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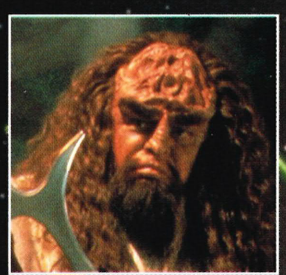
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PC REVIEW • Issue 57

• Meet the Flintstones: The return of 2D animation •

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STORMFRONT STUDIOS

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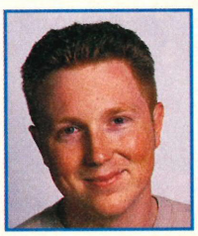
65 The return of... 2D
Yes, it's true. 2D rocks! Not only in the Fred Flintstone sense, but also because it's the best and easiest way to create pleasing animations, movies and cartoons.

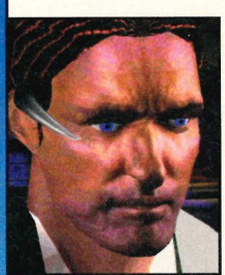


CONTENT

Designing you own 3D animations is fiendishly difficult. Proffesional productions like *Toy Story* are put together by huge teams using incredibly expensive, state of the art setups. That's why we've chosen to feature 2D animation this month. It's the medium of the masses! A back to basics approach to make your cartoons cheaper, quicker and easier. That's why our cover story is essential reading.

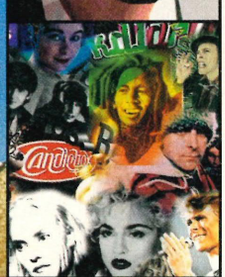
James Binns, Editor





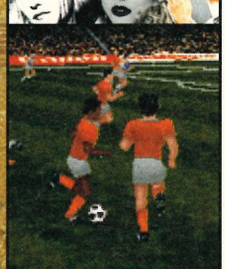
15 Celluloid stars on PC

Pick a game. Then wheel in some Hollywood talent. Suddenly it becomes the game with Dennis Hopper in. The game with Christopher Walken in. It becomes an interactive movie. We profile the top 10 celebrity squares, point out the best interactive movie ever and look at the genre's future.



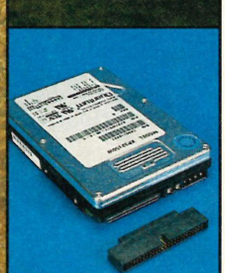
20 Your favourite band

Just like the hills, multimedia and the Internet are alive with the sound of music. We go in search of everything you ever wanted to know about your favourite band and come back with some terrifying facts. For example, did you have any idea how big a following the Beach Boys have in Japan?



35 Euro 96

The very best in PC soccer coverage. Three page review of Gremlin's top new game. Also look out for the chance to win a Vauxhall Corsa (see below), a winner's guide to playing our demo exclusive to CD Review (page 106), and a round up of budget football compilations (page 57).

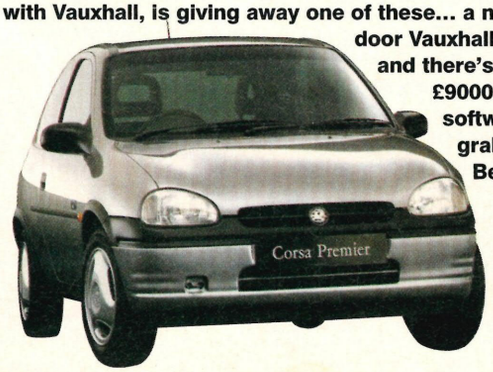


102 Upgrade your hard drive

Are you the patient type? Do you enjoy listening to your hard drive twitching away, waiting for software to load up? If not, then you just have to check out our step by step guide to upgrading your hard drive. Our in-depth feature even explains how to set up your jumpers to maximise performance.

26 WIN THIS CAR!

To celebrate *Euro 96*, Gremlin Interactive in association with Vauxhall, is giving away one of these... a nippy three-door Vauxhall Corsa. Oh, and there's about £9000 worth of software up for grabs too. Be a winner!



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Euro 96: World exclusive

In the real world the half time score in opening match of Euro 96, England versus Switzerland, was 1-0 to England. Play our demo and see if you can change history.

Player

Ten games to try, including air combat sim *Jane's Advanced Tactical Fighter*, driving shoot-'em-up *Megarace 2*, ruling God game *Settlers 2* and a *Galaxian* clone.

Multimedia

Headlining with a *Star Trek* double bill, we also feature the Undead section from *The Unexplained* and a demo of the geometrically challenging *Escher Interactive*.

The Works

Six new apps including a fully working version of cartoon package *CelAnimator*. Plus, first on *CD Review*, we bring you the demo of *WinImages 4: FX and Morph*.

Shareware

King of the shareware heap is *GoldWave*, a powerful sound editing program. Also, in this month's selection, a Win95 watchdog utility and the *Duke Nukem* screensaver.

The CD Review booklet contains a quick reference guide to the game controls. Turn to page 105 for nine pages' worth of in-depth details on using the disc, including various projects, hints and tips.

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GET EXTREME!

If you've bought our *CD Review* version then you'll also have the free *Extreme Sports* disc, worth £30. Turn to page 30 to get started with this most excellent and fun giveaway.



REGULARS

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The fastest growing language in the known univers and the most complex and developed race in the history of science fiction. The CD-ROM that explains it all.

87 ..... **The best sound card ever**
Looking for a sound card that does it all? Then maybe the Yamaha SW-60 is the answer. A board that will bring proffesional power to your PC at a price… that's right!

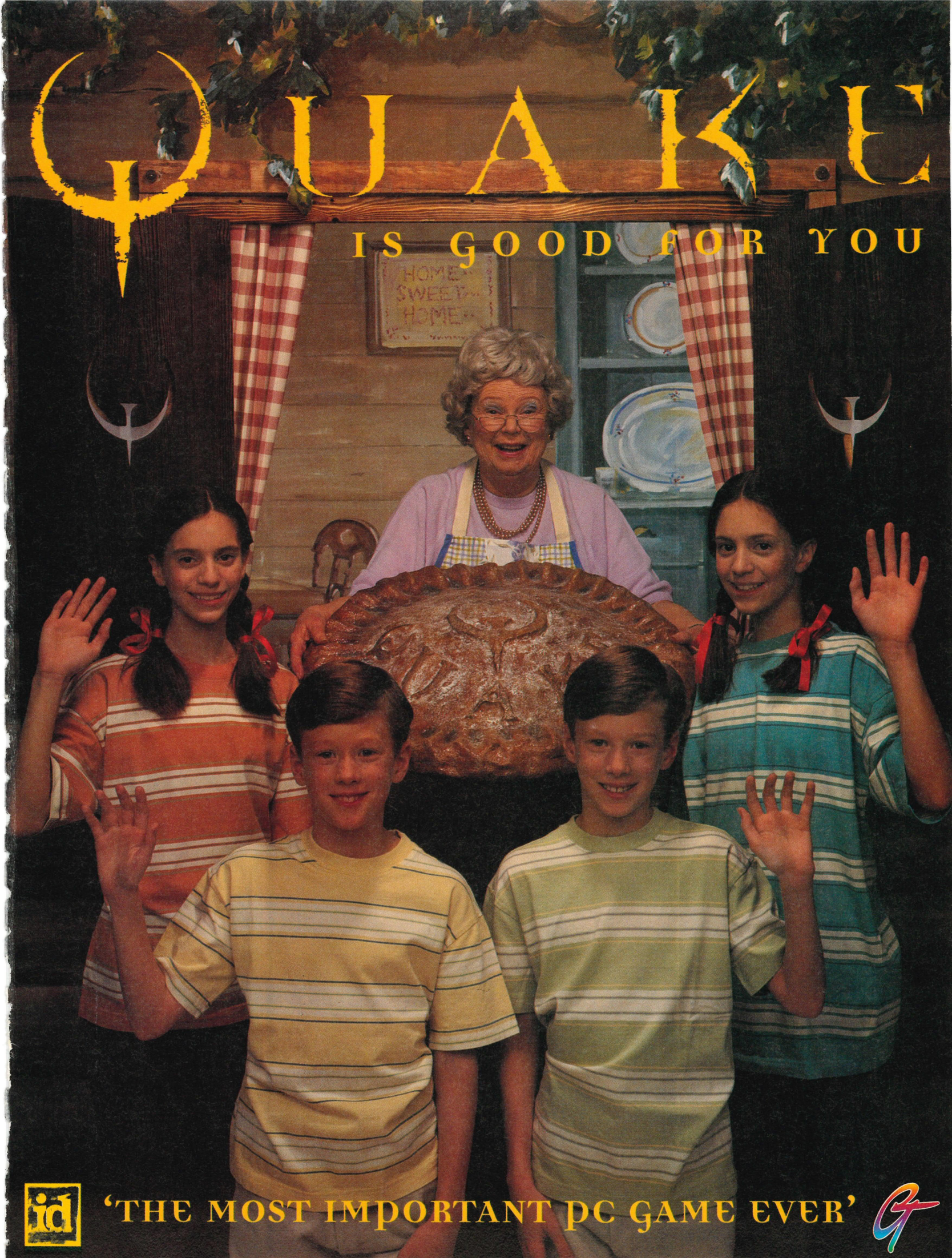
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Chips with... Jez San

PC Review bought a steaming pile of salt and vinegar lard tubes from the local chippy and shared them with Jez San. A chat about money, 3D cards and whizz kids ensued.

He's the man we all call Mr 3D and who the Japanese don't call Jez San San. With a career in game development well into it's second decade, his company Argonaut is a darling among game design outfits. After he showcased his BRender graphics system in the wonderful *FX Fighter*, developers everywhere are jumping on his band wagon and licensing this very special technology. *PC Review* shared a bag of chips with Jez San and had this conversation…

Could you explain what BRender is?
BRender is a very high level 3D library, that allows developers to concentrate on the important issues like artwork, gameplay and audio. It lets somebody else take care of all the 3D stuff. Why waste time re-inventing the wheel? It's more profitable to develop the games.

So it saves them money?
Developers shouldn't be investing in 3D graphics. By spreading the cost of designing the technology, it becomes much more efficient for Argonaut. BRender also works on lots of different platforms, like the PlayStation, the 3D0 and the Sega Saturn. It means that developers can port their games around much less expensively.

Will it make games better?
Sure. Companies can spend more of their time and money on creating games and know that their products are state of the art in terms of 3D technology – with perspective correct texturing, unlimited light sources, spot point and coloured lights, an unlimited number of cameras, objects that rotate in unusual ways… everything.

But won't all everything ends up looking the same, like the PlayStation games?
The first game Argonaut designed with BRender, *FX Fighter*, used only a fraction of its capabilities. One of the biggest complaints about *Doom* clones – using similar graphics engines, or even licensing Id's – was that all the games ended up looking the same. They had different texture maps and sprites but all felt very similar. With BRender anything can go anywhere, and won't look the same. It's a general purpose technlogy, not a hard-wired one. Developers haven't scratched the surface of its capabilities.

And is BRender catching on?
We've just shipped our latest version, 1.2, which supports hardware accelerators. It's headed for explosive success. Some very big people have licensed it now. Microsoft used it for their *3D Movie Maker*. Electronic Arts are using it in *The Darkening*. Look out for it in Interplay's *VR Baseball*. Philips Media are using BRender for two games, a 3D space action game called *Nihilist* and *Dreadnaught*. The latter is being developed by Glynn Williams and Michael Powell at Particle Systems and is looking like a cross between *Babylon 5* and *Elite*. Codemasters are using BRender in their Pete Sampras tennis game. That's just a few of our licensees.

Is the move to 3D cards helping you?
Sure. There are two parts to BRender. There's the development tools that go into the game and the device drivers, which do all the emulation in software. When any new graphics card comes along, we'll do new drivers making it so that your existing games can run faster, in higher resolution and with better colours. We've already done drivers for a lot of the popular cards – the S3, Nvidia, Samsung, 3DFX and more.

How do you feel about developers getting paid to support specific cards?
Mmm. Argonaut's in a really good situation. Once we support a card with BRender every game developed using the library will be able to use the card. So, developers can be totally card agnostic and concentrate on gameplay. And know that their graphics will work with whatever card. It's much better for the industry. We don't want any individual card manufacturer to win. It's good to have healthy competition. There are lots of cards out there and BRender will run on all of them.

What about manufacturers who try and lock developers into proprietrary systems?
Proprietrary cards are only good if they take off. It's like the sound card business over the last few years. They failed to agree any standards. Sure, cards should all have different qualities, memories, buffers, all that stuff, but they shouldn't be incompatible. It's stupid. Such a risk. That's why hardware companies who chose proprietrary systems, like Nvidia, are now beating a path to our door. BRender removes the technology element and means that games live and die over whether they're any good or not.

What advice would you give our readers who want to buy a graphics accelerator?
Don't be conned by the hype and try it for yourself. Try software on an unaccelerated and another accelerated card before you make up your mind. Don't buy on the strength of games only available on that card. It won't measure anything. Kind of like Sega backing the Nvidia card with *Virtua Fighter* and *Panzer Dragoon*, then deciding that you don't need an accelerator to make them look good after all.

Our final quesion is, how does it feel to still be called a whiz kid?
I just turned 30 so I'm not really a whiz kid. Maybe I am, if judged by old-timers. They might look at me and think I'm still a whipper snapper. Thing is, I started when I was 12-and-a-half years old. I grew into a whiz kid, now I'm just a regular business person in computers. A whiz person if you will!

And the future...

Argonaut has a 3D platform game development, expected by early 1997. Jez reckons it'll stand up to Mario *on the Nintendo 64. After spending two years on* Star Glider 3*, they've turned the idea into a multi-player tactical action game set on a planet with sophisticated missions. You'll be dropped into a complex world, a huge adventure game in which you can fly, drive and swim your way through.* PC Review *can also reveal that Argonaut is working on a hot movie license out in late 97… More when it happens.*

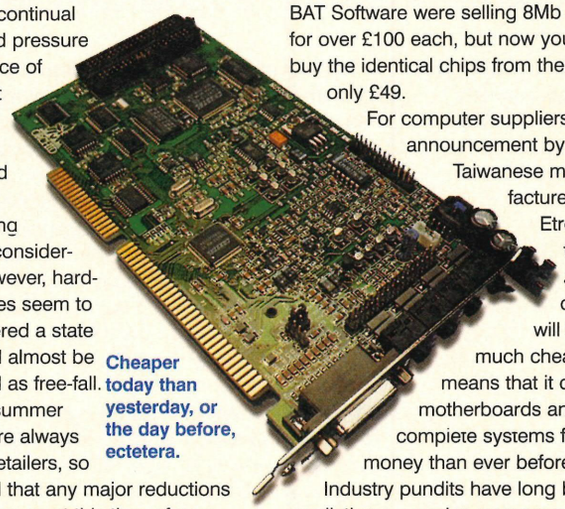
I just turned 30 so I'm not really a whiz kid. Maybe I am, if judged by old-timers. They might look at me and think I'm still a whipper snapper.

NEWS

The year of living cheaply

PC upgrade prices plummet

The computer market has always been a volatile and dynamic one, and unlike other industries, where prices climb with inflation, there's a continual downward pressure on the price of just about anything connected with PCs. Even taking that into consideration, however, hardware prices seem to have entered a state that could almost be described as free-fall.



