

CompactFlash Viewer – CF Viewing Software

Operating Manual

The picture, diagram and function might differ according to the specifications.

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Thank You

Before operating the system, please read this Operating Manual thoroughly and retain it for future reference.

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1. BACKUP

1.1 CF Memory Backup

DVR features a built-in CF(Compact Flash) card slot, able to take up the CF cards from SANDISK, TRANSCEND and LEXAR Company. You can backup the important images on to CF cards and with CompactFlash Viewer, the user can view the images on the PC (USB Compact Flash Card Reader and Compact Flash Card are available separately).

CAUTION User must use CF Viewer to play the recorded material.

The number of images that can be downloaded onto a Compact Flash card depends on file size (which is affected by whether images are color or B/W, etc) and recording speed (FPS).

User must switch off the system before inserting the CF card. Do not insert or take out the CF card during system operation.

CAUTION * Some of the CompactFlash cards are not compatible with the DVR. SanDisk, TRANSCEND, Lexar Compact Flash cards are tested.

1.2 CF Memory Recording Time Table

See the below recording time table for Compact Flash Memory backup.

=> Using DVR with the compact flash card:

Part Required: DVR
 CF Memory 128MB
 USB Compact Flash Reader

The figure below are for guide lines only as file sizes will differ depending on recording related quality, movement and recording channel. If you backup the all 4 channels (Quad), than the file sizes will be four times bigger than single channel saving.

Free Space = 126MB

Quality	File Sizes	No of Images	Time (30 FPS)	Time (20 FPS)	Time (10 FPS)	Time (5 FPS)
Very High	35 KB	3657 images	Approx. 2 Minutes	Approx. 3 Minutes	Approx. 6 Minutes	Approx. 12 Minutes
High	24 KB	5333 images	Approx. 3 Minutes	Approx. 4.5 Minutes	Approx. 9 Minutes	Approx. 17.5 Minutes
Standard	15 KB	8533 images	Approx. 4.5 Minutes	Approx. 7 Minutes	Approx. 14 Minutes	Approx. 28.5 Minutes
Low	10 KB	12800 images	Approx. 7 Minutes	Approx. 10.5 Minutes	Approx. 21 Minutes	Approx. 42.5 Minutes

When images are recorded to a compact flash card from the DVR, they can only be replayed on the PC with USB Compact Flash Reader and CompactFlash Viewer program.

1.3 How to backup

CAUTION User must switch off the DVR before inserting the CompactFlash card.

Before start, you will need to insert the CF card before turning on the DVR. If you insert the card during the process, the DVR may not find the CF Card. So please insert the card before start up.

1) Press the **[MENU]** button to enter main menu.

2) Press **[V]** button twice and press **[Enter]** button to enter 'BACKUP'. DVR will detect and initializing the Compact Flash Memory as shown on below image. If the CF memory has other data, then the DVR will ask you to format the memory. After formatting the CF card, user can access to the BACKUP menu.

If the CF memory is not inserted properly or not inserted, the system will show you the message that the system does not have the CF memory.



3) Press **[Enter]** button and navigate the field by pressing **[Left]**, **[Right]** button and change the time with **[Up]** or **[Down]** buttons. And press the **[Enter]** button to save the changes.

4) Select the Channel that you want to backup.

5) Select the BACKUP START by pressing **[V]** button and press **[Enter]** button to start backup.

6) The progress bar will show you the details. It will take approximately 2 minutes to save 1 minute video files. Saving time varies depends on the recording situation. Turn off the DVR and take out the CF memory.

7) To format the CF memory, select CF CARD FORMAT by pressing **[V]** button and press **[Enter]** button to start formatting. Formatting will take less than 10 seconds.

1.4 How to play the backup files

Before you play the backup files, you must connect USB Compact Flash Reader to your PC USB port.

