



ASCENDENT TECHNOLOGY GROUP

X4 Series DVR



User's Manual

Please read this user's manual before using your DVR and retain it for future reference.

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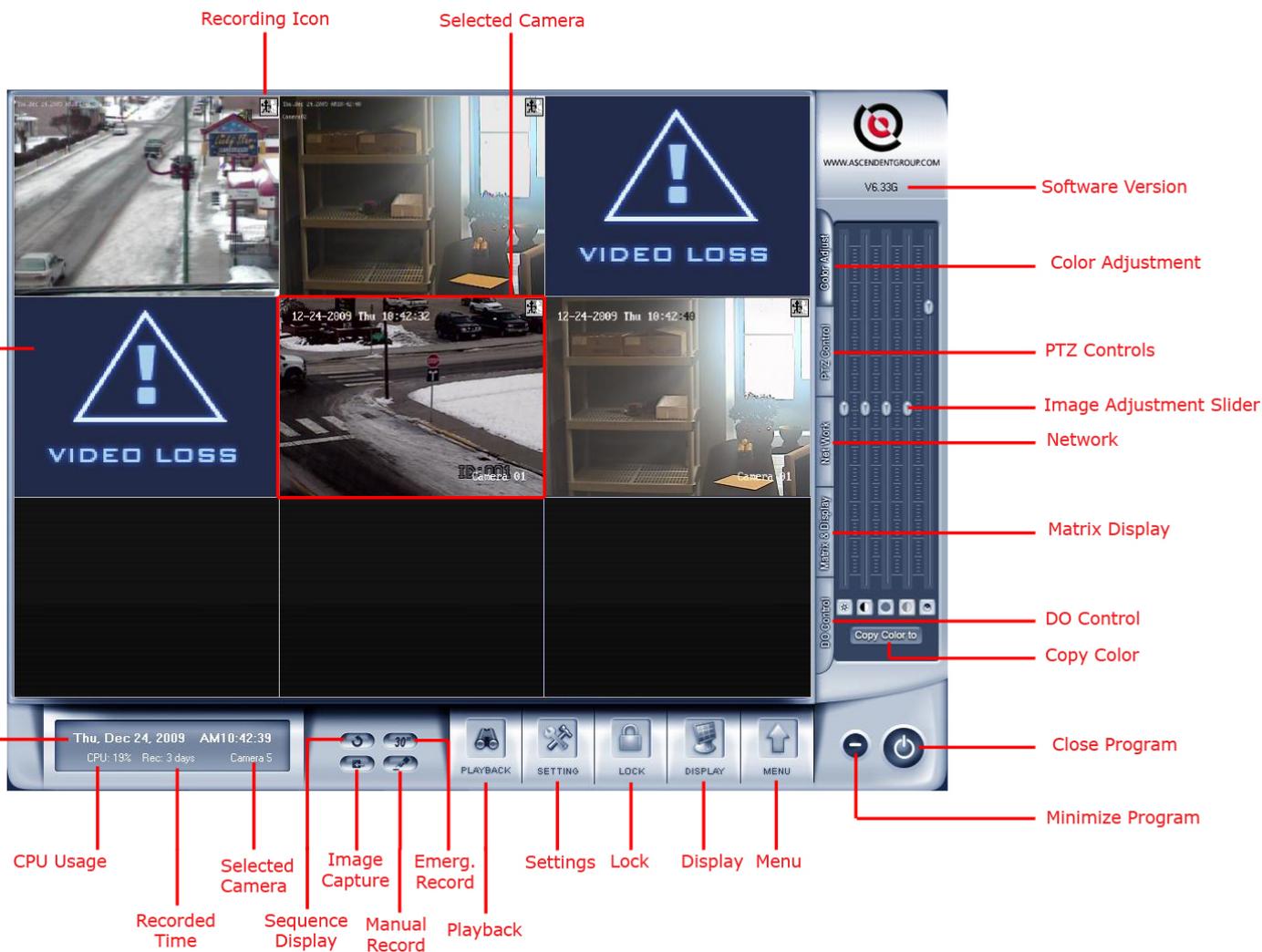
Thank you for using Ascendent's X4 Series DVR. In order to ensure full satisfaction please read this entire manual before using your new DVR to fully understand its functions and operations.

Chapter 1: Startup and Main Interface

1.1 Startup



Double click the shortcut icon **X4 DVR Server** to run DVR Server. The main interface is as below:



Note:

The X4 DVR Server software supports several screen resolutions:

1024x768

1280x768

1440x900

1280x1024

1680x1050

1920x1080

Please set the desktop resolution to one of these settings that is best suited to your monitor's resolution.

1.2 Main Interface

1.2 Tool-tips

1. When the cursor hovers over a button, a tooltip will be shown to explain the function of the button.
2. To bring a camera up full screen; double-click a camera window (or [press F11 on the keyboard](#)), to restore the split screen display double-click again or press F11.
3. Recording status:
 -  a. This icon means the system is set to continuous recording.
 -  b. This icon means the system is set to manual recording.
 -  c. This icon means the system is set for motion recording.
 -  d. This icon means the system is set for sensor recording.

1.3 Right Click Menu

1. Full Screen

Single-Right-Click on a camera to bring up the screen menu, then select "**Full Screen Display**" to view all cameras in full screen (or press **F12** on the keyboard). To restore the view to split screen, Right-click the image area and select "**Restore Display**". (or press **F12**).

2. Instant Playback

To start instant playback, Right-click a camera window and select **Instant playback**. After that, select a time from the submenu, then the DVR will play the video from the last 10 seconds to 8 minutes (depending on your selection) in the selected camera window. You can also play back video from a camera in an un-used window. (For example if you have 8 cameras and they are in 9ch split view) To do this select a blank camera window right-click and select "Instant playback", select a time and the camera you want to playback, then click "OK". The DVR will now play back the video in the blank window.

A window that is playing back video will have a yellow border to differentiate it from the live windows.



During instant playback, you can press **Spacebar** to **play/pause** the video.

Press the **Arrow Keys** to move forward or back a frame while paused.

Right-click and select "**Review playback**" or press the **Left arrow** key to return to the beginning of the video.

Right-click the playback window and select **End playback** to stop instant playback.

3. Alarm Popup

Right-click a camera and select "Start alarm popup" Note: "Alarm camera popup interval" in system setup must have a time selected, otherwise this option will be greyed-out. Once this is setup, if there is motion detection, or an alarm triggered by a sensor, the DVR will display the alarm cameras in sequence. To turn off this function, Right-Click a camera image and select "**Pause alarm popup**", or turn it off in system setup.

4. Auto Tracking for PTZ

This function must be supported by your PTZ, please contact your camera supplier to find out if this feature is supported on your PTZ.

5. OSD Adjustment

Right-Click a camera and select "**OSD Adjustment**" to adjust the position of the time/date, and camera name.



You can drag the time/date, and channel name to where you want them on the screen, then click "Save" or "Resume" to restore the default positions.

6. IP Camera Setup

This menu option will only be available if the selected camera is an IP camera. For IP Camera setup see page 30.

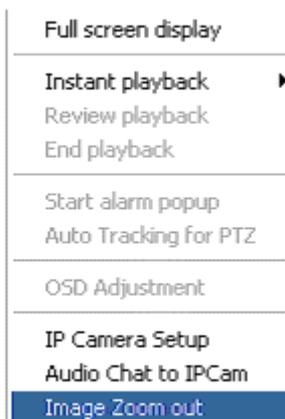
7. Audio Chat to IP Cam



Select “Audio Chat to IP Cam” to open a voice chat with the IP Cam as pictured below:



8. Image Zoom In/Out



Select Image Zoom in/out. Left-click and drag a box over the area you would like to zoom in on, as pictured below:

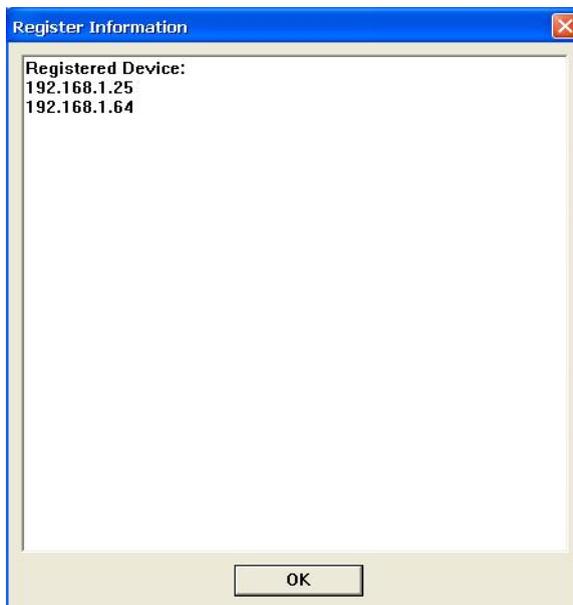


To return to the regular screen **right-click**.



9. About IP Register

Select this option to check if your cameras are registered. If an IP camera is unregistered, please contact Ascendent Technical Support.



1.4 Main Interface Functions

1. Split-Screen Mode



Press the  button to set split-screen mode on the main screen. The available split-screen modes depend on how many channels your DVR has, and the desktop resolution. Pictured below are the most common split screen modes:

| |
|---------|
| 1 View |
| 4 View |
| 6 View |
| 9 View |
| 13 View |
| 16 View |
| 20 View |
| 25 View |
| 28 View |
| 33 View |
| 36 View |
| 40 View |
| 49 View |
| 64 View |

2. Sequence Mode

Press the  button to set the live view screen to sequence mode. If the current split screen view is less than the number of cameras, the DVR will rotate through the cameras at a set time interval. (This is set in **System Setup**) For example if you have 8 cameras and the screen is set to 4 split mode, it will switch between channels 1-4, and 5-8. To turn off Camera Sequencing, click the  button again.

3. Emergency Recording

Press the  button to record all cameras for 30 seconds. This will record all cameras for 30 seconds regardless of the recording mode they have been set to.

4. Capture Image

Press the  button to save a screenshot of the selected camera.

Note: The directory to save screenshots is set in **System Setup** under: "Grab picture save to". Please set this directory before taking screenshots.

5. Manual Record

Press the  button to manually record the selected camera; press it again to stop recording.

6. Information Display Panel



This panel displays the current date/time, disk usage and which camera is currently selected.

Note:

Disk Usage percentage shows what percentage of your recording space has been used. After the hard drive has been filled, this will change to days, displaying how many days of video are currently recorded.

7. Setup



Press the  button to access DVR setup.

8. Playback



Press the  button to enter **Playback**.

9. System Lock



Press the  button to lock the DVR, preventing unauthorized users from operating or configuring the DVR. Click this button again to unlock. You will be prompted to input a user and password.

Note: The default user is: "admin" and password is blank.



Note:

The System Lock will only work if Local Password (and Network Password for network connections) is enabled in setup under **Password**.

10. Minimize

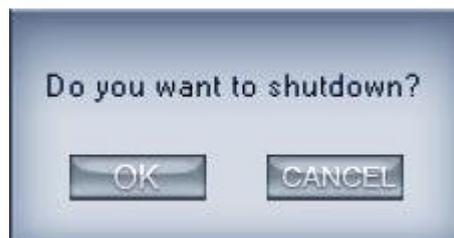


Press the button to minimize the DVR Server program.

11. Exit



Press the button to exit program, the dialog below will be shown.



1.5 System Menu

Click the  button to bring up the System Menu.

| |
|-----------------------------|
| Backup System Parameters |
| Import System Parameters |
| Restore Default Parameters |
| DVD/CD disc backup directly |
| Execute a external program |
| Remote chat |
| Write to working log |
| View System log |
| Open explorer |
| Open Screen Keyboard |
| Motion detection setup |
| Open electron map |
| DVR board work mode setup |
| Keyboard shortcuts setup |
| Add/Del IP Camera |
| POS Function Setup |
| ACU Function Setup |
| POS/ACU Event Monitor |

1. Backup/Import System Parameters

This allows you to backup all of the DVR Server settings, and then import them after reinstalling, or upgrading the DVR Server program. You will be prompted to name the backup file and select a save directory, and choose the directory to get the backup file from when importing system settings.

2. Restore Default Parameters

Select this to restore the default settings of the DVR.

Note: Do not choose this option unless you do not have a backup, and there is a problem with your current settings.

3. DVD/CD Disc Backup Directly

Select this option to burn video data directly to DVD or CD, which is the same as "Burn Backup file" in **Playback**. We recommend using "Backup by time" in **Playback**, unless you know the exact video file you want to burn.

4. Execute a External Program

Select this option to run an external program.

5. Remote Chat

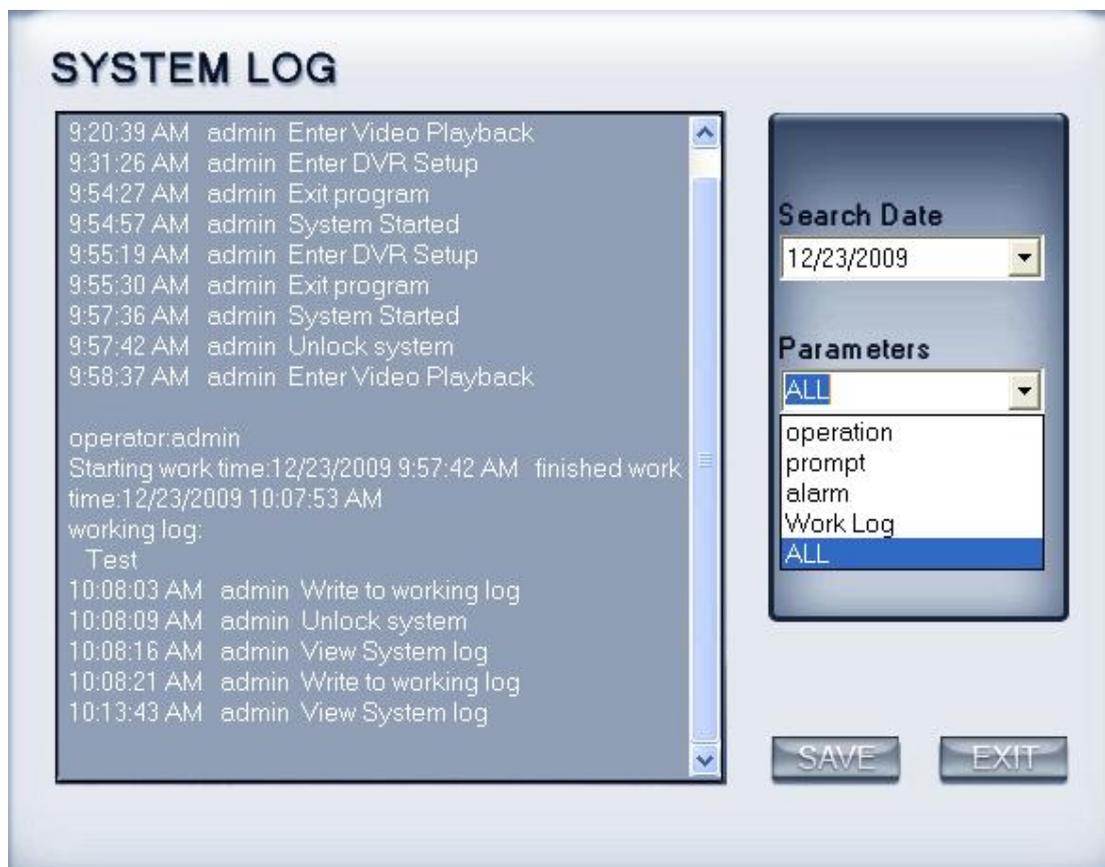
Select this option to connect to a remote NVR Client or DVR Server for live VOIP. Before using this feature, please ensure that you have a microphone installed, and working properly.

