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Installing a DVD writer

DVDs are fast outselling traditional VHS tapes and affordable recordable drives means that creating your own digital discs is a realistic proposition. Rosemary Haworth shows you how to install a DVD writer and then save your favourite videos for posterity

It's hard to believe it was only a couple of years ago that most of us first heard about a remarkable new medium called DVD (digital versatile disc). But go into any music or video store and you'll already find many more shelves stacked with DVD films than clunky old videotapes.

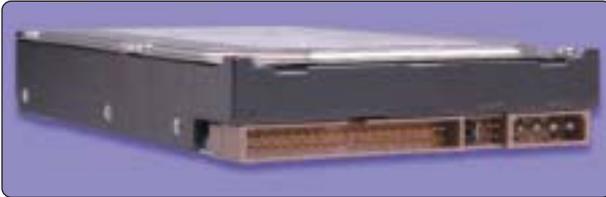
From a consumer point of view, the appeal is clear. You don't necessarily need any extra hardware to watch DVDs, they resemble and operate just like CDs so there's no unfamiliar medium to become acquainted with, no technological learning curve involved and the superior audio and visual clarity is immediately apparent.

Simply insert a DVD into a standalone player (costing as little as £80) or into the drive of a PC, PlayStation2 or Xbox and view a two-hour film, skipping through at will, zooming in and getting perfect freeze-frames. You can also enjoy behind-the-scenes footage, interviews with the stars and directors and watch outtakes and alternative endings. How is this possible? A single DVD disc has a capacity of 4.2GB so therefore has the space to store all this information.

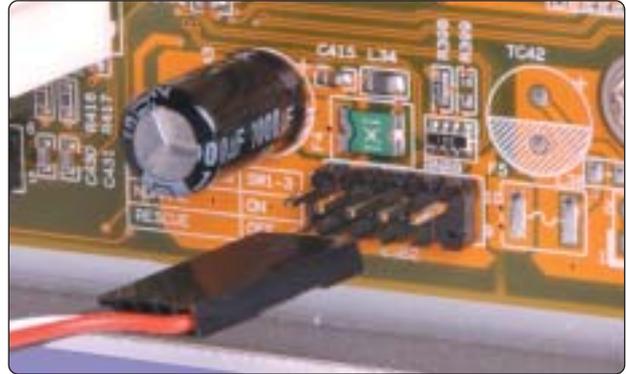
TDK brand manager Graham Sears says, not surprisingly, "DVD is the fastest growing consumer format with a staggering

Installing the DVD writer

Completely disconnect your PC, detaching all peripherals and cables and unplugging them at the wall. Ensure you are earthed (it's a good idea to use an antistatic wriststrap to earth yourself while carrying out the installation) before carefully unscrewing the PC case and locating the existing hard disk and CD drive.



1 If there's an unused drive bay, remove its faceplate and then slide the DVD writer into position. If there's no bay free, detach and remove the CD-ROM drive, taking note of where it connects to the motherboard. Replace it with the DVD writer and screw the drive into the bay so it's securely held. Connect the drive to the motherboard using the flat grey data cable. If your DVD writer is replacing your CD drive, attach the cable's other end to the Primary IDE or IDE1 slot. If your CD drive is staying put, use the IDE2 or Secondary IDE connection for the DVD drive



2 Plug in the small, flat four-pin plug which connects the optical drive to the CD-in connection on the motherboard



3 Grab the drive's cable and plug it into any of the white connectors from the multicoloured bundles of wires protruding from the power supply unit. You'll probably also need to plug one of these connections to the fan connector built in to your PC's casing before reassembling everything, powering it up and installing any accompanying software. Our TDK device came with Sonic's MyDVD, an easy-to-use package bundled with many DVD writers

growth in the market in the three years since its UK launch."

Inevitably, as with analogue video and compact discs before it, the next step in DVD's inexorable bid to become the centre of our home entertainment setup is for us to be able to create our own discs. It's a mark of the all-but-overnight success of DVD that almost any new PC now comes equipped with a drive to read digital discs. And for PC upgraders it's one of the most cogent reasons for ousting that aged Pentium machine and buying into today's

standards of home computing with multigigabyte storage capacities, incredible processing power, amazing sound and graphics capabilities and the ability not only to play back lengthy videos but to record them too.

Sears explains that just 12 months ago Philips launched the first standalone DVD writer (a DVD-RAM device), which cost £1,200. By Christmas 2002, the typical purchase price of a DVD writer had dropped to less than €399. Unsurprisingly, interest in such devices is on the up.

