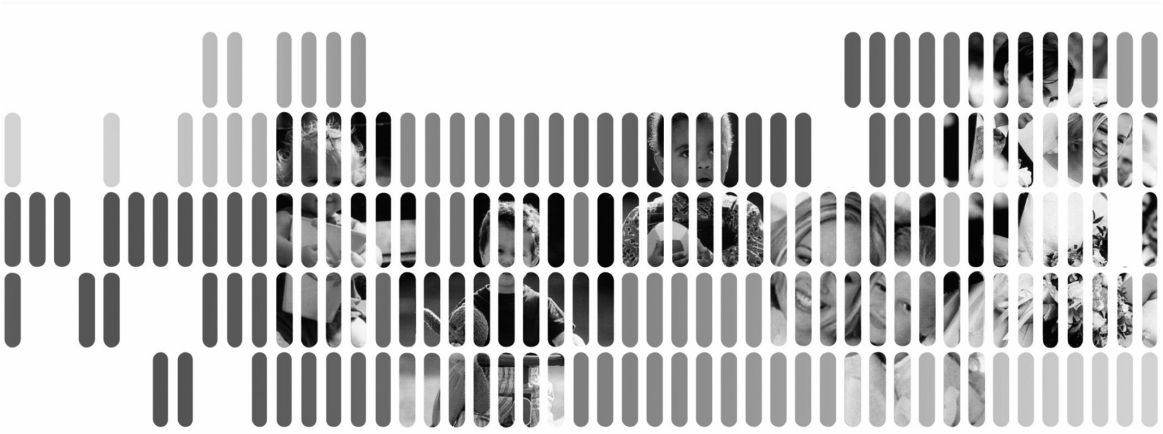
FusionMPEG2

THE ULTIMATE DVD CREATOR!

1. Getting started
2. Software installation
3. Hardware installation
4. Using FusionMPEG2 Application
5. Using Ulead Videostudio 7 SE DVD
6. Appendix



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1 GETTING STARTED

1.1 FEATURES

Thanks a lot for purchasing the FusionMPEG2. FusionMPEG2 is the most advanced and feature-rich MPEG1/MPEG2/VCD/SVCD encoder ever made.

FusionMPEG2 has the following outstanding features:

1. Converts all analogue signals to MPEG1/MPEG2 including audio.

FusionMPEG2 converts all type of analog audio/video signals to MPEG1/MPEG2 digital stream. Since it has composite video, S-VHS, it accepts all type of signals from VCR/ Camcorder/ DVDP/ LDP. You can adjust the encoding quality from DVD quality to VCD quality according to the required picture-quality and recording space.

2. DVD creation.

FusionMPEG2 provides DVD compliant stream and supports multiple DVD authoring software including Ulead VideoStudio 7 SE DVD. This is an industry-first multiple DVD authoring supports and provides the maximum compatibility across the authoring software. You can burn the real DVD-R which is really playable in the home DVD player with DVD-R writer or cDVD (mini-DVD) which can be made by normal CD-R writer.

3. Super easy SVCD/VCD creation.

FusionMPEG2 provides the fastest conversion utility that can converts recorded MPEG files to VCD or SVCD format. It' s really that fast! You can playback those VCD/SVCD on your home VCD or DVD player as well as PC.

4. Robust, feature-rich MPEG1/MPEG2 encoder.

FusionMPEG2 supports variable bitrate (VBR) MPEG2 encoding up to 8 Mbps as well as constant bitrate (CBR). It also supports various bitrate of MPEG1. You can set the encoding resolution such as 352x240 (NTSC), 352x288(PAL), 352x480(NTSC), 352x576(PAL), 480x480(NTSC), 480x576(PAL), 720x480(NTSC) and 720x576(PAL). Audio- It' s also adjustable.

5. Incredible Cut-on-the-fly feature.

Got a headache to cut the MPG files? FusionMPEG2 provides industry-first cut-on-the-fly feature. You can actually mark-in and mark-out the current live recording as well as recorded files. So you can get the precise clips as much as you need. Cutting speed? It' s as fast as copying files.

6. Limitless recording capability as much as HDD allows.

Since FusionMPEG2 makes indexed multiple files automatically, it can record up to limitless space virtually. Only the HDD space is the limitation. The indexed MPEG files can be playback as a single file seamlessly.

7. Adjustable recording size of a single file.

You can set the size of single indexed file, which is very useful for CD-R/RW writing. You can set the size of file by 1 mega bytes unit.

8. Various file playback functions.

FusionMPEG2 provides the various file playback functions just like live TV mode. That is,

pause/ instant replay/ time-shifting by scroll bar/ fast-forward/ fast-rewind. It also has multiple files playback mode as well as repeat mode.

9. Intuitive user interface.

FusionMPEG2 provides the simple and intuitive user interface, which includes the resizable video screen, the time-shifting scroll bar and configuration windows.

10. Pause the recording / live broadcasting.

You can pause the recording or live broadcasting with FusionMPEG2, and playback at that position after your urgent work. (Pausing the live broadcasting is only available on the tuner-enabled version)

11. Fast forward/ rewind functions just like VCR

FusionMPEG2 provides VCR-like FF/REW functions so that you can scan the wanted Video scenes or skip the unwanted scenes.

12. Runs on most of PC environment.

FusionMPEG2 USB is for the notebook PC or multiple PCs. FusionMPEG2 PCI is for the desktop PC. FusionMPEG2 runs on most of the Windows environments like Win' XP/ 98SE/ ME/ 2000 Professional.

13. Not Support FusionMPEG2 Capture under Ulead VideoStudio 7 SE

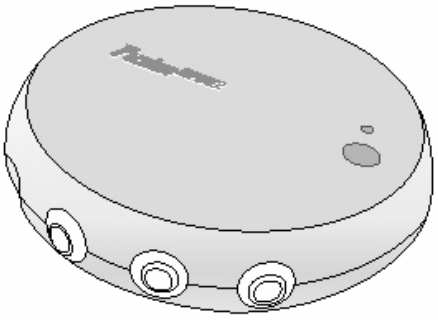
1.2 SYSTEM REQUIREMENTS

- CPU : Pentium II/Celeron 500MHz or faster
- BUS : USB 2.0/1.1
- O.S. : Win' 98SE/ ME/2000 Professional/XP (Home, Professional)
- Memory : 128MB or above
- H.D.D. : Ultra DMA33 or faster HDD
- VGA : DirectShow(DirectX 6.0) enabled VGA
- Sound card : PCI type sound card
- CD-ROM drive for installation

1.3 PACKAGE CONTENTS

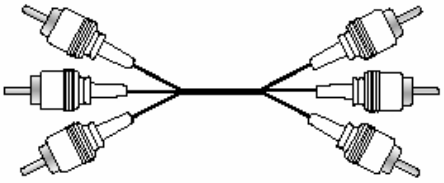
FusionMPEG2 package contains the following items.

1 FusionMPEG2

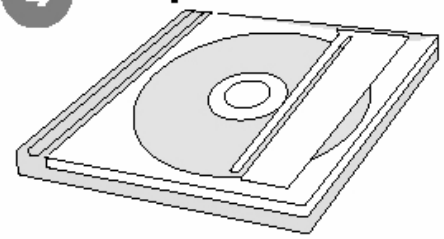


2 USB 2.0 Cable

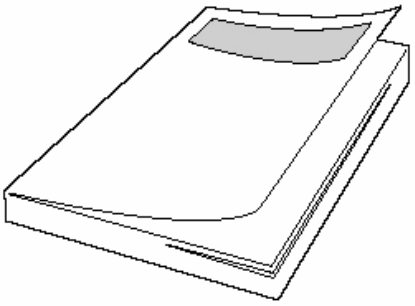
3 RCA Cable



4 Setup CD



5 User Guide



2 SOFTWARE INSTALLATION

Software installation of FusionMPEG2 before hardware installation is recommended.

Warning! You should have…

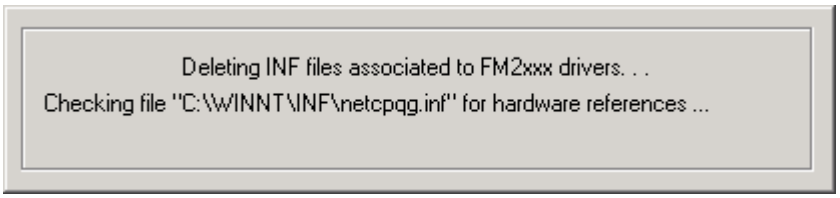
Windows 98/ME/2000/XP installation disc is required to install the FusionMPEG2 software. And check the latest the FusionMPEG2 setup software at http://www.dvico.com.

2.1 INSTALLING APPLICATION

Insert Fusion MPEG2 Installation CD into the CD-ROM drive. Execute the *'INSTALL.EXE'* at CD-ROM drive. The below screen should appear.

2.1.1 Uninstall Drivers

1) When you select Uninstall Driver in the menu on the FusionMPEG2 INSTALLER program, it will remove all the old drivers previously installed.



2) When all the drives are removed, you will see following message.

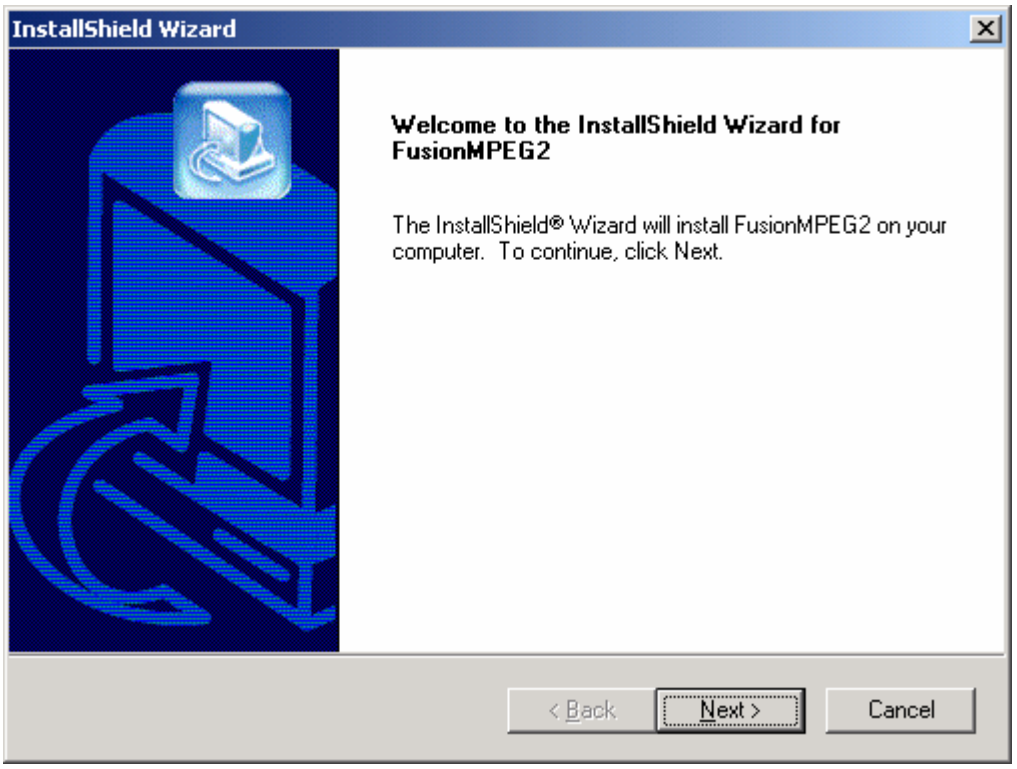
2.1.2 Installing FusionMPEG2 Software

Important: Installation on Windows 2000 Professional or Windows XP

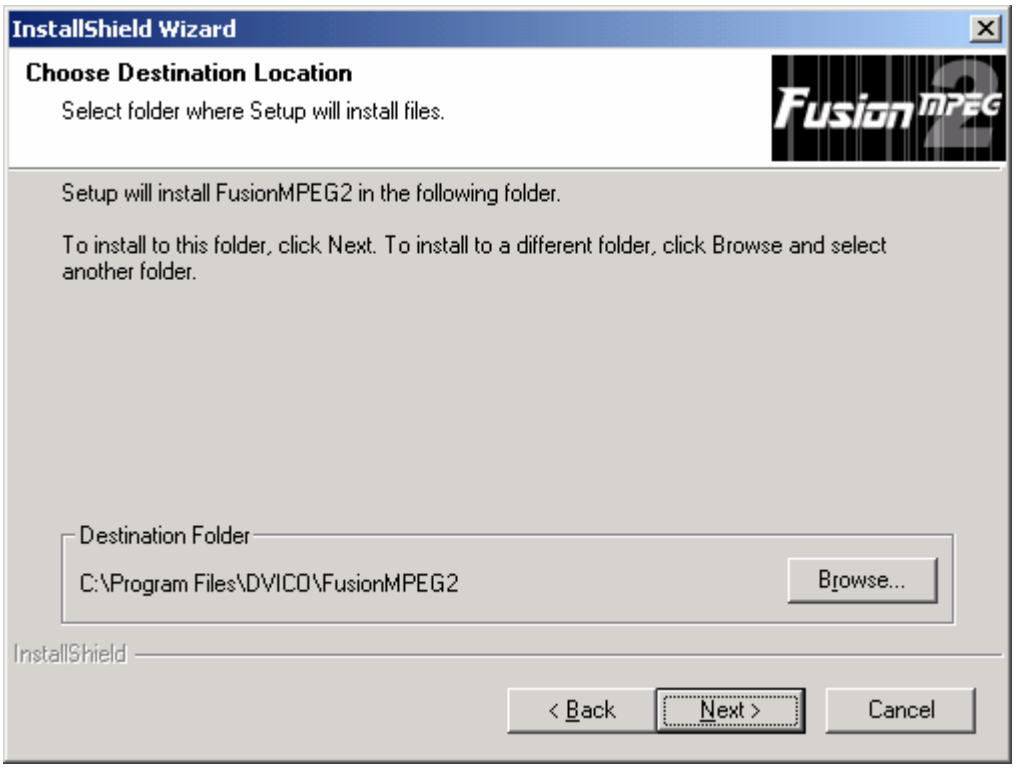
Before you install FusionMPEG2 software, be sure that you logged on as an account with Administrator privileges.

1) Select "Install FusionMPEG2".

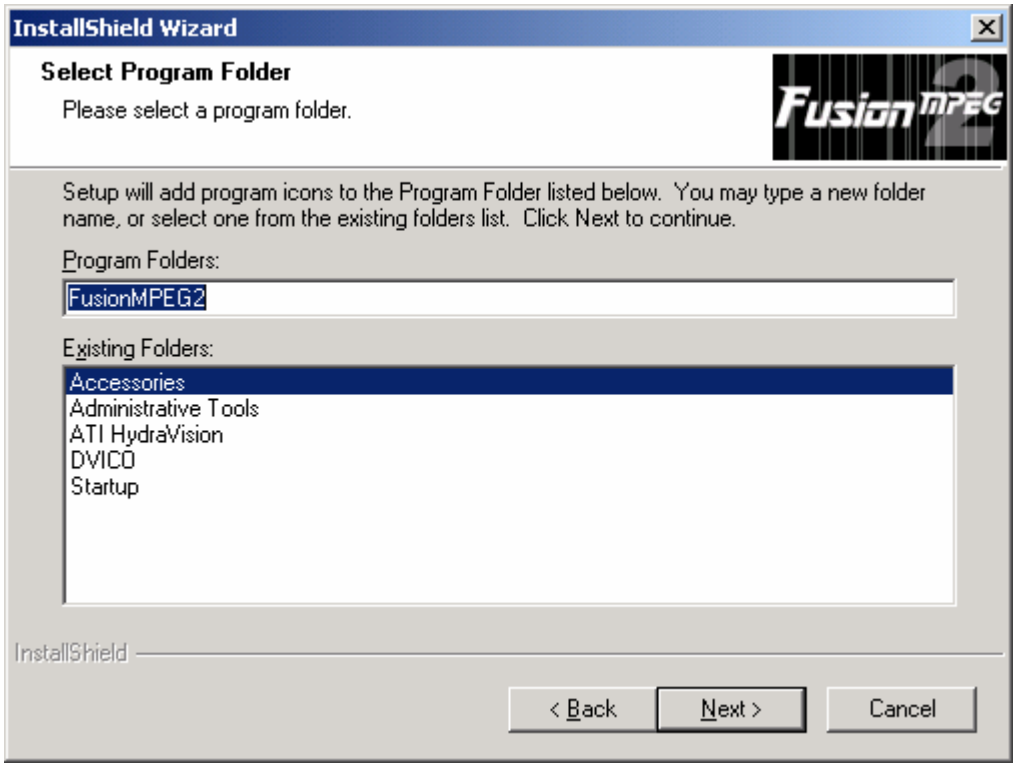
2) At the FusionMPEG2 Installation dialog opens, click on the "Next>" button.