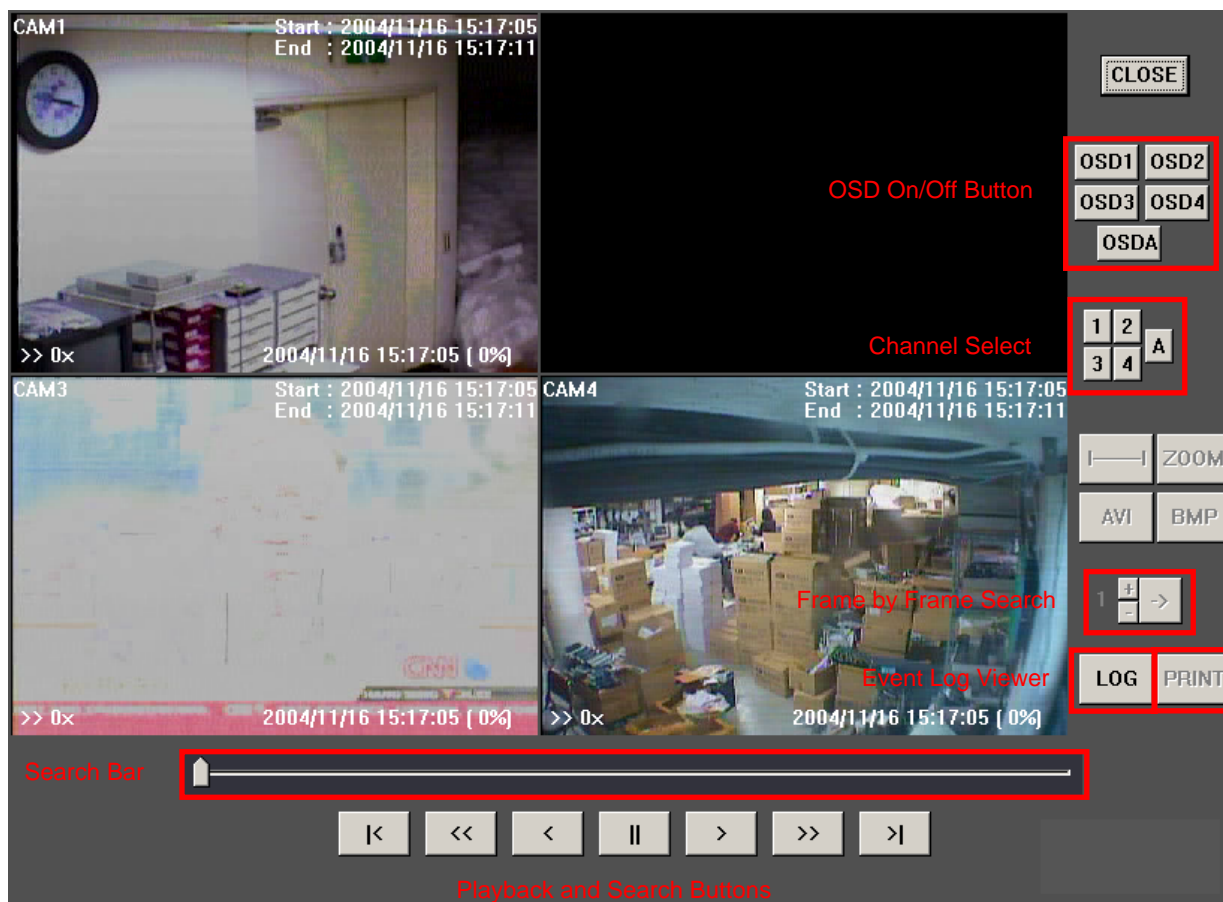
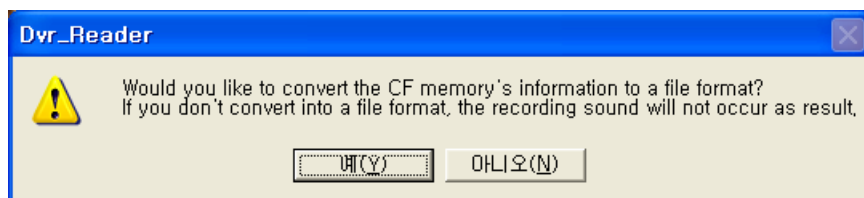
Insert the CF card to USB Compact Flash Reader. Windows will detect the extra storage drive which has the video file and the viewer program to play the video file.

