neoDVD™ plus

VIDEO IN • DVD OUT • IT'S THAT SIMPLE.™
Custom

Capture special moments on video.

Convert video footage into DVD or VCD files.

Burn DVD or VCD files onto CD or DVD discs.

Share special moments with loved ones.

User Manual

Plus Edition
Version 4.0

medi⊚stream™

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1   Introduction

Welcome to a new world of sight and sound! Designed specifically for the home camcorder user, **neoDVDplus** is an innovative, easy-to-use software solution that makes creating DVD or VCD on desktop PCs as easy as audio cassette recording. **neoDVDplus** will instantly transform the home PC into a digital studio, allowing you to turn any video into a DVD or VCD-ready file.

For general information about **neoDVDplus**, go to the **What is New in neoDVDplus** section of this manual.

1.1   About This Manual

This manual is based on the **neoDVDplus Help** file. Some sections may be modified for organizational flow. We strongly encourage you to use the **Help** function within the application/product; it is structured with links to provide immediate access to the information you need.

2   Using neoDVDplus Help

The **Help** function provides you with easy access to topics encompassing all aspects of using **neoDVDplus**. Structured in the familiar HTML Help style, the **Help** file has navigational and search features for locating information.

To launch the **Help** file while using **neoDVDplus**, click on the [?] button in the top right-hand corner of the application window.

Links to related topics or sections are embedded in the text. Click on the underlined words in the text to view the linked topic. To go back to a previous topic, just click on the **Back** button.

There are three ways to navigate through the **Help** file:

- **Contents:** This is the default mode, displaying **Help** topics in a "Table of Contents" format. To view a particular topic, click on the topic name or the question mark icon at the end of the text. A book icon indicates a section containing several topics. Click on the "+" icon or double-click the section name to open the section contents and display the section topic hierarchy.

- **Index:** The index is made up of the common terms associated with the use of the software. As you enter a keyword, the **Help** file scrolls to the closest matching topic name. To open the desired topic, double-click on the index entry.

- **Search:** This option is used to find topics that contain a specific word or phrase. This can be helpful when you are unable to find what you are looking for using the **Index** and **Contents** navigation modes. Type the words or phrase you are looking for and click on **List Topics**. This displays all topics containing the word/phrase in the lower window. To view a topic, double-click on it. The words or phrases searched for are usually highlighted, making them easier to locate.

2.1 Printing Help

You can print **Help** topics by clicking on the **Print** icon of the **Help** window's toolbar.

2.2 Updating Help

For periodic **Help** updates, visit the **Support** section of our Website at:
http://www.mediostream.com/support

3 neoDVD Support

If you need more information beyond what is covered in this manual or the **Help** file, we provide 24-hour Online Support Resources free to all users.

3.1   MedioStream Online Support

For the most up-to-date technical information about **neoDVDplus**, including:

- **Troubleshooting Tips** covering the latest known problems and solutions
- **FAQs** covering the most frequently asked questions about **neoDVDplus**
- **Tutorial** describing how to use the various aspects of **neoDVDplus**
- Latest revisions of the **neoDVDplus User Manual** and other documentation

please visit the **Support** section of our Website at **http://www.mediostream.com/support.**

4   What is New in neoDVDplus?

There have been several significant upgrades, feature additions, and other changes from **neoDVDplus** 3.0. We have implemented a new user interface, designed to make **neoDVDplus** the accepted DVD and VCD authoring market industry-standard. The enhancements also provide a more focused, video-centric solution for video enthusiasts.

One of the first things you will notice in **neoDVDplus** 4.0 is the NEO TaskBar. The NEO TaskBar allows you to launch any of the three modules in **neoDVDplus:** CAPTURE, CREATE, AND COPY. You can also access the MedioStream online store from the NEO TaskBar.

Capture   Create   Copy   Store
Module   Module   Module
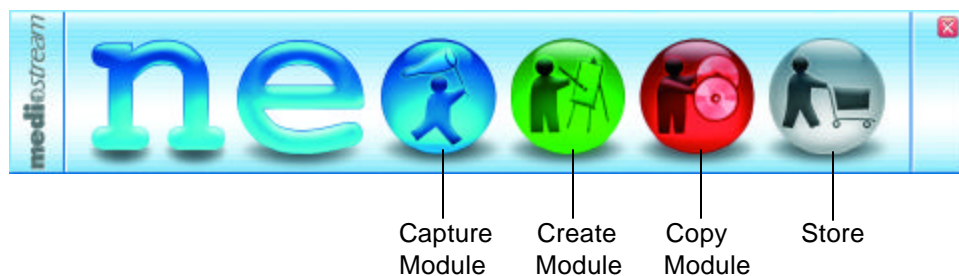
4.1 neoDVD~plus~ 4.0 Enhancements

Capabilities	neoDVD 3.0	neoDVD 4.0
Create DVD or VCD files	x	x
Create MPEG-1, MPEG-2, and AVI files	x	x
Automatic PAL/NTSC conversion	x	x
Burn DVD or VCD videos onto CD discs*	x	x
Burn DVD videos onto DVD discs*	x	x
Re-edit DVD discs using +VR*		x
Set video quality with respect to length of playback		x
Create DVD or VCD slideshow with still photos (.bmp and .jpg)		x
Option to set moving menus		x
Wide selection of backgrounds, frames, layouts, audio, and transitional effects included		Enhanced
Option to set automatic chapter breaks	x	x
Editing features	x	x
Add audio overlay (.mp3 and .wav files)		x
Record live voice-over/narration for audio overlay		x
Go directly from VCR to DVD*	x	x
Go directly from digital or analog camcorder to DVD*	x	x
Go directly from TV to DVD	x	x
Preview video before burning to CD or DVD	x	x

* Requires appropriate hardware, not included.

For DVD-authoring novices, **neoDVD~plus~** offers an application Wizard to walk you through the steps necessary to create a DVD or VCD.

5   Minimum System Requirements

To ensure optimal performance from **neoDVDplus**, your system **MUST** meet the minimum requirements. If your PC does not meet these requirements, you **CANNOT** use the application successfully. We recommend that your system configuration exceed the minimum requirements.

- **Operating System. neoDVDplus** supports Microsoft Windows 98 (SE), Windows Me, Windows 2000, and Windows XP. We suggest that you install the latest service pack for your operating system. Visit Microsoft's Website at **http://windowsupdate.microsoft.com** to download the latest Windows update for your system.

- **Processor (CPU).** To run properly, **neoDVDplus** requires a processor with a minimum speed of 700MHz. **neoDVDplus** is compatible with Intel Pentium 4, Intel Pentium III, Intel Celeron, and AMD Athlon processors. For real-time performance and optimum Analog Input processing, a 1.1GHz processor is required.

- **Computer Memory (RAM).** A minimum of 128MB of RAM is recommended to run **neoDVDplus.**

- **Graphics Card.** An AGP graphics card with a minimum of 8MB of RAM is required. The monitor display size should be a minimum of 800 x 600 pixels using a minimum color depth of 24 bits (True Color) or higher.

- **Hard Disk Space.** A minimum of 5GB free disk space is required on the partition where **neoDVDplus** will be installed.

- **Removable Media Drives. neoDVDplus** can directly export to most commercially available CD-R/RW and DVD recordable drives, including DVD+R, DVD+RW, DVD-RAM, DVD-RW, and DVD-R.

5.1 Optional Hardware

- **Digital Video (DV) or Analog Camcorder.** This is required if you want to perform a Live Capture session with **neoDVDplus**. The application supports both PAL and NTSC camcorders.

- **OHCI-Compliant IEEE-1394 Card.** This is required if you want to allow **neoDVDplus** to communicate directly with your Digital Video (DV) camcorder.

- **Analog Capture/TV Tuner Card.** This is required if you want to allow **neoDVDplus** to communicate directly with your analog camcorder, VCR, or TV signals. **neoDVDplus** supports some, but not all, analog capture cards. For detailed information and updates on which analog capture cards **neoDVDplus** supports, please visit the **Support** section of our Website at **http://www.mediostream.com/support**.

- **DirectX 8.1 or Higher.** If you do not have the latest version of DirectX, download it for free from Microsoft's Website at **http://www.microsoft.com/directx/homeuser/downloads/default.asp**

- **Windows Media Player Version 7.1 or Higher.** If you do not have Windows Media Player installed on your computer, download it for free from Microsoft's Website at **http://www.microsoft.com/windows/windowsmedia/en/download/default.asp** and then follow the instructions provided in the same link. If you already have Windows Media Player installed on your computer, verify that it is the latest version.

6 Installation

The **neoDVDplus** installation program runs from within the Windows Operating System and contains complete instructions on the installation process.