Cheaper today than yesterday, or the day before, ectetera.

The summer months are always slow for retailers, so it's logical that any major reductions should happen at this time of year, but what has surprised us at *PC Review*, is the rapidity, scale and widespread nature of the price drops. RAM and CD-ROM drives have both taken the largest tumbles. Only a year ago, BAT Software were selling 8Mb SIMMs for over £100 each, but now you can buy the identical chips from them for only £49.

For computer suppliers, the announcement by Taiwanese manufacturer Etrontech, that its cache chips will be much cheaper, means that it can sell motherboards and complete systems for less money than ever before.

Industry pundits have long been predicting a massive memory price crash, but the speed and extent of the drop has caught everyone by surprise. However, if rumours are to be believed, SIMM manufacturer TI has just gone into receivership, so prices may start to rise again as demand outstrips supply.

As for CD-ROMs, budget manufacturer Aztech proudly unveiled its eight speed drive about three months ago. It cost £186.83, but within weeks the price had fallen to £151. It shortly dropped again to £109 before reaching its current price of £99.95. That's 53 per cent its original price. If things keep on at this rate, manufacturers will be paying you to take their equipment!

The discounts aren't restricted to memory and CD-ROMs either, Matrox has just announced sweeping price cuts across their range of Millenium graphics cards. It has lopped an even 20 per cent off current prices. Epson has performed equally radical surgery on the price of its Stylus printers, perhaps in preparation for the release of its new Stylus 500. Between 10 and and 25 per cent has been slashed off the four models in the range. Not to be left out of the free-for-all, Orchid has reduced its Kelvin Video 64 graphics card to £99.99, and the NuSound PnP to £133.95.

Throughout the year, prices naturally fluctuate, and we've seen fairly large price drops before, although never to quite this degree. However, like the great house price crash, there is a bottom limit to how far things can fall before manufacturers and suppliers starting meeting in darkened rooms to bolster prices back up again. It happened with floppy disk prices three or four years ago, and some would say it happened with RAM prices just after the Japanese earthquake. The point is, unless you want to miss out on the bean feast, now looks like the optimum time to think about those upgrades you've been putting off all year!

Throughout the year, prices naturally fluctuate, and we've seen fairly large price drops before, although never to quite this degree.

Do it all!

3-in-1 multimedia card

With ever more juicy hardware coming out all the time, space inside your computer is at a premium. The more you upgrade and add new cards, the fewer slots you have for future considerations.

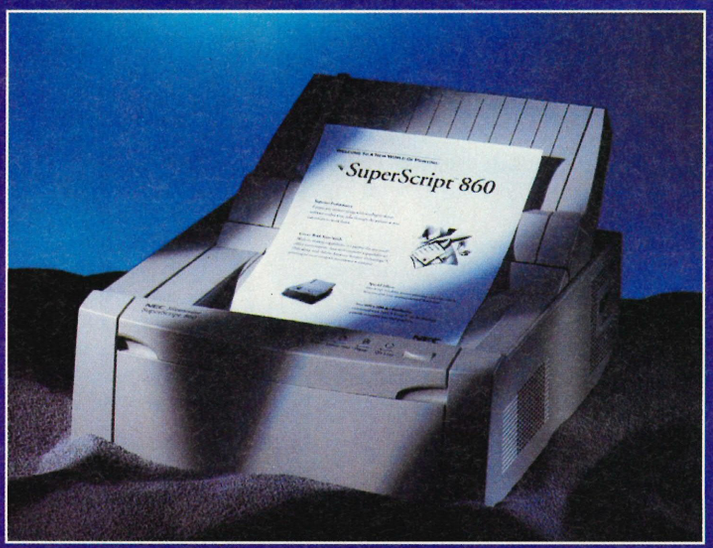
Coming to the rescue, however, is the new Connectware 3-in-one accelerator, which is being sold by CMS Peripherals. The card incorporates a 64-bit, 1Mb VRAM graphics accelerator, a sound card and an MPEG decoder/video accelerator all on a single board. Also included is a companion daughter-board which carries on it a TV tuner and video capture facility. The 1MB version will retail for £399, or £499 with the additional tuner/capture card.

Faster, cheaper printers

Eight pages a minute for the price of four

NEC is claiming that its new SuperScript 860 printer can print eight pages in a minute but sells at a price equivalent to a four page a minute model. The Superscript is a Windows GDI laser printer, that uses a high speed, high resolution engine capable of printing at up to 1200x 600DPI, and at a speed of eight pages per minute.

The model also incorporates a 200 sheet paper capacity. At £527.58, NEC says that it only costs the same as a conventional four page per minute printer. It is, however, worth noting that the printer's performance is directly affected by the speed of your computer's processor, so you may not get eight in a minute anyway.



NEC's amazing new printer. Fast printing at under £600.

Take it to the Max

Apparently *3D Studio* is the most popular animation program in the world, and *Autodesk* has just released a new Windows NT/95 version of the program called *3D Studio Max*.

This new version has been totally redesigned to take advantage of the operating system, and brings unprecedented levels of functionality to the program, including new atmospheric options for more complete control over such things as fog, clouds, lighting and so on. It also incorporates a fractal mapper/renderer that you can use to create original landscapes. Like its predecessors in the Autodesk stable, the new program is likely to be something of a stunner. *PC Review* will be bringing you a review of the finished version as soon as we get our hands on it.

3D Studio Max is ready



Chin, muscles, gloves. Max will have it all.

SAY CHEESEY PEAS

Affordable digital camera from Casio

At only £470, the new QV-10A digital camera is certainly at the less-expensive end of the scale. It has 2Mb of memory which can be used to store up to 96 JPEG compressed 24-bit images at a resolution of 488x256. The camera incorporates a TFT LCD screen so that you can view images stored in RAM, but in case you want to prevent unauthorised viewing, you can use the secrecy feature to lock selected images out of sight. The camera can be connected to a PC to download the images for editing, or to a TV or video recorder for viewing them.



Casio's new QV-10A can store up to 96 JPEGs at 24-bit colour depth.

FONT OF UNITY

Adobe and Microsoft work on new font format

Although Adobe and Microsoft have long been arch-rivals in the font industry with their competing Type 1 and TrueType formats, a cross-licensing deal has been struck between the two companies enabling them to work together towards a single, unified standard for the next generation of PC software.

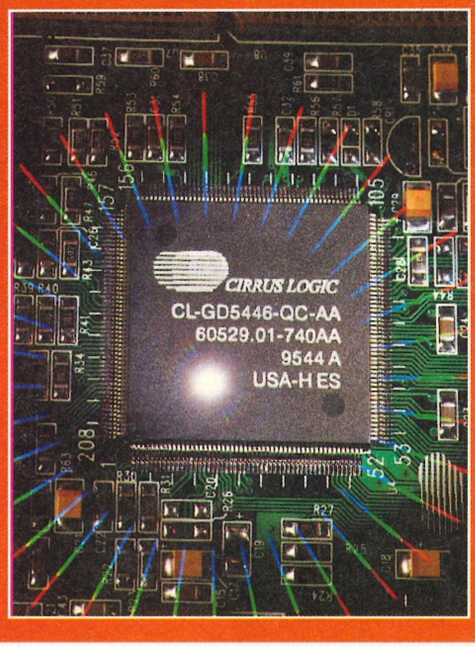
The new format is likely to be called OpenType and it will offer numerous benefits over the existing font technology, not least of which will be its possible integration through HTML into World Wide Web pages. This is further made possible thanks to advanced compression techniques which better suit it to the space-critical world of the Internet. It's expected that the new format will be directly incorporated into the next version of Windows, and all of Adobe's future graphics and media programs.

As we go to press there is no news on the backward compatibility of this new font format.

The next big chip

Cirrus Logic chips to be part of new Creative multimedia cards

Cirrus Logic this month proudly announced that it had been chosen by Creative Labs as the supplier of 64-bit graphics accelerators. The accelerators will come as a chip set to be integrated into Creative's new range of multimedia cards. The cards, which will comprise Creative's new Graphics Blaster range, aim to combine top-notch 64-bit performance and good value. They represent Creative's first foray into the graphics arena. As Creative is the World's top multimedia hardware manufacturer, the deal is a coup for Cirrus Logic, which is known particularly to OEM users, for their inexpensive graphics cards.



Punishment

New force feedback joysticks coming

Leading joystick manufacturer, CH Products has announced a force feedback joystick designed to make gaming a more interactive experience. CH's latest baby takes computer output and converts it into motion in the joystick. The stick will vibrate, jolt and buffet with axis and vector force as you make tight turns bringing hitherto unheard levels of realism to a range of games, like flight sims and other first person games. It will add a whole new dimension for expert players. The really important question is, will it make tea and tidy up too?

PLAYER IN BRIEF

● Just as we were going to press, Eidos Interactive acquired the rights to the next *Links* golf game. The Salt Lake City-based developer Access will be designing the title and hopes are high that at long last EA's *PGA 96* will have to meet with a worthy challenger. After all, it was Access that really started the computer golf genre years ago with *Leaderboard* on the Commodore 64. The new Links game will feature a selection of US courses, plus the top American celebrity golfer Arnold Palmer. We're trying to line up an interview with the great man himself so golf fans are advised to stick with *PC Review* over the coming months to find out more.

● Staying with golf, EA Sports has announced two new upgrades for… you guessed it… *PGA 96*. Look out for add-on course discs for the American course Sawgrass and a UK one based in Oxfordshire.

● Racing game fans have plenty to look forward to after the lacklustre selection reviewed this month (see *Speed Haste* pg 52 and *World Rally Fever* pg 53). Three titles from Electronic Arts are looking strong. *Mario Andretti* will be a Formula 1 type game coming to the PC in about three months time. Then there's *McClaren at Le Mans*, an attempt to computerise the epic 24 hour event. Finally, *Need For Speed Special Edition* should be reviewable for next issue.

● Psygnosis has put back the super dark, violent and broody *Urban Decay* until well into 97. The action packed adult 3D adventure, with all its guns and urban conflict, was first announced a year ago and has gone through some pretty major changes. Where originally it was to use fixed cameras in the style of *Alone in the Dark*. Now, we're told, they're much more more mobile. Andrew Spencer Studios has instead brought forward *Ecstatica 2*, which we expect to see by November. *Discworld 2* is also well into production, by Perfect Entertainment and features bigger, more detailed sprites than anything outside of a beat-'em-up. A massive preview is already being researched by the *PCR* news hounds.

● Game of the show at the recent Electronic Entertainment Exhibition (E3) in Los Angeles? It just had to be a reworking of the coin-op *Robotron* over on the Williams stand. *Robotron X* was developed by Player One is a 3D techno blaster which mixes classic playability with stunning and rewarding presentation. Full story and pics next month…

It's a scanner... and a PC

New home PC range from HP



Hewlett Packard aims to storm the UK market with the Pavilion range.

Already hitting second place in the US with its PC, Hewlett Packard is doubtless hoping to work a bit of magic on the UK market with its new Pavilion rande. The entry-level system will use a P100 processor, whilst the top-of-the-range model sports a speedy P166. Nothing special so far, but one of the models incorporates a special PhotoDrive unit which is built into into the PC. The PhotoDrive is nothing other than a 24-bit colour scanner capable of transferring photographs directly into the PC. This makes it an ideal machine for creative users wanting to get a bit more from their machines. Pavilions all come with at least 850Mb of hard drive space, so finding somewhere to store all those graphics won't be a such problem.

Hyper Hyper

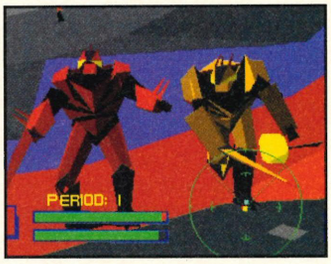
Rollerball comes of age

Up to four players square off in *HyperBlade*, the new future sports game from Activision. Tooled up with projectile weapons and rollerblades, your three man team must negotiate ramps, trenches, traps and the opposing side in an effort to score goals. There are 12 international squads to choose from, or alternatively you can hand-pick your own from a gang of more than thirty Bladers. Each of these athletes has his own talents and weaknesses. To perfect your game you'll need to understand the relative strengths of your team and master each hyper-blader's special moves.

All the fighting action will occur in a 3D combat arena with 360 degree viewpoints, rapid zooms and first and third-person perspectives track the action, all supported by *HyperBlade*'s Smart Cam technology. With a trio of different game modes – league play, tournament play or exhibition – *HyperBlade* is due to roll in this summer.



He's behind you! (Check out the rear view mirror camera shot in the top left corner.)



The shoulder-barge is a useful technique in HyperBlade. Or in any other violent pursuit for that matter.

Nikon enter the mainstream scanner market

With the release of two desktop scanners, camera specialists Nikon has entered the mainstream scanner market. Priced at £1056 and £586, the scanners are not really targeted at the home user, but Nikon is hoping that high resolution coupled with superior scanning speed will enable them to penetrate the lower end of the professional market.

The new Nikon units are called the AX110 and the AX210 and have optical resolutions of 300x600 and 600x1200DPI respectively. Using driver interpolation, the scanners are capable of producing images at resolutions of 4800DPI and 9600DPI. Both devices come bundled with Photoshop LE and Omnipage, the OCR package.



Nikon's new scanners, with other assorted paraphernalia.

QUAKE WATCH

At last the finishing touches are being made to *Quake*, with the shareware version likely to be available dead soon... perhaps even by the time you read this.

PC Review played an almost finished version of *Quake* at the recent E3 show in Los Angeles and there were plenty of new innovations. Rather than selecting which episode to start out in on a menu, the game begins in a shared hallway. The route you take out of this determines which episode you're going to play. However, in the shareware version two of the routes lead to locked doors and a message onscreen tells you the number to phone should you wish to register.

The level in the shareware version is mostly populated by guards and dogs... in its early stages at least. You'll quickly find your route blocked by a locked door and be forced to take a dip in the sewers underground to find a way through.



This beastie takes a running jump and pounces. Hit him before he takes off.

Whereas the public test had no hand-to-hand combat option, *Quake* does offer a shining axe that you can swing around should you run out of missile weapons. There's no intuitive control mechanism for this however, meaning that it handles pretty much like the chainsaw in *Doom*. The graphics on the super shotgun have been souped up, though there's still no pump action sequence.

PC Review expects the full retail version of *Quake* to hit the stores sometime in August. Turn to page 114 to see our plans for next month. At last your time of waiting is almost over.



He's got a nailgun and a chainsaw, so ignore the pretty rendering on the door and kill him!

We're going underground

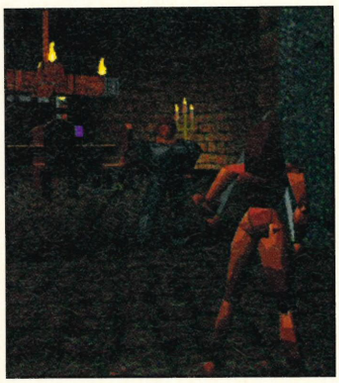
Deathtrap Dungeon is coming

You first played Eidos Interactive's latest offering ten years ago. *Deathtrap Dungeon* is a 3D action adventure based on the multi-million selling *Fighting Fantasy* series. It was produced by Ian Livingstone, author of the original books. This time his dungeon realm is populated with orcs, zombies, skeletons and more than 50 other dark denizens. Other collaborators include Richard Halliwell, the man responsible for *Warhammer* and *Space Hulk*. and Jamie Thompson, ex-editor of RPG mag *White Dwarf*.