- 1) Insert the CF memory to USB Compact Flash Reader.
- 2) Windows will detect the extra storage drive which is the CF memory. And if you open the Compact Flash drive, you will find a file called READER.EXE.
- 3) Double click the READER.EXE file. The program will start extraction and 8 files will be created in the same folder.
- 4) Run Dvr_Reader.exe file.
- 5) CF Viewer will ask you whether you would like to convert the backup video file into a file format. It means that the program must extract all files into local HDD in order to play video and audio.

If the user has not recorded the audio source, click NO to play directly from CompactFlash.

If the user has recorded the audio source, click YES to extract files to local hard drive.

NOTE



5) Please read the chapter 2. CompactFlash Viewer Operation before you use.

2. CompactFlash Viewer Operation

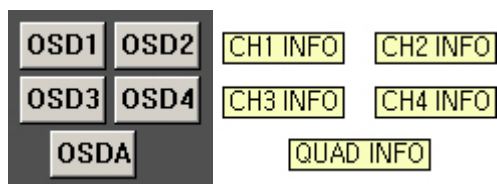
2.1 Screen Information & OSD Hide



Screen information is shown as above for each channel;

- ▶ **Play and Search Speed:** A sign '>>' means forward playing and '<<' means backward playing. Search and play speed is from 1X to 10,000X. The value will increase by pressing 'Fast Forward' or 'Backward' buttons. Please refer to chapter 4'Playing' for more information.
- ▶ **Date and time of current image:** This will show you the date and time of the image showing.
- ▶ **Current position in HDD:** This will show you where the viewing image is in HDD by percentage.
- ▶ **First Record Time:** This will show you when DVR starts the recording.
- ▶ **Last Record Time:** This will show you when DVR ends the recording.
- ▶ **Camera Name:** This will show you the camera name. You can change the name in 'Camera Setup' in 'SETUP' menu in DVR main menu.

To hide all the screen information above, press the buttons on the right of CompactFlash Viewer. Please read below



OSD 1: Hide or appear the screen information of Ch 1.

OSD 2: Hide or appear the screen information of Ch 2.

OSD 3: Hide or appear the screen information of Ch 3.

OSD 4: Hide or appear the screen information of Ch 4.

OSD A: Hide or appear the screen information of all four channels.

2.2 Playback Control



Figure 1(Operating buttons)



Figure 2(Search Speed)

Figure 1 is an enlargement of buttons on the bottom of program. The buttons have same functions as a normal VCR. Function of each buttons is as follows.

- ▶ **BEGINNING POSITION:** Press this button to move to beginning position of recorded image.
- ▶ **REWIND:** This button is to rewind the image. The maximum speed is 10,000 times and the speed will be increased twice faster each time when you click the button. (2X ▶ 4X ▶ 8X)
- * Figure 2 is an enlargement of searching speed. Searching speed is written on left bottom corner of program.
- ▶ **BACKWARD PLAY:** Press this button to play backward.
- ▶ **STOP:** This button will freeze the screen. Press again to restart the playback.
- ▶ **PLAY:** Press this button to play forward.
- ▶ **FAST FORWARD:** The maximum speed is 10,000 times as like 'Rewind' button and the speed will be increased twice faster each time when you click the button. Press 'Play' button to go back to normal speed. (2X ▶ 4X ▶ 8X)
- ▶ **END:** Press this button to go to last position of recorded image.