6.1 Installing neoDVD_{plus}

To install **neoDVDplus**:

1. Insert the **neoDVDplus** CD into your CD-ROM drive. Windows should detect the installation CD and automatically run the installation program. If the automatic disc detection feature is turned off, use Windows Explorer to browse through the contents of the CD and click on the file named **Setup** to run the installation.

2. Read the **End User License Agreement** and click "I Accept" if you agree to continue the installation.

3. Follow the installation program instructions.

NOTE: If you have an installation CD and did not install the necessary Microsoft components before you installed the **neoDVDplus** application (refer to the **Minimum System Requirements** section for details), we have included them on the installation CD. Please note, however, that you might need to restart your PC each time you install a component.

We encourage you to register your **neoDVDplus**. This will enable you to gain access to the latest product updates, technical support, and special offers. To register your product, simply follow the instructions provided in the Registration section of the installation, or register online at the MedioStream Website:
http://www.mediostream.com/products/registration_form.html

6.2 Removing neoDVD_{plus}

To remove **neoDVDplus** from your computer:

1. Close all programs running on your computer.

2. Click the Windows **Start** button, and then choose **Settings > Control Panel.**

3. Double-click on the **Add/Remove Programs** icon.

4. Click on **neoDVDplus,** and then click **Add/Remove.**

5. Follow the instructions on the screen.

NOTE: This process only removes the **neoDVDplus** application files. It does not delete any imported media files, project files, or DVD builds in the **neoDVD** folder. To delete these files, you will have to use Windows Explorer.

7   Before Starting neoDVDplus

After installing **neoDVDplus,** you need to connect your video capture device. You can connect any Digital Video (DV) or analog capture device (camcorder or VCR deck) with a video capture card. To connect a capture device:

1. Make sure your capture device and your computer are switched off.

2. Properly connect your digital video or analog capture device to the computer with a FireWire or analog capture card cable.

3. Start your computer, and wait for Windows to finish initializing.

4. Turn on your digital video or analog capture device. **WAIT A FEW SECONDS** as the computer detects the capture device and loads the appropriate software to communicate with it.

5. The following sections describe how to connect the different capture devices.

7.1   Connecting Your DV Capture Device

If you have a DV capture device, you need to install an OHCI-compliant IEEE-1394 card.

To connect your DV capture device, analog camcorder, or VCR deck to your computer:

1. Connect the IEEE-1394 DV cable connector to one of the external IEEE-1394 data ports on your computer.

2. Connect the other end of the IEEE-1394 cable to the DV IN/OUT or the DV OUT connector of your DV camcorder/VCR. Make sure the DV capture device is switched off while connecting the IEEE-1394 cable.

3. Turn on your capture device.

4. Launch the **neoDVD$_{plus}$** application.

7.2   Connecting Your Analog Capture Device

For analog capture devices (VHS camcorders or VCRs), you need to install an analog video capture card. **neoDVD$_{plus}$** currently supports the following analog capture cards:

ATI All-In-Wonder 128 Pro
ATI Rage Fury Pro
ATI All-In-Wonder Radeon
AverMedia AverTV Studio
AverMedia EZ Capture
COMpro Personal Cinema
Hauppauge WinTV 401
Conexant Fusion 878A
Dazzle DV Bridge

While these cards have been fully tested and verified to be compatible with **neoDVD$_{plus}$**, other analog capture cards may work with the software. Please check the **Support** section of our Website at **http://www.mediostream.com/support** for updates on new information regarding analog capture card support.

To connect your analog capture device:

1. Connect the analog capture card connector to one of the external data ports on your computer.

2. Connect your analog capture device to the capture card using either **Composite** or **S-Video** cables.

   Composite cable connector pins are usually yellow, red, and white. The yellow pin represents video, while the red and white pins represent audio.

Composite (RCA) connector	**S-Video connector**
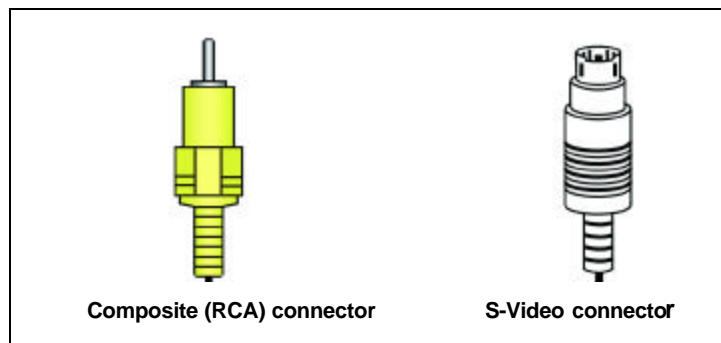
   If your capture card supports it, you can also connect your analog device using an **S-Video** cable. This cable is used in conjunction with the Red and White audio connectors. Most people use **S-Video** cables instead of the Yellow video connector because they produce better video quality.

3. Turn on your analog capture device.

4. Launch the **neoDVDplus** application.

7.3   Setting up Your Camcorder in the Proper Mode

Most camcorders have two basic modes of operation. The first is known as the **Camera** mode. This setting allows the user to record a live session to tape. The other mode is the

VTR or **VCR** mode. This allows for playback of pre-recorded tape.

- Use the **Camera** mode setting to capture and create DVD or VCD files from live video
- Use the **VTR** or **VCR** mode setting to create DVD or VCD files from tape

Both **Camera** and **VTR/VCR** modes can be used with **neoDVDplus**. To change modes while running **neoDVDplus**, switch off your camcorder, **WAIT FOR A FEW SECONDS**, then switch your camcorder to the desired mode. On most camcorders, the mode switch also controls the power, and the **Off** setting is between the **Camcorder** and **VCR/VTR** settings. It is best to switch the camcorder off for a few seconds before resetting the operation mode.

8   Getting Started

To launch **neoDVDplus**, double-click on the **neoDVDplus** icon on your desktop, or follow Windows convention: click on the **Start** button in the lower left-hand corner of the Windows desktop and select **> Program > MedioStream > neoDVDplus.**

The **neoDVDplus** Welcome window appears. It contains launch icons for the CAPTURE, CREATE, AND COPY modules, as well as brief descriptions of what you can do within each module. You can access the **neoDVDplus** modules from the Welcome window each time you launch the application, or use the NEO TaskBar to access a module. Click on the **Don't show me again** checkbox if you want the NEO TaskBar to appear each time you launch **neoDVDplus** instead of the Welcome screen. You can perform three activities with the **neoDVDplus** application:

 CAPTURE: This module allows you to transfer your videotape or live video from your camcorder or VCR and save it on your computer's Hard Disk Drive in an editable format. Once saved, you can perform video editing (using a third-party application) and other functions before authoring and burning the video to disc using the **CREATE** module. You can capture live input and save it in MPEG-1, MPEG-2, or AVI formats.

CREATE: This module allows you to import video files, perform basic video editing such as video trimming and video menu layout; and burn your DVD or VCD project onto a CD or DVD disc . You can import video files into the CREATE module from a variety of sources, including: files stored on your computer's Hard Disk Drive, TV tuner, live video, or on a network .

The **neoDVDplus** Create Wizard walks you through each step required to create a DVD or VCD. The **neoDVDplus** Create Wizard is a quick and easy way to work with **neoDVDplus**. You can specify when the Wizard appears:

- each time you launch the CREATE module
- when you create a new project
- do not display the Wizard

To specify when the Wizard appears, click on the **Options** button located in the lower left-hand corner of the CREATE module window.

NOTE: To exit the Create Wizard, select the **Cancel** button.

COPY: This module allows you to make copies of your homemade DVD or VCD videos.

NOTE: It is illegal to duplicate copyright-protected commercial DVD or VCD video. The **COPY** module of the **neoDVDplus** application should be used ONLY to duplicate your own homemade movies and content.

We recommend that first time users view the self-paced **Tutorial** to get a better understanding of what you can do with **neoDVDplus**.

