

Viewgate

DVR Software

Table of Contents

5. DVR Software	1
5-1. DVR Setup	1
5-1-1. Disk Tool	2
5-1-2. System Setup	4
5-1-3. Camera Setup	7
5-1-3-1. General Tab	7
5-1-3-2. Schedule Tab	10
5-1-3-3. Color & Motion	12
5-1-3-4. Pan/Tilt	14
5-1-4. Sensor (Digital I/O)	16
5-1-5. Backup Setup	17
5-1-6. User Admin	18
5-2. DVR Management	19
5-3. DVR Main	21
5-3-1. Search	24
5-3-2. AVI Saving	28
5-3-3. Manual Backup	29
5-3-4. Backup Viewer	30
5-3-5. Image Authentication	32
5-3-6. Smart Search	33

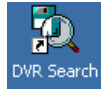
5. DVR Software

Windows Desktop

Once Viewgate installation is complete, the following icons will be placed on your desktop:



DVR Main: The main Viewgate program icon.



DVR Search: Data search program.



DVR Setting: Viewgate user setting program.

5-1. DVR Setup

Prior to using Viewgate DVR for the first time, it is necessary to run the **DVR Setting** program. Click on DVR Setting icon to open the DVR Setup screen:



Note: While running the DVR Setup program, all recording is suspended.

Disc Tool: Creates the Viewgate DVR file system. Viewgate DVR program needs to create it's own file system to handle large quantities of data safely.

System: Settings for network connection options including, initial screen settings, sounds, automatic restoration (Watchdog), keyboard, lockout, and more.

Camera: Various settings for up to 32 cameras and the digital relay outputs including, scheduling, motion detection, covert operation and remote notification.

Sensor: Settings for up to 16 sensors (NO/NC) and assignment of Digital I/O.

Backup: Settings for the automatic backup schedule.

User admin: Multi level **password protection** for different users and separate tasks.

5-1-1. Disk Tool

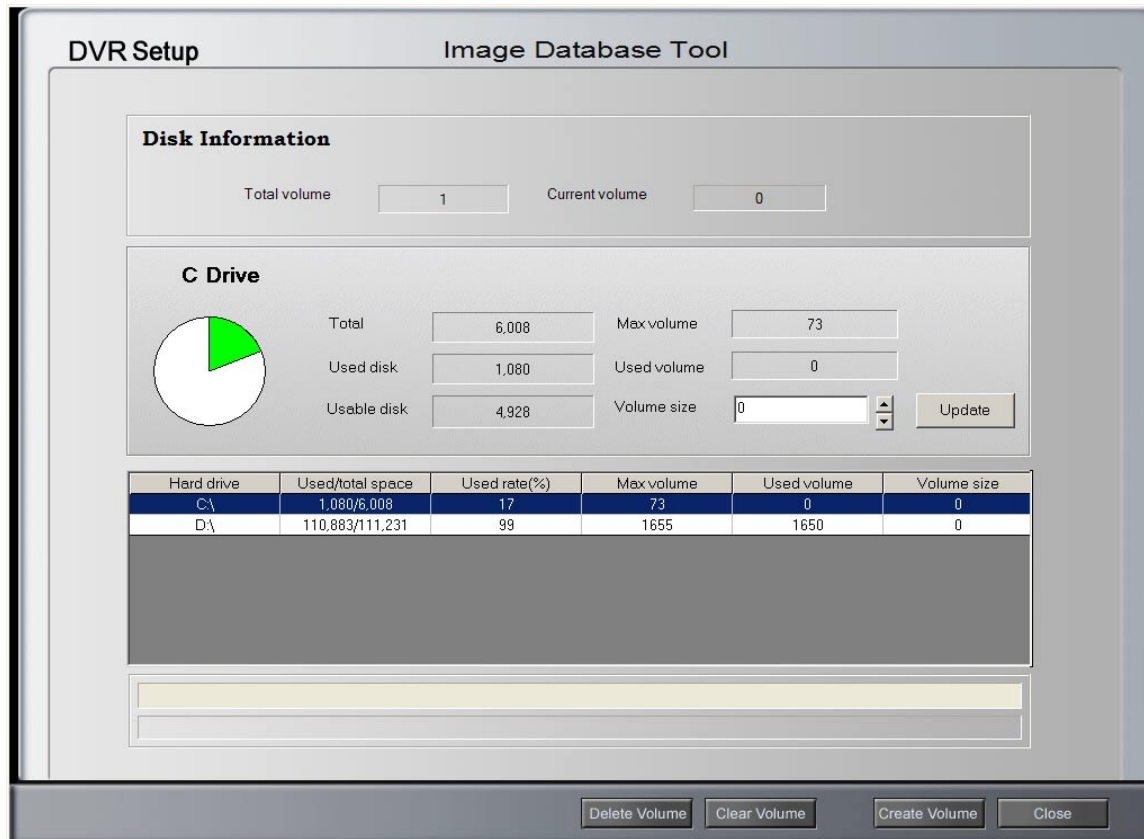
Disc Tool: Creates a Viewgate DVR file system (Viewgate DVR program creates it's own file system, so that large quantities of data will be handled safely).

What is a Volume? A volume is a unit used in the Viewgate file system equal to 60MBs of hard disc space. Digital Video Data is recorded in these volumes and when the last volume is full the program will record over the previously recorded data on a first-in first-out basis (Data will be lost if not backed up before over writing).

Important!

It is recommended to divide the hard disc into two partitions and use the second partition for recording and storing data. At least 100 megabytes of space must be left unused so that Windows will not show "Disc Full" error messages.

For example: An 80 gigabyte (GB) hard drive: Drive C: is allocated 6GB and Drive D: receives 73GB



Total - The total capacity of hard disk space.

Used Disk - The capacity of hard disk space currently being used.

Usable Disk - The capacity of hard disk space available for usage.

Max Volume – The total number of “Volumes” available for usage.

Used Volume – The number of “Volumes” being used.

Volume Size – The number of “Volumes” required of this partition.

Delete Volume – Completely deletes data structure (folder and volumes) from all hard drives.

Clear Volume – Clears all previously recorded data from all hard drives.

Create Volume – Creates a “Volume” using the number defined in “Volume Size”.

How to create volume for recording video?

- Select the Drive where a file system will be created by clicking on the drive letter.
DO NOT Create Volumes on Drive C:. This drive is allocated for the Windows operating system and data back up.
- Enter the number of volumes desired by typing the number in the space to the right of “Volume Size” and click on “Update”.
- For multiple drives and partitions repeat the above steps.
- Check that the correct number appears on the space entitled “Volume Size” and click "Create Volume" button.

Note: Always create 5 volumes less than the maximum allowed to avoid “Disk Full” error messages created by Windows.

5-1-2. System Setup

The screenshot shows the 'System Setup' window for a DVR. The window is divided into several sections:

- Site Information:** Fields for 'Site Name' and 'Site Location'.
- Network:** Checkboxes for 'Allow remote connections' (checked), 'Remote notification of events' (unchecked), and 'Use IP Server' (unchecked). A 'Method' dropdown is set to 'SERVER', and an 'IP/Num (Code)' field contains '0.0.0.0'. A 'Properties' button is present.
- Sound:** A checkbox for 'Sound recording' (unchecked) and a '1 Channel' label. A 'Properties' button is present.
- E-mail:** A checkbox for 'Use email' (unchecked). A 'Properties' button is present.
- Screen:** 'Initial screen' dropdown set to '16 View', 'Large screen' checkbox (unchecked), 'External monitor switching time' dropdown set to '4 sec', and 'DVR Display switching time' dropdown set to '2 sec'.
- Auxiliary Functions:** Checkboxes for 'Keyboard lock (Windows key enable/disable)' (unchecked), 'Enable hardware watchdog (Auto recovery)' (checked), 'Audible alert on video loss' (checked), and 'Schedule auto reboot of DVR' (unchecked). A 'Burn CD' field shows 'C:\Program Files\Adapted\E' with a 'Browse' button. A 'Setting log off timeout' dropdown is set to '10 min'. A 'Properties' button is present.
- Log Contents:** Checkboxes for 'System log' (checked), 'Sensor log' (checked), 'Motion log' (checked), and 'User log' (checked).

At the bottom of the window are four buttons: 'Keyboard', 'Apply', 'Save & Close', and 'Cancel'.

Site Information:

- **Site name:** Enter a site name for the system.
- **Site location:** Enter address of the system.

Network:

Installing the Viewgate “Net Client” software on remote computers expands the features of the Viewgate DVR to other computers and/or users.

- **Allow remote connections:** Check this box to allow remote access to the Viewgate DVR.
- **Remote notification of events:** Check this box to send event notification detected on the Viewgate DVR to a remote computer (motion, alarm/sensor detection, etc). Set the method of notification to TCP/IP and enter the IP address of the remote computer. Ip sever can be used for remote notification (see details for IP Server setup).

Sound:

The Viewgate DVR software provides several different options for sound recording with up to sixteen audio channels available depending on the sound card used. A non-amplified mic can be

plugged directly into the mic jack of the onboard sound card for a single channel of sound.

Note: Viewgate's A-16 sound card will capture up to 16 audio Inputs on a single DVR.

Details:

The screenshot shows the 'Installed Audio Devices' configuration window. It includes a volume slider set to 255, a 'Select Directory' section with 'Save directory' set to 'c:\' and 'Stop at (Mb)' set to 300 (with a 'Max 2.0Gb Available' label), and a 'Select Channel' section with radio buttons for 1, 2, 4, and 16 channels. Below these is a 'Select Camera' section with a grid of 16 channels, each with a dropdown menu currently set to 'CAM 1' through 'CAM 16'. 'OK' and 'Cancel' buttons are at the bottom.