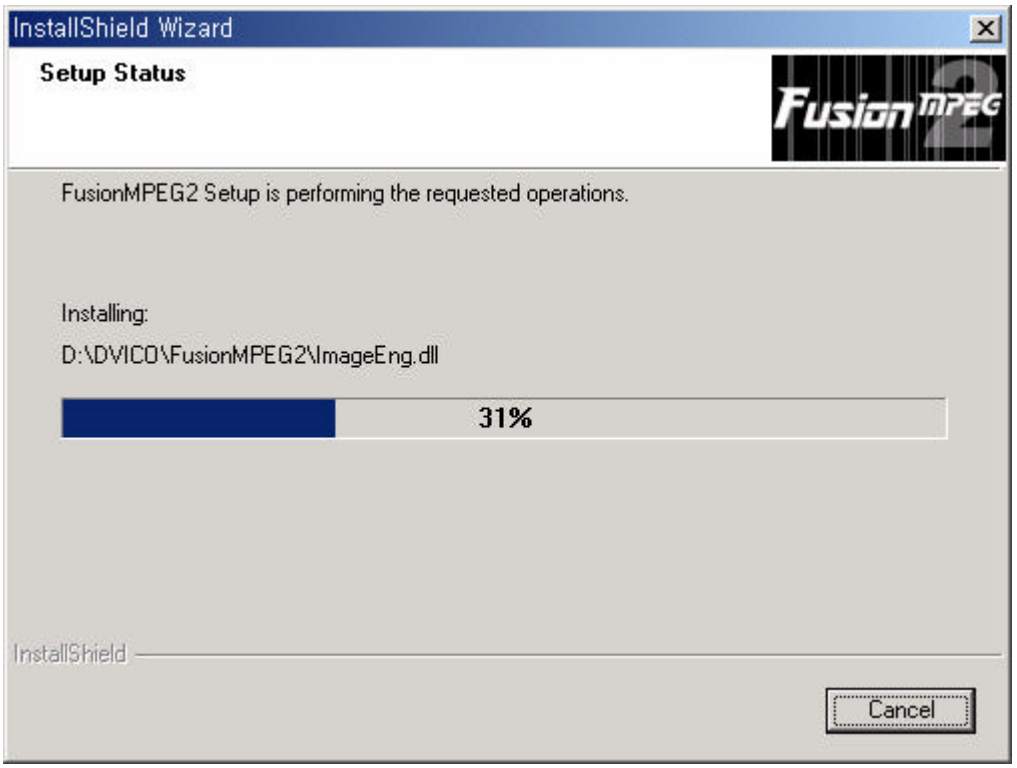
3) Click on *'Next'.* You should be asked the FusionMPEG2 application setup directory. You can skip it to install it to the default directory. To install to different folder, click '*Browse'* and select another folder.



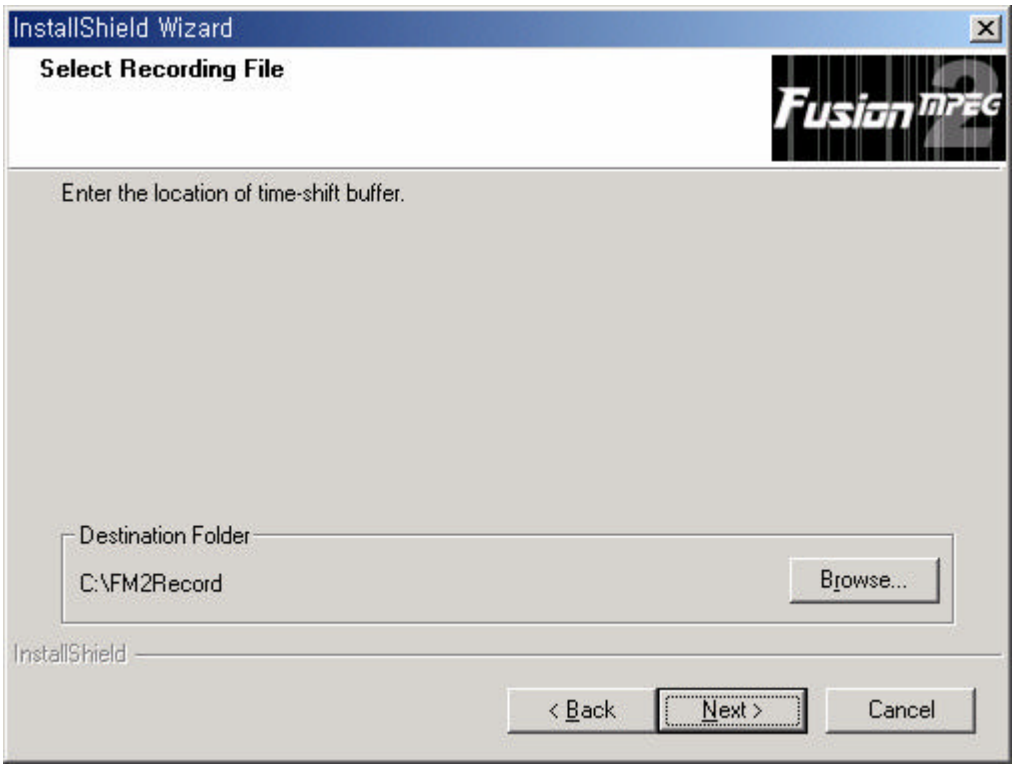
4) Program folder selection dialogue box will appear. The default name is 'FusionMPEG2' and you can select another by typing another name.



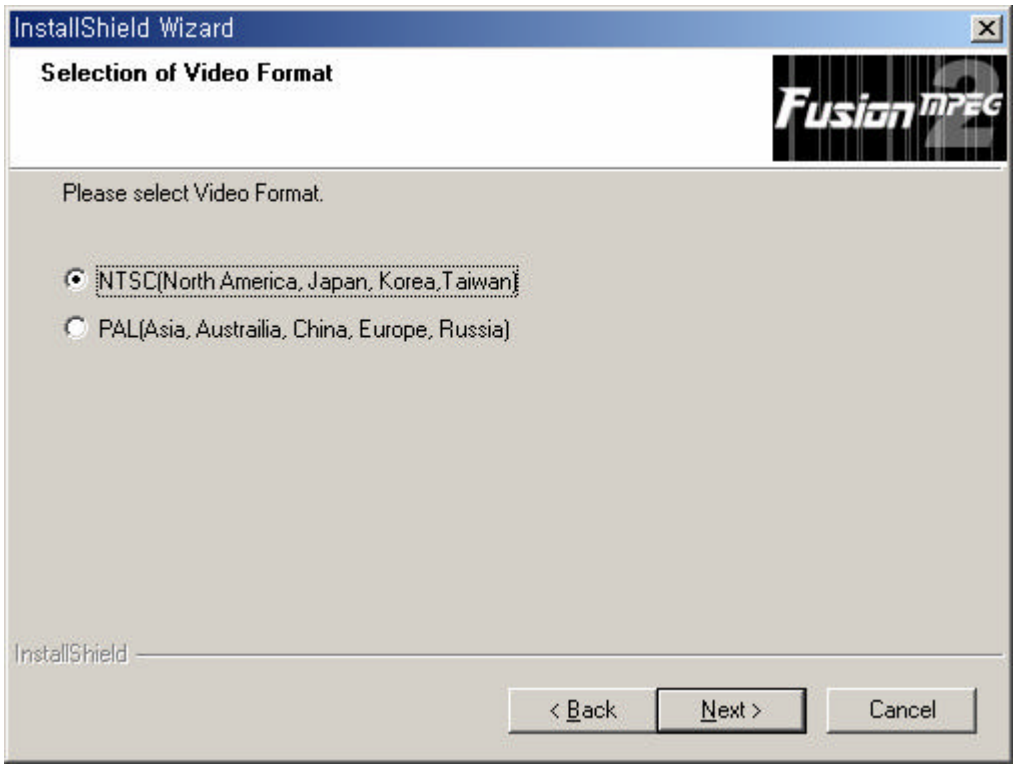
5) The " Setup status" window will appear.



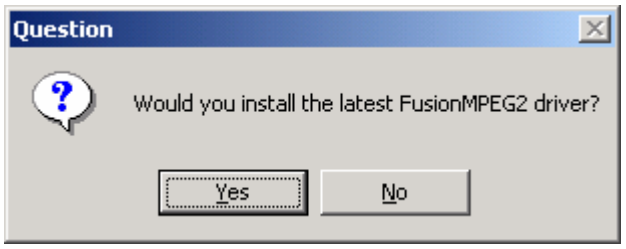
6) Select recording File directory.



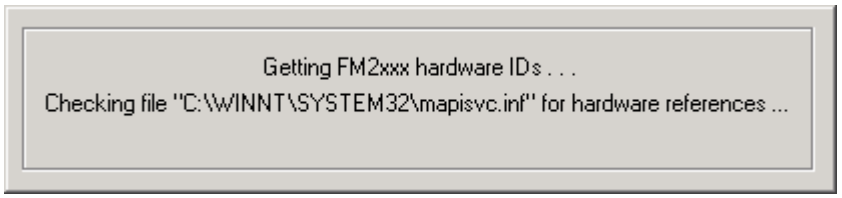
7) Select Video Format



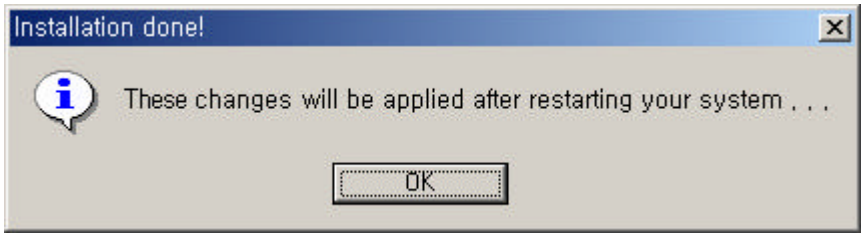
8) Press Y to install latest drivers



9) You will see the progress window.

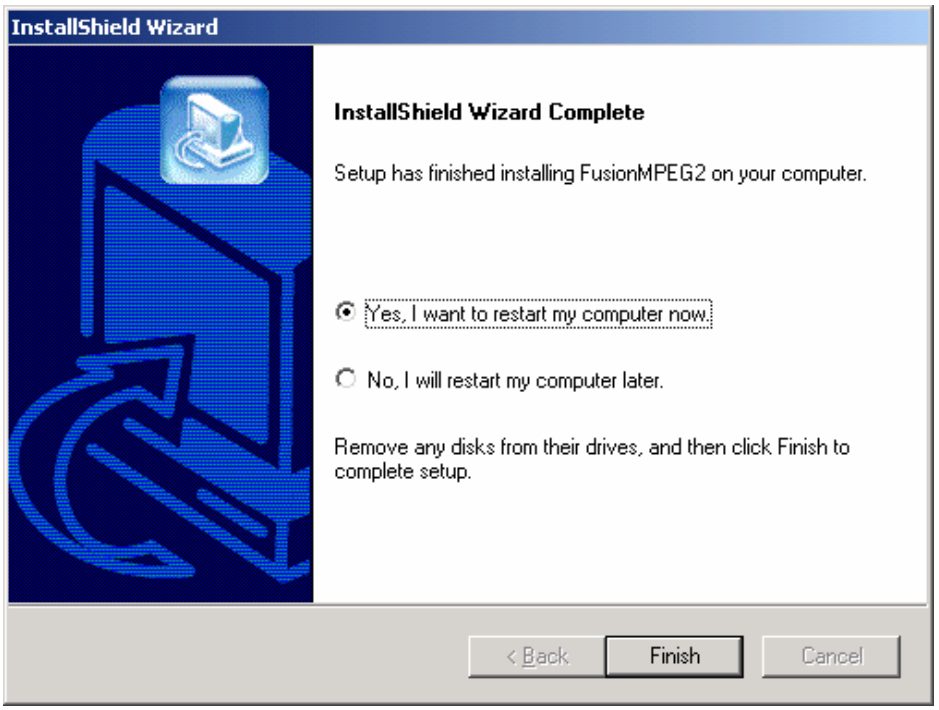


10) Following message indicates the completion of the setup



11) Press "Yes" for the digital signature message

12) By clicking the Finish button, the software installation is done.



13) After installation of hardware, all the setup will be done.

2.1.3 Installing Microsoft DirectX 8.1

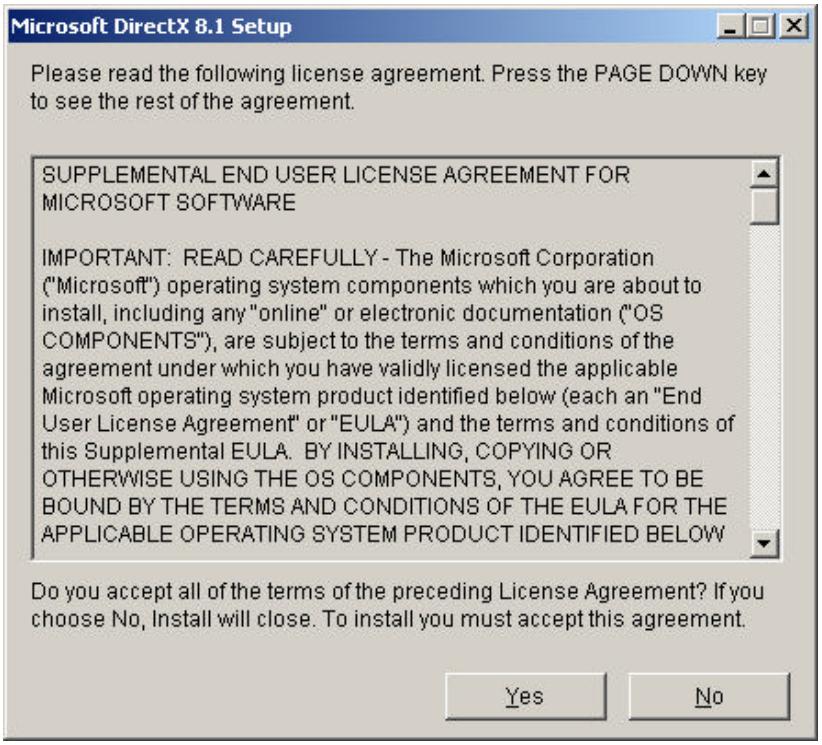
Important! Installing on Windows 2000 Professional or Windows XP

Before you install FusionMPEG2 software, be sure that you logged on as an account with Administrator privileges. You can check the version of DirectX by typing "dxdiag" on the command line which appears with menu selection "start->run"

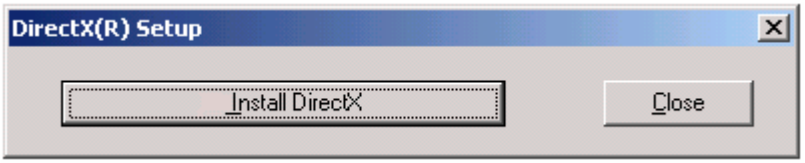
If you have DirectX8.1 or later already, you do not need to install DirectX8.1 again.

1) Run 'Install.exe' and then select "Install Direct8.1X".

2) Read the License Agreement carefully, and then click on "Yes" if you agree.

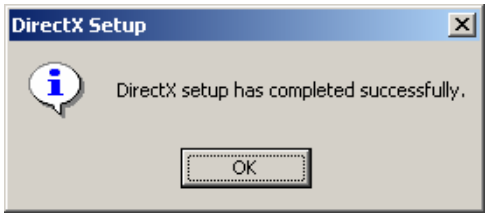


3) To start installing of DirectX, click on "Install DirectX".



Tip If there is a DirectX already installed in the system, a different window will show up instead of the one above.

4) Click on "OK" to restart system and complete installation of the DirectX.