9 Using the CAPTURE Module

In the CAPTURE module, **neoDVD_{plus}** allows users to capture their video content directly from a Digital Video (DV) camcorder or analog capture device, such as an analog camcorder, VCR, or TV Tuner card, and save it in a video format that can be stored or edited for DVD or VCD creation.
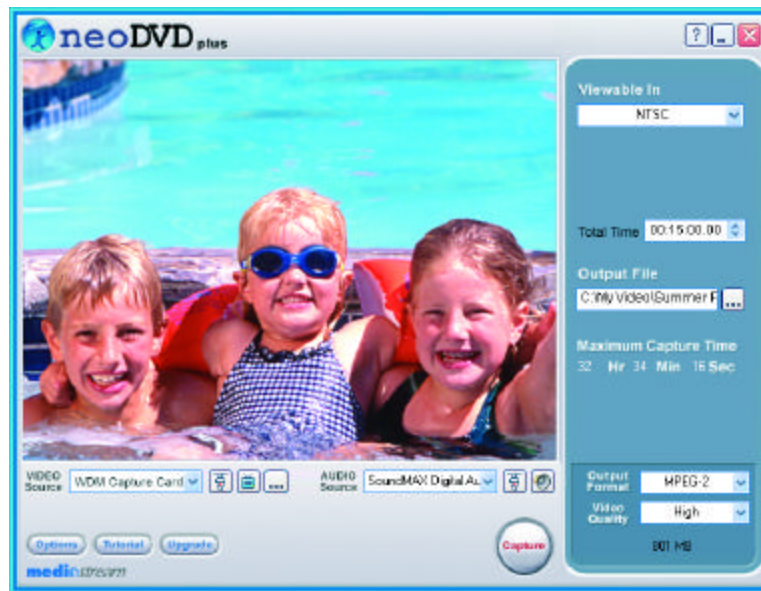
You can use this module to capture your content and save the file in one of these formats: AVI, MPEG-1, or MPEG-2 (all of which are accepted by most video editing applications). You can also perform video editing activities before creating your DVD or VCD. Once you have completed your video editing, you can add these files back into **neoDVD_{plus}** using the CREATE module, and then make your DVD or VCD.

NOTE: We recommend that you save your captured video in AVI or MPEG-2 format if you want to create a DVD, or in MPEG-1 format if you want to create a VCD.

9.1 Creating a Video File Using the CAPTURE Module

You can create a video file to store and use later using the **neoDVDplus** CAPTURE module:

1. Select your Video Source. Select the appropriate source from where the video you want to capture is stored. You can use **neoDVDplus** with the following devices: Analog/Digital Camcorders, VCRs, and TV Tuner cards.

    If you started your camcorder in the Camera mode, you see live video in the **neoDVDplus** Preview window. If you started the camcorder in the VTR/VCR mode, you need to play the video tape in order to see it in the Preview window. If you have connected a DV camcorder, the camcorder controls (i.e., Rewind, Fast Forward, Play, and Stop buttons) on the **neoDVDplus** interface are activated.

    NOTE: If you have an analog capture device, the control buttons on the **neoDVDplus** user interface are not activated. If you need to navigate through your video content, use the control buttons on your analog capture device.

    Once your capture device has been switched on, it automatically appears in the **Video Source** drop-down box. If you have multiple capture devices connected to your PC, they are listed in the Video Source window. Select the appropriate source.

2. Select your Input. If you have an analog capture device (such as an analog camcorder or a VCR) connected to your PC, **neoDVDplus** gives you the option of adding your video into the application using a Composite connection (with standard RCA cables) or with an S-Video cable. Click on the **Video Connector** button, then select the desired input device from the drop-down list.

    If you are using a TV Tuner Card as your capture device, be sure to perform the following tasks:

    a. Click on the **Video Selector** button and select the TV Tuner option from the drop-down list.

b. Click on the **TV Setting** button. Select your desired TV channel from the Channel Index, and click **OK**. You can also change any channel name by clicking in the index table and typing a new name. If you do not have any channels listed in the index, you should perform the following tasks:

Select the Country You Reside In. This ensures your channel listing corresponds to the region you reside in.

Select the Appropriate TV Signal. This can either be an Antenna signal or a Cable TV signal.

Click on the **Auto Tune** Button. This allows your TV Tuner Card to search for all available channels in your area. Once the Auto Tune function is completed, all of the available TV channels are listed in the Channel Index. You can also rename the channel listing by double-clicking on the **Channel Name** field.

3. Select your Audio Source. **neoDVDplus** displays all the available audio sources for your content in the **AUDIO SOURCE** drop-down box. If you have more than one audio source connected to your PC, click on the **Audio Selector** button and select the desired audio input for your content. To increase or decrease the volume of your selected audio input, click on the **Input Gain** button and select your desired volume from the Input Gain window.

4. Select the file format in which you want to save your content. **neoDVDplus** allows you to save your captured content in three formats: AVI, MPEG-1, and MPEG-2. Once the files are saved in these formats, you can perform video editing or store them on your PC's Hard Disk Drive for other uses.

NOTE: If you want to create a DVD, it is recommended that you save your video clip as an AVI or MPEG-2 file. If you want to create a VCD from your video footage, it is recommended that you save it as an MPEG-1 file.

5. Select your video capture options. If you are capturing your content from video tape, you can capture the complete contents of the tape or just a section of the tape.

   To capture a section of your video tape, enter the desired capture time in the **TOTAL TIME** field. Position your tape to the correct start location using the camcorder controls on the **neoDVDplus** user interface (if you have a DV capture device), or by using the controls on your analog capture device.

6. Select the video format in which you want to save your live capture. With **neoDVDplus**, you can save your live capture content in the following video formats: AVI, MPEG-1, or MPEG-2. Saving your video content in these formats allows you to perform video editing before creating your DVD or VCD.

7. Select the video viewing format of your content. **neoDVDplus** allows you to output your captured content in either the PAL or NTSC video format. A listing of all countries and their corresponding video formats are provided. Click on the down arrow next to the **Viewable In** option to scroll through the list and locate the appropriate country.

   NOTE: neoDVDplus allows you to create a PAL DVD or VCD from an NTSC source file, and vice versa (i.e., direct PAL/NTSC conversion).

8. Click on the **Capture** Button to create your file. The progress of your capture session is shown via the progress indicator.

NOTE: If you have an analog capture device, you cannot control it using the **neoDVDplus** navigational controls. This means that if, for example, you want to capture your LIVE content as a file, you need to hit the **PLAY** button on your analog capture device, then click on the **Capture** button on the **neoDVDplus** user interface.

10   Using the CREATE Module

In the CREATE module, you can work with video files stored on your PC's Hard Disk Drive, DVD+VR disc, DVD video disc, as well as video directly from your camcorder, TV Tuner card, or other capture device.

NOTE: neoDVDplus accepts the following video file formats: Digital Video (DV), AVI, QuickTime, .ifo, .vob, and MPEG-1 and MPEG-2 compliant files. Refer to the **Helpful Hints** section to learn about MPEG-2 compliance.

Once you have imported your selected video content, you can customize the DVD or VCD menu layout by adding backgrounds, frames, and video transitional effects. In this mode, you can also create hierarchical menus (i.e., a main DVD or VCD menu that consists of several sub menus) and then save your content directly to your Hard Disk Drive, or burn onto a CD or a DVD.

NOTE: A video chapter contains the video file that is imported into the application to create a DVD or VCD, and **neoDVDplus** automatically uses the source file name as the chapter title. A menu displays the "look and feel" of the DVD or VCD clip upon playback

(i.e., backgrounds, frames, layouts, etc.). You have the option of customizing the chapter and menu titles by highlighting them and renaming them. You can also select the font type and font color for the chapter and menu titles.

10.1   Creating Video Files Using the CREATE Module

When you are in the CREATE module, you can open up a new project by clicking on the **New Project** button located above the Preview window. Creating a project enables you to save all the settings and selections you make for later use.

Once you have created a project, you can save it on your PC by clicking on the **Save** or **Save As** buttons located above the Preview window. Your DVD or VCD project is saved on your PC with a *.dsc file extension and display a create marble icon next to the file name.

You can drag and drop the saved project files from your desktop or from Windows Explorer into the CREATE module window to open the project.

10.2   Adding Video Content

In the **CREATE** module of **neoDVDplus**, you can add your video content into the application to create a DVD or VCD.

There are five main ways of adding your video content into the **neoDVDplus** application:

From video files stored on your PC's Hard Disk Drive or on a network
Directly from a camcorder (live or tape) or VCR
From a live television feed (using your TV Tuner card)
From a DVD+VR disc
From a DVD-Video Disc (using the .ifo and .vob file formats)

10.2.1   Adding Video Files From a Hard Disk Drive

To import video files stored on your Hard Disk Drive into the application:

1. Click on the **New File** (icon) button located above the Preview window. A standard Windows Explorer window opens to allow you to browse for video files stored on your PC.

2. Select your desired video file and click on the **Open** button, or you can double-click on the video name to add it to your file.

neoDVDplus supports the following video file formats: DVD-Video files (.ifo and .vob format), DVD+VR disc file, AVI, QuickTime, and MPEG video files. Refer to the **Helpful Hints** section to learn about MPEG compliance.

10.2.2 Adding Video Clips From a Videotape or Live Camera Source

You can add video content directly from a capture device into the **CREATE** module of **neoDVDplus**. This means that if, for example, you have some content stored on a tape that you want to include as a chapter in your DVD or VCD project, you can import the tape contents directly into **neoDVDplus**.

