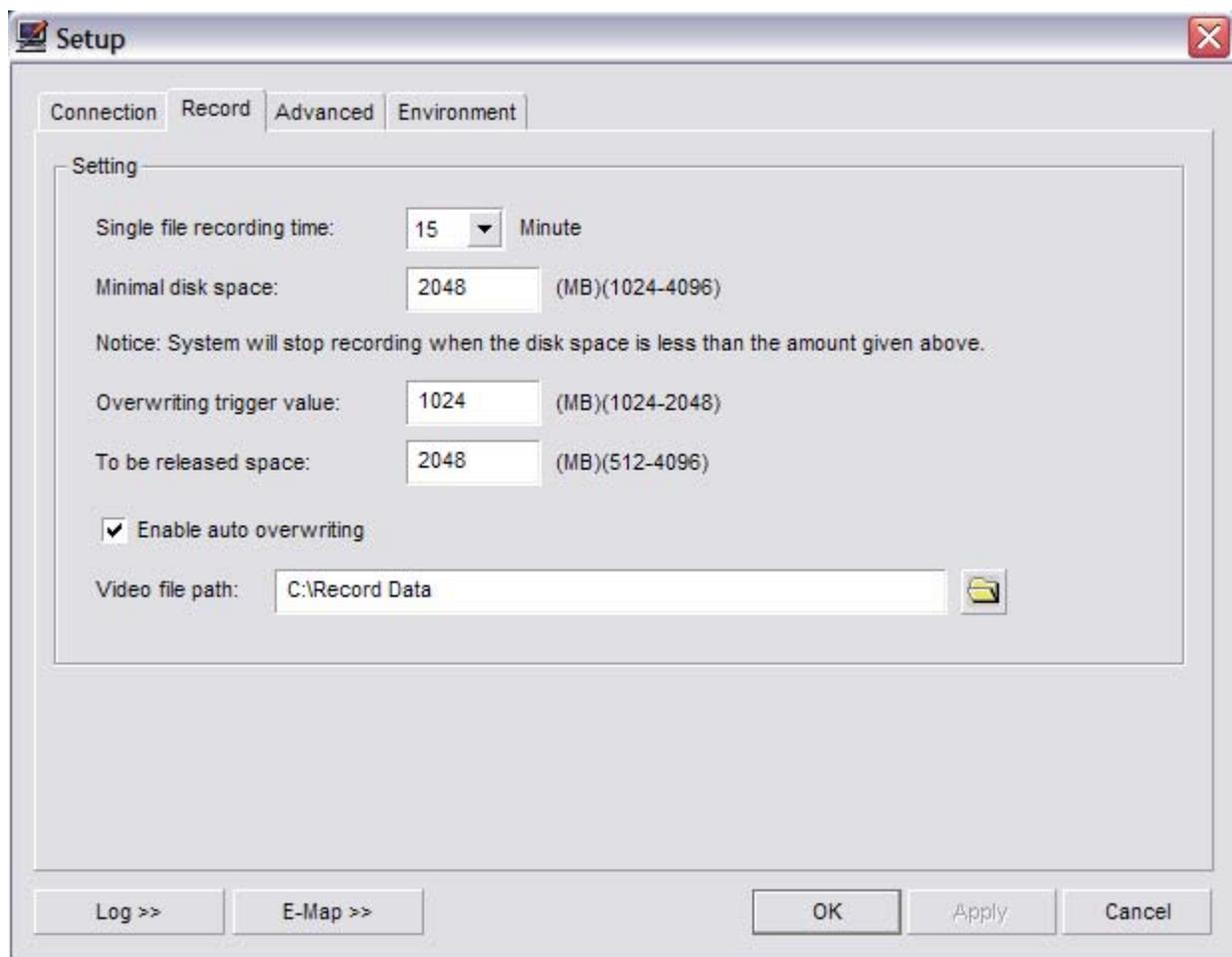


(Fig. 7-19)

Record Tab

(Fig. 7-20) The Single File Recording Time drop down box specifies the maximum length of a recording file before a new file is created. The Minimal Disk Space field defines the amount of free hard disk drive space needed to record video locally. The Overwriting Trigger Value specifies the amount of free hard disk drive space is left before the client application starts overwriting the oldest recorded video files. The To Be Released Space field determines the amount of recorded video files will be deleted to make room for more current video files. The Enable Auto Overwriting check box will overwrite the oldest recorded video with the currently recording video files without any input from the user. To specify a directory to store these recorded video files select the yellow open folder by the Video File Path field. The standard Windows open dialog box will appear. Simply locate the desired

directory.



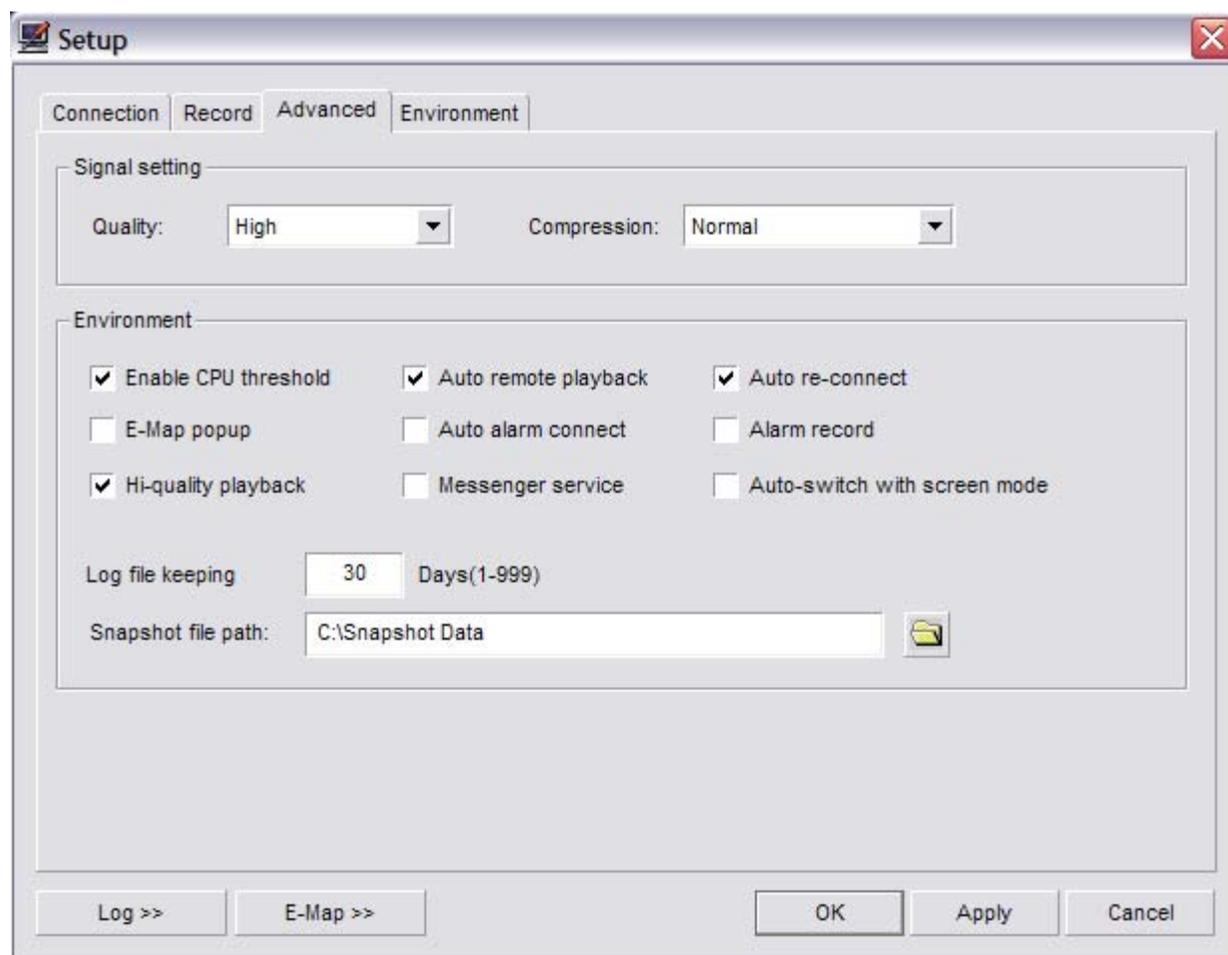
(Fig. 7-20)

Advanced Tab

(Fig. 7-21) Signal Setting: The Quality drop down box sets the signal quality. A higher quality setting will record video files with a higher level of detail and a larger file size. The Compression drop down box sets the compression level of the recorded video files. A higher compression will have lower visual quality but a smaller file size.

Environment: The Enable CPU Threshold check box will not allow you to connect to more channels once the CPU Usage has reached 100%. The E-Map Popup check box toggles the ability for the configured E-Map to automatically pop up during alarm conditions. The Auto Alarm Connect check box will automatically connect to any configured video channel that senses an alarm condition on the server-side. The Auto Remote Playback check box will automatically connect to the same server you are viewing under the Live Remote Preview when the Playback mode is entered. The Alarm Record check box will automatically start recording a connected video channel during an alarm condition. The Auto Re-connect check box will sense when a video channel has lost its connection to the server

and attempt to re-establish the connection. The Hi-quality Playback check box toggles the high quality playback feature. On lower end client machines un-check this to improve performance. The Messenger Service check box will enable the Messenger Service pop up dialog box on the client-side. (p. 33) You can specify how many days that the client application will keep a log file before overwriting it by inputting the desired number of days in the Log File Keeping field. To change where the snapshots are stored select the yellow open folder button next to Snapshot File Path. A standard Windows open dialog box will appear in which you can specify the location that you want the snapshots to be stored in. The Auto-Switch With Screen Mode check box will automatically reconfigure the Channel Grid according to how many channels are in the group.



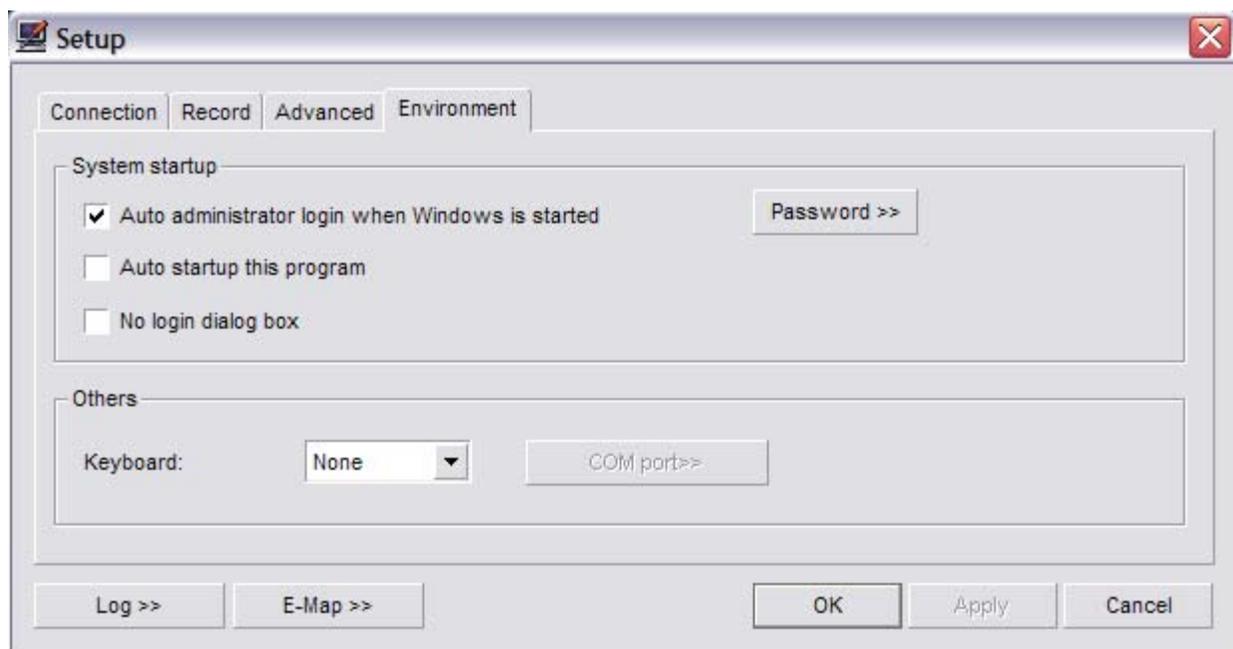
(Fig. 7-21)

Environment Tab

(Fig. 7-22) System Startup: Check the Auto Administrator Login When Windows Is Started to have the client software login to Windows XP/2000. If the client machine belongs to a domain you must select the **Password** button and enter in your domain password. Check the Auto Startup This Program to have the DVR Client application start with Windows.

If you have several different DVR Server video channels assigned to the same group check the No Login Dialog Box. When you setup the server connection the Username and Password fields will no longer be grayed out.