6. Write to Working Log

This is used to record events that occur while someone is monitoring the DVR Server. Text entered here is shown in the system log for that day.

7. View System Log

Select this option to view all activity of unscheduled recording as well as operations like playback, setup, and system lock. Logs can be searched by: operation, prompt, alarm and work log.



8. Open Explorer

Opens Windows Explorer.

9. Open Screen Keyboard

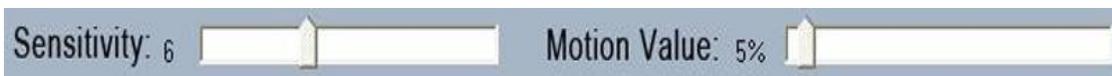
This will open an on-screen keyboard in case there is no keyboard connected. In setup, you can double-click a text input box to open the on-screen keyboard.

10. Motion Detection Setup

Select a camera then click **Motion Detection Setup** to set motion zones. The interface is shown below:

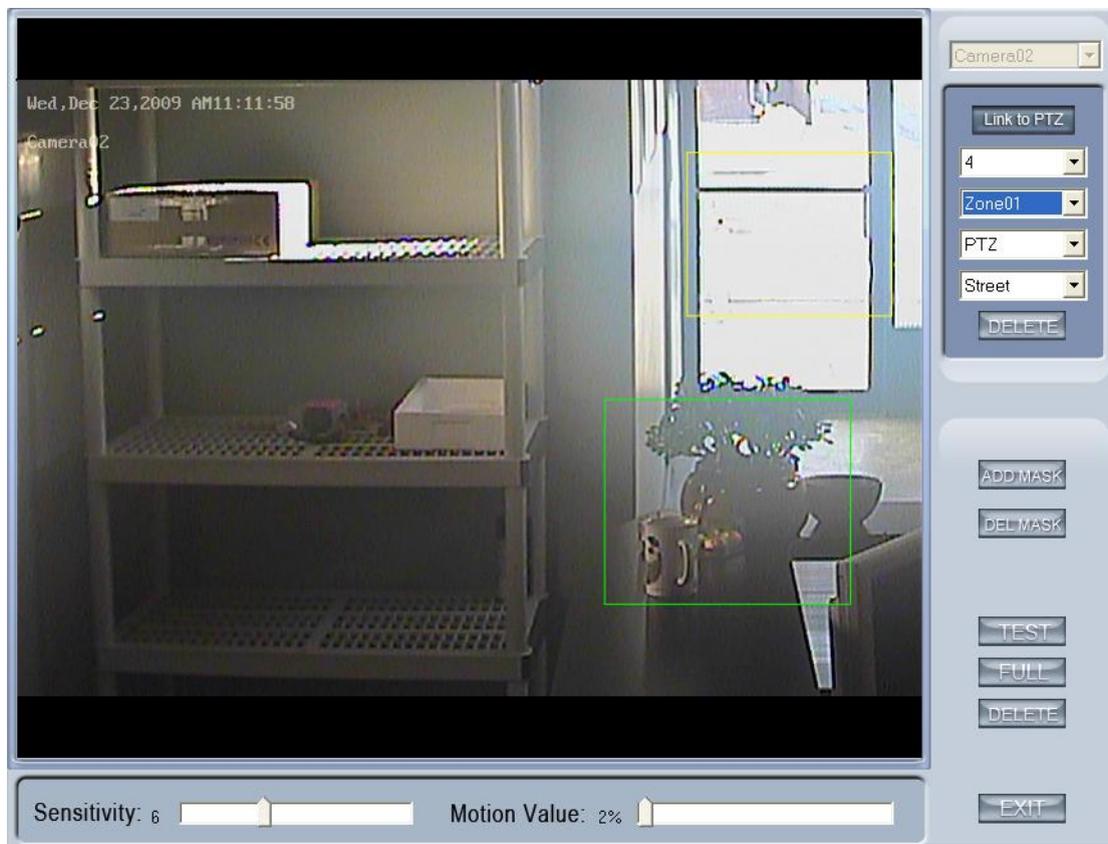


By default, the entire screen is set as a motion detection zone. Motion zones are indicated by a green border around the motion zone. To set a new motion zone click delete to clear the full screen motion zone, then click and drag a box over the position you want the new motion zone. To set the motion zone back to the full screen click the "FULL" button. To delete a motion zone click "DELETE". To test your motion zones click "TEST". There will be yellow boxes around any areas that have motion. To mask a portion of the screen for a privacy zone click "ADD MASK", then drag a box over the area you want masked. When you are finished adding your mask zones click "ADD MASK" again to save your mask zone. Click "DEL MASK" to clear all masks. The sensitivity of the motion zones can be adjusted by changing the "Sensitivity" and "Motion Value" bars as shown below:



Sensitivity adjusts the overall sensitivity of the motion zones, while the motion value percentage is the percentage of pixels that must change between frames for motion detection to be set off. To set the motion zones for a different camera select it from the drop-down list at the top right.

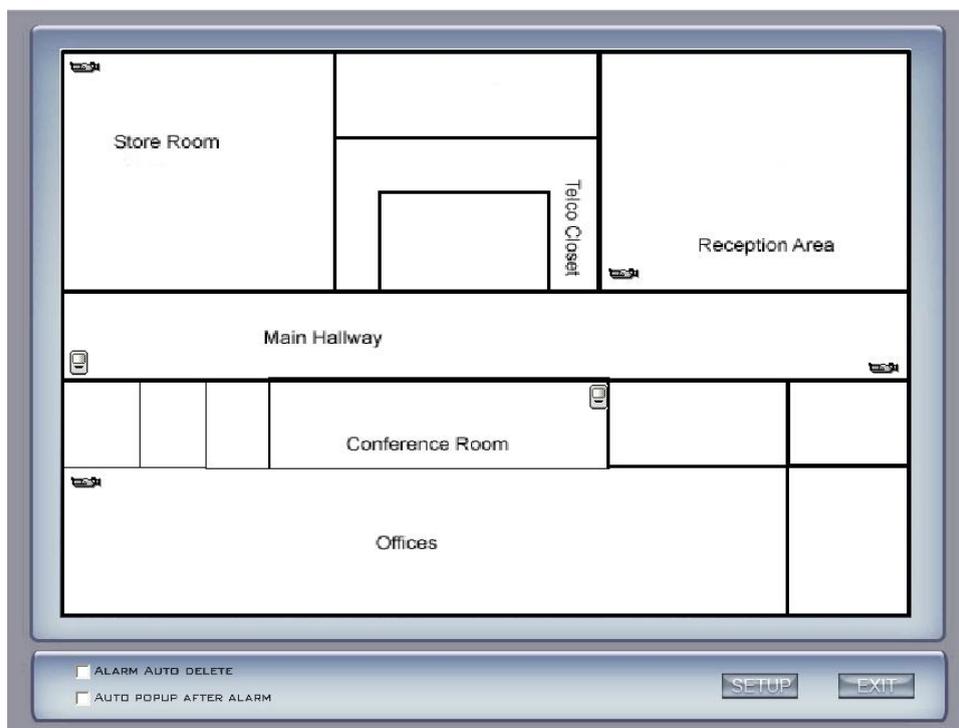
Motion zones can be linked to a PTZ so that when a motion zone is set off, your PTZ camera will go to a preset. To set a linked motion zone, click **"Link to PTZ"**. The first drop-down menu lets you pick the number of linked motion zones that are available for that camera.



Now select a zone from the second drop-down menu, then drag a box over the motion zone you want to create. Next select the PTZ camera from the third drop-down menu, and the preset from the last drop-down menu. You can create multiple linked motion zones by selecting a different zone and repeating the above steps. When you have multiple linked motion zones, the current motion zone will be indicated by a green box, while other linked motion zones will be indicated by yellow boxes. Once these linked motion zones are set up, when a linked motion zone is set off the PTZ camera will go to the preset that is linked to that zone.

11. Open Electron Map

Click the **SETUP** icon to change setup of the e-map. Right-click and the settings menu will appear. Now you can add cameras and sensors, change the e-map file, and delete all cameras and sensors. After adding a camera or sensor you will be prompted to select which camera or sensor number it is. Then you can change its position by dragging it to where you want it on the e-map. After setting up the e-map, you can view it and cameras that have had motion, will be blinking red. If you double click on a camera it will bring up the live view of that camera. If "AUTO POPUP AFTER ALARM" is checked the e-map will popup if a sensor or camera's motion zone is triggered, and the camera or sensor will blink red on the e-map. If "ALARM AUTO DELETE" is checked, e-map will ignore any sensor or motion zone triggers.



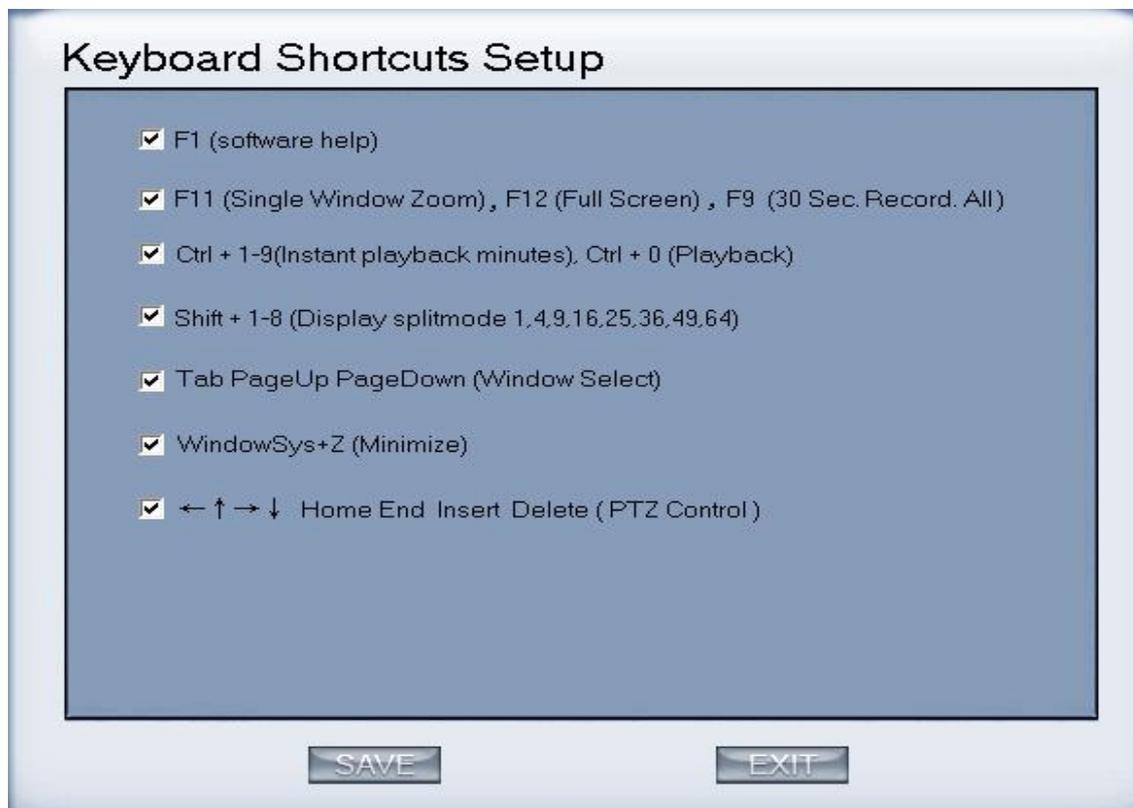
12. DVR Board Work Mode Setup

This is an advanced setup item, and should not be changed without contacting Ascendent Technical Support.

13. Keyboard Shortcuts Setup

To enable keyboard shortcuts, click on Menu, then "Keyboard shortcuts setup", and select the shortcuts you want enabled as shown below:

F12(Full Screen), F9 (30 Sec. Record All)
CTRL + 1-9 (Instant playback minutes), CTRL + 0 (Playback)
Shift + 1-8 (Display splitmode 1,4,9,16,25,36,49,64)
Tab, Page Up, Page Down (Window Select)



Add/Modify IP Camera

| | | | |
|---------------|---|----------------------|---|
| Server Name | <input type="text" value="IP Camera"/> | IP Device Name | <input type="text" value="Ascendent IP Pro"/> |
| IP Address | <input type="text" value="192.168.1.22"/> | Video Stream Type | <input type="text" value="Double Stream"/> |
| Connect Port | <input type="text" value="8000"/> | IF Use DNS to Get IP | <input type="text" value="No"/> |
| Login User ID | <input type="text" value="admin"/> | DNS Server IP | <input type="text"/> |
| Login Pass | <input type="password" value="*****"/> | DNS Server Port | <input type="text" value="7071"/> |

Server Name: Choose a name to identify the IP camera.

IP Address: Input the IP address of the camera or DNS name if the camera is on a dynamic DNS server.

Connect Port: Choose the connection port of the camera.

The default port for most of the supported IP cameras is 8000

Login User ID/Login Pass: This is the user and password that is used to connect to the camera. Ascendent IP Pro devices have a default login of:

User: **admin**

Password: **12345**

IP Device Name: Select the type of IP camera.

Video Stream type: Choose from Main-Stream, Sub-Stream, and Double-Stream. Sub-Stream is a smaller resolution video stream that can be set on the camera to use less bandwidth. For remote clients to be able to switch between sub and main stream select Double-Stream when adding the IP camera.

Note: To set the Sub-stream and Main-stream settings see **Chapter 3: IP Camera Setup**.

If Use DNS to Get IP: This is an advanced DNS setup option and should be left as the default option, and is not used for most dynamic DNS setups.

DNS Server IP: Set IP address of DNS server host, not used for most DNS setups.

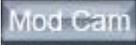
DNS Server Port: DNS server's port, used to connect to DNS software, this is not used in most DNS setups.

When you are finished adding your IP Cameras to the DVR server, the IP Camera Device List will show the Server Name, IP Address, Port, Camera Number, Connect Status and Registration information.

Note:

After you add IP cameras to your DVR system, they will be assigned to the next camera number after any analog cameras. So if you have an 8 channel DVR, and you add an IP camera it will be assigned to camera 9 in live view, and playback.

(2). Modify IP Camera

Press the  button to change an IP camera's IP address and other settings. The interface is the same as when you click "**Add Cam**".

(3). Delete IP Camera

Press the  button to delete the selected IP device.

15. POS/ACU Function Setup and Event Monitor

For POS and ACU functions, please contact Ascendent Technical Support.

1.6 Network Tab

This panel displays the network information of the DVR system.



IP Address of the DVR

Subnet Mask of the DVR

Network Gateway

When someone is connected remotely to the DVR, their IP address will show up here.

| Section | Value |
|------------------|-----------------------------|
| Network Adapters | Realtek |
| IP Address | 192.168.1.44 |
| Subnet Mask | 255.255.255.0 |
| Net Gate | 192.168.1.1 |
| Connect Site | 192.168.1.1 192.168.1.60 |

1.7 PTZ Control Tab



1. PTZ speed

Click and drag the slider bar to adjust the speed of PTZ.

2. Relay (On/Off)

Control the PTZ camera's internal relay to turn on and off a light or speaker connected to the PTZ's relay.

3. Wiper (On/Off)

If the PTZ camera has a wiper, this will toggle wiper on and off.

4. Zoom + / Zoom –

Click to zoom in or out with the PTZ camera.

5. Focus + / Focus –

Use this to adjust the focus of the camera if the auto-focus is not sufficient.

6. Iris + / Iris –

Overrides the PTZ camera's auto-iris to brighten or darken the image.

Note: We recommend adjusting the Brightness or Contrast before adjusting the iris.