Installed Audio Devices: Shows all installed audio devices on the system. For 4 channels of audio recording, an additional PCI sound card is required.

Select Directory: Choose the path for sound files to be recorded.

Stop at (MB): Minimum 300MB must be allocated on any drive to prevent “disk full” error message from windows O/S (For example: With a maximum of 2 Gb, stop at MB=300. Therefore, the total available space on drive “C:” allocated to sound is 1.7Gb).

Installed Audio Select Channel: Select required channels for sound recording. 4-channel audio recording requires an additional PCI sound card. 16-channel audio recording requires the Viewgate A-16 audio card and software.

Select Camera: Select which camera will be linked to the preferred sound channel.

Email:

- The Viewgate DVR software can be configured to send e-mail notification of events (including change of IP address after the DVR reboots). This is dependent on the notification schedule configured in Camera setup. To setup e-mail enter a valid outgoing mail server address (SMTP), the outgoing e-mail address (i.e. who the e-mail is “from”) and where the e-mail should be sent (who the e-mail is “to”). To attach a single image of the event, click “attach image”.

Screen:

- **Initial Screen:** Use the pull-down box to select the number of cameras to be displayed on the screen when starting the Program. If you wish to have all sixteen cameras displayed on the initial screen select “16 View.”
- **Large Screen:** Check this box to start Viewgate DVR in maximized (full-screen) mode, where only the camera images are displayed. The toolbar and status indicators are hidden.
- **External Monitor Switching Time:** An external CCTV monitor attached to the DVR displays the view one camera at a time. Use the pull-down box to select the “switching time” (the duration of time in seconds’ one camera is displayed on-screen before switching to the next image).

Note: For multiplexed (split screen) display, a live card must be used.

- **DVR Display Switching Time:** The PC monitor attached to the DVR has several viewing options in addition to the “Initial screen” option above. Like the external video



monitor, cameras can be viewed 1, 4, 6, 10, and 16 at a time. In this example, clicking the “auto change” button on the DVR Main screen will cause the program to switch from four cameras to the next four cameras and so forth.

Auxiliary Functions:

- **Keyboard Lock:** Check this box to prevent unauthorized access to the Windows operating system. When checked, the system will ignore all of the Windows shortcut keys including the flying Window key. 
- **Note:** This does not prevent a user from pressing the <Ctrl><Alt> keys to bring up the Task Manager or Close Program dialog. However, closing Viewgate DVR this way will enable the hardware watchdog and set off the warning buzzer and reboot (see below).
- **Enable Hardware Watchdog:** Check this box to enable hardware watchdog. Automatically reboot the DVR anytime a system problem occurs. When there is no video signal or the system locks up, the watchdog waits for the time set in the advanced section of the “Start.exe” and the DVR will restart (for details look in DVR Management section of the manual). The warning buzzer can be disabled in setup.
Note :Hardware cable must be connected to motherboard reset pins for proper operation
- **Audible Alert on Video Loss:** Check this box to have Viewgate DVR alert you when there is a loss of video signal for one or more cameras.
- **Schedule auto reboot of DVR:** The DVR can be set to automatically reboot and restart the system on a specified schedule. This function allows to clear the cache memory of the system. Click Properties and select the day, hour and minute desired.
- **CD Burn:** Enter the full path to the CD burning software here. This will allow the CD Burning button in “Search” to open the burning software.
- **Setting Log Timeout:** On the Main DVR screen, login and passwords are used to allow or deny privileges to certain users, such as searching, PTZ control and running admin setup functions. By selecting a timeout value in seconds all users will be automatically logged out thus preventing unauthorized access to the Viewgate DVR features.

Log Write:

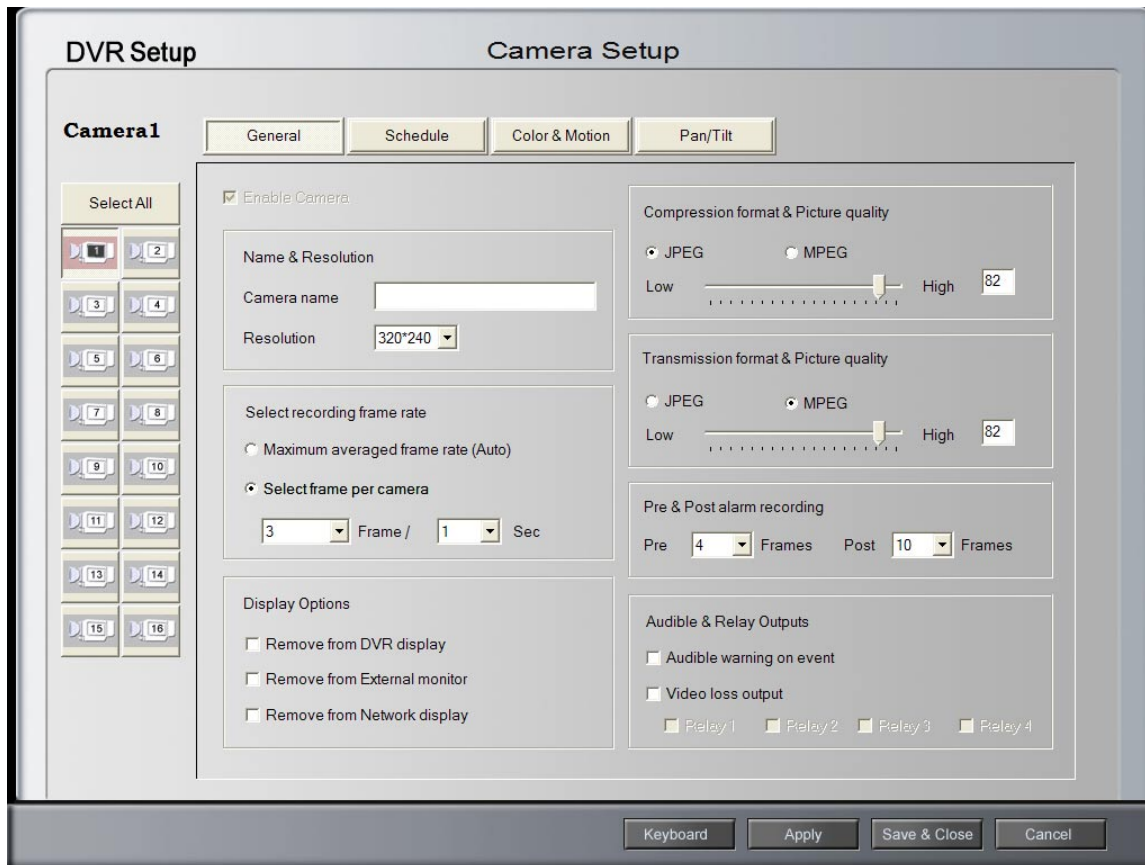
Checking the appropriate boxes will cause Viewgate DVR software to keep track of the following specific details:

- **System:** When the DVR and Viewgate software are started as well as when the system is accessed remotely.
- **Sensor:** When a sensor is activated.
- **Motion:** When motion is detected.
- **User:** When a user logs in or out.

The details (date & time, user name, IP address, camera number, etc) are stored in a log file on the hard drive (C:\ B612dvr) and can easily be read with Windows Notepad or WordPad.

5-1-3. Camera Setup

5-1-3-1. General



- Click the camera buttons on the left to setup each camera,

— or —

- Setup one camera then use the Select All button at the top of the camera buttons to copy the settings for the initial camera to all other cameras.

Less is More?

There are several options on the “Camera Setup - General tab,” such as, resolution, frame rate, compression and picture quality that will ultimately enhance the picture quality. However, selecting the highest quality on each camera will reduce the number of days available for playback on the DVR.

- Images with High resolution (uncompressed images), recorded at a fast frame rate takes up more storage space on the DVR and, ultimately fewer days will be recorded.
- Images with lower resolution (heavily compressed), recorded at a slower frame rate take up less storage space on the DVR and more days can be recorded.
- The default settings on this screen is a safe middle ground to give better quality images for playback over a reasonable number of days.

Enable Camera:

- Check the box to enable or disable camera from viewing and recording.
Note: Be sure to disable any cameras you are not using. This will improve system performance & prevent video loss alarms. Camera 1 is on always by default.

Name & Resolution:

- **Camera Name:** Enter a name that best describes the camera location.
- **Select Recording Frame Rate:** Use the pull-down box to select either 320 X 240 for normal resolution or 640 X 480 for high resolution. Please refer to the “Less is More?” section (above) for details on how this can affect recording time.

Select Recording Frame Rate:

This section is used to set the “frame rate” which refers to the number of video images/frames recorded every second per camera. This should not be confused with the frame rate for the entire DVR. For example, if the DVR’s frame rate is 60 frames per second (fps), and there are 8 cameras attached, then the average frame rate would be 60 divided by 8 or about 7.5 fps.

- **Maximum averaged frame rate:** Click this to have the Viewgate DVR software automatically divide the frame rate evenly among active cameras.

Note: Set to “maximum averaged,” and the frame rate can vary as cameras detect motion. This means that playback may appear to speed up and slow down.

- **Select frame per camera:** 4 Frames/1 sec is the default for these two fields & should be more than adequate for day-to-day recording. Broadcast television records at 30 fps.

Display Options:

Enabled cameras will be recorded on the DVR according to the settings on the other tabs (Schedule, Color & Motion). It may be unnecessary or undesirable (i.e. a covert camera) to display certain camera views on the DVR, through the External Monitor, or when viewing remotely over the network.

