

Contents

Welcome to the User's Guide for FreeDV, the free version of Digital Origin IntroDV. The User's Guide contains the following chapters:

- Chapter 1, "Introduction to FreeDV"
- Chapter 2, "Getting your Images and Sound into FreeDV"
- Chapter 3, "Editing Your Clips"
- Chapter 4, "Adding Titles to Clips"
- Chapter 5, "Adding Transitions Between Clips"
- Chapter 6, "Working with Sound and Music"
- Chapter 7, "Printing to Videotape"
- Chapter 8, "Creating Web Movies"

Chapter 1

Introduction to FreeDV

Welcome to FreeDV, the free version of Digital Origin IntroDV. FreeDV is digital video (DV) editing software that lets first-time digital video users experience the thrill of turning their videos into first-class movies right on their personal computers. FreeDV gives you a simple way to get started with DV.

This chapter gives you an overview of FreeDV's capabilities, shows you how to start a new project, and introduces you to the tools you'll use to edit video stories with FreeDV. You can add capabilities to FreeDV by upgrading to the complete version, as summarized below. (Select "Upgrade" from the FreeDV Help menu, or contact Digital Origin for further information.)

FreeDV	IntroDV complete version
Build Stories up to 3 minutes long.	Build Stories of any length.
Work with up to 12 video clips at once.	Work with unlimited number of clips.
One extra audio track for music, narration, etc.	Two extra audio tracks: Use one for music, the other for narration or sound effects.
Titling: Two title styles.	Titling: Eleven title styles, dozens of variations, including moving titles.
Special Effects: Four transition styles, dozens of variations.	Special Effects: Ten transition styles, hundreds of variations and effects.
Import video clips and sound files from disk.	Import video clips, sound files and still images from disk.
Export your video Story for the web or email in several convenient formats.	Record your story on DV tape, or optimize your video Story for web or email delivery in a wide variety of configurable formats.
Control your DV camcorder right from your computer.	Control your DV camcorder right from your computer, and search for the next scene on the tape automatically.

FreeDV—desktop video editing

FreeDV's easy-to-use design is tailored for PC users unfamiliar with DV editing techniques and terminology.

What you can do

With FreeDV, you can connect your DV camcorder to your PC with a single cable and easily transfer footage to the PC. You can then perform editing tasks such as rearranging clips using a storyboard, adding music or narration through the camcorder's microphone, creating transitions between clips, adding titles and credits, and previewing your story on the camcorder or a TV monitor. When finished, you can make a QuickTime movie to e-mail to friends, family, and colleagues or post on the web.

Because FreeDV is designed for the DV format, the quality of the video is determined by the quality of the camcorder. When you capture video to the PC for editing, the quality is maintained.

Starting a project

Once you've installed FreeDV, you're ready to start IntroDV and get to work creating a video story.

To launch IntroDV and create a new project:

- 1 From the Start menu, choose Programs>Digital Origin>FreeDV>FreeDV.

If this is the first time you're creating a new Story in FreeDV, it will display a Project Format dialog box. If you have already launched FreeDV before, choose File>New, then proceed to step 3.

- 2 Choose a project format to use: NTSC or PAL, then click OK.

NOTE: NTSC is the most common standard composite video signal used in the United States. PAL is the most common standard composite video signal used in Europe. Choose the project format that's most appropriate for your equipment and output. FreeDV will use this format automatically when you create future projects.

- 3 Specify a name and location for your project and click OK.

TIP! FreeDV will store video clips on the same disk drive as your project file. Since video captured to your hard drive requires considerable space (216MB per minute), choose a drive with adequate free space.

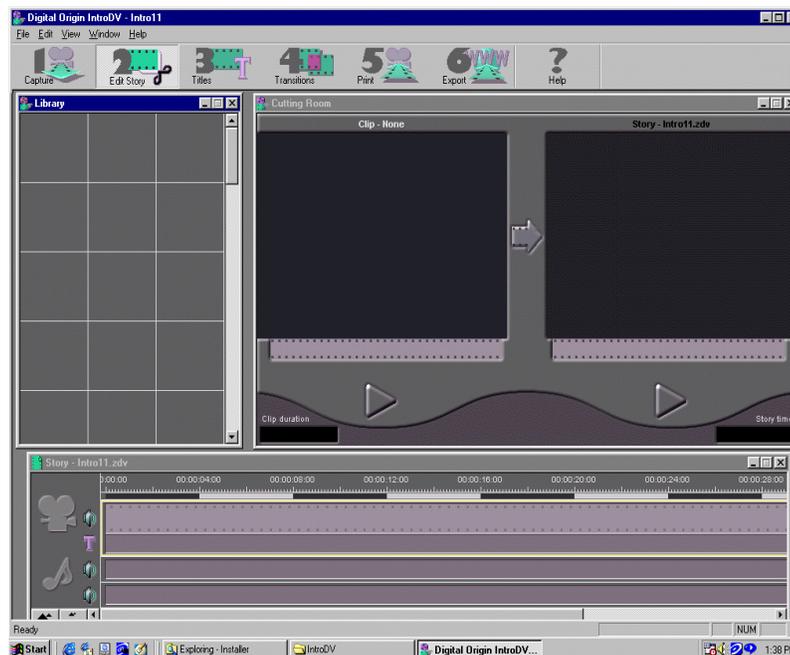
TIP! Click the New folder icon  to create a new folder for the project file and all of the other files associated with this video story. Keeping all the files in a separate folder makes it easier to store them when the project is complete.

To open an existing project:

- 1 Launch FreeDV.
- 2 Choose File>Open.
- 3 Use the Look In list box to navigate to the folder in which the project file is stored.
- 4 Select the file you want to open.
- 5 Click Open.

FreeDV project windows

Three windows appear in IntroDV: the Library window, the Cutting Room window, and the Story window.



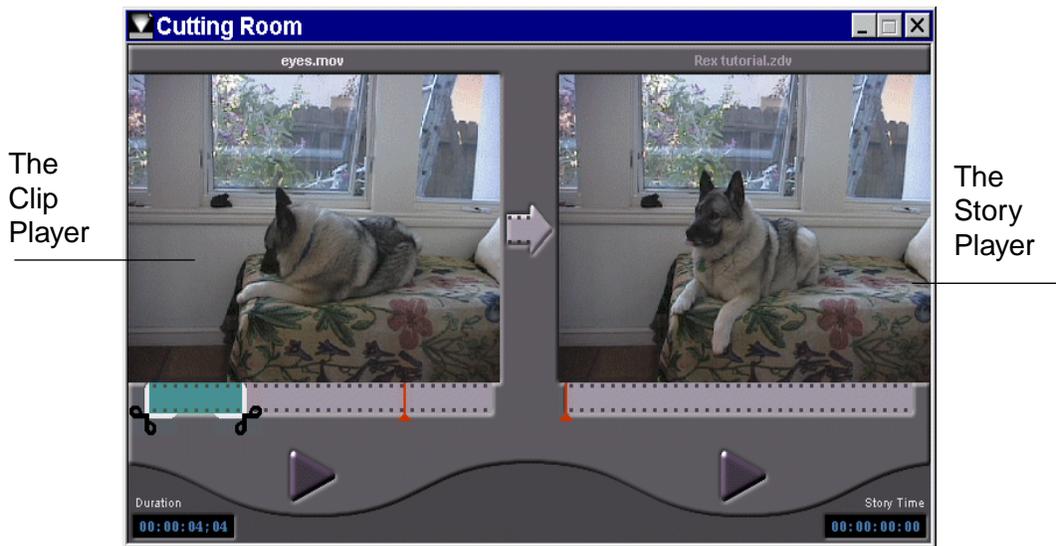
The Library window

When you capture or import your clips into IntroDV, they appear in the Library window. IntroDV displays the first frame of each video clip in the Library window as a visual reference to the content of the clip. For more information on capturing and importing, see [Chapter 2](#).