Livingstone wanted combat to be as painless as possible, in the spirit of the novels, so you'll soon be sword fighting, blunderbussing and spell-casting like you'd never stopped rolling your 20-sided dice. 16 levels of subterranean adventure await and both modem and network play are supported.



It's blunderbuss against sword in Deathtrap Dungeon, a game being worked on by top brains in the RPG field.

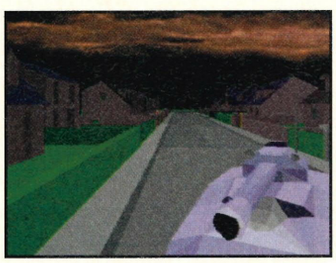


You'll have to overcome more than 50 breeds of dungeon dweller.

Rage Hard

Titus unveils new tank game

An unprotected Earth is swamped by aliens in *Metal Rage*, the new battle game from Titus. With the rest of the military out of town the TK2003, code-named Metal Rage, is the one hunk of military hardware standing between Earth and oblivion. You're behind the turret, supported by the human fighters who've cracked the enemy computer network. You save Earth in this tank blaster. *Metal Rage* boasts a brand new 3D engine, multiple camera angles and will offer a balance of strategic warfare and top quality fighting action.





A couple of quiet moments in Metal Rage from Titus.

Gone in 60 seconds

The next big thing from DMA

You're a criminal. You're just scared into obeying the law. Now you can (re)live the life of a juvenile delinquent in DMA's forthcoming *Grand Theft Auto*. Burn up the streets in saloon cars, motorcycles, police wagons and garbage trucks! Jump red lights as you flee from the cops or else play the good guy's law and dodge pedestrians as you chase the car robbers! Multiple pile-ups, car hijacking, a unique top-down true-crimes-on-TV viewing perspective and short cuts across the pavement are just a few of the features in this comprehensive joy-riding simulator.

DMA is the top development house who spawned *Lemmings*, so we're expecting great things of *Grand Theft Auto*. In fact, at *PC Review* we're so excited about the prospect of mindless mayhem on wheels that we'll be talking to the people at DMA themselves in a couple of months time. And make sure you keep your eyes peeled for our forthcoming exclusive *Grand Theft Auto* demo.



Go OJ, go! You get a cop chopper's view in BMG's Grant Theft Auto.



Avoiding the buildings is important, especially when driving.

Trio from Trimark

Three newies from Trimark, earmarked for Autumn, have come to our attention. The first, *Magzone*, sees the Solar System's hottest rods competing on the 3D Magzone circuit for a place in the All Circuit Championship. If the Solar System cramps your style, check out *Galaxis*. The aim here is control of the universe. You'll need to balance battle with diplomacy to develop an invincible star fleet. Finally, there will be *Halls of the Dead*. Here you'll be exploring an isometric world, fighting the powers of Chaos... looks a bit like *Ultima 8* to us. The three titles will distributed in the UK by Funsoft.

Multimedia in brief

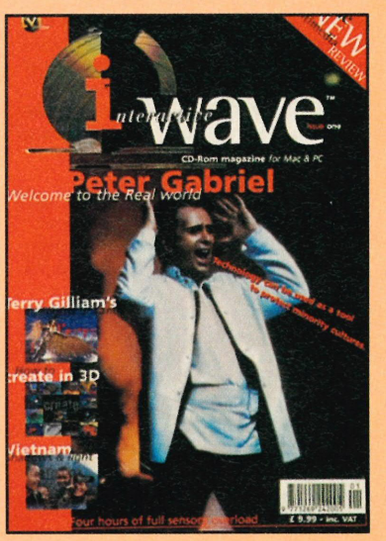
●As of this month, science fiction fans can get their info-fix electronically with the quarterly *SFX CD*. Based on Future's *SFX* magazine, it aims to exploit the digital medium with audio interviews, movie clips and music in addition to photos and text. The first issue is available now, and has articles on *Dr Who* and the upcoming *Star Trek* anniversary tributes. It's £6.99.

●*Picasso*, a new CD focusing on the life of the great 20th century artist, will be released this autumn by Grolier Interactive, to accompany the *Portraits of Picasso* exhibition in Paris. The CD features over 500 works including paintings, sculptures and drawings.

●Getting back down to earth, Roger Phillips and Martyn Rix have created *Perfect Plants* to help you choose the best plants for your garden. Phillips, once a multimedia sceptic, likens making the CD to 'producing 140 books in one go' and with over 2700 indexed entries in the final reference, you can see his point. It's released on June 25th at £39.99.

●*Origins of Mankind* is a journey through 70 million years of evolution soon to be released by Maris. 3D models recreate the prehistoric landscapes where our ancestors invented fire and the wheel. You can fast forward a few millennia by morphing Neanderthal man into Homo sapiens with just a mouse click. We'll have the exclusive demo next month.

●Finally, *I-Wave* is the latest magazine on CD-ROM to be sold in the newsagents. The new quarterly features over four hours of multimedia articles covering everything from technology to comic books. *I-Wave*'s creators claim the magazine will be have its own strong editorial tone, coupled with breath-taking visuals.



Freebies

Once again you join us for an orgy of public relations promotional stuff. In an effort to ingratiate themseleves to you the reader, and us the… erm… magazine software companies are quite literally giving things away. No catch. No questions asked. Just a race to get there first.

Serif

Serif has agreed to give away copies of their top home desk top publishing applications to the first ten lucky *PC Review* readers who call in. Make no mistake. The company isn't giving away demos or tryouts, but full commercial versions of the software. Windows 95 users can ask for a copy of *PagePlus Home/Office 95* (regular price £49.95). If you're still using legacy Windows, then ask for PagePlus 3 (regular price £99.95). It's strictly first come first served, one per person, but after the first ten to call through there will be other 'special opportunities up' for grabs if you declare that you're a *PC Review* reader. Get on the phone sharpish and dial 0800 924925. Tell 'em you're after the *PC Review* giveaway.

Electronic Arts

Last month EA gave away 25 *NBA Live* posters and 25 *Wing Commander IV* t-shirts. This month the software giant has the same number of the same freebies to give away, just in case any readers were dissapointed last time round. That's the last of the loot, but anyone who writes in and misses the offer will still get a glossy catalogue. Send your name and address to Freebies 2, PR Dept, Electronic Arts, 90 Heron Drive, Langley, Berks, SL3 8XP.

Sierra

Sierra is still giving away CD-ROM multimedia catalogues, packed with details on all its releases and stacks of trailers too. Write to them at Sierra, 4 Brewery Court, The Old Brewery, Theale, Reading, Berkshire, BRG7, 5AJ, England. Ask for your CD-ROM catalogue and don't forget to include your name and address.

Europe Online

We've stitched up a top Internet free trial for anyone who missed out on last month's CompuServe CD. Looking for the latest regional news in Scotland or the Midlands? Want to know this week's flight offers from Gatwick or Cardiff? Planning to take the kids out in Dorset or Kent? Or maybe looking for a last minute birthday present or even what jobs are on offer in your area of expertise. All this and much more is available through a month's free trail from Europe Online including 10 hours free access to the above information, e-mail and full access to the Web. Europe Online is easy to use and its monthly fee of £3.95 is the lowest in the UK, designed to attract newbies to the Net who are not ready to make a large monthly commitment. So if you have a PC and modem call free on 0800 1066 10 for your free software including 10 hours access.

Activision

At the last minute we changed our minds about an *Earth Worm Jim* tequila giveaway. Instead Activision has ten T-shirts adorned with everyone's favourite undercover game, *Spycraft*. the first ten readers to write in will win one each. Simply send a letter with your name and address to Spycraft Offer, PR Dept, Activision, Long Island House, Suite 3A 1/4 Warple Way, London, W3 0RQ.

Next month

Interplay will be coming up trumps with demo CD-ROMs and T-shirts, plus we'll have another free Internet offer and plenty of other clobber besides.

Criterion Studios' Firstborn

Scorched Planet and Sub Culture near completion



David Lau-Kee, developer at Criterion.

Criterion Studios was established in January with a mission to fully exploit the brilliant Renderware 3D graphics library. And its two imminent releases *Scorched Planet* and *Sub Culture* look are sure to show off just what the engine can do, and mark out Criterion as a top game designer in its own right.

The *Scorched Planet* is Daktor 5, a remote colony held siege by Voraxian invaders. The year is 2230 and you play a burned-out space fighter pilot. You're given one last shot at herohood when you stumble across the colonists' distress signal. The task is simple. Destroy the pterodactyls, giant lizards, mammoths and yetis that roam Daktor 5's extensive landscapes. Chase your 3D foes across the ground and then take to the air as your vehicle effortlessly morphs on demand. Switching from the plane to the tank mid-air has a neat tumbling effect as you drop from the sky. The graphics might be next generation, but the gameplay is old school, heavily influenced by the coin-op classic *Defender*.

In contrast, *Sub Culture* sends you deep, deep down. You're a member of a race of aquatic miniature men threatened by surface dwelling humans, who've polluted the seas and turned your world toxic. The only hope for your race lies in co-operation – no easy matter when its competing factions seem hell-bent on mutual destruction! Sophisticated AI is promised and, once again, Criterion's Renderware graphics engine drives the game. The 3D libraries are employed to produce remarkable lighting effects.

It's refreshing to see such good looking 3D games not relying on graphics accelerator technology. MD David Lau-Kee told *PC Review*, "As a developer it can stem your creativity to be using 3D accelerator cards. The tricks you can pull in software can't yet be done in hardware. Most of these developers are using first or second generation silicon and we expect it will lead to lots of 3D games looking really similar." Both the games, already looking very different, are being published by Virgin and we'll have more news on them soon.



Pterodactyls swoop over a Scorched Earth, created using Renderware.



Sub Culture: Note the subtle dappled lighting and the Lionfish



Another brilliantly dark and damp scene from Sub Culture. Here you play a miniature aqua-man fighting for the survival of your race.

Three from E3

Viacom unveiled three very different new games at the recent E3 show: *Snow Crash*, *Joe's Apartment* and *Aeon Flux*. *Snow Crash* immerses you in the future world of best-selling novelist Neal Stephenson. In this 3D action game you're out to save the online community from a new killer computer virus. Using weapons, from samurai swords to automatics rifles, you'll need to complete over 30 missions to reach one of four endings in the game.

Continuing the tie-in theme, *Aeon Flux* is a 3D action/adventure based on MTV's psychic spy cartoon. As the heroine Flux, you'll need to be a burglar, a saboteur and a pistol-packing acrobat in your fight to catch the Demiurge, a supernatural being with buckets of charm. Will you win through? You'll have to beat six missions to find out.

If all this sounds too gung-ho, you might prefer the CD-ROM puzzler, *Joe's Apartment*. Life is one long battle when you're responsible for an entire cockroach horde. With four types of beastie under your command – Brutes, Brains, Broadway Roaches and Breeders – you'll need to see off tenants, hungry babies and carnivorous plants.

Chart

Top Ten Selling PC CD-ROMs

(Position last month in brackets)

1	(1)	Duke Nukem 3D *US Gold*
2	(2)	Civilisation 2 *Microprose*
3	(3)	Command & Conquer *Virgin*
4	(7)	Warcraft 2 Expansion Kit *Blizzard/Zablac*
5	(6)	Worms *Ocean/Team 17*
6	(5)	Encarta 96 *Microsoft*
7	(4)	Theme Park *CD-ROM Classics*
8	(-)	Euro 96 *Gremlin Enteractive*
9	(14)	Fifa 96 *Electronic Arts*
10	(10)	Worms: Reinforcements *Ocean/Team 17*

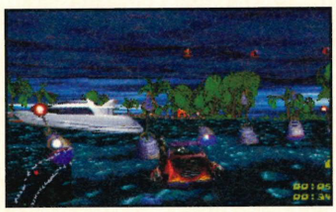
Tell it like it is!

Rolling out Telstar's next line-up

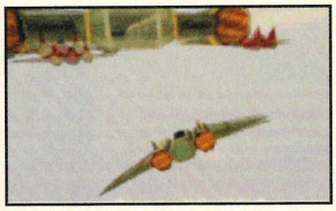
Telstar, the giant media conglomerate, is to muscle in on the PC games market. The group, which already includes the UK's largest independent record company, is hoping that nine imminent releases will steal territory from rivals and establish Telstar Electronic Studios as a major force in computer entertainment. The company's summer offensive takes in sports, racing and adventure games as well as a lively quartet of multimedia releases.

First up is *Speedrage*, an all-action racing game. Following in its wake is *Starfighter 3000*, a 3D space blaster. *Onside* will try to barge into the already crowded soccer market, offering both play and management options, while tennis fans can look forward to *Davis Cup Complete Tennis*, billed as 'the most realistic tennis game ever seen on a computer'. It features photo-realistic graphics and a choice of clay, concrete or grass playing surfaces, selected from 24 courts from around the world. Up to four can play at once with the split-screen option, and there's a plethora of players and styles to pick from. Meanwhile, on the point-and-click adventure front, *Fable* places the action in an attractive medieval fantasy world.

The four multimedia packages include *David Leadbetter's Simple Secrets for Great Golf*, health and diet tips from Gillian McKeith and *Pathe News*, an interactive news quiz. But perhaps the most interesting is *The Magician*. This CD stars magic man Keith Fields who promises to break open the secret world of the *Magic Circle*. Could you be the next Paul Daniels?



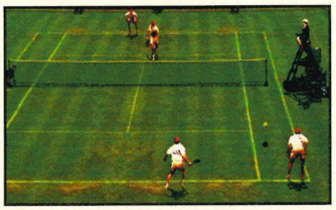
Speedrage. All-action racing.



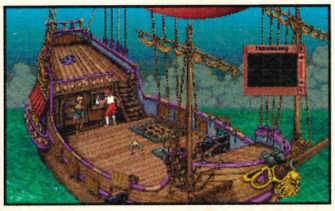
Space action in Starfighter 3000.



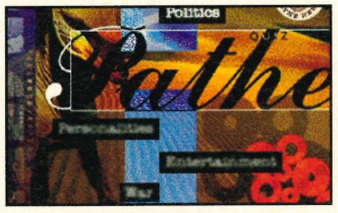
Offside enters a crowded market.



Davis Cup Tennis. Realism it its peak.



Fable – Telstar's attempt at adventure.



Try the Pathe News quiz.

Maths Power

Iterated win prestigious CeBit award

Iterated Systems this month became a finalist for best product in the Byte Best of CeBit Awards 96. The award was granted to its Fractal *Imager* program, which uses revolutionary fractal compression techniques to reduce the size of image files. Its use is primarily on the Internet, where Web page authors only have a limited amount of space in which to store their page graphics. Furthermore, because the images are so compact, phone transmission time is also greatly reduced. The system uses fractal mathematics to detect and store repeating patterns in a graphics file. A stand-alone version of their compression software is available from the company's Web site.

Homegrown security product impresses Motorola

Small UK software house Priority Data is today patting itself on the back following the adoption of its PD Secure program by major chip manufacturers Motorola.