- **Remove from DVR Display:** Click here and this camera will not show on the Main DVR

- **Remove from Monitor Output:** Click here and this camera will not show on the Monitor
- **Remove from Network Display:** Click here and this camera will not transmit over the Network

Compression Format & Picture Quality:

The Viewgate DVR program can record captured video in either of these two formats. **JPEG** is used primarily for photographs (still images) and **MPEG** for moving pictures (motion images). Video images are compressed to take up less space. The slider control adjusts the picture quality. (Read the “Less is More?” section (above) for details on how this can affect recording time).

- **JPEG:** Click this to record with little compression for high quality images
- **MPEG:** Click this to record with more compression to get good quality images
- **Picture Quality:**
 - Move the slider control to the right (number gets larger) to increase picture quality and decrease compression
 - Move the slider control to the left (number gets smaller) to decrease picture quality and increase compression

Transmission Format & Picture Quality:

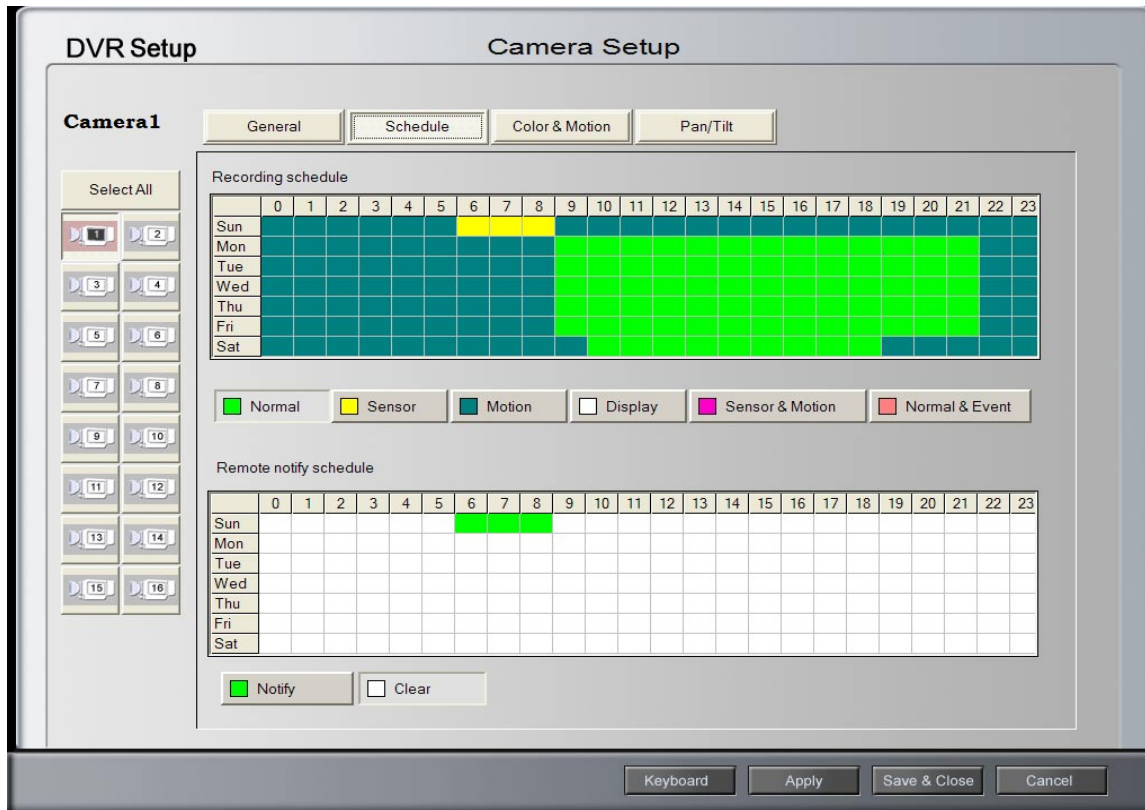
“Transmission format” relates to the quality of images transmitted over the network. The explanation of this heading is virtually the same as “Compression Format & Picture Quality” (mentioned above).

Pre & Post Alarm Recording:

- **Pre Alarm:** Select the number of frames to record prior to Motion or Sensor detection
- **Post Alarm:** Select the number of frames to record after Motion or Sensor detection

Note: These settings will have no effect unless Sensor, Motion and/or Sensor & Motion times are highlighted on the Camera Setup – Schedule tab (see below).

5-1-3-2. Schedule



Shorter is Better?

Like the “Less is More?” section above, the “Recording Schedule” options also determines how many days are recorded and available for playback on the DVR.

- Normal mode means 24 hours a day recording 7 days a week regardless of whether there is activity to record. Specific applications of a business may require this type of recording.
- Motion mode, however, will only record when there is activity within the camera view.

For example, a camera that points at the shipping area overhead door might detect activity only during **morning delivery** and **afternoon pickup** for a total of **30 minutes** a day. Setting that camera to “motion” would free up 23½ hours of recording time on the DVR!

More hard drive space is used up to record 24 hours of activity versus 30 minutes. So the question to ask for each camera is: If the camera is detecting and recording all motion, how much recording is necessary?

Note: It is important **not** to confuse “Recording Schedule” with the cameras themselves. The cameras are on all the time (24/7) and can be viewed on the main DVR display, the external monitor and by remote connection. “Recording Schedule” determines only what will be recorded for later viewing (playback) in Search mode.

Recording Schedule:

Click the desired button — Normal, Sensor, Motion, Display, Sensor & Motion or Normal & Event. Then hold down the left mouse button to shade one or more time blocks left to right on the 24 hour, Sun-Sat matrix. The color blocks in the matrix will match the color block for each button:

- **Normal** (bright green): The DVR records all images captured by the camera. (Default)
- **Sensor** (yellow): Images begin recording when a sensor associated with this camera detects activity.
- **Motion** (teal): Images begin recording when this camera detects motion.
- **Sensor & Motion** (pink): Images begin recording when a sensor associated with this camera detects activity or when the camera detects motion.

Note: The total amount recorded will depend on the “Pre & Post Alarm Recording” settings, found in the Camera Setup – General tab (see above).

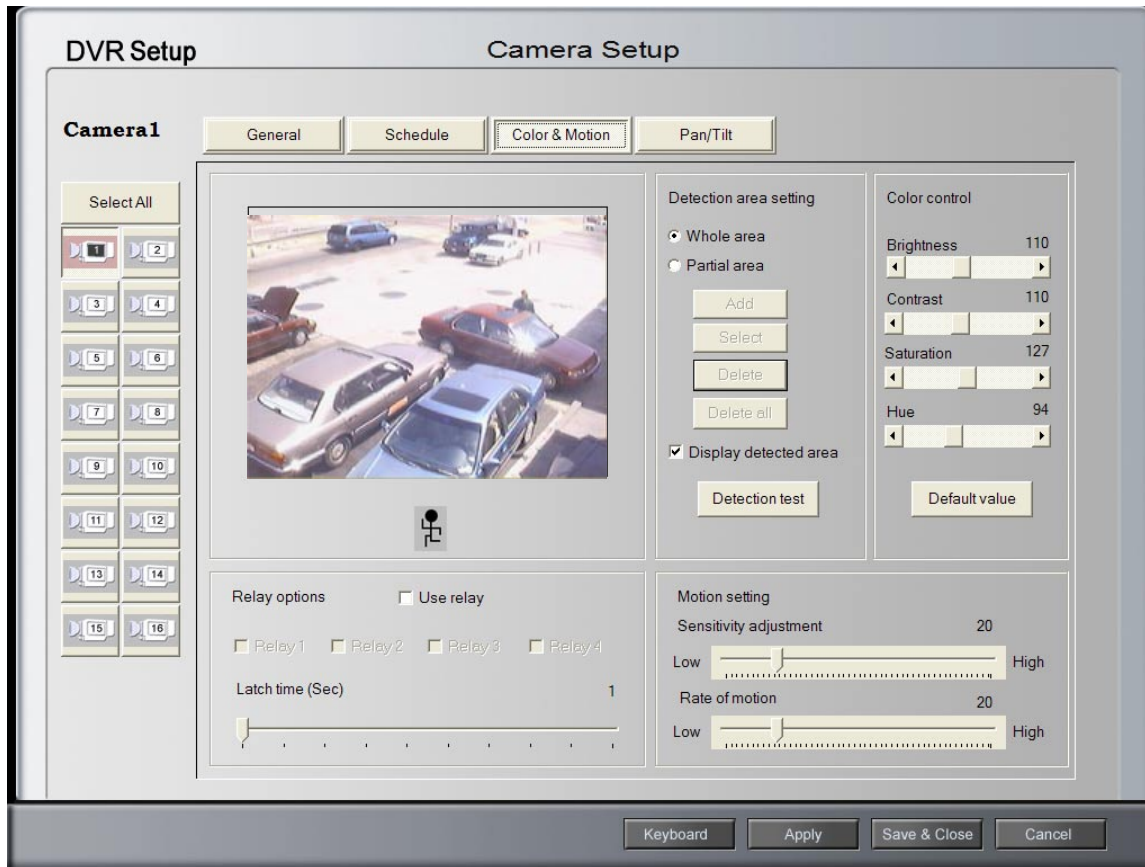
- **Display** (white): No images are recorded for this camera. However, they can be viewed on the Main DVR screen, a video monitor and/or over the network. (See also the Display Options settings on the Camera Setup – General tab).
- **Normal & Event** (rose): The DVR records all images captured by the camera at the frame rate specified on the Camera Setup – General tab. When an event (sensor or motion) occurs, the frame rate for this camera will begin recording at the maximum available frame rate.

Remote Notify Schedule:

Click the desired button - Notify or Clear - then hold down the left mouse button to shade one or more time blocks on the 24 hour, Sun-Sat matrix. The color blocks in the matrix will match the color block for each button:

- **Notify** (bright green): When “Remote Notification of Events” is checked (see Network section of the System Setup screen) and an event occurs, 3 things will happen on the “Remote Client” software.
 1. The client software goes from minimized to full-screen mode.
 2. An audible alarm will sound:
 3. Information about the camera date and time of the event are displayed.
- **Clear** (white): no remote notification will occur.

