

up front

Among the products under review this month are: Corel Draw 7.0, Pentium PCs from IBM and Dan, a high-end notebook from Texas Instruments, two Hewlett-Packard inkjet printers, and new versions of Norton AntiVirus and Adobe Photoshop



Corel Draw 7.0

Tim Nott

The latest version of the best-selling high-end graphics bundle offering vector drawing, bitmap editing, 3D modelling and much more.

Although they've had to wait a little longer for this year's upgrade to Corel Draw, fans of the product won't be disappointed. As usual, the three main courses are vector-based Draw itself, image-processing PhotoPaint and 3D modelling 'Dream'.

Side dishes include Multimedia Manager for graphic file management; Depth, which creates 'solid' 3D logo effects; Scan, a Wizard-driven scanning and image-enhancing utility; OCR-Trace, which converts scanned images to vectors and text; and Texture, which lets you create custom surface effects such as wood or marble. In addition, there's Capture for producing any-shaped screen grabs; Memo, which lets you write on-screen 'sticky' notes; Script Editor, with which you can create add-on features to Draw or PhotoPaint; and the Kodak precision colour management system, which matches scanner, screen and printer output.

The version supplied for review didn't have the presentation and animation modules included with version 6.0. However, it wasn't the final product and Corel told us that the use of other third-party utilities is still being negotiated.

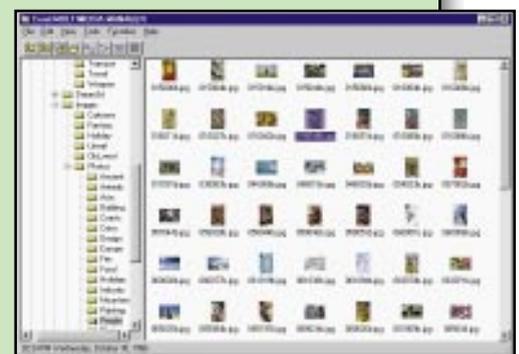
Add to all these features the usual plethora of resources – more than 1,000 fonts in both TrueType and Adobe Type 1 format and over 30,000 clip-art, photographic and other images – and to install Corel Draw 7.0 you'll have to clear somewhere between 80 and 350Mb of hard disk space, have at least a Pentium 60 processor (120 recommended) and a minimum of 16Mb of RAM (32Mb recommended).

We don't have enough space to cover the entire package in detail, so let's consider some of its highlights before turning to the star attraction, the Draw module itself.

First, the Media Manager has been made much simpler in version 7.0 – it now looks and feels almost exactly like Windows Explorer. The downside is that the largest thumbnail views are now around one-sixteenth of the former size and practically useless for previewing larger images, especially photos.

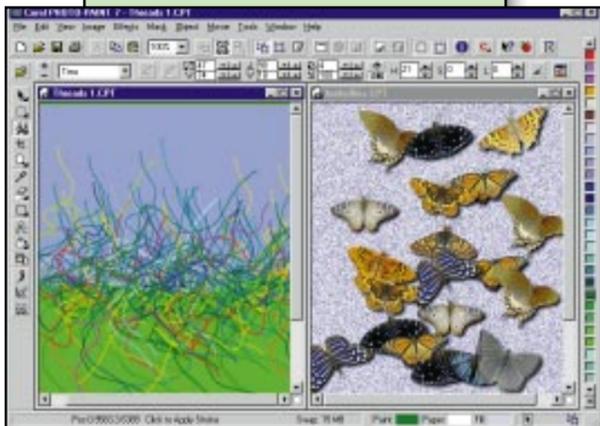
PhotoPaint has had a number of interface changes, including a new Property Bar and interactive tools. There is also Hypertext Markup Language (HTML) support and a Transparency feature which we'll look at with Draw.

The Repeat Stroke command lets you save any brush stroke, then replay it by clicking anywhere in the picture; you can also change brush-



Top: Roll your own layered textures. **Above:** Media Manager's new Explorer-style interface.

Corel Draw 7.0 (continued)



- Interface improvements
- New 'interactive' tools in Draw and PhotoPaint
- Colour styles let you change all related shades simultaneously
- HTML support for designing Web graphics
- New transparency tool
- Better drag-and-drop facility

es and colours as you go, or introduce a random element of angle and size between copies.

Better still is the Image Sprayer. With this you can create a collection of bitmaps, save them as an 'Image List', and then spray the screen with a random selection. It's a fairly slavish copy of Fractal Design Painter's Image Hose and great for creating things like foliage or forests.

Dream 3D lets you make three-dimensional models and backgrounds which can be viewed from any angle, have surface textures applied, and be lit like a stage set. A new feature is VRML (Virtual Reality Modelling Language) export for creating 3D Web pages.

The interface has been improved and now has multiple views, improved object creation tools, a scene Wizard, and much easier and interactive ways of moving the 'camera'. Despite these new features, the review copy was still slow, awkward to use and lacked essentials such as a 'Tile windows' command. Let's hope things improve in the final release version.

In Draw itself there are three new toolbars. The Internet bar lets you attach URLs (Web addresses) to objects. Coupled with this is an 'Export to Internet' command that will produce HTML files. We say 'will' because in the copy we looked at, it didn't.

The Libraries toolbar activates a tabbed 'roll-up' palette that gives access to symbols, clip-art and photographs. You can also drag objects from a drawing into any folder as 'scraps' and there are special folders for saving and re-applying favourite fills or outlines.

The third new toolbar is the Property Bar. This sits, by default, under the main toolbar, and changes with the object or tool

Dream 3D – new controls, but still a bit of a nightmare.

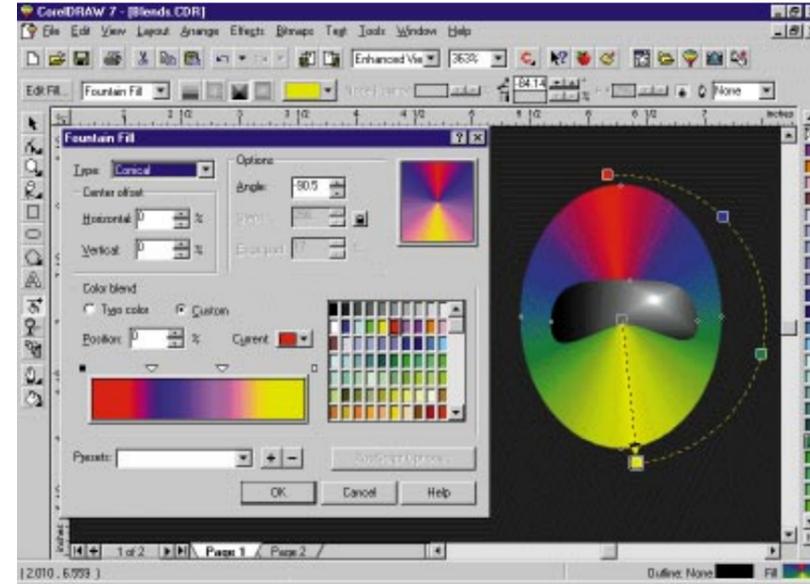
selected. Using it you can change fonts, adjust fills and position objects precisely, for example. It saves you a lot of time digging about in the menus or wading through the 28 roll-up menus.

The drag-and-drop facility has been greatly improved. For example, if you right-drag one object on to another, in addition to move and copy commands you get the option to copy some or all attributes – outline, fill, text properties and so on. With dragged text you get the option to place it inside the target object or to fit it around the outline, and you can also type text directly onto a curved path.

Corel Draw has always offered excellent fill options, with 'fountain' fills that shade between two or more colours, fractal fills that simulate clouds, rocks or water, and much more. The new 'interactive' tools, however, provide a far better way of creating fountain fills.

Instead of opening the Special Fills roll-up palette, or the Fountain Fill dialog box, you can now select the Interactive fill tool and drag the object across. This gives an arrow with a small colour 'well' at each end. Drag colours from the palette into these wells and you select the start and end colours.

Drag further colours anywhere on the arrow and new wells appear with corresponding colours in the fill, and the arrow can then be dragged around to vary the direction and effect. If you click a button in the Property bar to change, for example, from a linear to a radial fill, the arrow will change accordingly. All changes take place in real time so you don't have to click an OK or Apply button.