The Cutting Room window

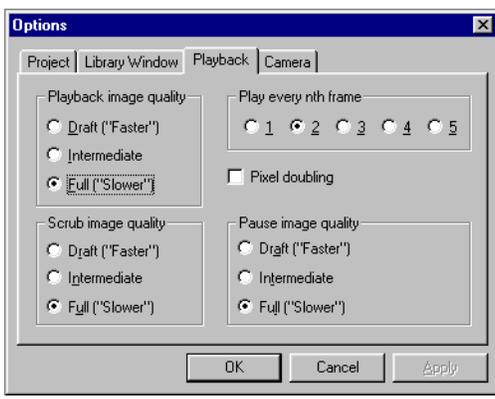
The Cutting Room window contains two smaller windows, the Clip Player and the Story Player.



The Clip Player (on the left) is where you view your clips and set Start and End Cuts (begin and end points) for them. The Story Player (on the right) is where you view the sequence of clips you've edited into a story, along with any titles and transitions you've added. For information about editing clips to create a story, see [Chapter 3](#).

You can play back your story or your clips in the Cutting room. Video can play back in the clip window, or it can be displayed on the LCD screen or monitor of a camera that is connected to the system via FireWire.

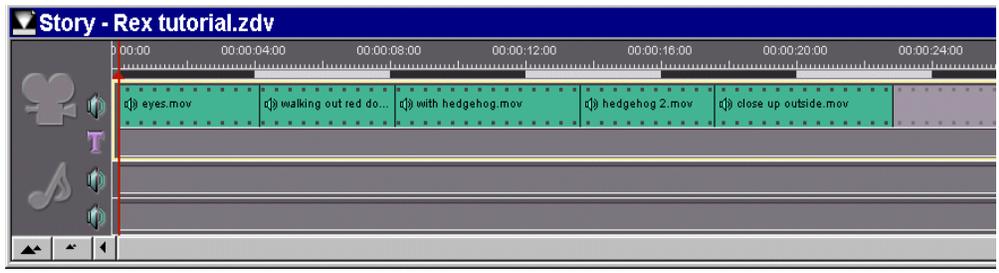
To display the video on the LCD screen or monitor, check the Display to the Camera options in the Camera tab of the Options dialog. If the Playback to Camera option is enabled, FreeDV will not playback video in the Cutting Room and instead send video playback out to the Camera's LCD. (note: the Playback to Camera option is only supported if using Digital Origin's FireWire interface card). If you choose to edit without an attached DV camera, you should deselect the Playback to Camera option.



TIP! If you choose to edit without an attached DV camera and instead rely on the Cutting Room to view your Story, you may find that older computers are too slow to provide smooth playback of video clips. Use the Playback Options tab of the Options dialog to adjust the playback quality. These Playback options only take effect when not displaying video on the camera.

The Story window

The Story window is a graphic representation of all the clips you included in your story, displayed along a timeline.



The Story window lets you quickly see the order in which you've placed the clips, where the transitions and titles (text) occur, and how the video portion of your story relates to the audio portion.

Chapter 2

Getting your Images and Sound into FreeDV

Your video story is comprised of video clips and audio clips that you recorded with your camcorder or that were created with another application. You “capture” clips and images from your camcorder and “import” clips and images from another application. For example, you might capture several video clips from a recent vacation and import a sound file that you downloaded from the web. This chapter describes how to capture and import clips and sound into your story. Once you’ve included the clips you want to use, you are ready to begin editing your story, as described in [Chapter 3](#).

Capturing video from your camera

Use the FreeDV capture function to save clips from your Digital Video camcorder as movie files (in QuickTime format) on your computer’s hard drive. Once video clips are stored on the hard drive, you can assemble them into your video story.

When you capture clips from your camera, you capture both video and audio. FreeDV does not create separate audio and video tracks from captured clips. To remove the audio, turn its volume down. See [Chapter 6](#) for instructions.

Before you capture, make sure that your camcorder is turned on and connected to your 1394 FireWire Interface port. See the Digital Origin Website for information on compatible 1394 FireWire interfaces.

Using the Capture window

Use the Capture window to transfer clips from your DV camcorder to your computer and save them to the Library.

To display the Capture window, click the Capture button on the toolbar.

NOTE: If you do not have a project open, you will be asked to name the project before the Capture window displays. For more information, see [“Starting a project” on page 3](#).



The rest of this section describes the components of the Capture window. [“Capturing from tape” on page 11](#) and [“Capturing from the Lens” on page 12](#) describe how to use these components to capture clips.

Capture Window Preview



The Capture window displays a preview of the video playing on your camcorder.

VCR buttons

When you are playing video from your camcorder in the Capture window, you can use the VCR buttons, as described in the following table, to locate the clip you want to capture.

To:	Use this button:	Or this keyboard shortcut:
Play or pause the tape.	Play/Pause 	Space bar
Stop the tape when you are done or if you want to rewind or fast forward at the fastest speed.	Stop 	Down-arrow
Fast forward the tape	Fast Forward 	Shift Right-arrow
Rewind the tape	Rewind 	Shift Left-arrow
Advance the tape one frame at a time	Step Forward 	Right-arrow

To:	Use this button:	Or this keyboard shortcut:
Rewind the tape one frame at a time	Step Reverse 	Left-arrow
Slowly (1/10th speed) play the tape forward	Slow Play Forward 	Control Right-arrow
Slowly play the tape in reverse	Slow Play Reverse 	Control Left-arrow

Capture button



The Capture button starts or stops a capture. You can use the Enter key as a shortcut for this button. For more information on capturing, see [“Capturing from tape” on page 11](#) or [“Capturing from the Lens” on page 12](#).

Disk Information



The Available Disk Space indicator (disk shape) shows how much space is available on your hard disk to store captured clips.

The Available Time indicator (stop watch) shows how many minutes and seconds of video can be stored on your disk.

The Disk Performance indicator (cheetah) shows you the speed at which FreeDV stored the last clip to disk. This information is important, because it lets you know

if the performance of your disk drive is changing as it fills. Minimum performance is 3.6MB per seconds. FreeDV can compensate for slower storage rates, but you should try to keep the storage rate at or above the 3.6MB per second level. If disk performance declines, try removing unneeded files from your hard disk or running a defragmentation program (Please see the Troubleshooting section of the *Installation Guide* or, if using an OHCI compliant FireWire interface, see the *3rd Party FireWire Interfaces* document on the Digital Origin Website).

Tape Information



Each digital video frame has the following information associated with it:

- Time code, in the format hours:minutes:seconds;frames
- Time at which the frame was recorded
- Date on which the frame was recorded

You can show one of these information items (time code is the default) in the display at the bottom of the Capture window.

