chapter

3

Transferring Video to Your Computer

In this chapter...

You've got tons of movies and clips already on tape. You probably enjoy viewing them on your television. But what will you do in the future when the current generation of VCRs has gone the way of the dinosaur? And what would you do if some disaster struck your home (such as a precocious two-year old who wonders what's inside those funny plastic boxes)?

Why not transfer your precious videos to DVD for posterity or ease of viewing? Having your videos stored away on compact DVDs out of harm's way is reason enough to make the transfer. But, computer access to your movies is only the start.

Once you've transferred your films to your computer, the fun really begins. You can edit your videos, create compilations of your best sequences, add special effects, and make copies for anyone who has a DVD player.

Best of all, transfer is easy. This chapter shows you all the steps required to transfer your VHS or 8mm tapes (and a few other video sources) to your computer, and thence on to DVD.

Why Transfer Your Tape Library?

Until digital video became practical for the average consumer, assembling an archive of personal movies and videos was a nightmare of clutter, inconvenience, and risk. A film or tape library takes up a lot of room and is difficult to organize. Finding the exact clip you want to view can be tricky. Tapes and film are easily damaged during normal viewing, and can be stolen, lost, or destroyed. When you consider how much we enjoy our personal movies and tapes, these limitations and dangers are serious drawbacks.

Movies on film are the absolute worst offenders. Back in the days when Super 8 was popular, each movie was returned from the processing lab on a tiny reel that held only a few minutes of action. You may still have some old Super 8 movies sitting around. If you don't want to keep threading one film after another onto the projector, it's mandatory to splice them all together into one long reel using messy techniques involving razor-blade cutters and glue solvents (or adhesive tape splices or ultrasonic welding).

Even strung together onto 400-foot reels, film takes a lot of space. To view the films, you need to set up a projector, which itself threatens to chew up your film each time it runs through the teeth of the sprockets, assuming that the splices don't break. Film can be permanently damaged by a little too much heat or a little too much moisture, and tends to fade alarmingly even if you take very good care of it. It's a blessing that home movies on film faded into oblivion several decades ago, even though many of us older folk still have piles of film reels up in the attic. (This happens to be one of the absolute worst places to store them, by the way.)

Film is one movie media that isn't easy to transfer to digital format. If you have old films you want transferred, your best bet is to ask around at your camera store and locate a professional who can do the transfer for you.

Videotapes are much easier to view and transfer, but have problems of their own. If your tape library happens to reside on Betamax tapes, you're in trouble right off the bat, because Betamax tape players haven't been manufactured for many years. Should your old Betamax VCR still be in working condition, it's probably a great idea to transfer your collection to DVD before it dies.

Of course, VHS recorder/players are still widely sold, but that won't always be the case. DVD is starting to replace VHS in many homes. Retailers and rental outlets have sharply reduced the number of prerecorded VHS tapes they offer. The majority of home users don't tape television shows very often, so many VCRs spend most of their time collecting dust. When DVD recorders and personal video recorder technologies like TiVo become more common, the death knell will sound for VHS. In ten years, your collection of VHS tapes might be as obsolete as Betamax is today.

Transferring your collection becomes an even better idea when you realize how easily videotapes are damaged. Who hasn't recorded a new clip on top of an old one that you meant to keep? A precious memory can become just that—only a memory—when you overwrite it because the original tape was inadequately labeled.

Older VCRs, especially, are prone to "eating" tapes. That's bad enough when the tape was a commercial movie you purchased or rented, because you can always go out and buy a new copy. But a snarled tape can be especially painful if it's a personal clip representing a lifetime milestone that can't be repeated. No store can sell you a copy of that wedding video that was damaged, or that you accidentally used to tape the Super Bowl.

Tapes can be damaged in other ways, too. Although more rugged than film, tapes can be made unplayable by water or heat. The magnetic coating on tapes can gradually wear off or change from exposure to magnetic fields. It's even possible for the electrical signal recorded on a tape to fade over time. It's possible to make a backup copy of a videotape, but the copy will not be as good as the original, and any successive generations duplicated from the copy will be even worse.

There are many reasons for transferring your movies to DVD. Here's a summary:

Protection. We've already seen that transferring movies to DVD provides protection for your valuable clips. DVDs are much more rugged than either film or tape, and can be easily duplicated. You can keep a spare copy of each disk in a fireproof safe or off-site, say, at a friend or relative's house.

Future compatibility. Conventional analog videotape is on its way out. There's no telling how long even the newer digital tape formats will be around. As pervasive as MiniDV is today, it could vanish quickly when the newer storage formats that are surely coming appear. Vendors have already announced digital memory cards that hold 8 gigabytes of information. With a little more capacity and much lower prices, cards capable of storing an hour or two of high-resolution digital video will be possible. Your older tapes, even the newer digital variety, will be obsolete.

No such fate is likely for DVD in the near or distant future, because the technology is still in its infancy. Current 4.7G DVDs will be augmented (not replaced) by 8G versions in the next few months, and the technology is already mapped out for DVDs that can hold 16G or more. As newer and better DVD storage is introduced, the original versions

will still be playable on future DVD players. It's not likely that DVD will be replaced by memory cards for permanent storage, as rewritable digital cards will never cost less than write-once DVDs. The DVDs you make today should be viewable 10 or 20 years from now, even if the basic technology is vastly improved.

Beyond the 20 year mark, if even more advanced technologies replace DVD, it should be easy to transfer your DVDs to the new medium. Because DVDs are already in data-friendly digital format and so widely used (even today), vendors of the replacement technologies will undoubtedly include provisions for migrating to them from DVD.

Ease of viewing. DVDs are more convenient to view. Certainly, a VCR connected to your television is convenient to use, but DVDs offer a lot more. You're not limited to viewing your movies on your television. If you have a computer with a DVD player, you can watch them at your workstation. Most new laptops have DVD players, too, so you can take your movies on the road and view them anywhere you like: in conference rooms, hotel rooms, or on an airplane.

It gets better. Videotapes must be viewed from beginning to end, and fast-forward or fast-reverse don't help you move to the exact clip you want to view very easily. Unless you've memorized counter numbers (and are viewing the tape on the exact machine used when you jotted down those numbers), finding a specific place in a videotape involves a great deal of trial and error. In contrast, you can easily divide your own home movies into "chapters" that can be selected from a standard DVD menu that you create yourself when the disk is designed.

Distribution. Videotapes are literally one of a kind. Copies are never as good as the original, and are time-consuming to produce. If you need a dozen copies of a one-hour tape, unless you have access to a tape duplication facility, you can count on spending at least 12 hours making your duplicates (and you'll need a pair of VCRs, too).

DVD copies, on the other hand, are indistinguishable from the originals. You can make as many duplicates as you like at a cost of only a dollar or two for a DVD+R/-R disk. Dupes are fast and easy to make, too. Just insert the original in your DVD burner and load the duplication

software. Specify how many copies you want, and the software will make an exact image of the disk on your hard drive, then burn each duplicate as you feed blanks into the burner. Depending on how much information is on your original DVD, the process can take a few minutes to a few hours, all without the tedium of loading and rewinding tapes.

Editing and enhancement. The ability to enhance your original videos is one of the best reasons to make transfers. Once the clips have been copied to your hard drive, you are free to extract sequences and place them in any order. You can add transitions like dissolves or fades between sequences or create text titles. Special effects are easy, too.

Video transfers give you the power to take your films beyond the mundane and transform them into something special. Whether you're a budding film director who wants to gain experience, a business user who is seeking more professional-looking videos, or simply a home videographer who would like to dress up your camcorder efforts, digital video is a perfect tool. You'll learn more about editing video in Chapter 4.

Selecting Movies and Footage for Transfer

It's tempting to simply take all your videos and transfer them *en masse* to DVD. In some cases, that's not a bad idea. If your current collection of videos is small, you might as well transfer all of them to DVD for archival purposes before you begin the process of editing. If you decide on the spur of the moment that a production you're working on needs a clip from another tape, you won't need to hunt down the tape and make the transfer; the clip will already have been copied to DVD.

Or, if you're particularly nervous about the possibility of losing one of your tapes, it might make sense to transfer even a large collection all at once to create a more permanent version. If the footage is particularly valuable, you might even want to make a copy of each raw DVD to store elsewhere. After all the tapes have been safely transferred, you can begin the task of editing and assembling with an unworried mind.

For most of us, neither situation applies, and so you'll probably be transferring your videos a few at a time. There are several criteria to use for selecting which tapes to transfer first.

Current projects. Perhaps you have an immediate project in mind, such as creating a compilation tape showing highlights from your kid's soccer career. Or, a birthday is coming up and you'd like to produce a "this is your life" production about a specific person. Maybe you'd like to create a blooper reel of funny moments caught on tape. If you have specific clips in mind, you might want to transfer the tapes containing those clips first. You can wade through the tapes that contain the clips you need and either transfer the entire tape to your computer, or copy only the portions you require for your production. This is a good approach if your tapes are well-organized so you can find the clips you want quickly and have certain ones that you need right now.