The program is a TSR (terminate and stay resident) security system that provides boot protection, screen blanking and access control, however, unlike the programs that Motorola was already using, PD Secure only requires 6k of memory in order to work. Motorola is a major corporate user, to which security is paramount, so its use of the product is tantamount to a stamp of approval and will become a significant marketing tool for Priority Data. Motorola was particularly impressed by the company's eagerness to get feedback from its customers, and implement positive suggestions almost immediately.

NEWS CONTACTS

Adobe Systems - 0181 6064000
Autodesk - 01483 303322 - http://www.ktx.com
BAT Software - 0181-255 0307
Casio - 0181 450 9131
CH Products - 01844 345406 - http://www.chproducts.com
Cirrus Logic - 01727 872424 - http://www.cirrus.com
CMS Peripherals - 0171 704 0202
Creative Labs - 01734 344322
Demon Internet - 01306 732300
Epson UK - 01442 61144
Etron Technology - 01604 859326
Hewlett Packard - 0990 474747 - http://www.newsdesk.com
Iterated Systems - 01734 880261 - http://www.iterated.com
Matrox - 01793 441100 - http://www.matrox.com/mga
Maxtor - 01483 747356 - http://www.maxtor.com
Microsoft - 01734 270001
NEC - 0181 993 8111
Nikon - 0181 541 4440
Orchid Europe - 01256 479898
Priority Data - 0181 563 8940
Raydream Europe - 00 33 1 69 419722
Sicos - 00 353 1 456 9383 - http://www.sicos.com
TFPL Multimedia Ltd - 0171 251 5522 - http://www.tfpl.com
Turnpike Ltd - 01306 732300 - http://www.turnpike.com
Yamaha - 01908 366700 - http://www.cyber-bp.or.jp/yamaha/

The Works in Brief

- **It comes as little surprise to see that Turnpike Ltd has been swallowed up by Demon Internet. The company publishes Internet access software of which Demon has long been a fierce advocate.**

- **For a limited time, Maxtor is including a free CD containing Norton Utilities 8.0 with all its new 2Gb IDE hard drives.**

- **Adobe has outlined a comprehensive strategy for dramatically improving the experience of using the Internet. The company also resently demonstrated WebPresenter, a new presentation graphics technology.**

- **Sicos is soon to launch a compact scanner helping to enable automated desktop document management for under £130.**

- **The growth of CD-ROM software publishing has slowed down to less than 20% of last year's figures, according to a survey commissioned by TFPL multimedia.**

- **Dolby has just announced plans to bring surround sound to home PCs. The announcement is seen as another step towards Microsoft's vision of the PC as the centre of an all encompassing home entertainment system.**

- **Want longer lasting laser cartridges? RTI is proudly showing off statistics confirming that its new laser printer toner cartridges do indeed, last on average twice as long as standard cartridges with no visible decrease in print quality. Consequently, they use only half the toner, but are 10 per cent more pricey.**

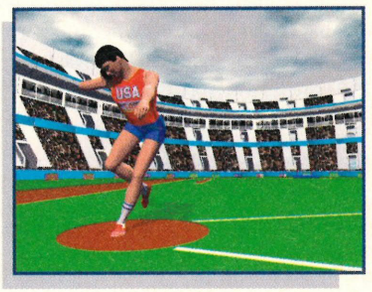
- **Cambridge Multimedia has just begun shipping the Video-CD Toolkit 2.0 from Philips. The software enables you to create your own Video CDs and interactive MPEG multimedia programs. You'll need a very serious PC to run it though. 16 Mb RAM and a 2Gb hard drive are part of the minimum spedification. Call 01638 743121 for further details.**

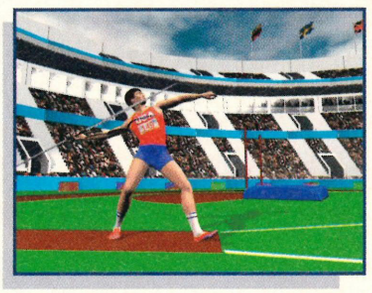
- **Following the lead of Hewlett Packard, Panasonic has just released its own new colour laser printer. With 600 DPI resolution, and output of 14 pages per minute, it's a powerful solution for businesses which need high volume colour documents without a lot of waiting.**

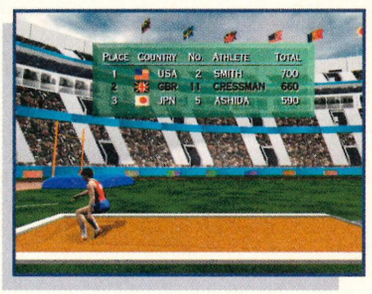
INTERACTIVE MAGIC PRESENTS

Daley Thompson's World Class DECATHLON

- Realistic simulation of the World Class Championship, bringing this year's Summer Games directly to each player
- Multiplayer action allows competition for up to 4 players
- Includes all ten Decathlon events: 100 metre sprint, Pole vault, Discus and many more!
- Practice mode enables players to hone their skills before the competition begins



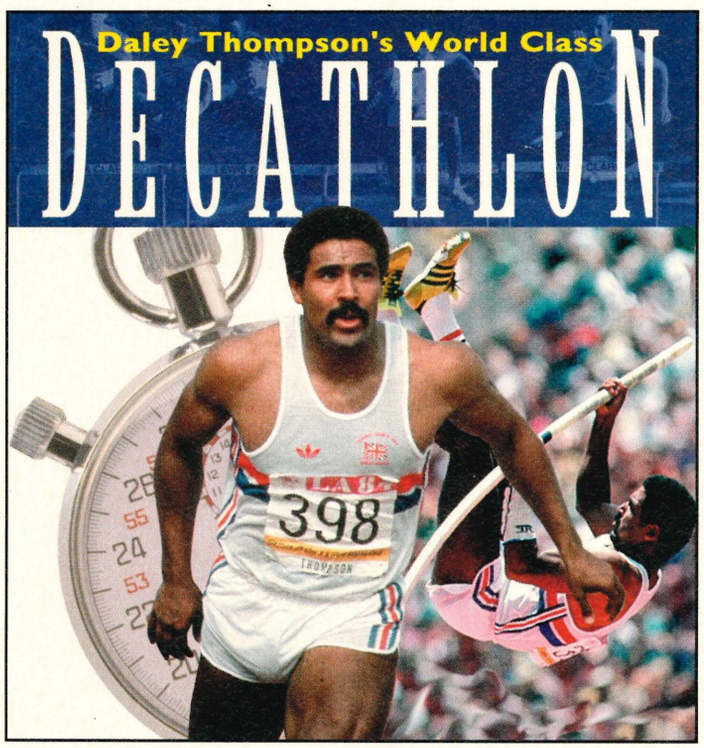




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CELEBRITY SQUARES

If you're talking PC, your career must be in trouble.

THE FUTURE OF INTERACTIVE MOVIES

Having played every interactive movie in the world, we feel qualified to speculate upon the future of the genre. What, you wonder, will the interactive movie of tomorrow look like? It will be like this.

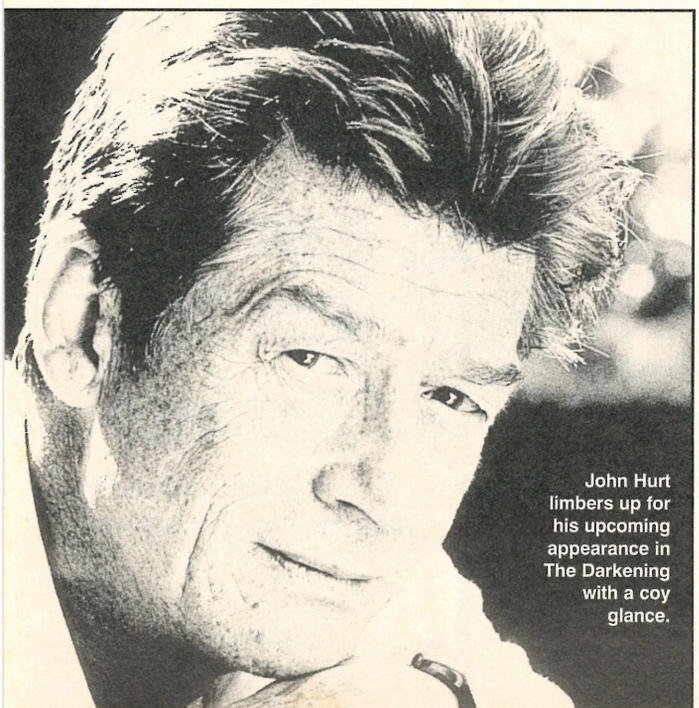
1. It will begin with a desperately contrived tie-in to a real film. ('From the executive producer of Judge Dredd,' for example.)
2. It will be set in the year 2094.
3. Someone will thump their fist on a tabletop.
4. Someone will hiss, "My God!" while looking not quite directly at the rendered special effect that has supposedly alarmed them.
5. John Rhys-Davies will be in it.
6. It will have 16 possible endings.
7. Someone will be killed, only to return as a cyberspace hologram.
8. There will be a puzzle where you have to rewire a circuit to open a door.
9. And one where you have to uncover a password by deciphering an elaborate pun.
10. It will come out on 672 CDs.
11. You'll need a PC more powerful than any existing at the time of its release to play it.
12. The score will be done by Danny Elfman.

Time was when a fading or cash-strapped star would appear decently but shamefaced in a made for TV movie. Now they pop up in games. And seem proud of it. Why?

Rubbish. That is the word for interactive movies. But that's not important right now – it's the stars who concern us. Film stars appear in interactive movies for the work. That's it. Find a star talking about the artistic involved challenge, or about how they want to look to the future, and you'll certainly be reading an interview promoting the game. Real writers and directors are conspicuously absent from the world of games that want to be films. And do you think they do it for the sake of their CVs? Well Ollie Reed turned down a part in *The Darkening*. Draw your own conclusions.

Okay, so who gets to be in an interactive movie? (Excluding the licences like the *Star Trek* games, but the original ones. The ones that all like to be billed as neo-noir-cyber-punk or something equally nonsensical.) Software companies don't want good chameleon-like character acting, they want big, broad, noticeable hey-it's-a-star acting. Ham, in Sunday roast proportions, is the order of the day. The softies want you to point and exclaim, "Merciful heavens – Christopher Walken. This game must be good," when, of course, it's merely a set of logic puzzles feebly disguised by some blurry, jerky video sequences. The stars provide a diversionary tactic – a glamorous sleight-of-hand digital trick. Would you play *Wing IV* without the movie bits? Of course not, because then it would be plain old *Wing I*, and that was foul.

Join us, then, as we pay tribute to the men and women who have risen to the giddy heights of movie stardom, then turned to blaze fresh trails in the world of hugely expensive computerised sliding-tile puzzles. Yee-haw.



John Hurt limbers up for his upcoming appearance in The Darkening with a coy glance.

CHRISTOPHER WALKEN

THE CAREER



Shortly after, the wardrobe assistant was found shot – three times in the head.

The extremely frightening Christopher Walken has starred in *The Anderson Tapes* (as a nutter), *At Close Range* (as a nutter), *Batman Returns* (as a nutter), *Biloxi Blues* (as a nutter), *Brainstorm* (as a nutter), *Comfort of Strangers* (as a nutter), *Communion* (as Whitley Strieber, a nutter), *The Dead Zone* (as a nutter), *The Dogs of War* (as a nutter), *Heaven's Gate* (as a nutter), *King of New York* (as a nutter), *Last Embrace* (as a nutter), *Pulp Fiction* (as a nutter), *Roseland* (as a nutter), *True Romance* (as a nutter), *A View To A Kill* (as a nutter) and *The Deer Hunter* (as an exemplary nutter). He is a nutter.

Best film moment: (As the nutter in *True Romance*, interrogating Dennis Hopper.) "I'm the Anti-Christ."

THE GAME

In *Ripper*, Christopher Walken plays a nutter in a terrible hat. He is Magnotta, a policeman investigating the Ripper murders who works on a computer slathered with blood and who may be the Ripper himself. (Or is he? Etc.) Mostly, he terrorises the cast and beats the Hell out of the player character because he is Christopher Walken. Such is his presence that even his embarrassing lines, plus the director's suggestion he stand there and wave his arm cannot diminish his nuttiness.

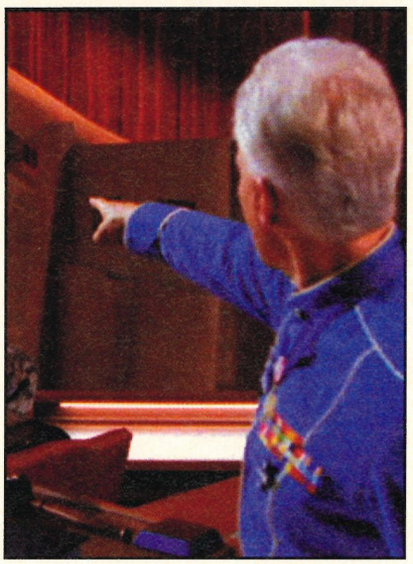
Best game moment: Touching your shoulder 'menacingly' and spitting out a few stoccato words after he catches you rifling through his desk. It's the pauses that really make it.

MALCOLM MCDOWELL

THE CAREER

Famous for his creepy performances in anti-everything films like *If*, *A Clockwork Orange*, *Aces High* and *Brittania Hospital*, Malcolm McDowell also appeared in big-budget comedies like *Royal Flash*, and charmingly eccentric movies like *Time After Time*, where as HG Wells he chases Jack the Ripper to 70s San Francisco. At some point he seemed to completely lose interest, and is nowadays a shock-haired madbloke villain-for-hire, appearing as exactly the same character in *Tank Girl* and Star *Trek 7*.

Best film moment: (To Otto Von Bismarck in *Royal Flash*.) "You're a foul-mouthed foreign dog!" (Thus directly causing World War I.)



"Officers, arrest that man!" (He points to avoid any confusion.)

THE GAME

In *Wing Commander IV*, Malcolm McDowell reprises his role as Admiral Tolwyn. He is a picture of quiet dignity. The worries of the age hang heavily upon him. Who is attacking Earth now the war is over? He tries to work up a righteous fury, but smiles sadly. He orders that Commander Blair be arrested, but apparently he has his reasons. He looks concerned as events spiral into another conflict. How surprising it is when he turns out to be the bad guy and commits suicide. What a crap plot.

Best game moment: (An expression of weary acceptance on his face.) "The price of freedom – is eternal vigilance." It's the game's ad line. See?

Mostly he terrorises the cast and beats the Hell out of the player character – because he is Christopher Walken.

MARK HAMILL

THE CAREER

Famous as Luke in *Star Wars*, Mark Hamill punctuated the sequels and appeared as the cheery blond bloke in *Corvette Summer* and the not-at-all cheery blond bloke in *The Big Red One*. A career crash of inattentive Korean airliner proportions seemed on the cards until he discovered comic book movies, playing Trickster in *The Flash*, and being astoundingly great as the voice of The Joker in *Batman: Mask of the Phantasm*. He was similarly splendid in the series.

Best film moment: (Whacking Batman over the head with a large spanner.) "Meanwhile, back at the wrench!"



Michael J Fox is the Mark Hamill of the '90s.