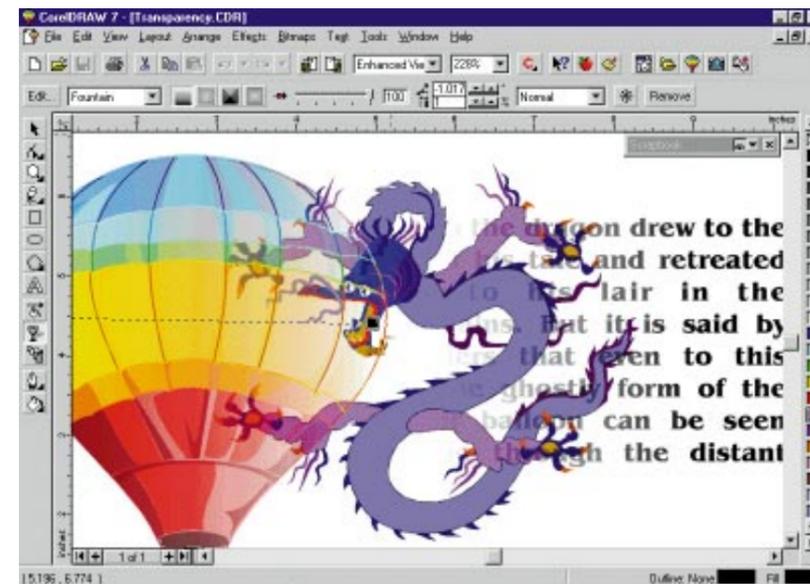


Fountain fills – the old way and the new.

A similar method applies to the new Transparency tool. As its name suggests, this can give any object, even a text file or a bitmap, a varying degree of transparency, controlled in exactly the same way as the fountain fills. Although there are many uses for this feature, it's particularly good at applying realistic effects such as reflections on a glass surface.

Two further tools are Enhanced View and Colour Styles. The former smooths out 'jaggies' in text and graphics; the results we obtained were impressive, if incredibly slow. The latter creates a 'parent' colour which can spawn different 'child' shades of the same colour. Change

Transparency and enhanced 'anti-aliased' view.



the parent colour from red to green, for example, and all the child shades in the drawing will change as well.

Other imports include the spelling checker from WordPerfect as well as a thesaurus and a grammar checker.

Despite the increased development cycle and the fact that we tested a version that was almost ready for release, we still managed to make Corel Draw 7.0 crash. On past experience, it may be over-optimistic to hope that all the bugs are fixed in the final version.

As for performance, Corel says all aspects have been improved. Brief trials against version 6.0 showed it actually took twice as long to start the mighty 10Mb Draw program itself and slightly longer to load a file. Then things got better – zooming is twice as fast in 'normal' view and saving is an astonishing 20 times faster.

Corel Draw 7.0 (continued)

Plenty of bright, if unoriginal, ideas and some much-needed interface improvements make this the most usable Corel Draw since version 3.0.

- £581.62 (inc VAT)
- Corel: 0800 581028

Corel Draw 7.0	
Ease of use	★★★★☆
Performance	★★★★☆
Features	★★★★★
Value for money	★★★★☆
Overall	★★★★☆

Minimum requirements: Pentium 60 (120 recommended), 16Mb of RAM (32Mb recommended), 80-350Mb of hard disk space.

HP DeskJet 693c

Paul Wardley

A seasonal special offer from Hewlett-Packard bundles a colour inkjet printer with a home printing kit featuring Walt Disney's 101 Dalmatians.

- Size: 436(w)x199(h)x405(d)mm
- 100-sheet paper tray
- 50-sheet output tray
- Black and colour ink cartridges
- No cartridge swapping
- Prints in black on plain paper at 600x600 dots per inch (dpi)
- Prints in colour on plain paper at 300x300 dpi
- Three pages per minute output in normal quality (black); 0.8 pages per minute in colour
- Econofast ink-saving mode
- Envelope feeder
- Optional photographic-quality ink cartridge available
- Home project kit includes *101 Dalmatians* and PrintPak Fun Kit software and special papers

Any family with a PC would love to find this printer crammed in to its collective Christmas stocking. The bundled project kit will keep the kids occupied over the holidays while the printer will go on earning its keep long after that.

- £270 (inc VAT)
- Hewlett-Packard: 0990 474747

HP DeskJet 693c

Performance	★ ★ ★ ★ ☆
Ease of use	★ ★ ★ ★ ★
Build quality	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ★ ☆
Overall	★ ★ ★ ★ ☆



Just in time for Christmas, Hewlett-Packard has come up with a combination of one of its popular DeskJet printers and a family-oriented graphics project pack containing everything you need to print impressive pictures, posters and other projects.

Although the software bundle is aimed at children, that's no reason not to take the DeskJet 693c seriously, because its print quality is very good indeed. On the other hand, with a maximum capacity of a thousand pages per month and a relatively sedate printing speed, this isn't a business printer and is most suitable for domestic and home office use.

One of the advantages of inkjet printing is the wide range of media that can be used; the DeskJet 693c can handle ordinary, glossy and photo-quality paper, as well as envelopes, cards, transparencies, labels and banners. The automatic paper feeder holds 100 sheets of A4, but the output tray needs emptying after around 50 pages have been printed to prevent the paper curling at the edges.

The 693c uses two ink cartridges – one containing black ink and the other containing cyan, magenta and yellow. The benefits of this system are that you don't have to change cartridges when switching between black and white documents and pages with colour, and the quality of the black in coloured documents is better than that obtained by mixing the other three (which is how one-cartridge printers produce black).

Using the printer for the first time is easy, thanks to a well-written booklet called *Seven simple steps to setting up your printer*. This guides you gently through the entire process of unpacking, connecting up and installing your printer. Once you're up and running, you can refer to two other manuals,

one providing more detailed information about the printer and the other containing hints and tips about creative printing techniques.

By fitting an optional photo cartridge in place of the black ink reservoir you can produce amazingly good photographic-quality prints on special paper.

For everyday use with standard ink cartridges you can choose between three print qualities: Econofast, Normal and Best.

Normal printing offers a good compromise between speed and quality, with simple pages of black text chugging out of the printer at three pages per minute and a more complex colour page in under two minutes. The Best mode is for when you really want to impress your reader and you'll probably choose to use it on special occasions in conjunction with a bright white or coated paper – in which case you won't mind waiting three or four times as long for the printed pages to appear.

For test pages that you want to print quickly using less ink, there's Econofast mode. The washed-out appearance of these pages means they're suitable only for checking content and layout and this mode isn't a substitute for printing in Normal or Best modes.

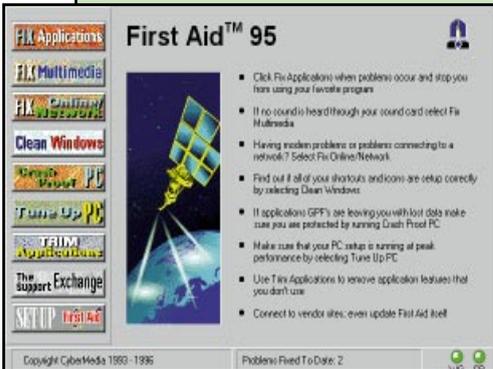
The graphics project pack bundled with the printer ensures you'll have plenty of material to experiment with: it contains Disney's *101 Dalmatians* on CD-ROM, which can be used to produce calendars, cards, banners and other projects featuring the monochromatic canine cuties.

The other piece of software is the PrintPak Family Fun Kit which includes transparency film and cardboard frames allowing children to produce see-through pictures to hang in windows and some magnetic backing material for making fridge magnets.

First Aid 95 Deluxe

Sheila Hill

A package that diagnoses and fixes problems with Windows 95 and 3.11. It can also tune up your PC for optimum efficiency.



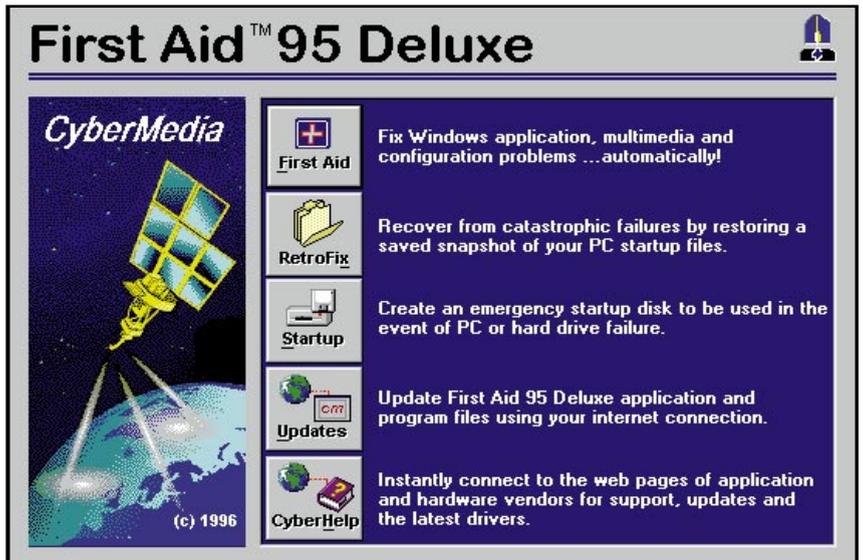
- Automatically fixes Windows application, multimedia and configuration problems
- Intercepts crashes in programs
- Disaster recovery with saved snapshots
- Facility for creating an emergency start-up disk
- Free updates available via the Internet
- Contact information on major suppliers
- For Windows 95 and 3.1

System utilities are rarely exciting and if your PC is problem-free then First Aid 95 offers little for your money. For hackers and tweakers, however, it may well provide some useful assistance in times of crisis. Unfortunately, the help doesn't always live up to the promises.