To switch the display between time code, time, or date, select the item you want from the list box.

If you think you will need to recapture a clip another time, you can note the time code of the beginning and end points of the clip.

NOTE: Some digital video camcorders reset the time code to 00:00:00;00 if you leave blank, unrecorded space between video clips. In this case, you will have more than one frame with the same time code on your tape. FreeDV may display a message about “discontinuous time code” after capturing video from tape with this condition. This message is provided for your information and should not affect the quality of the clips captured to disk.

Capturing from tape

To capture clips that you've recorded on tape:

- 1 Load the appropriate tape into your camcorder and set the camcorder to VTR mode. (For instructions, see your camcorder's *User Guide*.)
- 2 Click the Capture button in the Toolbar or choose File>Capture to display the Capture window.

- 3 Use the VCR buttons to play the tape and locate the clip you want to capture.
- 4 To start the capture, click the Capture button or press Enter while the tape is playing.
The clip plays in the Capture window as it is captured.
- 5 Click the Capture button again or press Enter to stop the capture.
- 6 In the dialog box that appears, type a name for the clip and click the Save button.

The new clip appears in the Library window.

Capturing from the Lens

To capture clips directly from the camcorder's lens:

- 1 Set the camcorder to Camera mode. (For instructions, see your camcorder's User Guide.)

NOTE: Some camcorders shut down (to protect tape heads) when in camera-mode for an extended period of time. To prevent your camera from doing so, remove the tape.

- 2 Set up the camera to film the action you want to capture.
- 3 Click the Capture button in the Toolbar or choose File>Capture to display the Capture window.
- 4 To start the capture, click the Capture button or press Enter while the tape is playing.
- 5 Click the Capture button again or press Enter to stop the capture.
- 6 In the dialog box that appears, type a name for the clip and click the Save button. The new clip appears in the Library window.

Importing Video and Sound

In addition to capturing from your camcorder, you can import movie files and audio files stored on your hard disk and include them in your video story.

FreeDV allows you to import the following file types:

- Movie files: QuickTime (.MOV) and AVI (.AVI)
- Audio files: Wave (.WAV), AIFF (.AIF), Sun (.AU), and MPEG (.MP3)

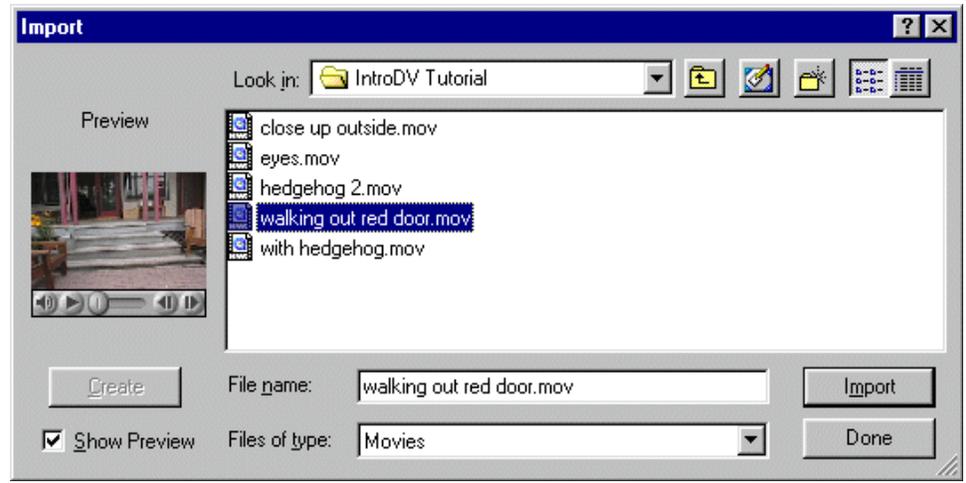
When you upgrade to the complete version of IntroDV, you can also enhance your stories by importing still image files, in the following formats:

- Still image files: JPEG (.JPG), TIFF (.TIF), Bitmap (BMP), Photoshop (.PSD), Compuserve (.GIF), Mac OS PICT (.PCT), and Portable Network Graphics (.PNG)

NOTE: In general, FreeDV supports importing of most of the same file types that QuickTime supports. Visit the Digital Origin Web site (www.digitalorigin.com) for the latest information on supported file types.

To import a movie or audio file:

- 1 Select File>Import to display the Import dialog box.

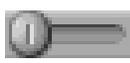


- 2 Use the Look In list box to navigate to the folder in which the file is stored.
- 3 Select the file you want to import.

TIP! Shift-click or Control-click to select several files at the same time.

- 4 Click Show Preview to display or listen to a preview of the clip stored in the file.
If you don't see a preview, click Create to create one. Use the following controls to preview the file.

To:	Use this button:
Play the preview	Play 
Stop the preview	Stop 
Fast forward the preview	Fast Forward 

To:	Use this button:
Rewind the preview	Rewind 
Move to a specific point within the preview	Position indicator  (Click and hold mouse button to drag.)
Change the volume of the preview	Volume 

- 5 Click Import to import the selected file(s).
The file(s) you imported appears in the Library window.
- 6 When you are finished importing, click Done to close the dialog box.

Working with Clips in the Library Window

The movie and audio clips that you capture or import are the raw material for your video project. They all appear in the Library window. [Chapter 3](#) describes how to assemble your video project from these clips.



To organize clips in the Library window, you can:

- Click to select a clip.
- Drag a selected clip to a different location in the window.
- Right-click on a clip in the Library window to display a shortcut menu with the following functions:.

To:	Select this item from the short-cut menu:
Delete the selected clip	Delete
Rename the selected clip	Rename
Copy the clip to video tape (for more information, see Chapter 7)	Print to Tape
View the clip's properties	Properties

You can set the number of columns displayed in the Library window in the Library Window tab of the Options dialog.

Chapter 3

Editing Your Clips

Once you've captured your video clips from your camera, or imported existing clip files into FreeDV, you're ready to arrange them into your own custom-made video story.

This chapter explains how to review and edit your clips. For information on adding titles (words) to your story, see [Chapter 4](#). To add transitions (such as fades and wipes), see [Chapter 5](#). And to add sound effects or music, refer to [Chapter 6](#).

Working with clips in the Cutting Room window

To craft your video story, you should first review each clip in the Cutting Room. Here you can adjust the length of each clip, arrange clips in the desired sequence, and preview your story as you work.

Reviewing a clip

To review a clip:

- 1 In the Library window, click the clip you want to work with.
The first frame of the clip appears automatically in the Clip Player of the Cutting Room window. (If you don't see anything in the Library window, it means you still need to capture or import your clips. See [Chapter 2](#) for information.)
- 2 Click the Play Clip Selection button at the bottom of the Cutting Room window, or press C on your keyboard.
The clip will play through from beginning to end.
- 3 To stop the clip at any point, click the Play Clip Selection button or press C while the clip is playing. Note, anytime you click the Play Clip Selection button the clip stops playing and goes back to the beginning.

To adjust audio volume, see [Chapter 6](#).

NOTE: If Display to the Camera During Playback is selected in Camera Options, you may only see your clip on your camcorder's LCD or an attached TV monitor while scrubbing. If you are editing without an attached camcorder or TV monitor, you may choose to de-select the Display to the Camera option in the Camera tab

of the Options dialog. Turning off this option may improve playback quality in the Cutting Room Clip Player.