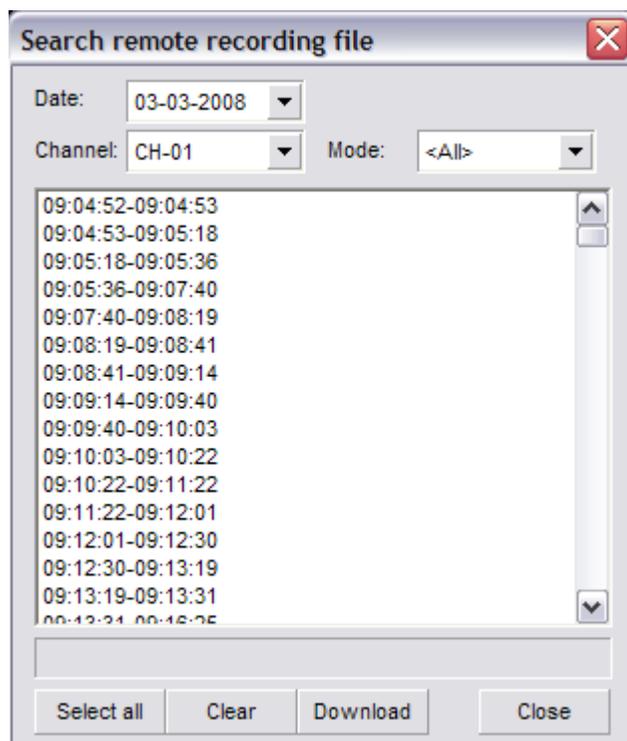
Others: The Keyboard drop down box allows you to configure a supported external device for controlling a PTZ camera. (p. 30)



(Fig. 7-22)

Client Playback

The DVR Client Playback mode and the Server Playback mode are the same. Refer to the Playback Mode. (p. 54) When using the remote client application some features/buttons may be grayed out and inaccessible. When using the remote client the Files Backup Manager is the Search Remote Recording File. The **Backup Files/Remote Download** button brings up the Search Remote Recording File dialog box. (Fig. 8-0) Use the Date drop down box to select the desired date. Use the Channel drop down box to select the desired video channel. With the Mode drop down box you can select what type of video recording to list. You can select All, Continuous, Motion, Alarm, Manual, and Network video recordings. A list of all video recordings will be displayed. They are listed as time indexes. The start and stop time for each video recording file id displayed. Select the desired times by left-clicking on the time index. To select multiple video recording files hold down the shift key and select more video recording files. The **Select All** button will highlight all listed recorded video files. The **Clear** button will clear the selection. Select the **Download** button to start the remote download process. A standard Windows open dialog box will appear.



(Fig. 8-0)

Web Client

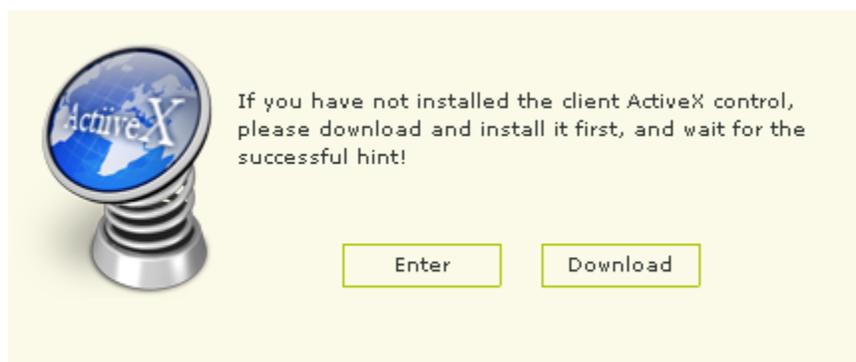
You can access the DVR Server from Internet Explorer 6 or higher. The Web Client enables you to view up to 16 live preview video channels simultaneously. You can also review previously recorded video files and download them to the local machine using the Web Client. Port 80 must be forwarded to the DVR Server and the Enable Web Server check box needs to be checked (p. 32) in order to use the Web Client.

Initial Startup

First type in the DVR Server's IP address beginning with http:// into the Address Bar and press enter. Choose English to start the Web Client. (Fig. 9-0) The default port for the Web Server is port 80. If you have changed this be sure to enter in the port along with the IP address when connecting to the DVR Web Server. If you have not already done so select the **Download** button to download the required ActiveX control. (Fig. 9-1) In the File Download dialog box select the **Run** button. (Fig. 9-2)



(Fig. 9-0)



(Fig. 9-1)



(Fig. 9-2)

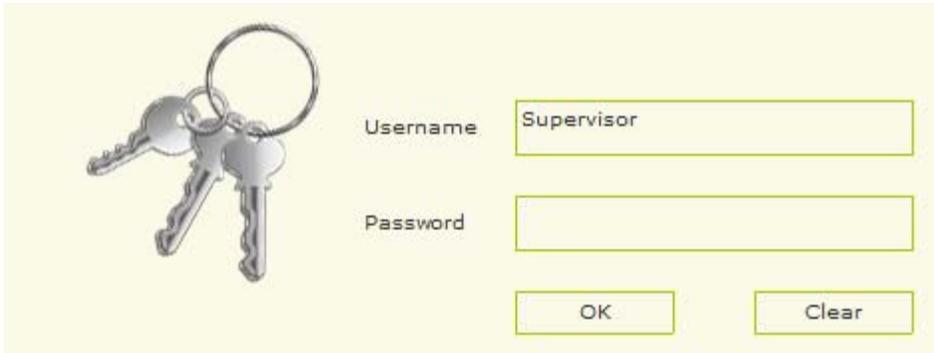
The TCNVC.exe ActiveX control will now be downloaded and installed. Wait for the TCNVCInstall dialog box to appear and select the **Ok** button. (Fig. 9-3) You must restart your browser now.



(Fig. 9-3)

Once your browser has been restarted type in the IP address of the DVR Server in the Address Bar starting with http://. Choose English. (Fig. 9-0) Then select the **Enter** button. (Fig. 9-1) You will be prompted with a login screen. (Fig. 9-4) Type in your Username and Password and select the **Submit** button. The **Clear** button will remove all text from the Username and Password fields.

After you log into the DVR Web Server you will be presented with the Web Client Main Screen. (Fig. 9-5) There are eight buttons: Remote Setup (p. 85), User Manager (p. 113), Preview (p. 114), System Information (p. 120), Remote Status (p. 121), System Logs (p. 121), Remote Control (p. 121), and Playback (p. 124). In the top right there is a **Refresh** button that will update the page.



(Fig. 9-4)



(Fig. 9-5)

Remote Setup (Fig. 9-6)

The Remote Setup allows you to configure all of the Setup Options (p. 18) that are on the DVR Server application. On the top right of the screen there is a **Personal** button. This button will open the Personal Configuration page. (Fig. 9-7) The Animation Effect check box will toggle the rotation animation for the Remote Setup. The Animation Time slider will increase/decrease the speed of the Animation Effect. You can choose whether the Animation Effect rotates to the right or to the left using the Animation Direction radio buttons. The Remote Setup page contains 12 menu items: Preview Setup (p. 86), Recording Setup (p. 89), Alarm Device (p. 91), Motion Detect Setup (p. 94), Error Setup (p. 95), Alarm Action (p. 97), PTZ Setup (p. 102), Matrix Setup (p. 104), Other Device (p. 106), Network Setup (p. 107), Advanced Setup (p. 108), and Customization (p. 112). Left-click on the menu item to open the respective pages. The **Homepage** button will open the Web Client Main Screen. The **Back** button will open the last open page. The **Submit** button will save and apply the changes to the DVR Server.



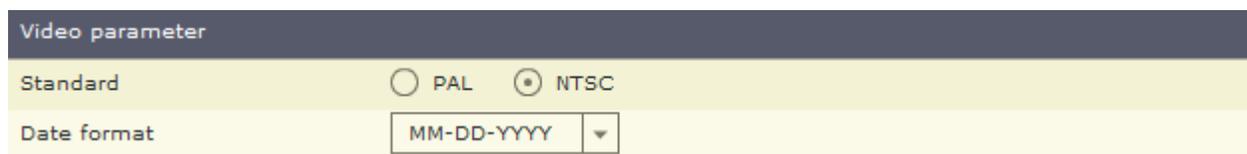
(Fig. 9-6)



(Fig. 9-7)

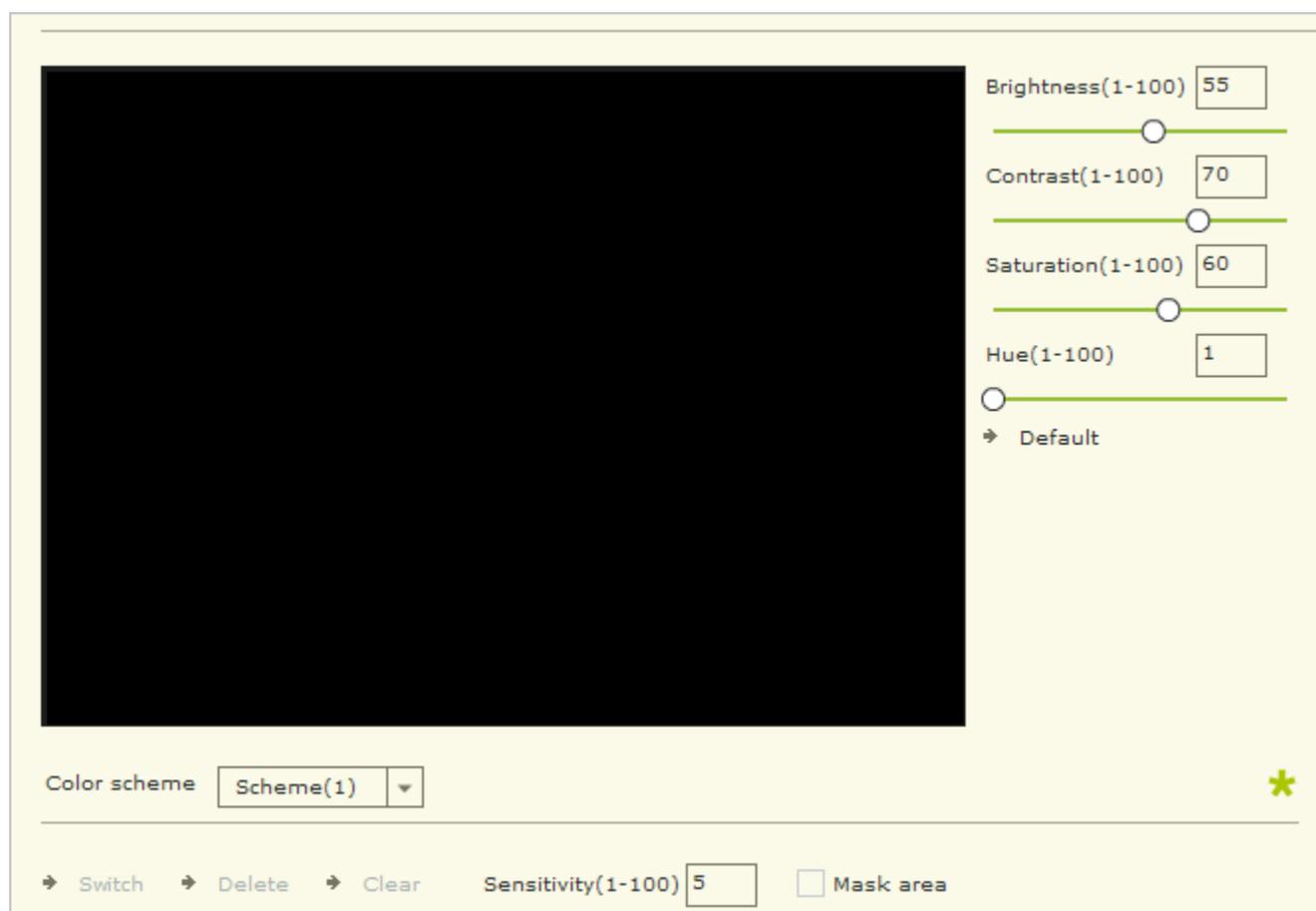
Preview Setup

The Preview Setup menu contains the Video Parameter (p. 86), Color Scheme (p. 87), and the Color Scheme Schedule (p. 87). The Video Parameter page allows you to change the video format to PAL or NTSC using the Standard radio buttons. (Fig. 9-8) You can change how the OSD displays the date by using the Date Format drop down box.



(Fig. 9-8)

The Color Scheme allows you to change the brightness, contrast, saturation, and hue of each individual video channel. (Fig. 9-9) Up to five different Color Schemes can be set here using the Color Scheme drop down box. Use the **Default** button to restore the color settings to the originals. You can also create motion zones here. To create a motion zone left-click and drag a square around the desired area. You can create multiple motion zones each with a unique sensitivity level. The currently selected motion zone will be highlighted white, the rest will be red. To mask the currently selected motion zone check the Mask Area check box. Use the **Switch** button to cycle through the existing motion zones. To remove a motion zone or masked are select the **Delete** button while the desired zone is currently selected. Use the Sensitivity field to input a sensitivity level from 1 (highest sensitivity) to 100 (lowest sensitivity).



(Fig. 9-9)

The Color Scheme Schedule will allow you to configure the scheduling options for the Color Schemes. (Fig. 9-10) To select a scheme use the Color Scheme drop down box. Next select a Time Scheme by left-clicking on one of the listed Time Schemes. The selected Time Scheme will be displayed on the bottom of the page. Select the left arrow to apply the Time Scheme to a day of the week. To quickly copy the same Time Schedule to every day of the week use the **Copy To** button. Be sure to check the Activate Schedule check box to enable the schedule. The **Delete All** button will clear the applied Time Schemes.

Color scheme Scheme(1) ▾

Date	No.	Schedule
Sunday	1	Scheme1
Monday	1	Scheme1
Tuesday	1	Scheme1
Wednesday	1	Scheme1
Thursday	1	Scheme1
Friday	1	Scheme1
Saturday	1	Scheme1
Holiday	1	Scheme1

No.	Time scheme
1	Scheme1
2	Scheme2
3	Scheme3
4	Scheme4
5	Scheme5
6	Scheme6
7	Scheme7
8	Scheme8

Channel list
» CH-01
» CH-02
» CH-03
» CH-04

→ Holiday setup → Delete All → Copy to...
 Activate schedule

	0	6	12	18	0
Scheme1	0:00 - 23:59				

→ Edit → Copy to...