Categories. Sometimes it makes sense to transfer tapes according to particular categories. You could transfer all your tapes of vacations at one time, or select only those dealing with sports. Maybe you have all the school plays and pageants on separate tapes and would like to build a collection of them for later editing. If you tend to use each tape for a single event or type of event, transferring according to subject matter and categories can be a good strategy. On the other hand, if you tend to use one tape all year long until it fills up (and thus have visits to the beach followed by shots at a Halloween party followed by snowboarding escapades), this approach might not work.

Last in, first out. It's natural to be most interested in the thing you were working on most recently. Moreover, your video skills probably improved as you shot more footage. So, it's entirely possible that the clips that you're most interested in working with are those you shot most recently. In that case, you'll probably want to transfer your newest videos first.

Chronological order. At times we might want to start with the oldest movies and transfer your videos in chronological order. In some cases, the oldest videos are those you haven't looked at in awhile, and therefore hold a lot of nostalgic interest. Start transferring from the very beginning of your collection and work your way through. This

approach may even help you as you organize your transferred clips into some semblance of order. Reverse chronological order can work, too, if you want to transfer your latest videos and work your way backwards.

What About Commercial Movies and DVDs?

So far, we've concentrated on videos you made yourself, because that's the type of movie transfer of most interest to the average consumer. However, there might be some cases when you want to transfer a movie you purchased on tape or DVD. Perhaps your movie is in Beta format and your Beta VCR is on its last legs. Or, you'd like to use a couple of clips from a favorite movie to accent your own non-commercial production. Maybe you're planning on phasing out your VCR entirely, but don't want to lose your collection of vintage Hollywood classics.

There's good news and bad news on this front. The good news is that court decisions have uniformly upheld your right to make backup copies of media that you already own. You can't make duplicates of copyrighted material for your family or friends, but you can make an extra copy for yourself if you feel you need one. Reusing parts of commercial films in personal productions is on shakier ground, even if used for parodies, so you should try this at your own risk (and be sure not to make copies or try to distribute your finished productions)!

The bad news is that legal duplication is becoming more difficult to accomplish. Many commercial VHS tapes have copy protection features built in. Copying from DVD is certain to be difficult, even with special software. Many transfer programs are equipped to recognize copyrighted material and will stop dead in their tracks if you try. My advice is not to bother trying to copy commercial movies and DVDs. Unless you have a special need for such copies, it's generally not worth the fuss and bother.

Preparing to Transfer

Once you've decided which movies to transfer to your computer or DVD, it's time to get set up. The next sections will take you through the initial steps. You'll learn how to prepare your computer, make the connections, and load the software you need to start the transfer process.

Prepare Your Computer

The first thing to do is make sure your computer is ready for video transfer. You learned about the hardware you need, including amount of memory, hard disk space, and processor speed in Chapters 1 and 2. You upgraded your operating system, if necessary, and turned off power-saving features that could interrupt your video transfer. However, there are still a few things that can be done. I'll provide a quick checklist.

Defragment Your Hard Drive

Your computer is constantly creating files, erasing old files, and writing new ones to your hard disk. The space freed up when an obsolete file is removed is rarely exactly the same size as the next file to be written to that space. So, your computer may place part of the new file in the old space, then put the rest somewhere else. As you use your hard disk, there is a tendency for all the files to be scattered helter-skelter on your drive, written piecemeal wherever there is space. That process is called fragmentation. After awhile, your hard disk platter may begin to resemble a patchwork quilt, something like the simplified (and fanciful) representation shown in Figure 3.1.

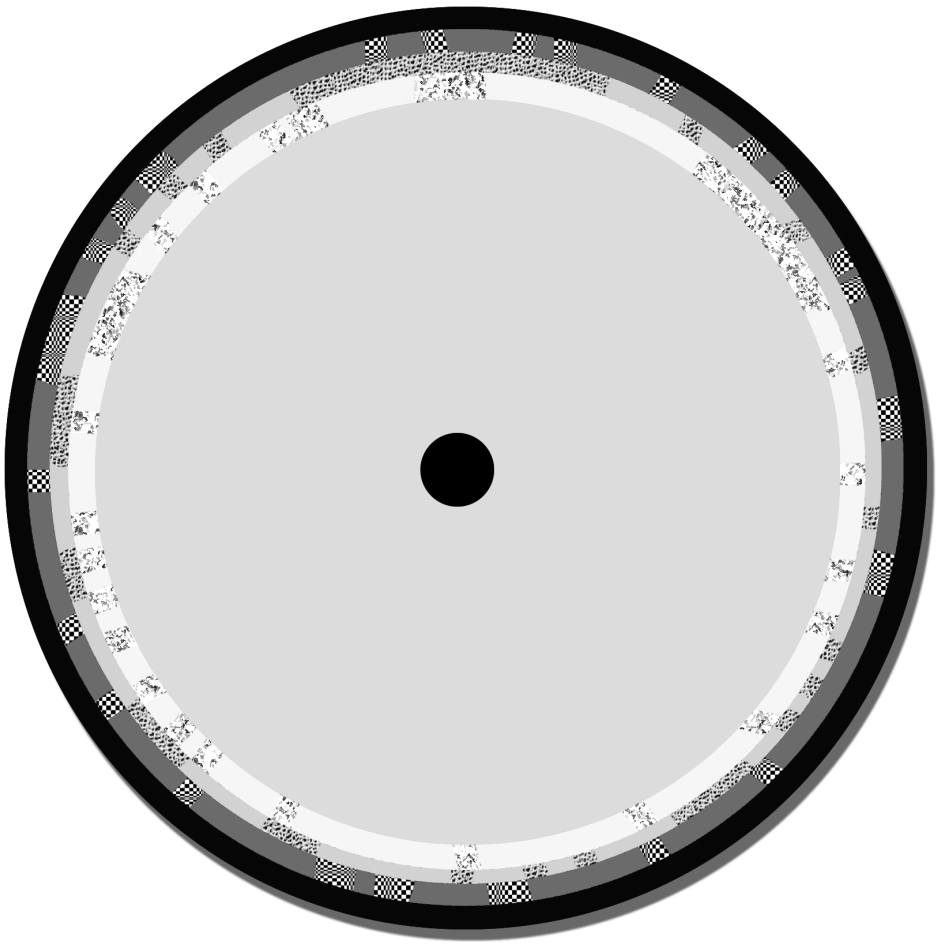

FIGURE 3.1 When files are scattered all over your hard drive, its sectors become a patchwork of partial file fragments.

It's not as bad as it sounds. Your computer's operating system easily keeps track of where all the pieces of each file reside and can jump from one location to another to collect all of them quite rapidly. Today's computers and hard drives are so fast that you'll scarcely notice any delay, even if your hard drive is seriously fragmented.

However, that delay can affect video transfers, because the process moves so quickly that even a minor delay can slow things down and

spoil a perfect transfer. It's even theoretically possible for a severely fragmented disk to affect playback.

Things will go more smoothly if your hard drive is defragmented, so the existing files are arranged so that all the pieces reside consecutively on the disk, and the remaining spaces are as continuous as possible. Defragmenting is accomplished using a special software tool that copies each file to a temporary location on your hard drive, and then copies it back to a semi-permanent locale when the process creates a space large enough to hold the entire file.

If your hard disk is almost full, defragmenting can take a very long time, as there are not many free locations to use as a temporary home for your file fragments. Defragmenting a hard drive that is only, say 25 percent full, can still take an hour or more if many files are fragmented.

Windows includes a tool called Defragmenter, shown in Figure 3.2, which you might find at Start>All Programs>Accessories>System Tools>Disk Defragmenter, or possibly another location. Utilities like Norton SystemWorks also include a defragmenter that can be run as needed, or set to automatically defragment your hard drive a little at a time during idle moments.

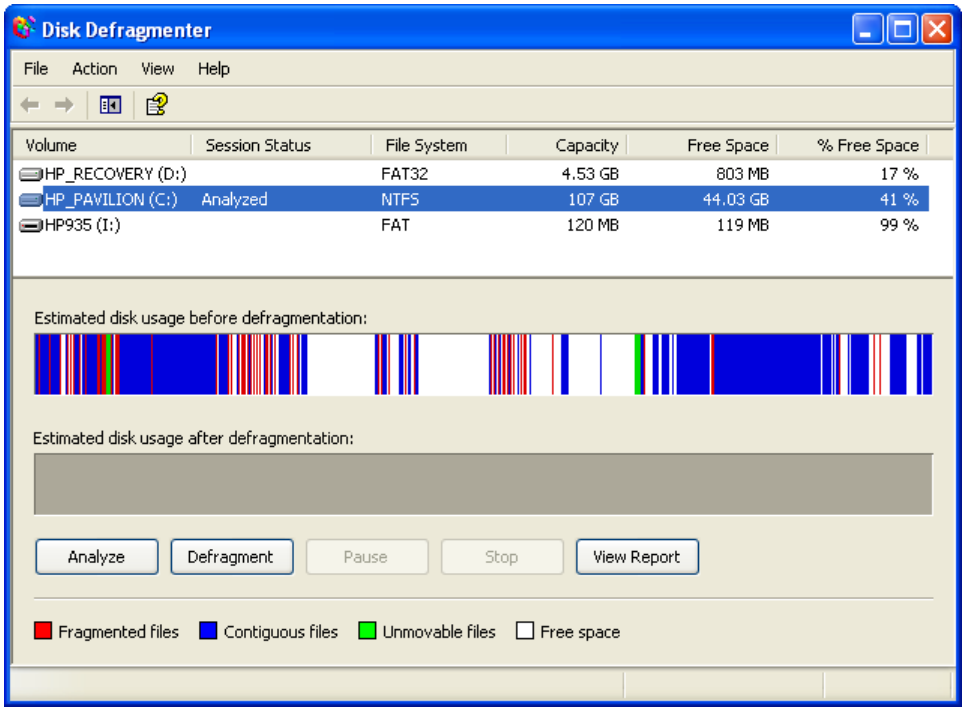

FIGURE 3.2 Windows XP includes a free defragmentation tool.