- £59.95 (inc VAT)
- CyberMedia: 0800 973631

First Aid 95 Deluxe

Ease of use	★ ★ ★ ★ ☆
Performance	★ ★ ★ ☆ ☆
Features	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ☆ ☆



Own a car is fine while everything works but unless you're mechanically-minded, even the slightest problem can seem like a major disaster. The same is true of a PC – unexplained crashes, problems with software installation and hardware conflicts can cause frustration at best, terror at worst.

There are three solutions: grapple with the problem yourself; consult a more technically-minded friend; or brave the technical support telephone lines. CyberMedia's First Aid 95 Deluxe is an attempt to provide a fourth solution. It's a software trouble-shooter for a range of common PC problems.

Aimed at non-technical users, First Aid 95's CD installation is straightforward, although you are asked to enter some basic information about your computer. This information can be altered but as it must be accurate if problems are to be accurately diagnosed. It's a pity that the installation routine doesn't auto-detect installed hardware to remove any chance of error. Fortunately, the program can detect whether you are running Windows 3.1 or 95 and installs the 16- or 32-bit version, as appropriate.

Once installed, the Launch Control window provides access to First Aid's functions through several buttons. Clicking on the First Aid button displays a window that helps diagnose and resolve hardware and software problems. 'Fix Multimedia', for example, will check the sound card, CD-ROM drive and multimedia software to see if there are any problems. 'Clean Windows' will examine such things as the Start Menu short cuts and file associations to ensure that they're linked to valid applications. If not, First Aid will then offer to sort them out.

One particularly useful feature is the Crash Proof PC option. Once

this is enabled, two program icons – Crash Protector and Windows Guardian – pop into Windows 95's system tray. These intercept any unstable or dangerous programs that would normally cause a system crash and offer the chance either to fix the program or close it down. In practice, clicking 'fix' has little effect, but at least you're given the chance to save any work before the system grinds to a halt.

The Startup option isn't so useful. It simply creates a start-up floppy disk that can be used to boot an otherwise unwilling PC – something Windows 95 can do already.

Another nightmarish situation is when you've installed new software or hardware and your PC then refuses to work. With Retrofix, you can restore your system files to a previous working configuration and theoretically fix the problem. You can also select which files are regularly backed up and compare different versions of these files to see what has changed. This is a handy feature and particularly useful if you're prone to installing software first and asking questions later.

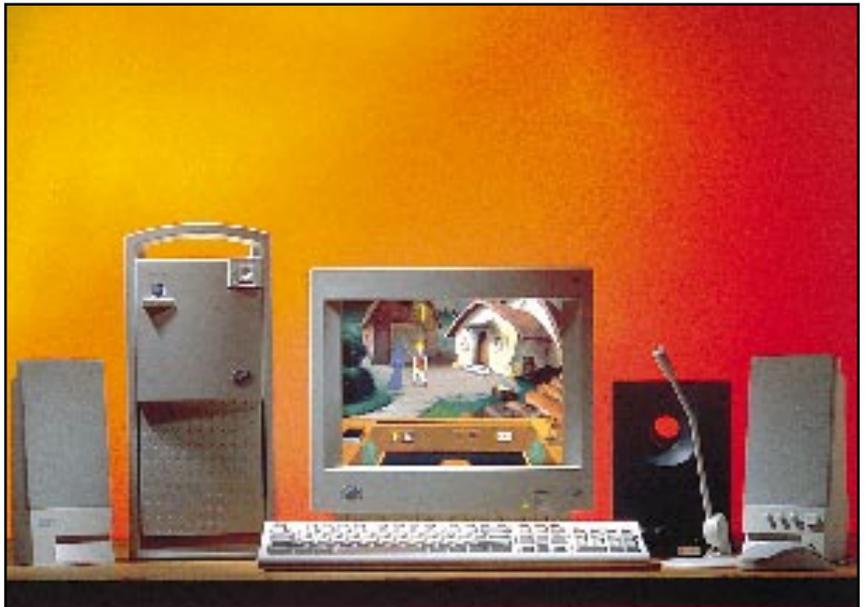
If you do experience problems beyond First Aid's expertise then its CyberHelp section offers an index of hardware and software companies, complete with addresses and telephone numbers. But despite CyberMedia's claim that First Aid 95 Deluxe is its first product designed specifically for the UK, this isn't reflected in the list of companies. Some major UK firms aren't included and all the addresses we checked were US-based.

One aspect we did like, however, was the option to upgrade First Aid 95 Deluxe over the Internet. Providing you have a Web browser and Internet access, clicking on a button displays CyberMedia's home page, from where you can download free software updates and new entries for the CyberHelp section. ▶

IBM Aptiva 382

Paul Wardley

A multimedia mini-tower PC featuring IBM's Mwave sound and communications features and a powerful speaker system.



- Pentium 166MHz processor
- 2Mb 3D graphics system
- 16Mb of RAM
- 2Gb hard disk
- 15in monitor
- Mwave wavetable sound, modem, fax and voice communications
- Three-speaker sound system
- Software MPEG playback
- Pre-loaded software
- Microphone/speakerphone

This is a quality machine with a price tag to match and it comes very close to matching the picture manufacturers are painting of a PC that can serve the needs of the whole family. True, you can get a faster machine for less money – but it won't be an IBM.

- £2,499 (inc VAT)
- IBM: 0345 727272

IBM Aptiva 382

Features	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Ease of use	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

If you think you've read all about the Aptiva range before, don't turn the page yet because IBM has developed some new multimedia models that are its best attempt so far to come up with a range of family PCs people will really want to own.

The Aptiva 382 (one down from the top-of-the-range 392) is supplied in a medium-sized tower case that has some of the edges smoothed away to make it look more attractive. Its sleekness is further enhanced by a sliding cover that hides the floppy and CD-ROM drives. This slides away at the touch of a button but, oddly, there's no means to lock it to prevent access to the drives.

The Aptiva's sound and communications facilities are provided by a single card – IBM's Mwave. Despite its jack-of-all trades nature, it works well and its multitude of talents means that six expansion slots are left free. Its wavetable sound is convincing (particularly through the excellent speakers), and its fax, data and voice facilities allow the PC to be used as a hands-free telephone and answering machine. To top it all off, it also works in conjunction with the MPEG software to improve the playback quality of video CDs. There's room inside the case for three more drives, such as tape or disk backup devices, or even a second CD-ROM or hard drive.

The Aptiva's ATI 3D Rage video controller is built onto the motherboard, rather than being on a separate card, but the chips are essentially the same. Like other 3D cards, the 3D Rage needs specially written games to show it working at its best; two are supplied – Mech Warrior 2 and Actua Soccer Semifinals.

The IBM G50 15in monitor has the same styling as the rest of the

hardware and blends in well with the system unit. It delivers a very steady and comfortable image, and its digital controls provide easy access to all the essential adjustments you need to make.

The speakers supplied with the Aptiva 382 are solidly constructed and attractively designed, with cloth speaker grilles and rotary controls for bass, treble and volume. A separate bass sub-woofer speaker can be sited under the desk or hidden away on a bookcase – but not too far away because the wires from the desktop speakers have to be plugged into it.

The Aptiva has a sleep facility that temporarily closes the machine down and allows a fast resume without having to restart from scratch. This works with the Mwave card so you can put the machine to sleep with the answering machine software running and it will resume automatically if it receives a call.

IBM has tried hard with this machine to appeal to novice users who don't want to compromise on quality and features. Colour-coded cables simplify the installation of the speaker system and a *Read Me First* booklet helps users to run the machine for the first time. All the bundled software – Lotus SmartSuite, two encyclopaedias and a clutch of other CD titles suitable for family use – is pre-installed, and if you have to exit Windows to play a DOS game, a program pops up to help you set up the sound.

The one drawback is the Aptiva's relatively poor speed compared with other Pentium 166 PCs, although the high-speed graphics card helps compensate for deficiencies in disk and processor performance. Looking subjectively at the quality of sound, vision and communications, however, no-body is going to complain. ▶

Info Evolution NearSite

Terry Pinnell

A Web tool that offers highly customisable automatic browsing and versatile off-line exploration of the results.