(Fig. 9-10)

Holiday setup

Holiday(1/30)
2007.10.31

Select date

◀		Oct					▶		
		2007							
S	M	T	W	T	F	S			
	1	2	3	4	5	6			
7	8	9	10	11	12	13			
14	15	16	17	18	19	20			
21	22	23	24	25	26	27			
28	29	30	31						

→ Delete → Clear

(Fig. 9-11)

The **Holiday Setup** button will open the Holiday Setup page. (Fig. 9-11) You can add up to 30 dates to the Holiday list. To add a date left-click a day on the calendar to highlight it. Now click the left arrow to add the date to the list. To remove a date from the list, left-click the desired date and click the **Delete** button. To empty the entire list click the **Clear** button. To edit a Time Scheme click the **Edit** button. The Time Scheme page will appear. (Fig. 9-12) To configure a Time Scheme click on Scheme1-Scheme16. Use the Period blocks to fill in a time period for the scheme. You can also use the Standard drop down box to apply common time periods to the scheme. Use the Name field to change the name of the scheme. Click the **Clear** button to remove all time periods from the scheme. Click the **Save** button to save the Time Scheme.

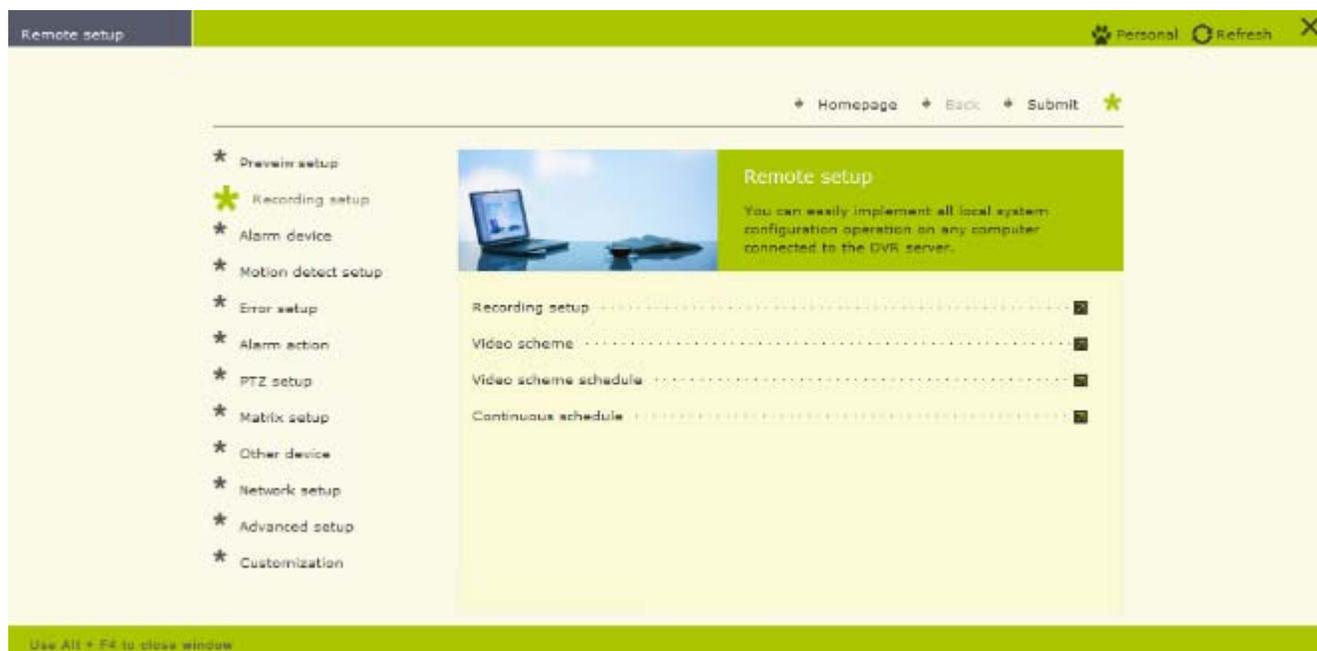
The screenshot displays a 24-hour clock at the top with markers every 2 hours. Below the clock, nine time schemes are listed. Scheme1 is highlighted in green and shows a full 24-hour recording period (0:00 - 23:59). Scheme2 has two recording periods: 8:00 - 11:59 and 14:00 - 17:59. Scheme3 has three periods: 0:00 - 7:59, 12:00 - 12:59, and 18:00 - 23:59. Scheme4 has one period: 8:00 - 17:59. Scheme5 has two periods: 0:00 - 7:59 and 18:00 - 23:59. Schemes 6, 7, 8, and 9 are currently empty. Below the schemes is a 'Scheme setup' section. It includes a 'Name' text box with 'Scheme1', 'Save' and 'Clear' buttons, a 'Standard mode' dropdown menu, and a 'Period' field showing '00 : 00 - 23 : 59'.

(Fig. 9-12)

Recording Setup (Fig. 9-13)

The Recording Setup page contains the Recording Setup (p. 89), Video Scheme (p. 90), Video Scheme Schedule (p. 91), and the Continuous Schedule (p. 91). The Recording Setup page contains several configuration options that apply to all video recording channels. (Fig. 9-14) The Single File Recording Time drop down box allows you to set the maximum number of minutes a single recorded video file spans. If the recording time exceeds this value, a new recorded video file is automatically created. The Auto Overwrite check box will automatically overwrite the oldest recorded video files when the video storage drive(s) are full, when enabled. The Disk Switching Alert check box will popup a dialog box notifying you

when the DVR Server switches video storage drives. The Minimal Disk Space field specifies the amount of free space needed to record video to a drive.



(Fig. 9-13)

Recording setup	
Single file recording time	15
Disk number	0
Channel Number	0
Minimal disk space	2048 (MB)(128-4096)
Auto overwrite	<input checked="" type="checkbox"/>
Disk switching alert	<input type="checkbox"/>

(Fig. 9-14)

The Video Scheme page allows you to set the individual recording setup options for each video channel. (Fig. 9-15) You can set up to three different schemes. To select a different video channel, left-click the name of the channel and it will highlight. The Video and Video/Audio radio buttons allow you to record just video or video with associated audio channels. The VBR Enabled check box overrides the user settings for video quality. In high motion situations the bit rate will rise, in low motion situations the bit rate will fall. The Limit Bit Rate check box will set a maximum bit rate for VBR to prevent a large video recording file from being created during constant high motion. The Resolution drop down box sets the recording resolution for the currently selected channel. Not all supported capture cards support all of the resolution modes. The Frame Rate (FPS) drop down box will allow you to set the frame rate from 1fps to 30fps. The Compression drop down box will allow you to set the level of compression for the recorded video files. The lower the

compression number, the smaller the recorded video file will be. This will allow more days of recording but at the cost of lower visual quality during playback. The Change On Alarm check box will automatically switch the Video Scheme to the configured settings when an alarm condition is detected, such as motion detection. The Compress Trans check box enables the dual-stream capability of the capture card (if supported). The DVR Server will record at the specified Video Scheme and send a separate video quality to the clients by using the Resolution, Frame Rate, and Compression settings.

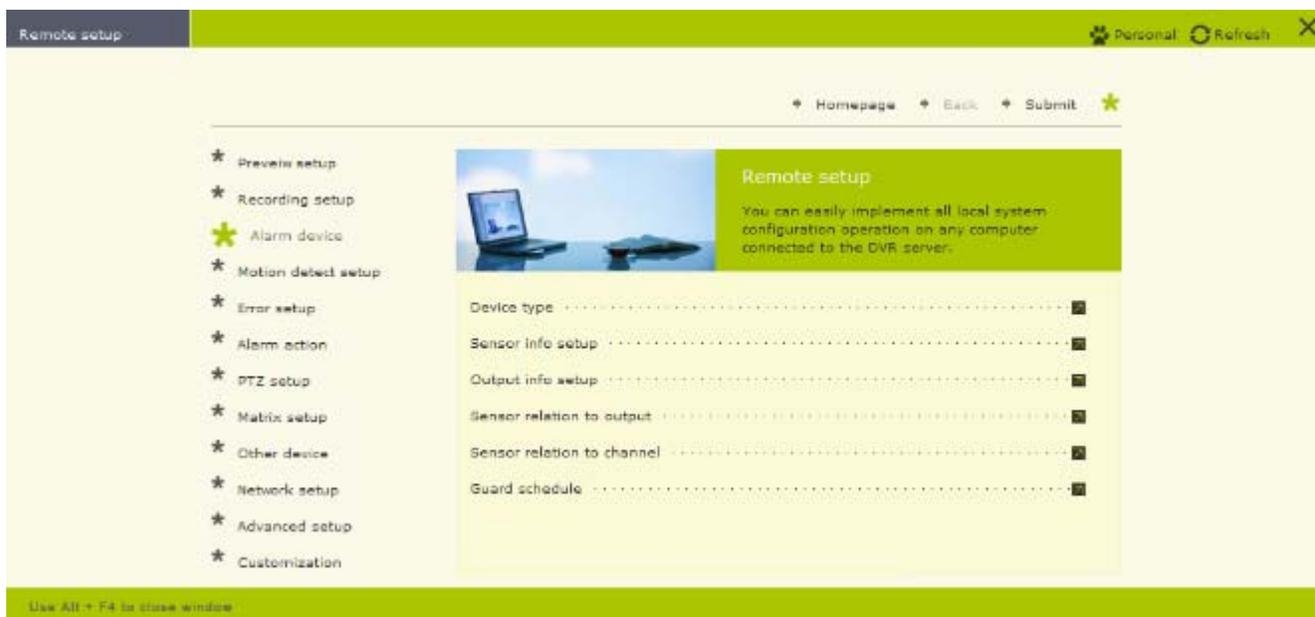
The Video Scheme Schedule is similar to the Color Scheme Schedule. (p. 87) The Continuous Schedule is similar to the Color Scheme Schedule. (p. 87)

The screenshot displays the Video Scheme configuration page. At the top, the 'Video scheme' is set to 'Scheme(1)'. The main configuration area includes radio buttons for 'Video' (selected), 'Video/Audio', and 'VBR enabled' (checked). There are also checkboxes for 'Limit bit rate', 'Change on alarm', and 'Compress trans'. The 'Change on alarm' and 'Compress trans' options are marked with a green asterisk. Below these are two sets of settings for Resolution (CIF), Frame rate (25), and Compression (8). On the right side, there is a 'Channel list' with four channels: CH-01, CH-02, CH-03, and CH-04. CH-01 is currently selected and highlighted in green.

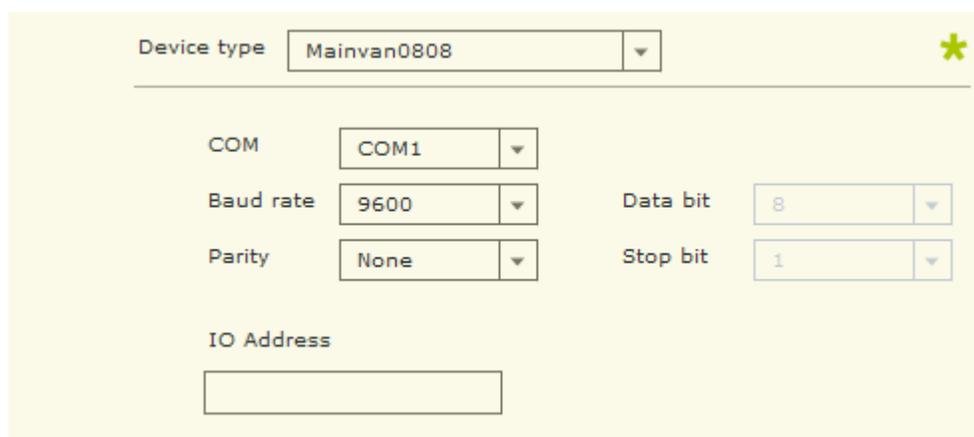
(Fig. 9-15)

Alarm Device (Fig. 9-16)

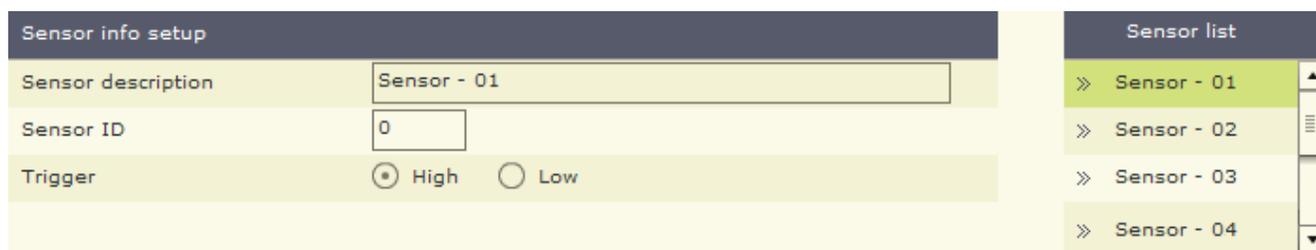
The Alarm Device page contains the Device Type (p. 91), Sensor Info Setup (p. 93), Output Info Setup (p. 93), Sensor Relation To Output (p. 94), Sensor Relation To Channel (p. 94), and Guard Schedule (p. 94). The Device Type page contains the configuration options for all supported external alarm controllers. (Fig. 9-17) The Device Type drop down box specifies which supported alarm controller is connected to the DVR Server. Set the Com, Baud Rate, and Parity to match the settings of the connected alarm controller. The Data Bit and Stop Bit may not require configuration depending on the type of alarm relay controller. Set the IO Address to match the setting of the alarm controller.