To clean up your hard drive with Defragmenter, click the Analyze button first to evaluate just how badly your disk needs tidying. The utility will return a report like the one shown in Figure 3.3, along with a recommendation. If Defragmenter suggests fixing the problem, click the Defragment button and let the utility get to work. You can continue to use your computer while defragmentation is underway, but the process will work to completion more quickly if you let Defragmenter work when the computer is otherwise not being used. If my hard drive is in poor shape, I usually let Defragmenter do its stuff while I'm away from my desk for a couple of hours.

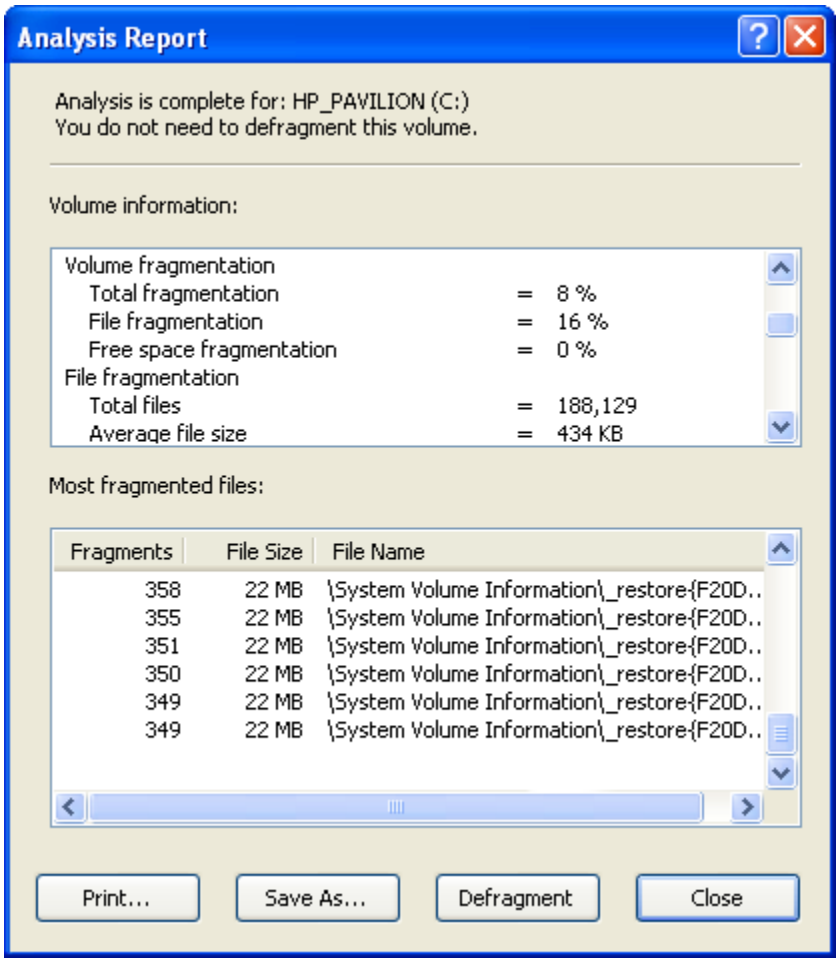

FIGURE 3.3 *Analysis will show if your hard drive needs to be defragmented.*

Check Free Space

You'll need enough free space on your hard drive to store the files being transferred, even if you're writing them directly to DVD. However, even direct-to-DVD transfers use your hard disk drive as storage, so you'll want to have as much hard disk space as possible. I can't emphasize that enough. Remember the good old days when it was possible to store files on a floppy disk? Video files can consume as much hard disk space as two floppy disks, every second! A 60-minute videotape can occupy as much as 12G of hard disk space in its raw form (it will com-

press down to a much more reasonable size when transferred to DVD, however).

If that weren't enough to give your hard disk drive a workout, keep in mind that the computer needs three or four times as much additional space for temporary files during the transfer and editing than it does for the raw converted clip. So, if you're planning to transfer an hour-long video to your computer and then edit it, 50G of space is not too much to have on hand. The final production will be much smaller, of course, but you'll require a lot of free space on your hard drive as you work on a video.

You can view the amount of space remaining on your hard drive by choosing Start>My Computer and then right clicking on the drive's icon and choosing Properties from the menu that pops up. It will look like the one shown in Figure 3.4. If you fear that a lot of space is being wasted, click the Disk Cleanup button, which will empty your Recycle Bin, which retains files long after you've deleted them (until you empty the Recycle Bin, in fact). Disk Cleanup will also provide the option for removing temporary Internet files, such as Web pages or pictures that your browser stores on your hard drive in case you revisit the same page soon. Figure 3.5 shows the Disk Cleanup dialog box.

If you do run low on disk space, even with the most rigorous cleanup of your existing drive, remember that inexpensive external hard drives are available that plug right into the USB or FireWire port of your computer, making expansion of your storage capabilities very easy.

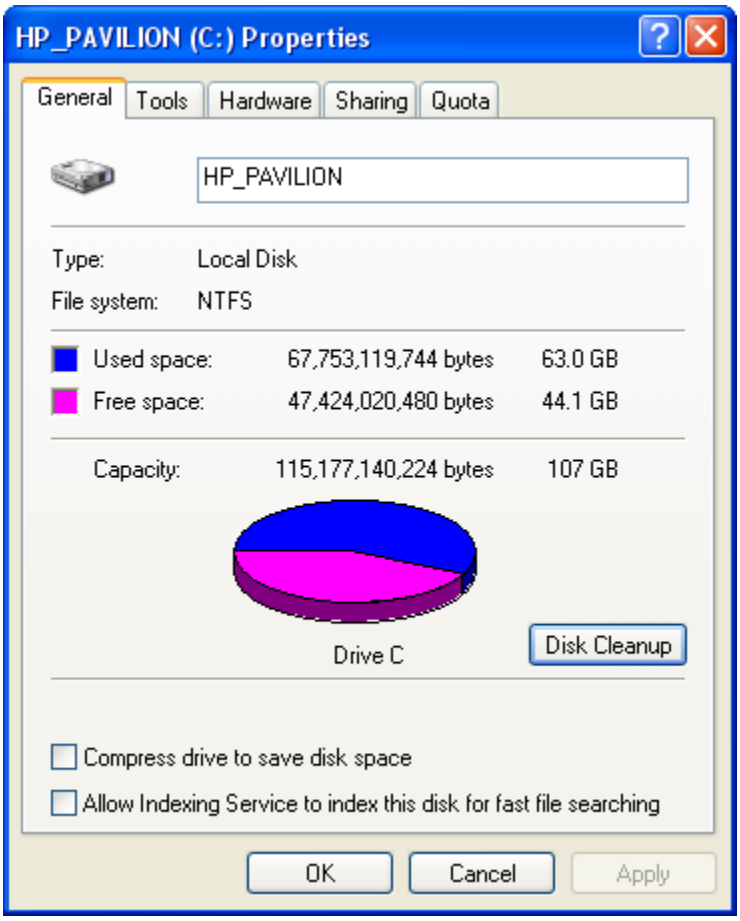

FIGURE 3.4 Check out the Properties box to see how much hard disk space you have remaining.

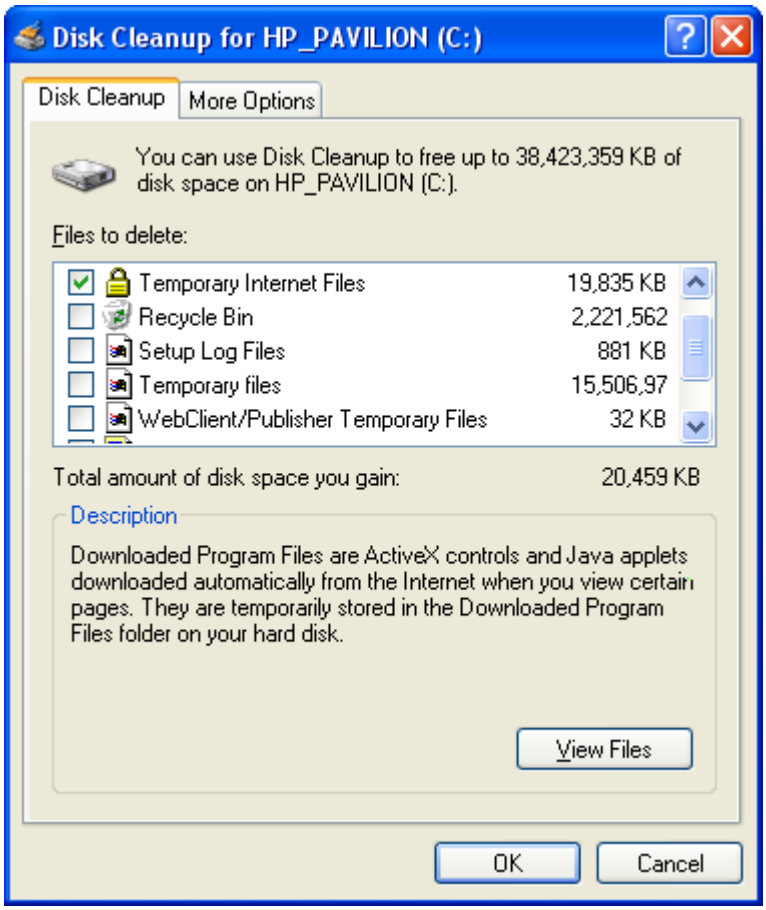

FIGURE 3.5 *Disk Cleanup will remove unneeded files for you.*

Close Extra Programs

Even if you have a very fast computer, indeed, you'll find that the demands of running other programs during the transfer can slow down your system enough to impact video transfer. Because I have a lot of memory and tend to work on many things at once, I usually have lots of programs running on my computer at all times. These always include at least a couple of components of Microsoft Office, such as Word and Excel, a Web browser, my favorite MP3 player, Photoshop (so I can edit an image on a moment's notice), and two different email programs (one for personal email, and one for business email).