To add video clips from a videotape or live camera source:

1. Click on the **New Capture** (icon) button.

2. Select the **Live Video Capture** thumbnail in the Preview window and click on the **Edit** button, or double-click on the **Live Capture** thumbnail.

3. The Edit mode Preview window opens and displays the navigational buttons to control your DV camcorder.

    Using the **Fast Forward** and **Rewind** controls, position the videotape to the desired section of the tape you want to transfer onto your disc.

    NOTE: If you have an analog camcorder or VCR, you will not be able to control it using the **neoDVDplus** navigational controls. You will need to use the controls on your analog camcorder or VCR to position the videotape to your desired location.

4. You can create multiple chapters from the videotape or live video clip. Indicate how frequently you want the chapters created by entering a specific time interval (i.e., every 30 seconds) in the **Every** box located in the Settings panel on the right-hand side of the user interface, under the **Set Chapter Interval** option. Chapter points are automatically inserted at the specified minute-intervals.

5. You can also indicate whether you want the disc to automatically playback each chapter, one after the other, or go back to the main menu after each chapter. To specify the end of clip setting:

   a. Click on the **Select** button located in the Settings panel on the right-hand side of the interface, under the **End of Clip** option.

   b. The Select end of clip dialog box appears. Click on the **Go on to the next clip** radio button to automatically play the next clip, or click on the **Go back to the menu** radio button to return to the main menu after the clip plays.

   c. To apply the changes to all the video clips in your project, click on the **Apply selection to all video clips** checkbox.

   NOTE: In order for these options to take affect, you must set these options before burning your disc.

6. Indicate how much of the videotape content you want to record. **neoDVDplus** allows you to preset how much of the clip you want to record by entering the time in the **Total Time** box.

10.2.3   Adding Video Using a TV Tuner Card

To add live TV feed using your analog TV Tuner card:

1. Click on the **New Capture** button.

2. Double-click on the Live Capture thumbnail in the Preview window.

3. Click on the **Video Connector** button and select the **TV Tuner** option from the drop down list.

4. Click on the **TV Setting** button and select your desired TV channel from the Channel Index.

5. Click **OK**. If you do not have any channels listed in the index::

    Select the Viewing Region You Reside In. This ensures your channel listing corresponds to the region you reside in.

    Select the Appropriate TV Signal. This can either be an Antenna signal or a Cable TV signal.

    Click on the **Auto Tune** Button. This allows your TV Tuner Card to search for all available channels in your area. After the Auto Tune function is finished, all the available TV channels are listed in the Channel Index. You can also rename the channel listing by double-clicking on the **Channel Name** field.

6. Click on the **Video Format** button to open the Video Format dialog window. Click on the **NTSC** or **PAL** radio button and click **OK**.

7. Click on the **Audio Connector** button and choose your desired audio input from the available listing drop-down box.

8. You can create multiple chapters from the TV signal. Indicate how frequently you want the chapters created by entering a specific time interval (i.e., every 30 seconds) in the **Every** option box located in the Settings panel on the right side of the interface, under the **Chapter Interval** option. Chapter points are automatically inserted at the specified minute-intervals.

9. You can also indicate if you want the disc to automatically playback each chapter, one after the other, by clicking on the **Next Clip** radio button located in the Settings panel on the right-hand side of the interface, under the **End of Clip** option.

10. If you want the disc to go back to the main DVD or VCD menu after playing back each chapter, click on the **Back to Menu** radio button.

11. Indicate how much of the TV signal you want to record. **neoDVDplus** allows you to preset how much of the clip you want to record by entering the time in the **Total Time** box.

10.2.4 Video Quality Settings

This option allows you to select the video quality of your DVD or VCD project. **neoDVDplus** supports three video quality settings: Good (lowest quality), Better (medium quality), Best (high quality). The video quality settings allow you to trade off video quality with the amount of data you can save on your disc. The lowest quality setting allows you to save the largest amount of data to a disc as the highest video compression is used.

NOTE: The audio portion of a DVD project also takes up a large amount of space on the final disc. So if you want to store more DVD-video on your DVD or CD media, we recommend that you select a lower video quality setting in conjunction with an audio output stream that will take up less space on your disc. **neoDVDplus** currently allows you to output the audio portion of your DVD project into two formats: Dolby® Digital (which takes up less data space on your disc) and LPCM (which is an uncompressed audio format, and therefore takes more data space on your disc). To select your desired audio output stream, simply click on the **options** button.

You can currently record approximately10 - 15 minutes of DVD video onto a CD. If you choose the Good (lowest quality, highest compression) setting in conjunction with selecting Dolby® Digital audio format, you can record approximately 50 minutes of a DVD video onto a CD. The Good setting produces a small file size of lower quality video (i.e., VCR tape quality).

The following table lists the amount of video hours that fit on a disc, depending on the quality setting selected.

Audio Output Stream	Good				Better				Best			
	Dolby® Digital		LPCM		Dolby® Digital		LPCM		Dolby® Digital		LPCM	
Bit rate audio + video (Kbps)	1845		3122		3382		4509		6764		8117	
	Hr Mn Sec		Hr Mn Sec		Hr Mn Sec		Hr Mn Sec		Hr Mn Sec		Hr Mn Sec	
DVD 4.7GB 37600000000 bits	5 39 39		3 20 43		3 5 17		2 18 58		1 32 38		1 17 12	
DVD on CD 650MB 5452595200 bits	0 49 15		0 29 6		0 26 52		0 20 9		0 13 26		0 11 11	
DVD on CD 700MB 5872025600 bits	0 53 2		0 31 20		0 28 56		0 21 42		0 14 28		0 12 3	

10.3   Creating Hierarchical DVD Menus

With **neoDVDplus**, you can create a main DVD or VCD menu that consists of several sub menus (also known as hierarchical menus). Each hierarchical menu consists of its own set of video chapters (thumbnails). You can create up to two layers of hierarchical menus.

With hierarchical menus, you can create a disc that has different thematic content (for example, one menu might consist of chapters of your vacation trip, while the other one has chapters of your child's graduation).

To create a hierarchical menu:

1.   Click on the **New Menu** button.

2.   Double-click on the New Menu thumbnail in the Preview window. A new menu page appears.

3.   Add your desired video clips.

4.   Click on the **Back** button to return to the previous menu page, or click on the **Main** button to go back to the main menu page.

NOTE: You can view your hierarchical menu structure, or see where you are, by selecting the **Video Structure** button within your DVD or VCD project. The Disc Structure

window opens. This window can be opened or closed at any time.

10.3.1   Moving Menus

The CREATE module lets you preview your video clips within the main DVD menu when the finished disc is inserted into a PC or set-top player. With the moving menu feature turned on, each thumbnail video clip in the main DVD menu plays for approximately fifteen seconds to give you a preview of what is in each video clip. To turn on the moving menu feature, simply import your video into the CREATE module. Next, go into the Edit mode and click on the **On** radio button located under the **Moving Menu** option on the right-hand side of the user interface.

10.4   Working in the Edit Mode

After you add all your video files into the **neoDVD~plus~** application, you can perform additional editing functions to customize your DVD or VCD project.

To get to the **Edit** mode of **neoDVD~plus~**, you first need to add a video clip. Click on any thumbnail to select it, then click on the **Edit** button.

In the **Edit** mode, you can perform the following functions:

- Video Frame Capture (Background Snapshot)
- Video Trimming
- Multiple Chapter Insertion
- Video Transitions
- Audio Overlay
- Record Narrative for Overlay

10.4.1 Video Frame Capture (Background Snapshot)

A Menu Background refers to the backdrop design on your DVD or VCD menu. With **neoDVDplus**, you can select from a group of template menu backgrounds provided with **neoDVDplus**, import your own menu background, or create your own menu background.

To capture a frame in your video to use as a menu background in your project:

1. Click on the **Snapshot** [📷] button. **neoDVDplus** captures the video frame.

2. A standard Windows Save dialog box opens. Navigate to the folder where you want to save your file. **neoDVDplus** saves the picture in .bmp format on your Hard Disk Drive. You can now use this picture as a menu background for any of your projects.

10.4.2 Video Trimming

neoDVDplus provides a trim editing feature that lets you select a section of your video clip to transfer onto a disc. To select a portion of your video clip:

1. Add your desired video clips into the **neoDVDplus** application.

2. Double-click on the thumbnail of the desired video clip, or select the thumbnail of the video clip, then click on the **Edit** button. The video clip opens in the Edit mode.