(Fig. 9-16)



(Fig. 9-17)

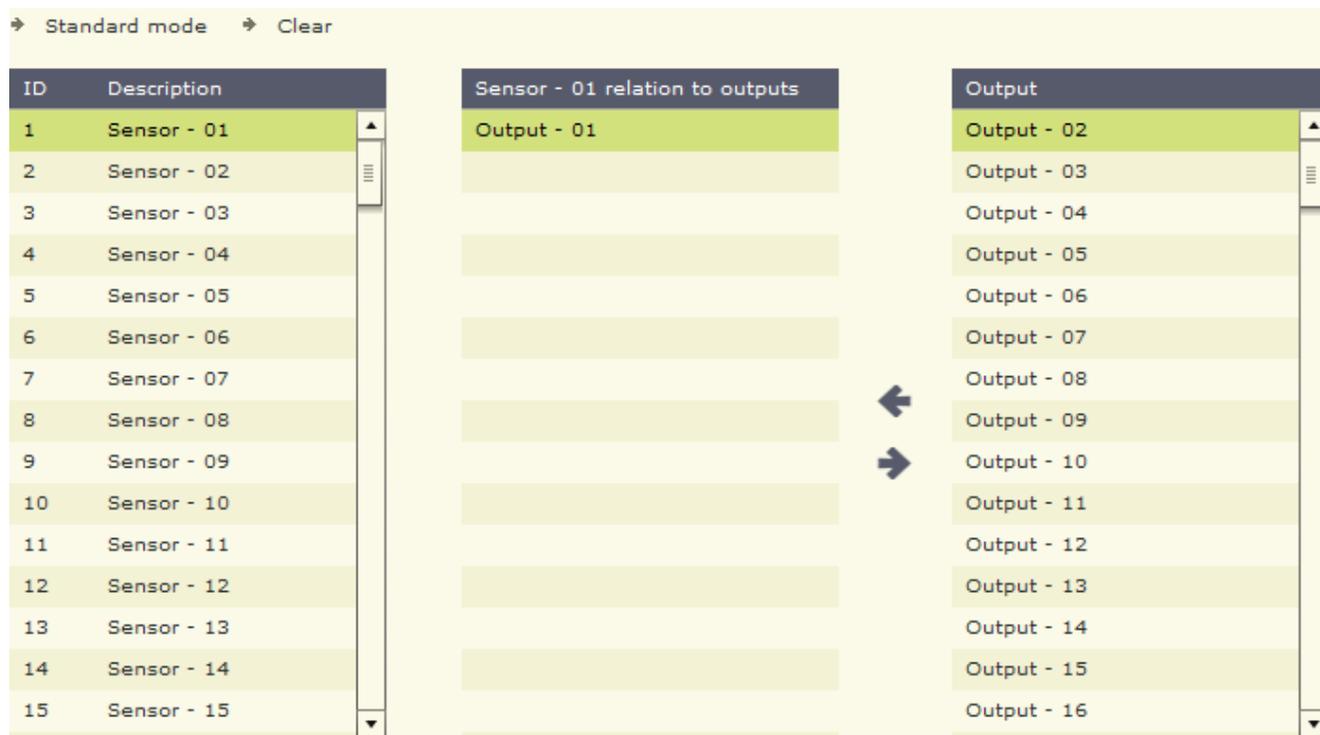


(Fig. 9-18)

The Sensor Info Setup page contains all the setup options for each external sensor connected to the DVR Server through an alarm controller. (Fig. 9-18) Select a sensor by left-clicking on it on the Sensor List. To change the name of a sensor use the Sensor Description field. The Sensor ID field needs to match the ID that the sensor is connected to on the external alarm controller. You can set the sensor trigger to either High or Low using the Trigger radio buttons. The Trigger will reverse the operation of the sensor if switched from the default. The Output Info Setup page contains the configurations for each external alarm output device. (Fig. 9-19) To select an alarm output device left-click an Output from the Output List. The Output Description field allows you to change the name of the output device. You can also set the mode of operation for the output device using the Trigger radio buttons. By default High is selected. By selecting Low the output device would be normally open as opposed to normally closed.

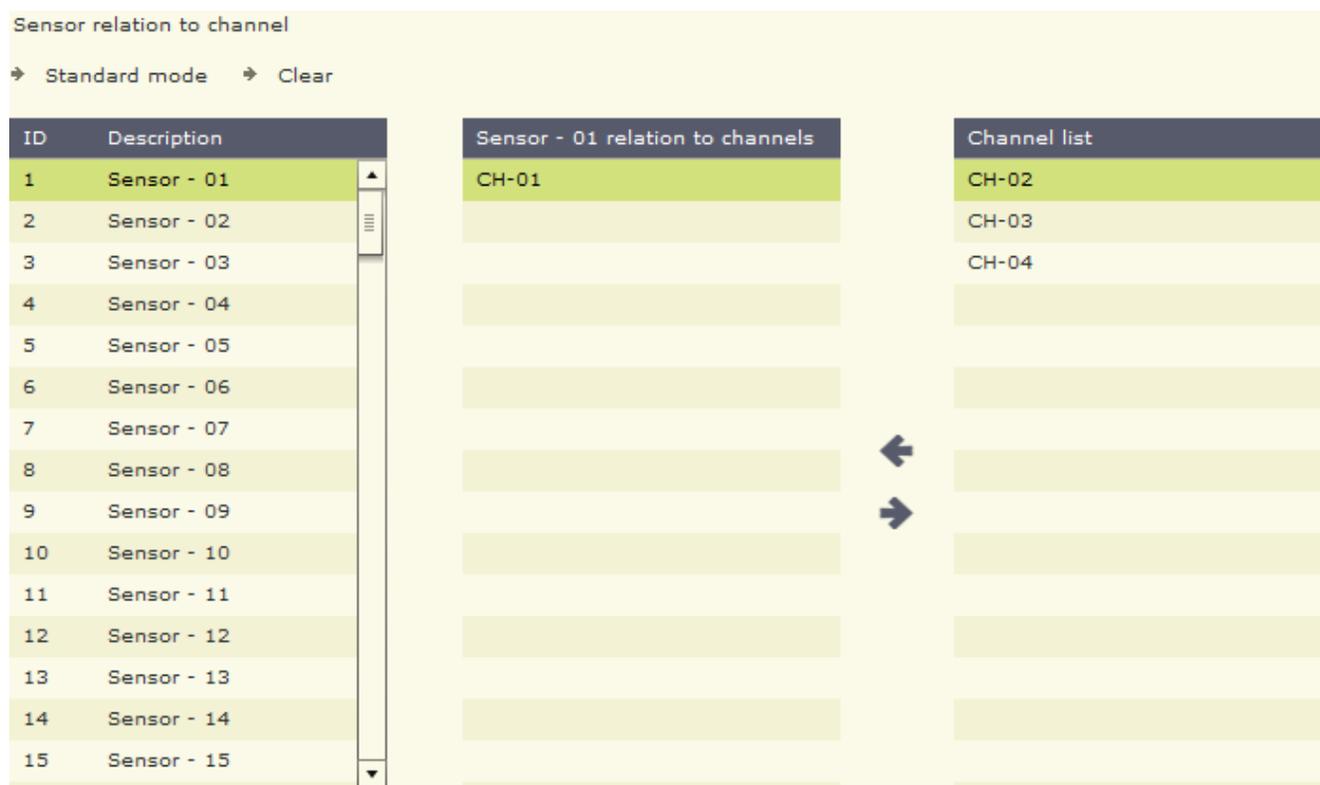


(Fig. 9-19)



(Fig. 9-20)

The Sensor Relation To Output page allows you to link sensors to outputs. (Fig. 9-20) Select a sensor by left-clicking, it will highlight green. Now select which output for the sensor to trigger by selecting an output and clicking on the left arrow. The output will be added to the list. To remove an added output click the right arrow. To clear all related outputs use the **Clear** button. The Standard Mode button will assign sensor 01 to output 01, sensor 02 to output 02, and so forth. The Sensor Relation To Channel page allows you to link sensors to trigger Alarm Recordings. (Fig. 9-21) Start by selecting the sensor by left-clicking. The selected sensor will highlight green. Left-click the desired channel and click the left arrow to add it to the list. To remove an added video channel use the right arrow. To clear all related video channels use the **Clear** button. The Standard Mode button will assign sensor 01 to ch-01, sensor 02 to ch-02, and so forth. Each recorded video file triggered by an external sensor will be listed under the Alarm type when using the Playback mode. The Guard Schedule is similar to the Color Scheme Schedule. (p. 87)

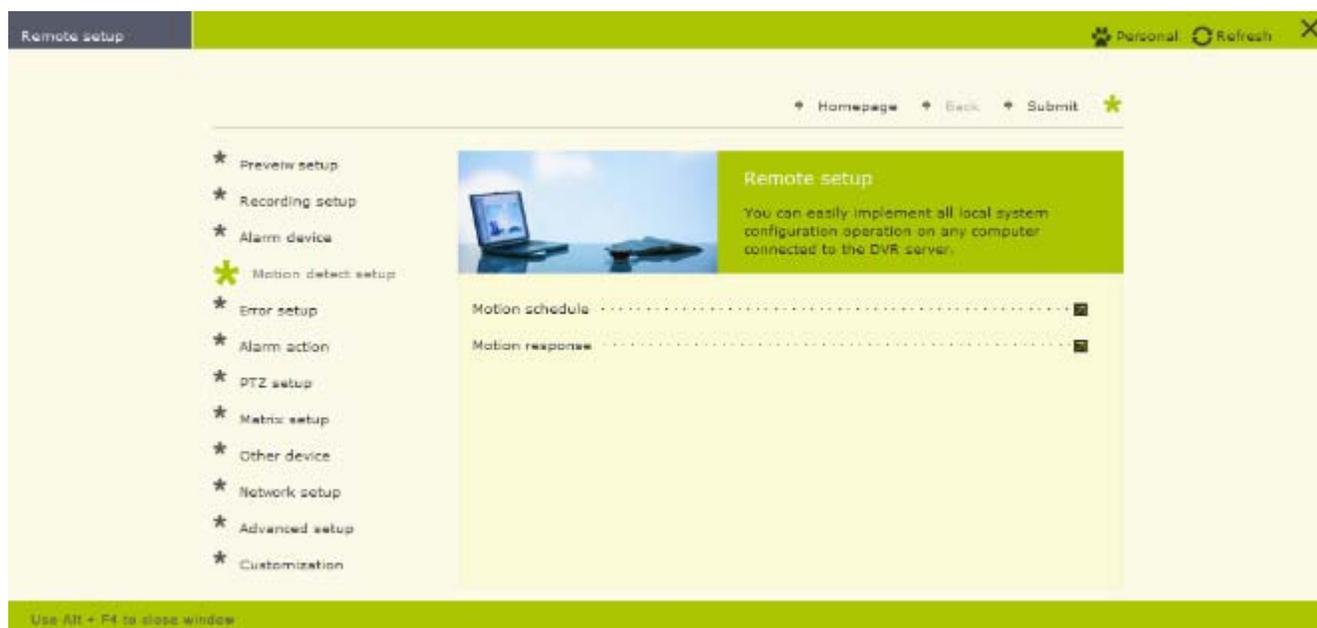


(Fig. 9-21)

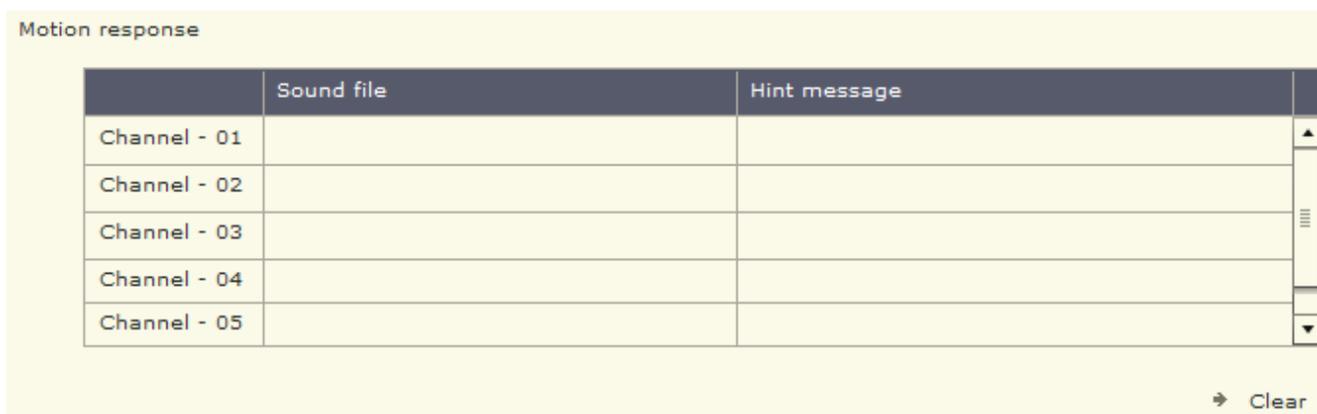
Motion Detect Setup (Fig. 9-22)

This page contains the Motion Schedule (p. 94) and Motion Response (p. 94) pages. The Motion Schedule page is similar to the Color Scheme Schedule page (p. 87). The Motion Response page allows you to assign a Sound File and Hint Message to each individual channel. (Fig. 9-23) Use the Hint Message field to add text. This Hint Message

will be included in the e-mail automatically sent (if configured) from the DVR Server. The Sound File will play locally on the speakers connected to the server.