In addition, Windows XP is always running a clutch of programs unknown to the average user. If you're wondering exactly what programs are running at any given time, press Ctrl+Alt+Del to access the Windows Task Manager. Click the Applications tab to view the programs you've launched yourself, as shown in Figure 3.6. Then click the Processes tab and scroll down the long list of other programs that are loaded and ready to run when the operating system decides it needs them. You shouldn't shut down anything from the Processes tab, but you might want to review the list of programs shown in the Applications tab and shut down the ones you can live without during video transfer. It's best to close the application from the program itself, rather than use the Task Manager, especially if you want to avoid losing changes in any files that might be currently open.

Closing extra programs can also free up RAM, giving your computer and its transfer program that much more to work with as your videos are converted.

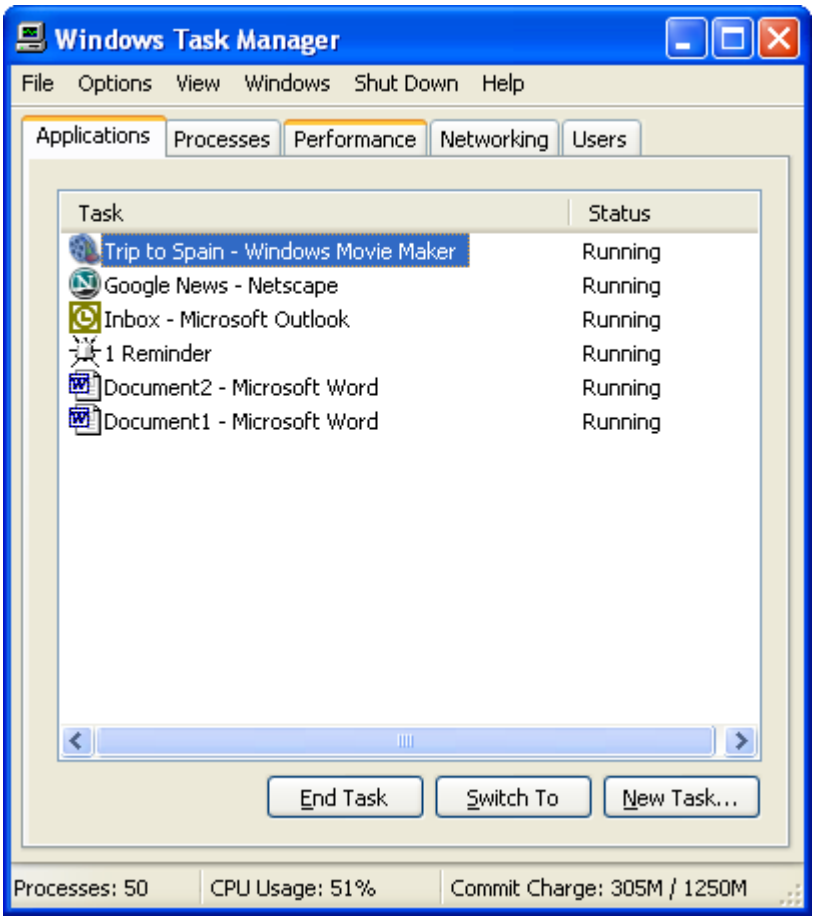

FIGURE 3.6 Task Manager will show you exactly what applications you have launched.

Connect Your Video Source

Once you're satisfied that your computer is ready for video transfer, the next step is to connect your video source, such as a VCR or camcorder, to the computer. There are a variety of ways to do this, depending on whether you're transferring analog or digital video. I'll describe both of them next.

Connecting Analog Sources

As I described in Chapter 2, analog video must be converted to digital form before it can reside on your computer's hard disk or be copied to a DVD. You've already learned that this magic is accomplished using video capture hardware that can be built into your PC's video card, reside on a separate capture card in your computer, or be located in an external capture device such as the one included with the HP DVD Movie Writer DC3000. Once you have that hardware, you still need to connect your VCR or camcorder to the capture device. Analog video devices can link up in one of four different ways.

Composite video/audio. Composite video connectors are most commonly RCA jacks like the one shown at left in Figure 3.7. The jack accepts an RCA-style cable. The video connection is usually color-coded yellow. The two jacks coded red and white are for left and right stereo audio channels. If your camcorder has only yellow and white jacks, the audio connector provides only monaural output. You'll need a Y-shaped adapter like the one shown in Figure 3.8 to feed the monaural signal to the stereo inputs of your capture device.

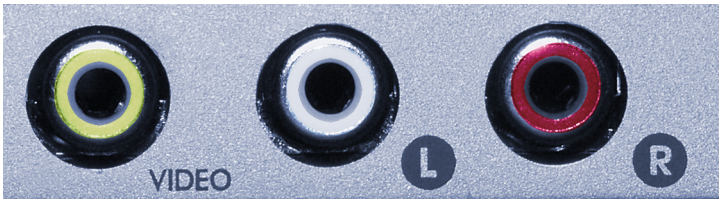

FIGURE 3.7 Composite video/audio use three RCA jacks color-coded yellow, red, and white.

FIGURE 3.8 A Y-shaped adapter will let you feed a monaural signal to a stereo input, or send a stereo signal to a device that accepts only monaural input.

S-Video. S-Video output provides a higher quality video output, compared to composite video, and should be preferred if your video source offers both. You'll find S-video output on newer camcorders, DVD players, and some VCRs. S-Video connectors may have four or seven pins, but there is no standard for the use of the three center pins, so most devices use only the outer four. A few Dell computers use the additional three pins for audio, but, generally, you'll still have to use your camcorder's red/white RCA audio jacks to connect to your analog video capture device. You can learn more about S-Video at http://www.svideo-rca.com. Figure 3.9 shows the arrangement of both four-pin and seven-pin S-Video connectors.

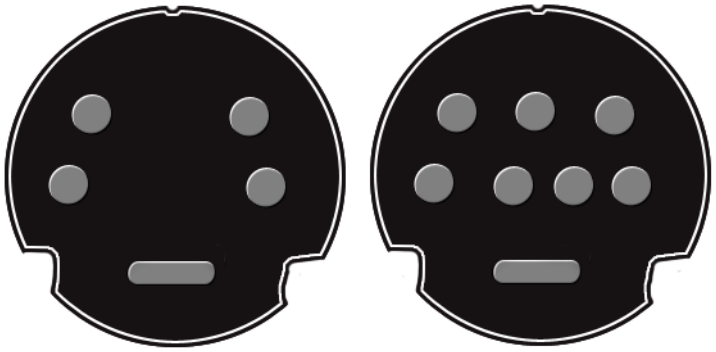

FIGURE 3.9 S-Video connectors come in both four-pin and seven-pin varieties, but in most cases only the outer four pins are used.

Component video. Some costly professional video devices use component video connections, carrying the video signal over three connectors that are coded red, green, and blue. You'll need a capture device that accepts component video to use this type of connection, if your video source has that option.

Video converters. An alternative to the conventional analog video capture device is the video converters available from several vendors. These external devices have inputs for the signals from your analog camcorder or VCR, and a FireWire connector that directs the converted signal to the FireWire port of your computer.

Remember that after you've connected your analog device's video output to a converter or capture component, you must also connect the audio output, usually by means of RCA cables connected to the red/white RCA jacks, or, with some camcorders, through a 3.5mm mini-stereo plug that splits into two RCA plugs, as shown in Figure 3.10.

FIGURE 3.10 Some components, such as computer sound cards, use a 3.5mm mini-stereo plug for audio. You can use an adapter like this one to connect to a miniplug jack.

Connecting Digital Sources

Linking your computer to your digital camcorder is a lot easier. All you need to do is plug a cable into the FireWire port of your camcorder and connect the other end to any of the FireWire ports on your computer. Some camcorders use USB instead of or in addition to FireWire, but, if you have a choice, use the FireWire connector. If you don't have a FireWire port, you can usually add one with an inexpensive card that plugs into your computer.