3. Click on the **Play** button to play the clip. While the clip is playing, use the **Mark-In**

and **Mark-Out** buttons to mark the section of the clip you want to export onto your
disc. You can also use the **Video Slider Bar** to get to your desired section by
scrolling through the video clip instead of playing the entire footage.

10.4.3 Multiple Chapter Insertion

If you have a long video clip and you want to insert several chapter points (for example, if
you want to create five different chapters in a one-hour clip), perform the following tasks:

1. Add the desired video clips into the **neoDVDplus** application.

2. Double-click on the thumbnail of the video clip, or select the thumbnail of the video
    clip from which you want to create multiple chapters and click on the **Edit** button.
    The video clip opens in the **Edit** mode.

3. If working with a video file input, click on the **Play** button. The video begins to play in
    the Preview window. Click on the **Chapter** ➕ button to insert a new chapter at
    each desired section of the clip. To remove the chapter point insertions you have
    made in **neoDVDplus**, click on the **Chapter** ➖ button.

    NOTE: As you add each chapter point, marked areas are automatically indicated on
    the **Video Slider Bar**.

4. If working with live video input, set the timer to specify the total time (how much
    footage) you want to capture onto a disc, unless you want to capture the entire
    contents of the tape.

5. Indicate how frequently you want to insert chapter points in the clip by entering a
    number in the **Every** box, located in the Settings panel under the **Set Chapter
    Interval** option. Chapter points are automatically inserted at the minute-intervals that
    you specified.

10.4.4   Video Transitions

neoDVD~plus~ allows you to add transitional effects to video clips to further customize the look and feel of your DVD or VCD project.

To add video transitions to your DVD or VCD project:

1. Add your desired video clips into the **neoDVDplus** application.

2. Double-click on the thumbnail of the video clip or select the thumbnail of the video clip you want, then click on the **Edit** button. The video clip opens in **Edit** mode.

3. From the Settings panel on the right-hand side of the **neoDVD~plus~** interface, click on the **Select** button under the **Transitional Effects** option to open the Select Transition Effects window. Double-click on any of the effect thumbnails in the Effect In or Effect Out area to choose transition styles for your video clip.

4. The default color for the transitional effects is black. Change the color by clicking on the **Color** drop-down box and selecting your desired color.

5. Click in the **Apply to all video clips box** to apply the selected transitional effects to all the video clips in this project.

10.4.5   Audio Overlay

With **neoDVD~plus~**, you can add audio tracks over video clips to further enhance your DVD or VCD project. **neoDVD~plus~** includes a variety of audio clips, from music to sound effects, that you can use for your project.

NOTE: Adding audio overlay does not replace the existing audio that comes with the source video. The audio overlay is an additional layer on top of the source audio/video.

To choose an audio file from the selection provided by **neoDVD~plus~**:

1. Add your desired video clips into the **neoDVDplus** application.

2. Double-click on the thumbnail of the video clip, or select the thumbnail of the video clip you want to work on, then click on the **Edit** button. This video clip opens in the Edit mode.

3. From the Settings Panel on the right-hand side of the **neoDVDplus** interface, click on the **Select** button under the **Audio Overlay** option. The Audio File window opens.

4. Select your desired audio tracks from the templates provided with **neoDVDplus.**

You also have the option to add or remove audio tracks by clicking on the **Add** or **Remove** button. **neoDVDplus** supports WAV and MP3 audio file formats. To hear a sample of the audio track, select the track from the drop-down list and click on the **Play** button.

NOTE: neoDVDplus adds the audio track to the beginning of the video clip by default. If you want to insert your audio in the middle or end of the video clip, create an audio file without any sound until it gets to the section where you want the audio inserted. For example, if you have a 10-minute clip, but you do not want the audio to begin until the fifth minute, create an audio file whose first four minutes are blank.

10.4.6   Record Narrative for Overlay

To use a microphone connected to your PC to record voice commentary as an overlay on your DVD or VCD clip:

1. From the Settings Panel on the right-hand side of the **neoDVDplus** interface, click on the **Select** button under the **Voice Narration** option. A dialog window opens.

2. Select your desired audio settings.

3. Click on the **Record** button to begin your recording session.

10.4.7   Using DVD Recordable Discs With the +VR Feature

The **DVD +RW Video Format**, also known as **+VR** or **+RW VR**, an industry standard supported by companies such as Sony, Philips, Ricoh, Dell, Yamaha, and HP, is an editable DVD video format. Discs created using the +VR format can be modified after they have been created.

Editing examples include:

- correcting a spelling error on a menu title
- changing the menu background
- adding or removing video clips

In fact, you can record over information stored on a +VR formatted disc as you would with a VHS tape. Since the +VR format uses the same specification as the DVD-Video format (the format used on commercial DVDs), it is fully compatible with all DVD players.

Because the +VR format is an industry standard, you can modify a +VR formatted disc that was created with third-party DVD authoring software or DVD recorders.

NOTE: In order to use the +VR feature, you MUST have a DVD+RW media and recorder.

10.4.7.1 Creating a DVD+VR Disc

To create a +VR disc with **neoDVDplus**:

1. Click on the **New File** button located beneath the Preview window. A standard Windows Explorer window opens that allows you to browse for video files on your PC.

2. Select your desired video file and click **Open**, or you can double-click on the video name to add it to your file.

3. Edit the video files as desired. For information on basic editing functions in **neoDVDplus**, refer to the **Working in the Edit Mode** section of the Help file.

4. Click on the **Make Disc** button to display the disc writing options.

5. Select the **DVD+VR** option from the **Disc Format** drop-down box.

6. Select other desired disc writing options, then click on the **Make Disc** button to record the modifications onto the DVD+VR disc.

10.4.7.2 Editing an Existing DVD+VR Disc

To edit or modify an existing DVD+VR disc:

1. Insert your DVD+VR disc into your DVD recordable drive.

2. Click on the button located beneath the Preview window. A standard Windows Explorer window opens to allow you to browse for video files stored on your PC.

3. Navigate to the drive where your DVD+VR disc is located, and click **Open**. **neoDVDplus** opens up the DVD+VR disc and displays the menus and contents (as they would appear when playing back on a set-top box).

4. Add and/or remove video files, change menu backgrounds, frames, and trim video as desired.

5. When you are finished editing, click on the **Make Disc** button to record the modifications onto the DVD+VR disc.

NOTE: When you make modifications to your existing DVD+VR disc, **neoDVDplus** only transfers the modifications onto your disc. It does not re-record or re-encode any content that has not been modified onto the disc. This makes it quicker and easier to make changes to your existing DVD+VR disc.

10.5   **Thumbnail Image Selection**

By default, **neoDVDplus** automatically assigns the first non-black picture in the video clip as the thumbnail for each chapter. However, you can select a different video frame of the video clip to use as the chapter thumbnail. To select a video frame thumbnail:

1.   Add your video clip into **neoDVDplus**.

2.   Right-click on the thumbnail that you want to change.

3.   Click on the **Set Thumbnail** option from the pop-up menu. A **Video Slider Bar** appears under the selected thumbnail.

4.   Using the **Video Slider Bar,** scroll to the desired section you want to use as the chapter thumbnail.

4.   A dialog box appears asking if you want to use this frame as the thumbnail for this chapter. Click on the **Yes** button.

10.6   **Slide Show**

You can import still images into **neoDVD**plus to create a photo slide show, and then burn the images onto a CD or DVD disc. You can also mix your photo slide show with video on a single disc. By simply clicking on the **New Slide Show** button in the CREATE module, you can import images (**neoDVD**plus accepts bitmap or JPEG image files), modify the layout of the image thumbnails, set a timer for how often you want the photo slides to be displayed during playback, and click on the Make Disk button to burn your project onto a disk.

NOTE: you can also use images from your video files as part of the photo slide show by simply taking a snapshot from your video file, saving it as a JPEG or bitmap file, and then adding it into your photo slide show project. (For more information on how to capture and save images from a video file, please refer to **section 10.4.1 - Video Frame Capture**)

10.7 Customizing Your DVD or VCD Project

After you insert and edit the video clips for your DVD or VCD project, click on the **Main** button to go back to the main menu page. Now you can customize the look and feel of the DVD or VCD menu by changing backgrounds, frames, and layouts. Using the +VR feature allows you to edit your recordable DVD discs after they have been created. For more detailed information about editing DVD+VR discs, refer to the **Using DVD Recordable Discs With the +VR Feature** section.

NOTE: If you have created hierarchical menus, you can customize the look and feel of *each* menu page.