(Fig. 9-22)



(Fig. 9-23)

Error Setup

The Error Setup page allows you to configure the Error Response. (Fig. 9-25) The Error Response allows you to set a Sound File and Hint Message for an error condition. (Fig. 9-24)

Error response

	Sound file	Hint message

➔ Clear

(Fig. 9-24)

Remote setup

Personal Refresh X

➔ Homepage ➔ Back ➔ Submit *

- * Preview setup
- * Recording setup
- * Alarm device
- * Motion detect setup
- * Error setup
- * Alarm action
- * PTZ setup
- * Matrix setup
- * Other device
- * Network setup
- * Advanced setup
- * Customization

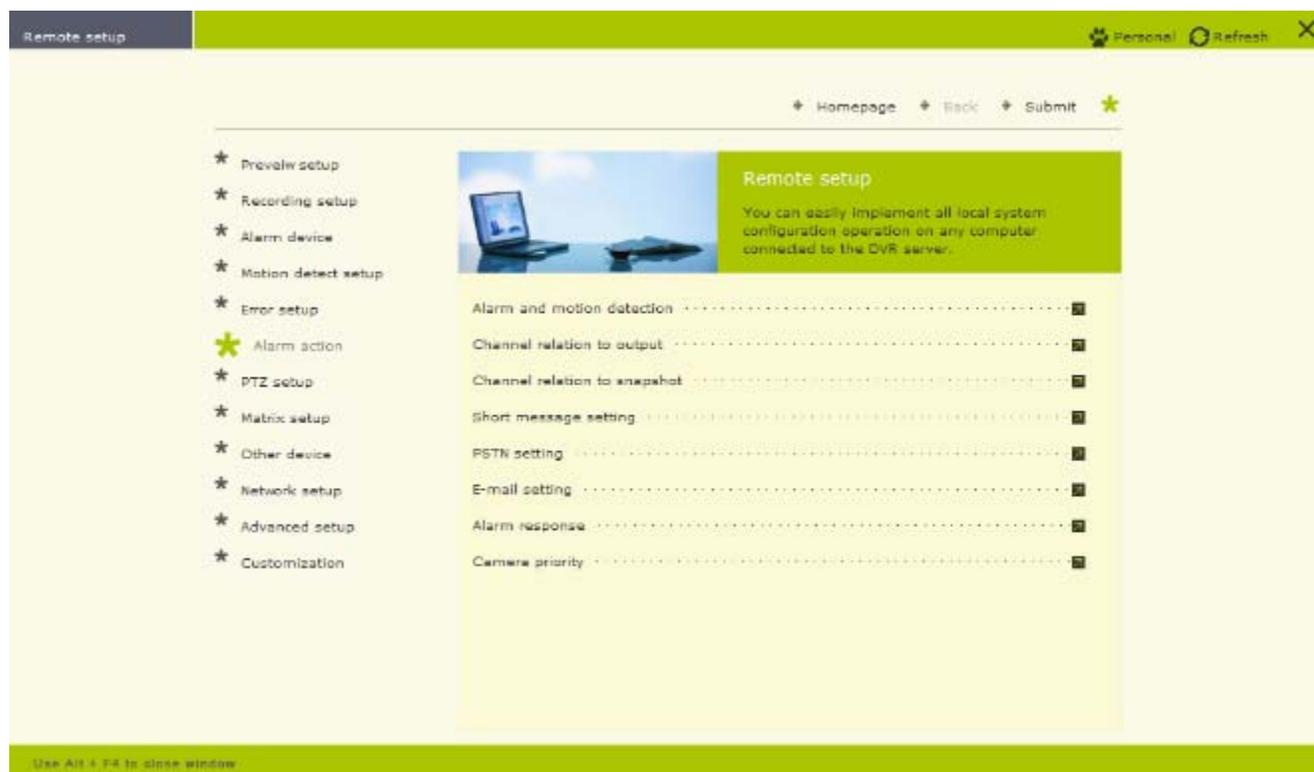
Remote setup

You can easily implement all local system configuration operation on any computer connected to the DVR server.

Error response

Use Alt + F4 to close window

(Fig. 9-25)



(Fig. 9-26)

Alarm Action (Fig. 9-26)

This page contains the Alarm And Motion Detection (p. 97), Channel Relation To Output (p. 98), Channel Relation To Snapshot (p. 99), Short Message Setting (p. 99), PSTN Setting (p. 101), E-mail Setting (p. 101), Alarm Response (p. 101), and Camera Priority (p. 102) pages. The Alarm And Motion Detection page configures how the DVR Server reacts to alarm/motion conditions. (Fig. 9-27) The Alarm Recording check box enables recordings triggered by alarm conditions such as motion detection. The Popup E-Map check box enables the E-Map feature. Once the E-Map is setup it will popup on screen for the security personnel to react to. The Single Screen Preview will maximize any channel that has motion and will not revert back until action is taken either by double-clicking the video feed or by using the grid layout buttons. (p. 115) The Show Motion Area check box will toggle the display of configured motion zones on the Live Preview mode. The Enable Motion Log check box will write a log entry each and every time motion detection triggers a recording or stops a recording. In multiple camera situations where motion is constantly triggered this may not be wanted. The log file will have many entries for motion and may make it difficult to read through. The Error/Motion Output Trigger check box enables motion detection based external alarm device triggering. The Show Local Alarm Light check box will toggle the display of an alarm light on the DVR Server when an alarm condition is detected. This will aid in the identification of certain situations for any security personnel monitoring the DVR.

Current alarm device:

Alarm and motion detection	
Alarm recording	<input checked="" type="checkbox"/>
Popup E-Map	<input checked="" type="checkbox"/>
Single screen preview	<input type="checkbox"/>
Show motion area	<input checked="" type="checkbox"/>
Enable motion log	<input type="checkbox"/>
Error/Motion output trigger	<input checked="" type="checkbox"/>
Show local alarm light	<input type="checkbox"/>
Enable voice alarm	<input type="checkbox"/>
Snapshot delay	<input type="text" value="0"/> ms(0-3000)
Recording duration	<input type="text" value="10"/> s(5-600)
Alarm duration	<input type="text" value="60"/> s(0-7200)

(Fig. 9-27)

The Enable Voice Alarm check box toggles an audible sound that plays through the speakers connected to the DVR Server. The Snapshot Delay specifies the number of milliseconds to wait before automatically taking a Snapshot. The Recording Duration field specifies the length of time (in seconds) to record after the alarm has been triggered. The Alarm Duration field specifies the length of time (in seconds) that the alarm continues to trigger. The Channel Relation To Output page links motion detection to an alarm output device. (Fig. 9-28)

Channel relation to output

➔ Standard mode ➔ Clear

ID	Description	CH-01 relation to outputs	Output
1	CH-01		Output - 01
2	CH-02		Output - 02
3	CH-03		Output - 03
4	CH-04		Output - 04
			Output - 05

(Fig. 9-28)

First select a video channel by left-clicking on the channel name. It will highlight green. Then select an output device by left-clicking on the output device name. Use the left arrow to add the output device to the list. Use the right arrow to remove an output device from the list. The **Clear** button will remove all output devices from the list. The **Standard Mode** button will set ch-01 to output 01, ch-02 to output 02, and so forth. The Channel Relation To Snapshot page allows you to automatically take a snapshot of the video feed during an alarm condition. (Fig. 9-29) You can select each individual channel by using the check box next to the channel name. The Snapshot check box will automatically apply to all channels.

Channel	Snapshot <input type="checkbox"/>
CH-01	<input type="checkbox"/>
CH-02	<input type="checkbox"/>
CH-03	<input type="checkbox"/>
CH-04	<input type="checkbox"/>

(Fig. 9-29)

The Short Message Setting page contains the options for sending an SMS to your phone when an alarm action is detected. (Fig. 9-30) This feature requires a GSM enabled modem. The SMS Center field is supplied by your provider. The Number field is the cell phone number that the SMS will be sent to. The Description field is the text that will be sent. Be sure to check the Enable Action check box. Match the COM Port settings to that of your GSM modem. The **Clear** button will erase all settings.

Short message setting SMS Center

Number	Description
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	

Enable action ➔ Clear

COM port ★

COM ▼

Baud rate ▼ Data bit ▼

Parity ▼ Stop bit ▼

(Fig. 9-30)

PSTN setting

Number	Description
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	

Enable action ➔ Clear

(Fig. 9-31)

The PSTN page allows you to setup a telephone number to be dialed when the DVR Server detects an alarm condition. (Fig. 9-31) An additional modem must be installed and configured for this feature to work. Use the Number field to input a telephone number. Do not put parenthesis or hyphens. The area code is required if you are calling out of the home area that the server is in. Use the Description field to input a description. Be sure to check the Enable Action check box. The **Clear** button will erase all configured Numbers and Descriptions. The E-Mail Setting page configures the e-mail on alarm feature. (Fig. 9-32)

E-mail setting

	E-mail address	Description
01	police@911.com	auto-send
02		
03		
04		
05		
06		
07		
08		
09		
10		

Enable action → Clear

Internet account *

Sender: My SMTP server need checking authorization

Sender address: Username:

SMTP server: Password:

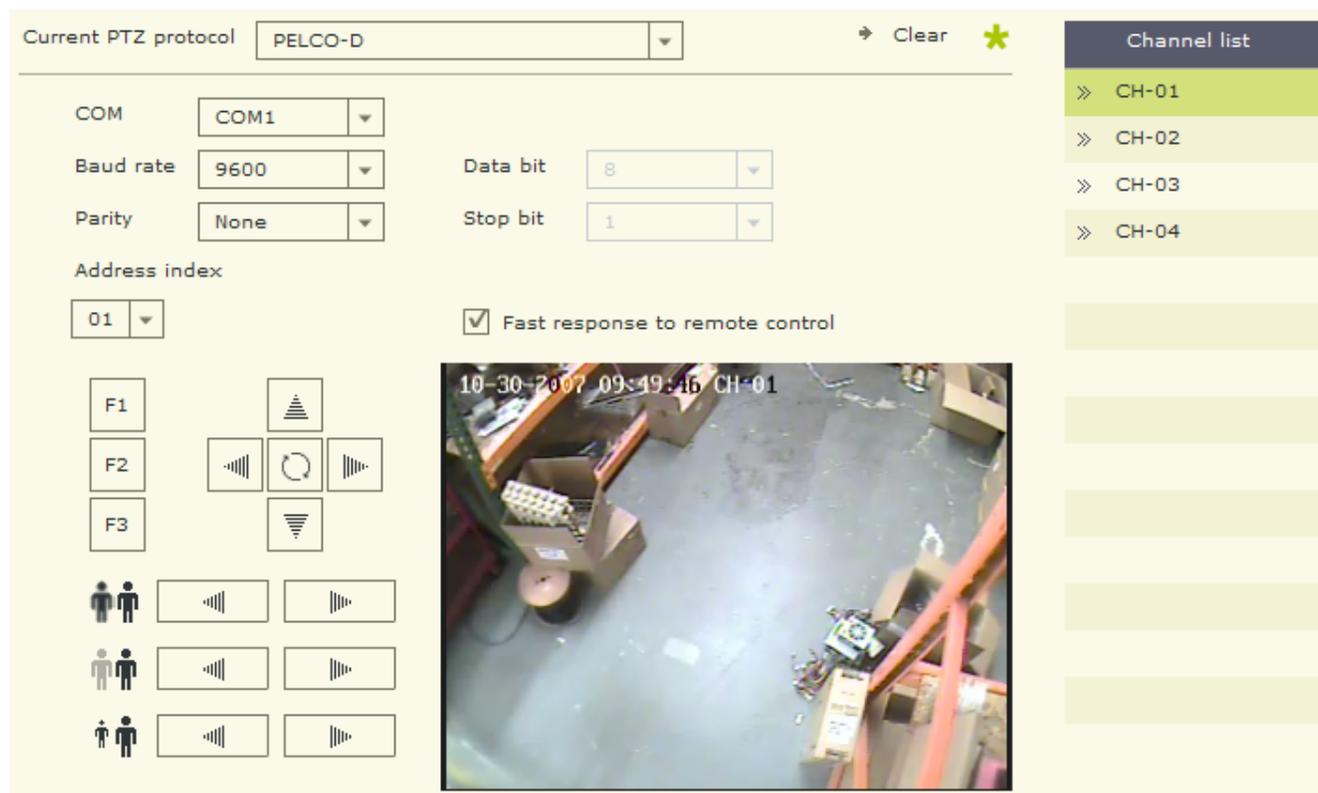
(Fig. 9-32)

Type in the name of the sender in the Sender field. Input the address where the e-mail will be sent from in the Sender Address field. Type in the address of the mail server in the SMTP Server field. If your mail server requires a username and password check the My SMTP Server Need Checking Authorization check box. After the box is checked the Username and Password field will highlight. Fill in both the Username and Password fields. The Alarm Response page allows you to assign a sound file to be locally through the DVR speakers when a sensor is triggered. (Fig. 9-33) Use the Sound File field to assign a sound file to each sensor. Type in a description in the Hint Message field. This Hint Message is e-mailed if the E-mail feature is enabled and configured.

configured settings for the currently selected video channel.



(Fig. 9-35)



(Fig. 9-36)

The Sensor Relation To Preset Point page allows you to link an external sensor device to trigger a preset position on a PTZ camera. (Fig. 9-37) Start by selecting the desired configured sensor from the list, it will highlight green. Use the Preset Point field to type in the PTZ Preset Point number next to the video channel that is configured as a PTZ camera.