Playing catchup

For those who have already discovered the delights of digital photography and digital video recording, making the move to DVD is a short step. Footage is recorded digitally at source, so it's a simple matter of downloading movie files via a USB or other digital connection and then editing it or even recording it straight to digital disc.

But for the rest of us, convinced by the cinema-quality film experience of DVD movies but still stuck with our trusty old VCR and, perhaps, a clunky tape-based

Capturing analogue video

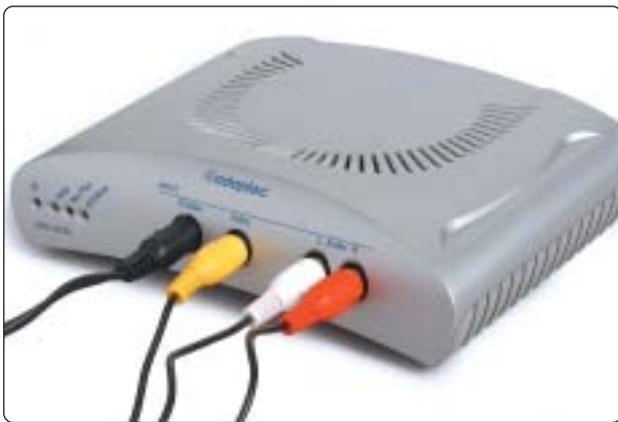


1 Set up the VideOh box's mains and USB-to-PC connections and then attach your VCR to the box using the connections available. Check the type of connections on the back of your videotape recorder and TV. Even if your setup is fairly aged you should have a Scart connector (see pic) or video and left and right audio channel connectors. Commonly, these are coloured yellow, white and red respectively. Slide these in to their respective slots on your TV or VCR



2 If you don't have the three-way video-out connections described, you can emulate them using a Scart adapter (available at most electrical stores). With connections made, plug the external capture box into a free USB slot on your PC. Load up the bundled Sonic MyDVD software (or other video-editing software if it's compatible with Mpeg-2 capture) and start the videotape to begin the transfer process

Transferring digital video to your PC



1 A SmartMedia or multimedia card can't hold enough data to transfer significant amounts of video footage, so you'll need to insert a MiniDV tape and change the camera setup from card to tape. Now take an S-Video cable and attach one end to your DV camera and the other to the back of your VCR if it has such a connection. Alternatively, the DV camera may have a video-out connection. Note that you use the VideOh device with the S-Video or video-out connections, but not both simultaneously



2 If your VCR has no S-Video connection, attach the camera using the VideOh device's S-Video port instead. Save on battery power by running your DV camera from the mains while you acquire your analogue video footage. With all your other connections established, plug in the camera's USB or FireWire connector and attach the other end to your PC, exactly as you would when downloading to your PC. Find the right starting point on your videotape and press Play, Pause. Now follow your camera's instructions to set up to record from the VCR. You'll probably need to set this to Record, Pause mode and then press Pause again on the camera to begin recording. Once your footage is captured, download it to the PC via your USB connection in the usual way

camcorder, getting our existing movies on to our PC in the first place is a trial.

Many PC video-editing packages actually provide support for analogue videotape already. And, as DVD recording becomes cheap enough for the home hobbyist to dabble in, manufacturers are finally waking up to the fact that there's a nation's worth of attics and broom cupboards filled with archive footage just waiting to be turned into modern day epics.

Videotape noticeably degrades after a few short years. DVDs, on the other hand, if stored carefully, should last a lifetime. So if you value your home movies this is another reason to take the plunge.

Bare necessities

Video recording is a greedy pastime. You'll need a fast PC with plenty of graphics memory and hard disk space.

If you've a particularly nippy Pentium II processor and a hard disk with at least 10GB of free space then you'll be able to play back DVDs. For recording very basic video clips your PC should just about be up to the job. However, we recommend at least a 700MB Pentium III-based system and as many gigabytes of hard drive space as you can lay your hands on.

A quality graphics card with video capture and/or TV tuner features will also help. You'll also need a decent sound setup with a dedicated audio card and at least 3.1 speakers if you want to enjoy your movies to the full.

Depending on the DVD writer you choose, you may also need a FireWire card and a matching port on your PC. Since we're concentrating here on working with analogue video footage we'll assume the additional expense of this faster digital throughput can be discounted.

Rewriting the rules

If you know anything about DVD writers you'll have come across the dilemma of which recording format to choose. You can discount DVD-RAM writers which are aimed at professional users and are prohibitively expensive as well as being overkill for our needs. As with CD recording, you need to decide between a write-once medium that lets you make a one-off recording and a rewriter that lets you overwrite the disc up to around 1,000 times.