10.7.1 Selecting Menu Backgrounds

A Menu Background refers to the backdrop design on your DVD or VCD menu. With **neoDVDplus**, you can select a different menu background that best suits your DVD or VCD thumbnail menu.

neoDVDplus includes some template menu backgrounds that you can use to customize the look and feel of your project. To use any one of the provided templates:

1. Click on the **Modify** button located in the Settings panel on the right-hand side of the user interface, under the **Menu Background** option. The Select Background window opens.

2. Select the desired menu background. The selected menu background automatically shows in the Preview window.

neoDVDplus also allows you to import your own menu background for your project. Your imported menu backgrounds are automatically rescaled by **neoDVDplus** (regardless of the size) to fit the application window.

To import your own menu background:

1. Click on the **Modify** button located in the Settings panel on the right-hand side of the user interface, under the **Select Background** option. The Select Background window opens.

2. Locate and select the desired menu background. If you want to add or remove a menu background from this window, click on the **Add** or **Remove** button.

NOTE: If you want to add your own background image to **neoDVDplus**, it MUST be in Bitmap (.bmp) or JPEG (.jpg) file format.

10.7.2   Selecting Frames

A **Frame** refers to the outer design that encompasses each thumbnail picture in a DVD or VCD menu (similar to a picture frame that holds a photograph). With **neoDVDplus**, you can select the frame design that best suits your DVD or VCD thumbnail menu.

neoDVDplus includes several template frame designs you can use to customize the look and feel of your project.

To use any of the provided templates:

1. Click on the **Modify** button located in the Settings panel on the right-hand side of the user interface, under the **Frame** option. The Select Frame window opens.

2. Select the desired frame design.

10.7.3   Selecting Thumbnail Layouts

A thumbnail layout lets you arrange your video thumbnails the way you want them to appear on your finished DVD or VCD menu.

neoDVDplus allows you to arrange your thumbnails in four different ways. To use any one of the thumbnail layouts:

1. Click on the **Modify** button under the **Menu Layout** option in the Settings panel on the right-hand side of the user interface. The Select Menu Layout window opens.

2. Select the desired layout.

NOTE: You can also drag and drop the chapter thumbnails to change the ordering of the thumbnails in the project menu.

10.8   Previewing Your Project

Once you have completed your editing tasks, click on the **Preview** button to view what the project will look like.

The **neoDVDplus Preview** feature allows you to view a simulated playback of your DVD or VCD content before burning a disc. This is especially useful if you want to make sure that your project looks the way you want it to before transferring it onto a disc.

Using the remote control for navigation, you can navigate through the video content.

Once you have finished previewing your DVD or VCD project, close the Preview window by clicking on the at the top right-hand corner of the Preview window.

10.9   Burning Your Disc

After you are finished with your editing and are ready to transfer your DVD or VCD project onto a dis, perform the following tasks:

1. Click on the **Make Disc** button. A dialog box opens.

2. Select the format you want your video output to be. You may select DVD+VR, DVD-Video, or VCD file output from the **Disc Format** drop-down menu.

    NOTE: You can also make your file format selection from within the CREATE module. This allows you to see the estimated disc size.

    NOTE: Using the DVD+VR format allows you to modify the disc contents at a later time. You can record over information stored on a +VR formatted recordable DVD disc as you would a VHS tape.

3. Select which video format (PAL or NTSC) you want your final DVD or VCD files to be viewed in. Select where your video will be viewed in the **Viewable In** drop-down box. **neoDVDplus** automatically converts it to the appropriate format. **neoDVDplus** allows you to create a PAL DVD/VCD from an NTSC source file and vice versa (i.e., direct PAL/NTSC conversion).

4. Select a target drive in which to create your DVD or VCD. Click on the **Write To** drop-down box. The available drives (CD or DVD-Recordable drive, or Hard Disk Drive) on your PC are listed.

    NOTE: If you want to write your DVD project to your Hard Disk Drive, you need to create a new folder for each project. The default folder name for all DVD projects is VIDEO_TS. Therefore, if you do not create a new folder to save your DVD project, each DVD project you save overwrites the previous one. The **Folder** option allows you to select the folder to file your DVD.

5. If you are writing to a recordable drive, you can create your own disc label by entering your desired text in the **Disc Label** box.

6. Select a write speed that is appropriate to your CD or DVD-recordable drive. By default, your CD or DVD-recordable drive is set to the MAX write speed. If the write speed of the media (disc) is lower than the write speed of the recordable drive, select the lower write speed from the **Speed** drop-down menu.

7. Select the number of copies you want to make. If you want to make more than one copy, click on the **Up** arrow to increase the number of copies you want to make by one. To reduce the number of copies you want to make, click on the **Down** arrow to decrease the number of copies you want to make by one.

8. Click on the **OK** button to begin making your disc. Click on the **End** button to stop the disc creation process, or wait for **neoDVDplus** to stop automatically when it reaches the disc's maximum capacity. The disc is ready when you see the **Disc created successfully** message.

11   Making DVD or VCD Copies Using the COPY Module

NOTE: It is illegal to duplicate copyright-protected commercial DVD or VCD video. The **COPY** module of the **neoDVDplus** application should be used ONLY to duplicate your own homemade movies and content. If you insert a commercial DVD, a window appears indicating that you cannot copy the disc. Click **OK** to return to the COPY module window.

1. Click on the **Copy** icon from the NEO TaskBar. The COPY Module window opens.

2. Click on the **Copy From** drop-down menu and select the location of the DVD or VCD content which you want to copy. Content may be copied from any of the available drives (CD or DVD-recordable drive, or your computer's Hard Disk Drive).

3. Select the destination to where the copied content is to be stored from the **Write To** drop-down menu.

4. If you want to create more than one disc copy, enter the number of copies you need in the **Copies** field. You can also increase/decrease the number of copies by clicking on the up and down arrow buttons.

5. Click on the down arrow beneath Write Speed and choose an appropriate write speed setting for your CD or DVD burner. The default write speed is the write speed of the drive, but if the write speed of the media is lower than the write speed of the

drive, select the lower write speed.

6.   You can create your own disc label by typing it in the Disc Label text box.

7.   Click on the Copy button to create your disc.

11.1   Copying a DVD Video File or Disc

DVD files are always saved to a folder named VIDEO_TS. To copy your DVD files from the Copy Module, you must select the folder that contains the VIDEO_TS folder.

For example, if you want to copy the DVD files of a recent vacation that you saved in a folder called "Fishing Trip," select the "Fishing Trip" folder, not the VIDEO_TS folder in C:\DVD\Fishing Trip\VIDEO_TS.

To copy a DVD from another DVD using the Copy Module, insert the content disc into the DVD-ROM drive. Next, insert the blank media into the recordable drive. In the **Copy From** drop-down menu, select the location of your content disc (e.g. D:\). Refer to the **Making DVD or VCD Copies Using the Copy Module** section for more information.

NOTE: If you insert a commercial DVD, a window appears indicating that you cannot copy the disc. Click **OK** to return to the COPY module.

11.2   Copying a VCD File or Disc

VCD files are always saved across five separate folders named CDI, EXT, MPEGAV, SEGMENT, and VCD. To copy your VCD files, you must select the folder that contains these five folders.

For example, if you want to copy the VCD files of a recent vacation that you saved in a folder called "Fishing Trip," select the "Fishing Trip" folder, not any of the other folders in C:\VCD\Fishing Trip\.

To copy a VCD from another VCD using the Copy Module, insert the content disc into

the CD-ROM or DVD-ROM drive. Next, insert the blank media into the CD recordable drive. In the **Copy From** drop-down menu, select the location of your content disc (e.g. D:\). Refer to the **Making a DVD or VCD Copy Using the Copy Module** section for more information.

12   Optional neoDVD~plus~ Settings

neoDVD~plus~ offers optional software settings for users. To access these settings, click on the **Options** button under the Preview window.

The **Option** pop-up window features the optional settings. These settings include:

1. **Temporary Files:** Allows you to specify where **neoDVD~plus~** stores temporary files. For example, you can change the Temporary Files Directory to one with adequate disk space, so you can convert a long session of DVD or VCD without running low on temporary disk space.

2. **Wizard:** Allows you to determine whether the **neoDVD~plus~** Wizard appears when creating a new project. The **neoDVD~plus~** Wizard is a great tool for beginners who are not yet familiar with **neoDVD~plus~**. It guides you through each step of creating a DVD or VCD.

    To specify when the Wizard appears, click on the **Options** button located in the lower left-hand corner of the Create window.

3. **Disc Options:** Allows you to write content to a disc using different methods. These disc-writing options allow you to create their discs in the most efficient way:

    *   **Direct-To-Disc Recording™:** This feature allows users to write DVDs using a one-step process, instead of having to save a disc image to the PC first as a buffer before burning. **Direct-To-Disc Recording** reduces space needed on your Hard Disk Drive. The **Direct-To-Disc Recording** writing method is compatible with all commercially available DVD+R and DVD+RW drives.