- Versatile configuration of automatic browsing
- Flexible 'autobrowsing' options, such as skip and pause, while on line
- Progress and queue data displayed
- On-line and off-line modes
- Cache sorting on URL, title, retrieval date, content length and hits
- Grabs URLs for new bookmarks
- Uses main browser to display bookmarks and cache
- Excellent cache filtering facilities

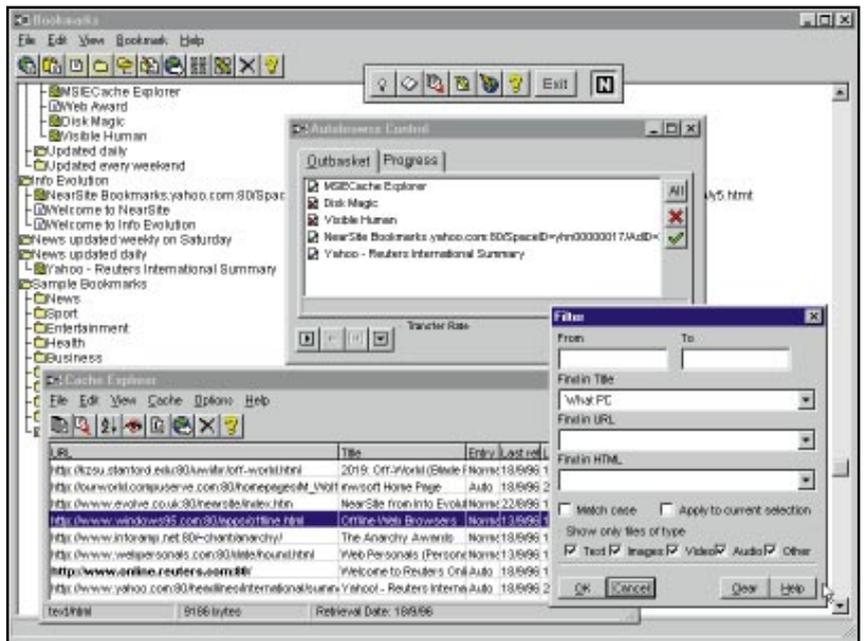
Although NearSite has a generous number of features, the imminent upgrade needs to make the software easier to use if it's to get the larger user base it deserves.

- £35.19 (inc VAT)
- Info Evolution: 01703 222204

Info Evolution NearSite

Performance	★ ★ ★ ★ ☆
Ease of use	★ ★ ★ ☆ ☆
Features	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ★ ☆
Overall	★ ★ ★ ☆ ☆

Minimum requirements: Windows 3.1, 95 or NT, 8Mb of RAM (minimum of 16Mb for NT), 10Mb of hard disk space.



NearSite is an off-line viewer for the World Wide Web. The 32-bit application is designed for use with Windows 95 or NT and works with your favourite Web browser to collect information, either while you're surfing manually or when using NearSite's automatic browsing facility. You can then browse the Web pages again at your leisure without running up an expensive phone bill.

NearSite has three main working windows – Bookmarks, Autobrowse Control and Cache Explorer – and these are accessible from a floating control bar. From this control bar you can also start your main browser, such as Netscape or Microsoft Internet Explorer, or access the rather patchy on-line help. Other functions, such as setting up preferences, can be accessed by right-clicking the control bar. This is characteristic of the program's slightly off-beat behaviour.

The Bookmarks window keeps your collection of favourite pages tidily organised in folders. Unlike many rivals, NearSite also helps you keep them up to date because you can instruct it to refresh specific sites at regular intervals. It refreshes sites with impressive intelligence and won't reload files you already have unless they've been altered. Other more fundamental aspects of the Bookmarks window are disappointing, however, such as the inability to sort the bookmarks or delete more than one at a time.

The program stores and maintains its own 'proxy' cache (hard disk store) for Web pages. Your own browser's configuration has to be altered to work properly with this and you're advised to disable its built-in caching system. Although this is easy with Netscape, Internet Explorer won't let

you reduce its cache below one per cent of your hard drive's capacity.

While in off-line mode, NearSite serves your browser with cached documents, images and sound files it has collected and there are also search and filtering facilities to help you quickly locate cached information. As with all tools using a separate proprietary cache, one major weakness is that if you decide to uninstall NearSite, all those sites you've collected are inaccessible – they're not converted back to a Netscape or Internet Explorer cache.

Autobrowse mode lets you automatically retrieve Web pages quickly compared with normal browsing. However, the user interface is counter-intuitive in many ways. For example, you don't set up your automatic browsing in the Autobrowse window but in the Bookmarks window; and Scheduled Automatic Browsing isn't genuinely automatic – you have to be on line and using NearSite to retrieve a marked site because the program won't go on line and do it for you.

On the other hand, automatic browsing is remarkably versatile. You can choose how many levels of links to follow, with options for retrieving only the first page and its images and so on.

Although you can inadvertently download thousands of pages, NearSite provides global and URL level constraints to try and avert such a disaster. You can set a maximum on the total data collected (oddly, no less than 200Kb) and on individual file sizes, which is useful for blocking large video and audio files.

Given such potential flexibility, it's a pity that NearSite isn't easier to understand and use. It's technically brilliant and has some useful features, but many users are likely to find some aspects hard going. ▶

VCI Software Pro Word & Spreadsheet Pro

Terry Pinnell

Aimed at the small office or home user, these two packages offer simple, inexpensive alternatives to their full-featured equivalents

Pro Word

- Full font and colour control
- Graphics import facility
- Search and replace facility

Spreadsheet Pro

- Auto recalculation
- Variable column widths
- 11 graph types
- Imports/exports comma separated values and tab delimited format files

Providing you ignore its spelling checker, Pro Word can be recommended because it has all the basics at a very attractive price. Spreadsheet Pro, on the other hand, has too many flaws to satisfy even the most undemanding newcomer.

- £17.61 each (inc VAT)
- VCI Software: 01923 255558

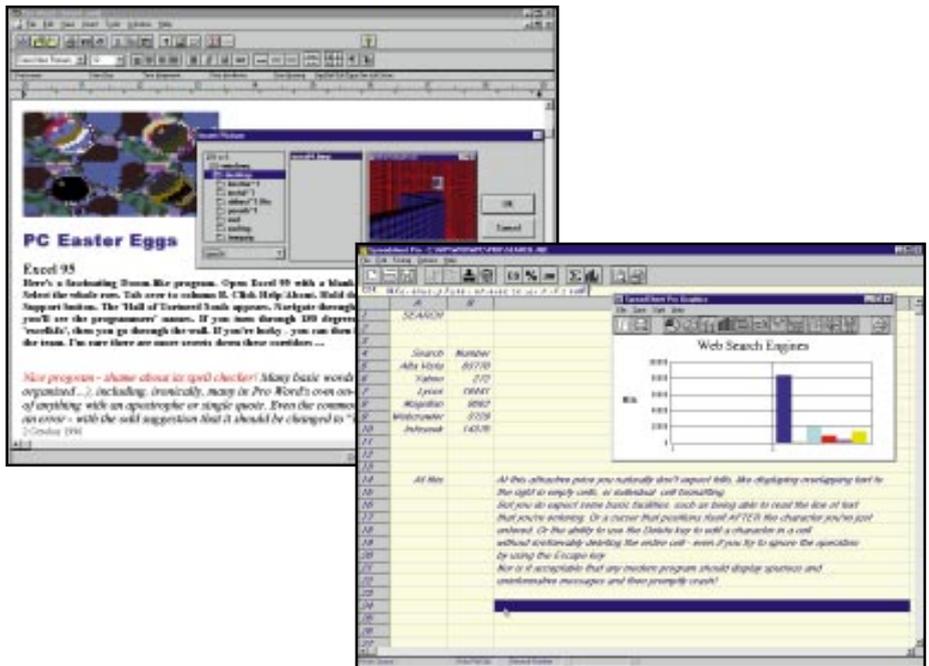
Pro Word

Features	★ ★ ★ ★ ☆
Performance	★ ★ ★ ★ ☆
Ease of use	★ ★ ★ ★ ☆
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ☆

Spreadsheet Pro

Features	★ ★ ★ ☆ ☆
Performance	★ ★ ☆ ☆ ☆
Ease of use	★ ★ ★ ☆ ☆
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ☆ ☆

Minimum requirements (for both): 386DX, 4Mb of RAM, 5Mb of hard disk space, CD-ROM drive (floppy disk available), Windows 3.1 or 95.