5-1-3-3. Color & Motion



RRM - What's this?

When the “Recording Schedule” is set for “Motion” or “Sensor & Motion,” objects with Regular, Random Motion (RRM) will cause the DVR to record all the time. Examples of RRM objects are those affected by wind movement such as:

- Trees and shrubs, flags, banners, balloons, etc.

Other RRM objects could be:

- A flickering computer monitor.
- Street traffic on the edge of the viewing area.
- A store display that rotates or moves.

Almost all of these RRM objects are acceptable and would be ignored by human security personnel. It is possible to “teach” the DVR to ignore them by setting up “detection areas” around these objects.

Detection Area Setting:

- **Whole area:** Click to select the entire camera view for detection of motion. This is the default and should be used for all cameras that do not have RRM objects (see paragraph above).
- **Partial area:** Click to create “detection areas” around RRM objects. The words on the four button bars change from gray (inactive) to black (active):
 - Press the "Add" button bar to add a detection area.
 - Move the mouse pointer up to the camera view window,
 - Hold down the left mouse button, and drag the mouse down to the right to create a rectangular detection area.
 - Release the left mouse button.

The rectangular detection area is now highlighted in blue. Create up to 10 detection areas as needed to completely cover the screen, leaving the RRM objects outside of the rectangles.

Note: Only movement inside the rectangles will trigger recording

- **Select:** Select detection area.
 - **Delete:** Push "Delete" to erase a detection area.
 - **Delete All:** Deletes all detection boxes.
- **Display Detected Area:** Check this box, and press the "**Detection Test**" button to test the sensitivity of the motion detection.

Color Control:

Sets the Brightness, Contrast, Saturation, and Hue of the camera image. Press the "Default Value" button to return all settings to the original values.

Note: Black & White cameras must be set at “0” value for Hue and Saturation.

Relay Options:

Enabled when Motion recording is selected on the Schedule menu.

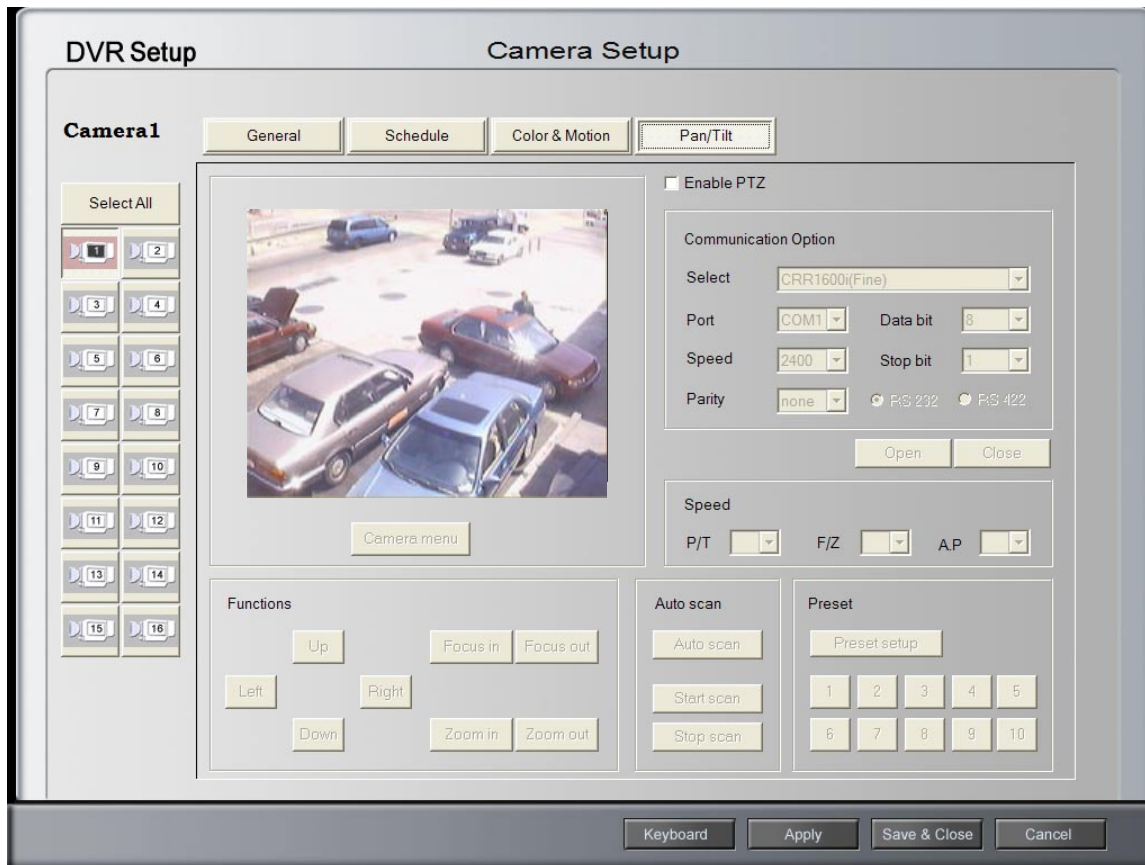
- **Use Relay:** Check the box to enable Relay Output.
- **Relay 1~4:** Select the desired relay to be enabled.
- **Latch Time:** Select the time for the relay to be active on motion or event detection.
(Max 10 Sec)

Remember each camera has its own settings so press the "Apply" button to set each camera

Motion Setting:

- **Rate of Motion:** Change the % of motion sensitivity to detect changes. Higher % = greater sensitivity of motion detection.
- **Sensitivity Adjustment:** Set the color sensitivity of a moving object. Higher % = more sensitive color shifts between the object and the background.

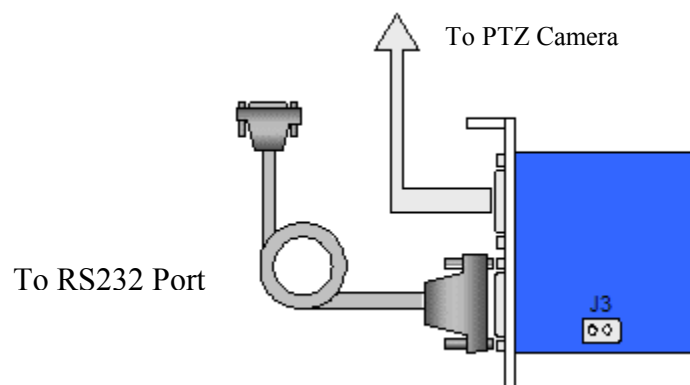
5-1-3-4. Pan/Tilt



Pan/Tilt Option:

- **Enable PTZ:** Check the box to enable Pan, Tilt and Zoom (Camera Movement) options.
- **Select:** Choose the type of protocol of the camera receiver.
- **Port:** Choose the serial port on the DVR that will connect to the camera.
- **Speed:** Set the speed of the Pan/Tilt option. (Depends on the type of Camera used)
- **Parity, Data bit, and Stop bit, RS 232, RS 422:** Set values according to the Pan/Tilt/Zoom camera equipment manual.

Note: Viewgate RS232 to 422/485 converters must be used for PTZ control.



To Set Presets:

1. Select the installed Pan tilt camera from the drop down list
2. Set the parity and baud rate and click OPEN
3. Move the camera with left or right arrows to ensure operation
4. Click on Preset Setup button.
5. Depress Preset 1 Button
6. Move camera to desired position
7. Now the Preset 1 is set.

Repeat steps 5 - 6 to setup presets 2 through 10.

Note : The PTZ camera must support **Presets** and **Tour** functions in order for this function to work as the data is stored in the camera not in DVR.

5-1-4. Sensor (Digital I/O)

DVR Setup **Sensor Setup**

Sensor 1 ☐ Enable Input Update

Sensor location:

Sensor type: 0: N.O.

Connected camera: 1

Check time: 100 Msec

Output relays: ☐ Relay 1 ☐ Relay 2 ☐ Relay 3 ☐ Relay 4

Pantilt Preset: 5 Sec

	Use	Location	Type	Camera #	Check time	Output relay	latch time	Camera #, Preset #
Sensor 1	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 2	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 3	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 4	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 5	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 6	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 7	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 8	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 9	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 10	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 11	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 12	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 13	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 14	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 15	X		N.O	1	100	0,0,0,0	5	No selection
Sensor 16	X		N.O	1	100	0,0,0,0	5	No selection

Up to 16 sensors can be connected. Sensor activation can be linked to Digital Outputs and cameras.

Use Selected Sensor: Check the box to use sensors. Check the box of the chart on the bottom half of the screen to choose specifically which sensors to use.

Sensor Location: Input the position of the sensor.

Sensor Type: Choose the sensor type being used (0=Normally open and 1=Normally closed).

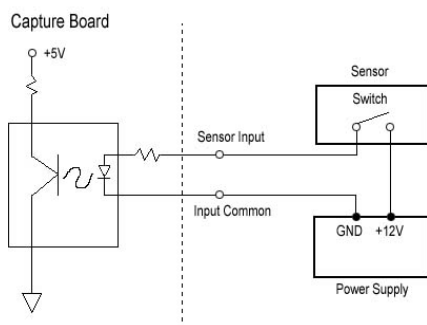
Connected Camera: Choose the camera to enable recording when sensor is activated.

Check Time: Check for sensor movement every assigned interval.