2.3 Channel Selection



Figure 1(Ch1 selected)

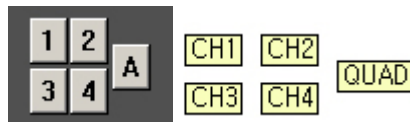


Figure 2 (Channel selection button)



Figure 3(FULL SCREEN MODE)

To watch one channel, click the desired channel image or click the channel selection button on left bottom corner of the program. When you select the channel, you will see the orange border around selected channel. Other three unselected channels will be paused. A selected channel viewing speed will be faster than normal speed, more like real-time playback speed.

To view the selected channel in full screen mode (figure 3), double click on selected channel image.

2.4 Frame by Frame



Figure 1(Ch1 selected)

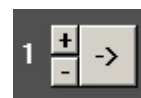


Figure 2 (Move by frame)

Move by Frame: This button is to play image by frame. Put the no of frame and press '->' button, then each time you click the button, the image will move frame by selected frame. If you put '1' in the box and click the '->' button, the program will bring the image by 1 frame.

2.5 Save

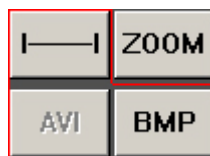


Figure 1 (Buttons)



Figure 2 (Activated buttons)

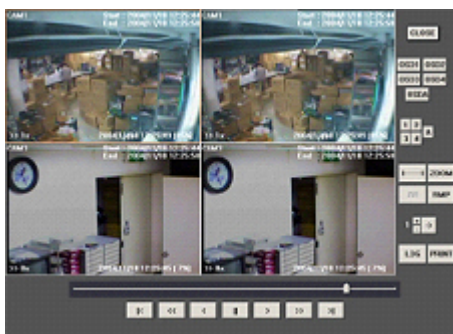
You can either save the image in AVI file format or BMP file format. Saving feature is one of the main objectives of this program. You can save in three different formats. First one is the BMP file format and second one is AVI file format. The last format is invented by our company. Please read and follow the below instructions to save in one of three formats.

2.5.1 Save in BMP Format

To save the image in BMP format, you have to select one channel. You cannot save quad image. When you select the channel, 'SAVE' buttons will be activated as shown on Figure 2. Click 'SAVE BMP' button, then diagram 4 appears on the monitor.

Name of file is in 'DVRYYMMDDMMSS' time format. The location of file can be selected. Follow the below instruction to save the image in BMP file format.

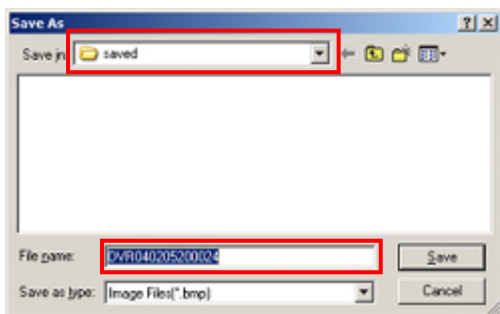
1) Select the channel by clicking the image or click the Channel Select button on left bottom corner of the program. When you click the image that you want to save, you will see the orange border around the image. Channel 1 is selected on below captured image.



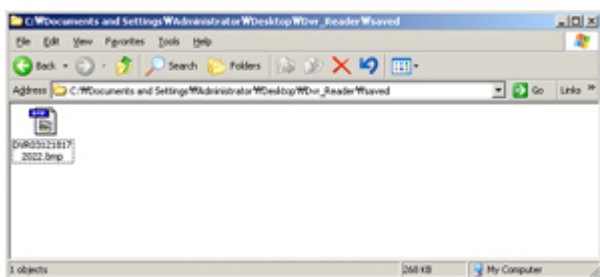
2) Save button will be activated when you select the channel. When you see the image that you want to save, press the PAUSE button. And using the 'Move by Frame' button, find the image that you want to save. And then, click the Save BMP button.



3. Default file name is 'DVRYYMMDDMMSS'. And saving BMP file will be saved in My Document folder. You can change the file name or directory.



4) Click 'Save' button to save the image in BMP file format. The file will be saved in a selected folder.