Word processors and spreadsheets are by far the two most popular PC applications, but many, such as Microsoft Word and Excel, have more features than are ever needed by most users. Even corporate users probably don't use their more advanced features, and for small businesses, home users and students their size, complexity and cost are daunting. In contrast, Pro Word and Spreadsheet Pro, from Watford-based VCI Software, offer easy-to-use alternatives at remarkably low prices.

Although they are separate packages we've reviewed the two together because they not only share a common style and packaging but are also part of VCI's recently launched productivity trio, whose third element is Accounts Pro.

The programs come on CD-ROMs, but these can be exchanged for floppy disks. Installation is simple and needs only 2Mb of hard disk space. The installation also backs up any files it changes, leaving them for you to look at later. Documentation is almost entirely on-line and it's pretty lean, although at this level this is probably a virtue. These programs aren't sophisticated and users unfamiliar with the applications will be able to get stuck in quickly, learning as they go.

Pro Word, the better of the two, is easy to use and offers nearly all the everyday functions most users need. First appearances are good and its deliberately standard Windows look mirrors the style, if not the power, of Microsoft Word.

Below the familiar menus is a well-designed toolbar with pop-up tool tips and a 'help' bar which summarises the formatting toolbar icons below it. You also get a ruler,

a tab-spacing ribbon and, at the bottom, a standard status bar. If you want a large, clear working area, seven of these screen elements can be hidden.

When starting a document, beginners will appreciate the list of simple templates to which they can add their own designs. There are all the usual word processing features, such as changing font style, size and colour, as well as text selection, alignment and editing.

It's a pity that more care wasn't taken with the spelling checker. Many basic words, such as wonder, starts and organised, are missing including many used in Pro Word's on-line manual. Worse, it rejects anything with an apostrophe or a single quote. For example, the commonplace 'I'm' prompts an error and offers the bizarre suggestion that it should be changed to 'ibm'.

Spreadsheet Pro, is disappointing. Naturally, at this level you don't expect the power of Lotus 1-2-3 or Microsoft Excel and the program's clean and simple appearance makes a good first impression.

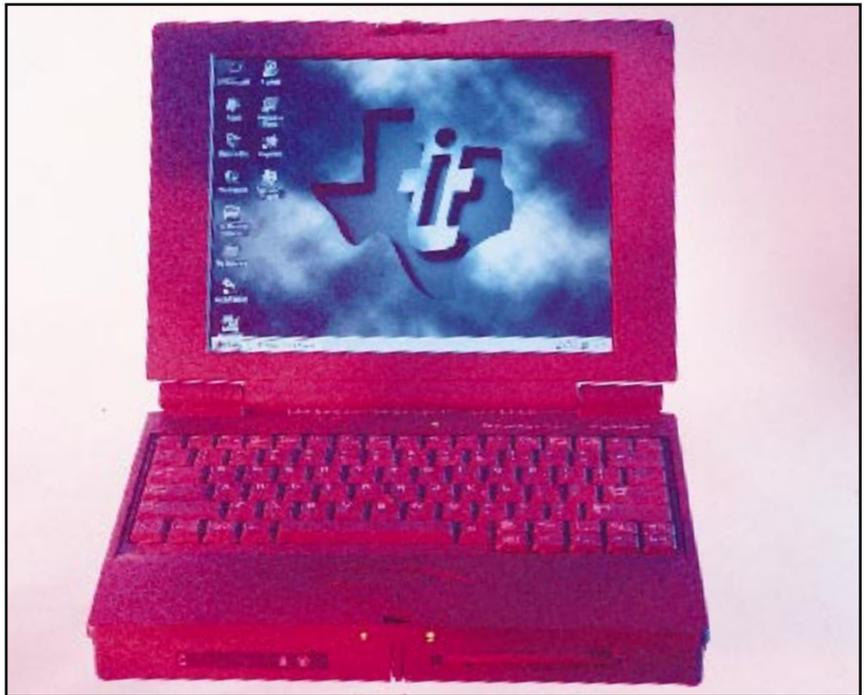
Most users in this market wouldn't be greatly handicapped by being restricted to only one open worksheet, the lack of any individual cell formatting, no Undo feature, and no facility to display text across adjacent empty cells.

But you do expect such basics as being able to read the line of text you're entering, a cursor that positions itself after the character you've just entered, and the ability to use the Delete key to edit a character in a cell without irretrievably deleting the entire cell. Nor is it acceptable that a modern program should display spurious and uninformative messages, followed by an unrecoverable crash. ▶

TI TravelMate 6030

Julian Prokaza

A high-end, full-featured 133MHz Pentium notebook PC without a price tag to match.



- 133MHz Intel Pentium processor
- 256K of level 2 cache
- 16Mb EDO RAM
- 1.3Gb hard disk
- Optional six-speed CD-ROM drive
- 12.1in TFT SVGA display capable of 800x600 in 16-bit colour
- Built-in 16-bit audio and stereo speakers
- Two Type II PC Card slots
- IrDA port
- Lithium Ion battery
- Weight: 6lb
- Size: 305(w)x228(d)x47(h)mm

The TravelMate 6030 is a top-notch notebook PC that compares extremely favourably with other machines in its class. What's missing, however, are those extra pounds - in terms of both weight and price - and that makes it a definite bargain.

- £3,406.33; £3,523.83 with six-speed CD-ROM drive (inc VAT)
- Texas Instruments: 0181 875 0044

TI TravelMate 6030

Features	★ ★ ★ ★ ★
Build quality	★ ★ ★ ★ ★
Performance	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★

There are two schools of thought about notebook PC design. The first believes that, above all else, a notebook should be portable, even if it means sacrificing features. The second thinks that a notebook PC is essentially a desktop PC but in a smaller case and therefore should be just as capable, even if it means reducing portability.

The 6030 sits in the middle of Texas Instruments' new TravelMate 6000 series and if you had to choose, you would put it firmly in the 'feature rich' rather than the 'eminently portable' category. That's not to say it's particularly heavy, though. At around 6lb, the 6030 is no lightweight but it's still a couple of pounds lighter than other notebooks of a similar specification.

Physically, the machine is a little on the chunky side, although it still looks smart. A single button releases the catch holding the lid in place and this lifts to reveal the screen and keyboard. The screen is one of the 6030's strong points - it's a crystal-clear, pin-sharp 12.1in SVGA TFT panel. In conjunction with the Cirrus Logic video controller, the screen can display 16-bit colour up to 800x600 pixels, which is very easy on the eyes if you use Windows 95 for long periods.

With its 133MHz Pentium processor, PCI bus and 16Mb of EDO RAM, the 6030 certainly has sufficient power to cope with almost any application you might want to run on it (the 6050 has a 150MHz Pentium if you need even more oomph) and its 1.3Gb hard disk provides plenty of space to put them.

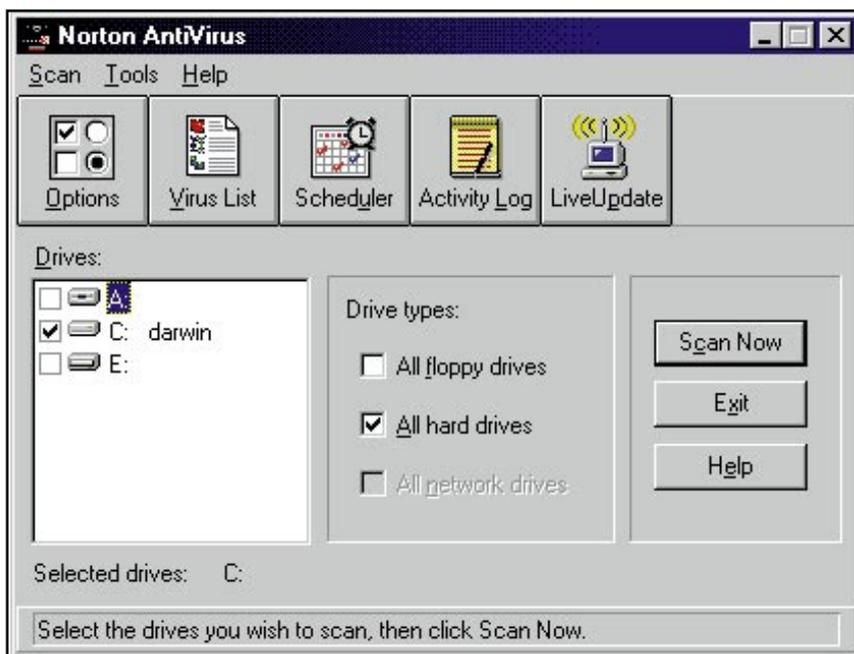
Although the Pentium 133 processor generates a fair amount of heat, the 6030 doesn't have an

internal cooling fan. Instead, it relies on strategically placed magnesium cooling plates to dissipate heat, apparently improving the notebook's reliability.