Sensor relation to preset point

ID	Description
1	Sensor - 01
2	Sensor - 02
3	Sensor - 03
4	Sensor - 04
5	Sensor - 05
6	Sensor - 06

Channel	Preset point
CH-01	
CH-02	
CH-03	
CH-04	

(Fig. 9-37)

(Fig. 9-38)

Matrix Setup

The Matrix Setup page contains the Matrix (p. 105) and Sensor Relation To Matrix Input

(p. 105) pages. (Fig. 9-38) The Matrix page contains the configuration options for the supported matrix cards. (Fig. 9-39) Use the Matrix drop down box to select the matrix card that has been installed. The COM, Baud Rate, Parity, Data Bit, and Stop Bit may not need to be configured depending on the type of matrix card selected. Refer to the manufacturer for required setup options. The Sensor Relation To Matrix Input page allows you to link an external sensor to a channel on the external matrix display grid. (Fig. 9-40) Select a sensor by left-clicking the sensor name in the list, it will highlight green. Now type in the Public View number next to the desired video channel in the Matrix Input field. Each time the sensor is triggered, the configured video channel will appear on the Public View number.

(Fig. 9-39)

Sensor relation to matrix input

ID	Description	Channel	Matrix input
1	Sensor - 01	CH-01	
2	Sensor - 02	CH-02	
3	Sensor - 03	CH-03	
4	Sensor - 04	CH-04	

(Fig. 9-40)

Network setup	
Enable client connection	<input checked="" type="checkbox"/>
Enable local web server	<input type="checkbox"/>
HTTP port	<input type="text" value="80"/>
Server message	<input type="text" value="6000"/>

(Fig. 9-45)

(Fig. 9-46)

Advanced Setup

This page contains the System Setup (p. 108), Environment (p. 109), Channel Associated (p. 110), Time Scheme Setup (p. 110), and Holiday Setup (p. 111) pages. (Fig. 9-46) The System Setup page contains several startup options. (Fig. 9-47) The Auto Administrator Login When Windows Is Started check box automatically logs in to Windows on boot. The Auto Startup This Program check box automatically starts up and locks the DVR Server application when Windows logs in. The Auto Reindex Recording Files check box will automatically reindex the video recording files when the DVR Server starts up. The more recorded video there is stored on the DVR server the longer this process will take. Use the New Password/Retype fields to input the domain password if the DVR Server is connected to a network running a domain controller.

(Fig. 9-47)

Environment	
Hi-Quality playback	<input checked="" type="checkbox"/>
Messenger service	<input type="checkbox"/>
Audio preview	<input checked="" type="checkbox"/>
Voice chat	<input checked="" type="checkbox"/>
Status info	<input checked="" type="checkbox"/>
Instant playback	<input checked="" type="checkbox"/>
Log info keeping period	<input type="text" value="30"/> days(1-999)
Auto restart	<input checked="" type="checkbox"/> <input type="text" value="Everyday"/> <input type="text" value="06"/> : <input type="text" value="00"/>
Auto shutdown	<input type="checkbox"/> <input type="text" value=""/> : <input type="text" value=""/> <input type="checkbox"/> Power off when shutdown
Auto start	<input type="checkbox"/> <input type="text" value=""/> : <input type="text" value=""/>
Snapshot path	<input type="text" value="C:\Snapshot Data"/>

(Fig. 9-48)

The Environment page contains several environment options that determine the availability of certain features. (Fig. 9-48) The High-Quality Playback check box toggles the playback of unaltered video. When High-Quality Playback is disabled, you will see a lower quality video in the Playback mode but you will use less system resources. The Messenger Service toggles the Messenger Service popup window. When enabled a small dialog box will popup on the DVR Server for each event that occurs, such as a video loss event. The Audio Preview check box toggles the audio in the Live Preview mode. The Voice Chat check box enables/disables the voice chat feature. Voice Chat must be enabled on both the client and server. The Status Info check box toggles the RT (recording time) overlay on the lower left of the video feed. The Instant Playback check box enables the Instant Playback feature. (p. 47) Input the number of days (1-999) you want to save the server log into the Log Info Keeping Period field. After the specified number of days, the server logs will be overwritten

starting with the oldest log. The Auto Restart check box enables the automatic DVR restart feature. This feature will shut down the DVR Server application, log off Windows, and restart the system. You can choose to restart everyday or once a week. You must also input the time you want the DVR Server to restart. It is recommended to restart at least once a week. The Auto Shutdown check box enables the automatic closing of the DVR Server application. This feature will only exit the DVR Server application, Windows will continue to run. The Power Off When Shutdown check box will turn off the entire system when scheduled. The Auto Start check box enables the automatic power on of the DVR System. For this feature to function properly the +5VSB jumper must be connected on the Watchdog unit. The Snapshot Path specifies where the saved snapshots will be stored. To change the location click the yellow open folder icon. A standard Windows open dialog box will appear.

Channel associated		Channel list
Channel description	<input type="text" value="CH-01"/>	» CH-01
Signal lost alert	<input checked="" type="checkbox"/>	» CH-02
Show preview	<input checked="" type="checkbox"/>	» CH-03
Memo	<input type="checkbox"/>	» CH-04
Allow network access	<input checked="" type="checkbox"/>	
Extend information	<div style="border: 1px solid black; height: 150px;"></div>	

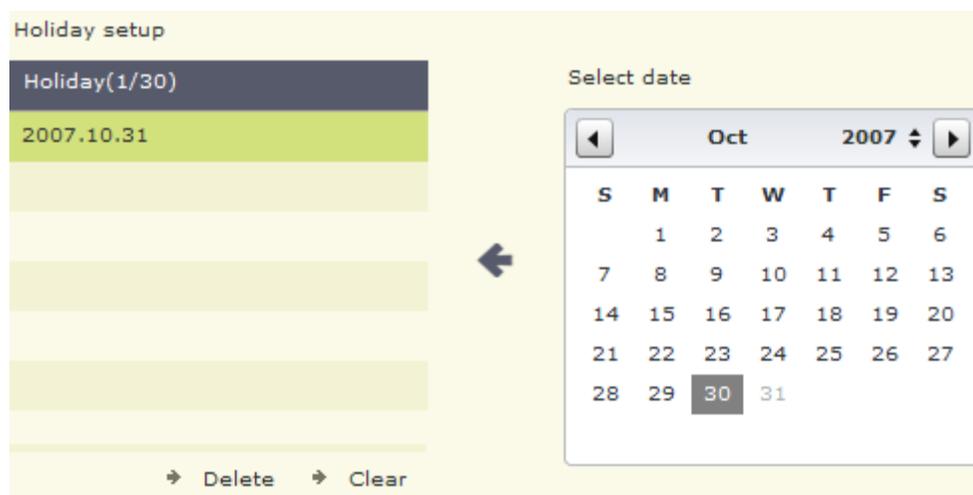
(Fig. 9-49)

The Channel Associated page is where you can rename individual video channels. (Fig. 9-49) Start by selecting a video channel from the Channel List, it will highlight green. The Signal Lost Alert check box will display a signal lost graphic on the video channel that has been disconnected. If the Messenger Service is enabled a dialog box will popup informing you of which channel has been disconnected. The Show Preview check box will enable the video feeds for the Live Preview mode. Without this checked you will not see your cameras. The Memo check box enables a memo addition to each channel that pops up each time a manual recording is started. The Allow Network Access check box will grant remote users access to the video channel. You can attach additional information to a recorded video file by using the Extend Info field. The Time Scheme Setup page allows you to customize each of the time schemes. (Fig. 9-50)

The screenshot shows a scheduling interface for a DVR system. At the top, a 24-hour timeline is displayed with hour markers from 0 to 22, and 0 at the end. Below the timeline, nine schemes are listed: Scheme1 through Scheme9. Scheme1 is highlighted in green and shows a time slot from 0:00 to 23:59. Scheme2 has two time slots: 8:00 - 11:59 and 14:00 - 17:59. Scheme3 has three time slots: 0:00 - 7:59, 12:00 - 12:59, and 18:00 - 23:59. Scheme4 has one time slot: 8:00 - 17:59. Scheme5 has two time slots: 0:00 - 7:59 and 18:00 - 23:59. Schemes 6, 7, 8, and 9 are currently empty. Below the scheme list is a 'Scheme setup' section. It includes a 'Name' field with 'Scheme1' entered, 'Save' and 'Clear' buttons, a 'Standard mode' dropdown menu, and a 'Period' field with a time range of 00:00 - 23:59. The 'Period' field is composed of several input boxes for hours, minutes, and seconds, separated by colons and dashes.

(Fig. 9-50)

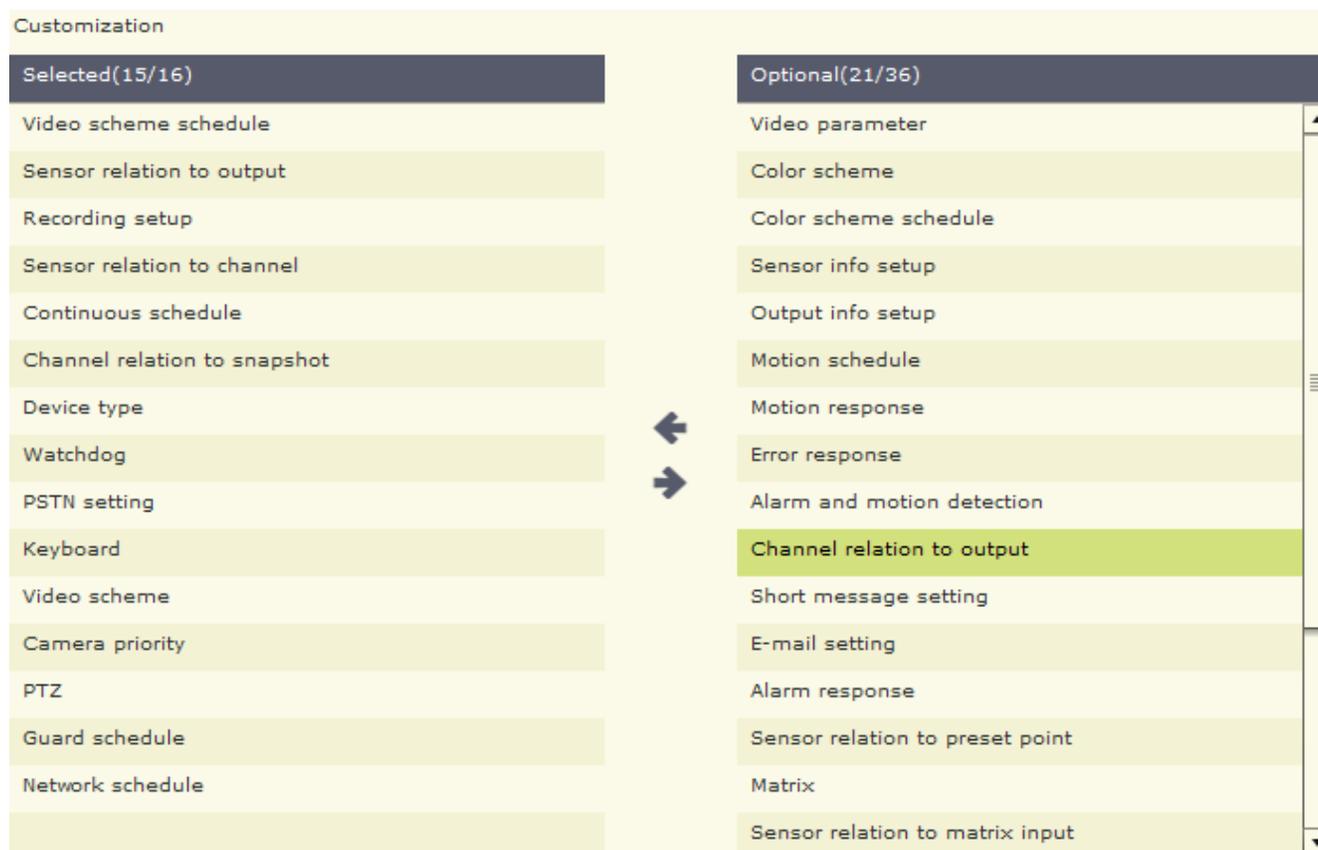
Start by selecting a scheme by left-clicking the scheme name, it will highlight green. Use the Name field to type in a name to identify the scheme. The Standard Mode drop down box contains pre-configured common time periods. Use the Period fields to define the time periods for the scheme. To save the new scheme left-click the **Save** button. The **Clear** button will remove all time periods from the selected scheme. The Holiday Setup allows you to associate specific dates to the Holiday when configuring the scheduling options. (Fig. 9-51) Use the calendar to select the desired date. To add it to the Holiday list click the left arrow. To remove a date from the Holiday list select the desired date and click the **Delete** button. To clear the entire Holiday list click the **Clear** button.



(Fig. 9-51)

Customization

The Customization page allows you create a custom menu for quicker operation. Click the **Customization Setup** button to open the Customization page. (Fig. 9-52) Use either list to select a menu option. Use the left and right arrows to add/remove items.



(Fig. 9-52)

User Manager (Fig. 9-53)

The User Manager page will display all configured users. To delete the currently selected user left-click the **Delete User** button. You cannot delete the Supervisor account.