The FireWire port on your computer has slots for six pins, three on each side of the connector, as shown at the top in Figure 3.11. Your camcorder's FireWire port probably has four pins, all arrayed on one side, as you can see at the bottom in the same figure. Your camcorder should be furnished with a four-pin to six-pin FireWire cable.

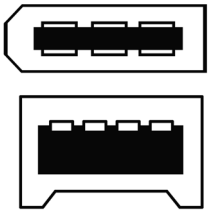

FIGURE 3.11 FireWire connectors come in both six-pin varieties (for your computer) and four-pin versions (for your camcorder or other component).

You don't need to switch off your computer to connect the camcorder. Just plug it in. If this is the first time you've connected the camcorder, Windows may pop up a dialog box or offer to install the device. If you need to install software so the computer can recognize your camcorder, you can do it at this time.

Once linked, you're ready to transfer video through your capture software. You may find that your computer can actually control your digital camera over the linkup, so you can start playback, rewind to a particular point in the tape, or pause using the software controls.

Capturing Video

Now you're ready to go. You can capture video, save it to your hard drive, and, if you like, archive it to DVD. You can even edit your movies to enhance them. I'll explain the last three steps in more detail in Chapter 4. For now, we'll look at the steps involved in capturing video after you've gotten your computer ready and connected your camcorder.

Run Your Capture Software

Your camcorder may be furnished with software that allows capturing video. This software may have only limited features and not provide much in the way of editing functions. Alternatively, you can use the video-editing software of your choice, because all of them have capture features built right in. HP products intended for video capture

include several useful programs. These range from ArcSoft ShowBiz Video Editor and ArcSoft ShowBiz DVD (in models with a DVD-writer), to Microsoft Windows MovieMaker 2.0, which is furnished free with Windows XP.

Windows Movie Maker includes three main "tasks" in the column at the far left of the window shown in Figure 3.12. You can start out by clicking Capture Video first, and then choosing whether you want to capture from a video device, or import video, pictures, or audio that you've already captured. Once you've assembled the clips you want to use, you can click Edit Movie and Finish Movie to polish off your production. We'll look at editing and final production in Chapter 4.

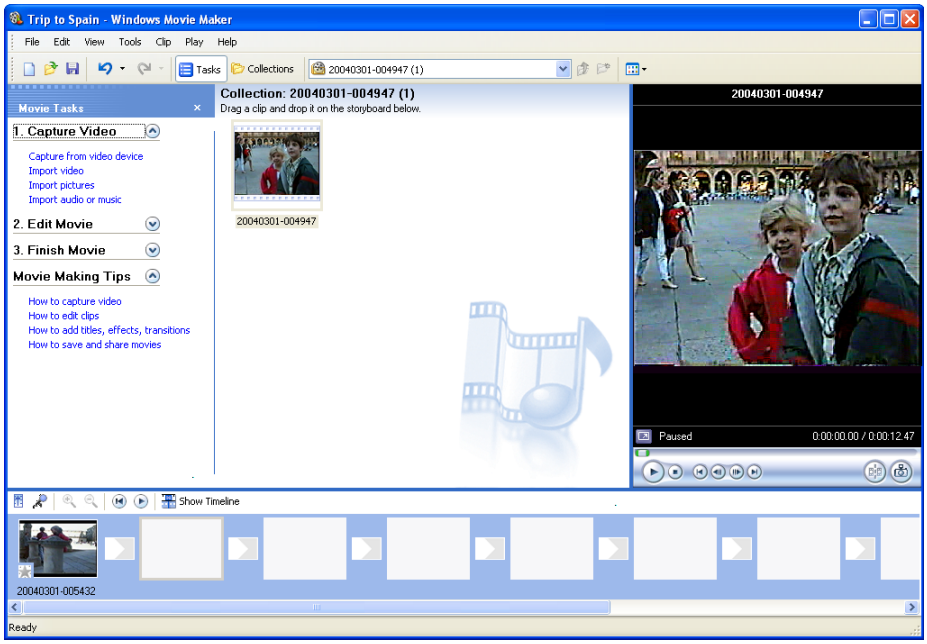

FIGURE 3.12 *Windows Movie Maker is supplied free with Windows XP.*

More advanced programs, like the ShowBiz Video/DVD editors included with many HP products, are just as easy to use as Windows Movie Maker, and offer many more options.

Once you're connected and have loaded the ShowBiz software, shown in Figure 3.13 with several video clips already loaded and ready

for editing, you may have to make a few settings adjustments, but in most cases the correct default values will already be loaded for you.

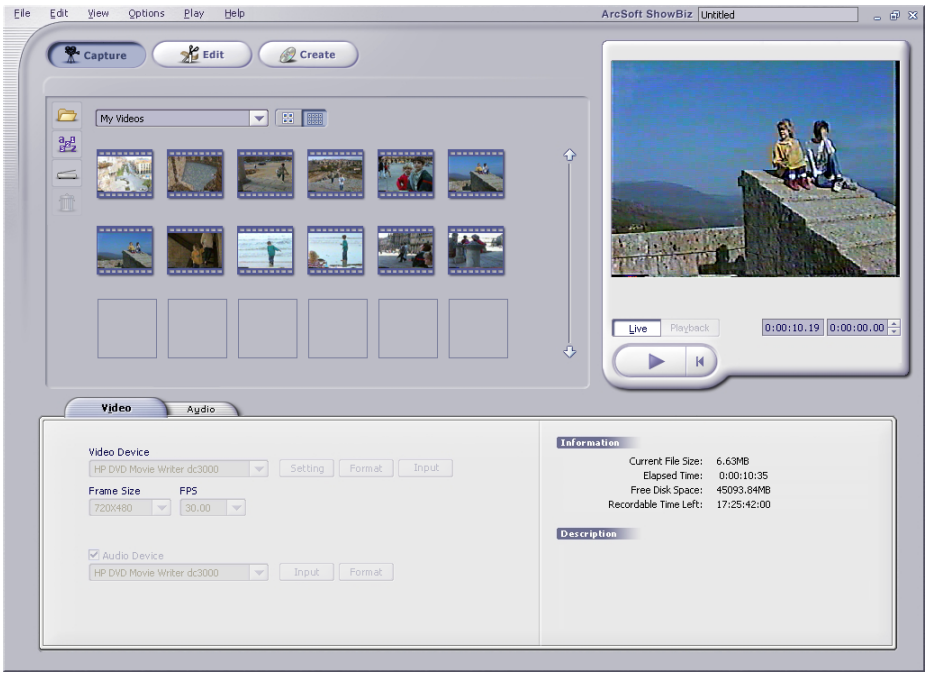

FIGURE 3.13 *ShowBiz has a clean, easy-to-use interface. Most of the default settings will work fine.*

For example, in Figure 3.14 you can see that ShowBiz has automatically detected the HP DVD Movie Writer DC3000 as the video input source. If your system happens to have more than one video source, the additional devices will appear in the drop-down Video Device List. A frame size of 720 x 480 and frame rate of 30 frames per second have already been selected for you. Unless you need less resolution or a slower frame rate (say for a video that will be displayed on the Web), you won't need to change these.

FIGURE 3.14 The most frequently used options have been selected for you.

The Settings button in ShowBiz (or an Options button or menu choice in other programs) produces a set of options you can change. Again, unless you have special needs, you can usually ignore these. For example, in Figure 3.15 you can change the method used to encode and compress the video as it's captured, but the default choice, MPEG-2, is the most compatible and works fine in nearly all cases. There's another option to change the resolution, and buttons to choose whether input should come from the S-Video port or Composite Video port of your capture device. The correct options have been selected automatically. You can safely ignore settings such as bit rate and bit-rate mode.

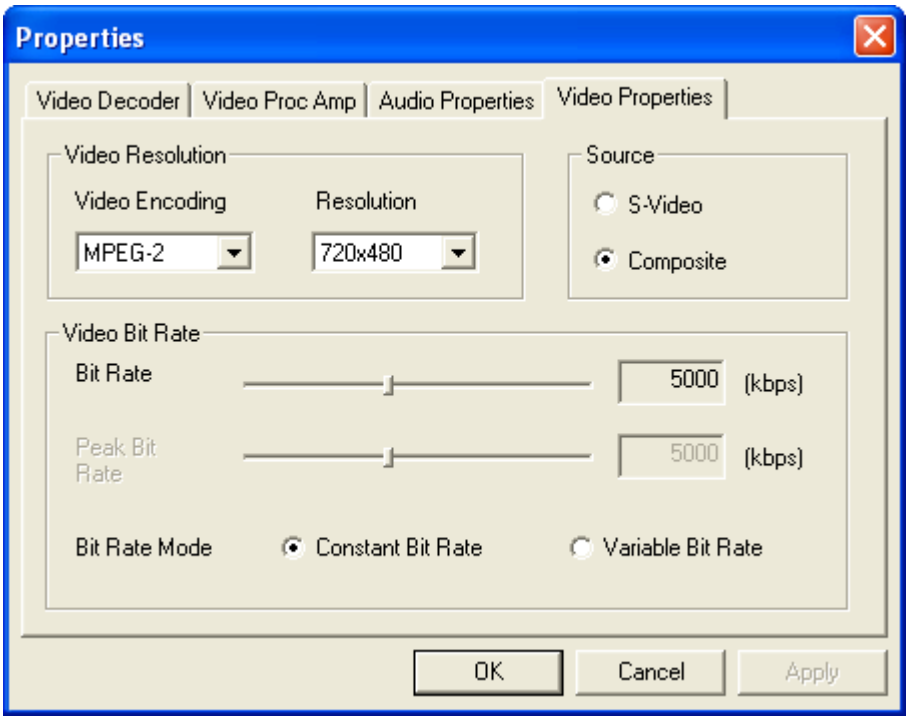

FIGURE 3.15 *You'll rarely need to change the video properties settings.*

Other options, like those shown in Figure 3.16, appear in the Preferences menu and are applied globally to all videos you transfer until you change them. ShowBiz lets you specify whether the incoming video is NTSC or PAL, and whether files should be saved in interlaced mode (for best display on a television) or in non-interlaced ("progressive") mode for best viewing on a computer screen. You probably won't even have to change these basic preferences. They are set by default to the values most commonly used.