The 6030's keyboard is positioned towards the back of the case, leaving a wide area in front of it that can be used as a wrist rest. The key action is comfortable, although a little stiff, and the keyboard could certainly be used for extended periods. For a pointing device, the 6030 plumps for the now-popular 'nipple' that sits between the 'g', 'h' and 'b' keys. As far as mouse replacements go, the nipple works well enough, but it's nowhere near as accurate as a mouse or trackball.

Despite the comparatively large size of the 6030, Texas Instruments hasn't quite managed to fit everything inside its case. The floppy disk drive, which is included as standard, and the six-speed CD-ROM drive - an optional extra - slot into a compartment on one side of the notebook but only one device can be used at a time. The drives can be hot-swapped (without restarting Windows) but the awkward arrangement of the release button and the fact that the drives fit rather too snugly makes changing them around trickier than it ought to be.

Power management is well implemented on the 6030. At its simplest, power management can be toggled between two levels - maximum battery life or maximum performance - and these settings are probably sufficient for most users. They can also be customised to give a setup that suits the way you work; unfortunately, you need to reboot the machine before any changes take effect.



Although Symantec's latest version of Norton AntiVirus for Windows 95 may look the same as the previous one, the upgrade has several important improvements. First, the virus-recognition algorithms have been beefed up so the program misses fewer viruses, especially so-called polymorphic ones. Second, it can now detect macro viruses and repair infected documents.

The software is easy to install. A full virus scan is completed as part of the process and you're also asked if you want to create a rescue disk set. This consists of three disks – one to enable you to boot up the computer and two others containing the virus scanner and the virus definition files.

Using the program isn't difficult either. If you accept the installation defaults you won't often need to run it manually because the background Auto-Protect option automatically warns you if you try to run, open, copy or unzip an infected file, or access an infected floppy disk.

The Norton Scheduler is added to your Startup program group and is set to check your entire hard disk once a week (so long as your machine is switched on), although you may want to change the default time and date of 8pm each Friday.

Running a manual scan is usually a matter of picking the drive you want to check and clicking on 'Scan Now'. You can pick an individual file or a folder from the menu but the program doesn't add 'Check for Viruses' to the right-click menu – an operational convenience that other Windows 95 products have been quick to adopt.

Norton AntiVirus can check individual files that are compressed into a ZIP or LHA archive and is

clever enough to work out that if you choose to scan an individual archive you want the 'scan compressed files' option on, even if it is turned off for normal scanning. Unless you keep a lot of compressed files on your hard disk, you may want to leave this option enabled because it makes little difference to the scanning speed.

Virus scans are quick and a typical hard disk should be swept in a couple of minutes. The virus identification rate is pretty impressive too, with almost all of more than 1,500 samples being detected – a big improvement on version 1.0.

False alarms shouldn't be much of a problem either – we scanned thousands of different program files without a single spurious warning. However, Symantec has retained the potentially dangerous option to halt the computer if a virus is found which means you won't be able to save work in progress.

AntiVirus uses both specific and generic methods to detect viruses, including something that Symantec calls 'inoculation'. This is disabled by default for program files because it doubles the time taken to scan a drive. However, it enables the package to detect unknown viruses as well as those whose details are in the virus definition files.

Keeping the virus definition files up to date is important to maintain the scanner's effectiveness and Symantec has made this as easy as possible for those with a modem or access to the Internet. By clicking the Live Update button, you can download new files from Symantec's FTP site. You can also get them from Symantec's forums on AOL, CompuServe or the Microsoft Network (MSN), or you can order monthly updates by mail.

Norton AntiVirus for Windows 95 version 2.0

Julian Moss

An updated version of Symantec's virus scanner for Windows 95.



- Startup scan checks system files and boot records
- Manual scan lets you check files whenever you want
- Scheduler scans the system automatically at preset times
- Auto-protect runs in the background and checks files as you access or run them
- Detects unknown viruses as well as known ones
- Virus definitions can be updated via the Internet

The changes in this version have been made where they matter: to the way the program performs. This is now one of the most effective anti-virus products on the market and is thoroughly recommended.

- £59 (inc VAT)
- Symantec: 01628 592320

Norton AntiVirus version 2.0

Ease of use	★★★★★
Performance	★★★★★
Features	★★★★★
Value for money	★★★★★
Overall	★★★★★

Videologic Apocalypse 3D

Chris Cain

A 3D graphics accelerator card that works in conjunction with your existing video card to provide arcade quality games on your PC.

- Advanced 3D graphics processor
- Arcade level performance
- Accelerates Direct3D titles
- Single-slot 3D solution
- Works with existing graphics hardware
- British!

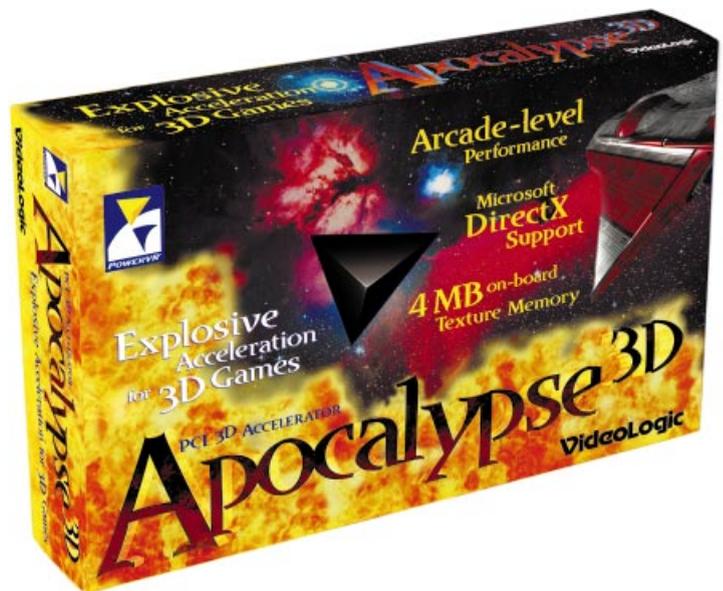
One of the most promising 3D accelerators around, currently let down by poor software support. Good value and definitely one to watch. It will be interesting to see how it compares to other 3D cards in next month's group test.

- £186.82 RRP (inc VAT);
£149 estimated street price
- Videologic: 01923 260511

Videologic Apocalypse 3D

Features	★★★★★
Ease of use	★★★★☆
Performance	★★★☆☆
Value for money	★★★☆☆
Overall	★★★☆☆

Minimum requirements: Pentium 100 system or greater, 16Mb of RAM, free PCI slot, 2Mb SVGA video card, Windows 95.



Now that sound cards and CD-ROM drives are standard equipment on most PCs, hardware add-on manufacturers are turning their attention to 3D graphics. Accelerator cards which improve the performance of Windows 95 games and 3D modelling packages are starting to appear left, right and centre. Apocalypse 3D is the latest offering from British multimedia pioneer Videologic.

The first product designed around the company's PowerVR technology, developed in conjunction with Japanese electronics giant NEC, Apocalypse 3D is different to the majority of other accelerator cards available. While most manufacturers have opted for a 2D/3D combination which replaces your current video card, Apocalypse is a purely 3D device which works alongside your existing hardware. This approach uses an additional PCI slot but allows you to use whatever 2D card you desire. If you've already spent money on an expensive graphics system you don't have to throw it all away.

The PowerVR chipset offers a range of advanced 3D features from simple Gouraud shading through to fogging, shadows, transparency, lighting effects and perspective correct texture mapping. In lay terms, it claims to provide the sort of graphic enhancements usually associated only with high end arcade cabinets and Silicon Graphics workstations. In addition, unlike other boards, the faster your computer the faster your 3D.

The Apocalypse can be used to accelerate any Windows 95 title that uses Microsoft's Direct3D (D3D), and Videologic claims that some companies are also porting titles specifically to its hardware. Games will be divided into three categories – D3D, Enhanced and Extreme, depending on how much they use the PowerVR features. The

chipset operates at resolutions up to 1,024x768 pixels, but most games will probably switch to 640x480 for maximum speed.

The Apocalypse requires a minimum of a Pentium 100 system with 16Mb of RAM. Once you've got the case off your PC, installation takes no more than 10 minutes. Just plug it into a spare PCI slot and run the setup program, which installs both Direct3D drivers and custom PowerSGL routines written by Videologic. Restart Windows and you're up and running.

