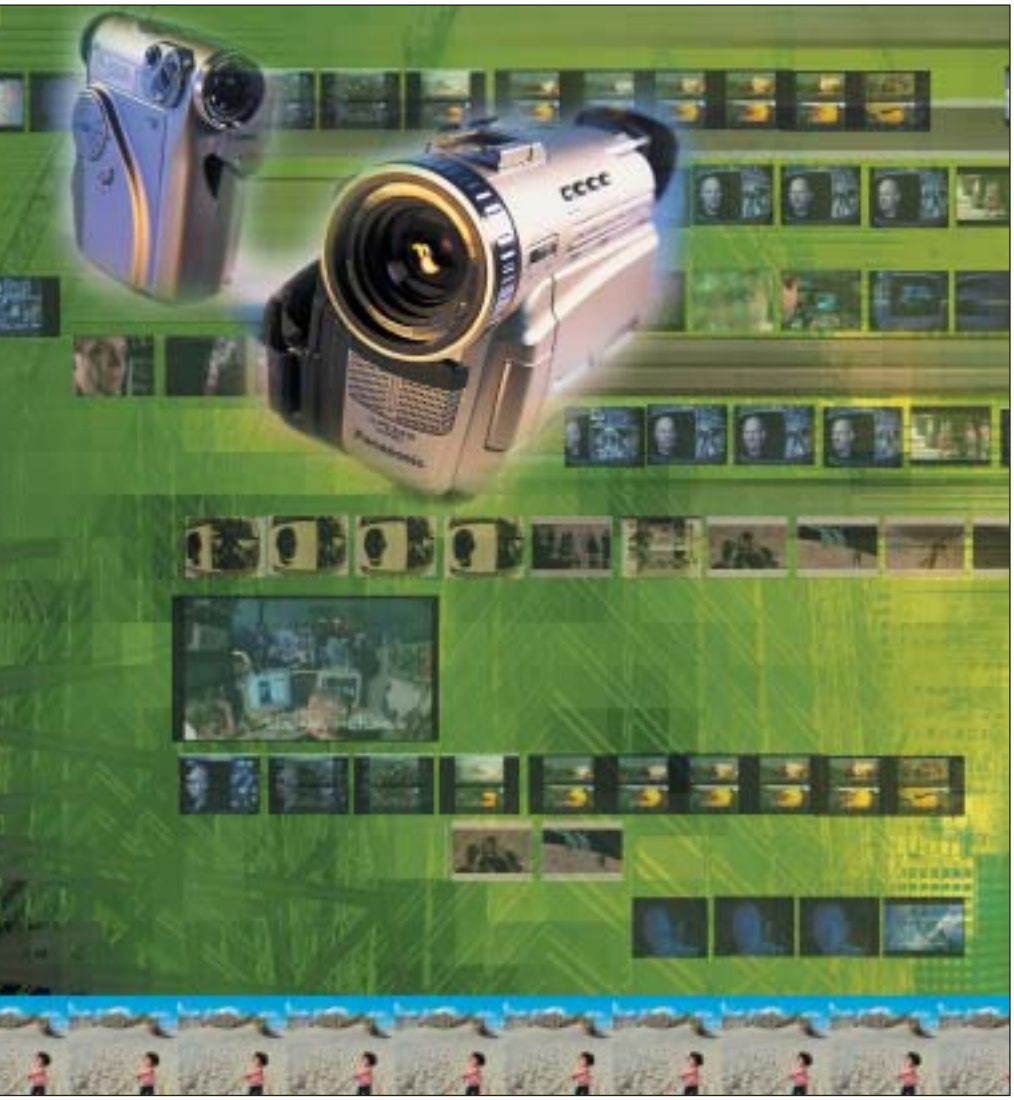
workshop



Index

Wheels of fire

For crispness and clarity, digital video knocks the spots off analogue while its high-density capacity beats CD storage hands down. Paul Warner takes you through the options when buying a DVD drive and explains how to record your own discs

The DVD is undoubtedly the medium of choice for home film distribution, giving you the benefit of high-quality film playback and cinema-quality sound. You need only to endow your PC with a DVD reader and a decent 5.1 audio system (amp, five speakers and bass woofer) and you'll get the full home movie experience.

While DVD-ROM drives in PCs are relatively common, the ability to record video directly to DVD disc for playback on a PC or standalone DVD machine was, until now, a luxury for most users. For those with access to a video camera this would be the ultimate way to archive and view your precious masterpieces.

As with most computer technology, DVD writers were more expensive this time last year and firmly aimed at commercial users. But 12 months on they've dropped in price sufficiently to be within most consumers' budgets. Home users will now find well-priced DVD writers for burning video and audio. This month we take a look at the hardware and software you'll need to produce your own DVD recordings. There's also a step-by-step guide using a relatively simple mastering and burning package to show how it's done.

ILLUSTRATION: AILEEN O'DONNELL

Capturing video images

When you first start up MyDVD you get an option to start a new project, transfer your videos directly to DVD or edit an existing DVD that has previously been created using Sonic's Open DVD format. The simplest choice is to transfer directly from a camera or any other video device to your recorder and let MyDVD make the choices for you. A new project will enable you to produce a sophisticated DVD with more complex menus and your own multimedia clips and still images.