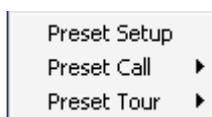


Clicking the Auto Pan button will start a 360 degree tour on the PTZ camera. To stop Auto Pan, click it again, or select a preset.

Click the arrow buttons to Pan and Tilt the camera.

7. Speed Dome

Press the **Speed Dome** button to setup and call presets and tours.



(1). Preset Setup

In this screen you can set the preset position:

Camera ID

Add/Del. Preset

Preset Name

Preset No.

Call Mode

SET

| Preset Name | NO. |
|-------------|-----|
| door | 1 |
| window | 3 |
| computer | 2 |
| office | 4 |

No PTZ action sec back

Home Position

Tour Preset

Preset Name

Stay Time sec

| Preset Name | NO. | Time |
|-------------|-----|------|
|-------------|-----|------|

I. Add/Delete preset

To create a preset, move the PTZ to the spot you wish to preset, then click the the "+" button. Repeat this process for each preset, then click "SAVE". To remove a preset select it and click "-". To edit a preset, click the preset, move the PTZ where you want it, then click "SET".

II. Home Position

You can select a preset to be the home position for the PTZ, so when there is no motion for the set amount of time, the PTZ will go to the home position.

III. Tour preset

To create a tour, pick a tour group from the Tour Preset drop-down, select a preset from the Preset Name drop-down, and click the "+" button. Repeat this process for each preset you want in the tour. Select the Stay Time to determine the amount of time the camera will stay on each preset. After selecting all the presets you want, click "SAVE".

(2). Preset call

When you select this, you will see a list of all the preset names, and when you click on it the PTZ will call that preset.

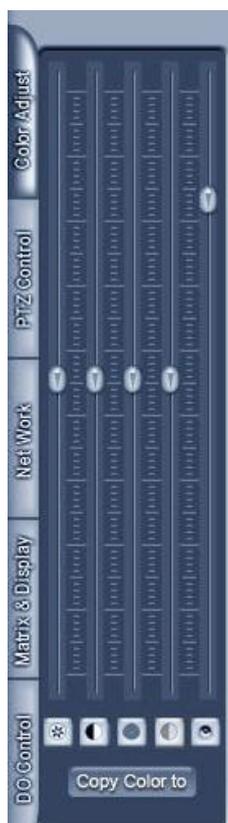
(3). Preset Tour

When you select this, you will see a list of all tour groups. Click one to start the tour. To exit a tour, call a preset, or move the PTZ camera.

8. PTZ Mouse Control in Live View

Click and drag the mouse near the edge of the camera screen to pan or tilt in that direction. To zoom in click near the center of the camera image, and drag down. To zoom out click near the center of the camera image, and drag up.

1.8 Color Adjustment and Audio Volume



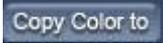
Click and drag the 1st slider to adjust the brightness of the selected camera. To set the brightness back to the default setting, click the  button.

Click and drag the 2nd slider to adjust the brightness of the selected camera. To set the brightness back to the default setting, click the  button.

Click and drag the 3rd slider to adjust the brightness of the selected camera. To set the brightness back to the default setting, click the  button.

Click and drag the 4th slider to adjust the brightness of the selected camera. To set the brightness back to the default setting, click the  button.

Click and drag the 5th slider to adjust the brightness of the selected camera. To set the brightness back to the default setting, click the  button.

Click the  button to copy the color and audio settings of this camera to one or all of the other cameras.

1.9 Matrix and Display Tab

The Matrix and Display Tab is used to change the cameras displayed on the live viewing screen, as well as any monitors that are connected through matrix cards. Each button from 1-16 can be set for a different camera arrangement and split screen setting. The dark button indicates which matrix and display group is currently active (as seen on Matrix Group 1, and Display Group 1 in the picture below). See Chapter 2.6 to see how to set the Matrix and Display Groups.



1.9A DI/DO Control

To set up which Digital Inputs and Digital Outputs are linked to a certain camera, see Chapter 2.3-4.



1. DI Control

The DI Control buttons indicate the status of the DI, and can be used to manually open or close a DI sensor.

The color of the button indicates the status of the DI:

- 2 Input 2 has not been triggered.
- 3 Input 3 has been triggered, or is being manually tested.

Click a DI button to open it, click again to close it.

2. DO Control

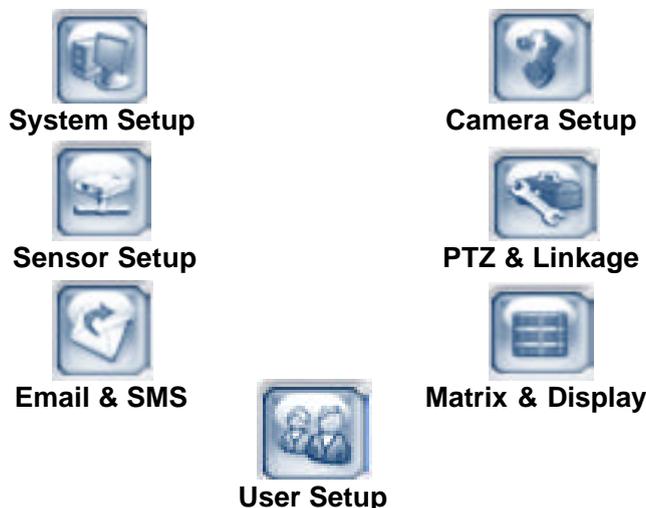
The DO Control buttons indicate the status of the DO, and can be used to manually switch alarm relays for testing. The color of the button indicates the status of the DO:

- 2 Output 2 is closed.
- 3 Output 3 is open.

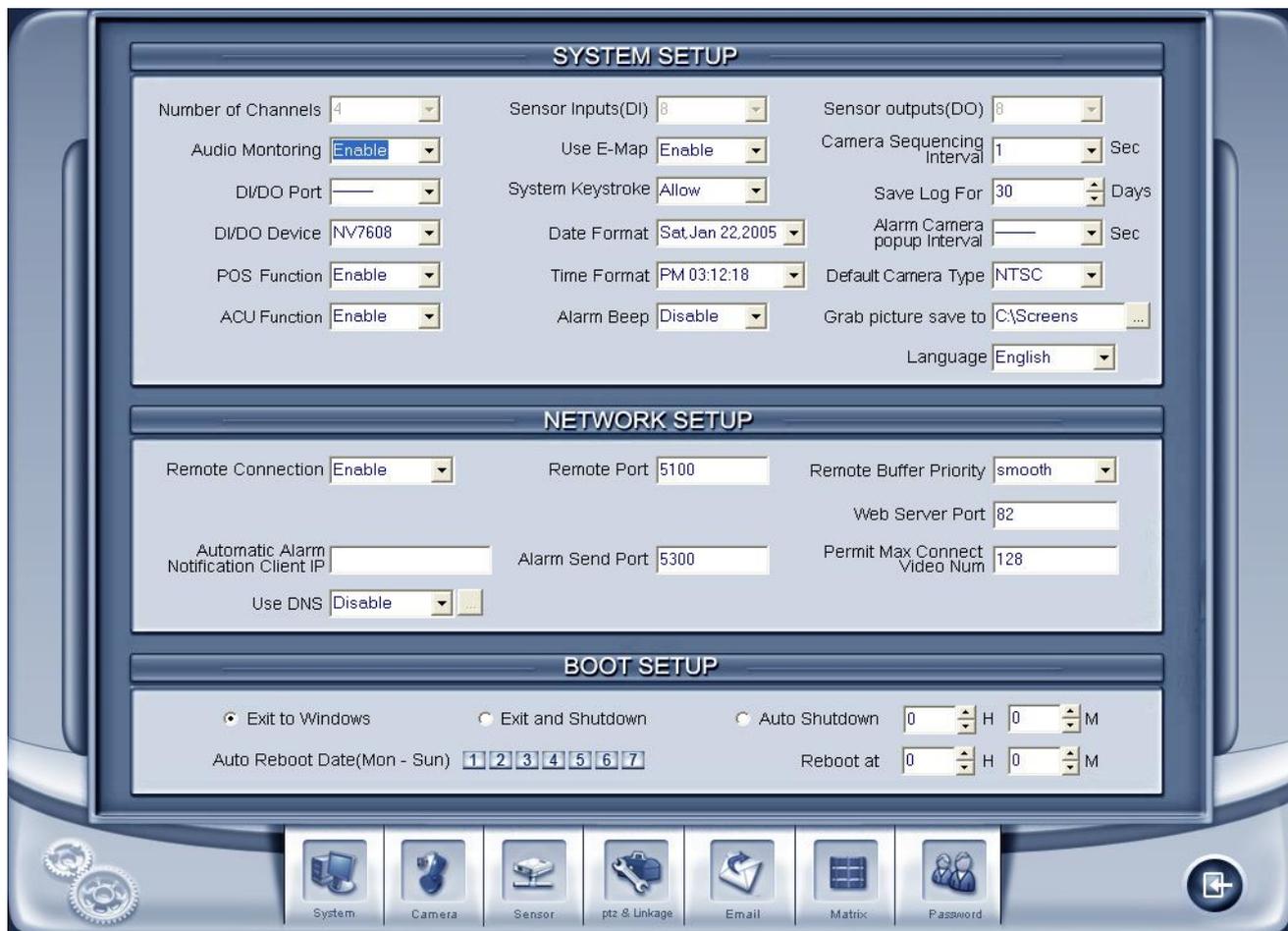
Click a DO button to open it, click again to close it.

Chapter 2: Setup

The DVR setup is divided into the 7 tabs below. This chapter will explain how to setup the options in each tab.



2.1 System Setup



Number of Channels: Displays the total number of channels.

Audio Monitoring: Enable if you require audio recording.

DI/DO Port: Select the Com port your I/O box uses. Make sure it is not set to the same port as a PTZ's

Com port. **DI/DO Device:** Select the model of I/O box you are using. If you are unsure of the model please contact Ascendent Technical Support

POS Function: Select to enable or disable the POS function of the DVR.

ACU Function: Select to enable or disable the ACU function of the DVR.

Sensor Inputs (DI): Displays the number of sensors (DI).

Use E-Map: Enable to allow the use of an electronic map.

System Keystroke: If set to "Block" the DVR will block system keystrokes. (for example: Ctrl+Alt+Del, Windows +D).

Note: If this is enabled, Windows will switch to secure login mode and will require you to login after restarting the DVR. The default login is: "administrator" with no password.

Date Format: Select the date format you want. This will change the date display mode of the DVR system, including the information panel on the main screen, the date panel in the playback window, and the OSD date on all cameras.

Time Format: Select the time format you want. This will change the time display mode of the DVR system, including the information panel on the main screen, the date panel in the playback window, and the OSD date on all cameras.

Alarm Beep: If enabled, the DVR will beep when there is an alarm.

Sensor Outputs (DO): Displays the number of outputs/alarms (DO).

Camera Sequencing Interval: Set the time interval for switching between cameras when sequencing mode is turned on.

Save Log for "x" Days: The amount of days back you want the log to be saved for. (Max 100 days).

Alarm Camera Popup Interval: Set the time interval for a alarm camera to popup for, if you select "—". **De-**

fault Camera Type: Select the default video mode, either NTSC or PAL this will be the default mode for cameras. This should usually be set for NTSC.

Grab Picture Save To: Select the folder to save screenshots to.

2.1A Network Setup

Remote Connection Select "enable" to allow remote connections, or "disable" to block all remote connections to the DVR.

Remote Connect Port Select the remote connection port for the NVR Client software.

Remote Buffer Priority There are three options, "smooth", "normal", and "realtime". Select according to your available bandwidth.

PDA Connection Select "enable" to allow PDA connections to the DVR if disabled, the DVR will not permit any PDA devices to connect to the DVR

Note:

PDA connections are only supported on some X4 models. Please contact your dealer to find out if your DVR supports this feature.

PDA Connect Port Select a remote connection port for PDA devices.

Automatic Alarm Notification Client IP Enter the IP address of a NVR Client to have it receive a message when there is an alarm. The camera connected to that alarm will automatically display in the client software.

Alarm Send Port This is the port used to send the Alarm Notification, to the NVR Client.

Web Server Port This is used to connect to the DVR with Internet Explorer. By default this is port 80. This can be changed if the network requires a different port be used.

Use DNS Select if you are using a dynamic DNS instead of an IP address. Most DNS setups do not require this option.

Local Host Name Input the name description for DNS Server identification.

DNS Server IP DNS server's host IP address.

DNS Connection Port DNS server's host port ,this is used to connect to the DNS server.

Interval Connection Time Set the interval time for connecting to the DNS server to update the IP address automatically.

Permit Max Connect Video Num The maximum number of video streams that can be viewed simultaneously by remote users. Set this to a low number if onsite bandwidth is limited.

2.1B Boot Setup

Boot setup can be used to exit, reboot, or shut down the DVR Server at a set time and day of the week.

Exit to Windows User can exit program and back to windows desktop.

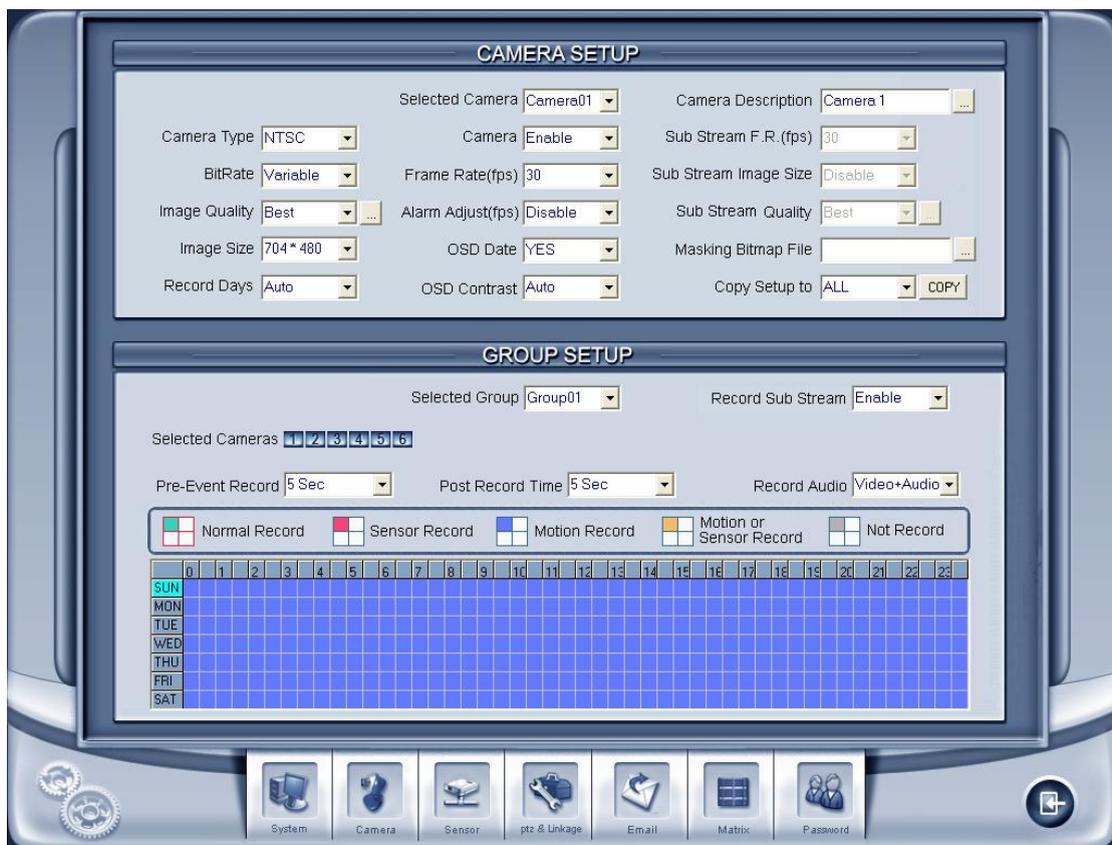
Exit and Shutdown User can exit program and shut down computer.