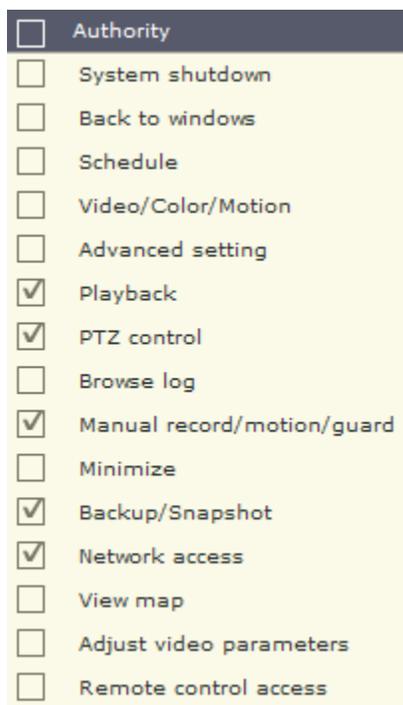
➤ Add user ➤ Delete user ➤ Modify user info ➤ Assign authority ➤ Camera access				
Username	Level	Status	Full name	Description
Supervisor	Admin	Active(Default user)	Admin	Administer the system
Net1	Admin	Active	Network(1)	Network access user(1)
Net2	Advanced	Active	Network(2)	Network access user(2)
Net3	Medium	Active	Network(3)	Network access user(3)
Net4	Low	Active	Network(4)	Network access user(4)

(Fig. 9-53)

Click the Add User button to add a user. The User Info page will appear. (Fig. 9-54) Input the username in the Username field. Input a password in the Password and Verify Password fields. The Password and Verify Password fields must contain the same password. Optional: Input the name of the user in the Full Name field. Optional: Input a description of the user in the Description field. Select the authority level using the Level drop down box. If remote viewing is all that is needed for the user select the Low authority level. Check the Default User check box if you want this user to be the default selected user when Locking/Unlocking, Exiting, or Logging in to the DVR system. You can disable a user by checking the Disable This User check box. Select the **Cancel** button to exit without saving. Select the **Confirm** button to exit and save the user. The **Modify User Info** button will open the User Info page and allow you to alter an existing user.

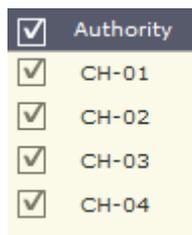
User Info	
Username	<input type="text"/>
Password	<input type="password"/>
Verify Password	<input type="password"/>
Full name	<input type="text"/>
Description	<input type="text"/>
Level	Admin <input type="button" value="v"/>
Default user	<input type="checkbox"/>
Disable this user	<input type="checkbox"/>

(Fig. 9-54)



(Fig. 9-55)

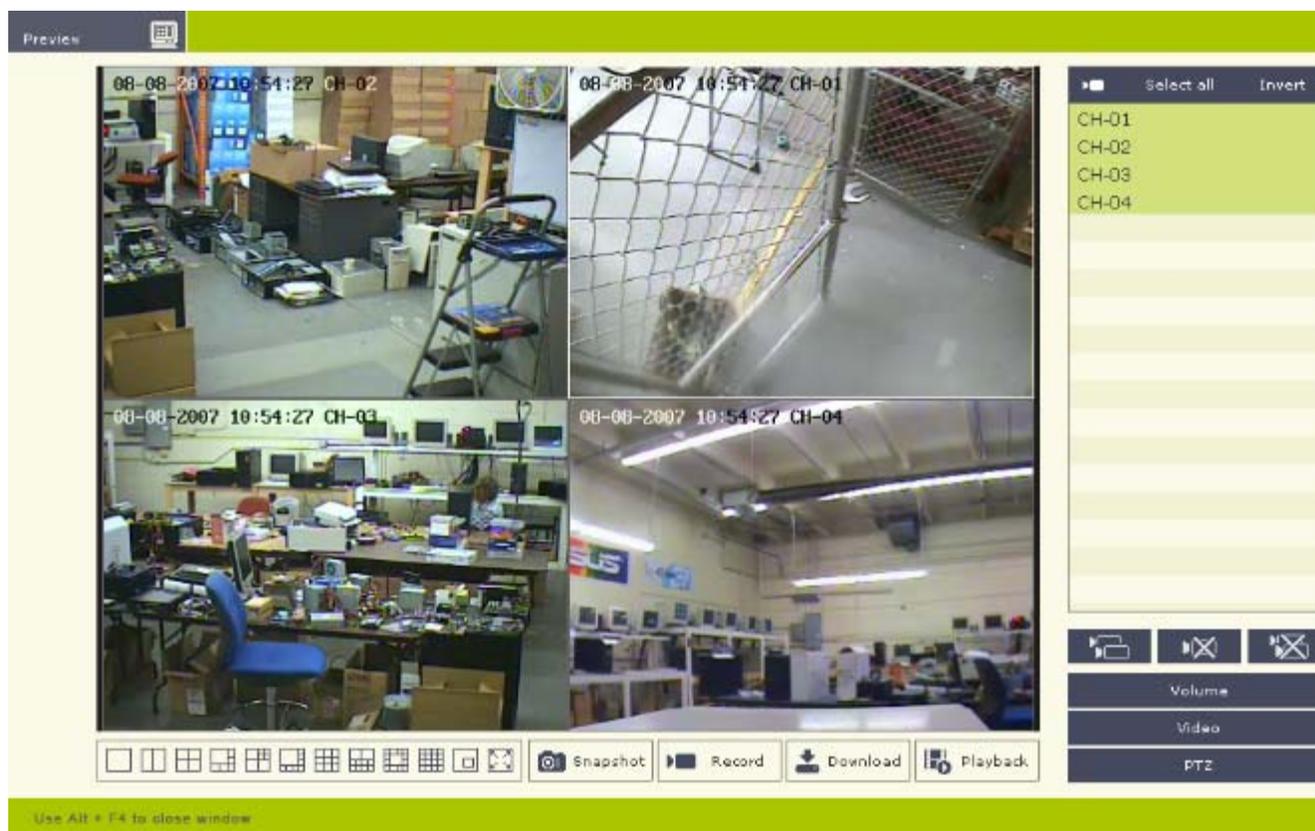
The **Assign Authority** button will allow you to change the authority permissions of the currently selected user. (Fig. 9-55) You can check each individual check box or use the Authority check box to quickly check all authority permissions. The **Camera Access** button will allow you to grant/revoke permission for the selected user for each video channel. (Fig. 9-56)



(Fig. 9-56)

Preview (Fig. 9-57)

When you click the **Preview** button you will see the Live Preview mode. This screen contains the Channel Grid (p. 115), Grid Layout buttons (p. 115), Available Channel list (p. 115), and DVR Control buttons (p. 116).



(Fig. 9-57)

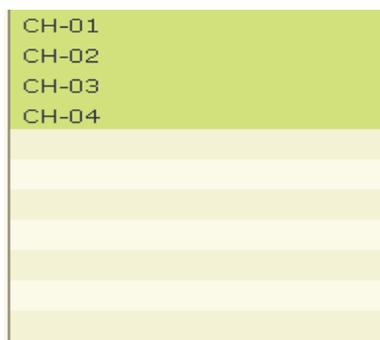
Channel Grid: The channel grid contains the live video preview. This is where you will see all of your video feeds. You can select each channel by left-clicking the mouse to activate the live audio preview for that channel. To maximize a video channel, double-click it. You will notice that once maximized, you will also see the other connected video channels in a picture-in-picture on the lower right. To restore the Channel Grid double-click the video feed again. There is also a full screen mode that you can toggle by clicking the right mouse button on any video channel.

Grid Layout Buttons: You can rearrange the Channel Grid using the **Grid Layout** buttons. Hover your mouse cursor over the buttons to see what each one does. (Fig. 9-58)



(Fig. 9-58)

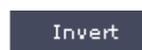
Available Channel List: All available channels to connect to are listed here. (Fig. 9-59) To select a single video channel left-click on the name and it will be highlighted. To select multiple video channels hold down the Ctrl key and left-click on the video channel names. The **Select All** button will highlight all available video channels. (Fig. 9-60) The **Invert** button will change the current video channel selection to the exact opposite. (Fig. 9-61)



(Fig. 9-59)



(Fig. 9-60)



(Fig. 9-61)

DVR Control Buttons: These buttons are Snapshot (p. 117), Start Recording (p. 118), Remote Download (p. 118), and Playback (p. 119). (Fig. 9-62)



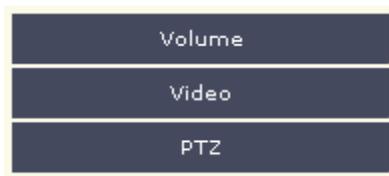
(Fig. 9-62)

These buttons are (from left to right) Connect Selected Channels, Disconnect Current Channel, and Disconnect All Channels. (Fig. 9-63) The **Connect Selected Channels** button will establish a connection to the currently selected video channels in the Available Channel List in the currently selected grid. The **Disconnect Current Channel** button will drop the connection to the currently selected video channel on the channel grid. The **Disconnect All Channels** button will drop the connection to all video channels.

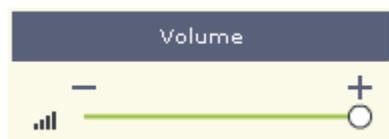


(Fig. 9-63)

These buttons are Volume Set, Color Set, and PTZ Control. (Fig. 9-64) The **Volume** button will allow you to change the audio volume. (Fig. 9-65) Use the + and – buttons to raise or lower the volume. To return to the DVR Control Buttons click the **Volume** button. The **Video** button allows you to change the brightness, contrast, saturation, and hue. (Fig. 9-66) Left-click the **Video** button to return to the DVR Control Buttons.

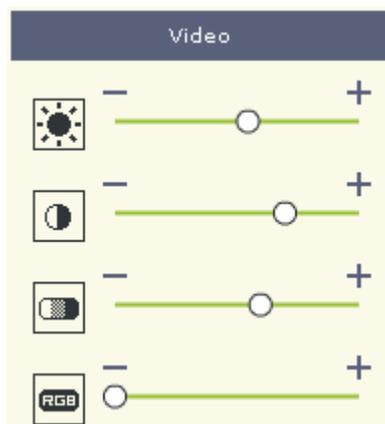


(Fig. 9-64)

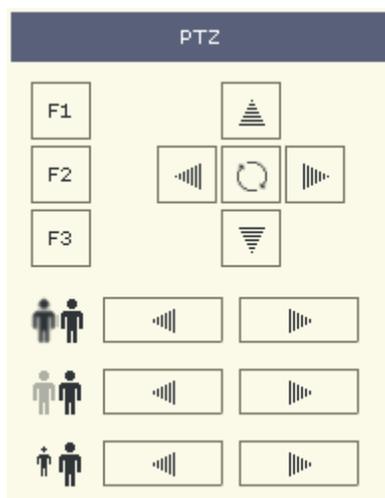


(Fig. 9-65)

The **PTZ Control** button allows you to pan, tilt, and zoom any configured PTZ cameras on the DVR Server. (Fig. 9-67) Not all PTZ cameras support all PTZ control buttons. If you click on a button that is unsupported by the PTZ camera nothing will happen. Left-click the **PTZ** button to return to the DVR Control Buttons.



(Fig. 9-66)



(Fig. 9-67)

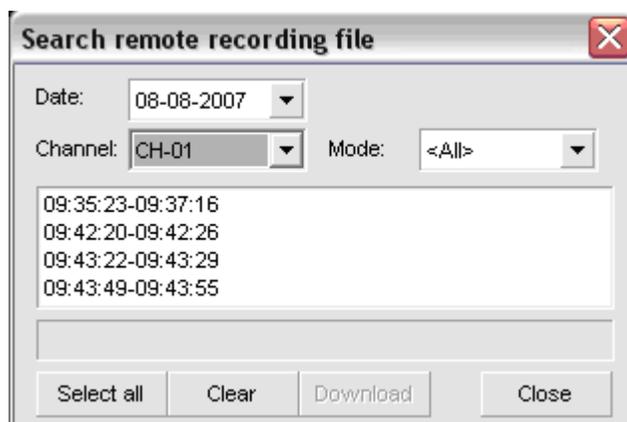
Snapshot: The **Snapshot** button will take a picture of the currently selected video channel. Once clicked the Snapshot dialog box will appear. (Fig. 9-68) The Snapshot dialog box allows you to preview the snapshot before saving it to disk. Select the **Save** button if you wish to save the snapshot. The standard Windows Save As dialog box will appear where you can choose the location and name of the saved snapshot. If you do not want to save the snapshot select the **Cancel** button.



(Fig. 9-68)

Start Recording: The **Start Recording** button will start recording the currently selected video channel. Once the recording starts you will be prompted for a location to save the recorded video files. When you are recording the **Start Recording** button will flash. To stop recording left-click the **Start Recording** button.

Remote Download: The **Remote Download** button brings up the Search Remote Recording File dialog box. (Fig. 9-69) Use the Date drop down box to select the desired date. Use the Channel drop down box to select the desired video channel. With the Mode drop down box you can select what type of video recording to list. You can select All, Continuous, Motion, Alarm, Manual, and Network video recordings. A list of all video recordings will be displayed. They are listed as time indexes. The start and stop time for each video recording file is displayed. Select the desired times by left-clicking on the time. To select multiple video recording files hold down the Shift key and left-click on several video recording files. The **Select All** button will highlight all listed recorded video files. The **Clear** button will clear the selection. Once you have your video recording files selected they will highlight blue. Click the **Download** button to start the download. A standard Windows save dialog box will appear.