The card comes bundled with an enhanced version of Electronic Arts' Mech Warrior II, and a new racing title called Ultim@te Race from Mindscape. The former lets you take on one of two clans in a battle for supremacy while piloting a Power Rangers-style robot, while Mindscape's effort is fast and furious driving affair. The graphics in both titles are first class, and you can clearly see the difference between the PowerVR and normal versions of Mech Warrior II. The end results are easily up to standards currently seen on Sony's Playstation games console.

Tests with other games didn't go as well. The beta drivers provided with the Apocalypse 3D were based around DirectX 3.0, but current Direct3D games, such as Microsoft's Monster Truck Madness, have been written to use the older DirectX 2.0. We eventually received a software patch which allowed these games to run properly but this could be an indication of problems ahead.

The other big problem at the moment is that there are still very few titles around that benefit from installing an accelerator. Videologic claims that there will be 23 Direct3D titles and 15 Enhanced titles by the end of the first quarter of 1997, along with eight Extreme games by Christmas. Unfortunately, none of these had appeared at time of writing.

CIX Ameol 2.0 (beta)

Wendy Grossman

Windows-based off-line reader software for CIX conferencing and Usenet, which automates sending and receiving messages so users can read and write off-line.

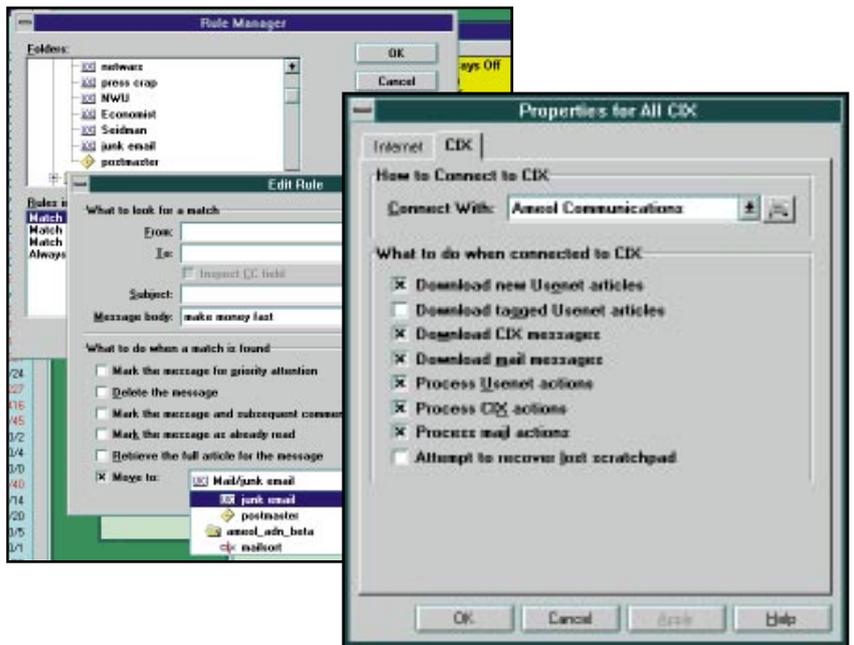
- 16-bit (Windows 3.1) and 32-bit (Windows 95 and NT) versions available
- Supports third-party add-ons
- Usenet access works with any Internet Service Provider (ISP)
- Supports multiple mailboxes and users
- Customisable using right-click menus and drag and drop
- Integrates with the World Wide Web through an external browser and Internet connection
- Built-in spelling checker
- User-defined rules automatically filter e-mail
- Imports CompuServe address books

Fast, responsive and intuitive, Ameol 2.0 adds many badly needed features to an already good product to make CIX one of the most convenient conferencing services in existence.

- £46.99 (inc VAT) non-members of CIX; £29.36 (inc VAT) members of CIX (until end of December 1996)
- CIX: 0181 296 9666

Ameol 2 (beta version)

Ease of use	★ ★ ★ ★ ☆
Performance	★ ★ ★ ★ ★
Features	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ★
Overall	★ ★ ★ ★ ★



Off-line readers (OLRs) are vital in the world of on-line services. They allow you to download all the waiting messages in a forum or conferencing area and do the time-consuming – and therefore expensive – tasks of reading those messages and writing replies off line when it doesn't cost any money. In addition, reading and writing off line gives you a chance to edit your messages before sending them.

When the first version of Ameol (the official OLR for the Surbiton-based electronic conferencing system CIX) came out, it was welcomed because it was a big improvement on the other software available. Ameol 2's main new feature is its ability to work with direct ISPs (Internet Service Providers) and not only CIX conferencing. Ameol needed this extra functionality, because last year CIX introduced its CIX IP service for direct Internet access.

The software's designers have gone to some trouble to supply access information for almost all the main British ISPs, so configuring it to work with Demon, for example, is just a matter of picking the service from a list and letting the software fill in the details. Ameol then connects to CIX to collect conferencing messages and can handle Usenet newsgroups through CIX conferencing or any of the main ISPs' servers.

You can specify which server you want to use and even vary it by newsgroup – useful if your service provider doesn't carry every newsgroup you want to read.

Most other changes involve the user interface, which has been redesigned. The menu system has been reorganised and right-clicking now brings up context-sensitive menus. A good implementation of drag and drop means that it's now simple to rearrange the order in

which you read individual conferences or newsgroups.

One part of Ameol 2.0 we didn't like concerns setting the return address for e-mail. You can use CIX for all e-mail; your ISP for all e-mail; or CIX for CIX mail only and your ISP for everything else. But we'd prefer it if e-mail could be more flexibly configured to support our habit of using different e-mail addresses for different things.

However, we like the built-in rules setup, which lets you create as many mail folders as you need and pre-sort e-mail according to author, subject or even text within the message body. (We immediately set up a junk folder to catch messages with phrases in the body text like 'make money fast' and 'this is perfectly legal'.)

The other glitch is in configuring automated logons, or 'blinks'. The idea is great – adding your own customised blinks to the connect menu allows you to minimise connect time during the expensive daytime tariffs by limiting logons to mail only, for example. But the interface makes configuring these custom blinks confusing and we kept finding ourselves logging on to Demon when we meant to call CIX.

Ameol has always had competitors, chiefly Ashmount Research's Virtual Access (formerly WigWam and PowWow). If you want to use one piece of off-line software with CIX, Usenet and CompuServe, then Virtual Access is your only choice.

There are, of course, many other OLRs which support only CompuServe and although these are generally clunky, they've succeeded because users are so grateful for the cost savings. If you don't use CompuServe, however, Ameol is much faster and the interface is much more intuitive.

The final release version is now available for download with a CD version to follow.

Dan dantum 95/166 Multimedia

Julian Prokaza

A 166MHz Pentium PC with 32Mb of RAM and an internal Iomega Zip drive.

- Intel Pentium 166 processor
- 512Kb of pipeline burst cache
- 32Mb of EDO RAM
- 1.2Gb hard disk
- Matrox Mystique video card
- IDE Zip drive
- Eight-speed CD-ROM drive
- V.32bis fax modem
- 15in monitor
- 16-bit Sound Blaster-compatible sound card
- Stereo speakers

It's possible to buy a same-specification PC at a lower price than the Dan dantum 95/166, but few offer the same solid performance and build quality. The Zip drive is a useful addition and the Mystique card impressive, so it's only the modem and sound card that let the machine down.

- £1,909.38 (inc VAT)
- Dan: 0181 830 1100

Dan dantum 95/166 Multimedia

Features	★ ★ ★ ★ ☆
Build quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ☆
Performance	★ ★ ★ ★ ☆
Overall	★ ★ ★ ★ ☆



Dan PCs have always impressed *What PC?* reviewers. Their performance is usually excellent for their class and build quality is well above average. Dan also has something of a reputation for using up-to-the-minute components in its systems and the dantum 95/166 is a perfect example of this.

The dantum 95/166 can be supplied in either a mini-tower or desktop case. The desktop case is pretty big but if you're short of desk space, it can be stood on its side in tower mode. The ports at the back aren't labelled but thankfully Dan supplies a comprehensive user guide that covers everything from setting up the machine to getting started with Windows 95.

As we've come to expect of Dan PCs, the inside of the dantum 95/166's case is tidy and free from clutter. A video card, a modem and a sound card are installed leaving one ISA and two PCI slots free – there's plenty of clearance around them because all the cables are neatly tied back.

The machine comes with 32Mb of RAM on four 8Mb SIMMs (single in-line memory modules) but although this is ample for the foreseeable future, the option to add more RAM without discarding SIMMs would be preferable.

The V.32bis fax modem and 16-bit Sound Blaster-compatible sound card aren't particularly outstanding, but the video card is rather special. The 64-bit Matrox Mystique has 2Mb of RAM and can display 8-bit colour at resolutions up to 1,600x1,200. It can manage 1,024x768 in 16-bit colour and 800x600 in 24-bit colour, both at a

rock-steady 130Hz. The card also offers 3D and video acceleration, and the supplied control software allows you to easily alter various settings such as the refresh rate and the virtual desktop size.