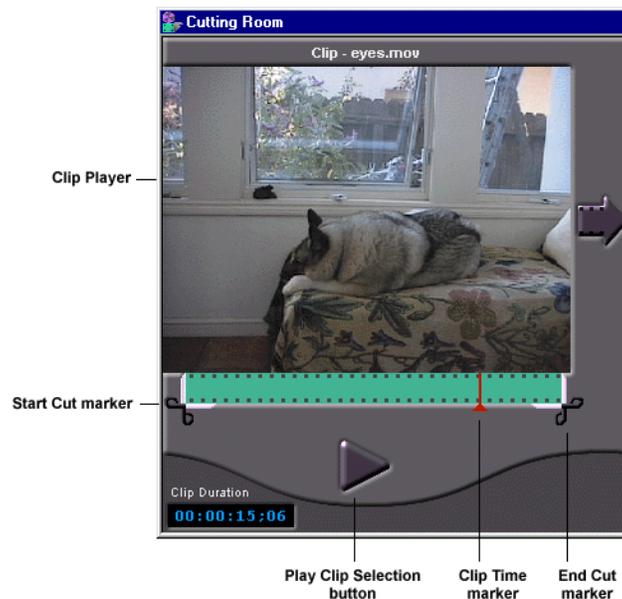
You may view any part of your clip by “scrubbing” through it:

- 4 Drag the Clip Time marker (the vertical red bar at the bottom of the Cutting Room window) forward or backwards.

Scrubbing lets you see the part of the clip you're interested in, stopping or starting when and where you like.

Editing a clip

Once you've familiarized yourself with a clip, you're ready to select a portion of it for inclusion in your video story. You do this by setting the Start and End Cuts (where you want the clip to begin and end) using the scissors.



NOTE: At times, you may want to include an entire clip in your story, without shortening it. In this case, you can simply add the entire clip directly to the story, as described in the next section.

TIP! In general, you should try to keep your clips on the short side (about three to five seconds long), to keep your viewers' interest. But don't shorten them too much; you want to give your viewers enough time to get the flavor of each video segment. The small Clip Duration window (bottom left of the Cutting Room window) shows you the current length of the clip.

To set Start Cut and End Cut:

- 1 Drag the Start Cut marker (the scissors on the left of the Clip Time marker) to the precise point where you want your edited clip to begin. You can drag it backwards and forward until you've hit on the exact spot you want.
- 2 Drag the End Cut marker (scissors on the right of the Clip Time marker) to the point where you want the edited clip to end.

Notice that the Clip Duration time has decreased to indicate the length of selection.

You can now put the clip directly to your story by clicking the Add Clip button or continue editing as many clips as you like.

Putting your clips into the Story

Once you've adjusted the clip's Start Cut and End Cut, you can add the clip into the Story—that is, you're ready to place it in the sequence of all the clips that will make up your finished story.

Use one of the following methods to add a clip into the Story:

- With your edited clip in the Clip Player of the Cutting Room window, click the Add Clip button (the arrow between the Clip and Story Players). The clip appears as a green section in the Story window.
- Drag an edited clip from the Clip Player into the Story Player or Story Window.
- Drag an unedited clip directly from the Library Window into the Story Player window or Story Window.

If you intend to use the video from a clip with video, it must be added to the Video Track (the track with the movie camera icon at its leftmost end). If you wish to use just the audio portion of a clip, or a clip with no video, it must be dragged into the Music and Narration Tracks (the tracks with the musical note icon at their leftmost ends).

Reviewing your story in the Story Player

Add as many clips as you like to the Story. At any point, you can review the story using either the Story Player of the Cutting Room window, or the Story window.

The Story Player works much the same as the Clip Player; the only difference is that your entire video story is accessible, instead of just a single clip. The current Story time is shown in the Story window at the bottom right of the Story Player.

NOTE: The Story window has a zoom-in and zoom-out button in the lower left corner to allow you to see a greater or fewer number of clips in the Story Window.

There are two ways to review the story:

- Click the Play Story button in the Story Player to play or stop the story. Or press the spacebar to stop and start the story.

- Drag the Story Time marker in the Story Player to scrub through the entire story, just as you can scrub through clips in the Clip Player.

At this point, the clips in your story are “spliced” together. If you find that the transition between one clip and another is rather abrupt, you can add transition effects such as fades and wipes. For more information, see [Chapter 5](#).

Using the Story window to refine your story

The Story window provides a streamlined representation of your story. It shows you:

- the order your clips will play in the story
- the length of each clip
- the length of any secondary audio tracks, and how they're organized (see [Chapter 6](#) for information about working with sound and music)

You can quickly view, reorganize, insert, or delete clips from your story by using your mouse in conjunction with the Story window, as described in the following sections.

Scrubbing in the Story window

You can scrub through your story by dragging the red Story Time marker, just as you do in the Cutting Room window. As you scrub in the Story window, the Story Time marker in the Story Player moves, and you see your story in the Story Player.

NOTE: If Display to the Camera During Playback is selected in Camera Options, you may only see your story on your camcorder's LCD or an attached TV monitor, while scrubbing. If you are editing without an attached camcorder or TV monitor, you may choose to de-select the Display to the Camera option in the Camera tab of the Options dialog. Turning off this option may improve playback quality in the Cutting Room Story Player.

Adjusting audio volume

You adjust the volume of the original audio portion of all your clips by clicking the first speaker icon (near the top of the Story window, next to the camera icon). (You can also adjust the volume of individual clips or other sound effects you add; more on that in [Chapter 6](#).)

Editing clips

In the Story window, you can adjust the length of any clip in your story by changing the Start Cut and End Cut.

- 1 Select the clip you want to edit by clicking it. A yellow border appears around the selected clip.

- 2 Drag the left end of the clip to reset the Start Cut; drag the right end to reset the End Cut.

Adjacent clips in your story automatically fill in the Story to occupy any gaps you may have created by changing the Start Cut and End Cut.

As you edit in the Story window, the Clip Player (in the Cutting Room window) shows the changes you make to the selected clip.

Rearranging clips

In reviewing your story, you may decide that the clips should be arranged in a different order. To reorganize your clips:

- 1 Select the clip you want to move by clicking it. A yellow border appears around the selected clip.
- 2 Use one of the following methods to move the clip:
 - Click and drag the clip to the spot in the Story where you want it to appear.
 - Choose Edit>Cut. Then move the red Story Time marker to the spot in the Story where you want the clip to appear, and choose Paste.

Once you've reordered your clips, you can play or scrub through the story, and if you like, continue experimenting with the order of the clips until the arrangement suits you.

TIP! You can also use shift-select to select several clips at a time in the Story window. Use Cut and Paste from the Edit menu or simply drag to a new location.

Deleting clips

You can quickly remove a clip you've included in your story by doing the following:

- 1 Select the clip you want to delete by clicking it. A yellow border appears around the selected clip.
- 2 Use one of the following methods to delete the clip:
 - Press the Del key on your keyboard
 - Right click the clip and choose Delete.
 - Choose Edit>Delete.

If you change your mind about a clip you've just deleted, choose Edit>Undo.

Inserting clips

There may be times when you want to insert another video clip in the middle of one you've already added to your story.