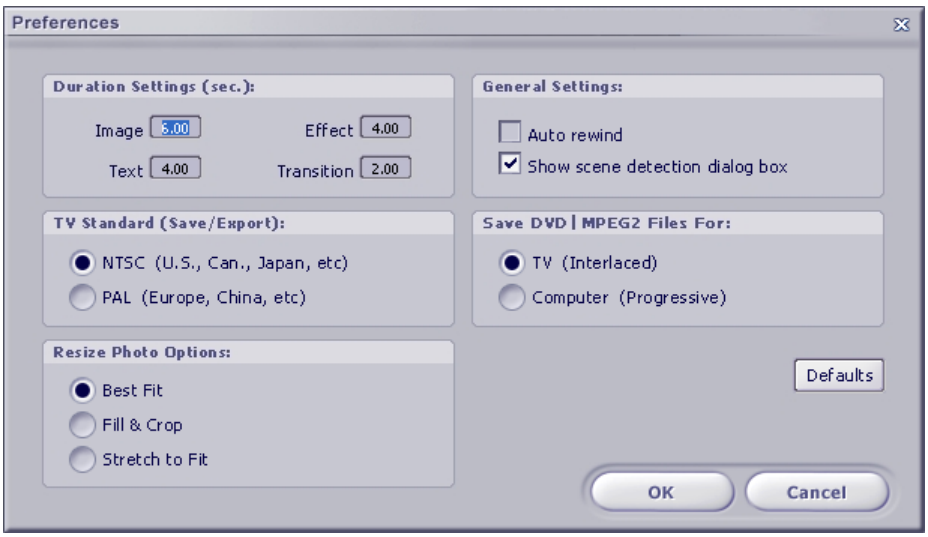

FIGURE 3.16 *Type of scanning is likely to be the only preference you change, for optimizing your captures for the type of system they'll be viewed on.*

One handy feature that you'll want to learn to use is the scene detection mode, shown in Figure 3.17. When you transfer your movies to DVDs, the software can create menu choices reflecting individual scenes on the DVD, just like you'll find on commercial disks. Having your video bookmarked with scenes makes it easy to jump to the exact place you want using your DVD player's controls.

Your capture software can automatically detect scene changes, usually by detecting when the subject matter of the captured video is modified significantly. A sensitivity slider can determine how loosely or strictly the automatic scene feature defines scenes. A better choice might be to use manual scene detection. In that mode, you watch the video as it is being captured and send a signal to the software (usually by pressing the space bar or some other key) when a scene should be bookmarked.

The video capture software you use may have additional options, but most of the time you won't need to use them.

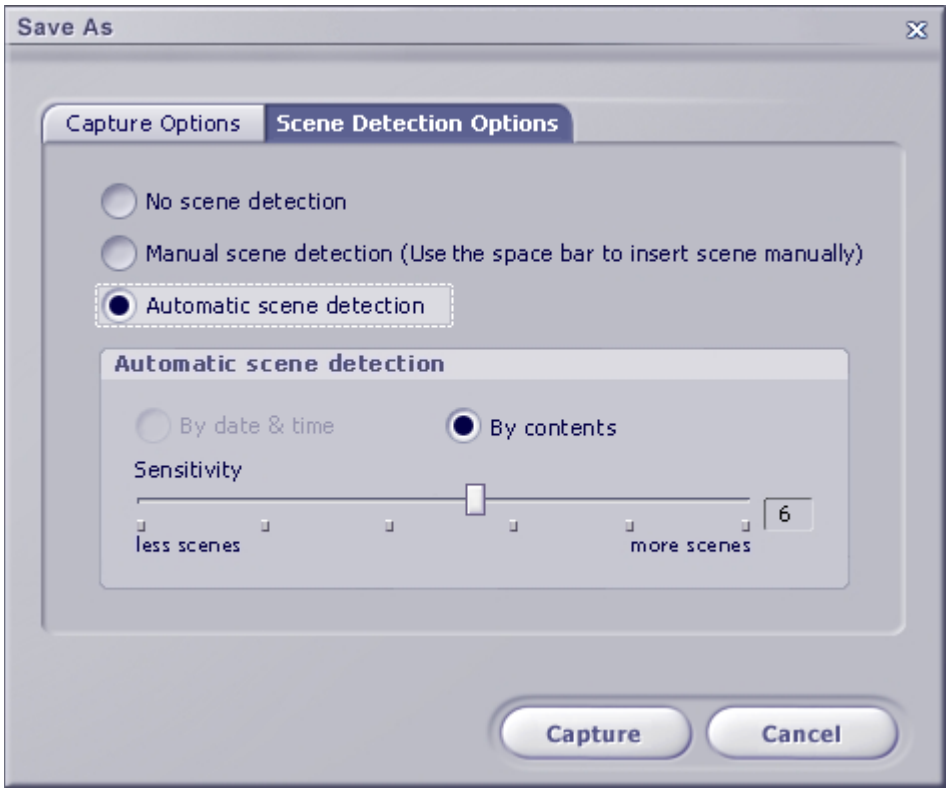

FIGURE 3.17 *Choose automatic or manual scene detection, or no scenes at all.*

When you're ready to begin capturing video, click the Capture button. A preview window like the one shown in Figure 3.18 appears, and capture begins. A display in the lower right corner of the screen shows the current file size for your captured video, the elapsed time for the clip you've grabbed so far, the amount of free space left on your hard drive, and the amount of recordable time remaining.

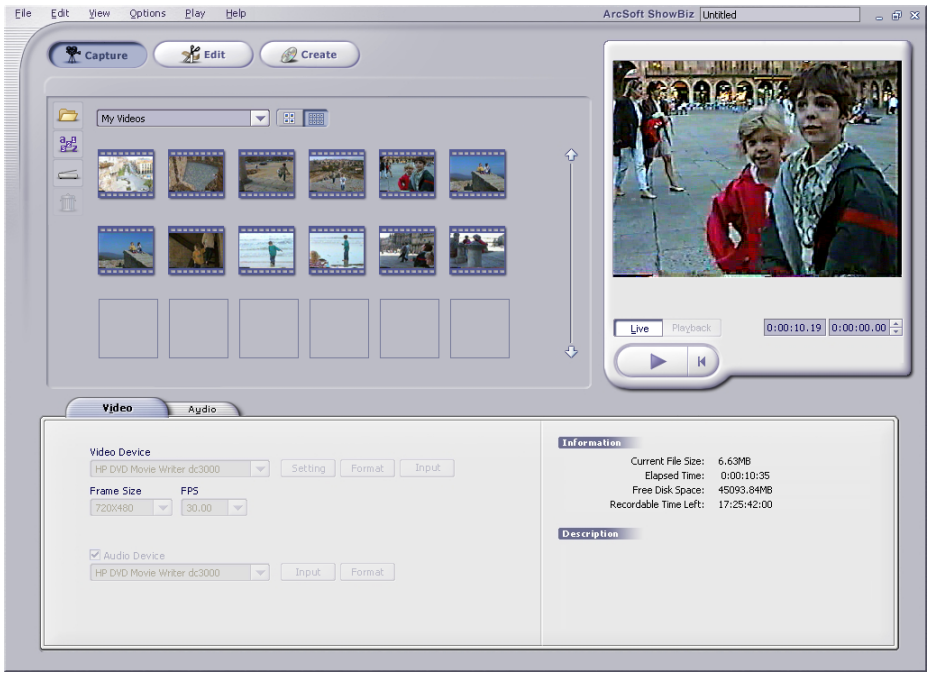

FIGURE 3.18 *Video capture is quick and easy.*

You can continue capturing a single video for as long as your hard disk holds out, or capture each tape in sections. Grabbing a little of the video at a time can be useful if the tape contains many different kinds of scenes (which is typical) rather than one long sequence. For example, if you shot a few minutes of video in each city you visited on a trip to Europe, you'd probably want to capture all the footage for individual cities separately so you could edit that city's scenes without having to hunt through a long video for them. On the other hand, if you shot your child's class play as one extended sequence, you might want to divide it only between scenes to avoid inserting interruptions in your production.

That's the great part about transferring video to your computer: the flexibility at your fingertips. You can grab as much or as little as you want, or go back and recapture sections if you decide you want a longer sequence in each file.