The 95/166 also has something special when it comes to storage. The 1.2Gb hard drive, eight-speed CD-ROM drive and 3.5in floppy drive are standard fare but the internal IDE Iomega Zip drive isn't.

The Zip drive is an evolutionary step up from the 3.5in floppy drive. Its disks are the same size and shape as regular 3.5in disks and they are inserted into the drive and ejected in the usual way. However, a single Zip disk can store up to 100Mb of data in uncompressed form. The Zip drive is ideal for transferring large amounts of data quickly and easily between two PCs and as the disks cost only around £15 each, they make regular backups a realistic proposition.

The Dan-badged 15in monitor is pleasant enough to look at and gives a sharp, readable image, although the focus was a little distorted in the corners on our model. The comprehensive digital controls allow you to make the image fill the whole screen. There are no surprises from the Microsoft Series II mouse and the Cherry Windows 95 keyboard has an agreeable action.

The Dan dantum 95/166 comes with a fair selection of applications that are likely to be used rather than left in the box. Microsoft Works 4.0 for Windows 95 is supplied as well as Lotus Organizer 2.1 and Serif PagePlus for Windows 95. Pipex Dial Internet access software is also pre-installed and Microsoft Encarta is thrown in for good measure. ▶

Adobe Photoshop 4.0

Gordon Laing

The latest version of the original heavyweight image manipulation and photo retouching application.

- Full 32-bit application
- Actions palette records a script for the batch processing of images
- Image adjustments can be hidden and rearranged as layers
- Continuous zoom from 0.13 percent to 1,600 percent
- More filters including Adobe Gallery Effects, new Web file formats, better gradients
- Free Transform for multiple transformations (skew, scale, rotate) in one go
- Invisible-to-the-eye digital watermarking shows up if images are rescanned
- Thumbnails generation in Windows 95 provides preview from file properties

Photoshop 4.0's improved range of features may make it mightier than ever before but it's only justifiable as an upgrade if you've outgrown version 3.0. Otherwise, it's best left to first-time buyers or acquiring it as part of a flatbed scanner bundle.

- £587.50 (expected street price); upgrade from any previous full version £146.88 (inc VAT)
- Adobe: 0181 606 4000

Adobe Photoshop 4.0

Ease of use	★ ★ ★ ☆ ☆
Performance	★ ★ ★ ★ ★
Features	★ ★ ★ ★ ★
Value for money	★ ★ ★ ☆ ☆
Overall	★ ★ ★ ★

Minimum requirements: Windows 3.1 or greater, 386 processor or greater, 16Mb of RAM (32Mb recommended), 20Mb of free hard disk space, CD-ROM drive.



Adobe Photoshop is one of the most powerful image manipulation and photo retouching applications in the world. You can see its work almost everywhere you look – whenever you see a car on the moon, the Eiffel Tower in a desert, or a face with immaculate skin, the chances are that Photoshop has had a hand in it somewhere along the line.

Unfortunately, all this power does have its price and Photoshop has regularly retailed at more than £500 – pretty steep unless you're using it professionally. The latest version, Photoshop 4.0, is available for both Windows (3.x, 95 and NT) and Macintosh systems. The price, however, is as high as ever.

Upgrades to major applications are always welcome but with most you have to ask 'what else can it offer?' and this is certainly true of Photoshop. Earlier versions already did virtually everything you could think of, so there aren't any drastic changes in version 4.0.

Instead, Adobe has addressed a few issues, enhanced a couple of features, added one or two that should have always been there, and provided additional support for the ubiquitous World Wide Web.

Unfortunately, Photoshop 4.0 still doesn't allow users to work quickly on a low-resolution preview image, record the actions, then have the PC apply them to the high resolution original while they're doing something far more important. There is, however, a facility to record a basic sequence of actions, such as open a file, change its colour balance, save it in another

format, then apply it to any number of images in a batch process.

A great deal of time in Photoshop is spent carefully working on a zoomed-in portion of an image, getting lost and then either slowly zooming out or scrolling blindly about until the next part can be found. So the new Navigator palette is a god-send, always displaying the full image in a small window. A rectangular selection in this view indicates what is displayed in the main editing window – simply drag this selection around in the Navigator to quickly find what you're looking for.

Photoshop 3.0 featured layers – you built up your composition by placing elements on separate layers, which acted like transparent sheets of paper. You were then free to add more layers, temporarily hide them, rearrange them, or get rid of the layers altogether.

Photoshop 4.0 now allows basic image adjustments to layers, such as brightness, contrast and colour balance. The same flexibility is retained so layers can be hidden or moved around so they affect only the portion of the image below them. This neatly gets around the problem of not having an unlimited undo facility.

There are quite a few clever, albeit unexpected, additions to version 4.0. As an upgrade, however, it will only appeal to those high-end users who have outgrown version 3.0 or simply want to have the latest thing. Photoshop users satisfied with version 3.0 would probably be better off investing in more RAM.

HP DeskJet 870Cxi

Paul Wardley

A high-quality colour inkjet printer with a range of printing options, versatile paper handling and fast text and graphics output.



- Separate black and colour ink cartridges
- Size: 226(h)x444(w)x396(d)
- Extra TrueType fonts for Windows users
- Black text print speed: seven pages per minute
- 600x600 dots per inch (dpi) in black
- 600x300 dpi in colour
- ColourSmart software
- Windows- and Macintosh-compatible
- Economy mode
- 150-sheet A4 paper tray
- 15-sheet envelope feeder

The quality of the 870Cxi's output is exceptional, particularly the solid blocks of colour used in business graphics and the mixed colours of photographic images. It's an ideal colour printer for office and professional users - and a highly desirable one for the rest of us.

- £493.50 (inc VAT)
- Hewlett-Packard: 0990 474747

HP DeskJet 870Cxi

Performance	★ ★ ★ ★ ☆
Ease of use	★ ★ ★ ★ ★
Build quality	★ ★ ★ ★ ★
Value for money	★ ★ ★ ★ ☆
Overall	★ ★ ★ ★ ★

The trouble with being a market leader and the owner of a brand name as well known as DeskJet is that people don't pay much attention to the identifying number after the model name. Hewlett-Packard makes inkjet printers at almost every price and although they all share the same DeskJet tag, they each have different capabilities.

To make sure the 870Cxi gets into the right hands, HP has emblazoned 'Professional Series' prominently on the printer's front panel. However, anyone who can afford £493.50 will benefit from the top-quality output and high speed.

The 870Cxi looks like the other members of the DeskJet family, but as soon as you lift it out of its box, you notice it's much heavier than its stable mates. It weighs more than 14lb (6.5kg) and although shrouded in plastic, it's built around a substantial metal chassis.

Apart from the high quality of its construction, the 870Cxi boasts a number of other features that make it suitable for extended duty in a professional setting. The main paper tray takes around 150 sheets of A4, depending on the weight of the paper, and a second automatic feeder tray can handle up to 15 envelopes or odd paper sizes.

The main tray is underneath the printer and sheets pass through 180 degrees to come out face up at the front. Although this imposes a limit on the thickness of paper capable of making such a sharp turn, card stock of up to 200gsm (grammes per square metre) can be used.

The printer has a Macintosh interface in addition to the more usual parallel port found on IBM-compatible PCs, so it can be used in an office environment of mixed machines. It uses the CMYK (cyan

magenta yellow black) method of printing and the separate black ink reservoir can be replaced independently of the combined one containing cyan, yellow and magenta inks. This makes it more economical than printers that make black by mixing the other three colours.

Print speeds are very fast for an inkjet and we were able to churn out the claimed seven pages per minute (ppm) in Normal mode when printing simple documents such as letters and invoices using black ink. Adding colour slows the printer significantly but even with a coloured logo and a chart in our test letter, we managed two ppm.

Output times almost double if you switch to Best mode, but on standard photocopier-quality paper the results are almost the same as for Normal mode printing - you'll have to invest in a bright white or a glossy paper if you want to see a substantial difference.

A third printing mode, Economy, delivers what its name suggests - fast, economical printing - but there is a marked deterioration in quality and this method is designed for rough copies only.

The three print modes are selected using the ColorSmart printer utility provided by HP. In most cases, you can simply let ColorSmart take care of everything for you. If you opt for manual instead of automatic printing, however, you get control over output intensity, depth of colour and the distribution of dots when used to print half-tone pictures.

The 870Cxi's print quality is as good as you can get from an inkjet printer. Although it costs more than many personal lasers printers, unlike a laser it can be used to produce outstanding colour graphics at relatively low cost.