THE GAME

In part four of the consistently average *Wing Commander* series, Mark Hamill returns as Commander Blair, grimacing, snarling, shaking his fist, hitting people in bars and having slots of light fall across his narrowed eyes. A manly stubble spots his grimly thin cheeks. He is entirely unconvincing (as he was playing the identically tough though fully-bearded bounty hunter in *Slipstream*) because he still looks 23 years old, and we all know he's really Luke Skywalker and one of the nicest people in the galaxy. If only he were just a voiceover.

Best game moment: (Throttling a corrupt pilot.) "You son-of-a-bitch!" Cripes.

TIA CARRERE

THE CAREER



About to walk into an obvious trap. People in interactive movies are proven cretins.

Audiences worldwide were delighted to see new discovery Tia Carrere playing a guitar in *Wayne's World*. "Who is this new discovery Tia Carrere?" they asked. "And why are we delighted? She is exceptionally limp." And she was, going on to the comprehensively godawful *True Lies* as a villain who shoots almost everyone before falling about twelve feet off a bridge in a car. At least she could then be promoted in the *Daedalus Encounter* adverts as Tia '*Wayne's World*, *True Lies*' Carrere. Today, of course, she gets bit parts in TV, like her role as the ex-prostitute cum terrified house wife cum personal escort in the courtroom drama *Murder One*.

Best film moment: Suspensefully vanishing from *True Lies* after her feeble car crash. As a major villain in the film, surely she would without warning return at the end? No.

THE GAME

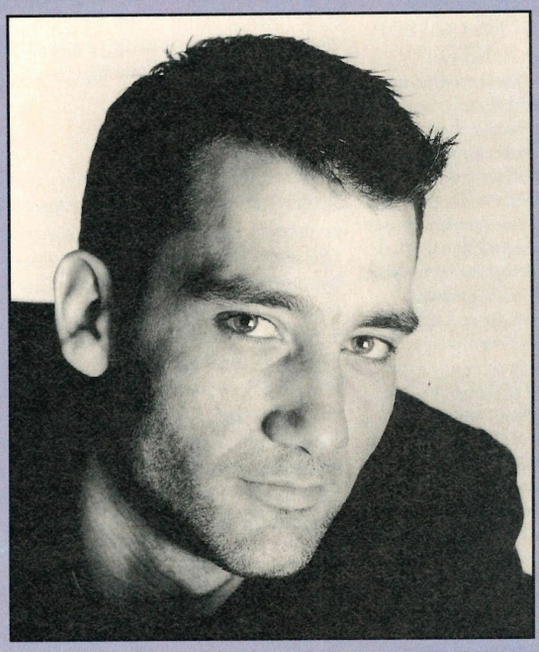
In *Daedalus Encounter*, Tia Carrere is Ari, a battle-hardened ex-marine turned salvage technician. It is clear she is a battle-hardened ex-marine by her wearing a remote camera pickup as they do in *Aliens*. But here it closely resembles a floor manager's headset, and she looks a fool. She is relentlessly chirpy. No matter how dangerous the situation, she is quickly ready with a zinging quip. Rapidly you come to wish her dead. So you kill her.

Best game moment: (After you've done something slightly wrong and been instantly thrown once more back to the main menu.) "Now we have to go back and start all over again." Cheers then.

Privateer: The Darkening

The great white hope of interactive movies, *The Darkening*, has yet to be released. Little is known of the game, although our attention has been enthusiastically directed by Electronic Arts to its large budget and a catalogue of stars that includes John Hurt and the magnificently loud and bearded Brian Blessed. Oh, and ITVs *Chancer*, Clive Owen, will be in it too.

The trailer was reasonably good, with lots of big things exploding impressively. Much is riding on its release – not least Barry Norman getting quite excited about it on Film 96. If the game is terrible, Barry will look like some kind of hasbeen prattling dullard hopelessly out of touch with the movies. Heaven forbid.



Clive Owen, star of Chancer. Perfect interactive movie fodder, he's also looking for work as a razor blade ad model. The best a man can get, without doubt.

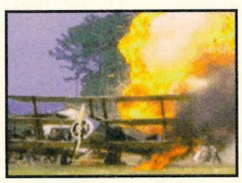
A good interactive movie

Quite a good interactive movie is *Wingnuts*, a World War I flying ace game with a cast so obscure they aren't credited. The game, an inexplicable blip from the reliably mediocre Rocket Science, is a simple but ingenious shoot-'em-up. A random film of a chased German plane is played. By controlling your erratic Lewis guns you attempt to shoot it down. It then peels away to dive out of the sun and pepper your tail. You must bank away in a safe direction. Both planes have energy bars, so the dogfight is decided on skill, and after two or three opponents you attack the mission's main objective – a supply bridge, a Zeppelin, etc. The film sections are perfectly complementary, with fat generals in spiked helmets laughing in Prussian as they bomb large barns, and square-jawed Allied pilots playing darts in the mess. Clearly Rocket Science set out to have a bit of fun, with the result that *Wingnuts* is exactly that. You will note *Wingnuts* is not set in the future and contains no puzzles.

And some distinctly average ones too



"My God, we're in the alien toilet."



Wing Nuts. A good to average game (see right).



Do not use James Coburn for investment advice.



Could those switches be a logic puzzle? Of course.



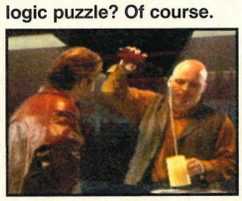
Readers. Do not go to Tim Curry for surgury.



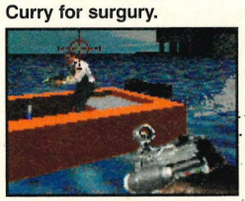
Burgess remembers the days when he was in tat.



This pathologist doesn't eat in the autopsy room.



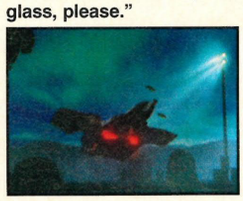
"A lemonade. In a dirty glass, please."



Hey this uses the same engine as Duke Nukem.



Why not go away and make a proper film? Then someone could make a proper game.



Blue sky at night – pointless effects sequence.

GRACE JONES



You run Hell by typing 'heck'. Obviously to avoid causing offence.

STAR TURN (WITH GRAEME GARDEN)

If software companies are to electro-shock interactive movies out of their current paralysis, they would be advised to use stars in a sensible manner. Proper films tend to use actors who suit the material. A comedy adventure game, for example, would benefit significantly from using the cast of Carry On. (Their depleted ranks would not matter; you'd merely set the game in cyberspace and reanimate everyone as holograms.) Rather than using no-name extras for their Rebel Assault and X-Wing games, LucasArts could employ Mark Hamill. And seeing as how Doom was inspired by the movie Evil Dead II, Id could have Bruce Campbell play Ash shotgunning his way through expensively rendered tunnels in Doom: The Interactive Movie. That would be great! Except you'd play by clicking a direction at junctions, clicking 'Attack' or 'Flee' when you met a monster, and opening doors by solving rewire-the-circuits puzzles.

THE CAREER

Famous as a strikingly odd singer, Grace Jones made some strikingly odd music videos before moving up to the strikingly odd college/vampire/zombie film, *Vamp* (inspirationally cast as the entirely silent vampire queen) and the strikingly crap Bond movie *A View To A Kill*. Throwing people off the Eiffel Tower, looking tall at a garden party and strangling Patrick Macnee, she was the best thing in this last Roger Moore episode and might actually have made a better Bond.

Best film moment: Raising a skeletal finger tauntingly after she is disintegrated by sunlight in *Vamp*.

THE GAME

In *Hell*, Jones is androgynous Imperator Solene Solux, powerful political leader and possibly Satan in disguise. It's a voiceover role, except that the artists have drawn Imperator Solux to look a bit like Grace Jones. Cleverly matching the rendered sprite, she delivers her lines in a shouted monotone, becoming immediately tiresome. Where the producers fell down was in giving her any dialogue at all. At least none of her songs is coincidentally playing in the bar.

Best game moment: (Dressing-down a failed subordinate.) "You disgust me. Pistol-whipped like a coward."

DENNIS HOPPER

THE CAREER

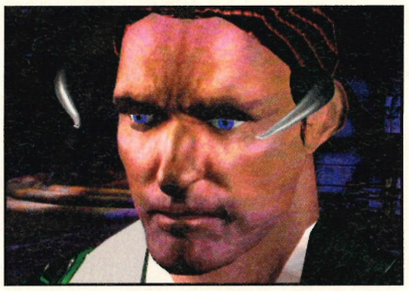
Famous for taking enormous quantities of drugs, and playing characters who have taken enormous quantities of drugs in films like *Easy Rider* and *Apocalypse Now*, Dennis Hopper has made a name as a director while paying the bills with parts like King Koopa in *Super Mario Bros*. His off-the-peg madbloke villain for hire (mostly to save desperately weak movies such as *Waterworld*) competes directly with Malcolm McDowell's. Experts are unsure who got there first.

Best film moment: Pawing eerily at Isabella Rossellini in *Blue Velvet* while sucking pure oxygen from a hand-held canister. Potty.

THE GAME

In *Hell*, Dennis Hopper is paying the bills as Mr Beautiful, a crime lord who is also a demon with plans to take over the hierarchy of Hell. Similarly to Grace Jones's, his is a voiceover role, hampered by bad dialogue intended to give the impression of taking enormous quantities of drugs by using the word 'man' a lot. In this abysmal disappointing game Hopper is reading his lines rather than performing. He squelches dully through the dialogue and a lack of interest is painfully evident throughout.

Best game moment: (Describing the political in-fighting in Hell.) "I got enemies on every front and on two different planes of existence." Man.



The glazed expression suits Dennis Hopper's performance to a tee.

WILLIAM SHATNER

THE CAREER

Famous as the portly adolescent in *Star Trek*, Shatner actually started out as a stage actor before essaying Kirk in the TV series, the films, and, to save time, in *TJ Hooker*. He has never made a good film, the man-trapped-in-a-van movie *Kidnapping Of The President* being an excellent example. He has just written a book explaining that Kirk didn't die in *Star Trek 7: Generations* after all.

Best film moment: Opens a door in Airplane II.

THE GAME

In *Tek War* Shatner is Walter Bascomb, a cop dedicated to stamping out tek (a drug far removed from today's crack, eh?) by sending you out to shoot lots of people in a game of startling ineptitude. He appears only between missions to appraise your play, which he does in the Kirk-approved manner of raising his eyebrows and holding out his hands imploringly. Hey no wrinkles.

Best game moment: (Having warned the player against tek.) "Prepare to witness the technology of the future. Today."

BURGESS MEREDITH

THE CAREER

Famous as The Penguin in the 60s Batman series, Burgess has starred in a raft of bad films including *Rocky*, *Rocky 2*, *Rocky 3* (where he died), *Rocky 5* and *Batman The Movie*. His best appearance was in *The Twilight Zone*, where he played a librarian forever being hassled by his boss for reading the books. Emerging from a cataloguing session, he finds a nuclear war has destroyed mankind. Plenty of time to catch up on his reading but he breaks his glasses.

Best film moment: (Stumbling over the rubble.) "My glasses, my glasses, I've lost my glasses."

THE GAME

In *Ripper*, Burgess Meredith is a computer genius. He has a silly beard and wire-rimmed spectacles. He spits his words and hunches his shoulders. He becomes pantomimically angry, but then looks wise and beneficent. Later he is murdered and returns in cyberspace. (Or does he? Or is it his twin brother? Or did he fake his own death and is really the Ripper? Etc.)

Best game moment: Wobbling around like an old man in a background, just after he's through his first mad speech.

TIM CURRY

THE CAREER

Famous as one of the innumerable transvestites in the *Rocky Horror Picture Show*, Tim Curry plays nothing but zany villains or zany sidekicks, although he did appear as a zany villainous sidekick to William Shatner in *National Lampoon's Loaded Weapon*, a film amply demonstrating the William Shatner Has Never Been in a Good Movie rule. In the universally derided but actually smashing *Clue*, Tim is the butler to victim Mr Boddy, whom everyone in the film has a motive for murdering. Tim is, of course, zany, and, depending on which of the three endings you see, a villain.

Best film moment: (With actions.) "The murderer picked up the knife – ran down the hall – killed the cook!"

THE GAME

In the bravely Victorian *Frankenstein: Through the Eyes of the Monster*, Tim Curry is Baron Frankenstein. He is refreshingly restrained (which presumably frightened the life out of the producers) and plays the baron as a sort of oily public school chum, egging you on but making things difficult for the Hell of it. To compensate for his relatively gimmick-free slitheriness (or possibly to save on sets) the producers have him pop up unexpectedly from behind banks of equipment or lean in suddenly from the side of the screen. Unusually for the Monster, you're not allowed to try choking him.

Best game moment: (Raising his voice.) "Modesty be damned – I am a genius!"

JAMES COBURN

THE CAREER

Famous as the one with the knife in *The Magnificent Seven*, James Coburn was cool in the 60s, cinematically dead in the 70s, and now once again cool by virtue of not being really dead. Respect must be paid to a man who can remain stylish in a film like *Young Guns II*. He has officially the biggest teeth of any living actor. His characters are always extremely cunning, and are usually either cowboys or secret agents.

Best film moment: (On manoeuvring four people into killing each other in *The Internecine Project* to protect his political career.) "Well, all right, if you insist."

THE GAME

In *A-IV Networks*, James Coburn is Dwight Owen Barnes, president of a sinister mega-global corporation. This supra-company is in trouble, and at a critical moment, Dwight is kidnapped. You are plucked from the streets and left in charge – a *Hudsucker Proxy*-ish ruse to introduce a *Sim City* clone. But what of Dwight? His abduction, too, is a ruse, to throw off rival investors, or something. He appears periodically to offer assistance, and is James Coburn – but in a small window on your PC. Possibly he is also a secret agent.