Working with Wizards

If you're in a hurry, or simply want to do nothing more than transfer a video to a DVD, using one of the wizards furnished with most editing or capture programs may suit you to a T. These automated programs have few options, and do little except the one thing they are designed to do: transfer video directly to your computer or DVD. They might look like the one shown in Figure 3.19, included with one version of Showbiz.

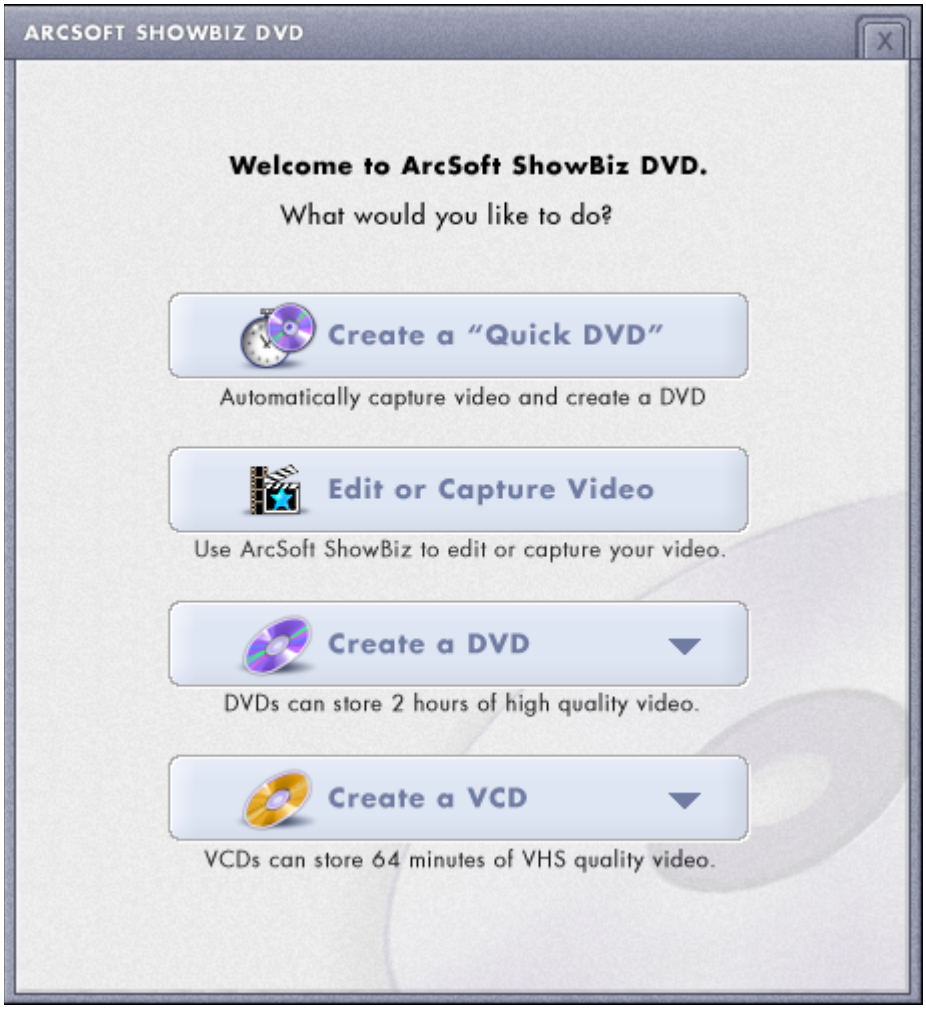

FIGURE 3.19 Wizards are a fast and easy way to transfer video.

One of the easiest to use is the HP Video Transfer Wizard, furnished with the DC3000 Movie Writer. When you activate it, the wizard shows you how to do everything from connect up your equipment to save the captured video to DVD. Figure 3.20 shows the first screen in the five-step wizard's display.

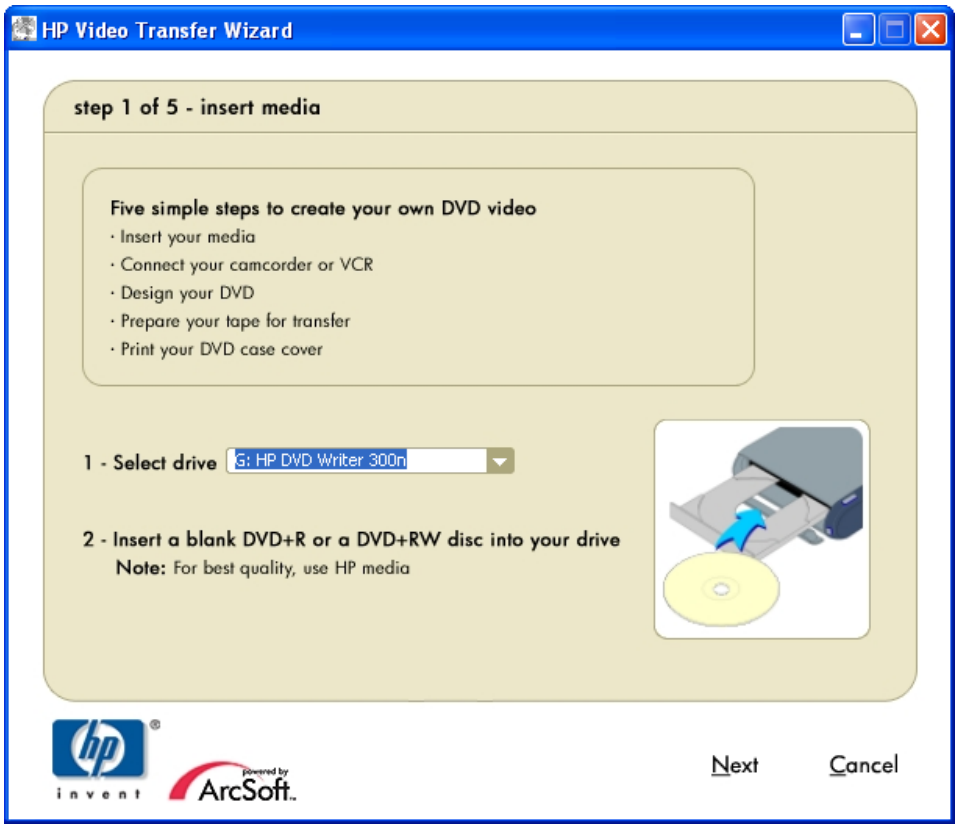

FIGURE 3.20 The first step is to insert a blank DVD+R or DVD+RW disk in the CD burner.

The next screen (Figure 3.21) provides a picture that shows you how to connect your camcorder or VCR to the Movie Writer. After that, you're given an opportunity to enter a title for your movie and choose a background. These (shown in Figure 3.22) will appear on the opening menu when your movie is shown using your DVD player.

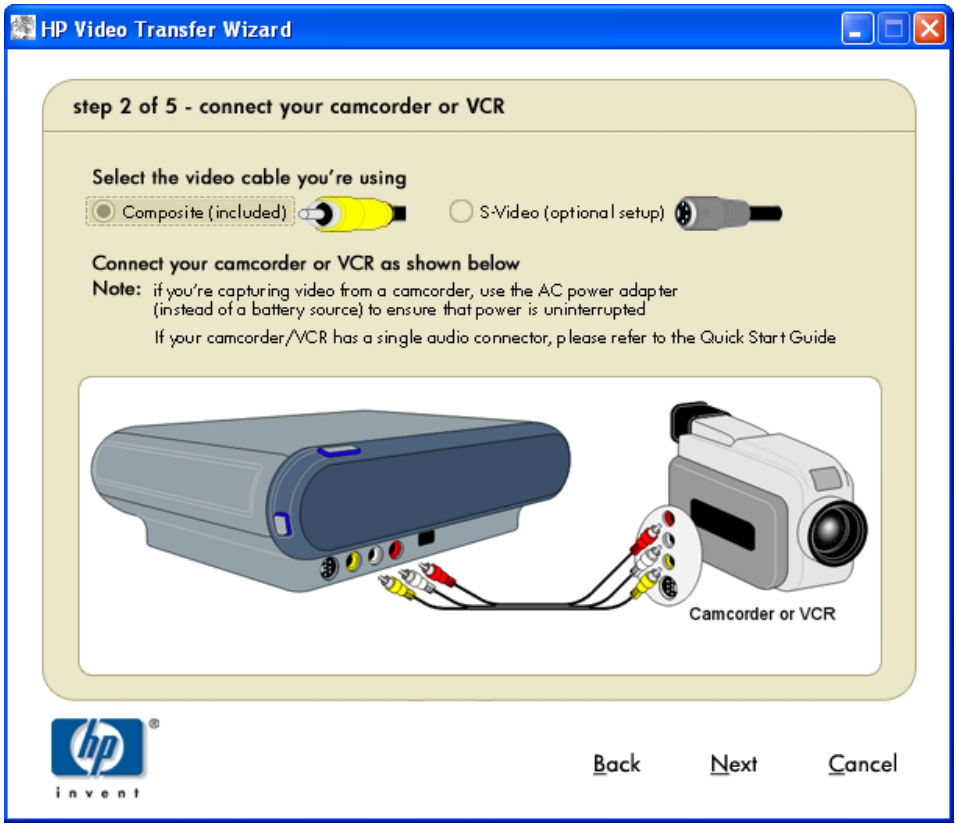

FIGURE 3.21 Connect up your equipment according to the instructions.