Auto Shut Down Set the time to shut down the computer .

Auto Reboot Date (Mon-Sun) Select the day of the week.

Reboot at Set the time.

2.2 Camera Setup



Selected Camera To change the settings for a camera, select it from the drop-down list. For IP Cameras, you must right click and select **IP Camera Setup**.

Camera Description Input a name to identify the camera. This will be shown in live view as well as on the recorded video from that camera. To change the color this will be displayed in, click the "..." button beside the text box, then check the "Text OSD advanced setup" checkbox. You can now change the RGB values by inputting a number between 0 and 255. If you do not select the "Text OSD advanced setup" checkbox the text will be displayed in the same color as the OSD Contrast is set as.

Camera Type Select the camera type from the drop-down list. The available options are PAL and NTSC.

Selected Camera Enable or disable the selected camera.

Sub Stream Frame Rate(fps) Set the frame rate of the Sub Stream.

This is useful in situations where bandwidth is limited. **VBR**

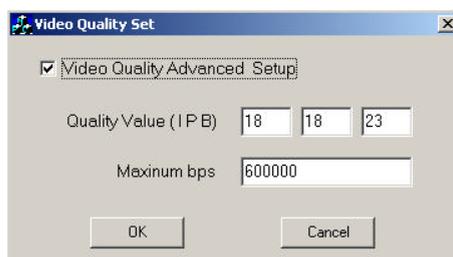
(Variable Bit Rate) Records each frame at a dynamic bit rate, depending on the image complexity and activity.

CBR (Constant Bit Rate) Records each frame at a fixed bit rate, regardless of the amount of activity or the complexity of the image. In many cases, this limits the detail of the recorded image. The benefit of CBR is the ability to more accurately estimate the total video capacity.

Frame Rate(fps) Set the recorded frame rate for the selected camera. This can be set from 1 to 30 fps.

Sub Stream Image Size Select the resolution of the Sub Stream. This can be set for CIF(352x240) or Half-CIF(172x120).

Image Quality Set the quality of the image to be recorded. Select from Best, Very Good, Medium, Low, and Lowest, or click the "..." button to set a custom setting, and the screen below will be displayed.



Below are the settings for CIF resolution.

| Image | I frame | P frame | B frame | Max bps |
|--------|---------|---------|---------|---------|
| Best | 12 | 12 | 17 | 900000 |
| Good | 15 | 15 | 20 | 750000 |
| Medium | 18 | 18 | 23 | 600000 |
| Low | 21 | 21 | 26 | 450000 |
| Lowest | 24 | 24 | 29 | 300000 |

For 2CIF(704x240) resolution, change the Max bps to $(\text{Maxbps}/3)*5$

Note: The I, P, and B frame settings are the same for all resolutions, only the Max bps needs to be changed when using a different resolution.

For D1(704x480) resolution change the Max bps to $(\text{Maxbps}/3)*8$

Alarm Adjust fps Select "disable" or select a frame rate to record this camera at, and when an alarm occurs the camera will record at a higher frame rate, regardless of the **Frame Rate** setting.

Sub Stream Quality Set the quality of the image to be recorded. Select from Best, Very Good, Medium, Low, and Lowest, or click the "..." button to set a custom setting.

Image Size Choose from D1(704x480), 2CIF(704x240), and CIF(352x240). If you have a CIF X4 DVR Server, you will not have the option of selecting D1 or 2CIF resolutions. While most users will want D1 resolution, in some scenarios, using 2CIF or CIF resolution may be necessary to save disk space.

Note: Sub Stream settings are not available when the resolution is set to D1.

OSD Date Select YES to display the OSD date and time on the video for this camera screen. Select NO to turn off the OSD date and time.

Note: Selecting NO will turn off the OSD date on the live view as well as the recorded video for the selected camera.

Masking Bitmap File This is used to create a watermark on recorded video. The logo picture file must be 128x128 pixels, and saved as a bmp file.

Record Days This section allows users to determine how long the DVR will record each camera. The maximum manual setting is 120 days. If you select Auto, the DVR will automatically delete the oldest recorded video when the DVR uses up all of the free space.

OSD Contrast Set OSD time, date, and camera description color, by picking a number from 10 to 255. Setting this to 10 will make the OSD black, while setting at 255 will make it white. Setting this to Auto will make the OSD switch between black and white to make it visible against the background image.

Copy Setup to Select a camera and click COPY to copy all the settings of the selected camera to the camera selected in the drop-down list. If you select ALL, these settings will be copied to all cameras.

Notes:

If you are not using all of the available cameras on your DVR Server, you can disable the unused cameras to avoid video loss messages/alarms.

2.2A Group Record Setup

Group setup allows you to set the schedule, post, and pre-record times, etc on an individual camera basis, or as a group of cameras.

Selected Group Select a group number.

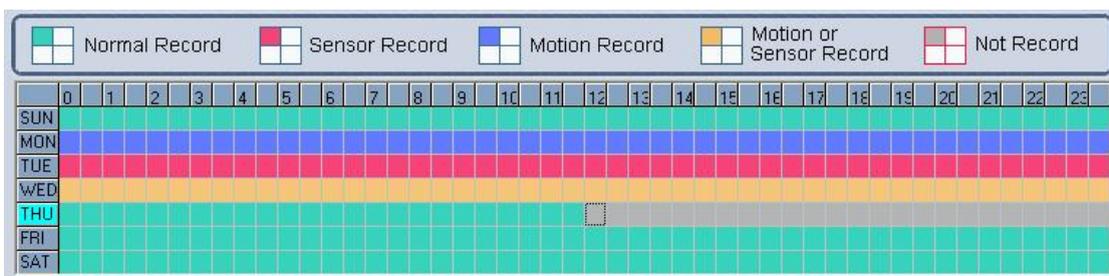
Selected Cameras Select the cameras that you want in a group, selected cameras will be blue. All selected cameras will have the same schedule, post, pre-record, and other group settings.

Pre-Event Record Select the amount of time to record before motion detection is set off or there is an alarm.

Post Record Time Select the amount of time to record after motion detection has been set off or an alarm has been triggered.

Record Audio Select whether you want the camera group to record video or video and audio.

Note: when recording audio record mode must be set to normal.



Recording Schedule Setup:

Each block  represents one half hour. To set the schedule, click

the record mode button , then click and drag on the time blocks, to set them to the selected record mode.

Normal Record (Green): The DVR will record all video.

Sensor Record (Red): The DVR will record when an I/O sensor is triggered.

Motion Record (Blue): The DVR will record video only when a motion detection zone is set off.

Motion or Sensor Record (Yellow): The DVR will record when a motion detection zone is set off, or if an I/O sensor has been triggered.

Not Record (Grey): The DVR will not record any video.

In the above picture you can see on Sunday the schedule is set for Normal Record, Monday is set to Motion Record, Tuesday is set for Sensor Record, Wednesday is set to Motion and Sensor Record, and Thursday is set for normal record from 12AM to 12PM, then it is set for no recording after 12PM.

2.3 Sensor Setup

SENSOR SETUP

Select Sensor: Sensor: Sensor Position:

Activate PTZ Preset: Play Alarm Sound: ...

Link to PTZ:

DO Port: DO Port Name:

GROUP SETUP

Selected Group: Sensor Type: Alarm Write Log:

Alarm Action After It Times-out: Stop Immediately Do Not Stop Wait Secs. Then Stop

Sensor Input:

Start Recording Cameras:

Trigger Output Relays:

Check Sensor Not Check Send Email: Send SMS:

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|-----|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| SUN | | | | | | | | | | | | | | | | | | | | | | | | |
| MON | | | | | | | | | | | | | | | | | | | | | | | | |
| TUE | | | | | | | | | | | | | | | | | | | | | | | | |
| WED | | | | | | | | | | | | | | | | | | | | | | | | |
| THU | | | | | | | | | | | | | | | | | | | | | | | | |
| FRI | | | | | | | | | | | | | | | | | | | | | | | | |
| SAT | | | | | | | | | | | | | | | | | | | | | | | | |

Select Sensor Select the sensor from the drop-down list to set the settings for that sensor.

Sensor Select to Enable or Disable this sensor.

Sensor Position Enter a description to identify this sensor.

Activate PTZ Preset Select a PTZ and a preset, and the PTZ will call this preset number automatically when this sensor is triggered.

Link to PTZ Select the PTZ camera that you want linked to this sensor.

Play Alarm Sound Select a .wav audio file, and the DVR will play the sound file when this sensor is triggered.

DO Port Select a digital output port to be associated with this sensor.

DO Port Name Enter a name to identify this DO port, this will be displayed as a tool-tip when you hover over this port in live view.

2.3A Sensor Group Setup

Sensor Group setup functions the same as camera groups.

Selected Group Select a group number.

Sensor Type Select NC (Normally Closed) or NO (Normally Open) alarm type.

Alarm Write Log Select Enable to record alarms in the log.

Alarm Action After It Times-out Select what action to perform after an alarm stops.

“Stop Immediately” will turn off the alarm immediately after the alarm driver stops an alarm.

“Do Not Stop” means the DVR won’t stop the alarm after the alarm driver stops an alarm.

“Wait” means the DVR will stop alarm after a set time when the alarm driver stops an alarm.

Send Email Enable to send an email when a sensor is triggered.

Send SMS Enable to send an SMS message when the sensor is triggered

Sensor Input Select the sensors you want in the selected group.

Start Recording Cameras Select the cameras that will be linked to this sensor group. They will start recording when any of the sensors in this group are triggered.

Trigger Output Relays Select DO ports to be activated when the sensor(s) in this group are triggered. DO devices could be a siren, strobe light, etc.

Sensor Schedule Setup

Select the times when the sensor will be online. This schedule functions similar to the camera schedule.

Check Sensor (Red): DVR System will check sensors during time periods that are set to this mode.

Not Check (Grey): DVR System won't check sensors during times that are set to this mode.

2.4 PTZ & Linkage Setup

The screenshot shows a software interface for configuring PTZ and alarm settings. It is divided into two main sections:

PTZ PROTOCOL SETUP

- PTZ COM Port: COM1
- DVR Keyboard COM Port: (empty)
- Selected Camera: Camera01
- PTZ Protocol: Pelco-D(H)
- PTZ Address: 1
- PTZ Baudrate: 2400
- PTZ Position: Normal

CAMERA DETECTION RELAY CONTROL/ REMOTE CLIENT ALERT

- Camera Alarm Detected In: Camera01
- Alarm Write Log: Disable
- Send Alarm To Client: Enable
- Motion Alarm Sound: (empty) [Test]
- Send Email: Enable
- Video Loss Alarm Sound: (empty) [Test]
- Send SMS: Disable
- Trigger DO Output: 1 2 3 4 5 6 7 8
- Copy Setup to: ALL [COPY]

Below these settings is a legend for alarm types:

- Motion & Video Loss (Red/White)
- Motion Alarm (Blue/White)
- Video Loss (Yellow/White)
- Not Check (Red/White)

At the bottom is a 24-hour alarm schedule grid with columns for hours 0-23 and rows for days of the week (SUN-SAT). The grid shows that Motion & Video Loss is active on all days from 00:00 to 23:00. Motion Alarm is active on Monday through Saturday from 00:00 to 23:00. Video Loss is active on Monday through Saturday from 00:00 to 23:00. Not Check is active on all days from 00:00 to 23:00.

Selected Camera Select the camera from the drop-down list to set the PTZ protocol settings for that camera.

PTZ COM Port Select the PTZ COM port.

DVR Keyboard COM Port Select a COM port for connecting a DVR keyboard. Please ensure that you do not use the same COM port for the DVR keyboard connection as the port used for any DI or DO.

PTZ Protocol Select the PTZ protocol for this camera.

Note: Some protocols have (H) after them. This is used if the PTZ is a high speed camera.

PTZ Address Set the camera ID number of the PTZ camera being controlled.

Note: This must be the same as the ID that is set on the camera, which is set using dipswitches.

PTZ Baudrate Select the baudrate for the PTZ camera.

PTZ Position Select the installation of the PTZ, Inverse is used for a camera that is upside down. When Inverse is selected the controls will be opposite so if you pan right, it will pan left, etc.

2.4A Motion Detection Relay & Remote

Client Alert

Camera Alarm Detected In Select a camera from the dropdown list.

Send Alarm To Client Enable to send an alarm to NVR clients that are connected to the DVR.

Motion Alarm Sound Press the "..." button to select a .wav file that will be played if there is a motion alarm. To test the .wav file click the Test button.

Send Email Enable to send an email when there is a motion alarm.

Send SMS Enable to send an SMS message when there is a motion alarm.

Video Loss Alarm Sound Press the "..." button to select a .wav file that will be played if there is video loss on this camera. To test the .wav file click the Test button.

Trigger DO Output Select which DO ports will be triggered by the camera's alarms.

Schedule Setup The DO/Relay schedule functions similar to camera and sensor schedulers.

Motion & Video Loss (Red): DO's will be triggered when there is motion or video loss on the selected camera, during the selected time periods.

Motion Alarm (Blue): DO's will be triggered when there is a motion alarm during the selected time periods.

Video Loss (Yellow): DO's will be triggered when there is video loss during the selected time periods.

Not Check (Grey): DO's will not be triggered at all during the selected time periods.

2.5 E-mail Setup

The image shows two configuration panels. The top panel, titled 'EMAIL SETUP', contains the following fields: SMTP Server, SMTP Port (set to 25), Auth. Type (Simple Login), Login User ID, Login Pass, Send To, Copy To, Sender E-Mail, E-Mail Title, and E-Mail Screenshot As Attachment (Enable). The bottom panel, titled 'SMS SETUP', contains: SMS Device (3G), SMS Use Com Port, DVR Host Name, Mobile Number 1, Mobile Number 2, and Mobile Number 3. Both panels feature a 'Send test message' button.

To have the DVR send e-mail messages when there is motion or video loss, you must enter a valid e-mail account first.

SMTP Server SMTP server address. For example: mail.DVR.com

SMTP Port SMTP port used by your mail server, usually port 25.

Auth. Type Select login type, Simple or None.

Login User ID Email server user.

Login Pass Email server password.

Send To Enter the e-mail address of the e-mail recipient.

Copy To Enter a secondary e-mail recipient

Sender Email Enter the e-mail address you want to appear as the sender.

Email Title Enter the subject you want to appear on the e-mail.

Email Screenshot As Attachment Enable to have the DVR attach a screenshot to the e-mail of the camera's image at the time of the alarm.

After setting all e-mail settings click "Send test message" to test your settings.

The screenshot shows the 'SMS SETUP' configuration page. At the top, there is a title bar 'SMS SETUP'. Below it, there are several configuration options: 'SMS Device' is a dropdown menu currently set to 'SmsPdu'; 'SMS Use Com Port' is a dropdown menu currently set to 'COM3', which is highlighted with a red rectangular box; to the right of this is a 'Send test message' button. Below these are four text input fields: 'DVR Host Name', 'Mobile Number 1', 'Mobile Number 2', and 'Mobile Number 3', all of which are currently empty.

2.5A SMS Setup

Using SMS setup, the DVR can send a SMS/Text message to a cellular phone when there is a motion alarm or video loss.

SMS Device Select the SMS send mode. You can select SMS PDU mode or SMS text mode.

SMS Use Com Port Select the Com Port to use for sending SMS messages.