2.2 Driver installation under Windows 98SE/ME

2.2.1 Installing the Windows 98SE/ME driver

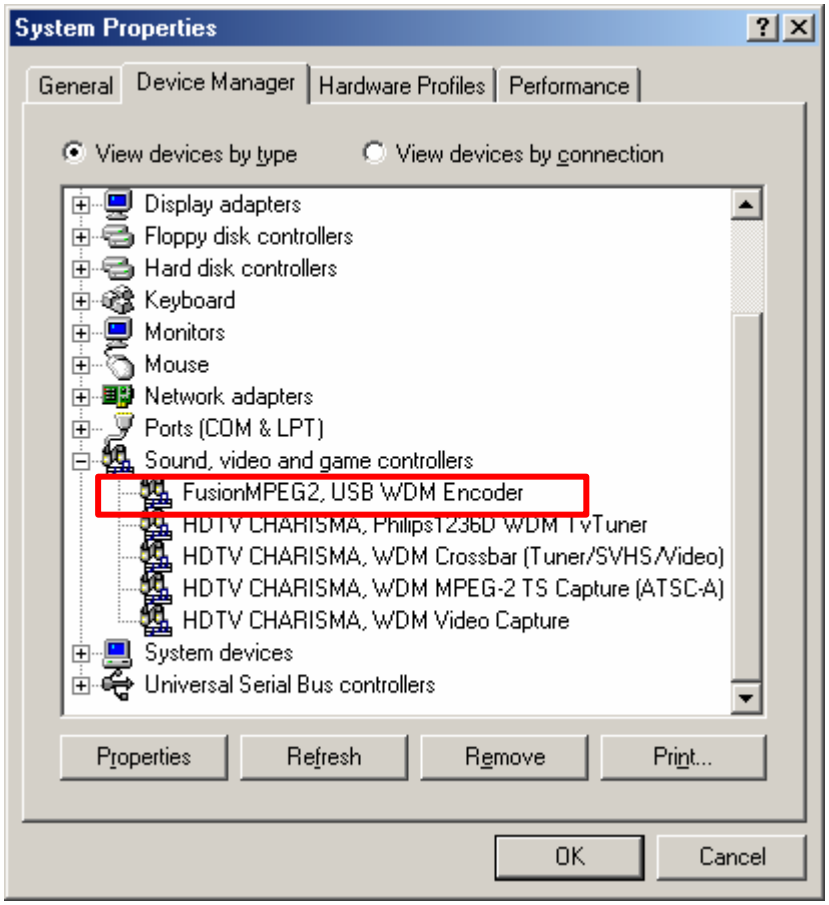
1) Insert the FusionMPEG2 board into the PCI local bus slot. When Windows ME starts, the Add New Hardware Wizard will pop up automatically.

2) Found New Hardware window will pop and 'FusionMPEG2, USB WDM Encoder' driver will be installed automatically.

2.2.2 Checking Windows 98SE/ME driver

If driver are found in the device manager, the Windows ME driver is installed properly. Otherwise, you must reinstall the driver.

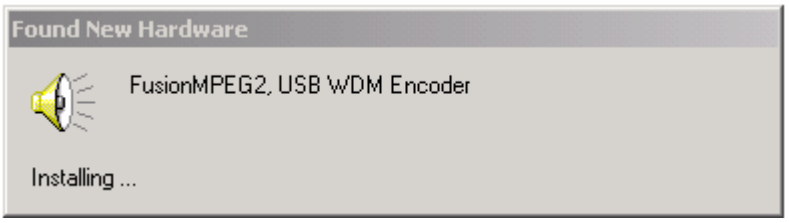
Right click the "My Computer" icon and select "properties" from the popup menu. Check whether you see new device starting with "FusionMPEG2, USB WMD Encoder" under the "Sound video and game controllers".



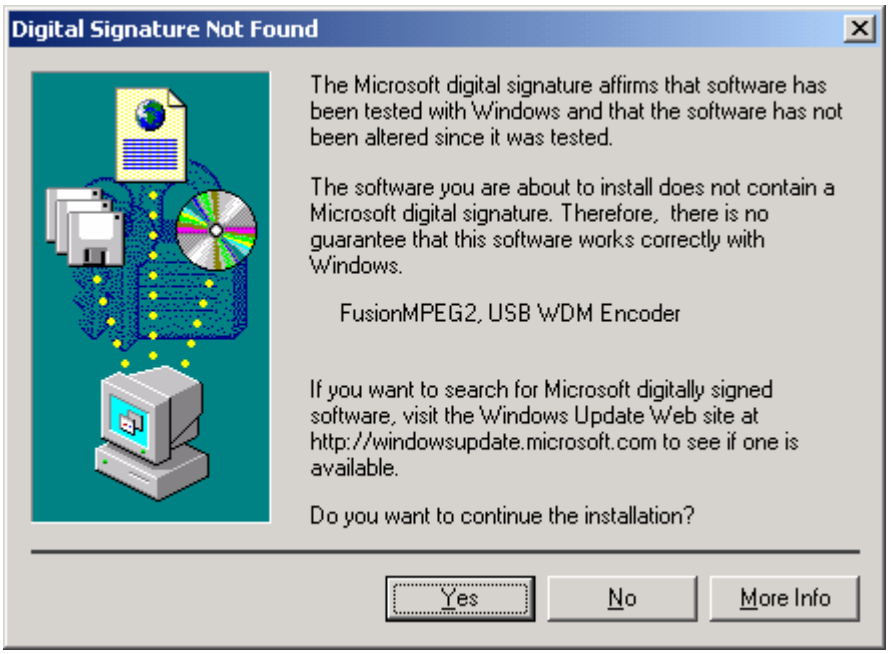
2.3 Driver installation under Windows 2000 Professional

2.3.1 Installing Windows 2000 driver

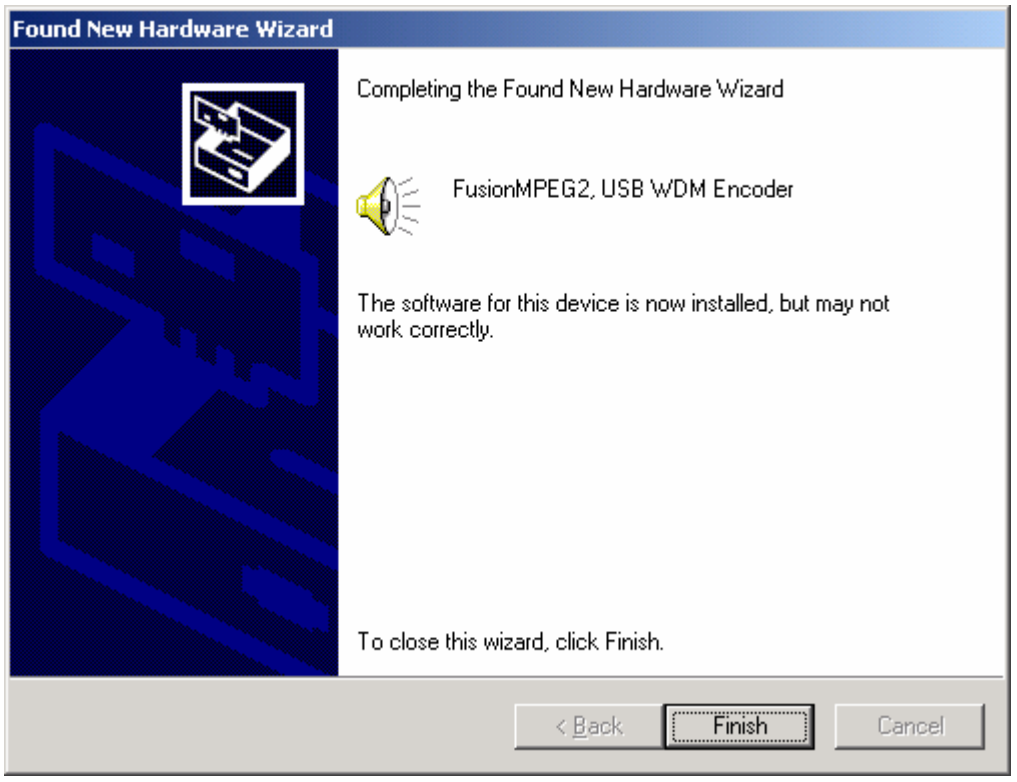
1) Connect the FusionMPEG2 board with USB cable. When Windows 2000 starts, the Add New Hardware Wizard will pop up automatically.



2) When the Digital Signature Not Found window appears, Click on "Yes".



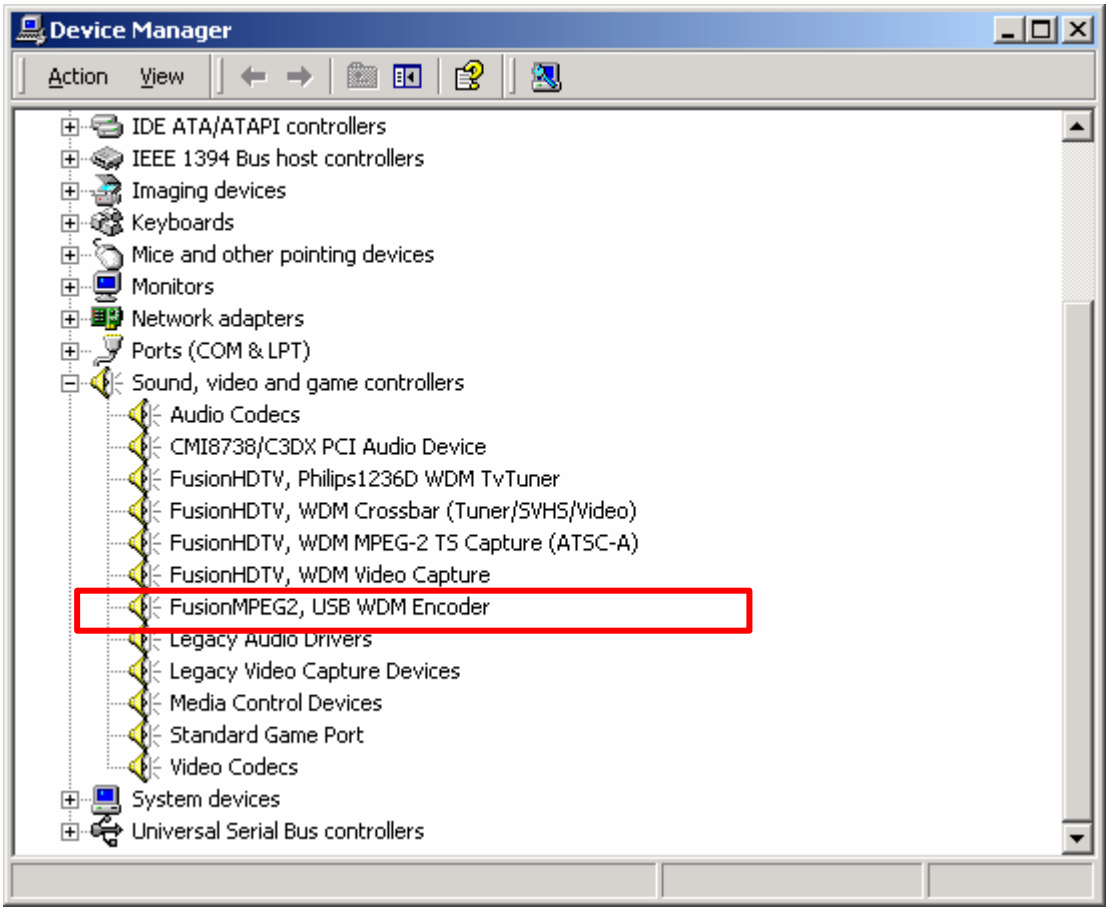
3) After the files are copied, Click "Finish". The FusionMPEG2, USB WDM Encoder' driver is properly installed.


Found New Hardware Wizard
Completing the Found New Hardware Wizard
FusionMPEG2, USB WDM Encoder
The software for this device is now installed, but may not work correctly.
To close this wizard, click Finish.
< Back
Finish
Cancel

2.3.2 Checking the Windows 2000 driver

If driver are found in the device manager, the Windows 2000 driver is installed properly. Otherwise, you must reinstall the driver.

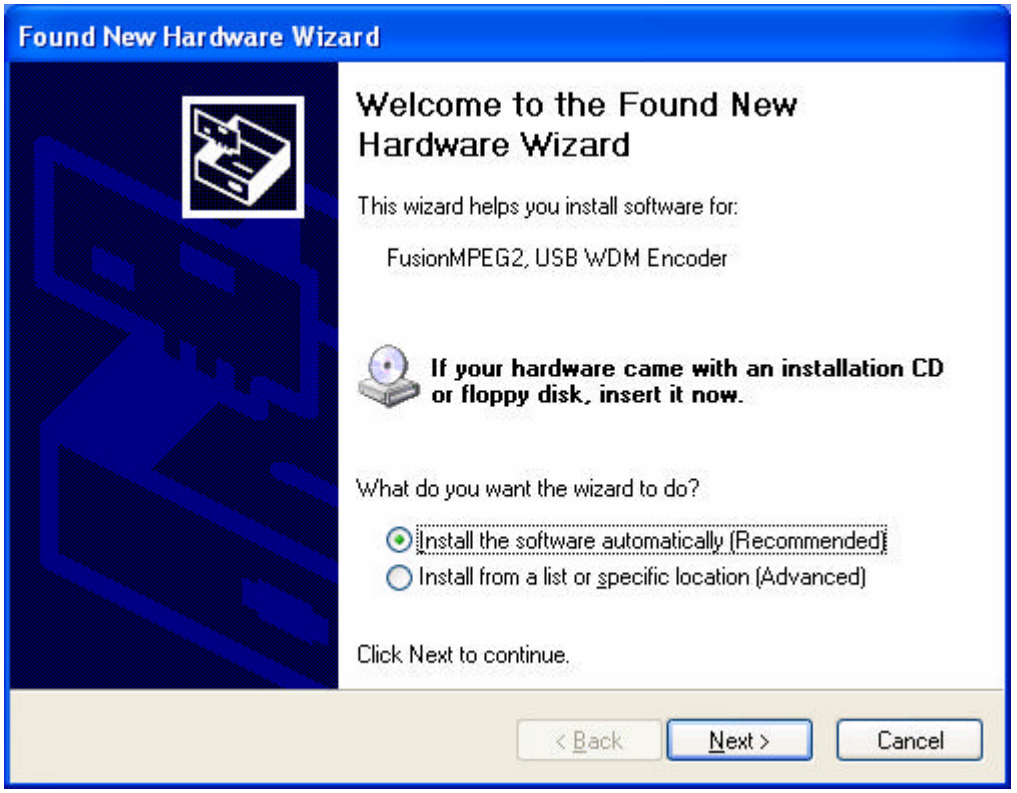
Right click the "My Computer" icon and select "properties" from the popup menu. Check whether you see new device starting with 'FusionMPEG2, USB WMD Encoder" under the "Sound video and game controllers"..



2.4 Driver installation under Windows XP

2.4.1 Installing Windows XP drivers

1) When the "Add New Hardware Wizard window" appears, select "Install the software automatically (Recommended)" and then click "Next".



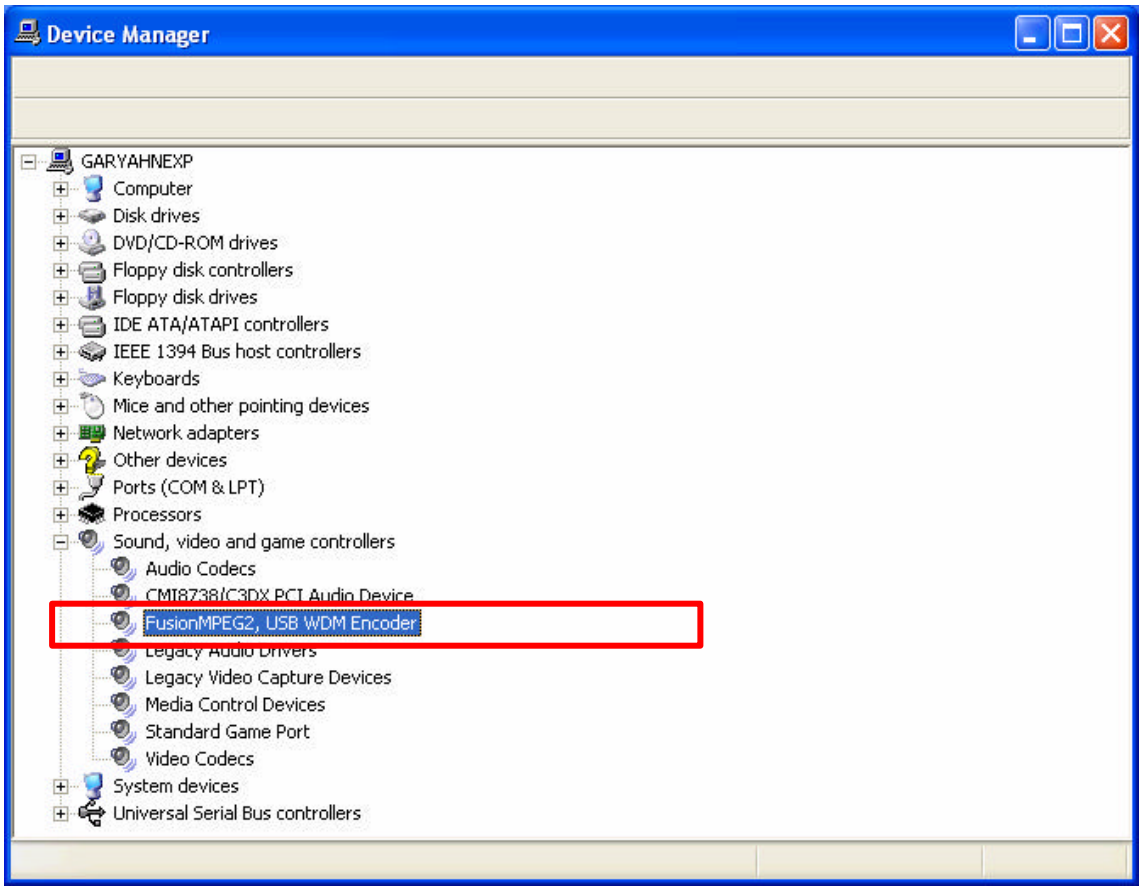
2) When the "FusionMPEG2, USB WDM Encoder" window appears, Click "Continue Anyway".