Next, you need to pledge your allegiance to a method of recording: DVD-R (and DVD-RW) or DVD+R (and DVD+RW) as they aren't compatible. So far, most consumer DVD writers are the 'minus' variety but a number of manufacturers believe the 'plus' version is superior and have staked their reputations on this mode. If you have a standalone DVD player, your choice may be dictated

Importing and editing your video footage

Once you've got your footage on to your PC, you probably need to trim some of it and cut out any frames or complete sections that aren't needed. We've imported footage using Sonic MyDVD but once your film is saved on your PC you can import it into any other video editor that supports the format you chose.



1 Load up Sonic MyDVD and, under New Project, select either New DVD Project or New VCD Project. In the main working area, select 'Click here to change text' and overwrite it to name your project. Choose Capture from the lefthand options list to import more footage from a DV camera or other device connected to your PC or Get Movies to import clips already saved to your hard drive. A box icon showing the opening scene (or a specified thumbnail) appears in the middle of the screen for each movie you import. Click this to preview the video clip. Rename the clip by clicking on its title



2 MyDVD provides simple video-editing tools under Tools, Trim Movie but most of its features relate to the overall appearance of the finished disc, rather than frame-by-frame editing. To select and import either custom or predesigned backdrops use Edit Style. To add or remove any accompanying dialogue go to Edit, Remove Audio. You can then add a fresh soundtrack using the Edit Style menu. Hit the Choose button next to Select custom track and browse to the track you want

Checking and burning your DVD



1 Once you're happy with your handiwork you can preview the whole thing and add or amend menus even after you have saved the project. By default MyDVD saves copies of all the video and still images, styles and audio tracks that make up your complete movie into a separate folder for easy access. Remember that you won't be able to combine PAL and NTSC footage in the same project, but you can convert and save into both versions later on. If you're likely to want copies of your project saved in both formats, use the Preferences tool to specify which you want and save the project to your hard disk. Close the file, change your allegiance to the other format, let MyDVD reconvert the footage and then save it under a different filename



2 Insert a suitable blank recordable DVD into your DVD drive and then choose the red Burn button on the bottom of MyDVD's screen. A dialog box prompting you to confirm your DVD writer model and the number of copies you wish to create appears. Click ok to begin the recording process

by its ability to play one or the other of these formats, though better players will recognise any or all of them. Note, though, that only newer DVD+RW drives can additionally write DVD+R discs.

Prepare to be converted

Once you've physically installed your DVD writer or rewriter you'll need to add the software to use it. You should be prompted if you need to install drivers to recognise your DVD writer. If so, follow the onscreen instructions that appear and then install any DVD playback, burning and editing software that was supplied with your DVD writer.

Load the editing and/or burning software you'll be using to ensure you don't need to specify regional DVD settings. If prompted, select the PAL (European) rather than (US) NTSC format.

There are a number of ways to get your analogue video footage from VHS tape to your PC. If you have a digital video camera you should be able to download video

straight to your PC via a FireWire or USB connection (see *Transferring digital video to your PC* on page 106). If your VCR is relatively modern it may have an S-Video port at the back. You can use an S-Video connection to transfer data from your video recorder to a MiniDV or other camcorder format and, from there, via its USB connection to your PC for editing.

Generally, you'll need to set up and pause the videotape at the point where recording should start and control the recording process from the DVD camera. However, for our setup we don't have this luxury. Since we haven't splashed out on a FireWire card (video quality won't be affected as the footage we're grabbing is analogue rather than digital), we'll need to find another way of converting the VCR footage into a digital format that can be read by a PC.

We're using Adaptec's VideOh DVD external Mpeg-2 converter. This provides a number of connection types and lets us transfer footage using the AV-out port and

accompanying RCA ports. A Scart-to-AV adapter (sometimes supplied with DV cameras, otherwise available at any electrical store) is a further option. Select the most suitable connections to link your VCR to the external box and then attach its mains and USB connections.

Make your mark

Once you've successfully authored a disc it makes sense to make it stand out with a neat inlay card containing a list of contents and an image or two. Templates to create such designs may well be provided with your video or DVD authoring software.

Alternatively, budget-priced desktop publishing and graphics packages often come with templates of this nature. You may even find a suitable layout within your office suite add-ons. If not, you'll find selections of preformed, blank disc inlay card and self-adhesive disc labelling kits from the likes of Fellowes, available at many stationers and electrical outlets. ■