DVR Host Name Set a DVR Host Name to display in the SMS text.

Mobile number 1 Mobile number 2 Mobile number 3

Enter up to three cell phone numbers which will receive text messages when there is a motion alarm or video loss. Phone numbers should be entered as an international number. For example: 1+604-555-5555
After entering these settings click "Send test message" to test the settings.

2.6 Matrix Setup

MATRIX SETUP

Matrix Group: SetGroup1

Video Out Port: Video Out 01

Video Out Standard: NTSC

Video Switch Interval(Sec): 3 sec

Video View Mode: 1 View

Video Window: Window1

Display Video Cameras In Window: Main camera channel

1 2 3 4 5 6 7 8

DISPLAY SETUP

Display Group: SetGroup1

Video View Mode: 64 View

Video Window: Window1

Display Camera In the Window

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 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64

Matrix Group A group of cameras can output through a matrix card. Each group can be set to different display modes. Up to 16 groups can be setup.

Video Out Port Select the output port of the Matrix card that you want to setup. The number of channels depends on the model of the matrix card.

Video Out Standard Set Matrix video out standard, you can select from PAL and NTSC.

Video View Mode Select video output split-screen mode. You can choose from 1,2,4,9,13,and 16 split-screen views. After selecting a video split mode, there will be a corresponding video display window that shows where each video window is displayed on the matrix output.

Video Window Select a camera window, then select which cameras will be shown in that window by selecting them and choose whether to display main-stream video or sub-stream video under: **Display Video Cameras in Window**

Note: A camera can only be displayed in one window at a time, unless it is set to main-stream in one window and sub-stream in another.

Video Switch Interval sets the amount of time each camera will be shown if you select more than one camera to be displayed in one video window.

2.6A Display Setup

Display Group Groups of cameras can be set to display in different split-screen views and camera orders. 16 groups can be set.

Video View Mode Select video output split-screen mode. You can choose from 1,4,9,13,16,20,25,28,33,36,40,49 and 64 split-screen modes.

Video Window Select a camera window, then select which camera will be shown in that window by selecting it under: **Display Camera In the Window.**

Note: A camera can only be displayed in a single window. Cameras can be displayed in different windows by selecting a window and selecting a different camera than the default selection. For example you can display Camera 1 in Window 2 by selecting Window 2 and then selecting Camera 1. In this case, Camera 2 will now be displayed in Window 1, and Camera 1 will be displayed in Window 2.

2.7 Password Setup

USER INFORMATION

Local Password Enable Auto Lock Time 15 minutes Network Password Enable

User Name New User

Auth.level operator Add User

Password Add User

Password Confirm

Note:

| User Name | Auth. Level | |
|-----------|-------------|--|
| admin | Manager | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

USER RIGHT SETUP

Select Setup Items Camera view right Cameras View Right Lock Mode All user view

Cameras 1 2 3 4 5 6 7 8

User Access Rights

| | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Matrix Control | <input checked="" type="checkbox"/> Color Adjust | <input checked="" type="checkbox"/> Modify Network | <input checked="" type="checkbox"/> Delete File In Search |
| <input checked="" type="checkbox"/> Search Log | <input checked="" type="checkbox"/> Open Map | <input checked="" type="checkbox"/> Motion Setup | <input checked="" type="checkbox"/> Minimum |
| <input checked="" type="checkbox"/> DVR Board Setup | <input checked="" type="checkbox"/> DO Control | <input checked="" type="checkbox"/> Exit Program | <input checked="" type="checkbox"/> Explorer & para backup |

Setup Right

| | | | |
|--|--|--|---|
| <input checked="" type="checkbox"/> System Setup | <input checked="" type="checkbox"/> Camera Setup | <input checked="" type="checkbox"/> Sensor Setup | <input checked="" type="checkbox"/> Linkage&PTZ |
| <input checked="" type="checkbox"/> Email Setup | <input checked="" type="checkbox"/> Digital Matrix | | |

Local Password Enable password login for the DVR Server program.



To lock the DVR click the button in Live View mode.

Auto Lock Time When enabled, the DVR will automatically lock if there are no actions for the specified amount of time.

Network Password Enable to require a password when remotely connecting. When enabled, remote users must enter a User and Password that are registered in the DVR.

User Name Input new User ID in this box when adding a new user to the system.

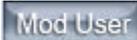
New User Click the button to add a new user.

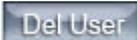
Auth. Level Select a user type. Only a Manager can add, and remove users, or edit rights of users.

Password Set a new user's password, or change a selected user's password.

Password Confirm Confirm password.

Note Enter a description for this user. After entering the above fields click the button to add the user. Up to 15 users can be added besides the Admin account.

Modify User Select a user from user list, then click the  button to modify the settings for that user.

Delete User Select a user from user list, then click the  button to delete that user.

2.7A User Rights Setup

Camera View Rights Select the cameras that can be viewed by the selected user. By default, every user is granted access to all live images. To deny access, you can click the corresponding camera button and the color will change from blue to grey. (Managers are automatically granted all rights, and can not be denied any rights. To limit rights set user Auth Level to Operator.)

Camera Playback Rights Select the cameras that can be viewed in playback by the selected user. By default, every user is granted access to all cameras in playback. To deny access, you can click the corresponding camera button and the color will change from blue to grey. (Managers are automatically granted all rights, and cannot be denied any rights. To limit rights set user Auth Level to Operator.)

Camera Audio Rights Select the cameras whose audio can be heard by the selected user. By default, every user is granted access to the audio from all cameras. To deny access, you can click the corresponding camera button and the color will change from blue to grey. (Managers are automatically granted all rights, and cannot be denied any rights. To limit rights set user Auth Level to Operator.)

PTZ Control Rights Select the PTZ cameras which the selected user can control. To deny users access, follow the instructions used above for other camera rights.

Cameras View Right Lock Mode Select either all user view, or current user view. When All user view is selected and the DVR is locked, the viewable camera view rights will be equivalent to the lowest privileged user's rights. When Current user view is selected and the DVR is locked, the viewable camera rights will be the rights of the currently logged in user.

User Access Rights:

Uncheck the box to deny the selected user access to this function.

Matrix Control Denies access to Matrix and Display tab in Live View.

Search Log Denies access to the DVR system log.

DVR Board Setup Denies access to the DVR Board Setup screen.

Open Map Denies access to the E-Map feature.

Color Adjust Denies access to the Color Adjust tab in Live View.

DO Control Denies access to DO Control tab in Live View.

Modify Network Denies access to the Network tab in Live View.

Motion Setup Denies access to the Motion Detection Setup page.

Exit Program Denies access to the Exit button in Live View.

Delete File In Search Denies the ability to delete screenshots or file clips when in playback mode.

Minimum Denies access to the Minimize button in Live View.

Explorer & Para Backup Denies access to the Import, Backup, and Restore Default Parameter options. As well as "Open explorer" and "Execute a external program."

Setup Rights

Uncheck to deny the selected user access to these setup pages.

System Setup Denies access to the System setup page.

Email Setup Denies access to the Email setup page.

Camera Setup Denies access to the Camera setup page.

Digital Matrix Denies access to the Matrix setup page.

Sensor Setup Denies access to the Sensor setup page.

Linkage & PTZ Denies access to the PTZ & Linkage setup page.

Chapter 3: IP Camera Setup

IP camera setup options are all contained within the camera, and can be accessed remotely by right-clicking an IP Camera, and selecting **IP Camera Setup**.

Note: The one exception is the record schedule. This is setup under the Camera Setup page.

3.1 Main IP Function Buttons

There are 5 buttons that appear on all IP camera setup pages. They are Upgrade, Restart, Time Adjust, Save, and Exit.

Upgrade This is used to upgrade the firmware of an IP camera or server. Click this button, and select the file to use for the upgrade.

Restart Some settings require the IP device to restart before they take effect.

Time Adjust Adjust the time of the IP camera or server by synchronizing it with the time of the DVR Server.

Save After changing settings, click this button to save them.

Exit Exits IP Camera setup.

3.2 Server Setup

Press the  button to set server settings remotely:

| | | | |
|------------------|--------------------------|--------------------|-------------------|
| Server Name | X4 IP Camera | User name | admin |
| Server IP | 192.168.1.25 | User Pass | ***** |
| Listen Port | 8000 | DNS Server IP | 0.0.0.0 |
| Subnet Mask | 255.255.255.0 | Remote Manage IP | 0.0.0.0 |
| Net Gate | 192.168.1.1 | Remote Manage Port | 0 |
| Net Cable Type | 10M/100M[5 cable] | Physical address | 00:40:36:36:d6:8b |
| Use PPPOE | <input type="checkbox"/> | Software Ver. | V2.0 build 071222 |
| PPPOE Login Name | | DSP software Ver. | V4.0 build 071128 |
| PPPOE Login Pass | | Hardware Ver. | 0x0 |
| PPPOE IP | 0.0.0.0 | | |

In the server window, some of the textbox's backgrounds are grey. These parameters are read from the server, and cannot be modified.

Server Name Enter a name for easy identification.

Server IP Enter the IP address you want this server to use.

Listen Port This port is used to remotely connect to the IP camera.

Subnet Mask This is a network setting, and should be set according to your network.

Net Gate This will be the IP address of the router the IP camera is connected to.

Net Cable Type Select the type of network cable that is run to the camera.

If your network uses PPPOE to connect to the internet, check the **Use PPPOE** checkbox; then enter your login name and password. **PPPOE IP** is the IP address of your PPPOE server.

User Name This displays the currently logged in user.

User Pass Set the user password of the IP camera.

DNS Server IP If using DNS, input the DNS host IP address.

Remote Manage IP Enter the IP of a computer to authorize to handle remote management.

Remote Manage Port Enter a port to use for remote management.

3.3 Channel Setup

Press **Channel** button to set channel settings.

The screenshot shows the 'Channel' setup window. At the top, there are tabs for 'Server', 'Channel', 'PTZ', 'Sensor', and 'Alarm Setup'. The 'Channel' tab is active. The interface includes the following fields and controls:

- Camera NO.:** A drop-down menu set to '1'.
- Camera Name:** A text box containing 'Camera 01'.
- Copy to:** A drop-down menu and a 'Copy' button.
- Main Stream / Sub Stream:** Radio buttons for 'Main Stream' (selected) and 'Sub Stream'.
- Frame Rate:** A drop-down menu set to 'All'.
- Resolution:** A drop-down menu set to '4CIF'.
- Stream Type:** A drop-down menu set to 'Video'.
- Quality:** A drop-down menu set to 'Best'.
- Bit Rate Type:** A drop-down menu set to 'VBR'.
- Max Bit Rate:** A drop-down menu set to '2048k'.
- OSD Settings:** Checkboxes for 'Show OSD', 'Show Week', and 'Show logo' (all checked). 'Privacy' is unchecked. There are 'Position X' and 'Y' fields for OSD, and an 'OSD' text box set to 'Not Clarity-Not Glit'. An 'Osd Type' drop-down menu is set to 'XX:XX:XX DMY'.
- Rec Schedule:** A section with 'Enable Rec' (unchecked), 'All Day' (unchecked), and 'Rec Day' set to 'Sunday'. 'Rec Type' is set to 'Timing record'. There are four 'Period' rows, each with 'Period' label, start time, end time, and 'Timing record' type. 'PostRec' and 'PreRec' are both set to '5s'.
- Video Feed:** A small window showing a live video feed of a snowy street scene with a timestamp '01-07-2010 Thu 08:33:11' and 'Camera 01'.
- Buttons:** 'Upgrade', 'Restart', 'Time Adjust', 'Save', and 'Exit' buttons at the bottom.

Camera NO Select a camera from the drop-down list.

Camera Name Enter a name for easy identification.

Copy to Select a camera to copy these settings to then click **Copy**. To set all cameras the same, select **all** from the drop-down list.

Main Stream / Sub Stream Select whether to change options for Main Stream or Sub Stream for the current cameras.

Frame Rate Select the frame rate the camera from the drop-list.

Resolution Set the resolution the camera will stream and record at.

Stream Type Select video and audio or video only.

Quality Set the quality of the image. Select from Best, Good, Normal, Worse, and Worst.

Bit Rate Type Select Variable Bit Rate (VBR) or Constant Bit Rate (CBR).

Max Bit Rate Select the maximum bit rate.

Show LOGO/ OSD/ Week Check or uncheck to display or hide.

OSD = Date/time display.

Logo = Camera name.

Week = Day of the week.

Position X & Y Set the position of OSD or Logo by entering the X and Y coordinates.

OSD Set the display type for the OSD.

OSD Type Select the date format of the OSD.

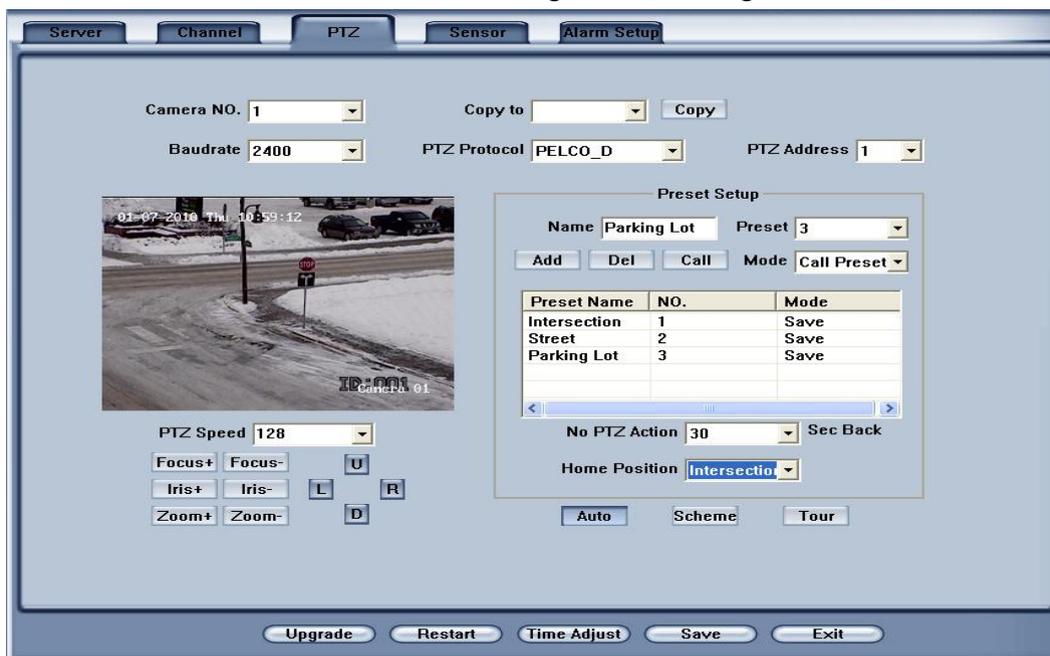
Privacy Mask Check this box to set a privacy mask on the camera. You can delete the privacy mask by pressing the **Clear** button.

Rec Schedule Set the recording schedule.

Note: This record schedule is only used on IP cameras and servers that have built-in storage, this feature is only available on some models.

3.4 PTZ control

Press the **PTZ** button to change PTZ settings.



Camera Select a camera from the drop-down list.

Baud Rate Select the baud rate for the PTZ.

PTZ Protocol Select the communication protocol for the PTZ camera from the drop-down list.

Copy to Select a camera to copy these settings to. Then click **Copy**.

PTZ Address Set the PTZ address. This must match the address that is set on the PTZ.

Speed Set the speed of the PTZ.



This preview screen shows where the PTZ is currently looking.

Use the **UP**, **DOWN**, **LEFT**, **RIGHT** buttons to move the camera to the desired position.

Use the **Focus** buttons to adjust the focus of the image.