3) After the files are copied, Click "Finish" if the FusionMPEG2, USB WDM Encoder' driver is properly installed.

2.4.2 Checking the Windows XP driver

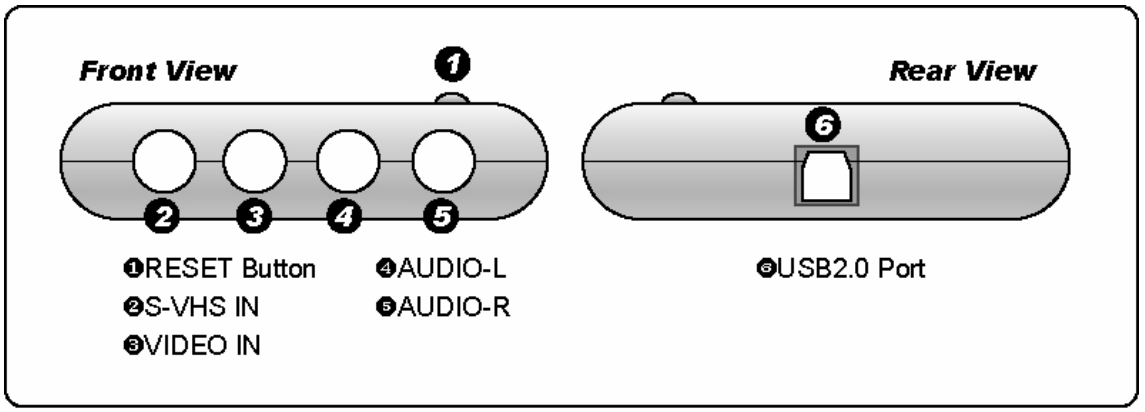
If driver are found in the device manager, the Windows XP driver is installed properly. Otherwise, you must reinstall the driver.

Right click the "My Computer" icon and select "properties" from the popup menu. Check whether you see new device starting with 'FusionMPEG2, USB WMD Encoder" under the "Sound video and game controllers"..



3 Hardware Installation

3.1 About the Hardware



RESET

Resets the internal hardware of the FusionMPEG2 and USB controller.

S-VHS INPUT

Accepts S-VHS signal from VCR/ Camcorder/ DVDP/ LDP

AUDIO/VIDEO INPUT

Accepts composite video and audio signal from analogue sources.

3.2 Before Installation

Warning :

1) Before installing the board, the system' s power should be turned off. Installing the Board when the system' s power is " ON," will damage the system or the Board.

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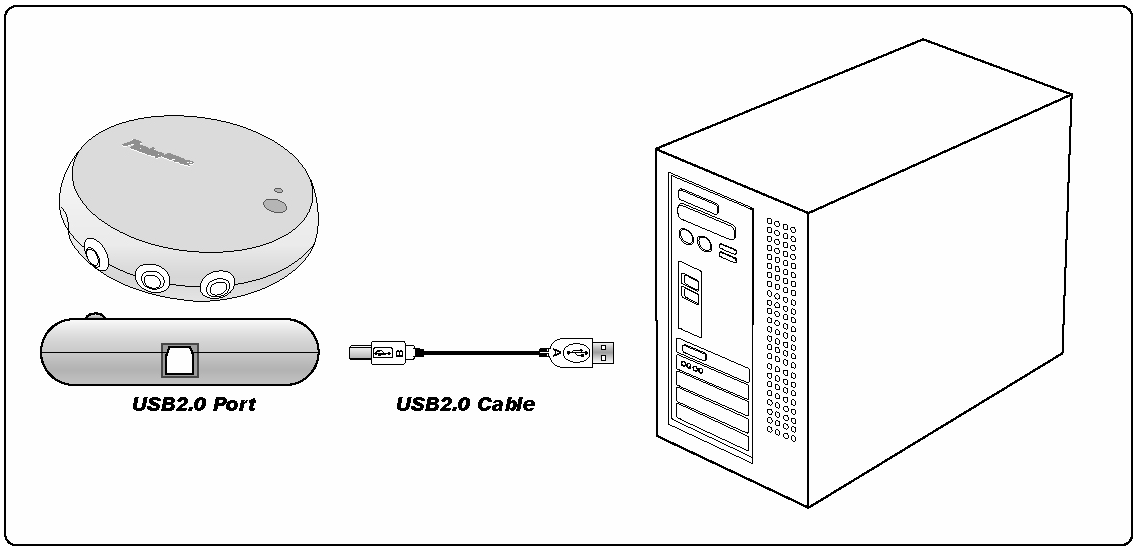
2) * Note : It may cause malfunction due to shortage of power from USB depending on various PC

3.3 Install FusionMPEG2

Connect the USB cable to the PC USB port and FusionMPEG2. Turn on the PC



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4 USING APPLICATION

4.1 GETTING STARTED

Please confirm the power LED is ON in case of FusionMPEG2. Click on ‘ Start’ -> ‘ Program’ -> ‘Dvico’ -> ‘FusionMPEG2’ to start the FusionMPEG2 application.

The splash screen should appear. After a while, main control panel and display screen should appear.

4.2 SUMMARY OF SCREEN AND FUNCTIONS

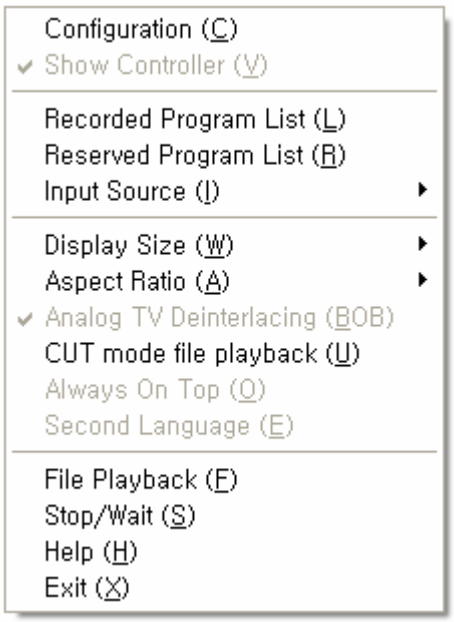
FusionMPEG2 software consists of display screen and control panel.

4.2.1 Display Window

Display window will be set to 640x480 initially. You can move it by clicking the upper boundary of the display window and drag-and-dropping it. You can resize of the window by drag-and-dropping the boundaries.

To switch to full screen mode, double click on display window.

If you click right on the video window, a popup menu will appear.



- Configuration: Refer to **4.3: Configuration**
- Show Controller: Show/Hide Fusion MPEG2' s controller.
- Recorded Program List: Shows recorded list of EPG.
- Reserved Program List: Shows reserved list of EPG.
- Input Source: Change input source.
- Display Size: Resize display.
- Aspect Ratio: Adjust display ratio.
- CUT mode file playback: Change cut edit playback mode.
- Always On Top: Shows Fusion MPEG2 application always on top.
- File Playback: Play input signal(or file).
- Stop/Wait: Change pause.
- Help: Shows Help information.
- Exit: Quit Fusion MPEG2.

4.2.2 Controller

This indicates Control Buttons.

1) Exit button
2) Minimize
3) Maximize button
4) Configuration button
5) Help button
6) Reserve REC button: is used to Reservation record.
7) LiveTV button: Changes to live input (SVHS/ Composite) mode.
8) Input button: is used to select input signal.
9) Time: Total elapsed time played.
10) Channel/Input button: Select the current input source (SVHS/ Composite)
11) Channel UP/DOWN button: This button is disabled in FusionMPEG2
12) Volume: Shows and controls the current volume level. Use the mouse or keyboard up/down button to change the volume level.
13) Mute button: Mute ON/OFF.
14) Open file button: Is used to open recorded files.
15) Snapshot button: Is used for still image capture.
16) Video status
17) Audio status
18) Playback button: Is used to play an input signal (or file).
19) Pause button: Is used to pause playing or replay.
20) Start button: Is used to go to the first scene.
21) End button: Is used to go to the end of a scene.
22) Review button: Is used to search backward.
23) FF button: Is used to search forward.

24) Stop button

Tip

You can press stop when recording if you want to record the content without viewing.

25) Instant Replay button: goes 10 sec backward by default. You can configure the instant replay time in the configuration menu.

26) Record button

27) Cut Edit button: Is used to edit a recorded file.

28) Mark in button: Mark in the start point where the cut starts.

29) Mark out button: Mark in the end point where the cut ends.

30) Time moving slider: Shows location currently playing. If you drag it with the mouse, you can move anywhere in the white line.

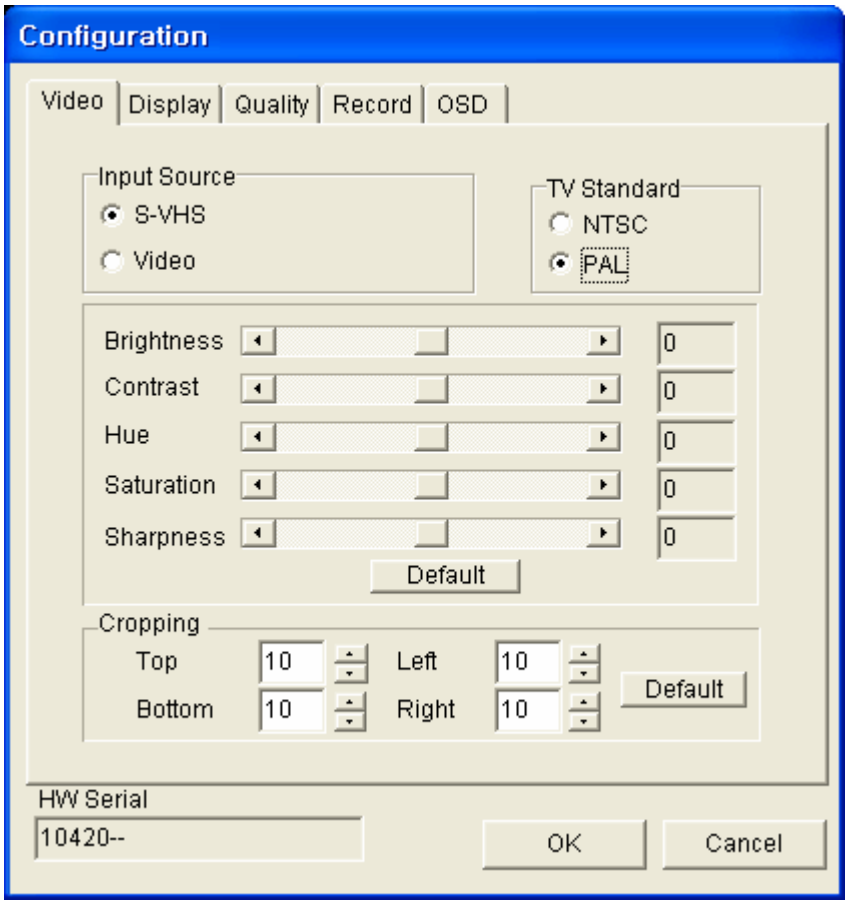
31) Time moving Bar: Is used to drag the slider bar.

4.3 Configuration

Configuration: ( ), you can Configure many parameters.

4.3.1 Video

Video settings tab.



Input Source : Selects between multiple external video sources.

You can select antenna input S-VHS or Video

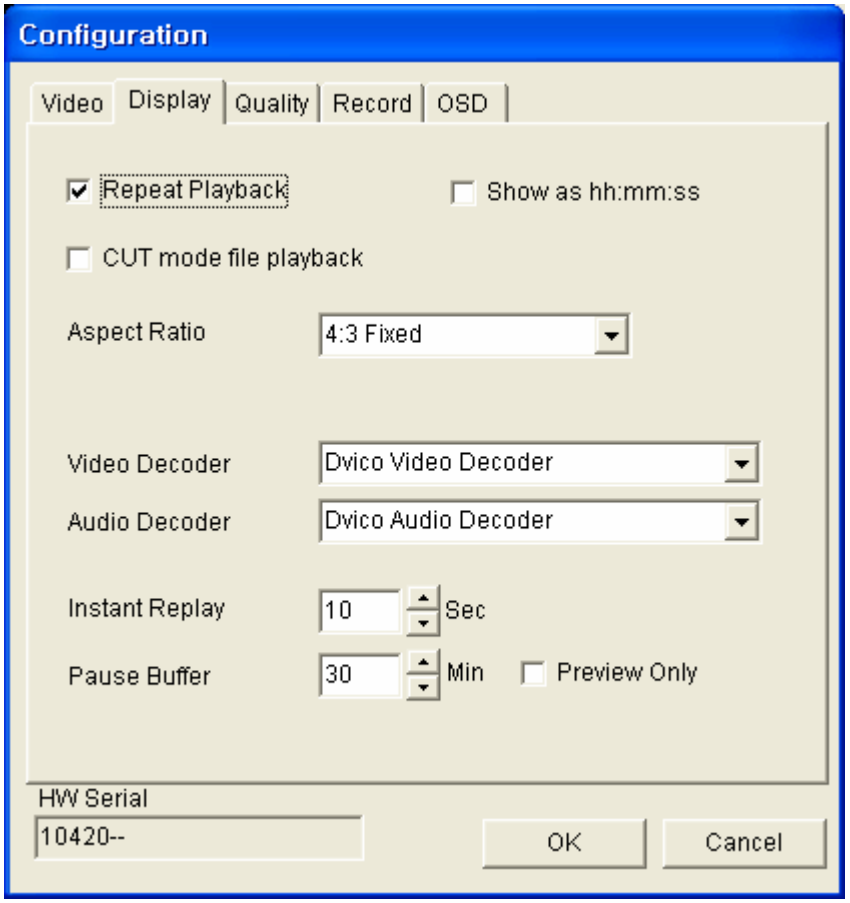
Cropping : flickering lines near the top or bottom of the picture can be removed with cropping function

Video tap is possible with adjust Brightness/contrast/Hue/Saturation/Shatpness.

Click on the " OK", and you can play adjusted display..

4.3.2 Display

You can select the display options (like AV decoders/ aspect ratio) on ‘ Display’ tab.

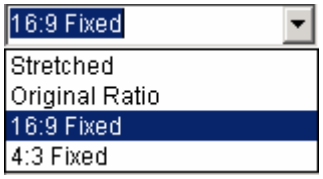


Repeat playback: It will play the file endlessly if checked.

Show as hh:mm:ss: Shows time from 00:00:00.

CUT mode file playback

Aspect Ratio : Is used to fIx screen ratio..



Video Decoder: Is used to select a video decoder among the various decoders. You can select one of those decoders. (You should install the appropriate software to use another decoder except Dvico’ s own decoder)

< Dvico MPEG2 Video Decoder >

<InterVideo MPEG2 Video Decoder (WinDVD)>

<CyberLink MPEG2 Video Decoder (PowerDVD)>

Audio Decoder: Is used to select audio decoder among the various audio decoders. You can select one of those decoders. (You should install the appropriate software to use another decoder except Dvico' own decoder)

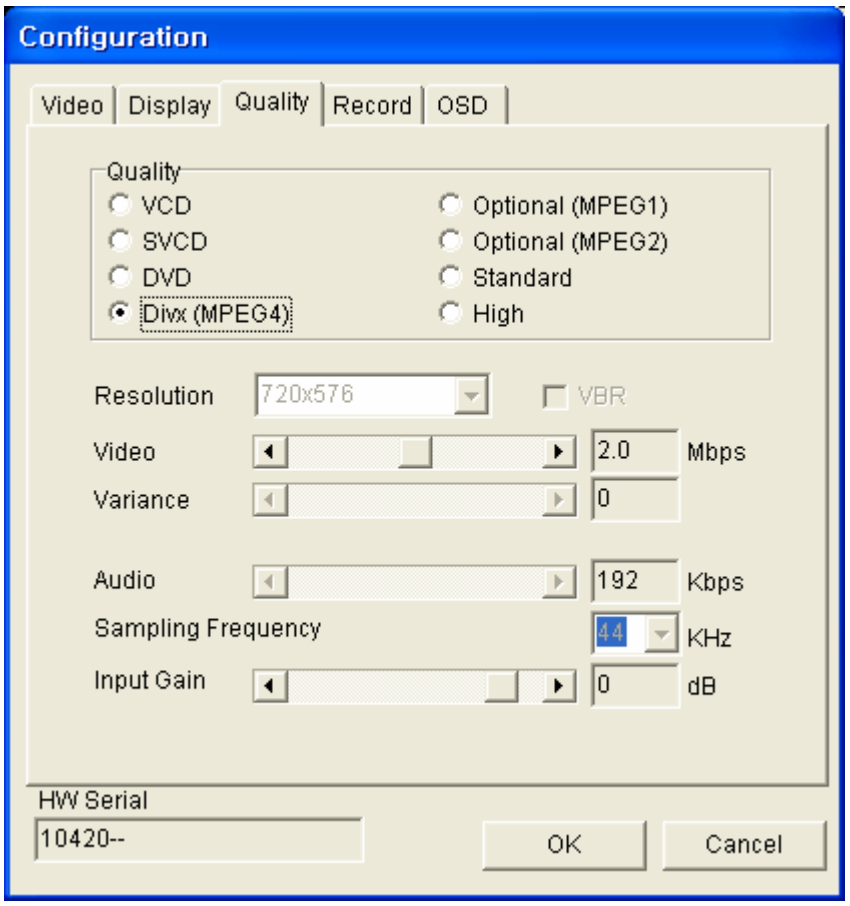
< Dvico MP2 Audio decoder >

<InterVideo Audio Decoder (WinDVD)>

<CyberLink Audio Decoder (PowerDVD)>

4.3.3 Quality

This section indicates Quality settings



You can set the various recording quality here. You can choose the pre-setting bitrates from drop-down list box. If you want to more specific settings, you can choose the ' Optional' bitrate.