Best game moment: Being upfront enough to confess in a press interview "I don't know anything about this game." ***(Dugan)***

NERVE JANGLIN' HAIR RAISIN' MIND BLOWING' MEGA THRILLIN' HEART STOPPIN' EYE POPPIN'

SPEEDRAGE

THE ULTIMATE MULTI-PLAYER RACING FRENZY



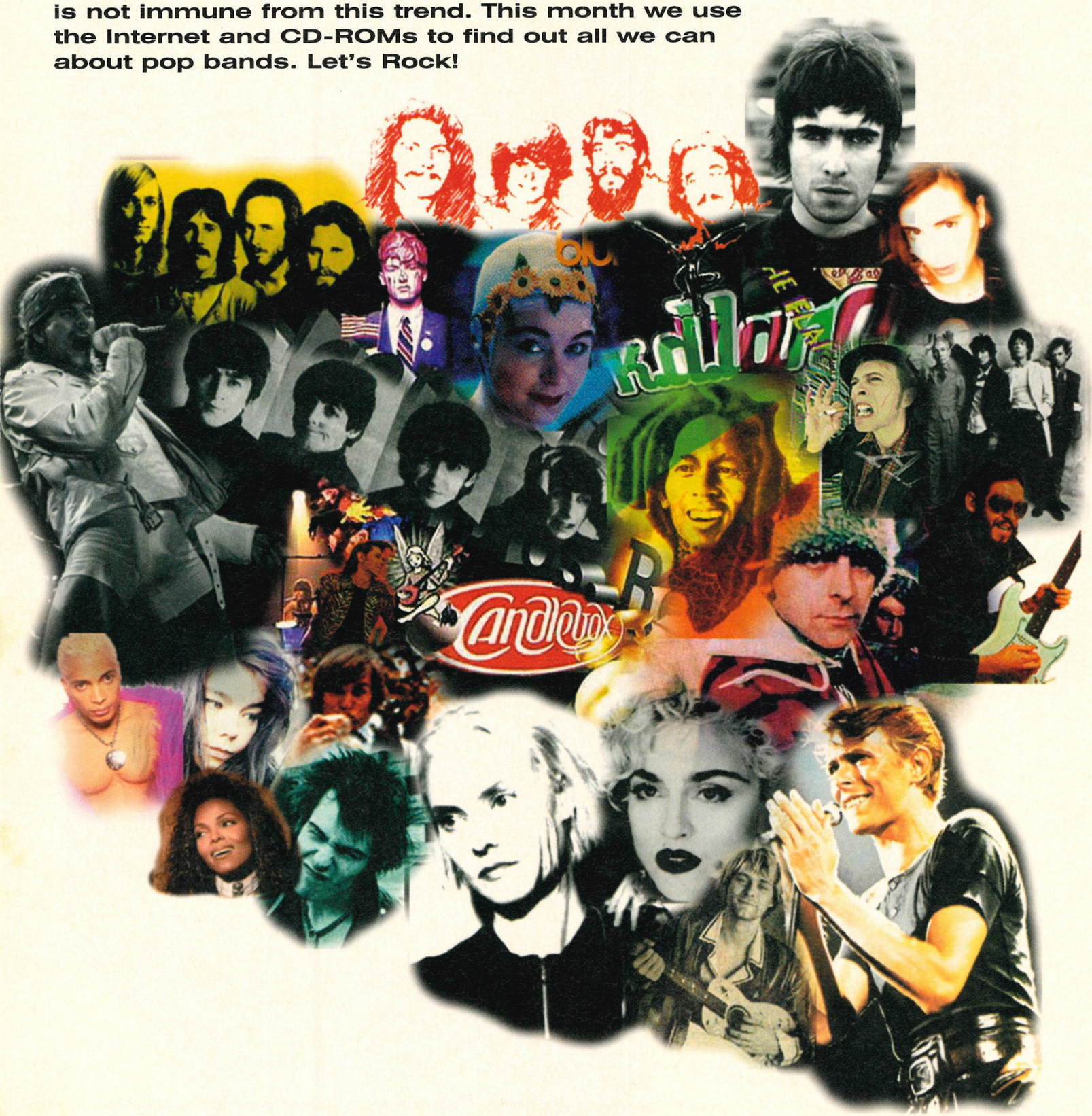
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EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT...

YOUR FAVOURITE BAND

Digital media is taking over and the music world is not immune from this trend. This month we use the Internet and CD-ROMs to find out all we can about pop bands. Let's Rock!



Music might be about harmony and unity but, paradoxically, listening to the bands we choose to listen to is a great source of self expression and individuality. This can result in all kinds of conflicts between friends and neighbours, but hey, it's the price you pay for being who you are.

Alongside the music itself, when you're into a particular band these days you'll get the videos, t-shirts, books and posters displaying your audio heroes in all their rockin' glory. With the advent of CD-ROM and the Internet, its only natural that musicians, many of whom use computers to make their music, should use digital media to market their wares and make contact with their fans. Theoretically, the Internet provides numerous channels through which music lovers can share their commonality. Meanwhile, CD-ROMs can prove useful archives of music, biographical information, reviews, trivia and so on, which only true fans can appreciate.

Digitally remastered for the 90s

Unfortunately, the practice isn't so perfect as the theory would suggest, particularly on the CD-ROM front. Unless you're a fan of rock dinosaurs like Bowie, Dylan, the Stones or Yes, you're not likely to find a CD-ROM by the band you like. Having said that, you'll increasingly come across things like the Cranberries *Doors and Windows* over the next 18 months or so. Produced in the CD Enhanced format, this is an audio EP with a multimedia section for your PC. It includes videos, lyrics and notes on the people in the band. Go ahead – wail with the Irish.

Pop lovers in general might appreciate something like the *MTV Unplugged* CD-ROM which features video clips and music by some 70 bands which have appeared on the show including REM, Nirvana and Lennie Kravitz. Despite the big name pull, it's nothing special, nor is it particularly informative.

For more info and a much broader span of musical tastes, the only truly recommendable CD is *Music Central* from Microsoft. This is an extremely thorough reference disc. Nearly 30,000 bands or artists and 80,000 albums have entries – the more important or prolific the musician, the more information there is on offer. Biographies, discographies and reviews are the mainstay of the disc, though there are photos and videos of big performers like Bowie and the Beach Boys. The accuracy and detail is impressive, rivalling the quality of information presented by most Web sites devoted to top bands. Did you know, for instance, that ABBA is an acronym made from the group's four main members, Agnetha, Benny, Bjorn and Anni-Frid? Were you aware that Ace Frehley left Kiss in 1981 to launch a hard rock band called Frehley's Comet? Just a couple of the facts *Music Central* will leave you with. If don't have Internet, we recommend *Music Central*. It's good for browsing, and great for research. Even if you are on the Web, we recommend it – it's updateable through Microsoft's *Music Central* Internet site.

Finding information on your favourite band on the Web isn't always as straight forward as it would seem. Type 'The Doors' into your search engine and you're likely to find Web pages like *Horses and Barn Doors* or *Automated Doors: Toward Universal Design*. Enter 'Oasis' and the only musical thing you'll be offered will be *Lawrence Welk's Desert Oasis*.

Ultimate Bands List

The Internet resource closest to *Music Central* is actually a links site called the *Ultimate Bands List*. This site has no content of its own, but instead it catalogues a huge number of band-devoted Web sites and newsgroups. Bookmark it.

Finding routes to sites on your favourite band is only half the battle, however. After all, Yahoo lists some 12,000 artists. The problem is that a large number of Web sites don't actually tell you much about the bands themselves. Many are of them take an 'I first got into [insert band name] back in 94 and they really blew my mind' approach. Pictures, a few track listings, some lyrics and maybe a WAV sound file are the general fare, along with heaps more links to similar sites.

Degrees of sadness can't be guaranteed, but statements like the following from a Jane's Addiction Web site are common. "Jane's Addiction's funky, pained… tunes have inspired me as they helped me access my rage. I was listening to nothing's shocking when I shaved my head, and during Lollapalooza 91 I was restrained by security guards." Shaved head! Restrained! Oh boy.

The best sites are always the ones with something real to say – real information to convey. Often, these by the bands themselves, or their record companies. *Warner*



His CD-ROM was excremental rather the experimental. Themed on his Outside album, however, Bowie's Web site is interesting and impressive.



The Beach Boys have been criticised for never quite catching up with the hippy movement, but their tunes make for great summer listening. This collage is the interface at Surf's Up Mmm.

CD-ROMs

David Bowie: Jump
£30 BMG Interactive
0171 873 8236

The Cranberries: Doors and Windows
£19.99 Philips
0171 911 3000

Bob Dylan: Highway 61
£40 Wiener Interactive
0181 954 8777

MTV Unplugged
£25 CIC/Viacom
0181 848 9433

Music Central
£40 Microsoft
0345 002000

Rolling Stones: Voodoo Lounge
£29.99 VIE
0171 368 2255

Sting: All This Time
£39.99 Philips
0171 911 3000

Web Sites

Beach Boys Surf's Up
http://www.st.rim.or.jp/~mono/index2.html

Black Sabbath
http://www.apogee1.com/sabbath/sabbath.htm

Blur
http://www.parlophone.co.uk/blur/

Internet Beatles Album
http://www.primenet.com/~dhaber/beatles.html

Dukes of Hazzard
http://www.ghgcorp.com/rbigoness/hazzard.html

KISS
http://www.wku.edu/www/kiss.html

Kraftwerk
http://wwwtdb.cs.umu.se/~dvlawm/kraftwerk.html

Lupo's Punx Page
http://home.earthlink.net/~crash/

Aimee Mann
http://www.sky.net/~btcreel/aimeehg.htm

Rockhall.com
http://www.rockhall.com/index.html

Similarities Engine
http://www.ari.net/se/

Sony
http://www.music.sony.com/Music/index.html

TRiP: Goa Trance
http://www.riviera.com/trip/

Ultimate Bands List
http://american.recordings.com/wwwofmusic/ubl/ubl.shtml

Underworld
http://www.fas.harvard.edu/~tremblay/main.html

Warner Bros. Records
http://www.wbr.com/

YPN Music
http://www.ypn.com/music/index.html

Newsgroups

About 300 fav band newsgroups can be found under alt.music and rec.music.



Okay, let's say you've just heard of a band, and you want some suggestions as to other groups which play similar music. In that case, what you need is the Similarities Engine, an interesting Web site designed to assist you in tracking down music to your tastes. Some 18,000 bands are currently listed at the site. All you have to do is select your favourite and snap, crackle, pop, the SE will pump out a short list of bands, each rated as to its similarity to your original choice. So, if you were to pick Eno, Brian, the Similarities Engine would suggest you check out Wire, Stravinsky, King Crimson and XTC, as well as the more predictable David Bowie, Robert Fripp and Talking Heads. Go for Adams, Bryan on the other hand, and the recommendations include Bon Jovi, Bruce Springsteen and Meatloaf. You'll can log onto the Similarities Engine at:
http://www.ari.net/se/

Bros. Records, though it doesn't look great at first, has good pages for most of its performers. The Madonna section, for instance, features clips from about a dozen songs, photos of the lady at various stages in her career and quotes by her. There's also the invitation to email her. Hmm.

Elvis Costello and Joy Division are more simply but still competently presented at Warner Bros. Both afford biographies and photos, though *Music Central*'s entries on them are just as good, if not better.

The company route

Following the record company route, you might also try *Sony Music Online*, which looks good with it's cyberhand motif. Some of the featured artists have interesting pages with plenty of images, while others only get short text blabs. Furthermore, many sites by record companies, though slicker than fan sites, are geared to promoting and selling the bands as much as to conveying facts. There's usually a Merchandise button somewhere. Links to over 200 record companies can be found at the *YPN* music pages.

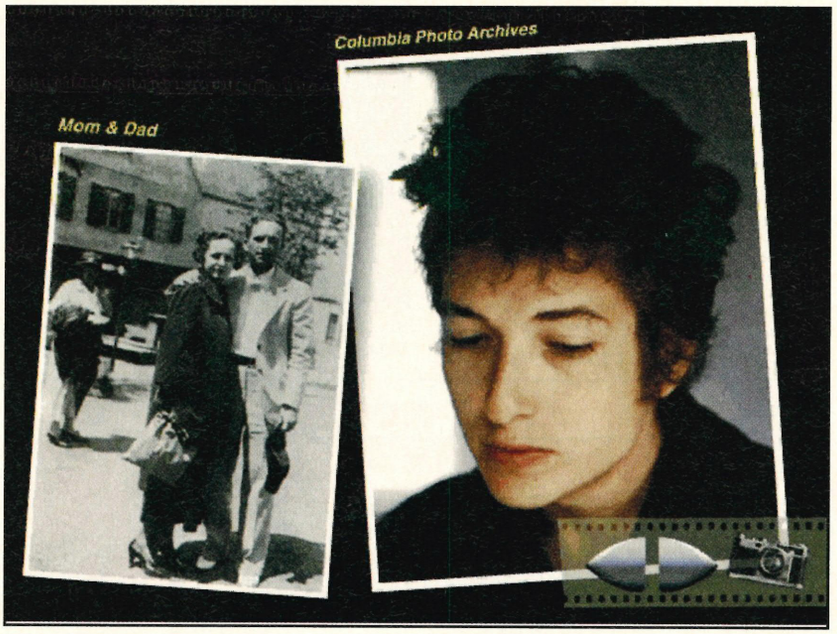
Still, we're not saying fans don't do good Web sites. *The Beatles Internet Album* is a good one, as is one of the best Fab Four sites around, and although written in stilted English, *Surf's Up Mmm* (about the Beach Boys) rivals most record company sites for raw information. Both are nostalgic, which is fitting. Pity the Black Sabbath site isn't a bit more retrospective though. Unfortunately for everyone but BS fans, the band is still going, and this site claims to represent the (nearly) living version of the group, refusing to see the fact that Sabbath's greatest days were when Ozzy was stomping about screaming: "I AM IRON MAN!"

The above are some of the greatest rock bands ever, and if you're into the rockumentary thing, the *Rock n Roll Hall of Fame* is a necessary stop. It's 'the house that rock built' according to the blurb, and contains reams of rock history. Not bad stuff, really.

Narrow rock down to just punk, and the proper pierced-nose page to peruse is *Lupo's Punx Page*. Yes, it's links, but these links are more comprehensive than most. Scoot off to sites on lovelies such as Exit Wound, The Pee Tanks and Spackle.

But strangely named bands aren't the only musical findings on the Net. The Ravey Davey Graveys of the world form strong contingent of Web friends. TRiP, is one example of a site where numerous hands-in-the-air types communicate – in this case on the topic of Goa Trance. "Goa Trance is a style of psychadelic trance music, originated in Goa but now played all over the world. Spread by travellers, it is one of the most cosmopolitan genres of dance music and is also currently perhaps the most open and attitudeless," we're told. This is accompanied by background details on Trance events and reviews of various sound systems like the Green Nuns of the Revolution.

We couldn't mention every band given the digital age treatment, but hopefully we've given you a few leads. These media never really rock, and your best stop for music will probably always be a record shop. ***(GW)***



Bob Dylan is one of several aging rock hereos to be 'digitally remastered' on CD-ROM. See our review of Sting's disc on page 79.

PC Review sound system



On the editor's orders, we do love this Underworld site. There's a history of the band, lyrics, huge discography and it's got some nifty looking Tomato-style animated images too. Yes.



Aimee Mann. Someone around here has a soft spot for the former 'Til Tuesday lass. No wonder since "...she seems to effortlessly fuse sharp wit, clever arrangements and honest emotion to create superior pop music." We'll buy that for a dollar at this fully Netscape Navigator 2 compatible site.



Dukes of Hazzard. Regular readers will no doubt have expected this. The Dukes return to give us the full, downloadable theme tune from the show, as performed by the country star Waylon Jennings.



They rock. There's no two ways about it. And while this site isn't that impressive, it's a necessary stop for any member of the Kiss Army. Too bad it lacks that natural capacity for excess that was Kiss. Did you know Gene Symons is married with kids?

OUT NOW ON PC CD ROM

BATTLE ARENA TOSHINDEN

Consider this your *personal invitation!*



The only tournament-style fighting game that features true 3-D, 360 degree rotation



Now your PC has come of age as one of the best fight games ever is now available for PC CD ROM.