Use the **Iris** buttons to adjust the Iris if necessary.

Use the **Zoom** buttons to zoom in or out the image.

Preset Setup

Name Preset

Mode

| Preset Name | NO. | Mode |
|--------------|-----|------|
| Intersection | 1 | Save |
| Street | 2 | Save |
| Parking Lot | 3 | Save |

No PTZ Action Sec Back

Home Position

After positioning the PTZ where you want the preset, enter a description for the preset under **Name**, select a **Preset** number, select the **Mode** (either **Call** or **Save Preset**), then click **Add**.

After adding a preset, select it and press **Call** to move the PTZ to that preset. To delete a preset, select it and click **Del**.

Auto Preset Plan

Preset

Call Time H M

Copy To

| Date | Time | Preset |
|-----------|-------|--------|
| Monday | 09:07 | 1 |
| Tuesday | 10:07 | 2 |
| Wednesday | 11:07 | 3 |

To set up a schedule to call presets, click the **Scheme** button.

To add a preset, select it from the **Preset** list, pick a day and time from the **Call Time** list, and click **Add**. To delete a preset, select it and click **Del**.

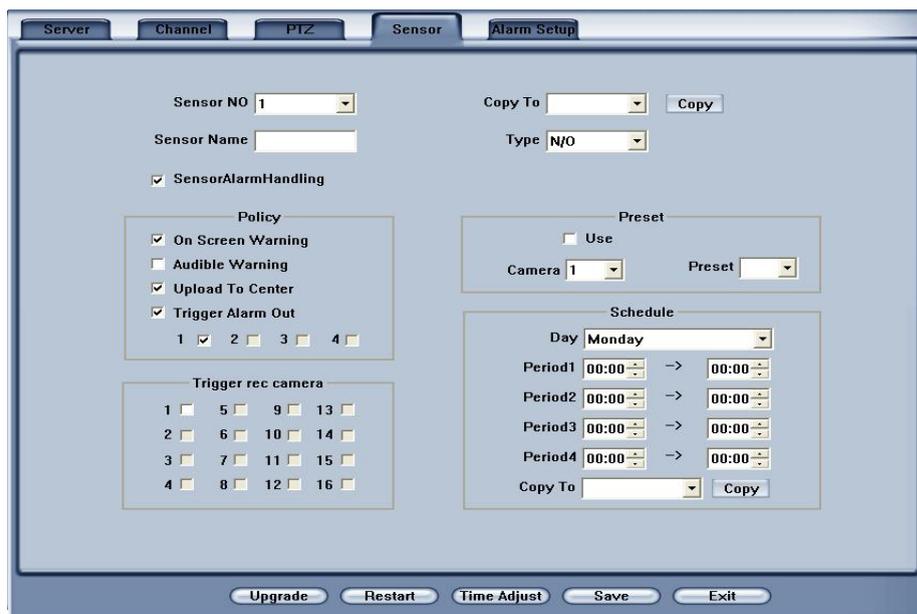
When adding a scheduled preset, you can copy it to another day by selecting a day from the **Copy To** list and clicking **Copy**. To add a scheduled preset for the same time every day, select **Everyday** from the **Copy To** list, and click **Copy**.



To setup a preset tour, click the **Tour** button. Select a Tour Group, then select a preset from the **Preset Name** drop-down list, and select the **Stay Time**, then click **Add**. To remove a preset from the tour group, select it and click **Del**.

3.5 Sensor Setup

Press the **Sensor** button to set sensor settings.



Sensor NO Select a sensor.

Sensor Name Enter a description of the sensor.

Type Select sensor type NO (Normally Open) or NC (Normally Closed).

Sensor Alarm Handling Check this box to enable this sensor.

Policy Check **Sensor Alarm Handling** first, then check the following check boxes to enable them:

On Screen Warning Display alarm information on the monitor when this sensor is triggered.

Audible Warning Enable and an audio alarm will go off when the sensor is triggered.

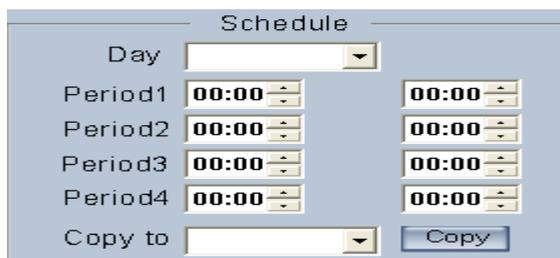
Upload To Center Upload the alarm information to the DVR or NVR server the camera is connected to.

Trigger Alarm Out Trigger an alarm output when the sensor is triggered.

Trigger Record Camera Select cameras to record when this sensor is triggered.

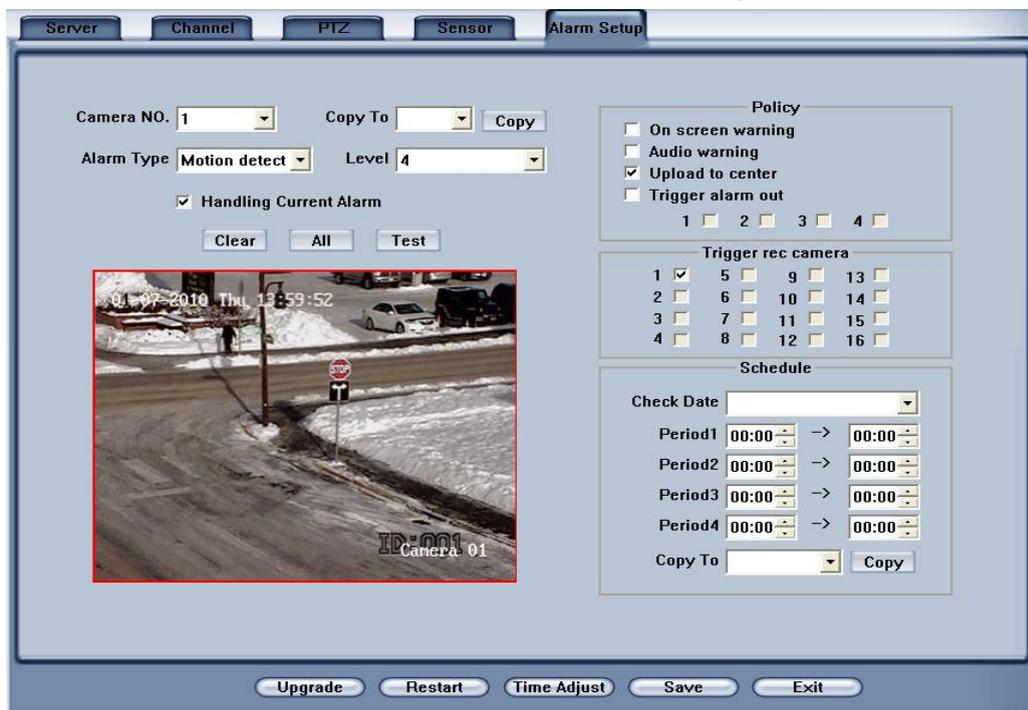
Preset Select a PTZ and a preset, and it will call this preset when the sensor is triggered.

Schedule Set the time periods that this sensor will be active for each day. After you have set the time periods for a day, you can select another day from the **Copy To** list, and click **Copy** to copy the schedule to that day.



3.6 Alarm Setup

Press the **Alarm Setup** button to set alarm settings.



Camera Select a camera to set its alarm and motion detection options.

Alarm Type Select alarm type: **Motion Detection**, **Temporary Alarm** and **Signal Loss**. You can set different policy and trigger settings for each of these alarm types.

Level Select sensitivity levels from 0 to 5 (higher number = higher sensitivity) for the alarm type. **Close** means this alarm type is disabled.

To set motion detection zones, Left-click and drag a box on the video preview screen to create motion detection zones. To delete a motion detection zone click the **Clear** button, to select the whole screen, click **All**, and to test the motion detection zone(s) click **Test**.

Handling Current Alarm Check this box to enable this alarm type.

Policy Check **Handling Current Alarm** first, then check the following check boxes to enable them:

On Screen Warning Display alarm information on the monitor when this alarm type is triggered.

Audio Warning Enable and an audio alarm will go off when this alarm type is triggered.

Trigger Record Camera Select cameras to record when this alarm type is triggered.

Schedule Set the time periods that this sensor will be active for each day. After you have set the time periods for a day, you can select another day from the **Copy To** list, and click **Copy** to copy the schedule to that day.

The screenshot shows a window titled "Schedule" with the following controls:

- Check Date:** A dropdown menu.
- Period1:** Two time selection boxes (00:00) with up/down arrows, separated by a right-pointing arrow.
- Period2:** Two time selection boxes (00:00) with up/down arrows, separated by a right-pointing arrow.
- Period3:** Two time selection boxes (00:00) with up/down arrows, separated by a right-pointing arrow.
- Period4:** Two time selection boxes (00:00) with up/down arrows, separated by a right-pointing arrow.
- Copy:** A dropdown menu and a "Copy" button.

Chapter 4: Playback

4.1 Main Interface



Click the  button in Live View to enter the playback interface.

The screenshot shows a multi-camera playback interface. At the top, there are three buttons: 'DATE', 'CAMERAS', and 'FILES'. Below these are date selection controls for 'YEAR' (2009) and 'MONTH' (4), along with a calendar grid for 'Today Apr 28, 2009'. The calendar shows days with video in blue and days with no video in grey. The currently selected day is highlighted in green. Below the calendar are several function buttons: Screenshot, Backup menu, View screenshots, Stop all playback, Play all cameras, Change the split-screen mode, View the next frame, Stop the selected camera, Pause, Click to turn on zoom, Icon Search, and ACU Data Search. At the bottom, there are playback controls: Previous Minute, Reverse Playback, Adjust Playback Speed, Adjust Volume, Move up or down to see next set of cameras, POS Search, Exit Playback, and Next Minute.

Search by date

View the selected cameras and access Synchronized playback and Smart Search

View the video files of the selected camera

Days with no video are shown in grey

The currently selected day is shown in green

Days with video are shown in blue

Screenshot

Backup menu

View screenshots

Stop all playback

Play all cameras

Change the split-screen mode

View the next frame

Stop the selected camera

Pause

Click to turn on zoom, click on the camera to zoom in. Click again zoom out

Icon Search

ACU Data Search

Exit Playback

Adjust Volume

Move up or down to see next set of cameras

POS Search

Reverse Playback

Adjust Playback Speed

Previous Minute

Next Minute

The currently selected camera is outlined in red

Minute timeline for the selected hour block

Each day is broken into 24 blocks, the color of each block indicates the record type

4.2 Playback



4.2A Select Date



Click the  button to show the calendar if it is not already visible. The days that are blue contain recorded video. The Green day is the currently selected date. The grey days do not have recorded video. When you click a day that is blue the day graph at the bottom of the screen will show which cameras have video, and what type of video was recorded. Double-click a time block to play the video from that time. Click  or  to change the month and year of the calendar.

4.2B Select Camera



After clicking the  button you will see the screen pictured in the top right. Blue channel numbers are cameras that have video recorded on this date. If you click one of the blue channels, it will play the earliest video of that camera from the selected day in the selected window.

4.2C Synchronized Playback

When you have multiple cameras playing in different windows, you can click the **Synchro Playback** button to have the cameras playback the same time as the selected camera. If you pause, go forward or back a minute, or go to the next frame, all the cameras will stay synchronized.

4.2D Smart Search

Introduction:

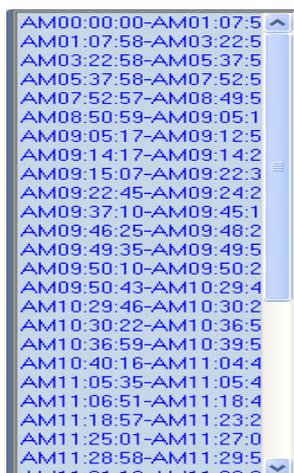
This function allows you to draw a box over an area of the camera image, and playback video from when there was motion in that area. This can be used to find video from when an item was stolen, etc. The sensitivity of the smart search is the same as the sensitivity of the camera.

Operation:

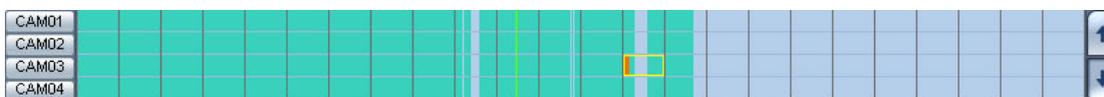
Select the window that has the camera's video you would like to search. Click the **Smart Search** button, drag a box over the area of the video you want to search for motion. The DVR will now play back times when there was motion in the selected area starting 3 seconds before the motion occurred to 3 seconds after it ended. When you right click the smart search button, you can select percentage of the selected area that must have motion for it to display in smart search.



4.2E Select File



After selecting a camera to play, you can click the **FILES** button to show all the video files of this camera. By default, the system will play video files starting at the first one. In this screen you can change the file you want to play by clicking on it. The camera list below the window will show the recorded video data of the selected day. Double click a time block and the DVR will play back video from the beginning of the hour in the selected window.



Press **↑** or **↓** button to see the recorded video of other cameras.



Click any minute of the hour to jump to that time in playback The orange bar in the minute and hour timelines is the exact time the DVR is playing.

Right click a camera to view it full screen. Different colored video on the timeline indicates the recording type during that time period

4.3 Playback Controls



Select video split-screen mode. You can choose from 1,4,9, and 16 split-screen views.



Playback all cameras from the earliest video recorded that day. The number of cameras played will depend on the current split-screen mode. So an 8 channel DVR will only play 4 cameras if the split-screen mode is on 4 view.



Close all playback windows.



Previous / Next Minute Press these buttons to jump to the previous minute or next minute in the video.



Next Frame Press this button to pause and play the next frame of the video.



Play/Pause Clicking will alternate between Play and Pause.



Stop Press to stop playback on the selected camera.



Zoom Click the zoom button then drag a box on the image to zoom in, right-click to zoom out. Click the zoom button again to exit zoom mode.



Volume Drag the bar to adjust the volume. Click the icon to mute the audio.



Adjust Playback Speed Drag the bar to adjust the playback speed of the selected camera. Click the icon to restore the default playback speed.

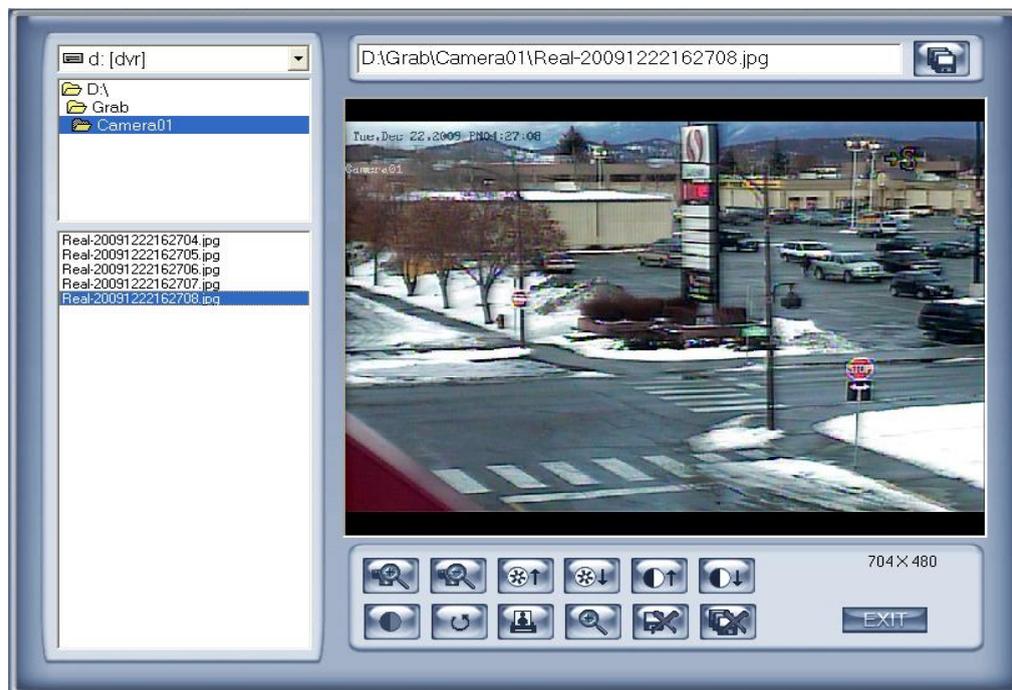
4.4 Screenshot



Screenshot of the selected camera will be saved. You will be prompted to enter a file name. After confirming the file name, you will be asked to enter the save path. After the first time you will not be asked for a save path, and images will go to the save path you entered automatically. The size of the screenshot will be the same as the window the camera is playing in.