You can also adjust the recording resolutions like full D1 (720x480 NTSC, 720x576 PAL), 66 percent D1 (480x480 NTSC, 480x576 PAL), half D1 (352x480 NTSC, 352x576 PAL) and CIF (352x240 NTSC, 352x288 PAL).

You can adjust the MPEG1 bitrate from 0.7Mbps ~ 4.0Mbps, if you select the 'Optional (MPEG1)' bitrate.

You can adjust the MPEG2 bitrate from 2Mbps ~15Mbps (up to 6Mbps in USB 1.1 interface) and also adjust the VBR, if you select the 'Optional (MPEG2)' bitrate.

You can also adjust the audio encoding bitrate from 192KHz~384KHz, and sampling frequency like 32/ 44.1/ 48KHz. You can adjust the input audio gain from -78dB to +12dB either. It' s quite useful if you have abnormal sound-recorded material.

Recording Capacity / Time Table

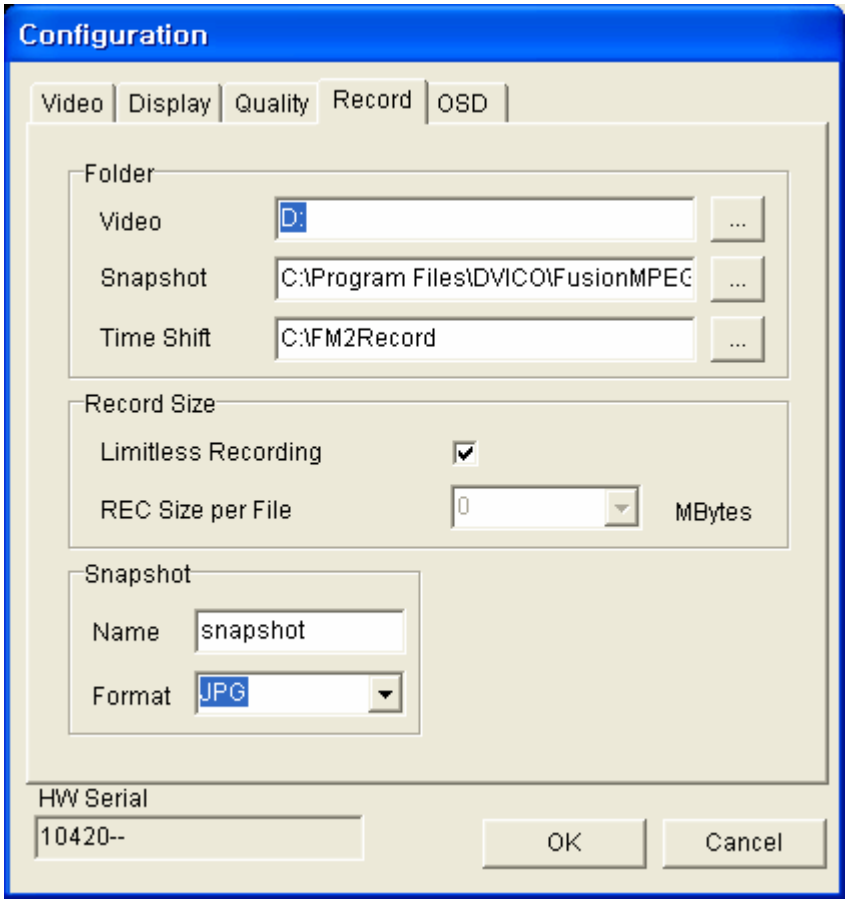
MPEG-2 Quality	Bitrate	Res.	Space for 1 Min	Space for 1 Hour	Time to 20GB HDD	Time to 650M CR-R
Standard	5Mbps	720*480 (720*576)	~37MB	~2.3GB	~8.7 hrs	~16 mins
High	8Mbps	720*480 (720*576)	~60MB	~3.6GB	~5.5 hrs	~11 mins
Highest	10Mbps	720*480 (720*576)	~75MB	~4.5GB	~4.4 hrs	~8 mins
SVCD	2.5Mbps	480*480 (480*576)	~19MB	~1.1GB	~17.6 hrs	~40 mins
DVD	5Mbps	720*480 (720*576)	~40MB	~2.1GB	~9.6 hrs	~17 mins
Divx	2Mbps	720*480 (720*576)	~17MB	~1.0GB	~20 hrs	~41 mins

MPEG-1 Quality	Bitrate	Res.	Space for 1 Min	Space for 1 Hour	Time to 20GB HDD	Time to 650M CR-R
VCD	1.1Mbps	352*240 (352*288)	~10MB	~650MB	~30 hrs	~1 hr
High	2Mbps	352*240 (352*288)	~15MB	~900MB	~22hrs	~ 43 mins

Tip1 *You should choose the VCD/SVCD quality to make the VCD/SVCD, since VCD and SVCD bitrate is fixed.*

Tip2 To make the DVD, you should make sure one thing. You should choose the full D1 (720x480 or 720x576) resolution regardless of bitrate..

4.3.4 Record



Folder – Video : Sets the folder where the video being recorded.

Folder – Snapshot : Sets the folder where the snapshot (still image) being captured

Folder – Timeshift : Sets the folder where the time-shift temporary file resides

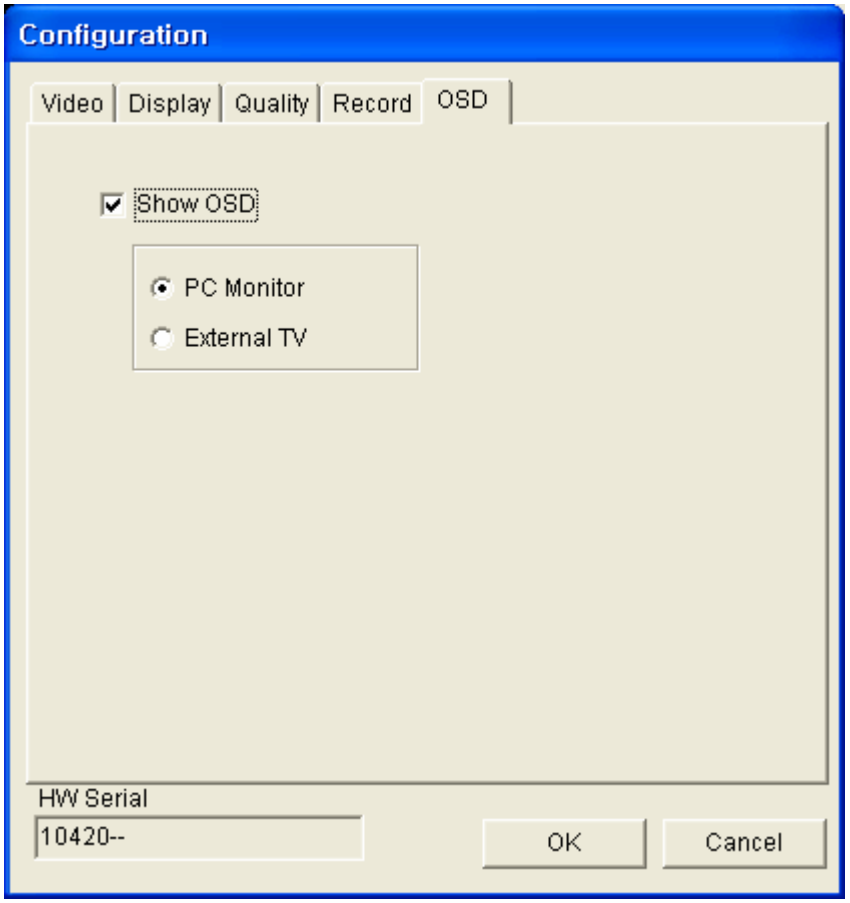
Limitless Recording : If the record drive is formatted with NTSF, you are able to record a file continuously on a hard drive.

REC SIZE per file : Sets maximum file size to be recorded. The program will create a new file and start recording if the current file exceeds this limit.

Snapshot – Name : Set the name of the snapshot file being saved.

Snapshot – Format : Sets the format of the snapshot (JPG or BMP, PNG, TIF, GIF)

4.3.5 OSD



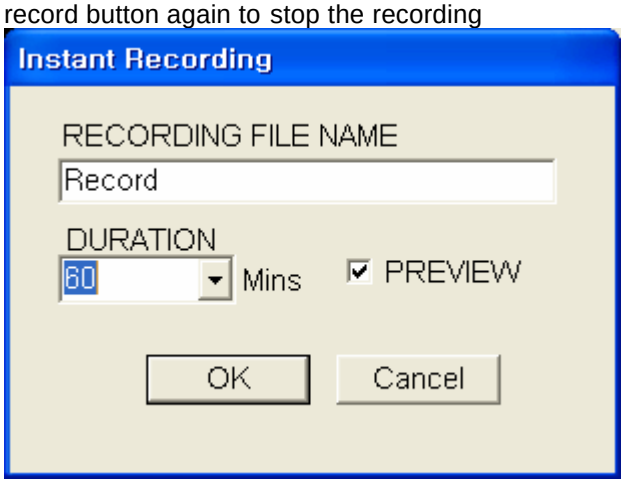
Show OSD: Is used to show channel and volume; on screen display

4.4 Record

There are two types of recording in the FusionMPEG, they are manual and reserved mode recording.

4.4.1 Manual Record

Press the (record button) on control panel to record instantly. Press the STOP button or record button again to stop the recording



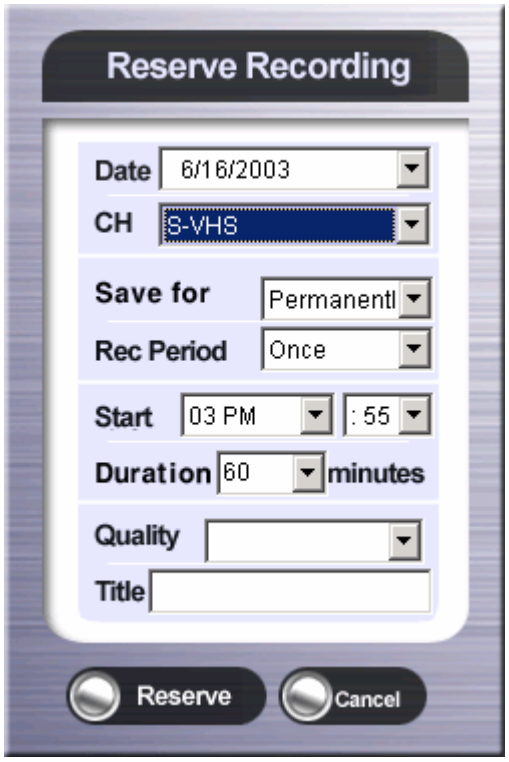
If you want to terminate recording, click on the "Finish" button. The files recorded within that time will be saved.

If you want to cancel recording, click on the "Cancel" button. When you click the cancle button while recording, you 'll get a message selecting Yes or No

Tip *You can use the time-shifting functions as well in recording mode.*

4.4.2 Reserve Recording

Press the RES REC (reserved recording button) on control panel to reserve the future recording. You can set the date/ start time / duration/ channel/ quality/ periodical/ name in this menu.



On ‘ Date’ section, you can select the date when you want to record.

On ‘ CH’ section, you can select the VIDEO or S-VHS port that you want to record.

On ‘ Save term’ section, you can select the recorded file saving period. After save period expired, the file will be purged automatically. The default is ‘ Permanent’ which means ‘ DO NOT DELETE THE RECORDED FILE’

On ‘ Rec Period” section, you can select the recording cyclic period. It’ s very useful record the some periodically repetitive programs on Video.

On ‘ Start’ section, you can select the start time of reserved recording.

On ‘ Period’ section, you can select the duration of reserved recording. You can select arbitrary size as you want.

On ‘ Quality’ section, you can choose the recording quality you want.

On ‘ Title’ section, you can type the title of your reserved recording.

After done, please click the ‘ Reserve’ button, or click ‘ Cancel’ button to cancel.

4.5 Playing Files

If you click on the 'open file' ( ) button on the controller, you can play a file.

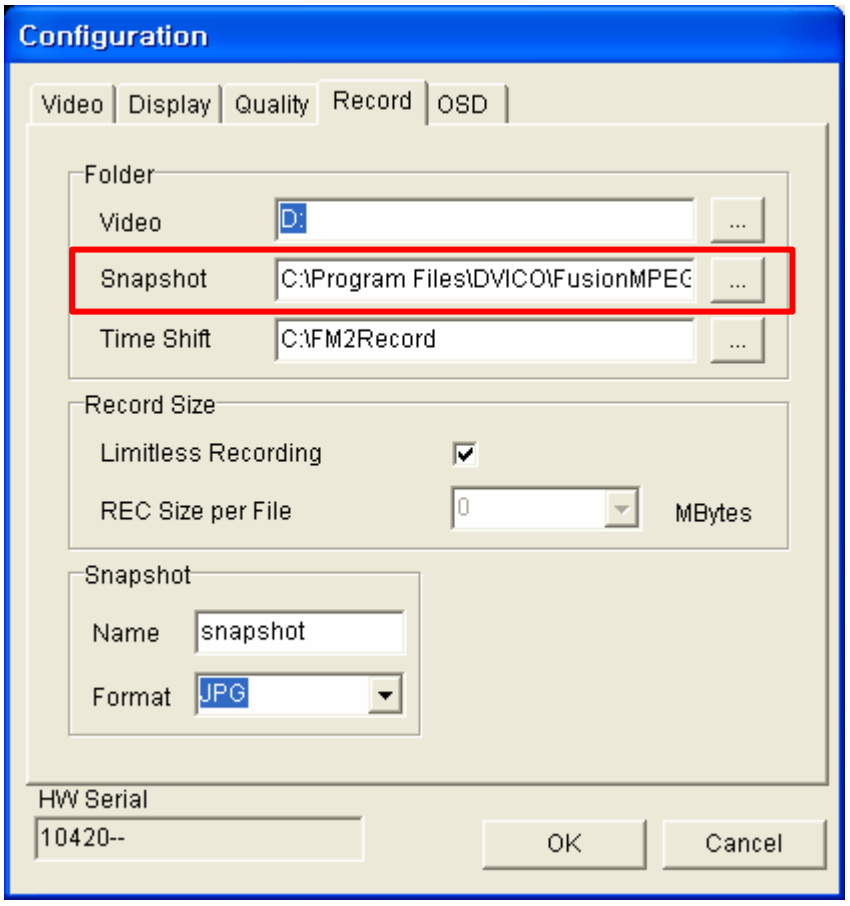
You can also select multiple files for playback

4.6 SnapShot Capturing

FusionMPEG2 provides high resolution still screen capture capability in live playback as well as in file playback mode.

Click the snapshot button for capturing a snapshot of Live while in playback or file playback mode.