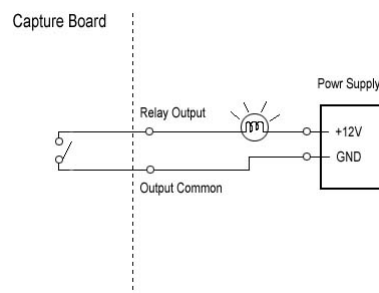
Output Relay 1~4: Choose the Output to be triggered by sensor for use.

Latch Time: Select the time for the output to stay active.

Note: 1 sensor can trigger multiple outputs.



Sensor Input - connection diagram



Relay - connection diagram

5-1-5. Backup Setup

DVR Setup Backup Setup

☐ Use schedule

Scheduling: Sunday

Hour: 0 Minute: 0

Backup data to: C: Browse

Camera selection: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Schedule table ☐ Start backup timer Update

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Time	Status	Backup path
Sunday	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	00:00	Off	C:
Monday	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	00:00	Off	C:
Tuesday	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	00:00	Off	C:
Wednesday	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	00:00	Off	C:
Thursday	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	00:00	Off	C:
Friday	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	00:00	Off	C:
Saturday	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	00:00	Off	C:

Keyboard Apply Save & Close Cancel

Note: Recorded images can be backed up automatically to a remotely connected drive when the “Backup Schedule” is activated. Backup cannot write directly to a CDRW or DVD

- **Use Schedule:** Check the box “Use Schedule” to begin.
- **Scheduling:** Choose the day or days from the chart below.
- **Hour, Minute:** Choose a time for Backup to begin.
- **Camera Selection:** Select the cameras to backup.
- **Backup Device Setup:** Choose the hard drive/remote shared drive where backed up data will be saved.

When finished with the settings, be sure to press the **"Update"** button to save them. Updated information should now be displayed on the “Schedule table” on screen.

When finished with the Backup settings, be sure to check the **“Start backup timer”** box and restart the DVR to enable the Auto Backup Program.

Note: DVR must be restarted for this feature to take effect or alternatively, start the auto backup program in the setup menu and run minimized on the systems tray by pressing the ZZZ Button.

5-1-6. User Admin

DVR Setup **User Admin**

New User

Username:

Password:

Confirm password:

Security level

☒ Level 1 (Admin)

☐ Level 2 (User)

☐ Level 3 (Guest)

Authority

☒ Setting ☒ System shutdown

☒ Command control (Pantilt/Image control)

☒ Backup ☒ Search

☒ Network access

☒ Cam 1 ☒ Cam 2 ☒ Cam 3 ☒ Cam 4

☒ Cam 5 ☒ Cam 6 ☒ Cam 7 ☒ Cam 8

☒ Cam 9 ☒ Cam 10 ☒ Cam 11 ☒ Cam 12

☒ Cam 13 ☒ Cam 14 ☒ Cam 15 ☒ Cam 16

User list

User name	Level	Setting	Shutdown	Control	Search	Backup	Network
dvr	Admin	Yes	Yes	Yes	Yes	Yes	Yes

User Name: Enter name of user

Password: Input desired password.

Confirm Password: Password check.

Security Level: Select the authority level for the user.

Authority: Assign the functions to which the user will be given permission.

To add a new user to “User list”:

1. Click on an empty space in user list
2. Enter username and password
3. Assign user level
4. Click Add/Modify Button
5. Click Apply button

5-2. DVR Management

To open the DVR setup program:

1. **Double click on the “My Computer”** icon located on the desktop (for Windows XP look for it in the “Start” menu).
2. **Double click on the C: Drive** icon.
3. **Double click on the folder Program Files.**
4. If there are no files or folders visible **click on Show the contents of this folder.**
5. **Double click on the folder DVR Server.**

6. **Double click on the file Start.exe.**

7. The following screen will appear.



Check User

USER NAME : dvr

PASSWORD : *

OK Cancel

USER NAME: Type in the administrative user name.

PASSWORD: Type in the administrative password. Then click **OK**.

Register Admin User & Setup Option

User

USER NAME :

PASSWORD :

Confirm P/W :

OK CANCEL

General Advanced

Board Type

☐ 30 Frame ☐ 60 Frame

☒ 120 Frame ☐ 240 Frame

Display Mode

☒ Capture Mode ☐ Live Mode

Select Board Channel

☐ 4 ☐ 8 ☒ 16

Select Image Format

☐ RGB ☒ YUV

Video Type

☒ NTSC ☐ PAL

Basic Settings:

- **Board Type:** The frame rate of the capture board.
- **Display Mode:** Select Live Mode if the 480fps live board is installed. Otherwise, select Capture Mode.
- **Select Board Channel:** The number of channels (cameras) available on the capture board.
- **Select Image Format:** Select the RGB for motherboard with onboard display card only. Usually select YUV as default.
- **Video Type:** Select NTSC or PAL video mode (NTSC for N. America).

Register Admin User & Setup Option

User

USER NAME :

PASSWORD :

Confirm P/W :

OK

CANCEL

General Advanced

Network Port Setup < 1024 - 65535 >

Default 1st 3000

2nd 3001

3rd 3003

4th 8800

WatchDog Option

Interval Time 30 sec

Use Beep Sound ON

When user finish program, enable watchdog OFF

1. 2 Detail settings

Port Settings:

Port Number	Function
3000 TCP	Image
3001 TCP	Pan/Tilt
3003 TCP	Settings
8800 UDP/TCP	Sound

Open port 3004 UDP and 3005 UDP for event notification and trigger.

- **Network Port Setup**
 - **1st ~ 4th:** Change port numbers for Custom configuration.
 - **Default:** Click Default to restore default settings.
- **Watchdog Option**
 - **Interval Time:** Time duration before watchdog restarts the computer in case of a problem
 - **Use Beep Sound:** When “ON” there is a beeping sound triggered as watchdog begins its countdown, prior to restarting.
 - **When user finish program, enable watchdog:** When turned “ON” and the user closes the DVR software, even with a password, the watchdog will start the countdown to restart the computer.

Upon completion of the configuration settings, the administrative username and password must be typed at the top of the window to confirm changes. Click **OK**.

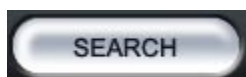
5-3. DVR Main



The blue button indicates the cameras connected and the red button shows the cameras currently being viewed on screen. In Single-camera view click on the desired blue button to select a different camera.



Relay Output: Each of the four **Relay Output**'s will manually activate or deactivate sensors coming in to the DVR system. (Latch timer not applicable)



Search: This allows users to search through the recorded video footage on the DVR system.



Setup: This allows users to access the **DVR Setup** (**WARNING:** Recording is suspended while the **DVR Setup** window is open).



1 View: View only one camera on the screen.

4 View: View four cameras on the screen.

6 View: View six cameras on the screen.

9 View: View nine cameras on the screen.

10 View: View ten cameras on the screen.

16 View: View sixteen cameras on the screen.

Rotate: Put the next set of cameras on the screen.

Auto Rotate: The cameras automatically switch.

Large Screen: Put camera(s) on full screen.



Open: Click to open the “Control Panel.”



The following controls open when the “Camera” button is clicked.

- **Preset:** The preset control will appear only if PTZ camera is selected and presets are set.
- The number in the center indicates the camera being controlled. The two arrows beside the number allow the camera being controlled to switch from one to another.
- **Zoom:** This feature allows the camera to zoom in (+) or zoom out (-).
- **Focus:** This will adjust the camera to focus on objects close up and far away from the camera.
- The arrows allow the PTZ cameras to be moved.
- **A/P - Auto Pan:** This allows the camera to continuously move to cover a 360° area.
- **P1, 2 & 3:** These are power buttons and allow the use of auxiliary functions (i.e. lights, washer wiper, etc) on PTZ cameras.



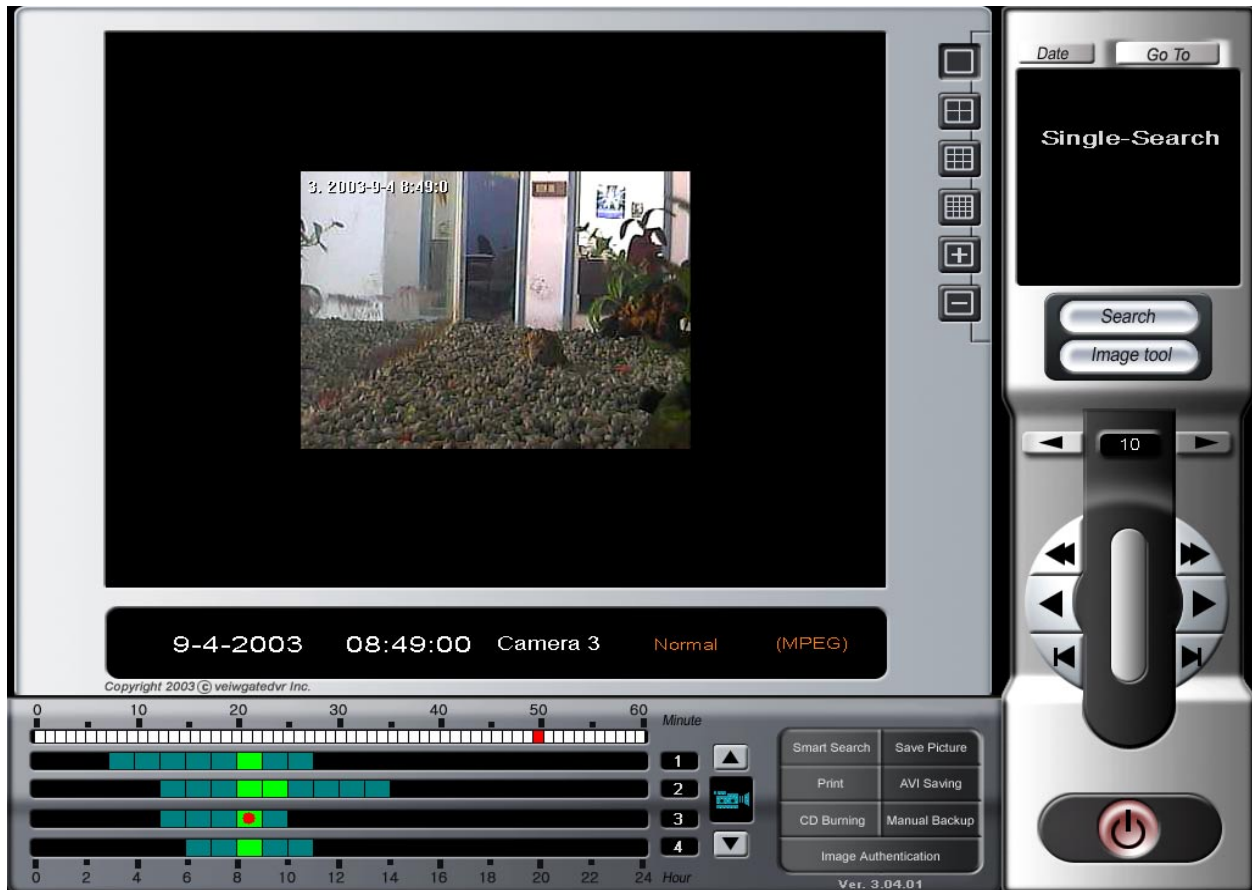
The following controls open when the “Image Control” button is clicked.