4.5 Search Screenshots

Click  to enter the search screenshots window:



First find the folder your screenshots are saved to by selecting it from the drop-down list at the top left corner. Now click one of the image files listed on the right hand side and it will display in the image window.

Image Adjustments



You can use the buttons above to zoom in / out , raise or lower the brightness, and raise or lower the contrast.

 **Smooth Edges** This will reduce pixelation on an image.

 If you make an adjustment to the image and do not wish to keep it, click this button to return the image to its original state.

 After you have made adjustments you can rename the file, and click here to save the adjustments as a new image file.

 **Print Screenshot**

 **Magnifying Glass** Click and move cursor over the image to enlarge that portion of the screenshot

  Delete the currently selected screenshot or delete all screenshots.

4.6 Backup



When you click the  button there are four options as shown below:

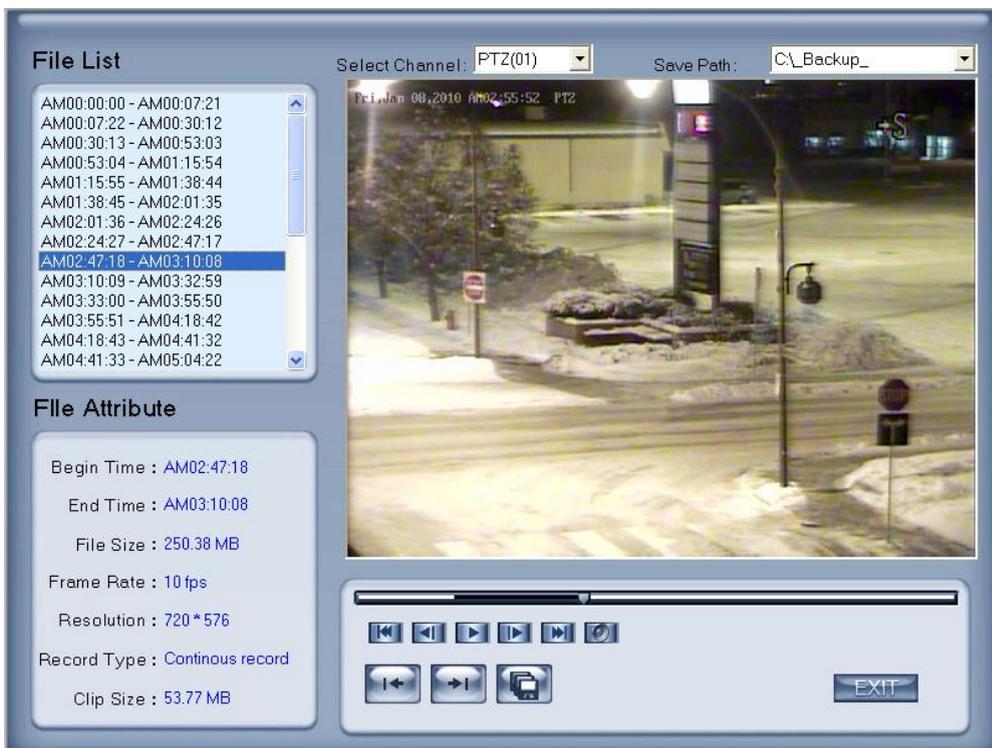
- Create file clip
- Backup by time
- View backup file
- Burn backup file

4.6A Create File Clip

Select a channel and a save path to save the file clip from the drop-down menus at the top of the page.

File List Double-click a time from the file list to play it in the preview window.

File Attribute This will display the file attributes; **Begin Time**, **End Time**, **File Size**, **Frame Rate**, **Resolution**, Record Type, and the **Clip Size** after you have selected the start and end time of the file clip.





Video Timeline Click and drag the slider to move the video to a different time.



File Clip Beginning and End After you find the position on the video where you want the file clip to start click the Begin Clip button, then click the End Clip button where you want to end the file clip. After selecting the beginning and end of the file clip, the size of the file clip will be displayed under **Clip Size** under **File Attribute**.



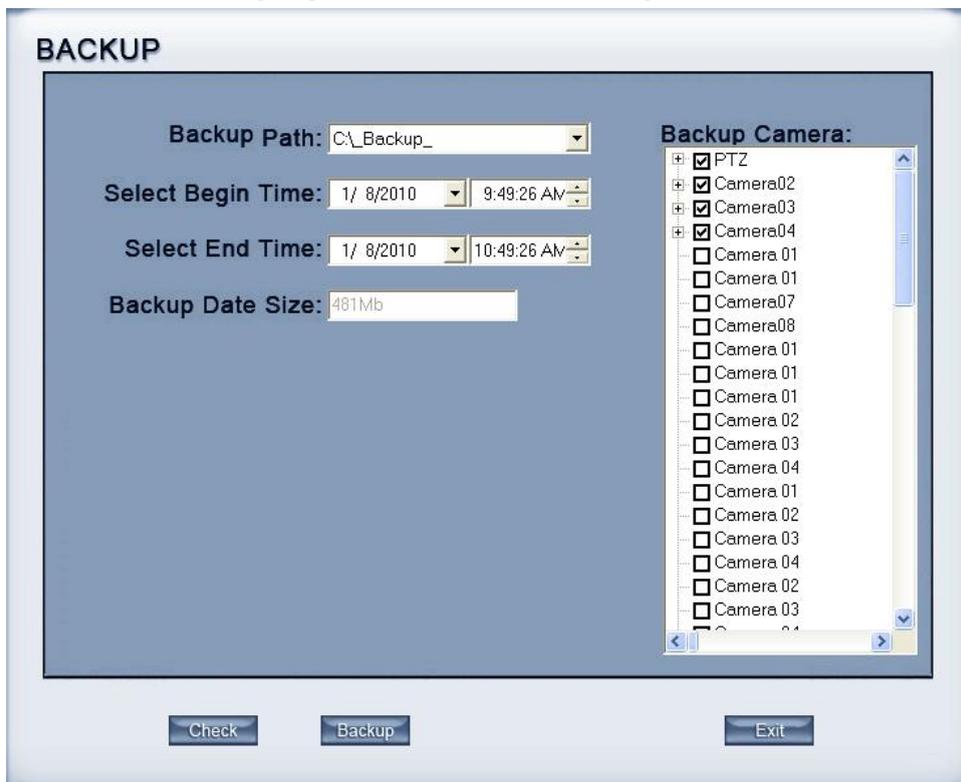
Use the above controls to **Play/Pause**, go to **First and Last Frame**, **Previous Frame and Next Frame**, and **Mute Audio**.



Save File Clip You will be prompted to enter a name for the file clip, the clip will be saved in the directory selected in the **Save Path** drop-down list.

4.6B Backup By Time:

Select the **Backup By Time** from the **Backup** menu.



Backup Path Select a path for the backup file. This can be any drive connected to the DVR including the CD/DVD drive.

Backup Camera Select the cameras to backup.

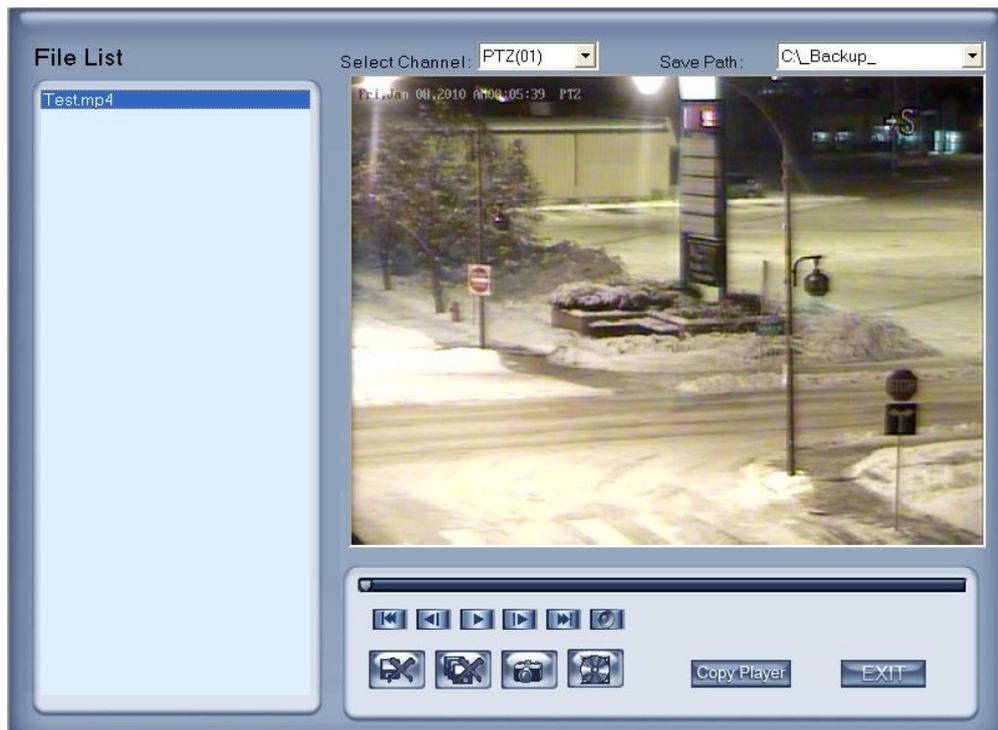
Select Begin Time and Select End time Select the begin and end time/date of the video to backup.

Check Click to check the size of the video backup. The size will be shown in megabytes under **Backup Data Size**. If the selected backup drive does not have sufficient free space you will be notified by a popup message.

Backup Click to backup the video to the selected drive.

Note: You must click **Check** before backing up the video so the DVR can determine if the drive has sufficient space.

4.6C View Backup File



Select the camera and the **Save Path** of the file clip you want to view. The first file clip will automatically be displayed on the preview screen. The playback controls function the same as in the **Create File Clip** page.



Screenshot You will be prompted to enter a file name for the image file, and it will be saved the selected screenshot folder.

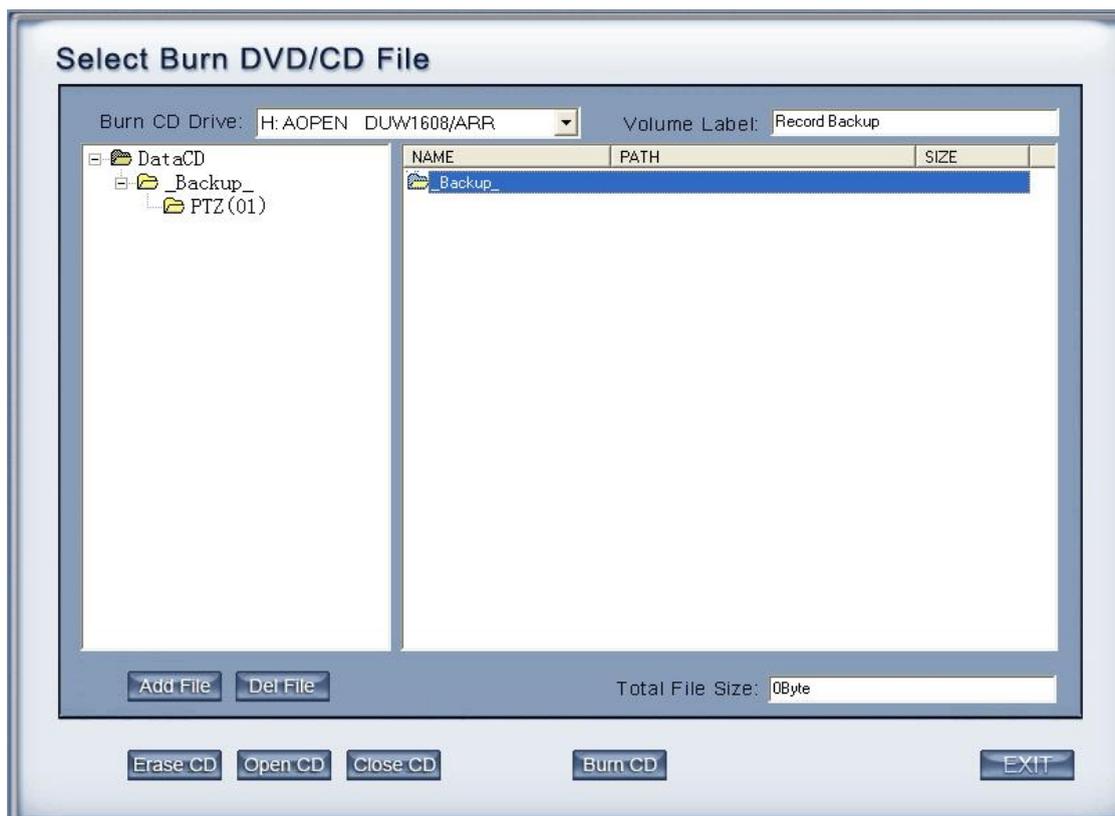


Burn Backup The Burn Backup File window will be loaded. The Burn Backup interface is explained on the next page.



Copy Player Copy the video player files to the **Save Path**.

4.6D Burn Backup File



Burn CD Drive Select the CD/DVD drive that you want to burn to.

Volume Label Enter a name for the disc that will be shown when it is read from a CD/DVD drive.

Add File Add selected file to the list of file to be burned.

Del File Delete selected file.

Total File Size Shows the size of all the files that will be burned the disc.

Erase CD Clears all files from the disc, if it is rewritable.

Open CD Open the CD/DVD Drive.

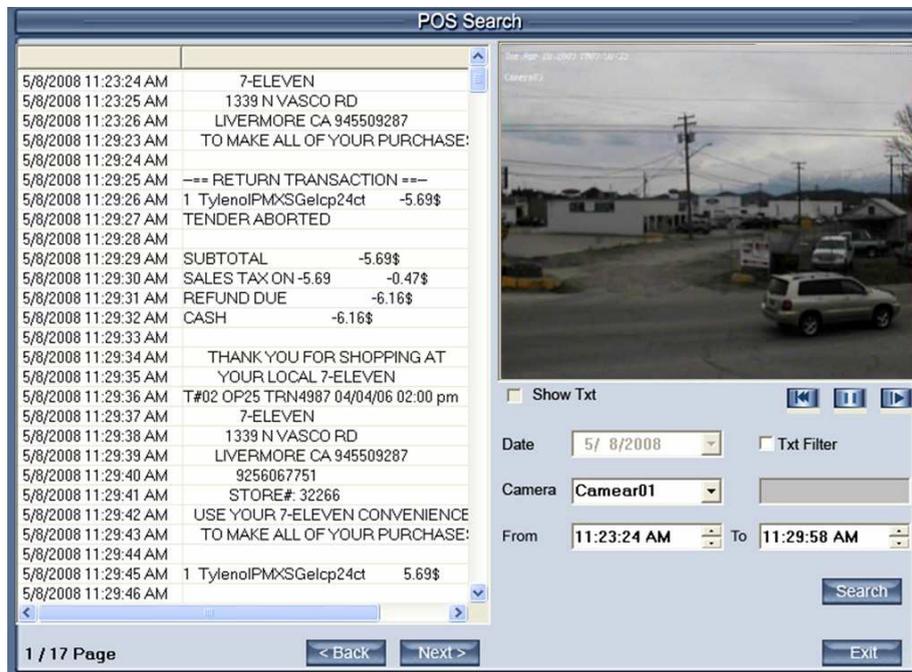
Close CD Close the CD/DVD drive.