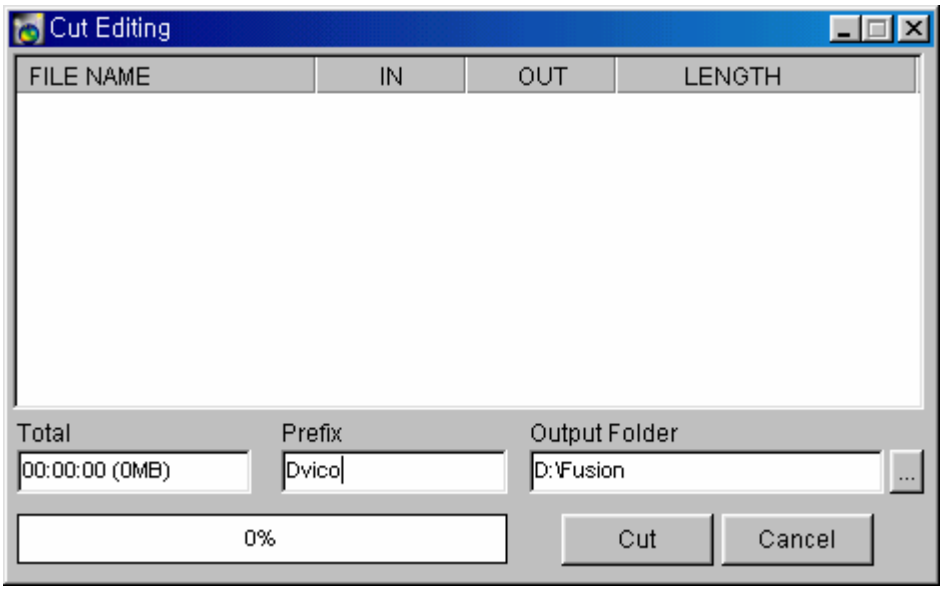
In the Record Tab, you can set the file name and file format.



4.7 Cut Editing

You can cut the recording files as well as recorded .mpg file with the cut-editing feature of the FusionMPEG2.

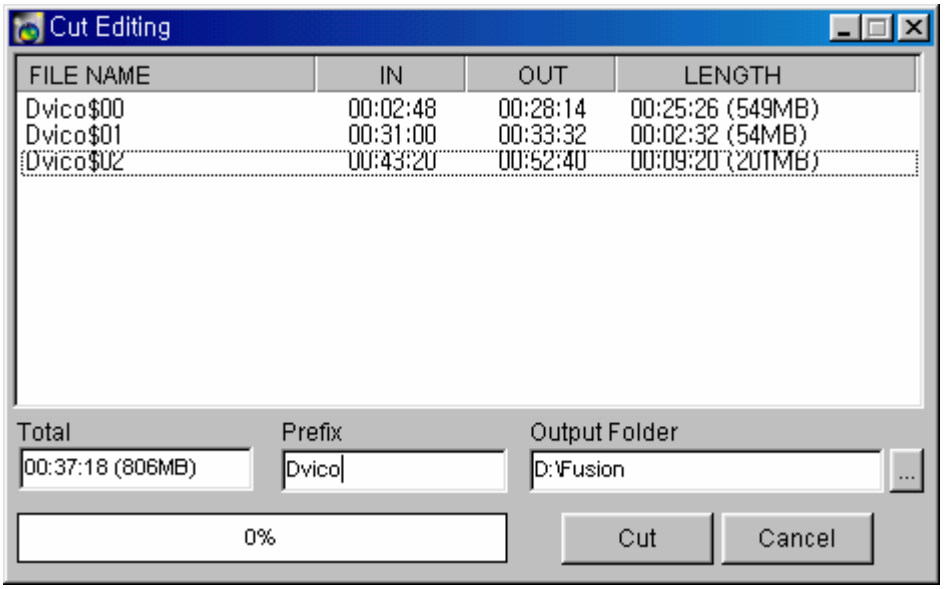
1. The cut-editing window will appear if you hit the ‘ Cut’ button. (Mark-in/out button also brings the cut-editing window)



2. You can set the prefix name on the ‘ Prefix’ edit-box to generate the prefix of cut-edited file name automatically.

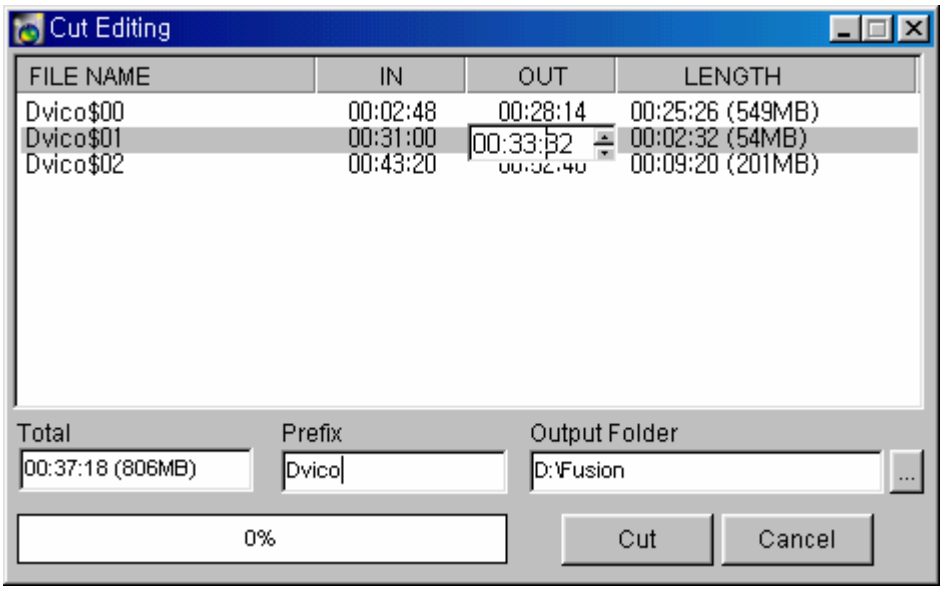
3. You can set the output folder by pressing the right-side button of output folder edit-box. The generated cut-edited files will be saved at that folder.

4. Hit the ‘ Mark-In’ button to set the start point and ‘ Mark-out’ button to set the end point of clip. You can proceed with multiple clips with this manner.



5. To change the file name, just click the file name area. The edit-box will appear and you

can type the filename. To change the IN/OUT position, just click the spot you want to change. The edit-box and up/down buttons will appear for you to change the position. To change the hour / minute/ second, click each area you want. Then type the actual position, or hit the up/down arrow button to adjust.



6. You can delete unwanted clips by hitting the ' Delete' key on the keyboard.

7. After all mark-IN/OUT done, hit the ' Cut' button to start the cutting.

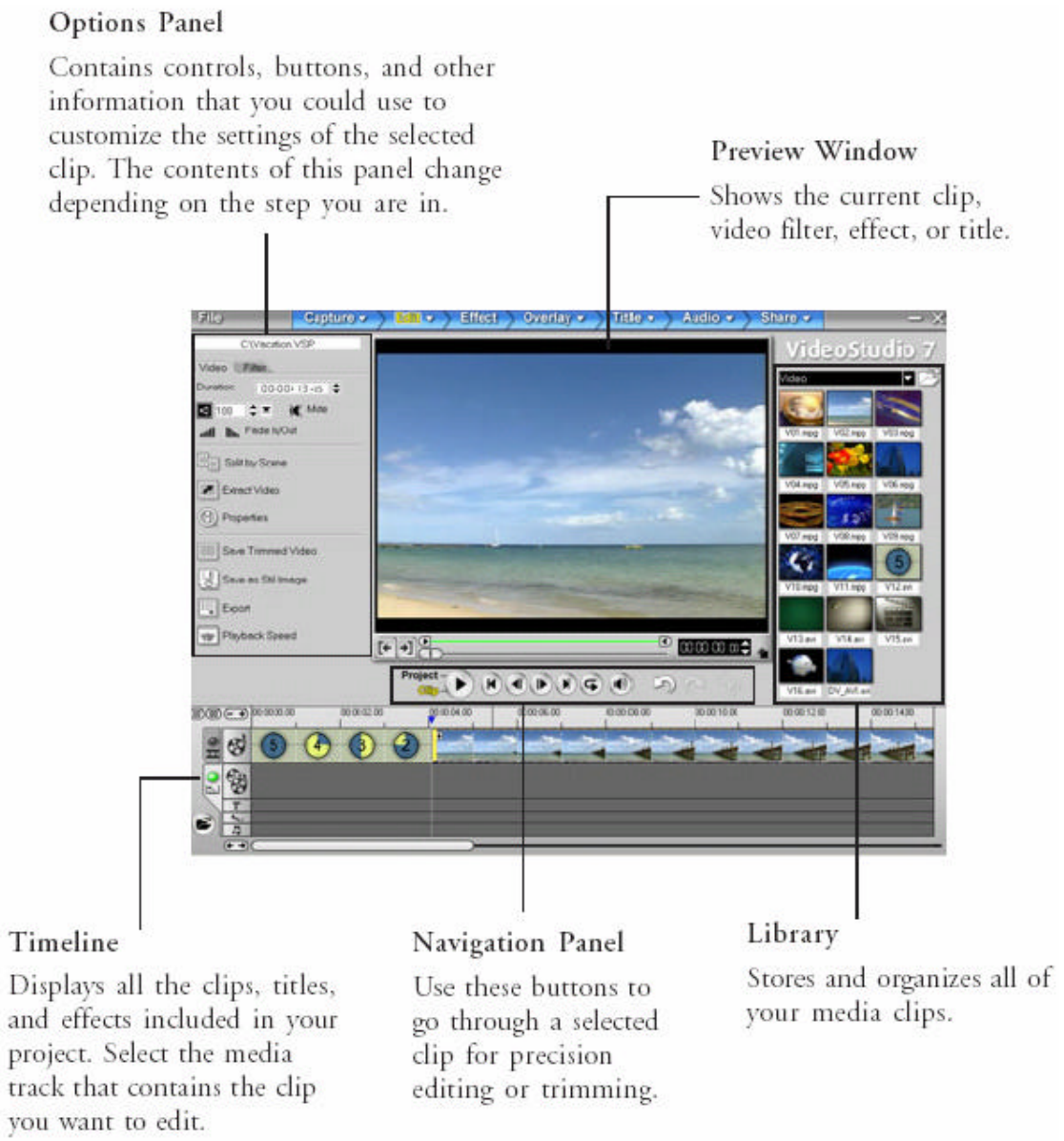
Cut files will be generated like this: ' Prefix + $ + number + .tp' sequence (For example, like Dvico$00.tp, Dvico$01.tp, Dvico$02.tp) in the output folder.

5 Using VideoStudio 7 SE DVD

5.1 Getting started

VideoStudio gives you much room to explore your options and experiment by letting you work with Project files (*.VSP). Since all changes (i.e. cuts, edits, transition effects, etc.) are saved in the project file, you can freely edit the clips in a project without having to worry about ruining your source files. A project file is not the finished movie and can only be opened in VideoStudio.

It is also possible to have a number of different projects using the same clips. The actual process of creating a movie from a project file is performed in the Share Step.



5.2 Effect

Transition effects offer creative ways to shift from one scene to the next. They are applied between clips in the Video Track and their attributes can be modified in the Options Panel to suit a specific purpose. VideoStudio allows you to mix and match a variety of preset effects while editing your project. Effective use of this feature can add a

professional touch to your work.

5.2.1 Creating effects

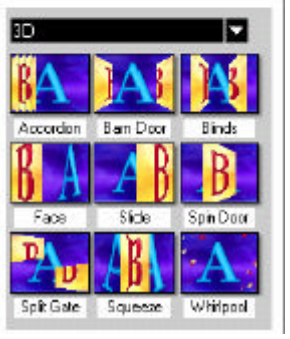
The Library provides a wide range of preset transitions from cross fades to explosions. We will deal with the details of these effects later. For now, you just need a project with two video clips in it.

To add a transition:

1. Select a category of effects from the Folder list.

2. Scroll through the effects thumbnails in the Library.

Select and drag an effect to the Timeline, roughly between two video clips. Drop your effect and it will snap into place. You can only drag and drop one clip at a time.

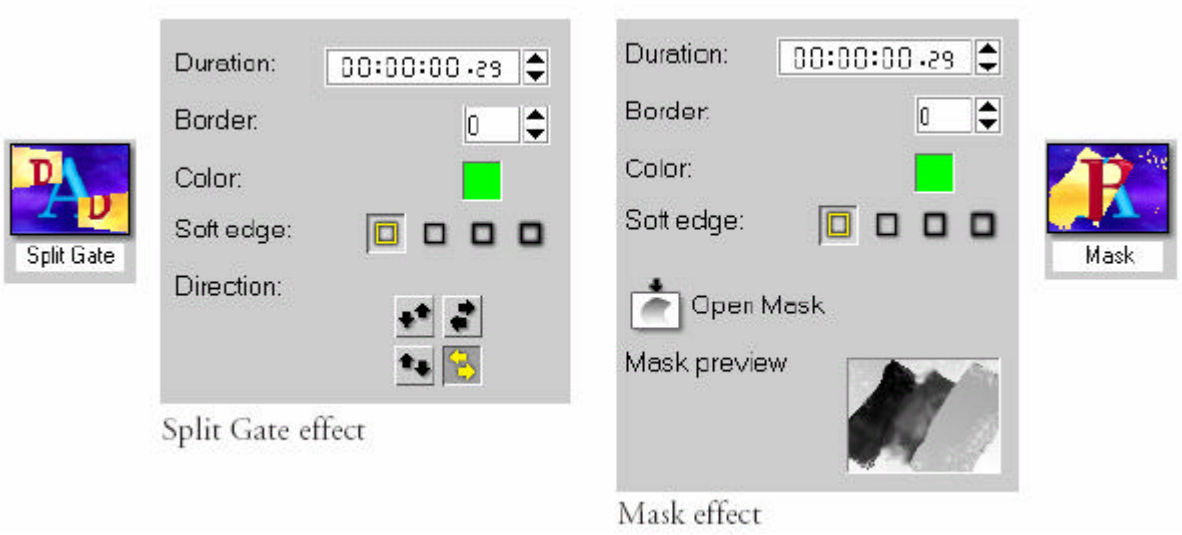


Note: Transitions work the same way in both the Storyboard Mode and Timeline Mode. But you may

Drag and drop transition effects right onto the tracks in both Storyboard Mode and Timeline Mode.

5.2.2 Customizing effects

VideoStudio pretty much takes care of all the details to make your transitions smooth and professional. You can, however, further customize your effects after adding them to your project. The Options Panel displays the settings of your selected effects so that you can change their various parameters. This gives you complete control of xactly how your effects will behave in your movie.



5.3 Overlay

The Overlay Step provides an additional track where you can place videos and images to enhance introductions and credits. An alphachannel is automatically applied to clips placed in this track for transparency. By using an animation style such as fade-in and fadeout, you can interweave two clips, one in the Video Track and another in the Overlay Track, in one timeline. You can even have three separate clips playing simultaneously by adding a clip in the Title Track.

Inserting video/image in the Overlay Track

Working in the Overlay Track is similar to working in the Video Track. You can drag and drop clips and images (color clips are not available in Overlay) to arrange their order. You can also apply a motion style effect, that controls the way the overlay clip "blends" with the clips in the Video Track.

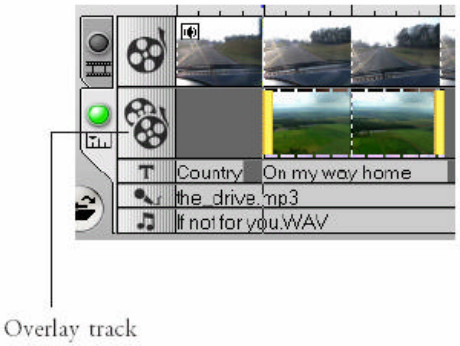
To insert a clip to the Overlay Track:

1. Select Video/Image in the Folder list or click Load video/ Load image to browse and select a file.

Drag and drop the selected clip from the Library to the

Overlay Track in the Timeline.

Or, to insert a video or image file directly into the Overlay Track, click the Overlay Track and then click Insert media

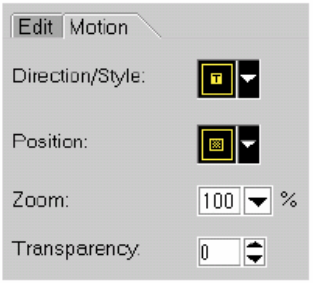


2. Click the Motion Tab, and apply a motion style to create a blending effect between the selected clip and the clip simultaneously running in the Video Track.

Note: Just like in the Title Step, the Overlay Step does not support drag and drop of multiple clips.

To make Overlay clips with transparent backgrounds, you can create a 32-bit alpha channel AVI or Image file with an alpha channel. You can further achieve your desired effects by using the Motion Tab.

Here, you can apply motion styles, set the position of your clip on the screen, magnify or reduce it, and control its transparency level



Note: Just like in the Title Step, the Overlay Step does not support drag and drop of multiple clips.

5.4 Title

The blue triangle represents the position of the title clip in the Timeline.

While a picture may be worth a thousand words, the text in your video production (i.e., subtitles, opening and closing credits, etc.) adds up to the clarity and comprehensibility of your movie. With VideoStudio's Title Step, create professional-looking titles, complete with special effects, in minutes.

Creating text titles

Titles give the audience an idea of what your movie is all about.

Create eye-catching opening and closing credits, chapter

introductions, scene captions, etc.

To add a text title:

1. Use the buttons in the Navigation Panel to scan your

video and select the frame you want to add a title to.

2. In the Edit Tab in the Options Panel, click Create Title or click

directly in the Preview Window.