To create a gap in the middle of a clip to insert a second clip:

- 1 In the Story window, move the red Story Time marker to the exact point you want to insert the new clip.
- 2 Select the track containing the clip you want to split.

- 3 Choose Edit>Split Clip.
- 4 The selected clip will be split into two segments.
- 5 Drag and drop a new clip from the Clip Player into the split you created, or add a clip to the story at the split point by placing the red Story Time marker at the cut and clicking the Add clip to Story button in the Cutting Room.
- 6 If you like, scrub through or play the Story to see how well your inserted clip fits into the movie.

Viewing clip properties

As with most Windows-based programs, FreeDV includes a Properties command. Just right-click any clip to view a tabbed dialog box that gives helpful information about that clip:

- General tab: The clip's name, size in kilobytes, creation date, *original* duration, horizontal x vertical dimension, and time scale. There is also a Comment text box where you can enter notes about the clip.
- Track info tab: The clip's file type, format, depth, and frame or sample rate is displayed.
- Files referenced tab: Files referenced by the clip.

Chapter 4

Adding Titles to Clips

Adding *titles* or credits to your images enriches the viewing experience for your audience by providing them with information or augmenting the mood. Adding text to images also orients your viewers to what they're seeing in the video image, and gives them a clearer sense of the overall message you're conveying. And, of course, you can give yourself and your cast credit for the production.

Using titles

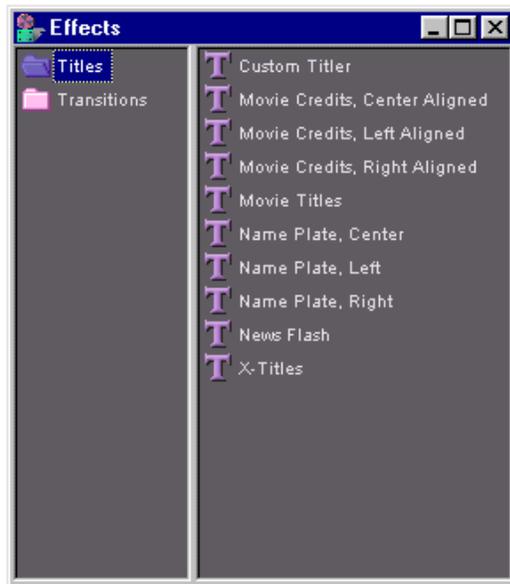
FreeDV provides a variety of preset titles that you can easily add to your images. Each preset title has settings which you can change to enhance the text on your image. Many additional title styles, including custom titles, become available when you upgrade to the complete version of IntroDV.

Adding titles

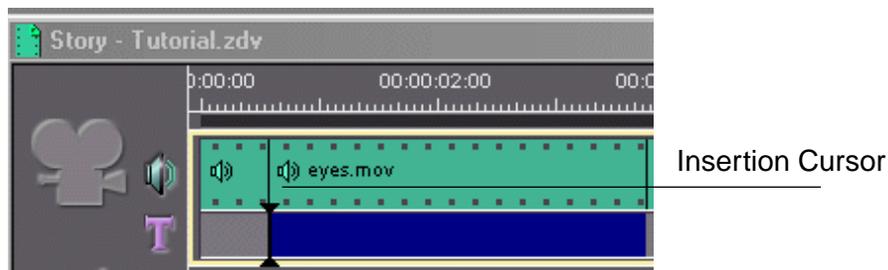
Adding a title is a drag and drop procedure that launches a dialog box in which you can add the text you want and specify its settings. You can choose to keep the default settings or change them before you add the title to your image.

To add a title:

- 1 Click the Titles button on the toolbar or choose View>Effects.
The Effects window opens showing its two panes. The left pane contains a Transitions folder and a Titles folder. As you click each folder, its contents appear in the right pane.
- 2 Make sure that Titles is highlighted on the left side of the window.
A list of titles appears in the right pane.



- 3 Drag the title you want into the Story window and place the cursor on the T track right below the clip in which you want the title to appear. When you see a rectangle and the insertion cursor (a vertical black bar), release the mouse button to apply the title.



A dialog box appears with the name of the title at the top. The dialog box contains a text field and the settings that customize the text.

- 4 Enter the text you want for your title in the text area.
- 5 Keep the default settings, or choose a different font and color.

You can edit or customize your title settings at any time—while you're adding the title or after you've added the title in the Story window. See [“Editing a title”](#) on page 25 for details.

- 6 Click OK.

The story automatically builds and includes the title on the image. When the story finishes building, you'll see the title name below the clip in the Story window.

At this point, you can add more titles, preview the clip with its title, or edit the title to further customize it. If you want to delete a title, see [“Deleting a title” on page 26](#).

NOTE: This is a good time to save your project if you haven't done so already. Even if you're going to continue to make changes, it's a good idea to save your project periodically.

Previewing a title

When you're ready to preview the title on the image, you can do so by [scrubbing](#) through the clips in the Story window.

To preview the title:

- 1 In the Story window, grab the red Story Time marker with your cursor and place it at the beginning of the section of your Story you wish to view.
- 2 Click the Play button in the Story Player or press the space bar to watch your Story play.
- 3 As you preview your Story and view the titles, you might find that some of the text could be a different font size or color. You can change these settings by editing the title settings.

Editing a title

Editing your titles is a matter of changing their settings after you've previewed your clips with the titles on the images. The editing process is a simple one—you can edit the titles directly from the Story window.

NOTE: Titles are always the same length as the clip they are attached to. You cannot shorten the duration of a title without shortening the clip it is attached to, or splitting a clip into smaller segments. See [“Adding titles to a portion of a clip”](#) for details.

To edit a preset title:

- 1 In the Story window, click the title to highlight it.
A yellow border appears around the title.
- 2 Double-click the title in the T track, right-click the title and choose Title Settings...or choose Edit>Title Settings.
A dialog box appears with the title name at the top. The dialog box contains the current settings for text font and color.
- 3 From the Font drop-down list, choose the font you want.
- 4 Click the Color box to launch the color palette and choose the color you want.

- 5 Click OK.

The story automatically builds and includes the new title. You can view the new title by scrubbing through the clip in the Story window or by playing the Story.

Deleting a title

After you preview your clips, you might see some titles that aren't quite right. Perhaps the wording doesn't convey the right message, or perhaps it looks a bit crowded on the image. You might decide to remove the title altogether and rethink your message. Removing a title is very easy.

To delete a title:

- 1 In the Story window, click the title to highlight it.
A yellow border appears around the title.
- 2 With the title highlighted, press the Delete key or choose Edit>Delete. You can also right-click the title and choose Delete from the menu.

The story automatically builds and removes the title.

More on titles

When you first drag and drop a title onto the T track in the Story window, the title length automatically adjusts to match the length of the clip. If you change the length of a clip later, the associated title will automatically adjust to the new length. Both preset and custom titles are always the same length as the clip they are attached to.

Adding titles to a portion of a clip

If you wish for your title to appear during part of a clip, instead of during the whole clip, you can split the clip into smaller segments in the Story, and apply the title effect to one of the shorter segments.

To title a portion of a clip:

- 1 In the Story window, move the red Story Time marker to the exact point in the clip at which you want the title to begin or end.
- 2 Select the track containing the clip.
- 3 Choose Edit>Split Clip.
- 4 The selected clip will be split into two segments.
- 5 Apply the title effect to the portion of the clip that you want to title.
- 6 Choose your title settings normally.