- **Quick Eject™:** The **Quick Eject** function can greatly reduce the time it takes to create a short DVD. It usually takes some time to close the DVD creating session (approximately 15 minutes) regardless of how long or short your footage is. The **Quick Eject** feature eliminates the wait time. The **Quick Eject** feature is compatible with all commercially available DVD+R and DVD+RW drives.

- **Direct-to-Disc Copying™:** This feature lets you copy a DVD from one disc to another on the fly. This eliminates the need to create a disc image which can consume substantial Hard Disk space. **Direct-To-Disc Copying** also increases the disc copy speed.

4. **Video:** Allows you to include an overlay title for each chapter. When you enable this feature, the title of the clip being played back appears on the screen for approximately five seconds, and then disappears.

5. **Start Playing:**
   - **Automatically start playing:** Select this checkbox if you wish for your viewer to see the first video segment prior to viewing the menu.

6. **Automatically Save Project:** Select this checkbox to automatically save your project whenever you exit neoDVDplus 4.0. The default name and location where neoDVDplus 4.0 saves your project is: My documents\NeoDVDAutoSave.dsc

7. **Audio Stream:** neoDVDplus supports two types of audio stream formats; LPCM and Dolby® Digital. With this option you can set the type of Audio Stream you would like to output with your DVD video.

   Note: neoDVDplus will automatically accept both LPCM and Dolby® Digital audio streams; you do not need to make a selection for the type of audio stream you are inputting.

   - **LPCM:** Linear Pulse Code Modulation (**LPCM**) is a non-compressed audio stream format.

- **Dolby® Digital:** This audio stream format, developed by Dolby Laboratories, saves space by transmitting only the data that is necessary to portray the original sound minimizing the space allotted on a DVD for audio soundtracks.

NOTE: neoDVDplus also includes a **Smart Buffering**™ feature that is compatible with all commercially available DVD-R, DVD-RW, DVD+R, and DVD+RW drives. **Smart Buffering** allows users to reduce the minimum Hard Disk Drive requirements for PCs that are too slow to achieve real-time DV to DVD transcoding, or where system resources are being used for a number of different tasks. Typically, when a PC lacks the minimum processing speed required for real-time performance, the software buffers the incoming video on the Hard Disk Drive while waiting for the CPU to finish its current task. With **Smart Buffering**, **neoDVDplus** pauses the camcorder instead of buffering the video onto the hard drive. By automatically controlling the camcorder when using a DVD+RW drive, **neoDVDplus** can transcode DV to DVD on PCs with as little as 400MB of Hard Disk space.

13   DVD, VCD, and miniDVD Playback

You **MUST** have DVD player software installed on your PC in order to play back DVD files from your Hard Disk Drive.

Your PC will probably have DVD playback software already installed, in which case it will automatically detect the disc and begin playing. If you do not have DVD playback software installed on your machine, you will have to purchase the software from your local retailer.

You can also play back DVDs and VCDs created with **neoDVDplus** on your DVD set-top box. You need to verify that your box supports the playback of the recordable media. If you are not sure what recordable media your set-top box plays back, contact your set-top box manufacturer.

neoDVDplus also allows you to create a miniDVD, which is a DVD video created on a CD. A miniDVD allows you to store approximately ten to fifteen minutes of DVD quality video.

NOTE: The miniDVD format is intended for playback on your PC. Most set-top boxes DO NOT support this format.

The following media playback compatibility table provides more information about media types and playback compatibility.

Media Type	Playback On
DVD on CD-R/RW disc	DVD-ROM drive, CD-R/RW drive
DVD on DVD-R/RW disc	DVD-ROM drive, DVD-R/RW-compatible DVD set-top player
DVD on DVD+R/RW disc	DVD-ROM drive, DVD+R/RW-compatible DVD set-top player
DVD on DVD-RAM disc	DVD-RAM drive
VCD on CD-R/RW disc	DVD-ROM drive, CD-R/RW drive, VCD-compatible set-top player.

13.1   Playing Back DVD Files From the Hard Disk Drive

If you have stored your DVD files on your hard drive, first copy the VIDEO_TS directory from the directory that contains the content you want to watch. Paste the VIDEO_TS directory into the C:/ directory.

After you have pasted the VIDEO_TS directory into the C:/ directory, start your DVD playback software. Select 'Properties' or 'Settings' and set the default DVD drive to 'C:'. Click **OK**. Now you can select **Play** on the software menu and begin watching your DVD.

If you now want to watch a DVD from a disc, go back to your DVD playback software's 'Properties' or 'Settings' and change the default DVD drive setting to your CD or DVD drive letter (G: for example).

14   Optimizing Your Computer for Best Results

The following tips will help you to get the most out of **neoDVD_{plus}**:

- **Defragment Disk (for Hard Disk Drives).** Before a long recording session, it is recommended that you defragment the Hard Disk Drive on which you want to save your video file. A defragmented Hard Disk Drive reduces the number of read/write accesses necessary to run **neoDVD_{plus}** and as a result increases the encoding speed. To defragment your Hard Disk Drive(s), use the Windows **Disk Defragmenter**.

  To start the Disk Defragmenter, click:

  Start > Programs > Accessories > System Tools > Disk Defragmenter

- **Hard Disk DMA Transfer Mode Enabled.** Most Hard Disk Drives support DMA (Direct Memory Access) transfer. Enabling this feature guarantees that you use your Hard Disk Drive at optimum speed. **Please make sure that DMA is enabled.**

  To check if the DMA capability of your Hard Disk Drive is enabled, right-click on the **My Computer** icon on your computer desktop and then click on **Properties**:

  - For Windows 98 (SE) and Windows Me:
  1. Click on **Start** > **Settings** > **Control Panel**.
  2. Double-click on the **System** icon.
  3. Go to the Device Manager option and double-click on the **Disk Drives** entry.

  4. Right-click on the list item corresponding to your drive, e.g. "Generic IDE disk type 01".
  5. Click on **Properties** and select the **Settings** tab.
  6. Check the **DMA** box to enable DMA on your Hard Disk Drive.

  - For Windows 2000:
  1. Click on **Start** > **Settings** > **Control Panel**.
  2. Double-click on the **System** icon.

3. Click on the **Hardware** tab and select **Device Manager**.
4. Double-click on **IDE ATA/ATAPI controller** in the Device Manager window.
5. Right-click and select the **Properties** option on the available channels corresponding to your drive, e.g. "Primary or Secondary IDE Channel".
6. Select the **Advanced Settings** tab and then select **DMA if available** from the drop down box next to the Transfer Mode option.

-   For Windows XP:
1. Click on **Start** > **Control Panel** > **Performance & Maintenance**.
2. Double-click on the **System** option.
3. Click on the **Hardware** tab and then select **Device Manager**.
4. Double-click on **IDE ATA/ATAPI** controller in the Device Manager window.
5. Right-click and select the **Properties** option on the available channels corresponding to your drive, e.g. "Primary or Secondary IDE Channel".
6. Select the **Advanced Settings** tab, and then select **DMA if available** from the drop down box next to the Transfer Mode option.

-   **Close Applications.** Opened applications consume available memory and CPU processing power. For the best performance, close all applications before starting **neoDVDplus**.

    To gain even more processing power, disable the application shortcuts on the taskbar. Some shortcuts, like the volume control, do not take any processing power and can be left. Other shortcuts, however, may be active applications that run in the background and use processing power and memory.

-   **Power Issues.** Before running a long **neoDVDplus** recording session, make sure that the automatic power standby features of your computer are disabled. This ensures that your computer does not go into sleep mode during encoding. To disable the automatic power standby mode, click on **Start** on the lower left-hand corner of your desktop:

-   For Windows 98 (SE):
1. Click on **Start** > **Settings** > **Control Panel**.

2. Double-click on the **Power Management** entry.
3. In the Power Schemes tab, go to the System Standby entry and select **Never** from the drop-down box.

- For Window ME and Windows 2000:

1. Click on **Start** > **Settings** > **Control Panel**.
2. Double-click on the **Power Options** entry.
3. In the Power Schemes tab, go to the System Standby entry and select **Never** from the drop-down box.

- For Windows XP:

1. Click on **Start** > **Control Panel** > **Performance & Maintenance**.
2. Double-click on the **Power Options** entry.
3. In the Power Schemes tab, go to the System Standby entry and select **Never** from the drop-down box.

Laptop users should run them with the AC adapter for better performance. Running your laptop on battery power reduces the overall performance.