1 The Direct to DVD Wizard gives you the choice of including a simple opening menu or recording the video stream directly to DVD. Hit the Edit Style button to browse a selection of predesigned menus and use the field below the menu thumbnail to give your project a name. Specify how many copies you want to create and whether you're going to burn straight to DVD or to your PC's hard disk first. You can choose to save the recording to hard disk and burn the image to DVD at a later date using a DVD writing package like Nero

2 Choose Create New Project to import video, audio and graphics and mix them together to create a DVD or VCD (Video CD) on a CD-R drive. You can capture video and audio clips in MyDVD or create them in a separate video-editing application and then create menus with buttons that link to each clip (so that a viewer can play a clip by choosing a button on the menu). The first menu will appear automatically when you insert the disc in a DVD player

What will I need?

The main pieces of kit that you'll need to start creating your own DVDs are a camera, editing software and a DVD burner. However, these must all be compatible for the system to work.

Camera and PC interface

You need to ensure your camera will connect up to your PC. Earlier models will tend to come with a simple video-out connection. This could be an S-Video socket, which would normally plug into your TV or VCR for playback or recording. To get this sort of output into your PC you'll need a video capture device, which can be a standalone card such as the Hollywood Plus and Hauppauge range or a connection built into your existing graphics card. Many graphics card manufacturers like Matrox and ATI provide cards with this facility built in.

At the back of your PC you should see an extra connector on the card. Check that it really is a video-in connector as many cards come with an S-Video output that looks much the same. If you don't have this feature then you could invest in a new graphics card (see our chart on page 252). Try and get one with an extension connector that has a connection pod, though, as it saves time and effort when trying to plug it into the back of your PC. Alternatively, a range of USB video-grabbing devices are available. These often include a TV tuner, so not only can you grab your video but record your favourite TV programmes too.

Most modern video cameras cater for the DV (digital video) format. Output is stored on a digital tape and can be sent to your PC using a digital output connector. Sony was at the forefront of this technology with iLink, its digital connection to a PC. Most other manufacturers use the same type of digital output on their DV cameras; it looks like a small USB connector found on many digital cameras and connects to your PC through a larger port called 1394 or FireWire.

If you haven't got this port you'll need to install a card on your PC to connect to your DV camera. Some video-editing packages come bundled with one or you can buy a separate unit for around £50. The latest Pinnacle DV500 comes complete as a dedicated video-editing solution with hardware acceleration, a built-in FireWire port and a suite of authoring software.

Alternatively, if you're in the market for a new sound card it may be worth looking at the latest Creative Audigy range. These come with FireWire ports built in – the high-end version has a front panel connector bay that includes all the audio connections you could ever need alongside a FireWire port.

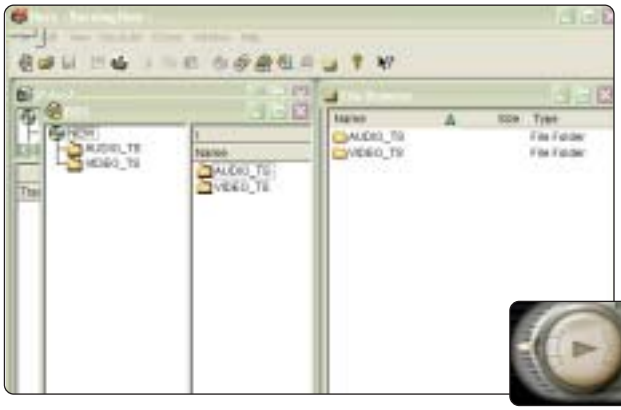
Using the Showbiz editor

The Showbiz video editor is your virtual cutting room. It enables you to capture directly from your video camera or load clips from your hard drive. To capture video, choose the Capture button at the top left of the screen. You can view clips as a series on a storyboard or on a timeline that shows how long each clip lasts.

1 Choose Active Clip to alter the colour balance and add special effects or transitions using the tabbed menus in the top righthand corner. Audio tracks can be recorded on the fly or dragged from a file viewer directly into the timeline

2 You're not restricted to using video clips alone. A button on your menu can direct viewers to view a slideshow of still images. You can drag and drop images and audio tracks into the timeline or use the Edit Style menu. Use the Select custom video or still background option and browse to import images from your hard disk. Set the duration you'd like the image to stay onscreen using the Settings option. Add an audio track (Edit Styles, Select custom music track) as a commentary to the thousands of images that will fit on a single DVD

Creating a drive image for multiple disc output



1 With an application such as Nero Burning Rom it is possible to burn a DVD or CD-R using the files you've saved from MyDVD when you exported them to your hard drive. For a one-off recording, or for recording directly from your video camera, it may be simpler to use the burning features within MyDVD. But if you plan to make multiple copies or use other recording devices, saving the DVD files to your hard disk will give you more options

2 One trick we've used is to burn to an image rather than directly to your writer. Nero has the ability to take your video files and create a file that is an exact image of the final DVD. These image files can be used to create new DVDs at a later date or mounted in virtual drives. Software such as Nero's ImageDrive creates virtual DVD or CD drives on your machine and can load and play these image files as if they were a physical disc

If you're considering a new DV camera then, if your budget will stretch, go for one with both DV-in and DV-out. Many video-editing packages will then be able to control your camera from the PC, making it much easier to capture source video and create special effects like time lapse.