Chapter 5

Adding Transitions Between Clips

Transitions provide visual segues between clips and can be used to influence the mood and pace of your program. Without transitions, your clips move from one to the other using *cuts*, which are instantaneous switches from one clip to another. While this type of edit should be used most often within your story, some aspects of your movie may be enhanced by using a transition between scenes.

FreeDV provides a variety of transition effects. You can choose transitions that gently fade your images into and out of the surrounding clips, or you can opt for exciting transitions that explode from one frame to another.

Using transitions

Transitions create an overlap between the clips using the images from beyond their cut points. This way, adding a transition does not affect the overall program length, which is useful when you have edited a “rough cut” of a project and wish to add transitions without altering synchronization between your video clips and your music and narration tracks.

However, you must have frames of video beyond the Start and End Cuts of your clips for FreeDV to create the necessary overlap. If you have added clips to the Story without adjusting their Start or End Cuts away from the very beginning and ending of the clip, you will need to adjust the length of the clip as described in “Editing clips” on page 20.

Furthermore, many transitions will not appear to have an effect if applied to an edit created using the Split Clip command. This is because FreeDV will blend identical frames together, which produces no change. You may therefore need to adjust the length of the clip as described in “Editing clips” on page 20.

Each transition has default settings, such as starting and ending locations, blurring percentages, shapes, angles, and borders, which you can edit or customize to enhance the look and feel of your video story.

FreeDV uses standard Apple QuickTime® transitions. A brief description of each transition is listed in the following table. Many more transitions and special effects become available when you upgrade to the complete version of IntroDV.

Transition	Description
Cross fade	Performs a smooth fade from one clip to another. You can specify the starting and ending percentages of the fade, which indicate the opacity or saturation of the blended image. For example, if you choose 0% (the highest saturation), the new image completely covers the old image as the fade occurs. If you choose 100% (the lowest saturation), the new image and old image have equal saturation and both remain visible throughout the fade.
Explode	Rapidly expands the new clip from small-to-large so that it covers the old clip. You can specify the starting and ending explode center locations, which can be outside the image's visual area.
Gradient wipe	Uses a black and white still image (called a "gradient map") to determine which portions of each clip is visible over the course of the transition, substituting pixels from the new clip for those in the old in the order of brightness. Depending on the gradient map you use, this can have spectacular results. (Elaborate gradient maps are available from third parties such as Pixelan SpiceRack.) You can specify how much of the old image you want to cover by using the percentage sliders, and you can blur the leading edge of the wipe.
Wipe	Covers the old image completely with the new with a wiping motion. There are 36 wipe patterns, which you can customize by tiling vertically and horizontally. You can specify a border width and color, and you can soften the border edge.

Adding a transition

Adding a transition is a drag and drop procedure that opens a dialog box in which you can view the transition's behavior. You can choose to keep the transition's default parameter settings or change them before you add the transition to your clips.

To add a transition:

- 1 Click the Transitions button on the toolbar, or choose View>Effects.

The Effects window opens showing a list of available transitions.



- 2 Drag the transition you want into the Story window and place the cursor between the two clips where you want the transition to occur. When you see the insertion cursor (a vertical black bar), release the mouse button to apply the transition.

A dialog box appears with the name of the transition at the top. The dialog box contains the settings that change the transition's look and behavior, and a small preview window.

- 3 Keep the default settings, or change any settings you want to customize the transition. The results are shown in the preview window.

You can edit or customize your transition settings at any time—while you're adding the transition or after you've added and previewed the transition in the Story window. See ["Editing a transition" on page 30](#) for details.

- 4 Click OK.

The story automatically builds and includes the transition. When the story finishes building, you'll see the transition name between the clips in the Story window.

At this point, you can add more transitions, preview the clips with their transitions, or edit the transitions to further customize them.

NOTE: This is a good time to save your project if you haven't done so already. Even if you're going to continue to make changes, it's a good idea to save your project periodically.

Previewing a transition

When you're ready to preview the transition, you can do so by scrubbing through the clips and transitions in the Story window or playing the Story.

To preview the transition:

- 1 In the Story window, grab the Story Time marker (the red vertical bar) with your cursor and move it to the beginning of the clip you want to preview.
- 2 Click play to preview the Story and your transition, or slowly drag the Story window marker to the right. You'll see the clips and the transitions playing in the Story Player.

As you preview your clips and transitions, you might find that some transitions could use a few alterations. Perhaps they fill too much of the image area, or need a border for a sharper look. Or perhaps you want to change the transition shape from a square to an oval. You can change any of these effect settings by editing the transition settings.

Editing a transition

Editing your transitions is a matter of changing their settings after you've previewed your clips and transitions. You can customize your transitions at any time.

Each transition has its own set of parameters. If you've experimented with the settings, you probably have a good idea of the types of things you can do with them. If you haven't examined them yet, here's a brief list of the types of things they can do:

- Change the size of the new image and specify whether or not it will completely cover the old image during the transition
- Add borders, soft edges, and background colors
- Change the shapes of the transitions (for example, from a square to an oval, or from a triangle to a matrix pattern)
- Change the center location for the starting and ending points
- Specify the direction in which a matrix pattern travels to cover the old image
- Specify a gradient and edge blur

You edit transitions directly from the Story window.

To edit a transition:

- 1 In the Story window, click the transition to highlight it.
A yellow border appears around the transition.
- 2 Right-click the transition and choose Transition Settings from the menu or choose Edit>Transition Settings.
A dialog box appears with the transition name at the top. The dialog box contains the settings that change the transition's look and behavior, and a small preview window.
- 3 Change or set the parameters by using the sliders for percentages, by choosing items from a drop-down list, by selecting checkboxes, or by choosing X and Y axis parameters.
As you change each setting, the preview window shows the results.
- 4 Click OK.

The story automatically builds and includes the new transition. You can view the new transition by scrubbing through the clip in the Story window or playing the story.

Go ahead and experiment with the different transition types and their parameters and see what kinds of effects you can create. After previewing your clips and transitions, you may find that one or two aren't quite what you wanted. Removing a transition is very easy.

5

Deleting a transition

After previewing and editing your clips, you might decide to remove a transition altogether. Perhaps it doesn't quite fit into your program, or perhaps you want to add another type of transition in its place.

To delete a transition:

- 1 In the Story window, click the transition to highlight it.
A yellow border appears around the transition.
- 2 With the transition highlighted, press the Delete key or choose Edit>Delete.
You can also right-click the transition and choose Delete from the menu.

The story automatically builds and removes the transition.

More on transitions

In addition to editing your transition settings, you can change the length of the transition itself. By default, each transition is 30 frames (25 frames for PAL), approximately one second long. You can shorten or lengthen a transition by dragging its edges in the Story window.

Because a transition blends the clips from beyond the cut points, lengthening your transition obscures a bit more of your clips and shortening your transition leaves longer portions of your clips showing.

As with most visual programs, experimenting with the settings and viewing the behavior is the best way to achieve the aesthetic results you want.

Chapter 6

Working with Sound and Music

Music, narration and sound can dramatically improve the impact of your story. In addition to (or instead of) any original audio, you can add music, narration, and sound effects to your video stories. You can record sounds into your camera's microphone or into a microphone attached to your computer, or you can import other sound files directly into FreeDV's library for use in your Story.