- The number in the center indicates the camera being controlled. The two arrows beside the number allow the camera being controlled to switch.
- The “Brightness, Contrast, Saturation” and “Hue” of each camera can be adjusted using these controls.



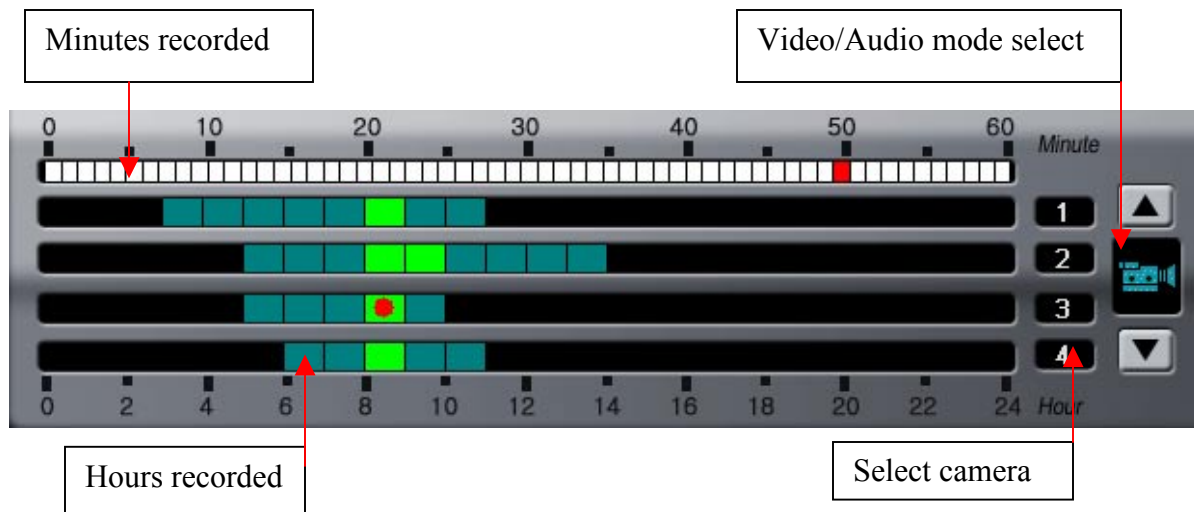
Exit: This exits the DVR program.

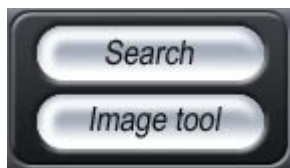
5-3-1. Search



The current date appears on the top right corner of the screen and the dates with recorded data are highlighted in **RED**. Click on the date to be searched. The numbers and the blocks on the lower portion of the screen indicate recording and the total number of volumes used are shown as colored squares that correspond to the settings in the schedule.

Click on a square to show pictures and begin searching.





- Opens “Search” control at the bottom right of the screen.
- Opens “Image Tools” at the bottom right of the screen.

The following controls will open at the bottom right of the screen when “Search” is clicked.

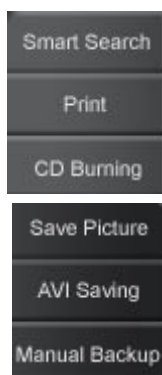


- The number in the center shows the speed at which the program is looking through the video. The speed can be adjusted using the two arrows beside the number.
- The top two buttons show the first image and the last image in the recorded video.
- The two buttons in the middle play the video in forward and reverse direction. To stop the video click on the play button again.
- The two buttons at the bottom rewind and fast-forward video footage.

The following controls will open at the bottom right of the screen when “Image Tools” is clicked.



- The following tools can be used to adjust the image quality.
- **Sharpen:** Click to make the image fine.
- **Zoom I/O:** Click on button then select the area on the image and the program will zoom in to the selected area.
- **Soften:** Click to make the image dull.
- **Original:** Click to get the original image prior to editing.
- **B&W:** Click to make the image Black and White.
- **Cancel:** Click to restore the original image.



- Opens **Smart Search**.
- Click to **Print** the current image.
- Click to open the **CD Burning** software.
- Click to **Save** the current image.
- Click to save the recording as an **AVI** file.
- **Backup** data manually for a specific date and time on a minute-to-minute basis.

Image Authentication

- Validates recorded images as authentic.



- Exit Search.



Multi Camera Search.

Choose the search pattern by selecting a single or multiple images from X1 to X16. On a single search it is possible to enlarge and shrink the images and it is faster than multiple searches. For multi camera search choose X4 to X16 the search will be slower because the DVR has to search through every frame.

Zoom Search



Right click the mouse button to zoom into a selected area of the frame. Left click the mouse to zoom out. Supports up to 10X digital zoom.



Click the Print button to print image directly to a printer. The printer must be installed on the DVR and configured prior to printing.



Go To:

This feature allows the user to search a specific time and date of recording for each camera without having to go through the normal search procedure.

Go To

Select date and time

Year/Month/Day

2003 / 6 / 25

Hour:Minute:Second

10 : 28 : 0

Camera No

3

Search

Cancel

Enter the date, time and camera to view and click search button and the DVR will bring the recorded picture on-screen (if available for the given date and time).

Playback with Sound:

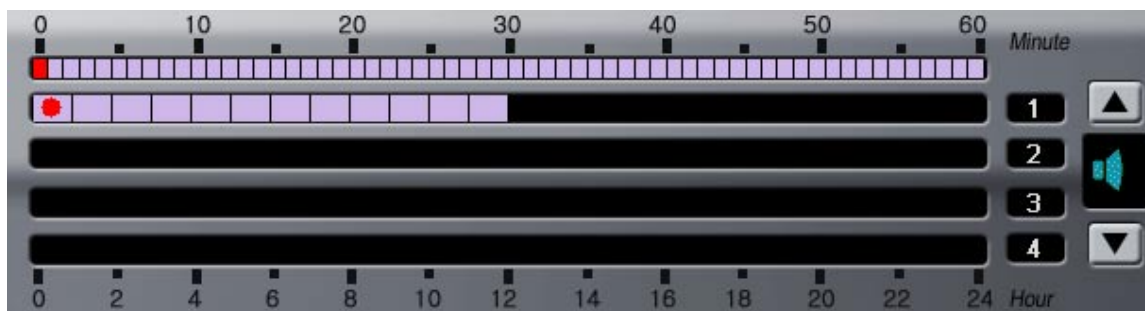


Click on the camera icon to get the sound icon.

Now use the controls to playback with sound.



Note: The images recorded with sound cannot be played in reverse order.



5-3-2. AVI Saving

AVI Saving

Click on the “AVI Saving” button and the following screen will appear.



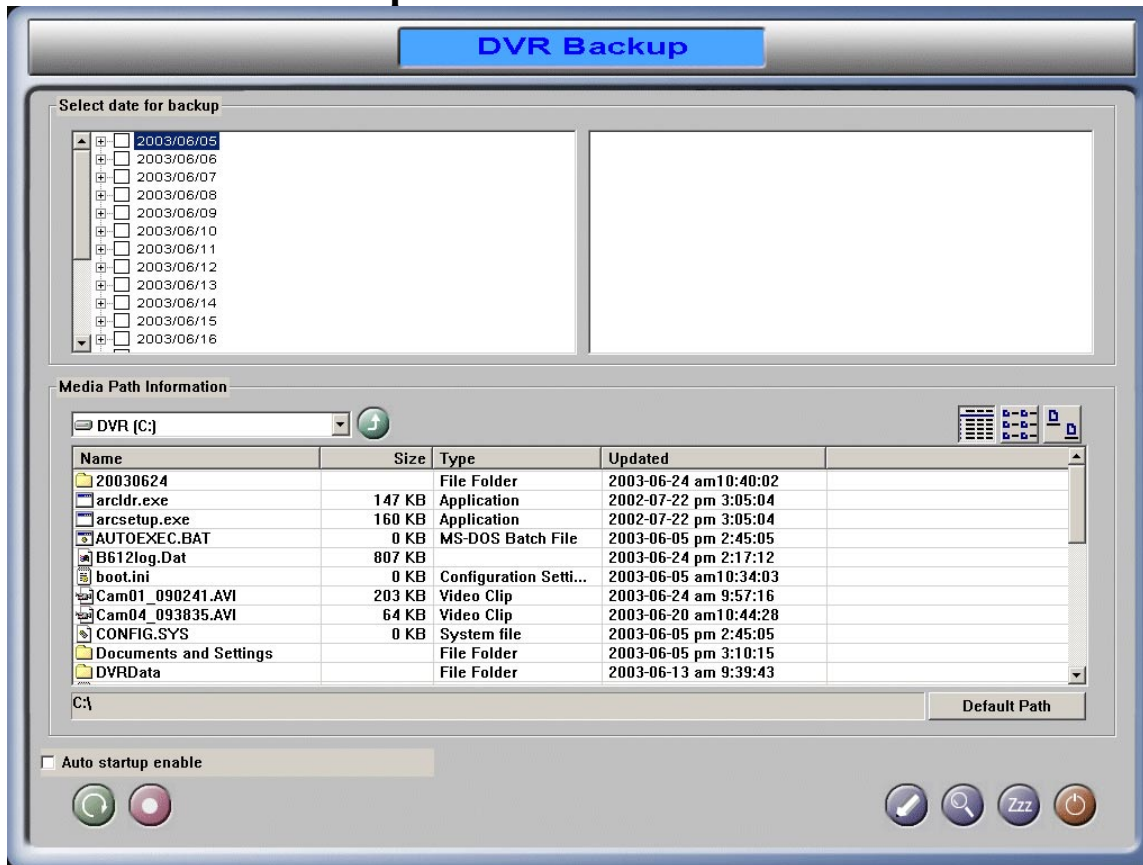
AVI is a universal format of video playback that can be viewed on any computer using standard Media Players. Enable view with “captions” option on the Media Player to view the date, time and camera number during playback. Sound also can be played back at the same time.

