Incompatibility **blues**

Panicos Georghiades and **Gabriel Jacobs** deal with readers' problems with multimedia compatibility and review Corel's latest CD writing software.

"Following your recent article on the new Enhanced CD (PCW, February), I thought you might be interested in my experience of this format.

I was given the Rolling Stones CD, 'Stripped', as a present which is sold as including 'bonus video and interactive material for most multimedia computers'.

I wanted the CD for its music rather than its multimedia features, but I was nevertheless extremely disappointed when I tried to run the software and found that my PC would not even recognise the CD.

My system is a PC with a 486DX2/66 processor, 8Mb free RAM, 1,024 x 768 display in 256 colours, a quad-speed CD-ROM drive (NEC 4xIDE: your Editor's Choice in 1995), Windows 3.1, Sound-Blaster 16 Value sound card and Quick-Time for Windows 2.02. The small print supplied with the CD claims it may not work with some NEC CD-ROM drives, so I decided to investigate.

The Rolling Stones have a Web site at http://www.vmg.co.uk/stripped. Their FAQ section gives a long list of incompatible CD drives, or those reported to have problems. Seven models from various manufacturers are not compatible, and 17 out of 46 had problems. The list includes drives from Aztech, Sony, Sanyo, Philips, TEAC, NEC, Creative Labs, JVC, every manufacturer you can think of.

We're told that many of these companies make CD-ROM drives for other computer manufacturers who may put their own brand names on them. So it's possible that we may have one of these drives and not know it.

Symptoms of an incompatible CD-ROM drive are: that only the audio files are recognised; or that no files are recognised at all; or that the CD itself is not recognised; or that Windows 95 interprets the CD as being an ordinary audio CD and insists on playing it.

The literature states that this is a problem with the technology used to make the CD-ROM (I-TRAX) — not the particular CD-ROM. But that is not much help.

I feel it is important that your readers should be aware of these problems before they rush out to buy Enhanced CDs. When reviewing Enhanced CDs in future, could you detail the flavour of technology used and any known incompatibilities?"
Simon Smith

Simon, your letter raises the important issue of incompatibility, which arises from the fact that digital technology continues to move at a faster rate than the industry can cope with.

There is no satisfactory solution for the user, as something better is always just about to be released. When you've finally decided to buy something, you find that it's no longer the standard.

If anything, the situation is getting worse and Enhanced CD is a classic example. You can always tell if the industry is getting itself into a mess when the acronyms proliferate: especially when some of them mean the same thing —
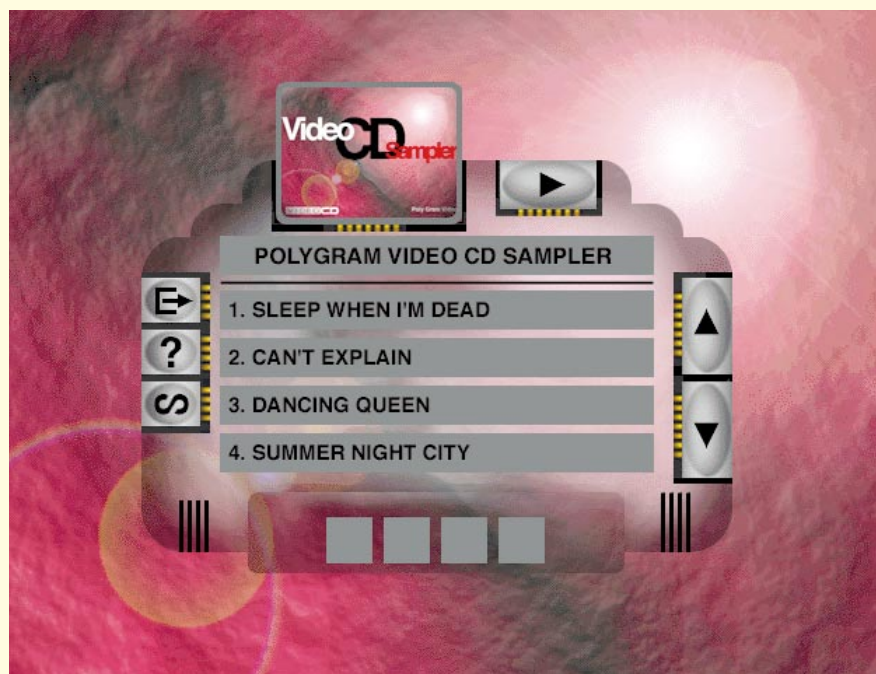

Fig 1 *Some Video CDs may have a set-up program which brings up a directory and accesses the tracks*

CD Plus, Enhanced CD, CD-Extra, CDX… Where will it end?