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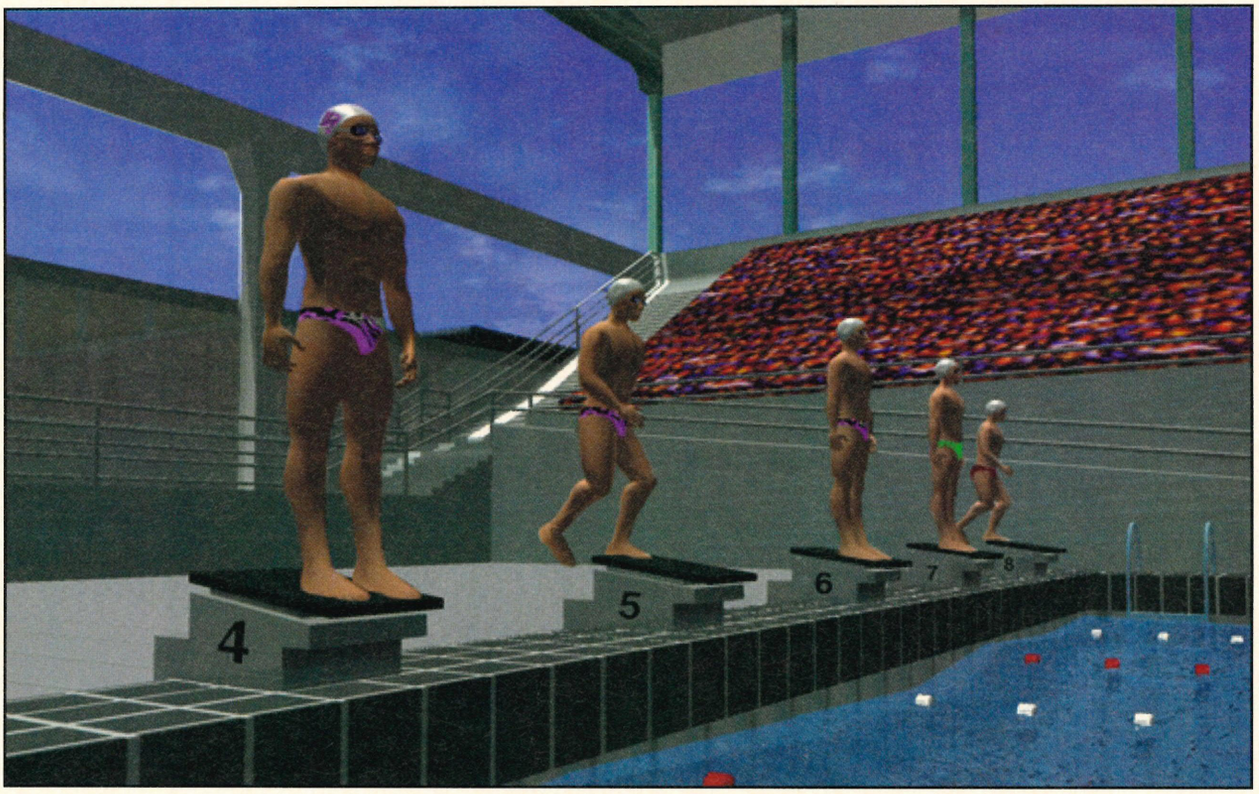
Battle Arena Toshinden and its characters are trademarks of Takara, Co. Ltd. © Takara Co., Ltd. 1996. All rights reserved. MS-DOS version reprogrammed by Digital Dialect. ©1996 Digital Dialect. All Rights Reserved. Screenshots are from PC version.

The 1996 Olympics: The Facts

This year's Olympics is set to take place in Atlanta starting on July 19th. Over 10,000 athletes will take part, representing 196 nations in the two weeks of competition. More than 270 events will be broadcast on TV. Over 3,000 hours worth of coverage will go out in total. It's expected that the cumulative audience will total 35 billion people. That's more than watched the final episode in season two of the X-Files.

Silicon Dreams

US Gold has a long history of using independent programming teams to produce its games, but in 1994 this strategy changed. A desire to run an in-house development team led to the birth of Silicon Dreams, located in Banbury. Having cut its teeth on Fever Pitch, the Silicon Dreams team has spent the best part of the last two years working on its first 32-bit titles, Olympic Games and Olympic Soccer. More titles are, as they say, in the pipeline.



OLYMPIAN

The making of: Olympic Games

US Gold is a past master of officially endorsed track and field games, but its latest – produced by Silicon Dreams – is the most impressive yet.

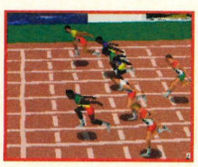
Just new sports events seem to reach wider audiences and impact upon new areas of media, so PC sports games are pushing back the boundaries at a frightening rate. We've gone from overhead views of stickmen to 3D sports sensations in the space of a couple of years. And while US Gold is again the publisher of the official Olympics game, there's nothing retro about *Olympic Games*. This is Atlanta 96 in the graphical style of *Virtua Fighter*!

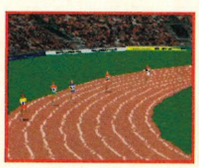
The most surprising thing is that behind the swooping camera views and polygonal athletes, *Olympic Games* plays very much like US Gold's old *Summer* and *Winter Games* titles for the Commodore 64, along with *Hypersports*, and the mother of all Olympics coin-ops, *Track & Field*. The visuals here may be thoroughly cinematic, true 3D affairs, but there's much button thumping to be done – the alternate bashing of two keys providing the simulation of rhythm and speed in many events. "Nobody here has broken a single joypad playing the game, though" stresses US Gold's Steve Starvis.

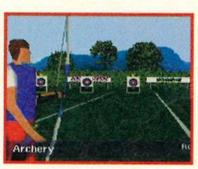
Nearly two years in development at the Oxfordshire office of US Gold's Silicon Dreams development team, *Olympic Games* looks anything but a quick cash-in. Just because it's officially licensed that doesn't mean gameplay takes a backseat. "This is a game first and foremost, so playability is given priority over realism," stresses lead programmer Gavin Ashdown.

There are 15 events included from the button-bashing frenzy of the 100 metres, through a nifty fencing session, and on to field events like the discus. You can play in arcade mode, where you get three lives, select specific of events in challenge mode, or play right through in olympic mode. An alternative, reaction-based control system is offered, though the heated old-school option is favoured by the Silicon Dreams team.

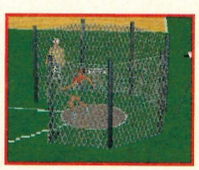
Fluid animation, produced by a blend of


Go Linford.


Go Sally.



Go archer bloke.


Go hammer man.


Go fencer.


Go, big guy.


Go jumper.

The Silicon Dream team

Situated in the pleasant environs of Banbury, Silicon Dreams is US Gold's British development outfit. Meet the gang charged with the duty of making Olympic Soccer and Olympic Games into something decent.


John Hancock.


Andrew Hersee.


Bob and Mark.


Max Little.


Jeremy Sherlock.


Clare Warne.


Dave Cullinane.


Giles Park.

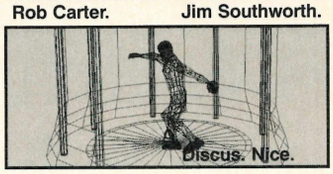

Rob Carter.

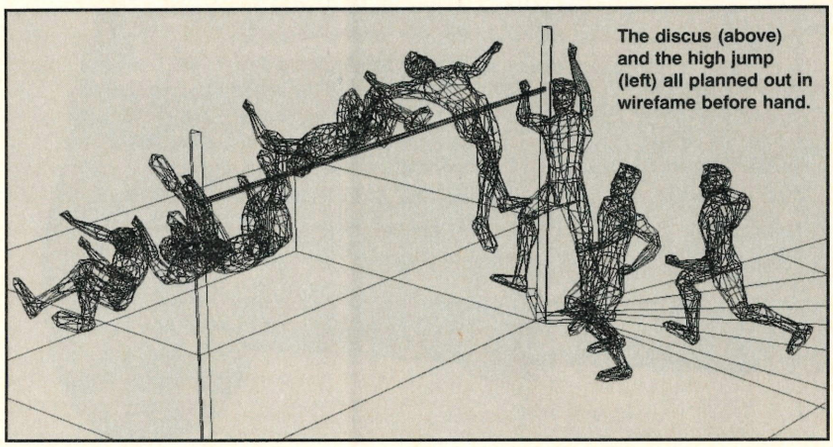

Jim Southworth.


Gary Edwards.


Andy Debus.


Matt Pearson.


Discus. Nice.


The discus (above) and the high jump (left) all planned out in wireframe before hand.

motion capture and hand animation gives the athletes real grace, enhanced by moving camera views. "The visual side definitely came first, particularly because the 3D engine was already complete," admits lead artist Andy Debus.

The fact that the team are keen fans of the Olympics games of yore hasn't harmed any either. "*Track & Field* is definitely our favourite," says Andy. "It's the all-time great; although *Daley Thompson's Decathlon* on the Spectrum was excellent, too."

It's going to be the multi-player side to *Olympic Games* which really gels best – the different events making it necessary to master several skills. The quick fire action of the target range and the timing required by the pole vault is just one of the contrasts. Originally, the Olympics committee wanted an outlandish 50 events featured. "In the end they agreed to 15," says Gavin. "We simply picked the best ones from the original list. Things like cycling and the equestrian events were dropped."

"The original game code was ported over from the Playstation," says programmer Ramo. "Then it's a matter of tweaking it for the PC - the only real difference is in the reduced colour palette. If we get time we are thinking about included a 15-bit colour mode as well as the standard 256 colour one.

"The fact is that, because of the extra memory, the PC can handle the data better," continues Ramo. "This means that some of the events will be smoother than on the Playstation version. Plus, the 3D will look better - the PC one doesn't have texture warping like on all Playstation games."

Sound should be equally impressive, with commentary from Radio 5's Alan Green. Green is primarily known as a footy commentator (he's in *Olympic Soccer* too), but because of his radio background he brings an authentic air to the voiceover work here.

Finally, there's the multi-player option. There are no plans for machine link-ups, but how many players will be able to compete hasn't been decided. There's talk of catering for up to eight players, though quite how eight people will fit round a PC, six of them using the keyboard, is anybody's guess.

Certainly in terms of the way *Olympic Games* implements the various sporting events, there are few surprises. The Silicon Dreams team are more concerned with getting the playability right than discovering some new fangled alternative to the classic *Track & Field* game style. But it's the spectacle which really impresses. Just the like the real Olympics, in fact. ***(MR)***

Olympic Soccer

The soccer side of the Olympics may not have the same profile as the Euro 96, but that hasn't stopped US Gold pitching in with an impressive 3D footy game...

It looks like soccer, it sounds like soccer, but does it play like soccer? This is the problem facing the current crop of football sims. Even *FIFA* and *Actua Soccer* are rather better at capturing the look than the feel of the sport. That's why so many people still prefer *Sensible Soccer*.

Rather than looking to the competition Silicon Dreams is working from the ground up. "The starting point was the team strategies," explains lead programmer Giles Park. "We didn't just want the whole team to chase after the ball like a heard of cattle, as you see in some football simulations. Here, better teams contain more intelligent players, man-to-man markers, ones who will pass over greater distances, that sort of thing."

With the graphics, fluidity is again paramount, so the players are drawn using a relatively modest 130 polygons, using only a limited amount of texturing for detail. In play it's the way the players move that really matters, though. And most of the workable camera views don't have the footballers filling the entire screen anyway. Like *Olympic Games* the Playstation version is already complete, though the PC one isn't far behind. A 640x480 SVGA mode will, naturally, be available.





Have a look at these impressive high resolution preview shots of Olympic Soccer. Could it be a Euro 96 beater? Find out soon.

Next Month

CD Review will be bringing you the world exclusive Olympic Games playable demo. It will feature the rapid fire pistol shooting and 100 metres dash.

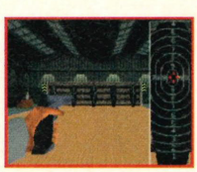
Release info

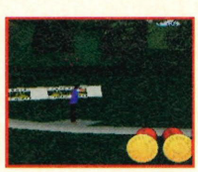
Olympic Games will be released in July by US Gold, priced £39.99.

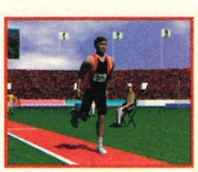
Olympic Games plays very much like US Gold's old Summer and Winter Games along with Hypersports and the mother of all Olympics coin-ops, Track & Field.

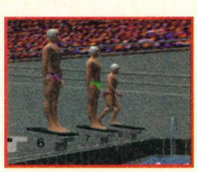

Go Steve.

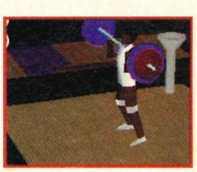

Go Jonathan.


Go pistoller.


Go, man. Just go.

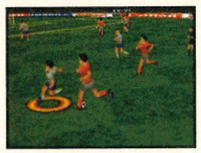

Go jumper.


Go swimmers.


Heavy.

Win a CAR!







Future Publishing has teamed up with Gremlin Interactive to bring you the compo of the year. Thanks to the nifty ads in *Euro 96*, Vauxhall is offering the chance to win a limited edition Vauxhall Coras Premier, worth over £7,750. Quite a nice little runner we're sure you'll agree.

But there's plenty more prizes going for the semi-finalists, quarter-finalists etc. How about an official Umbro England kit, signed by Barry Davies? Or perhaps a 50 lucky winners getting copies of Gremlins *Euro 96* game? Even the runners up get top game giveaways, 50 copies each of top Gremlin games, *Normality*, *Fatal Racing* and *Slipstream*. That's a total value of £9,000 worth of games. Nice!

All you have to do is answer the questions below and get your entry in to us. Fate will take care of the rest.

THOSE PRIZES AGAIN

1st Prize: Special Edition Vauxhall Corsa Premier 1.2 (3 door, worth £7,750)
2nd prize: Official England Umbro kit, signed by Match of the Days Barry Davies
3rd prizes: 50 copies of Gremlins Euro '96 game. One game per winner.
Runner-up prizes: 150 copies of Gremlin games (50 each of Normality, Fatal Racing and Slip Stream). One game per winner. The total value of these games is £9000.

HOW TO ENTER?

Answer the questions below, ticking the boxes on the coupon provided. Pop it or a photocopy into an envelope and send your entries to: Euro 96 Competition, PO Box 700, Wellingborough, Northants, NN8 ICL Closing date for entries is 15th August 1996.

Why not ring through your entry? Call our competition line on: 0891 155578 All calls charged at 39p per minute cheap rate and 49p per minute at all other times.

Questions:

Q1 Who are the current holders of the European Chanpionship?
1. Germany ❑ 2. Denmark ❑ 3. Faroe Island ❑

Q2 Which member of the English squad was named Scottish player of the year?
1. Alan Rough ❑ 2. Brian Laudrup ❑ 3. Paul Gasgoine ❑

Q3 Which team, from the list below, went unbeaten in qualifying for Euro 96.
1. Spain ❑ 2. Derby County ❑ 3. Holland ❑

Q4 What is England's highest ever placing in the European championships?
1. First Round ❑ 2. 2nd place ❑ 3. 3rd place ❑

Q5 Which team won the first championship in 1960?
1. Bulgaria ❑ 2. Russia (USSR) ❑ 3. France ❑

Title_____

Forenames_____

Surname_____

Address_____

_____

Postcode_____

Telephone_____

Date of Birth_____

Sex: Male ❑ Female ❑

9. Do you already subscribe to PC Review?
1 Yes ❑ 2 No ❑

10. Which of the following do you own/intend to own?
1 PC CD-ROM ❑ 2 PlayStation ❑ 3 Sega Saturn ❑ 4 Amiga ❑
5 SNES ❑ 6 Mega Drive ❑ 7 Other console ❑

11. Do you have an Internet connection?
1 Yes ❑ 2 No ❑

12. Which of the following do you enjoy on a regular basis?
1 Football Pools ❑ 2 Football Matches ❑ 3 Computer Games ❑
4 Films/videos ❑ 5 Mountain biking ❑ 6 Rugby ❑
7 Science Fiction ❑ 8 Comedy ❑

Your answers to the above questions will be used by Future Publishing for internal marketing purposes. All information will be treated under the terms of the Data Protection Act. Tick here ❑ if you do not wish to receive details of other offers from Future Publishing or other carefully selected companies.