Note: When you attempt to create a new title on a frame that already has

a title clip, it will be inserted after that title clip.

3. Type in your title in the Preview Window and use the style

buttons to customize fonts. Options are available in the Edit Tab.

4. When you are done typing your text, click Update Title.

5. To add effects to your title, switch to the Animation Tab.

Select an effect from the Type drop-down list, and choose from the available options to animate the title.

The blue triangle represents the position of the title clip in the Timeline.

When entering a text title, a faint rectangle is visible in the Preview Window. This is the Title safe area, and it is the recommended maximum size for your text. Along with the rectangle, you should see a blinking cursor that indicates the starting point for text entry. When entering text, you can press [Backspace] to correct mistakes and press [Enter] to start a new line. Move around the text with the arrow keys as needed. To change the attributes of text, first highlight the text by selecting it with your mouse and then make revisions.

To modify a text title:

- Double-click a title clip in the Title Track. Or,
- Select a title clip in the Title Track and then click on the Preview Window.

> **Tip:** When you are creating multiple title clips that share the same attributes such as font type and style, it is a good rule of thumb to store one copy of your title clip in the Library. (Just drag and drop the title clip from the Timeline into the Library.) This way, you can easily duplicate the title clip (by dragging it from the Library back onto the Title Track) and then change the title.

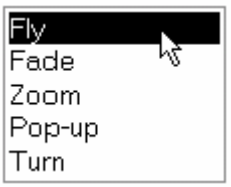
5.4.1 Rolling & scrolling

The most commonly used technique for presenting opening or closing credits is by rolling and scrolling. VideoStudio allows you to do just that. You can even specify the direction and duration of your scrolling or rolling text.

To scroll a text title:

1. Select a text title in the Timeline or create a new one.

2. On the Animation Tab in the Options Panel, select Fly from the Type drop-down list.



Tip: When you are creating multiple title clips that share the same attributes such as font type and style, it is a good rule of thumb to store one copy of your title clip in the Library. (Just drag and drop the title clip from the Timeline into the Library.) This way, you can easily duplicate the title clip (by dragging it from the Library back onto the Title Track) and then change the title.

5.4.2 Fading in & out

Another incredibly useful, easy, and effective method of displaying your titles is to fade your text in from invisible to crisp and clear and then back to invisible again. This works especially well for

opening credits with a slow fade, or as captions with a quicker fade.

To create fading titles:

1. Select a text title or create a new one.

2. On the Animation Tab in the Options Panel, select Fade from the Type drop-down list.

3. Select a fading option. (Crossfade makes the title gradually appear and then disappear.)

4. Specify a Pause setting (No Pause, Short, Intermediate, or Long).

5. Specify how to scroll the title by choosing these animation options:

• Start and End units

Determine whether the whole title (Text) moves, or parts of the title (Character, Word, or Line) scroll one at a time.

• Start and End positions Determine from what position the title starts to move in and the final destination where it scrolls out.

4. Specify a Pause setting (No Pause, Short, Intermediate, or Long). This makes the title move into the scene, pause for a moment, and then scroll out of the scene.

5.4.3 Other title animation effects

Give your title more pep by making it pop-up or turn across the screen. The Pop-up and Turn effects are ideal to use in opening credits.

To apply a pop-up/turn effect:

1. Select a title clip or create a new one.

2. On the Animation Tab in the Options Panel, select Pop up / Turn from the Type drop-down list. Make sure that the Enable Animation option is selected.

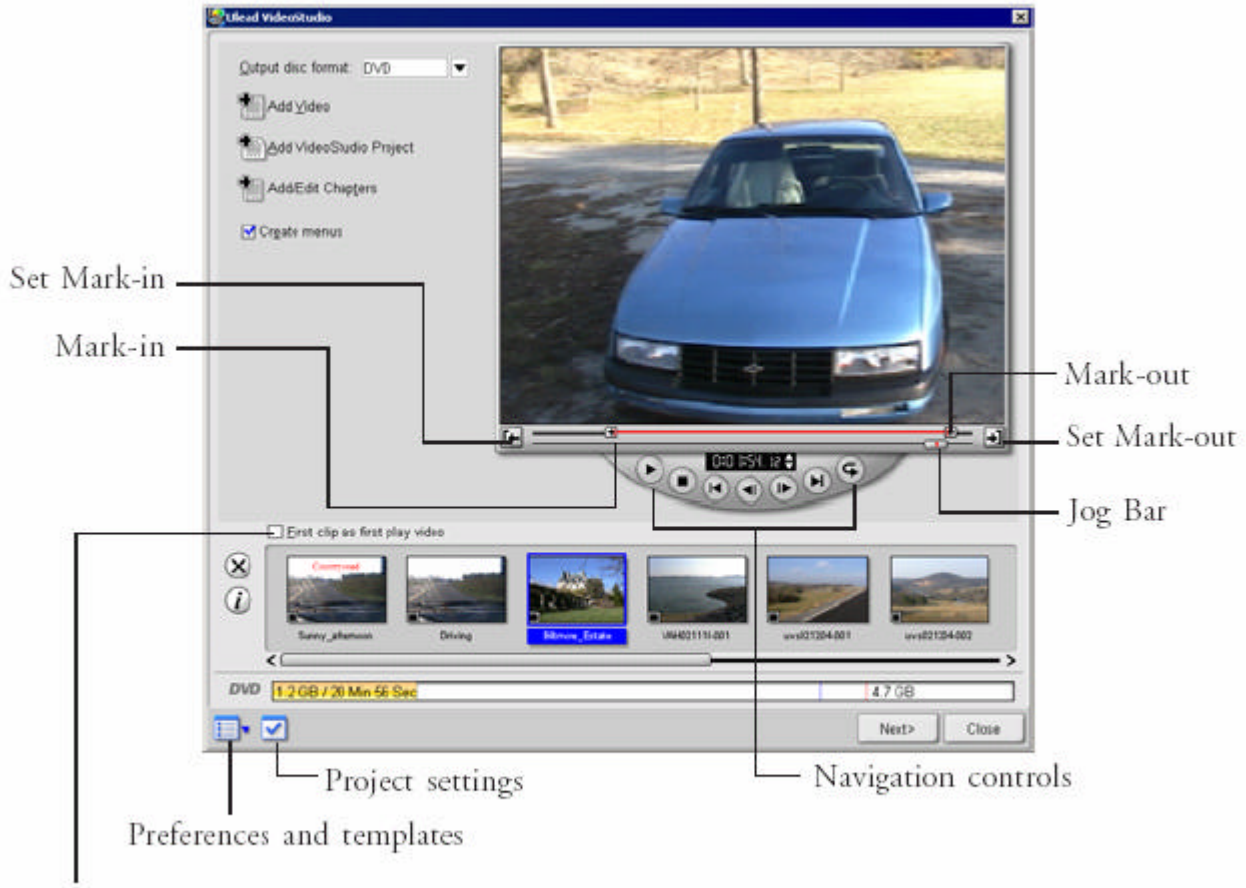
3. From the Start unit drop-down list, choose whether to animate the title on a Text, Word, Line, or Character basis.

4. Choose a Start position where you want the title to enter the screen. If you applied the Turn effect, also choose an End position where you want the title to exit the screen.

5. Click Play to preview.

5.5 Creating disc

This is the place where you can output your project (together with other VideoStudio projects or video as needed) to create VCD, SVCD, or DVD. First, choose an output format. Second, decide whether you want to add other projects and videos. See the following sections for more information.



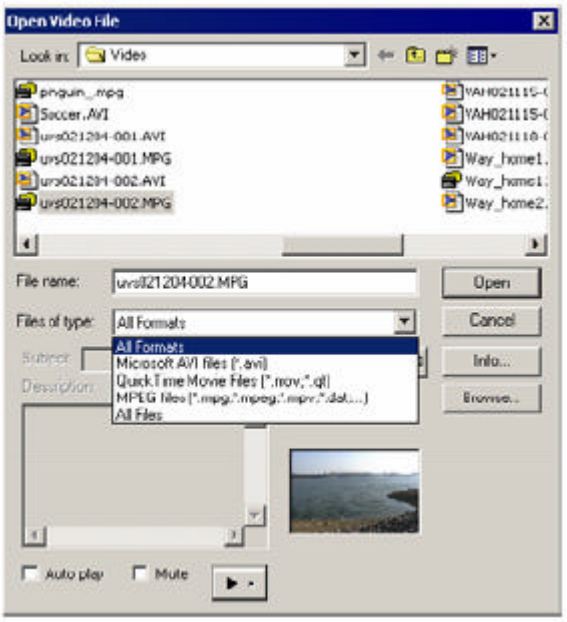
Select this to create an introduction to your movie. The first play video is always playbacked first automatically after the disc is inserted into a player.

To add videos:

1. Click Add Video.

2. Locate the folder where the videos are, and then select one or more video clips you want to add.

3. Click Open.

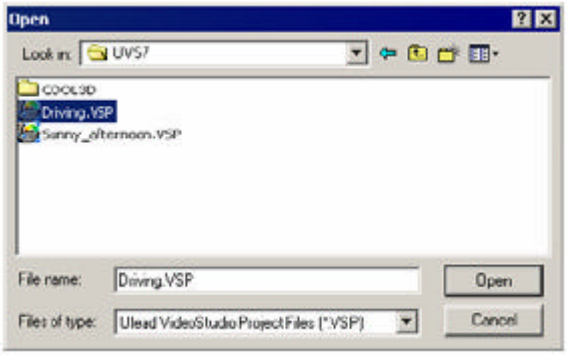


Notes:

• You can add video formats such as AVI, QuickTime, and MPEG files. You can also add VCD video (DAT) files.

• After a video clip is added to the Media clip list, sometimes you may see a black thumbnail. This is because the first scene (frame) of this video clip is a black screen. To change it, double-click to select this video clip and move the Jog Bar to the scene you want. Next, right-click the thumbnail and select Change Thumbnail.

To add VideoStudio projects:



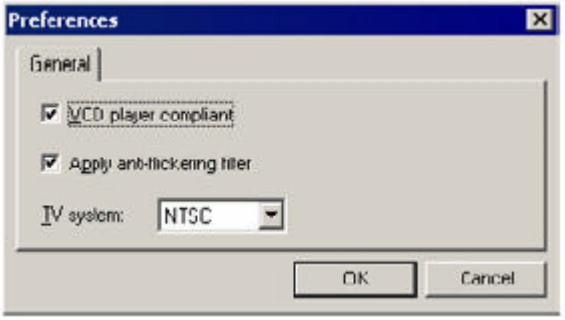
1. Click Add VideoStudio Project.

2. Locate the folder where the projects are, and then select one or more video projects you want to add.

3. Click Open.

Preferences

You can press [F6] to open this dialog box with the following three options:



• VCD player compliant Ulead VideoStudio uses the VCD 2.0 format when creating VCDs. For navigation menus with background

music, Ulead VideoStudio uses a format that requires "variable-bit-rate (VBR)" decoding. However, some VCD players do not support VBR

decoding and therefore VCDs created in Ulead VideoStudio will not play correctly in these players. Select this option to make sure that the VCD created will play in these players.

• Apply anti-flickering filter Select to apply the anti-flickering filter to the menu pages. The anti-flickering filter reduces the "flickering" that happens when using a television (interlaced display) to view the menu pages. However, this does not help when the menu page is viewed on progressive scan devices such as computer monitors or projectors.

• TV system Select the type of your TV system (NTSC or PAL).

Trimming a video

You can trim a video using the Jog Bar, mark-in/out, and navigation controls. (See the illustration below.) Trimming a video gives you the freedom to precisely edit the video length.

Adding/editing chapters

This feature is only available when the Create menus option is selected. By doing so, you can create submenus linked to their associated video clip at the setup menu step later.

Represented as a video thumbnail in a submenu, each chapter is like a bookmark for a video clip. Viewers can easily select a chapter then the video clip will immediately jump to the first scene of that chapter and start the playback. This feature is particularly useful when you want to attract your viewers by giving them the freedom

to choose a particular part of the movie to watch. Note that these small video thumbnails only link to its "mother" video without generating any additional physical video files. So, you don't need to worry about the possibility of unexpected file size increase.

Notes:

• You can create up to 99 chapters for a video clip.

• If the Create menus option is not selected, you will be guided to the preview step immediately without creating any menus after clicking Next.

• When you are creating a disc with only one VideoStudio project or one video clip, do not select First clip as first play video if you want to create menus.

Project settings

Use this for advanced MPEG output settings:

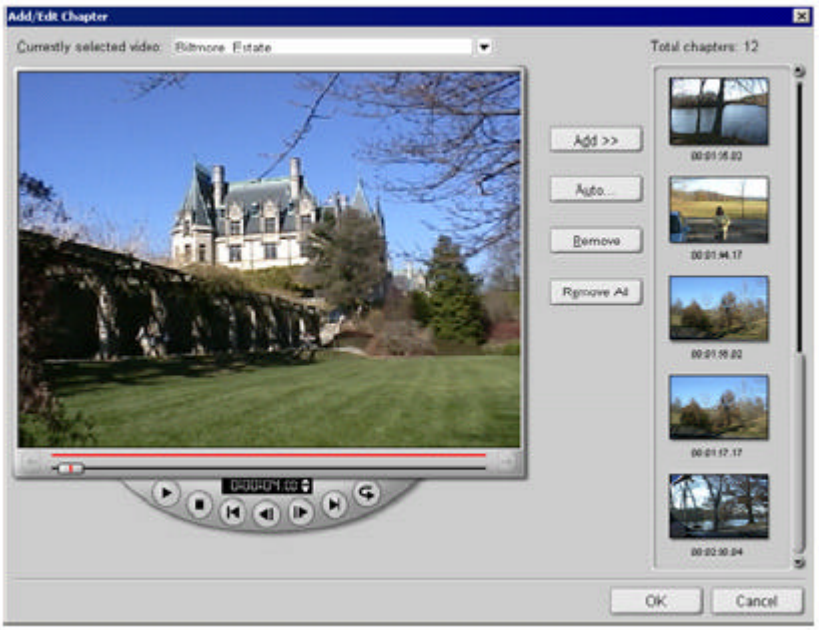
• MPEG properties for file conversion

Displays detailed information about the selected video setting.

• Change MPEG Settings Select the type of video setting of your project. Select Customize to personalize video settings.

• Do not convert compliant MPEG files Select to retain settings of every MPEG compliant file.

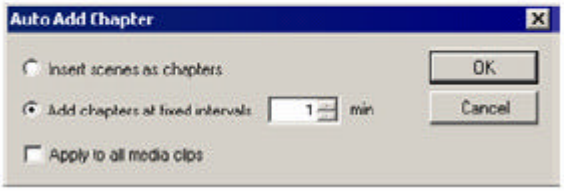
• Auto repeat when playback ends Select to automatically replay the video every after playback.



To create or edit chapters linked to a video clip:

1. Select a video in the Media clip list.

2. Click Add/Edit Chapters.



3. Click Auto to let Ulead VideoStudio help you select chapters (such as at fixed intervals), or drag the Jog Bar to

move to a scene as the first frame of a chapter, and then click Add.

Tips:

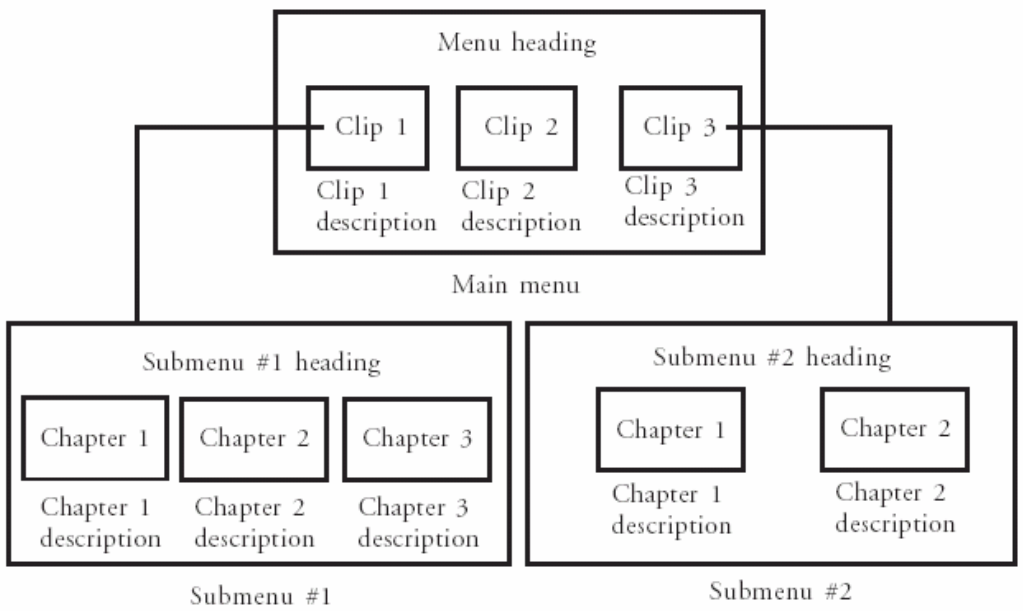
• If you want to use Auto, your video must be at least one minute long or the video has scene change information.