(Fig. 9-69)

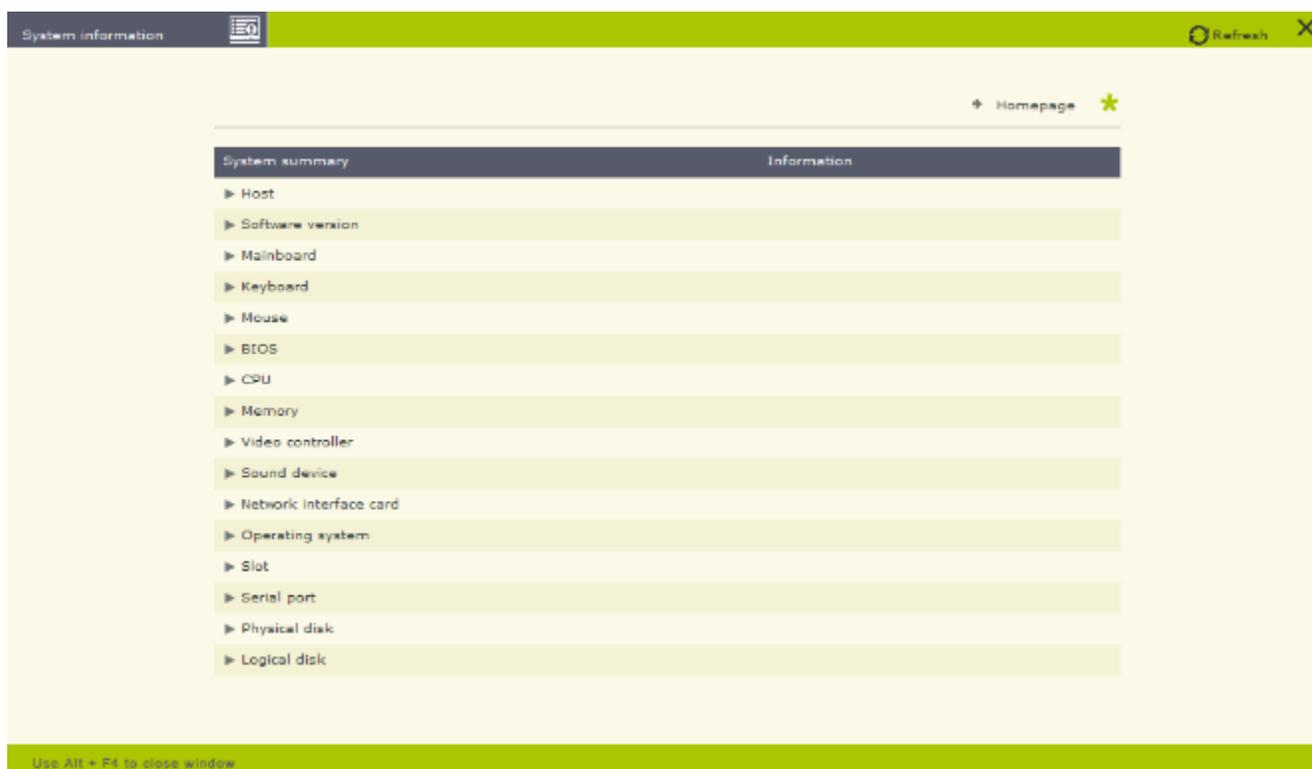
Playback: The **Playback** button will open up the Player application. (Fig. 9-70) To load a recorded video file click the **Open** button (yellow open folder). A standard Windows open dialog box will appear. Navigate to the recorded video file and click the **Open** button. The playback buttons are similar to the Playback mode. (p. 54)



(Fig. 9-70)

System Information (Fig. 9-71)

The System Information page will display information about the DVR Server. The Software Version, CPU, Memory, OS, and Physical Disk are included on this page. Left-click the triangle to expand/collapse menu items.



(Fig. 9-71)



(Fig. 9-72)

Remote Status (Fig. 9-72)

This page contains the System Status (p. 121), Channel Status (p. 121), AlarmIn Status (p. 121), and AlarmOut Status (p. 121) pages. The System Status page contains the Process, Service, Memory/CPU, Logical Disk, and NIC Flux pages. The Process page displays the currently running processes on the DVR Server. The Service page displays the currently active services running on the DVR Server. The Memory/CPU page displays the current memory and CPU usage on the DVR Server. The Logical Disk page displays each drive connected to the DVR Server along with the total size and free space of each partition. The NIC Flux page displays the current bandwidth usage for the DVR Server. The Channel Status page displays the current status of each video channel. (Fig. 9-73) The Channel Name, Recording Status, Motion Detection Status, and Network Connections are displayed. You can connect to a video channel by selecting it and clicking the **Connect** button. To close the connection to the channel click the **Disconnect** button. The AlarmIn Status and AlarmOut Status pages will display the current state of each external sensor and each external alarm output device.

The screenshot shows a navigation menu at the top with options: System status, Channel status, AlarmIn status, and AlarmOut status. Below the menu is a table with the following data:

Channel	Recording status	Motion detection status	Network connection
CH-01	Scheduled	Scheduled	1
CH-02	Scheduled	Scheduled	0
CH-03	Scheduled	Scheduled	0
CH-04			0

To the right of the table is a video feed window titled "Video" showing a live camera view of a warehouse floor. The video feed includes a timestamp "10-30-2007 15:21:56 CH-01". Below the video feed are two buttons: "Connect" and "Disconnect".

(Fig. 9-73)

System Logs (Fig. 9-74)

Click the **Update** button to refresh the display. Select a log file to view by highlighting a day from the Date list. To print the currently visible page click the **Print Current Page** Button. To print all pages of the log file click the **Print All Page** button. The Type drop down box will allow you to filter the log files based on Info, Warning, Function, Error, and All entries. While viewing the System Log the Type drop down box will filter according to Application, Security, and System. Use the **Homepage** button to exit the System Logs page.

Remote Control (Fig. 9-75)

The Remote Control page contains the Channel Control (p. 122), AlarmIn Control (p. 123), AlarmOut Control (p. 123), and Windows Control (p. 123) pages.

Server log System log Update Print current page Print all page Type All

Type	Date	Description	Username	Date
Info	10/30/2007 15:15:26	Disk group(1) current storage path is D:\	Supervisor	10-30-2007
Function	10/30/2007 14:24:44	Supervisor lock system	Supervisor	10-29-2007
Function	10/30/2007 14:21:43	Unlock system key	Supervisor	
Function	10/30/2007 14:21:43	System minimized	Supervisor	
Function	10/30/2007 14:21:43	System restored	Supervisor	
Function	10/30/2007 14:21:42	Lock system key	Supervisor	
Function	10/30/2007 14:20:17	Unlock system key	Supervisor	
Function	10/30/2007 14:20:17	System minimized	Supervisor	
Function	10/30/2007 14:20:16	Supervisor left system setting	Supervisor	
Info	10/30/2007 14:15:25	Disk group(1) current storage path is D:\	Supervisor	
Function	10/30/2007 14:06:58	Supervisor entered into system setting	Supervisor	
Function	10/30/2007 13:57:20	Supervisor unlock system	Supervisor	
Function	10/30/2007 13:57:18	System restored	Supervisor	
Function	10/30/2007 13:57:18	Lock system key	Supervisor	
Function	10/30/2007 13:54:57	Supervisor lock system	Supervisor	
Function	10/30/2007 13:51:57	Unlock system key	Supervisor	

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(Fig. 9-74)

Channel control AlarmIn control AlarmOut control Windows control

Channel	Recording status	Motion detection status
CH-01	Manual	Scheduled
CH-02		Scheduled
CH-03	Motion	Scheduled
CH-04		

Video

➔ Connect ➔ Disconnect

(Fig. 9-75)

The Channel Control page allows you to remotely start and stop Manual video recordings. The Recording Status column displays the current recording status of each channel. The color indicators are: green – manual recording, yellow – motion recording, blue – continuous recording, gray – not recording. Select a channel from the Channel column and click the **Connect** button to see the video feed from that channel. The **Disconnect** button will close the connection to the currently selected channel. Once connected, double-click the Recording Status camera icon to start a manual recording on the DVR Server.

Double-click again to stop the recording. The AlarmIn Control page allows you to activate/deactivate external sensors that do not have a Guard Schedule (p. 94) set. (Fig. 9-76) To activate a sensor select the sensor from the AlarmIn column and double click the activation icon in the Guarding Status column. To deactivate the sensor double-click the Guarding Status icon again.

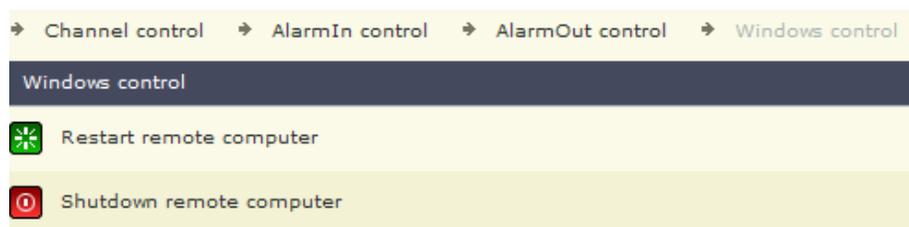
AlarmIn	Detection status	Guarding status
Sensor - 01	Undetected	Scheduled
Sensor - 02	Undetected	Manual
Sensor - 03	Undetected	
Sensor - 04	Undetected	
Sensor - 05	Undetected	

(Fig. 9-76)

AlarmOut	Triggering status
Output - 01	Triggered
Output - 02	Stop
Output - 03	Triggered
Output - 04	Stop
Output - 05	Stop

(Fig. 9-77)

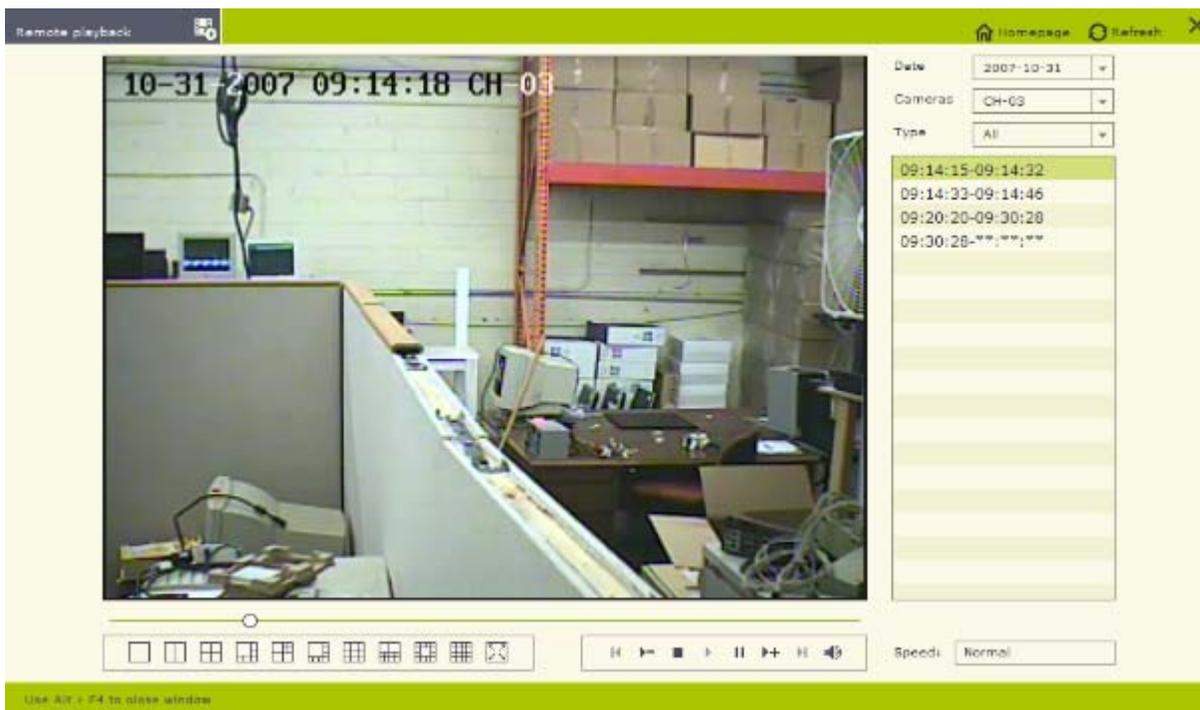
The AlarmOut Control page allows you to remotely trigger any external alarm device. (Fig. 9-77) Select an output device from the AlarmOut column. Double-click the Triggering Status icon to activate the alarm output device. Double-click again to stop the alarm output device. The Windows Control page allows you to remotely restart/shutdown the DVR Server. (Fig. 9-78) The **Restart Remote Computer** button will restart the DVR Server. The **Shutdown Remote Computer** button will turn off the DVR Server.



(Fig. 9-78)

Remote Playback

The Remote Playback page allows you to playback up to 16 channels from the DVR Server remotely through the Web Client. (Fig. 9-79) Hover your mouse over the **Grid Layout** buttons for a description of each one. (Fig. 9-80), (Fig. 9-81) Hover your mouse over the **Playback** buttons for a description of each.



(Fig. 9-79)



(Fig. 9-80)



(Fig. 9-81)

To playback a video file select a date from the Date drop down box. Select a channel from the Cameras drop down box. Use the Type drop down box to filter the recorded video files by Continuous, Alarm, Motion, and Manual recordings. Left-click a time period and press the Play button to review that recorded video file. The Speed field will display the current playback speed. Use the **Decrease Speed** button to slow the playback speed down to ¼ real time speed. Use the **Increase Speed** button to speed up playback up to 16x real time speed. Use the Time Slider to quickly search through the playing recorded video file.