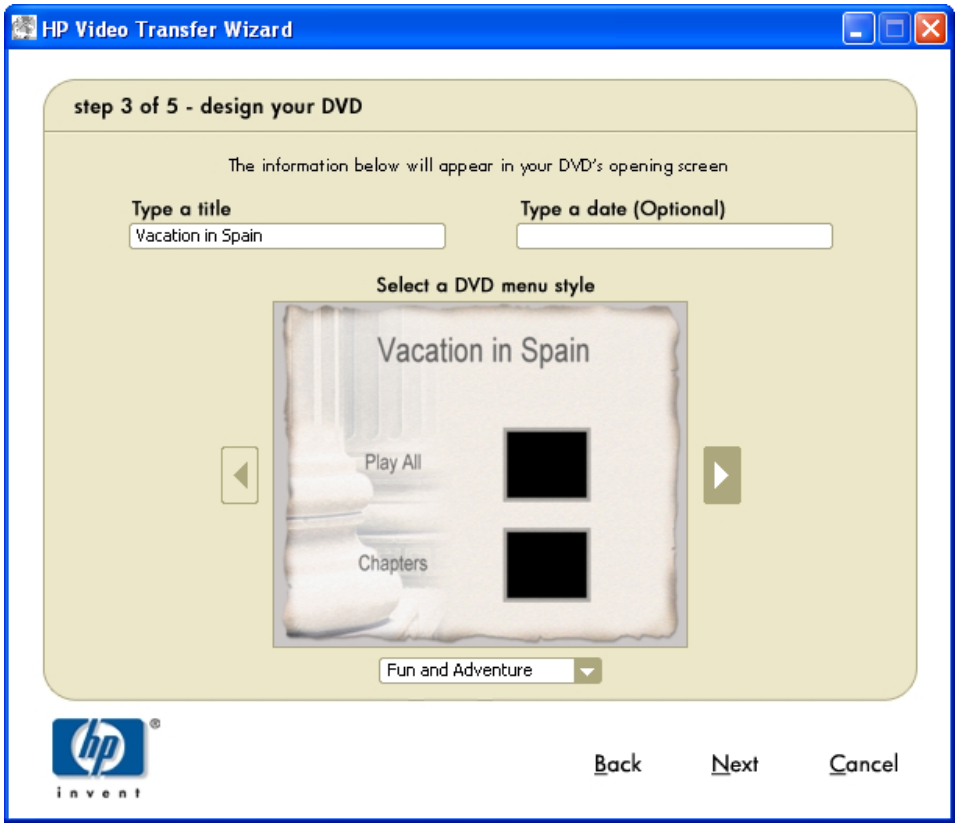

FIGURE 3.22 *Add a title and background if you like.*

Finally, you're told to advance the tape in your camcorder to the position you want to start the transfer. You can set a maximum time limit on the capture, so the transfer will stop automatically at that point. You can use this feature to start unattended transfers that will capture only as much of the video as you specify. For example, if you're transferring a 120-minute Hi8 tape, but want only the first 30 minutes (or, perhaps, only the first 30 minutes have been recorded and the rest of the tape is blank), you can set that upper time limit, start the transfer, and walk away. The capture will stop automatically when the time limit is reached. Figure 3.23 shows this final set-up screen. When you're ready to begin capture, click the Transfer button and press the Play control on your camcorder or VCR at the same time.

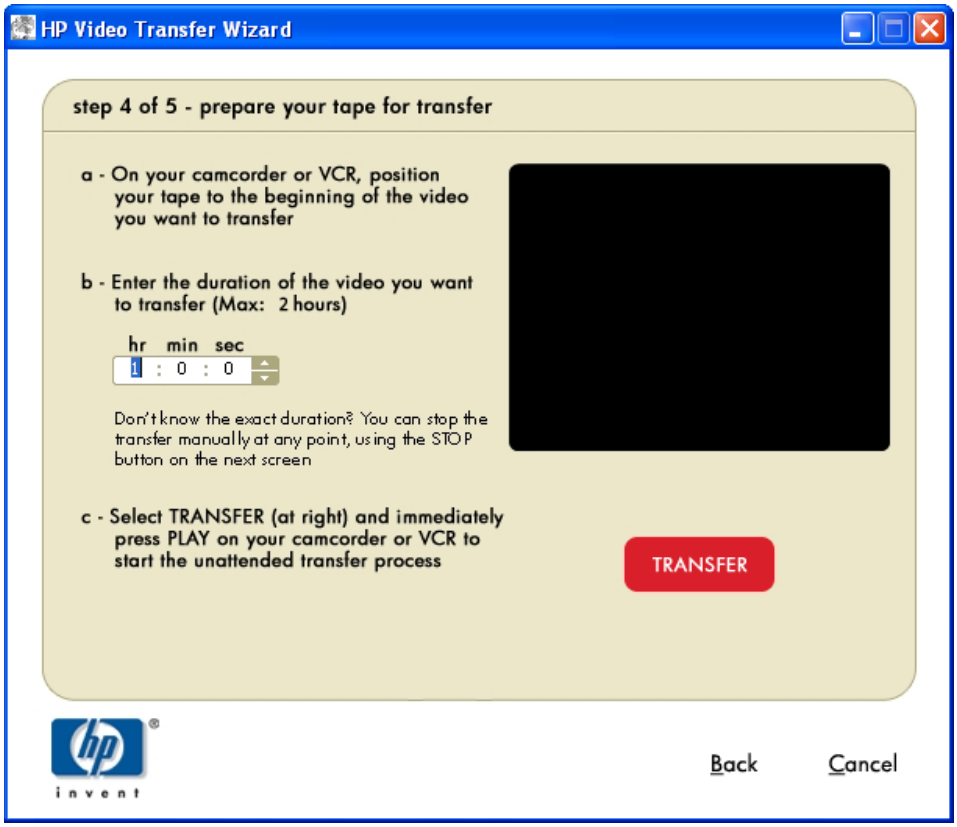

FIGURE 3.23 You can start the transfer from this screen.

The wizard then starts capturing the video, stores it in a temporary file on your hard disk, creates a menu for the DVD, and then burns the DVD. You can go do something else, returning to your computer only to monitor the status screen, shown in Figure 3.24, from time to time.

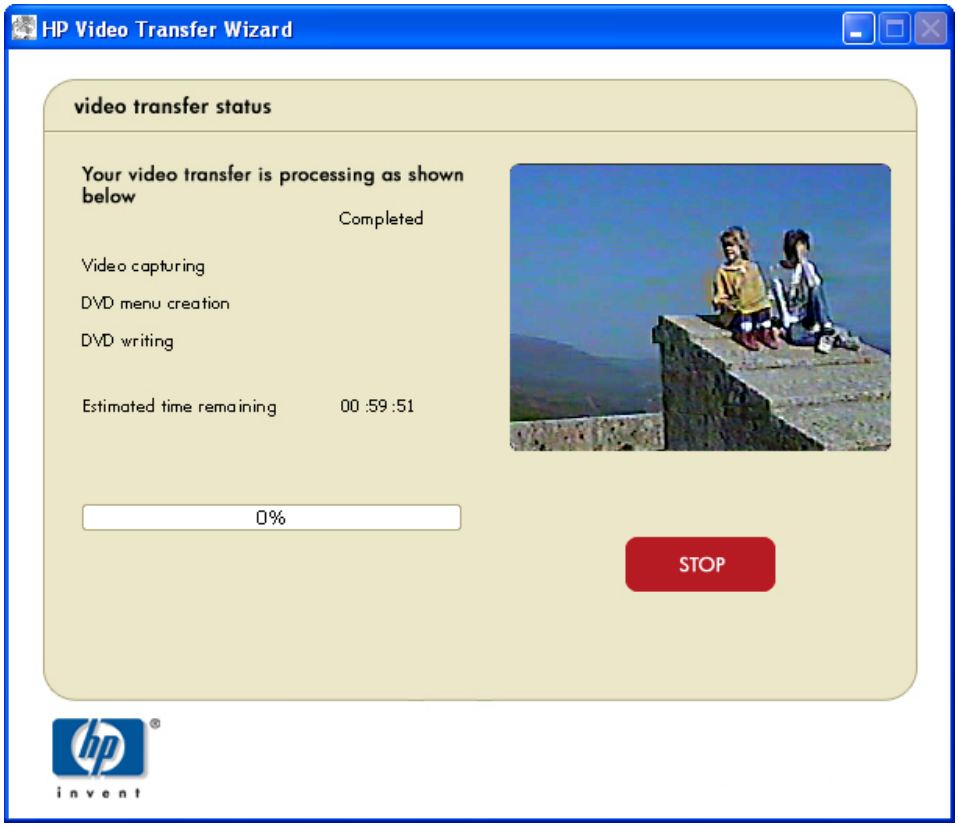

FIGURE 3.24 This status screen shows the progress of the transfer.

That's about everything you need to know to begin transferring video to your computer. If you think video capture techniques are easy and fun, wait until you see what you can do at the editing stage. That's what we'll be covering in the next chapter. You'll learn how to divide your masterpiece up into individual scenes, edit them, add special effects and transitions, and do a lot more that turns an amateur home movie into a professional-looking production.