• If you click Auto and your video is a DV-formatted AVI file captured from a DV camcorder, Ulead VideoStudio can automatically detect scene changes and add chapters accordingly.

• If the selected video is an MPEG-2 file with scene change information, Ulead VideoStudio automatically generates these chapters for you when you click Auto.

4. Repeat Step 3 as needed. You can also use Remove or Remove All to delete unwanted chapters.

5. Click OK.



Setup menus

At this step, you can create the main menu and submenus. They provide a list of interactive thumbnail-styled options displayed on a screen for your movie viewer to choose from. Ulead VideoStudio includes a set of menu templates to best fit the purpose of each menu.

To help you better understand the DVD/SVCD/VCD menu structure, see the illustration below.

In this example, Clip 1 has three chapters so when you click the Clip 1 video thumbnail, it will jump to submenu #1. If you look at Clip 2, it has no chapters assigned to it therefore there is no

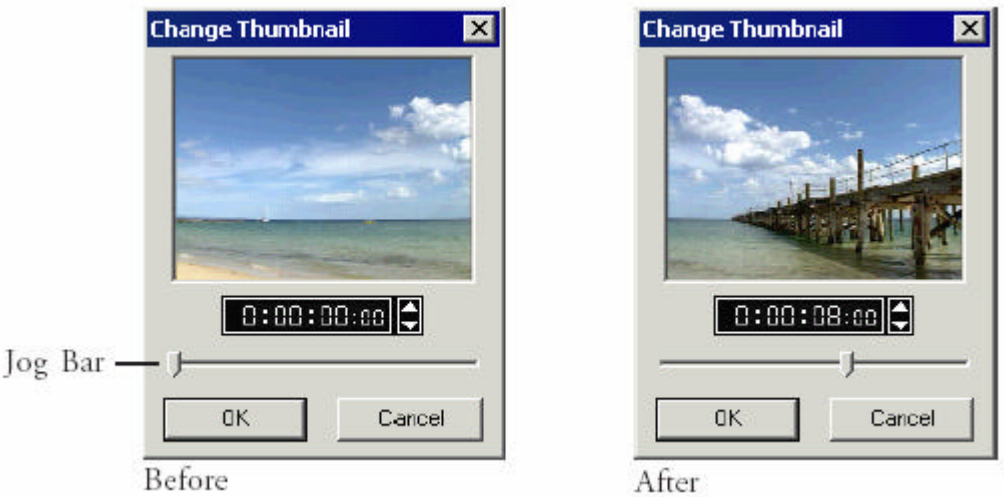
To edit menus:

1. By default, Ulead VideoStudio automatically makes all required menus for you. Use Currently displayed menu to switch to the menu you want to edit.

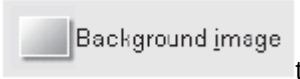
2. Click "My Title" to customize the menu heading. You can also click the text description under each video thumbnail for customization.

3. To change the image shown on each video thumbnail, click it then drag the Jog Bar to change.

Note: If you skip Step 2, "My Title" and the thumbnail name will be used as the menu heading and the text description respectively. If you don't want to show the menu heading or the text description, simply delete it.



4. To change a menu layout, use the Menu template list and select another preset.

5. You can also click 

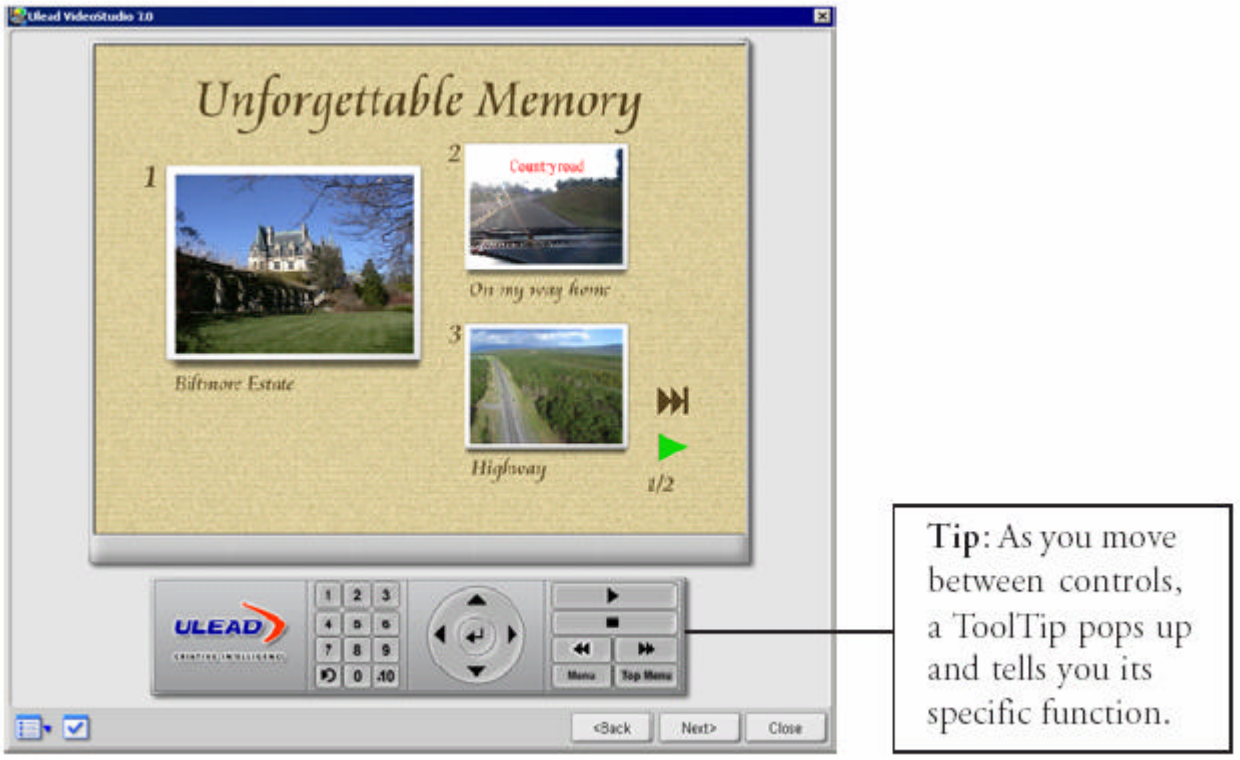
to use your own background image, or click

to use your background music.

6. When you' re done, click Next to preview the movie.

Preview your movie

Now, it' s time to see how your movie looks like before you burn it onto a disc. Simply move the mouse and click Play to watch your movie and test the menu selection on your computer. Use the navigation controls here as you would on a standard remote control of a home DVD player.



Output your movie

This is the final step before your video disc or output file is ready.

Here, you can choose the disc burner, as well as select the folder where you want to output video files or a disc image file.

Tip : Before actual disc burning starts, make sure the disc in the correct format has already inserted into the disc burner.

To output your movie:

1. Enter a volume name (up to 32 characters) for the output disc.

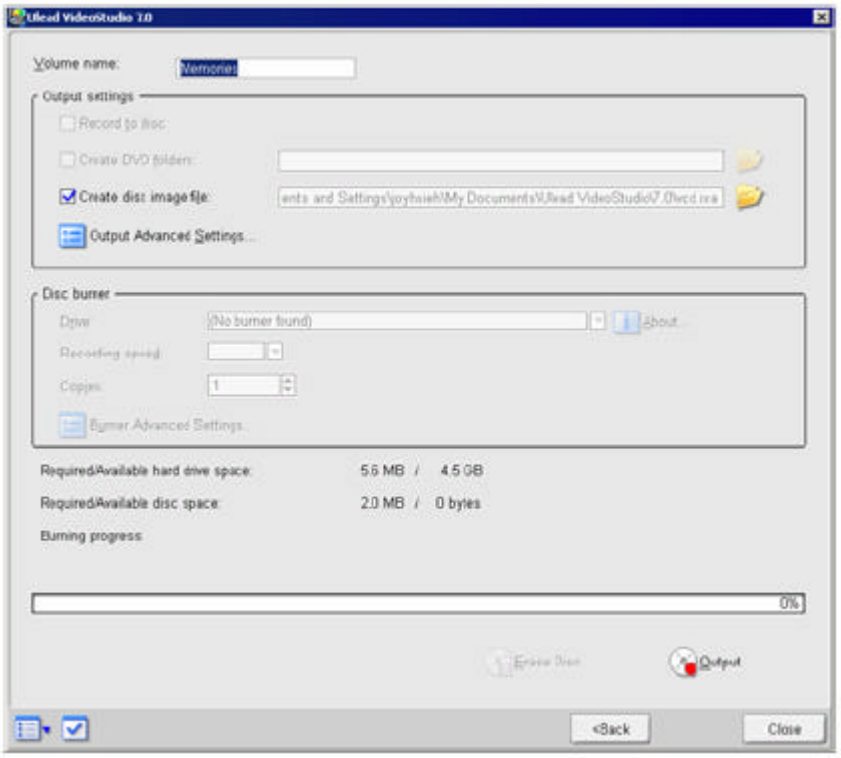
2. In Output settings, select one or more tasks you want to do. For example, select the recording format that best suits your need. (See the notes on the next page). You can also click Output Advanced Settings if you want to add additional components such as a video disc player or your personal data.

Tip : As you move between controls, a ToolTip pops up and tells you its specific function.

3. Select a disc burner and make settings (such as the recording speed) compatible with your output disc format.

4. Click Output.

5. The burning progress bar shows you the burning status. Once it is done, click Close.



Notes on how to choose an appropriate recording format:

• Ulead VideoStudio provides an option, DVD-Video (fast editable), that allows you to still use the industrial standard DVD-Video format, however, it will only burn the necessary files you need so you can edit your video content (e.g. menus) in the future. This option saves time in copying files and hard drive space when you edit the contents of your disc again but may result in your disc not being compatible with some DVD players.

• If DVD-Video (fast editable) is selected, options in the Output Advanced Settings dialog box such as Include personal folder to disc will not be available.

• If DVD-Video (fast editable) is selected, keep in mind that there is a 30MB file size limitation for menus, background audio and project file combined. Audio files have larger file sizes and therefore it takes up the bulk of this file size limitation. Reduce the file size of your audio (e.g. shorter length) if you plan to have a lot of menus.

• If you choose DVD-Video, you will be using the industrial standard DVDVideo format for maximum compatibility. However, you cannot enjoy the advantages brought by the DVD-Video (fast editable) option.

6 FusionMPEG2 APPENDIX

6.1 TROUBLESHOOTING

Symptom: Jerky screen.
Solution:

1. Slower CPU
   If you're using slower than 500 Mhz CPU, you can change the recording resolution size to 480x480 or 352x480 to get the more natural screen.
2. Main board chip set and VGA driver.
   A lot of bugs and errors are reported when using VIA 693x chipsets with most of the multimedia cards. It requires the VIA's latest patches. If you're using the VIA 69x chipset, please visit the VIA's WEB page and download the latest VIA patch driver, then apply it. Or you can visit the Dvico's home page (www.dvico.com) which provides the appropriate links to VIA.
3. Sound card driver.

You should download the latest sound card driver on each sound card company, if you experience the jerky screen even with faster CPU.

4. Fragmented HDD
   If you're installing the Windows long time ago, it's mostly likely that the HDD is fragmented. Please run the Windows de-fragmentation utility.

Symptom: 'MPEG2 decoder not found' error
Solution:

1. WinDVD was not installed
   Please make sure that you installed the WinDVD. Please uninstall, and then re-install the FusionMPEG2 setup. In setup procedure, do not skip the WinDVD setup.
2. Other APP is using the MPEG2 decoder.
   Close the other APP that uses the MPEG2 decoder. (like MediaPlayer or something.)

Symptom: 'MPEG2 rendering failed' error
Solution:

Close the other APP that uses the MPEG2 decoder (like MediaPlayer or some other APP.) and sound card. If other APP uses the sound card, FusionMPEG2 fails to locate the sound output, so it shows this error.

Symptom: 'Time-shift filter error' appears.
Solution:

Reboot the computer in FusionMPEG2 PCI. You'll get this message when terminates the FusionMPEG2 APP abnormally. Please press the RESET button on FusionMPEG2 USB and re-run the FusionMPEG2 APP.
It's typical hardware error. Please re-install the hardware to other slot, or clean the PCI slot edge of the PCI card, if you experience the problem even in first booting.

Symptom: Video does not show on Windows 2000.
Solution:

Visit the web site of your VGA card company and download the latest driver of Windows 2000. Since most of VGA companies' priority is Win'98/ME, Win2000 drivers were updated late. If you does not experience this symptom in Win'98, it's most likely the Win2000 VGA driver problem.

Symptom: Shows blue screen on Windows 2000.

Solution:

It requires the VIA's latest patches. If you' re using the VIA 69x chipset, please visit the VIA's WEB page and download the latest VIA patch driver, then apply it. Or you can visit the Dvico's home page (www.dvico.com) which provides the appropriate links to VIA.

Symptom: FusionMPEG2 does not work in Windows 2000 Advanced Server.

Solution:

Because of enforcement of securities, Windows 2000 Advanced Server sets a lot of limitation regarding to registry. FusionMPEG2 only runs on Windows 2000 professional when it comes to W2K.

Symptom: ' Sound card already used by another APP' error appears.

Solution:

Symptom: ' Sound card not found' error appears.

Solution:

Close the other APP that uses the sound card (like MediaPlayer, RealPlayer, MP3 player) If other APP uses the sound card, FusionMPEG2 fails to locate the sound output, so it shows this error.

Symptom: Sound is recorded with echoes.

Solution:

It's because of sharing the same IRQ number with FusionMPEG2 and sound card. Please move the FusionMPEG2 to other slot or re-route the IRQ sharing to avoid the same IRQ number with sound card.

6.2 SPECIFICATIONS

FusionMPEG2 Specification

Item	Specifications	Comment
Features	• Real time MPEG1/MPEG2/VCD/SVCD/DVD encoder • Using the superb Conexant CX23416 MPEG2 chipset • Up to 15Mbps MPEG2 encoding bitrate • USB 2.0 Interface • USB bus-powered – no DC adapter required • Audio input gain controllable • Ultra slim and cute design • Super fast SVCD/ VCD/ DVD creation • Guarantee the perfect AV sync at all modes • Using the Dvico' s native MPEG2 software decoder • Incredible cut-on-the-fly feature • Support time-shifting function (pause, fast forward, fast backward, position skip) • No 4G recording limit – generate indexed files. • Selecting capturing quality of high, middle, VCD/ SVCD/ DVD/ Optional MPEG1/ Optional MPEG2 • Support NTSC and PAL input	
Input/Output	• One composite and one S-VHS input • One stereo RCA input for audio	
Compatibility (System)	• Pentium-500MHz with 128M memory (minimum) • Runs on Win' 98SE / ME/ 2000/ XP • Ultra-DMA33 enabled mother board and HDD • Requires one USB 2.0 or 1.1 port • Requires PCI sound card for playback	
Compatibility (Video & Sound)	•Frame rate – NTSC 29.97Hz, PAL 25Hz •Color depth – 24bit •Spatial resolution – MPEG1/2: 720x480,480x480,352x480,352x240 (NTSC) 720x576, 480x576, 352x576,352x288 (PAL) •Video bitrate - 2~12 Mbps(MPEG2), 1~4 Mbps(MPEG1) •Audio bitrate – 192, 224, 384 Kbps •Audio sampling rate – 32/44.1/48KHz	
Drivers	• Dvico' s native WDM driver • Dvico' s native time delay filter • Dvico' s native MPEG2 decoder filter	
Application Software	• Dvico' s FusionMPEG2 Application for PVR application • Dvico' s MPEG2 software video/audio decoder • Ulead DVD MovieFactory2 for DVD authoring / burning	

6.3 CUSTOMER SUPPORT

Please contact below address or WEB, if you have further questions or problems.

WEB : *http://www.dvico.com*
EMAIL : *cs@dvico.com*
TEL : *+82-31-728-1394*
FAX : *+82-31-717-8980*

ADDRESS :

463-810
Dvico, Onse Telecom B/D 4F, Goomi 192-2, Boondangku, Sungnam City, Kyongki-do, South Korea

FCC Information

This device complies with Part 15 of the FCC Results. Operation is subject to the following two conditions:

(1) This Device may not cause harmful interface, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

1.1. Reorient or relocate the receiving antenna.
1.2. Increase the separation between the equipment and receiver.
1.3. Connect the equipment into an outlet on a circuit different from that to which receiver is connected.
1.4. Consult the dealer or experienced radio/TV technician for help.

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.