Video CD data

"I have a Pentium and a White Book compatible CD-ROM, plus a software MPEG player. I would like to know if an off-the-shelf Video CD would work using any software MPEG player. In other words, if you do a DIR on the CD-ROM, does it give you a file like, say, silent.mpg, or do you need special additional hardware to interpret the format of the CD? Finally, is a CD-i movie the same?"
Karl Chandler

Usually, Video CD discs include a directory which contains a file with the data (the extension is .dat), and additional directories and files which include data and programs for playing that data on various machines (PC, VCD, CD-i). This additional data normally contains lists of tracks, and even bitmap images of VCR-type controls used to play the CD.

Some Video CDs (such as the Polygram one in *Fig 1*) may include a set-up program which installs an icon in Windows, brings up a directory and accesses the tracks.

Not all MPEG playback software is the same but in theory all should be able to play back MPEG files (extensions may be .mpg, .mpv or .vbs).

So the answer is yes, you should be able to play back Video CD video data using a software MPEG player (or the Windows Media Player if your MPEG player has MCI drivers). But it may not be possible with just *any* software MPEG player.

A CD-i movie is an MPEG movie, a slightly different format from White Book MPEG, used on a Video CD. But a CD-i disc is not the same as a Video CD disc. There are discs which will work in three different machines, but there's no guarantee that you'll be able to play a CD-i version in a PC without some special hardware, despite what Philips may say.

Video CD is described in detail in the White Book specification, which defines the standard for video compression, ISO IEC 11172, better known as MPEG-1. This allows you to get more than an hour of compressed video on a CD-ROM. The audio is compressed too, and is hi-fi standard. The whole point of Video CD is cross-platform compatibility. Certain Video CDs are produced with the idea of getting the most out of particular platforms, but the video should, in theory, work on any of them if they are suitably equipped: PCs, Macs, dedicated Video CD players, and CD-i systems.

Earlier this year, Corel released version 2 of its CD writing software. Last year, it broke the price barrier of such software by bringing out CD Creator at £169. Competitive products used to sell at between £500 and £2,500.

However, although the price of CD writers has dropped by half in the last year (from about £1,400 to about £700 or less), CD blanks have not. They're still about £5, and that's when you should buy in bulk as they're about £10 if you buy one at a time.

CD Creator 2 now includes 32-bit applications, as well as the excellent Xing CD, and has other enhancements, too. For example, it can write two new CD formats: Video CD and Enhanced CD.

For Video CD, after selecting video clips and stills, you simply designate the menu structure and away you go. Video clips need to be in MPEG-1 format but if you can only capture AVI (Video for Windows) files you can convert them to MPEG-1 with the bundled Xing CD MPEG encoding program.

Enhanced CD was previously known as CD Plus but is now usually known as CD Extra. It's a new mixed-mode CD format for putting Red Book audio (standard CD audio) and computer data on the same CD. This new standard is known as Blue Book — we'll run out of colours soon.

So far, computer data has had to go as track 1 on the disc, and this has presented problems when the disc is played on some CD players (see Simon Smith's letter, opposite). Under the new format, an ordinary CD player only "sees" the audio data, not the computer data, while a computer sees both. CD Creator also writes MS-DOS, ISO-9660 (Levels 1 and 2), and multi-session discs including Photo CDs, and it supports the new Windows 95 Microsoft Joliet filename system.

In addition, it can write standard audio discs from .WAV files or audio tracks from a CD, which it can get at digitally via your CD-ROM drive. And there's a new 32-bit utility for editing .WAV files which offers ten digital processing effects (including the removal of clicks).