Importing sound files

In addition to audio captured with video by your camcorder, you can also import files in the following formats:

- .WAV
- .AIF
- .AU
- .MP3
- .SD2
- .MOV

NOTE: FreeDV supports most of the same audio file formats that QuickTime supports. Visit the Digital Origin Web site (www.digitalorigin.com) for the latest information on compatible file formats.

You import sound files the same way you do video: Choose File>Import, then choose the sound file you want.

Since your clips contain both video and audio, you automatically import audio at the same time you import the video. You can keep this sound with your final story, or you can replace it with different sound effects when you create your video story, as described later in this chapter.

Quick start: Working with audio clips

You work with audio clips in much the same way as you do video clips. We recommend that you read [Chapter 3](#) before this chapter. If you have done so, you already know the fundamentals of working with audio clips. Here's all you do:

- 1 Import an audio file.
An audio icon and the name of the file appear in the Library window.
- 2 Select an audio file by clicking it; the audio file's icon and file name appear in the Clip Player.
- 3 Use the Play Clip Selection button (or press C on your keyboard) to play and stop the clip.
- 4 If you want to shorten the audio clip, set new Start Cut and End Cuts by dragging the scissors to the left and right.
- 5 Click the Add Clip button (between the Clip Player and Story Player) to add the audio clip to your video story. You may also drag the audio clip directly to the Music and Narration track.

You'll see the clip's File name in one of the sound tracks in the Story window. Sound tracks are shown with a musical note icon at the left.

- 6 Use the Play Story button in the Story Player to play the story, which now contains the music you've added.

NOTE: If you have a slower computer, the sound or picture may stutter during playback. If so, you can experiment with temporarily reducing the playback quality of the video so that your computer can improve sound quality. Choose View>Options, then click the Playback tab. You can then choose "draft" quality for playback.

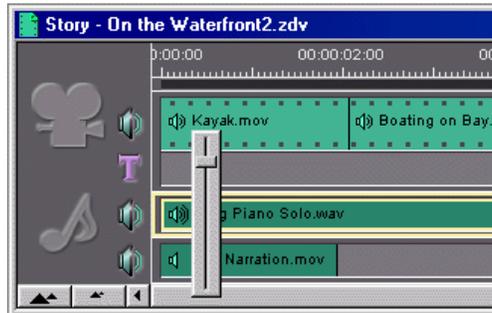
- 7 Select audio clips you want to change (by clicking them) in the Story window.
You can then rearrange them, set new Start Cut and End Cuts, or delete the clips.
- 8 Right-click an audio clip and choose Properties to view information about it.
- 9 Set the volume level for a clip by clicking the speaker icon inside the clip and dragging the knob up and down while the story is playing or paused.

Adjusting the playback volume for audio clips

You can individually change the volume level for each audio track in your story and for each separate video clip. For instance, you might want to completely suppress the sound of the original audio (if any), and replace it with voiceover narration and music. Or you might want to keep the original audio and have some music playing softly in the background.

To change the volume of a track:

- Click the speaker icon next to the audio track in the Story window, then drag the slider on the volume control up or down.



To completely suppress the sound of a track, drag the slider all the way to the bottom. For instance, to suppress the sound of any audio originally recorded with a video clip, click the speaker icon in the video clip in the Story window, then drag the slider all the way to the bottom. That way, any other sound you've added to your story, such as music or voiceover narration, can be heard. You can then fine-tune the volume of your added sound tracks.

Creating voiceover narration

There are two ways to create voiceover narration for your video story: you can either record an audio voice track into the microphone on your camera or record it into a microphone attached to your computer's sound card.

Recording narration into your camcorder

You can create a voice track for your video story by simply shooting some more video footage that includes the narration you want. The video portion won't matter. In fact, you can just turn the camera on and start speaking, without being concerned about what you're recording visually. Unless, however, you also plan to use the video portion of the narration in your Story.

When you're finished speaking, you capture the narration you've recorded by clicking the Capture button or choosing File>Capture just as you do when capturing a video clip.

Once the clip is in the Library window, you can edit and preview the audio section as described earlier in the chapter. Then, with Start and End Cuts set, drag the video clip *past* the video track and directly onto the audio track in the story line at the point in the story you want it to play. Only the audio portion of the clip will appear in the final story.

Recording narration into your computer

If you prefer, you can bypass your camera and speak directly into a microphone connected to your computer's sound card. Windows comes with a built-in sound recorder.

- Windows 95: From the Programs menu, choose Accessories>Multimedia>Sound Recorder.
- Windows98: From the Programs menu, choose Accessories>Entertainment>Sound Recorder.

You can then save the narration in .WAV format.

Alternatively, you can use one of the many sound recording packages available for Windows95 or Windows98 to record and save audio.

Adding music to your story

You can add music to your video story by plugging a CD player or other audio output device into your computer's sound card, or by importing an existing audio file containing music into FreeDV.

As with recording voiceover narration, you can use the Sound Recorder supplied with Windows, or any of a number of sound recording packages available for Windows95 or Windows98.

Chapter 7

Printing to Videotape

When you complete your video story, you can:

- Use your camcorder to "preview" (play) it on the LCD
- Use your camcorder to "print" (record) it onto videotape (only in the complete version of IntroDV)
- Export it as a QuickTime movie which can be used in other QuickTime compatible applications

Printing your story to videotape (complete version of IntroDV only)

When you print your story to videotape, IntroDV records the story onto the tape in your camcorder. You can then view the tape on any digital video player (such as the camcorder or a VCR).

To print your story to videotape:

- 1 Load a new, blank tape or an old tape you are willing to record over into your camcorder.
- 2 Click the Print button on the toolbar or choose File>Print to Tape.

The Print to Tape dialog box appears.



- 3 If you want to see a blank screen before and after your story, select Blank Screen 3 Seconds before and after.
- 4 To preview the story on the camcorder's LCD or an attached TV monitor, click Play.

TIP! Depending on the capabilities of your PC, the story may look better when you play it on a video device (such as the camcorder or a video monitor). Previewing the story before you record it to tape lets you see it exactly as it will appear on video.

- 5 To record the story to videotape, click Record.

A progress message lets you know when the recording is complete.