15   Recommended Computer Upgrade

If you plan to upgrade your computer, you can optimize the **neoDVDplus** performance by paying special attention to the following component specification considerations:

- **Hard Disk Drive.** Select a Hard Disk Drive with the shortest seek time and the fastest data transfer rate. For example, ATA100 or UDMA100 and higher.

- **Processor.** Select AMD Athlon, or Intel's Celeron,Pentium III or Pentium 4, with the fastest CPU clock speed (700MHz or higher) that is compatible with your motherboard requirements. For optimal and real-time performance, a 1.1GHz or higher system is required.

- **4X AGP Card with YUV 4:2:2 Rendering.** Select a graphics card that supports hardware YUV 4:2:2 rendering.

- **Motherboard.** Be sure that your motherboard supports fast speed buses so it can take advantage of high-speed peripherals, such as your computer's 133-memory or UDMA100 (and higher) hard drives.

16   Compatibility

- **Analog and Digital Camcorders. neoDVDplus** supports Mini-DV, DV8, DVCAM, DVC Pro, analog and digital VCRs (a list of the analog capture cards supported by MedioStream can be found later in this section), and VHS camcorders or tape decks in both the NTSC and PAL video formats.

- **IEEE-1394 Cards (iLink, FireWire).** Any OHCI-compliant IEEE-1394 card should work properly. Please refer to the **Troubleshooting** section to learn how to check if your FireWire port is OHCI compliant. MedioStream has successfully tested OHCI cards from the following chips or cards manufacturers: ADS, Advansys, NEC, SIIG, Soyo, Texas Instrument, and Western Digital.

- **Analog Capture Cards.** For analog devices (VHS camcorders or VCRs), you will need to install an analog video capture card. The following analog capture cards have been fully tested and verified to be compatible with **neoDVDplus**:

  - ATI All-In-Wonder 128 Pro
  - ATI Rage Fury Pro
  - ATI All-In-Wonder Radeon
  - AverMedia EZ Capture
  - AverMedia AverTV Studio
  - COMpro Personal Cinema
  - Hauppauge WinTV 401
  - Conexant Fusion 878A
  - Dazzle DV Bridge

  Other analog capture cards may work with **neoDVDplus**. Please check the **Support** section of our Website for updates regarding analog capture card support.

17   Troubleshooting

Our goal is to try to ensure your experience with **neoDVDplus** is successful and productive. We have created this section of the manual to assist you in case you run into any problems using our product. We have provided three levels of support in this manual:

- Hardware and Software Checklist helps you quickly identify the most common hardware and software setup and configuration issues quickly and easily

- Support FAQs provide answers to frequently asked questions about using **neoDVDplus**

- Helpful Hints provide information that has proven successful for other **neoDVDplus** users.

If you do not find the information you are looking for in this document, please check **http://www.mediostream.com/support** for updates.

17.1   Hardware and Software Checklist

For the fastest resolution, go through the following list to verify you have the correct system setup. If your problem is not addressed, continue through the Troubleshooting section.

___   Check processor type (Intel Celeron, Pentium III, Pentium 4, or AMD Athlon with a minimum 700MHz clock speed).

___   Check DirectX version (8.1 or Higher).

___   Disable automatic power standby mode.

___   Check available memory (128MB).

___ Check IEEE-1394 card type (must be OHCI compliant).

___ Verify that your analog capture card is supported by **neoDVDplus.**

___ Verify that you have the latest updates for your PC's Operating Systems.

___ Check graphics cards type and memory (AGP, 8MB).

___ Check available disk space on the disk where **neoDVDplus** is installed (5GB minimum).

___ Verify that your audio card is properly installed and running.

___ Check color depth (True Color 24-bit or higher).

___ Check to see that the camcorder has adequate battery or AC power.

___ Check to see that the FireWire cable is firmly attached to the camcorder and computer end. Do not bend or kink the FireWire cable; a damaged cable will need replacement.

___ Close unnecessary applications before running **neoDVDplus**. This will allow **neoDVDplus** to utilize all the system resources on your computer.

___ If you are using MPEG-2 Compliance, verify the following:

General:	Program stream
Video:	Frame picture
	Bottom field first
	29.97 frames per second (NTSC) or 25 frames per second (PAL)
	Max bit rate: 7.0Mbps
	Average bit rate: 5Mbps
Audio:	PCM Audio
	16-bit
	Sampling rate: 48KHz
	Stereo: 2 channels

17.2   Support FAQs

- **How do I determine what version of DirectX is running on my PC?**

  To work properly, **neoDVD_{plus}** requires DirectX 8.1 or higher. You can determine the DirectX version installed on your computer by using the DirectX diagnostic tool. Click on **Start** on the lower left-hand corner:

  Start > Programs > Accessories > System Tools > System Information >Tools > DirectX Diagnostics

  The DirectX diagnostic tool lists all DirectX files and their versions; it also has some audio video test features. The DirectX diagnostic tools may not be available for earlier versions of DirectX. This means that you need to upgrade your computer with a recent version of DirectX.

- **How do I install DirectX?**

  If you do not have DirectX 8.1 or higher, you can download the latest DirectX version from:

  http://www.microsoft.com/directx/homeuser/downloads/default.asp

  Select the version of DirectX 8.1 that corresponds to your version of Windows (Windows 98 SE, Windows Me or Windows 2000). To install DirectX 8.1, follow the instructions provided on the same link. This installation includes the Video Capture Update for DirectX 8.1.

  NOTE: DirectX 8.1 is already pre-installed with Windows XP Operating Systems.

- **How can I check that my Capture Device is properly connected?**

Click on **Start** on the lower left-hand corner:

- For Windows 98 (SE) and Windows Me: **Start > Settings > Control Panel > System > Device Manager**.

- For Windows 2000: **Start > Settings > Control Panel > System > Hardware > Device Manager**.

– For Windows XP: **Start > Control Panel > Performance and Maintenance > System.** Click on the **Hardware** tab and then select **Device Manager**.

If your computer has detected a capture device, you should see it listed under the "**Imaging Device**" entry. **NOTE:** Your camcorder should be in Camcorder or VCR mode for a few seconds before the computer can detect it.

- **How do I determine and change the color depth on my computer?**

The color depth needs to be set to "True Color (24-bit)" or higher to effectively run **neoDVDplus.**

- For Windows 98 (SE), Windows Me, and Windows 2000: **Start > Settings > Control Panel > Display > Settings > Colors**
– For Windows XP: **Start > Control Panel > Appearance and Themes > Settings**

- **How do I determine the type and memory capacity of the graphics card installed on my computer?**

Right-click on the **My Computer** icon on your computer desktop and select the **Properties** option.

– For Windows 98 (SE) and Windows Me: Select the **Device Manager** tab on the **System Properties** dialog box. Click on the **Display Adapters** icon to show

what type of graphics card is installed on your computer.

– For Windows 2000: Select the **Hardware** tab under **System Properties**. Select **Device Manager**, and click on the **Display Adapters** icon.

– For Windows XP: Click on **Start** on the lower left-hand corner,

Start > Control Panel > Performance and Maintenance > System

Click on the **Hardware** tab and then select **Device Manager**. Next, double-click on **Display Adapters**.

- **How do I determine what version of Windows is installed on my computer?**

neoDVDplus supports the Windows 98 (SE), Windows Me, Windows 2000, and Windows XP.

– For Windows 98 (SE), Windows Me, and Windows 2000: Right-click on the **My Computer** icon on your computer desktop and select the **Properties** option. Select the **General** tab, which is the default tab. The **System** section lists the version of the operating system running on your computer.

– For Windows XP: Click on **Start** on the lower left-hand corner,

Start > Control Panel > Performance and Maintenance > System

Click on the **General** tab. The **System** section lists the version of the operating system running on your computer.

- **How do I determine what version of neoDVD is installed on my computer?**

Start the **neoDVDplus** application. Click on the **?** button, and select the **About** option. This displays the version of **neoDVDplus** installed on your computer.

18   Helpful Hints

- If you experience problems connecting your camcorder, make sure the camcorder is attached properly.

- Make sure the FireWire adapter card is seated properly in the computer.

- To prevent damage to your camcorder, make sure the camcorder is powered off when connecting or disconnecting it from the computer.

- Do not switch the camcorder's mode (**Camcorder** or **VTR/VCR**) while running **neoDVDplus**. Exit the application and then switch the mode. Keep the camcorder in the **Off** state for a few seconds when switching, then restart **neoDVDplus**.

- Do not click on the VTR controls in rapid succession. This could possibly damage the tape. Some of the controls, such as **Fast Forward** and **Rewind**, require some time to start and stop the tape. The transport response delay varies between camcorder models and depends on your operating system.

- Try defragmenting your Hard Disk Drive before recording long video clips. Rebooting your machine may also improve performance.

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