2.5.2 Save in AVI Format

To save the images in AVI format, you have to set the image block that you want to save. Select the desired channel and play the channel. And when you see the image that you want to save, click 'SELECTED BLOCK SET' button then you will see the tiny arrow (Yellow Mark on Figure 1) on the bar. And click the button again to select the block. When the block selected, then 'SAVE AVI' button will be activated as shown on Figure 3. Click 'SAVE AVI' button. Type file name and locate the directory and press SAVE button. Please follow the instruction below.

- 1) Select the channel by clicking the image or click the Channel Select button on left bottom corner of the program.



- 2) 'SELECTED BLOCK SET' button will be activated when you select the channel. Click 'SELECTED BLOCK SET' button to set the starting position.



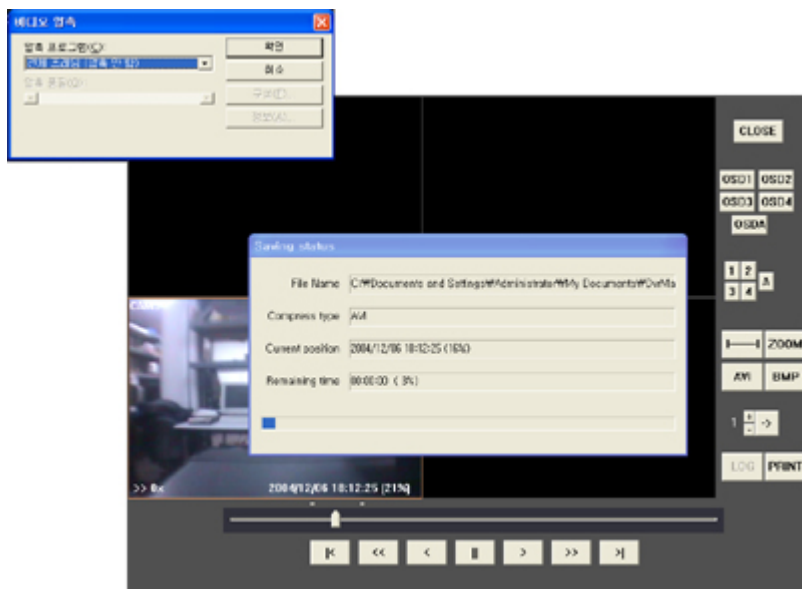
- 3) Press the 'SELECTED BLOCK SET' button again to set the last position of AVI file. When you set the block, the program will automatically play from the starting position of the block.



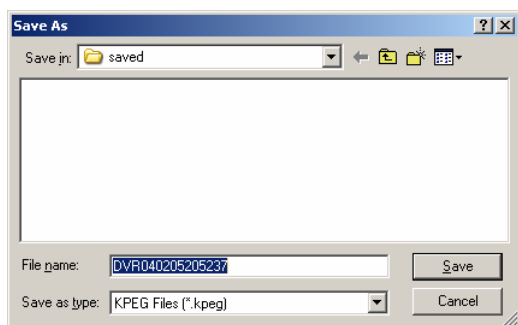
4) Click 'SAVE AVI' button. Default file name is 'DVRYYMMDDMMSS'. And saving AVI file will be saved in My Document folder. You can change the file name or directory.

And you need to select the CODEC. Depends on what CODEC you use, the file size may vary dramatically. We recommend to use Microsoft Video 1 and to set the quality of the CODEC as 75. Video 1 Codec is the standard Codec that every Windows based PC has.

NOTE In order to save the video in AVI file format, user must select file type.



5) Click Save button to save the image in AVI file format. You must select the file type as AVI.



6) Saving in AVI file format is now done. Go to the folder where you saved the AVI file.