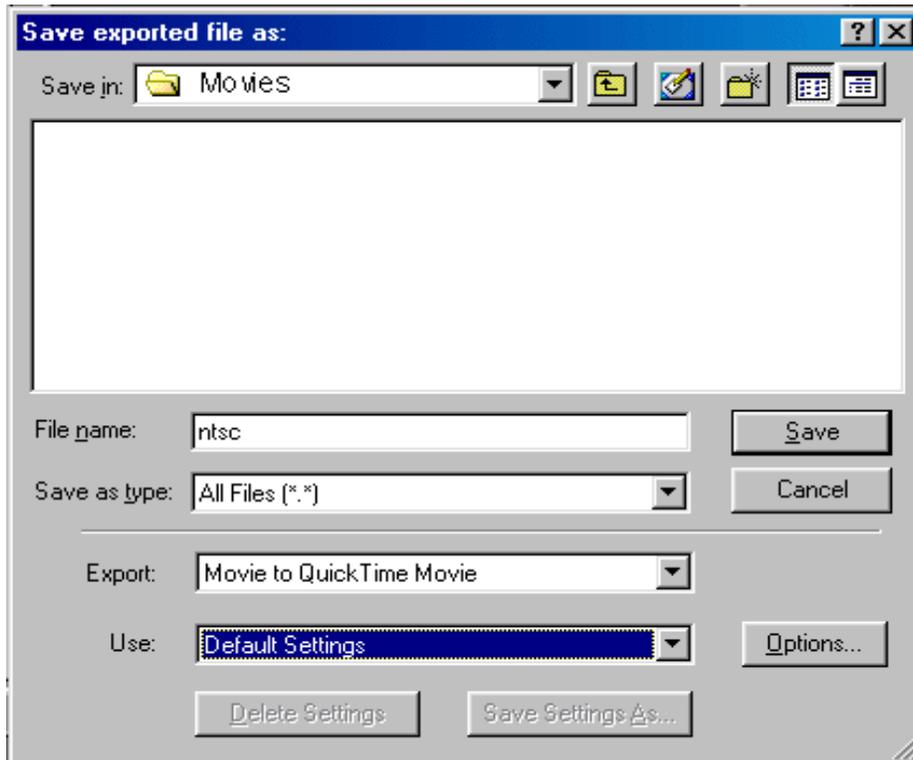
Exporting your movie to QuickTime

When you export your story as a QuickTime movie, it can be opened in any application that is QuickTime compatible such as Terran Media Cleaner Pro or Adobe After Effects. If you are interested in creating a QuickTime-based Web movie, see [Chapter 8](#).

To export your story to a QuickTime movie:

- 1 Choose File>Export Story.

The Export Story dialog box appears.



- 2 Select the folder where you want to store the movie file, and enter a file name.
- 3 Click the radio button to save movie as a self contained QuickTime movie.
- 4 Click Save. The exported story file can now be opened by QuickTime Pro or imported into other QuickTime compatible applications.

When you've finished your story

When creating a story you use many computer files to store the video clips you capture from your camera and the special effects and titles that you add to your story. These video clips are stored on your hard disk in the same folder as your project file in a folder named *project name* media. Thus, a project named MyStory.zdv would store all of its video clips in a folder named MyStory media. As long as you wish to continue editing your story, your clips must remain in this media folder.

At some point, you will finish editing your story and save the edited movie back to video tape. You can recover the disk space used by the video clips by removing

the project file and its associated media folder from your disk drive. These files can be removed by using the Windows Explorer to delete the folder. However, once this media folder is removed, you will no longer be able to play or edit your story from your computer. Therefore, do not remove this folder and project until you are completely finished editing your movie.

NOTE: Once you have removed this media folder, any story files that you have exported with the Export Story (as a temporary Reference Movie) command will no longer be able to play. These small exported files refer back to your original video clips and can only play provided the original clips are available.

Chapter 8

Creating Web Movies

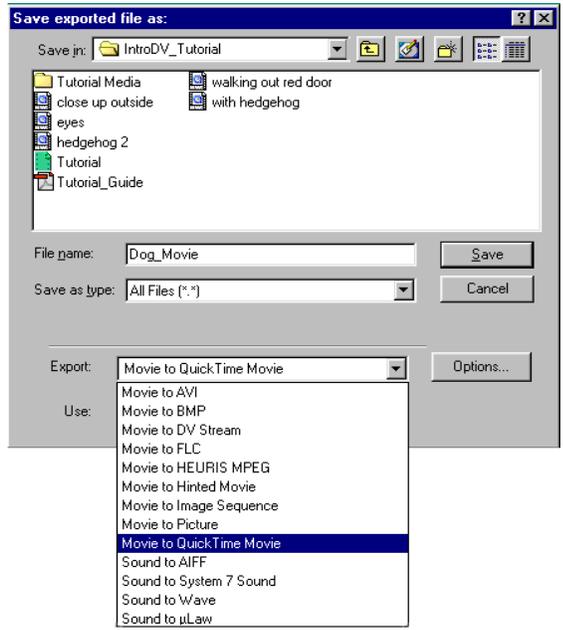
Making a good compressed movies starts by capturing and editing your source material at the highest quality possible. FreeDV is an ideal environment for editing web movies because it preserves full frame-rate and full resolution DV files (720x480 for NTSC; 768 x 576 for PAL). While FreeDV maintains the quality of your original footage, the movie files it creates are very large. Therefore, it is important that, once you have completed editing your Story, you reduce its size by exporting it to a compressed format. This section describes the main steps required to save a completed Story to a format appropriate for low bandwidth delivery.

Export your Story for the web

Creating a compressed movie with FreeDV is performed once your Story is complete. It is highly recommended that you begin by experimenting with a short 5-10 second test clip from your Story. Using a short test movie allows you to quickly compress and compare results using different settings.

Save your movie from FreeDV

- 1 With your completed project open, select the Export button or go to File-> Export.
- 2 Choose a destination for your exported movie. Your Story title and directory is the default name and destination for the exported file. The default format is "Movie to QuickTime Movie".



Tips for improving video quality

Experimentation is the key to finding the right balance between playback quality and file size.

- Save time by experimenting first with a short 5-10 second clip before trying to compress longer movies.
-
- Be sure to use bright daylight footage. Dark images compress poorly.
- Avoid footage with high motion sequences which are more difficult to compress.

3

Index

A

Audio

- adding music to story 36
- adjusting volume 34
- stutter 34
- working with 34

C

Camera Options 17, 20

Capture

- from lens 12
- from tape 11

Clip Player 5

Clips

- adjusting audio volume of 20
- deleting 21
- editing 20
- inserting 21
- rearranging 21
- viewing properties of 22

Columns

- in Library window 16

Cutting Room window 5

D

Disk space

- requirements 3

Display to the Camera 17, 20

E

Editing

- clips 17, 18
- clips in the Story window 20
- inserting clips 21

Encode 41

End Cut 18, 27, 34, 35

- adjusting in Story window 20

F

Format

- time code 11
- video 3

G

Gradient maps 28

I

Importing

audio 12, 33
clips 12

L

Library window 4
options 16

M

Music and Narration Tracks 19

N

Narration

creating voiceovers 35

NTSC 3, 41

O

Options

Camera 17, 20
Library Window 16
Playback 6
Project 3

P

PAL 3, 41

Pixelan SpiceRack Pro 28

Playback

tab in Options dialog 6
to camera over FireWire 5, 17, 20
video image quality 6

Project

starting 3

Project Format

NTSC 3
PAL 3

Q

Quality

playback on computer screen 3
video playback on computer screen 6

QuickTime

audio import 33
movie export 38
transitions 28

S

Scrubbing

defined 18
the Story 20
through transitions 30

Split Clips

to adjust title length 26
to insert video 22
transitions and 27

Start Cut 18, 27, 34, 35

adjusting in Story window 20

Story Player 5

Story window 6

T

Time code

discontinuous 11
format 11

Titles

adding 23
adjusting length 26
deleting 26
duration 25, 26
editing 25
preset 23
previewing 25

Transitions

adding 27, 28
adjusting length 31
deleting 31
description 28
editing 30
previewing 30
Split Clips and 27

V

Video clips

duration 18
placing in story 19
previewing 9, 17

Video Streaming

exporting 41
quality 41
tips 42

Volume

Adjusting 20

W

World Wide Web

preparing movies for 38

Z

Zoom button 19