The software includes many useful tools for duplicating CDs and creating CD packaging. For instance, a jewel-case editor helps you design and print transfers and inserts, and "talks" to a number of graphics programs, including Corel Draw 6. If you have the right kind of printers, you can also print onto CD blanks.

It is not at all hard to use. You just drag and drop whatever you're doing. Highly recommended.

It costs £169 (plus VAT).

Fig 2 *Corel CD Creator can now make video CDs*

A PC or Mac must have a CD-ROM/XA (eXtended Architecture) drive and an MPEG-1 decoder in hardware or software. A dedicated Video CD player is designed to play only Video CDs. It therefore offers less flexibility and less possibility of interactivity, than is possible with a computer.

To play Video CDs, a CD-i player must be equipped with a DV (digital video) extension, which Philips supplies as a plug-in cartridge. CD-i Video CD supports up to 32 audio channels, as opposed to two on a PC or Mac, and thus allows for multi-lingual versions of titles.

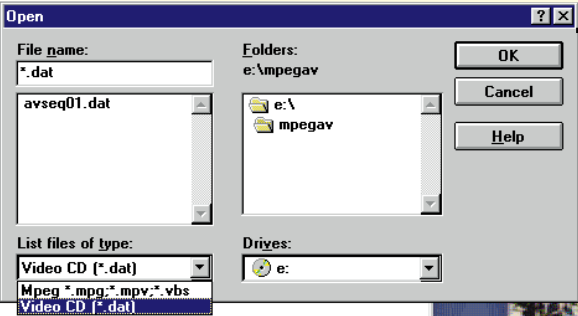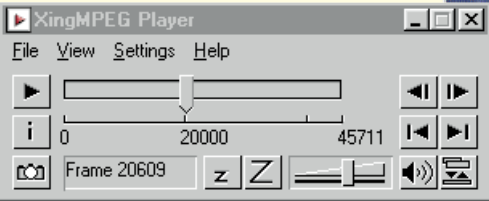So in direct answer to your question, whether or not you'll be able to access the

---

Fig 3 *Xing MPEG Player; the best-known software MPEG player on the market*

tracks list of a Video CD is not clear-cut: not every software-based, or even hardware-based, MPEG player can do it. Most of the early MPEG software we have come across is designed to play back MPEG files rather than access Video CDs, or CD-I discs — we're back to compatibility, standards, norms, clouds of acronyms.

MPEG software

"I have a Packard Bell 450+ with Pentium 83MHz overdrive, 16Mb RAM, a 1Gb hard disk, Cirrus Logic graphics, a double speed CD-ROM and a Packard Bell Sound 16A card. I was wondering if I could play back MPEG Video CD using MPEG software. If so, where can I get hold of the software ?"
Jason Masters

We frequently receive letters about how to play MPEG movies. It shows just how much MPEG video material is out there.

The best software-only playback program we have seen is Xing CD MPEG Player (version 1.3, but there is an update), which works even on a 486/66 under Windows 95. It manages six frames per second (fps) at full screen, and 11fps at quarter screen, also decoding 11KHz stereo sound. The program is designed to run on a Pentium 90 and above and offers good full-screen results.

It also installs a virtual MCI driver which enables you to play MPEG files via the Media Player and other programs that use MCI. Unfortunately, we haven't seen any advertisements for it in the UK. MPEG playback software usually comes free with an increasing number of graphics cards. It may be helpful to contact Graphics Direct

or Xing Technology (see our *Contacts* panel, below). You can also download free MPEG players from various sites on the Internet.

An appropriate driver

"I have an MPEG card and can play Video CDs fine from DOS, but I can only play MPEG files in Windows95 — not Video CDs. Following some experimentation, I deduced that my CD drive is obviously capable of running Video CDs, and that my Win95 driver is not. I have a Sony CDU76E-Q with a Compaq Presario CDS 772. Can you tell me where I can get an appropriate driver?"
Dermot Kehoe

You should call Sony Computer Peripherals (see our *Contacts* panel). The problem may also arise from other factors such as your MPEG playback card drivers. ■

302
PERSONAL COMPUTER WORLD
AUGUST 1996

303
PERSONAL COMPUTER WORLD
AUGUST 1996