Burn CD Burn files in the list to a DVD or CD that is in the drive.

Note: You should copy the video player to the CD/DVD using the button in **View File Clip**, as the video will not be playable unless the computer or disc has the video player files on it. If you backup using **Backup By Time**, the video player software is automatically copied to the backup drive.

4.7 POS Playback

Press the **PS** button and you will see the interface shown below:

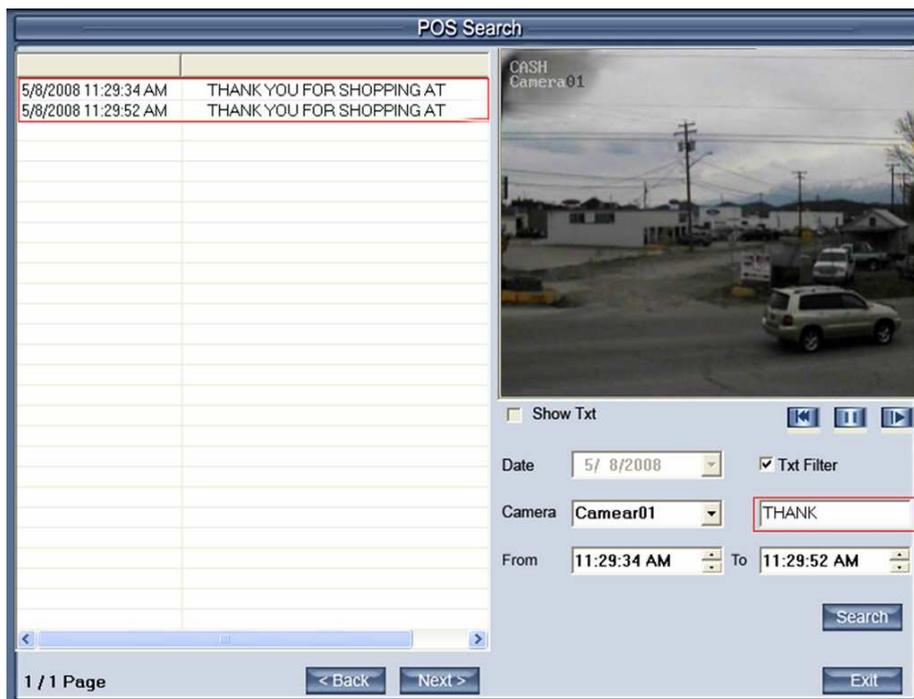


Show Txt Show the text on the screen.

Date Select the search date.

Camera Select the search camera.

TXT Filter Check this box to search for a specific word.

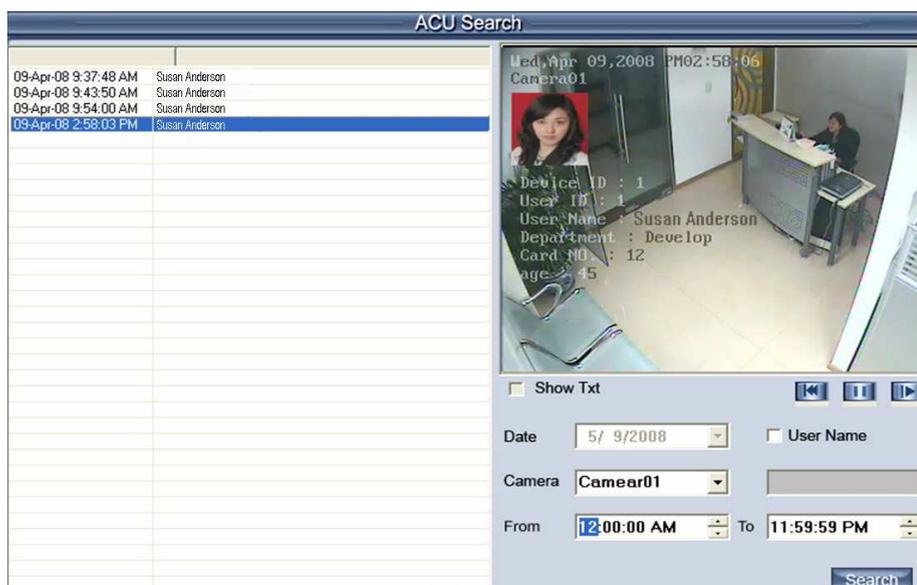


If you set the TXT Filter to THANK, and then, press **Search**, the list will display all POS messages containing “THANK”.

From and To Select the begin and the end time for the search. Press this button to search for POS messages within the set parameters. Press the **Back** and **Next** buttons to go to the next item in the search list.

4.8 ACU Playback

Press the **AS** button and you will see the interface shown below:



Show Txt Show the text on the screen.

Date Select the search date.

Camera Select the search camera

User Name Check this box to search for a specified user.

If you set the **User Name** to Susan, and then, press **Search**, the list will display all ACU events containing "Susan" as shown in the picture below.

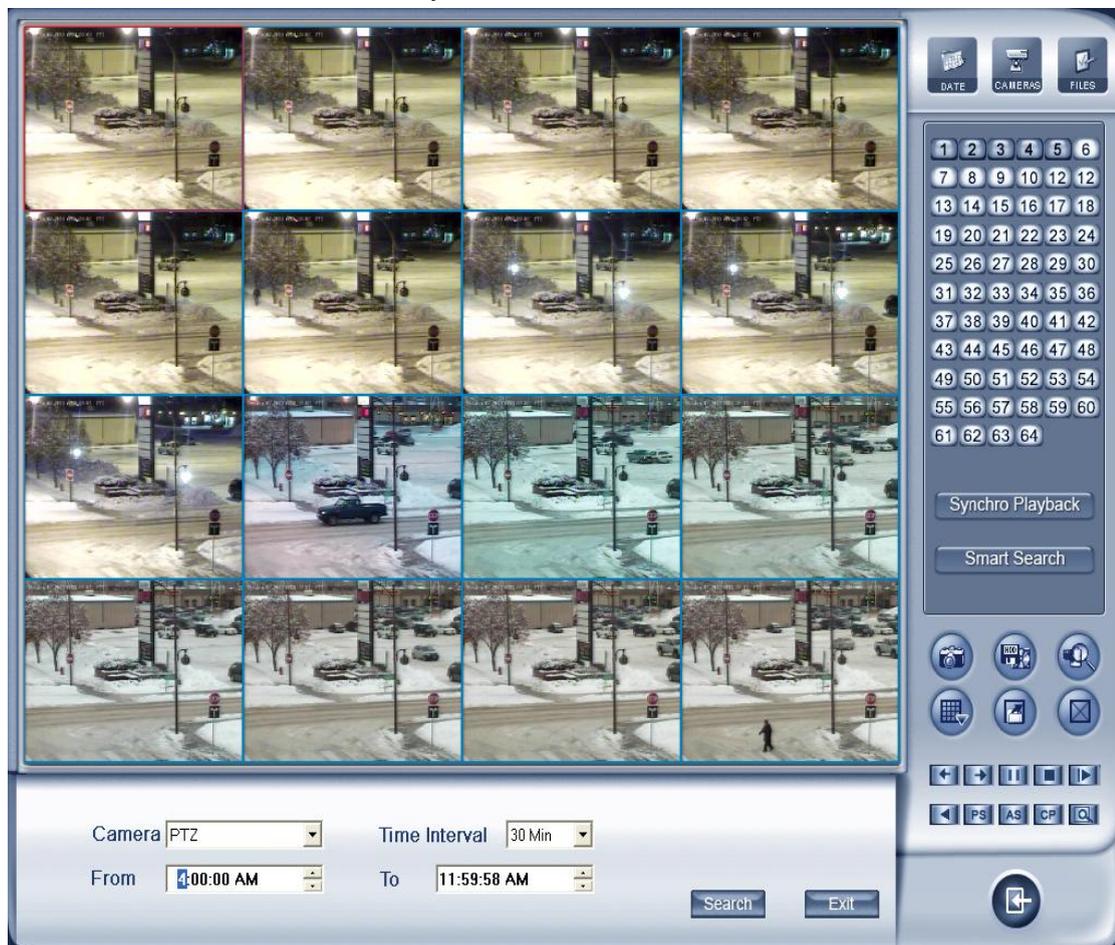
From and To Select the begin and the end time for the search. Press this button to search for ACU messages within the set parameters. Press the **Back** and **Next** buttons to go to the next item in the search list.

The screenshot displays the 'ACU Search' application interface. On the left, a table lists search results for 'Susan Anderson' on April 9, 2008. The selected entry is at 2:58:03 PM. On the right, a video window shows a person at a desk with overlaid text: 'Wed, Apr 09, 2008 PM02:58:06', 'Camera01', 'Device ID : 1', 'User ID : 1', 'User Name : Susan Anderson', 'Department : Develop', 'Card NO : 12', and 'Age : 45'. Below the video are controls for 'Show Txt', 'Date' (5/9/2008), 'Camera' (Camear01), 'From' (12:00:00 AM), 'To' (11:59:59 PM), and buttons for 'Search', '< Back', 'Next >', and 'Exit'.

| Time | User Name |
|----------------------|----------------|
| 09-Apr-08 9:37:48 AM | Susan Anderson |
| 09-Apr-08 9:43:50 AM | Susan Anderson |
| 09-Apr-08 9:54:00 AM | Susan Anderson |
| 09-Apr-08 2:58:03 PM | Susan Anderson |

4.9 ICON Playback

Click the **CP** button, you will see the interface shown below:



Select a camera, set the begin and end time of the search, and the time interval. After entering these settings click search. The DVR will now play the video from that time period according to the time interval you selected. In the above example the DVR is playing back the video in 30 minute intervals from 4:00:00 AM until 11:59:58AM, so window 1 is playing back from 4:00AM to 4:29:59, window 2 is playing from 4:30AM to 4:59:59, etc. The time interval can be set from 1 to 120 minutes, and the number of windows depends on the split-screen mode that is currently selected.

Chapter 5 IE Client

The X4 DVR Server software can be remotely accessed using Internet Explorer (IE) and port 80. If you need to use a different port, you can change it in **Network Setup**. If you change this port, you will have to add it to the IP address when connecting to the DVR with IE. For example if you change the port to 88 and the DVR's IP address is 192.168.1.10, you will have to type in 192.168.1.10:88.

5.1 Main Interface

After connecting to the DVR Server, you will need to input a valid user ID and password.



Connection

Select the camera that will be viewed, and choose Main Stream or Sub Stream. Select a split-screen view mode. The cameras will be viewed starting with the camera you selected in the first window. After setting these options, click **Login** to view the live stream.

 This will display the cameras in sequence mode, displaying each camera for a few seconds before switching to the next one. If you have 8 channels and the split-screen view is set to 4 view mode, it will switch between showing channels 1-4 and channels 5-8. Click again to turn off sequencing mode.

 This switches the view to full screen, right-click to exit.

5.2 Connection/Record status



The color of the circle indicates the connection and record status of each channel:

Grey: Not connected

Blue: Connected

Green: Connected and Recording

You can set a channel to Record by pressing the circle above it.



Click to set all channels to Record.

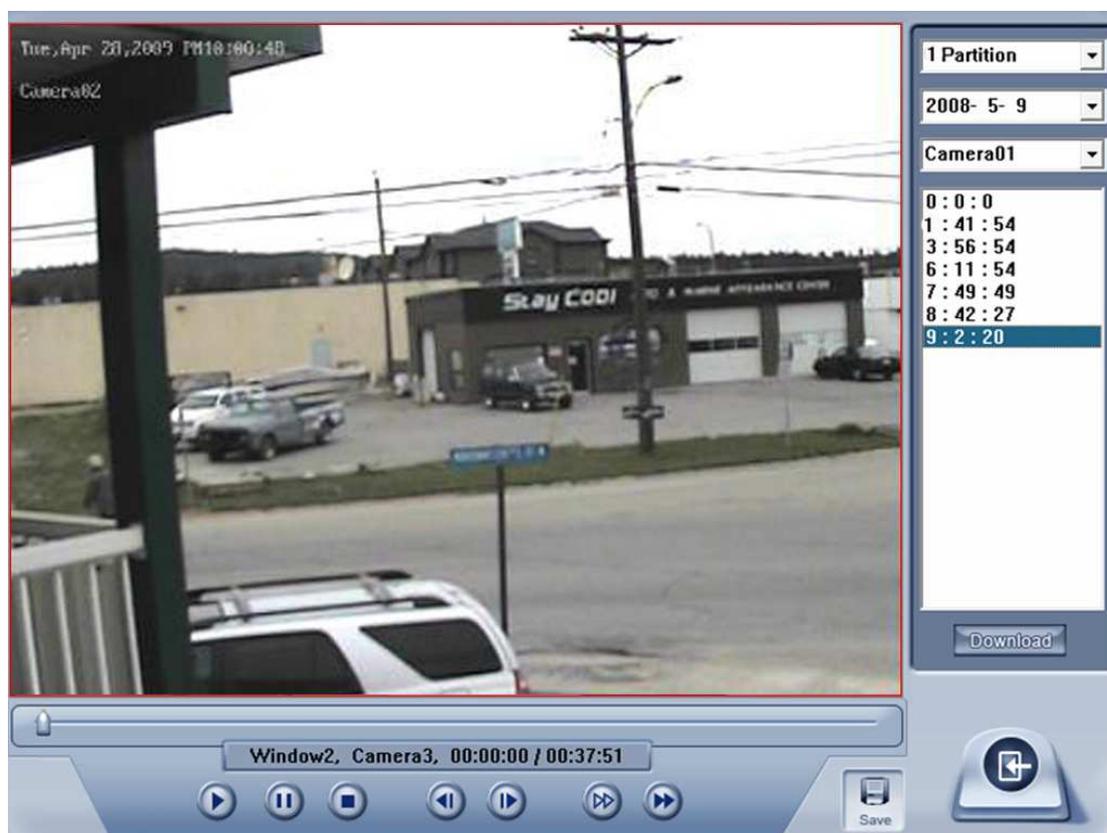
5.3 PTZ Control

Most PTZ functions are the same as in the X4 DVR Server program except you can not add or edit PTZ presets using the IE Client.

5.4 Remote Search



Click [Playback](#) to enter Remote Search.



5.5 Playback Controls



This bar indicates what point the video is at on the timeline.

Window1, Camera1, 00:00:02 / 00:00:24

This displays the selected window, camera, and how far the video has played as well as the total time of the video.



Play, Pause, Stop



Previous and Next Frame



Playback video **slowly**.



Fast Forward.



Click to save the video that is playing on the channel that is currently playing. The video file will be saved under C:\Clip\Camera #.

5.6 Download Video File

In playback you can select a time from the selected camera's video list. and click the **Download** button to save that video file to your computer. You will be prompted to select a folder, and enter a file name.

5.7 Local Search



Click the **Local** button to enter local search, you will now be able to play video files that have been saved on your computer by the IE Client. The interface is the same as Remote Playback except the **Download** and **Save** buttons are not available in **Local Search**.