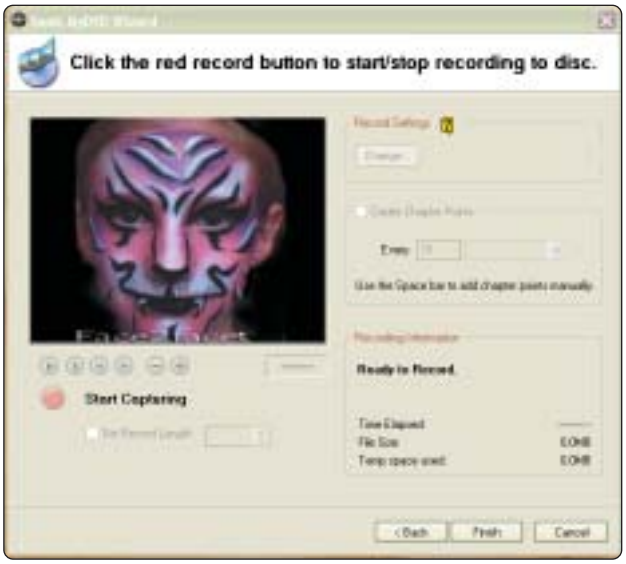
DVD software

Where DVD playback really sets itself apart from tape is in characteristics such as multilingual subtitles or sound tracks, chapters and the ability to swiftly navigate the film. These functions used to be the realm of separate applications, but modern entry-level software packages have demystified most of the technology and grouped the whole process into one seamless experience from camera to DVD.

For our tutorial we're using Sonic Solutions' latest version of MyDVD, but Ulead and MGI make similar products.

Previewing and recording your DVD

1 As you're building your project you can add extra menu buttons to the opening menu that, in turn, open additional menus. You have full control over the design of menu buttons and backgrounds and can even add video and sound tracks to each menu. Adobe Photoshop users can extend their options with a downloadable MyDVD Style Creator plug-in (see www.mydvd.com). To check your progress before committing yourself to burning a disc, hit the Preview button and view your masterpiece with full menu and playback control



2 Finally, you get to press the big red button – recording devices are checked out and you have the option to write directly to your DVD, VCD recorder or to save the file to your hard drive. It makes sense to test your production by saving the files on a hard drive. You can use any DVD playback software or Microsoft media player to try it out: test the menus and make sure all the buttons are functioning properly

Even Premiere, Adobe's flagship editing package, comes bundled with a copy of DVDit. For a larger investment you could always look at dedicated hardware solutions that combine video editing and authoring with specialist hardware. Matrox and Pinnacle produce a range of packages that enable a much faster editing procedure so specialist effects and transitions can be seen almost instantly.

It is fortunate that processing power and hard drives are relatively cheap as the more power and storage you've got the better off you'll be. A finished DVD at a full capacity 4.7GB may not sound too large for your hard drive, but by the time you've acquired your entire source clips you'll still need plenty of room to edit them and produce the finished files required to burn your DVD. At the very minimum you'll want a 1GHz processor, 256MHz of RAM and, preferably, a couple of 40GB hard drives.

DVD burner

The final consideration is your burner. There has been some confusion over the last few years concerning the format used by recordable DVD. In the same fashion as CD writers, all DVD burners should be capable of writing to two types of blank media. Write once allows information to be written to a disk but not overwritten, and prevents the drive from erasing the data. Once written it may be added to but cannot be deleted.

The second type is rewritable media. This is more expensive but, in a similar way to CD-RW, it can be erased and rewritten many times. Two conflicting standards have appeared: DVD-R/RW and DVD+R/RW. The first is supported by the DVD Forum and the second by the so-called DVD+RW Alliance.

Most of the early DVD writers that appeared on the market conformed to the DVD-R/RW specification but drives that use DVD+R/RW do have some improved performance in writing speeds. Both formats create discs that can be played on about 85 percent of standalone DVD players and PC-based DVD drives. When it comes to rewritable DVD media the DVD+R/RW format appears to be marginally more compatible than DVD-R/RW.

There's a wide choice of DVD drive manufacturers. Most of the main makers are producing units but the best-known brands are marginally more expensive. If you're hoping to hedge your bets it's worth looking at Sony and NEC. Both have dual format drives that support DVD+R/RW and DVD-R/RW. If the new NEC drive can live up to our expectations and its quoted price of around £230, it could prove a sound purchase.

DVD burners will probably be the death of existing CD-R and -RW drives and we can expect media prices to come down to the same sort of levels. There's no need to rush out and buy a DVD writer just because you're interested in developing your video skills and trying out some of the latest authoring packages, though. You can go through the process and still use your existing CD-RW to produce CD-based video. However, you won't get all the fancy bells and whistles of a fully fledged DVD and playing times will be under half-an-hour long for any decent quality. ■