To save recorded video for view on any computer, go to the beginning of the time right before the event took place. Click on “AVI Saving” button from the search screen. Then click the “save” button. When the event is over click “cancel” and the AVI Saving will stop.

By default the AVI file is saved on the “C:” drive with Intel Indeo compression.

Note: V30401 of Viewgate software supports AVI saving with sound. Check the sound Button when saving AVI clips to hear recorded audio.

5-3-3. Manual Backup



This feature allows users to selectively backup footage (video) to prevent it from being over-written.

- **Backup Process:** On the top-left side of the window, click “+” on the date/s you wish to back-up. Then select the hour/s and minutes (place a red check in the box) to be backed up. Then click on the red “Start Backup”. The progress will be shown on the top-right side of the window.
- **Media Path Information:** This is the target location where the backup files will be stored. By default the data is backed up on the “C:” drive.
- **Auto startup enable:** If the tab is checked, automatic backup will be carried out in accordance with the latest settings though the system should be rebooted.



Refresh: This refreshes the data available for backup and clears any selection made previously.



Start Backup: After selecting the data to backup, click on this button to start the manual backup process.



View Log: Click to open log of all backed up activity.



Backup Viewer: Click to open backup viewer.

NOTE: If you wish to view backed up files on a remote PC, see “Backup Viewer 5-3-4”



Minimize: Minimizes the backup program. This does not effect backup in progress and continues to backup



Exit: Exit the Backup program.]

5-3-4. Backup Viewer

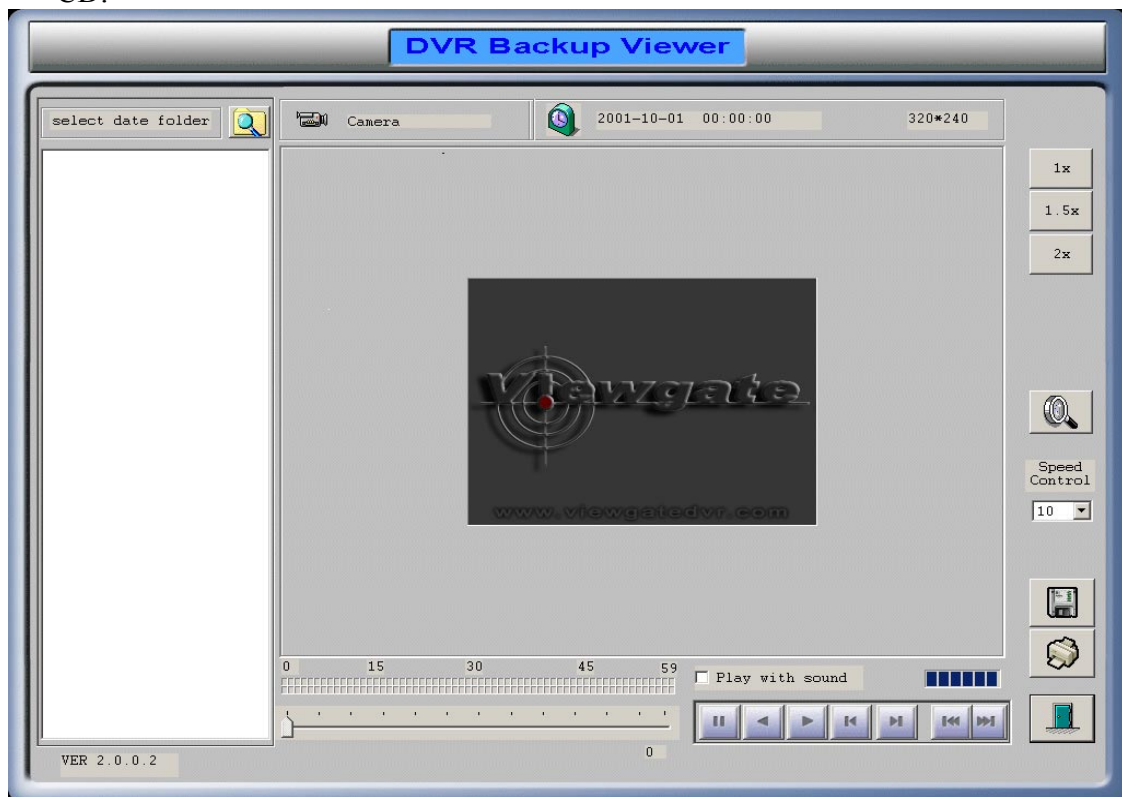
In order to view backed up files on any offsite PC (other than the DVR), the backup viewer software must be installed on that PC.

To Install Backup Viewer software:

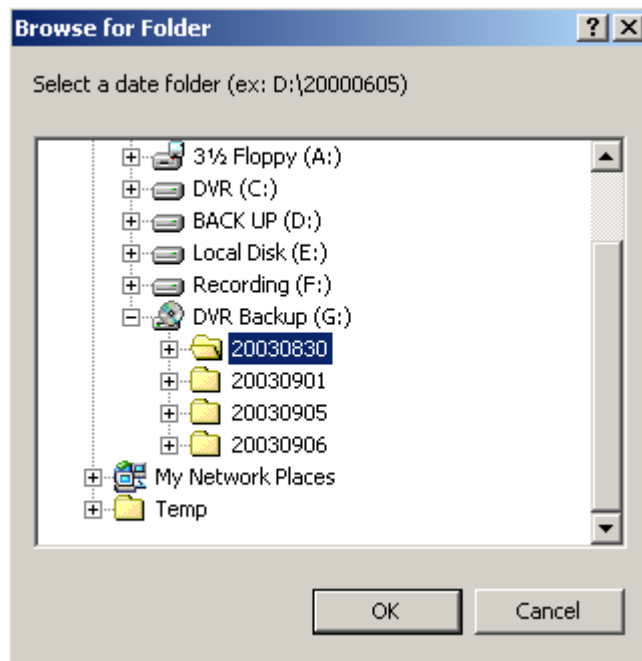
- Insert Viewgate software disc into offsite PC.
- Click on “Backup Viewer” in the section called programs.
- Click on “setup”.
- Follow instructions through installation process.

To View Backed up Images on an Offsite PC:

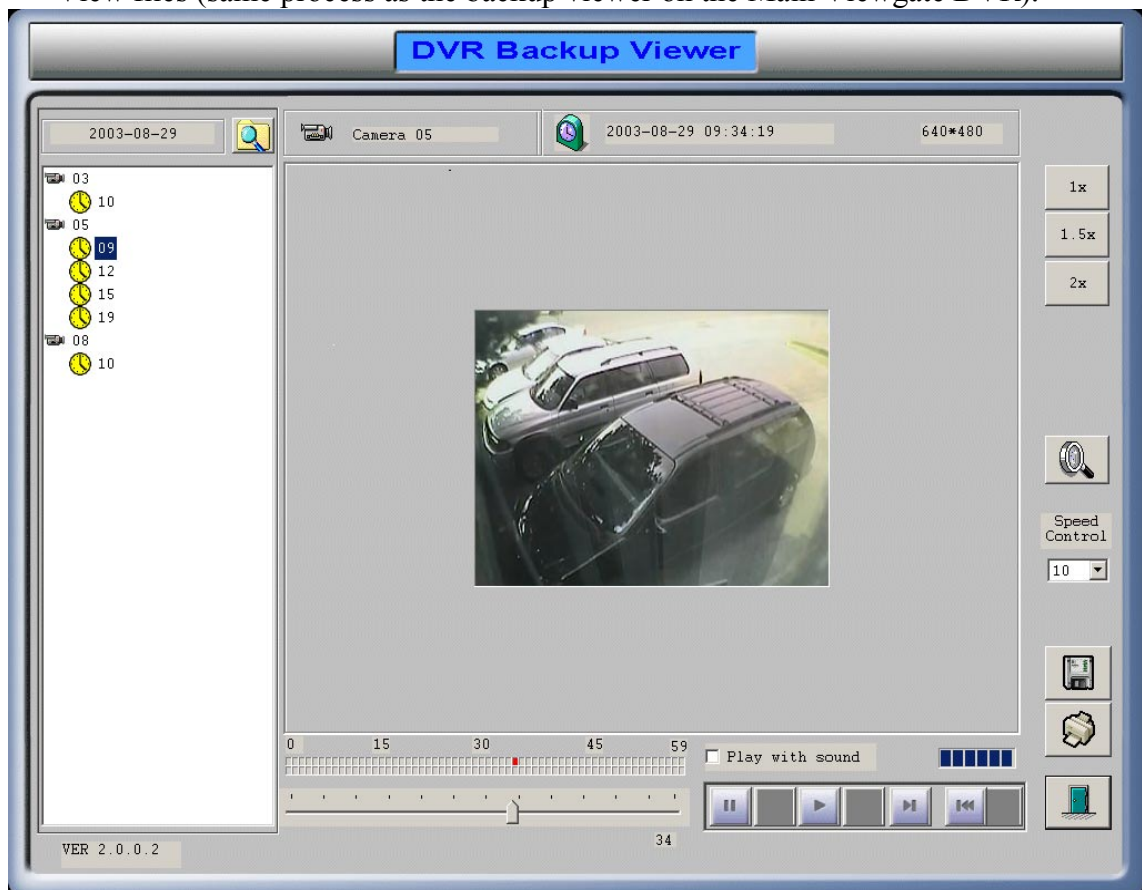
- Once the Backup Viewer program is installed on the offsite PC, insert the CD of the data backed up, off the Viewgate “MAIN DVR” into the CD Drive.
- Open Backup Viewer program.
- Click on the folder located in the top left corner of the screen and open file off the CD.