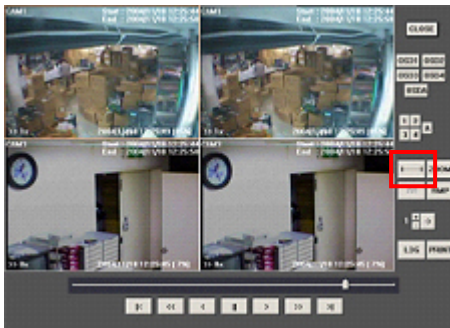
Saving in AVI file may take a while and time taking to save the AVI file may vary depends on your PC configuration. And 'Save' option is only available when you select one desired channel.

NOTE Saving in AVI file may take a while and time taking to save the AVI file may vary depends on your PC configuration. And 'Save' option is only available when you select one desired channel.

2.5.3 KPEG Saving

New KPEG file format is the new software with the size of 10% in AVI file size and you can also reduce the time to save the file. However you must use 'KpegPlayer.exe' to play the KPEG files. Please follow the below instruction to save in KPEG file format.

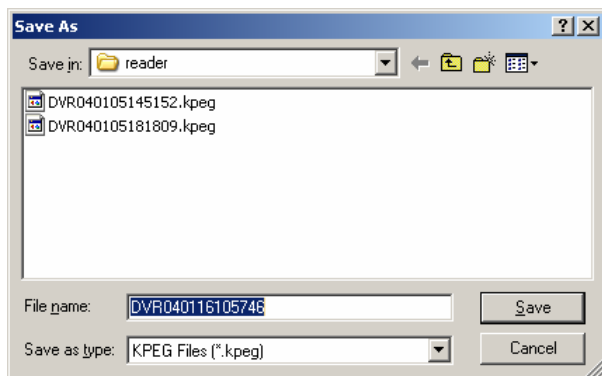
1. Select the area by clicking 'I-I' button.



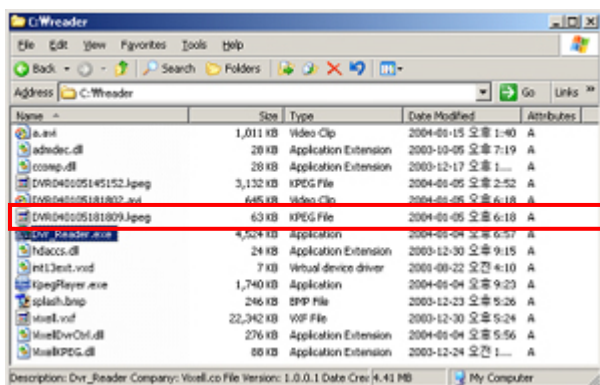
2. When you select the area, 'SAVE' button will be activated.



3. Click 'SAVE' button and the below window will appear on the screen. Select the file format and enter SAVE button to save the file. Size of KPEG file is 10% of existing AVI file and you can reduce the time to save the file.



4. Saving is now done. You can play the AVI file with any of Media Player Software and to play KPEG file, you must have KPEG Player.
5. KPEG file is located in a folder where you installed the DVR Reader. See DVR Reader Manual for more information.

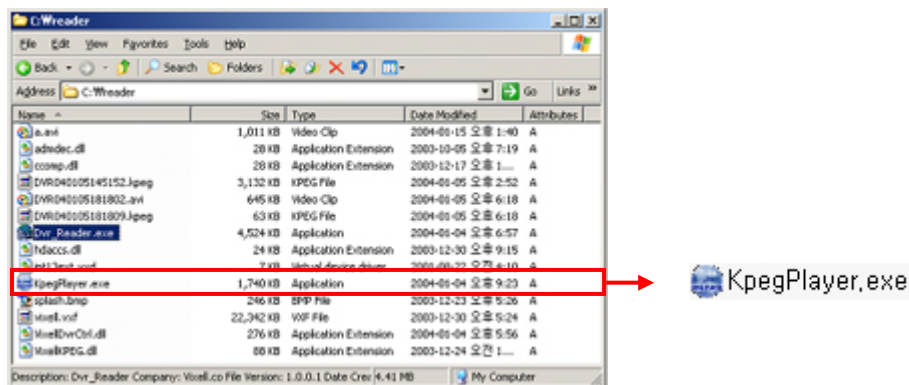


6. Run the KpegPlayer.exe and play the KPEG files. Operating method is same as Compact Flash Viewer and if you want to copy the KPEG file to a CD and play it in other place, you must copy 'KpegPlayer.exe' and 'KPEG.dll'.

2.5.4 KPEG Player

New KPEG file format can only be played with KPEG Player. However KPEG format size is only 10% of AVI file and time and time to save in KPEG file is shorter than AVI file format (5~10% of AVI file saving time)

1. KPEG Player is located where user has installed the DVR Reader program. The default location of the program is 'C:\ Program Files \DVR_Reader'.



2. Below is the main viewer of KPEG Player. The operating method is exactly same as CF Reader and DVR Reader.



3. Click the REJECT button to select a file.



4. Select KPEG file to play. And click 'OPEN' button.



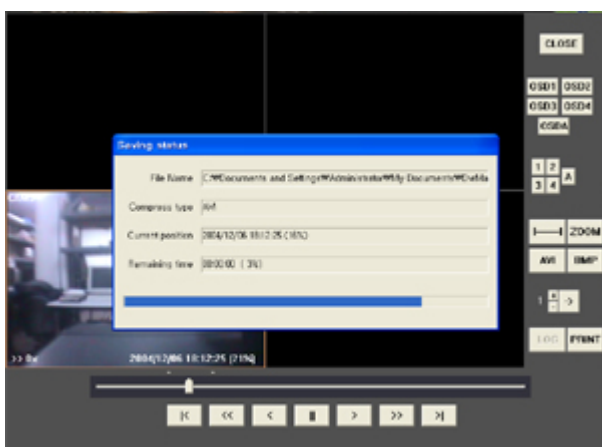
5. Select KPEG file to play. And click 'OPEN' button.



5. Controlling buttons work same as CF Viewer.

2.5.5 File Saving Status Bar

During the state of file saving process following file saving status bar will appear to demonstrate on the development on the file saving. The process of file saving is same as above file saving method.



3. Miscellaneous Functions

3.1 Print



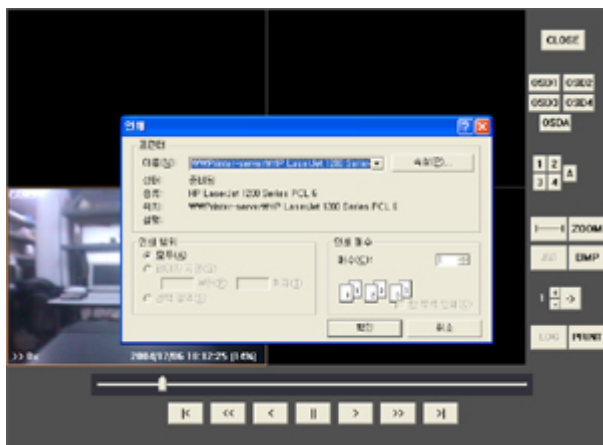
Figure 1 (Print & Log button)

To print the image, you must select a channel. Follow the below instruction to print the image.

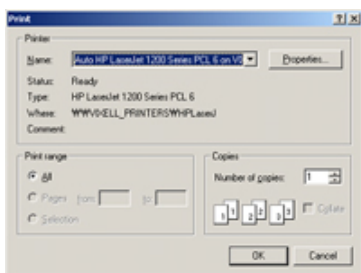
1. Select the channel by clicking the image or click the Channel Select button on left bottom corner of the program.



2. Print button will be activated when you select the channel. Press the 'Print' button.



3. Select a printer and click 'OK' to print the image.



3.2 Miscellaneous Function



Figure 1(Zoom In/Out)

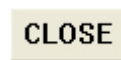


Figure 2(Exit)

- **Zoom In/Out:** Select the channel that you want to zoom in or out and press 'Zoom In/Out' button. Only available when user selects a channel.
- **Exit:** Press this button to exit the program.