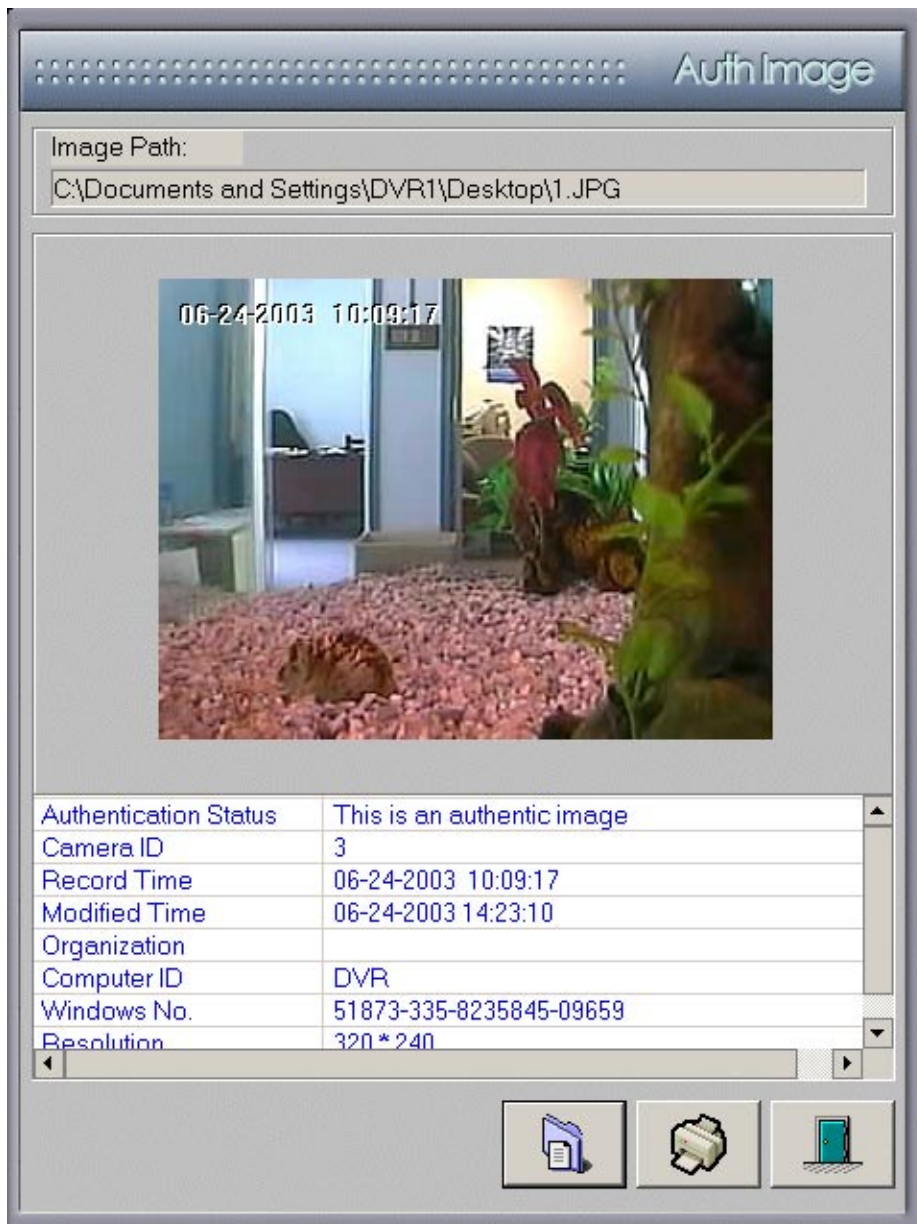
- Click on the data file listed as a date of the CD Drive (see diagram).



- Click O.K.
- View files (same process as the backup viewer on the Main Viewgate DVR).



5-3-5. Image Authentications



This program can be used to check encoded information of a particular image saved by the Search mode. If the image has been tampered with the encoded information will not show up in the viewer.



Open: Click to open the image for verification. If the image is tampered with no information will appear. Other wise if it is still in its original form encoded information will appear.



Print: Click to print the image with the authentication information.

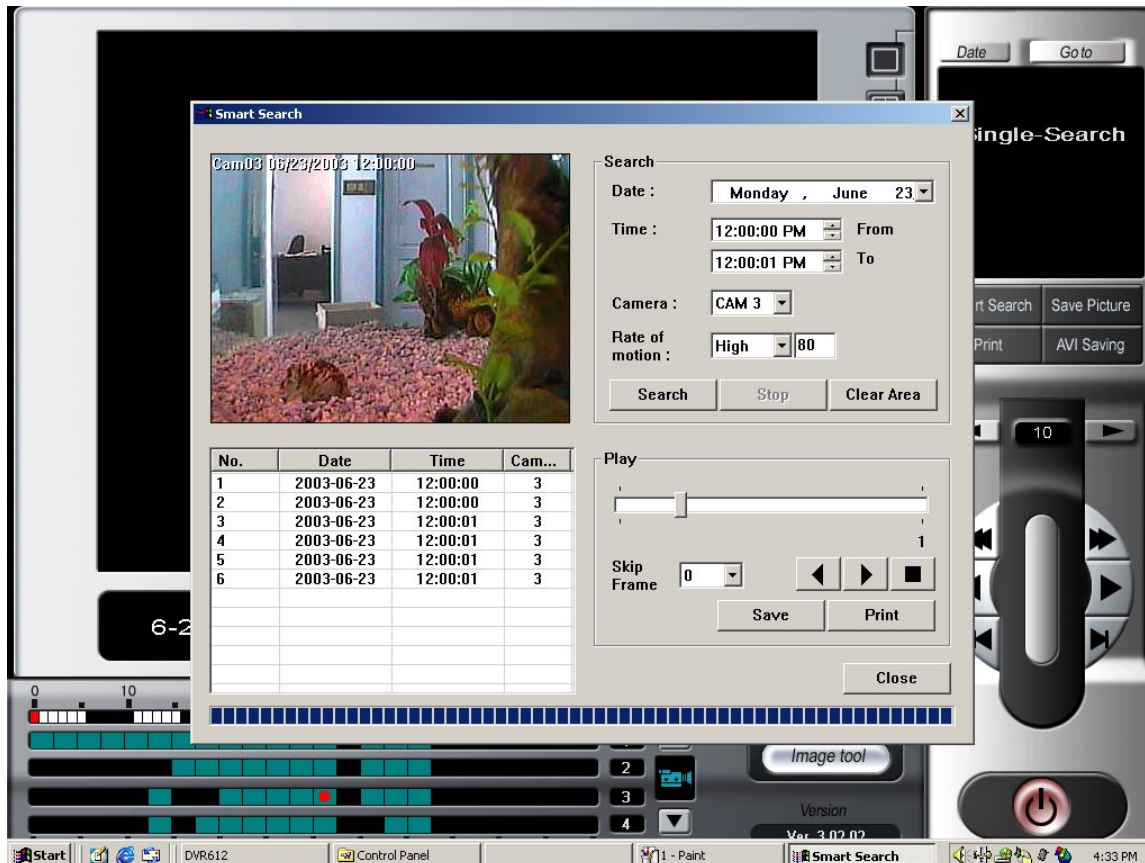


Exit: Click to close authentication program.

5-3-6. Smart Search

Smart Search

Click on the Smart Search button and the following screen will appear.



This function allows to search of a specific area by pixel movement (up to 100 “hot spots”).

Follow these easy steps to do a “Smart Search”:

1. Click on smart search button.
2. Left click the mouse button and drag on the picture to create one or more hot spots to be searched.
3. Select the time **From** and **To** for the search.
4. Select camera number to search.
5. Set the rate of motion to the desired level of movement recorded on the picture to be searched. Click the search button to begin searching.
6. “Search Complete” message will appear on screen when the smart search function is completed.

Playback:

1. Click the forward and reverse play button to view the images.
2. Use the skip frame function for fast-forward and reverse playback.
3. Drag the position marker forward and reverse for frame-by-frame viewing.
4. Save image or print as required.

Note:

If the images are recorded at a higher frame rate the search will take longer as the DVR must search through each and every frame for pixel changes.