Mag code: PCR

RETURN THIS COUPON TO: EURO 96 COMPETITION, PO BOX 700, WELLINGBOROUGH, NORTHANTS, NN8 1CL

THE SMALL PRINT

1. Winners, from all participating magazines (PC Gamer, PC Guide, PC Review, Edge and Total Football) will be selected at random after this date.
2. Winners will be drawn in decending order, beginning with the 1st prize of a Special Edition Vauxhall Corsa Premier.
3. The Editor's decision is final and no correspondence will be entered into.
4. The competition is open to all UK residence except employees of Future Publishing, Vauxhall, Gremlin and their families.
5. No alternative cash prize will be offered.

THE MAIL

Old school gaming, Web site controversy and even a Quake querie - just a few of this month's mailbag topics.

Popular

I liked your article last month on making friends on the Web. I would like to make another suggestion: set up a Web page. Simply by including the URL in my sig file for a few emails and newsgroup postings I have got nearly 600 hits in one month.

Also, add a page about a local or national celebrity – one who is not already likely to have a Web page. I chose Radio 1 DJ Kevin Greening because he is a former pupil of my school. He has been really helpful, sending lots of information and mentionning the page on his show. Another way of publicising your page is to write about it to a national magazine, and hope that they publish the URL (That's **http://homepages.enterprise.net/jonh** if you want to log on).
Jon, via the Internet

Any other readers have home pages they'd like us to publicise in the magazine and through our Internet site?

Down with 3D

My father and I (he's 60 and I'm 38 years old) are both avid graphic adventure players. We joined the computing game world when games like *Kings Quest 5*, and *Fate of Atlantis* were hitting the shops, and purchased computers that, at the time, were able to run these types of games. We've done our best to keep up with technology, and now both have very high spec machines to keep up with the demands of new games.

It appears though, that the software houses are changing their perspective on graphic adventures. We now get games that are first person viewing, nearly always set in the future, with real actors in video clips, making such demands on our hardware that we have no option but to upgrade our systems to be able to play them. Please don't get me wrong, I do not mind keeping up with technology, but what I would like to see is a return to the real graphic adventure. I do not believe that the games such as I have mentioned earlier can be beaten, adventures where you can control a character, pick up and use various items. There are of course a few exceptions – *The Dig*, *Kings Quest 7* and the like, but these are few and far between. Please, software producers, get back to producing games, and not video epics. I wonder if we are alone with these thoughts, and would appreciate your comments.
Kevin Betts, via the Internet

Games don't have to be stuck in the point and click LucasArts genre to offer complex puzzle solving. *Normality* from Gremlin (see our demo, *PCR 52*, and review, *PCR 55*) is a stonking game that makes the most of technology and still offers genuine old school adventure action. The video epics you write off are generally patchy, but even among these some good games are reaching players, including *Ripper* and *Zork Nemesis* (both reviewed in *PCR 55*). So long as the games world is believable and the scenarios well designed fluff and filler are just the icing on the cake, as this month's star letter explains over the page.



Normality – a classic graphic adventure in glorious 3D.

Busted



We love the Duke. Check out our review on page 40.

I've just read page 43 of the June issue of *PC Review*, where it was written "The Joke's on Them," and where you went on to say that Capstone has already released three games using our engine and *Duke Nukem 3D* is still not out.

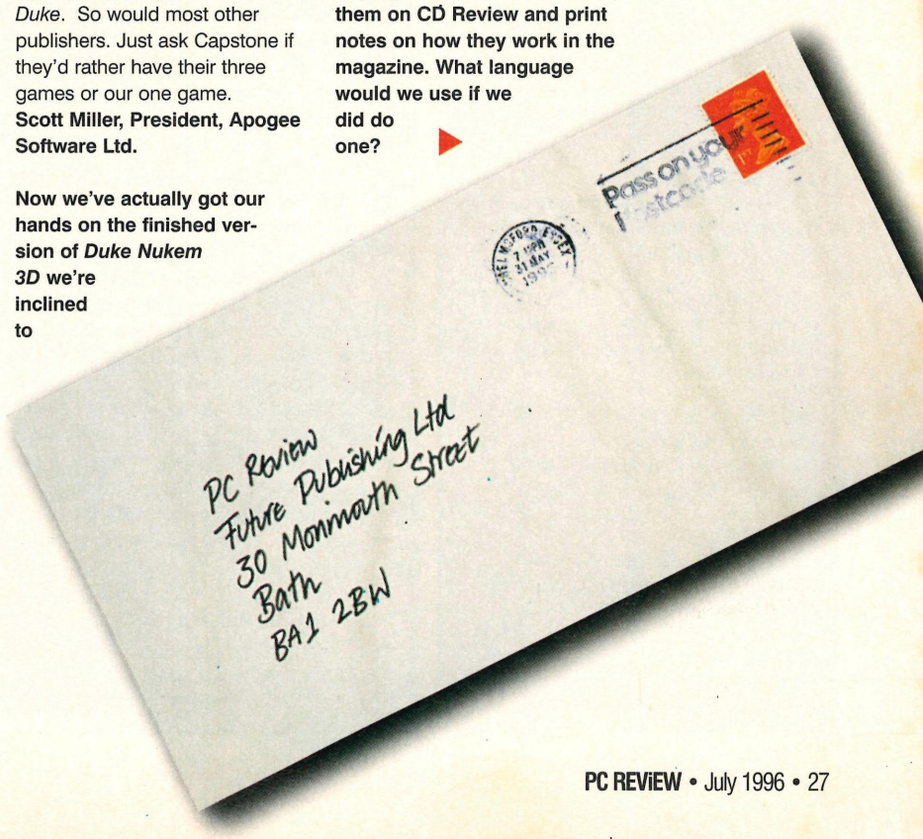
I'm happy to have the joke on us if it means we release a high quality, mega-seller like *Duke*. So would most other publishers. Just ask Capstone if they'd rather have their three games or our one game.
Scott Miller, President, Apogee Software Ltd.

Now we've actually got our hands on the finished version of *Duke Nukem 3D* we're inclined to agree. The game certainly does justice to all the effort and time that you people at Apogee put into it. This just goes to show that it takes more than just glossy presentation to make a good, captivating game.

Code Corner?

I'd love to see program listings donated by readers in *PC Review* for other readers to type in. *Amstrad Action* did this back when I used to buy it. I would love to type in a program and see what can be achieved. It would be a really good idea for other readers to learn and help others. The programs could be game, a utility, anything.
A J Cornelious

Good suggestion, but we wouldn't put our readers through the trauma of typing in programs. We'd include them on CD Review and print notes on how they work in the magazine. What language would we use if we did do one?



Meet the team

JAMES BINNS (JB)



(jbinns@futurenet.co.uk)
Freshly returned from E3 our editor this month has killed far too much time playing Euro 96 – seasonal armchair entertainment for the athletically challenged.

GARRICK WEBSTER (GW)



(gwebster@futurenet.co.uk)
The office has been buzzing with speculation poltergeists, yetis, UFOs and the undead as our deputy editor casts his eye over The Unexplained. See page 73.



MAT BROOMFIELD
(pcreview@futurenet.co.uk)
Our technical editor reckons you just won't believe how quickly PC upgrade prices are dropping. Read his report on page 8.

OWAIN BENNALACK
(pcreview@futurenet.co.uk)
New boy Owain, who you'll be seeing a lot more of next month, joined the team on deadline. So he got to write the budget reviews and make coffee. White no sugar, please.

GRAHAM BARLOW
(gbarlow@futurenet.co.uk)
Flush from the praise heaped on him for the beach bum front end on CD Review, Graham's been sent to work on an Autumnal theme.

MARK RAMSHAW (MR)
Next month Mark will be upgraded from his freelance games-bloke status to the position of games editor. So, you'll get to see his photo in August.

TREVOR WITT (TW)
Joining the team next month after a year answering technical helpline enquiries, Trevor expects to work in a small dark room, without a telephone.

ANDY BUTCHER (AB)
He likes Star Trek. So, we set him on a mission to learn the Klingon tongue. To read how he got on, turn to page 77.

JAMES THOMAS (JT)
Our resident school teacher this month gets a little frivolous, reviewing The Martian Chronicles on page 50.

MATTHEW RICHARDS (MRR)
The editor of CD-ROM Today went North to meet the makers of the Hanna Barbera licensed game, Zoiks.

PETER LEE (PL)
Our graphics top dog gets stuck into WinImages 4 this month, bringing you the review, plus a tutorial on page 108.

LES ELLIS (LE)
The GamesMaster dep ed tests out this month's arcade games, including Firefight.

A Victory for the Little Guy

Helen Lord at BBC North Publicity sent me a copy of *PC Review* concerning the BBC emailing Dave Williamson's *Red Dwarf* site.

I have spoken to the department concerned at the BBC and asked them to explain why they targeted this particular site. Apparently, they have concentrated on large, professional looking sites which contain BBC copyrighted material. The *Red Dwarf* site contains screen grabs either from the television or BBC video and sound bites.

I have asked the BBC multi-media department to send another email to this site, clarifying that Grant Naylor has no objection to this site continuing. In fact, we are flattered that people want to put up their own *Red Dwarf* sites and that they attract so many hits.

As Future will be announcing in the next issue of *SFX*, Grant Naylor will be putting up the *Official Red Dwarf Site* at the end-of-August/beginning-of-September but this does not mean that we expect other *Red Dwarf* sites to come down.
Tessa Glover, Grant Naylor Productions

This one will run and run. That was the response from the writers behind *Red Dwarf* to Dave Williamson's complaint last month that his Web site had been targetted by the BBC. More next month.

RTM: Read The Manual

I downloaded the public test version of *Quake* from your site this Sunday morning, and I was wondering if you would tell me how you actually get to play the game? All I get when I type 'quake' at the command line is a question about the licensing agreement, then it goes to a prompt on a *Quake* logo background. I have tried typing the commands given in the text, but no joy. How did you get it to work? Please help.
Peter Dawe, via the Internet

All the information you need to get the test working was printed in *PCR 54* in our Unofficial Users Guide. We've also posted the Guide on our web site (http:www.futurenet.co.uk). Although unofficial, our manual has everything you need to know, and we're proud to say the material was recently used as the 'official' manual by Id employees during *Quake* previews at the recent ECTS show. To get the test version you've downloaded to work (if you're not networked you'll only be able to explore the levels and fire the weapons) just type `map test1` into the console. There are two other levels in the game (`test1` and `test2`).

Have a look at QuakeWatch in our news section on page 10 for some exciting news on the game's impending release. And stay tuned for *PC Review*'s review of *Quake*, the game that could well keep us nail-gun blasing in the tunnels until the Millenium.



"Dave Williamson is back in business," grinned the Cat.



Quake could be here in less than two months.

Letter of the month

Word Play

Many years ago, when truly floppy disks were all the rage, there formed an easily forgotten branch of history. The root of this branch was the humble 'text adventure'. They could either become 'graphic adventures' or their existing gameplay could be advanced.

As it happens we went the way of the graphic adventure. Don't get me wrong , I enjoy them very much – they're about all my 486 can run these days – but as the graphics become more realistic, the animation smoother and the sound crisper, it tends to be the case that the stories suffer. When *Day of the Tentacle* appeared I was mighty impressed by it all, yet it took me only two evenings to complete it. For a game several years in development that's not a lot of playing time. (*Two evenings! Well you're a better lateral thinker than me, if that's the case - ed*)

I wonder what would happen if the games industry stepped back and tried developing that text adventure brand branch, ie developing great gameplay and leaving out the fancy pictures and noises. People will no doubt scoff at this idea. "I didn't fork out £1500 on my Pentium to read screens of static text," will be the typical reply, but how many people really have these machines and can run all the latest games? Imagine the potential market for games that will run on even low-end PC's and deliver solid, consistent gameplay. This is not really as crazy as it sounds after all.

By rights television should have replaced books by now, but hasn't. The reason for this it that the TV and graphic adventures don't seem like reality to the average person. They feed your imagination, but they don't let you use it. The human mind doesn't need images fed to it, it can create its own. If I say, "A peaceful river meanders through freshly cut meadows," then you will form in your mind images, smells, sounds and feelings, all based on past experience that are far better than any SVGA picture. The development costs on such a project would be minimal. With the right marketing strategy this idea could spawn unthinkable profits. Any software houses interested? Anyone...?
David Evans, Bournemouth

You make an excellent point (though we wouldn't call typing in text 'gameplay' as such). So game developers, have you given up on the human imagination? Is anyone still doing text adventures?



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HEROES OF MIGHT AND MAGIC

Fantasy fanatics, the gauntlet has been thrown down... you must conquer the world! As three warlords have risen to power your challenge is to achieve total domination through resource management and combat know how. From castles, docks and guilds to archers, dragons and ogres, Heroes of Might and Magic brings together fantasy role playing and strategy gaming to produce one giant hit!.

CHAOS OVERLORDS

Gang warfare in the year 2050 is not for wimps...The Governments of the world are all bankrupt and mobs of enraged citizens are turning their cities into playgrounds for mass brutality. As a Chaos Overlord, your town lies before you ripe for the taking. Your forces are ready to rip through it - killing, intimidating, bribing and extorting anyone who gets in their way. "absorbing ... atmospheric, easy to learn yet compulsive" *PC Review*

ANVIL OF DAWN

Enter the forgotten world of Tempest and take part in a fantasy adventure of immense proportions. A great lord of battle has arisen, a paragon of ruthless evil who stands invincible against any army that dare challenge him. In desperation, a last few adventurers have pledged their skills and their lives to defeat the evil of the Warlord. Only one may succeed..



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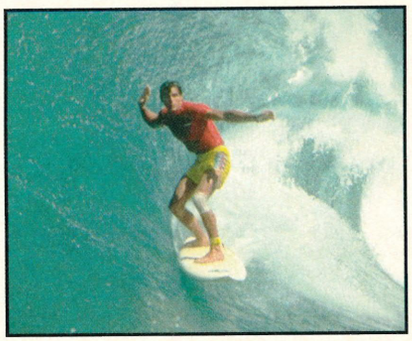
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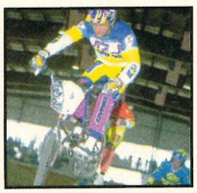
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With the rocks in the water below, this surfer could be just inches from death. Extreme.





Wickid arials on display in the white water kayaking (left) and the BMX (right) chapters of the disc.

Readers with the UK CD-ROM edition of PC Review this month will also have received a full multimedia product in the form of Extreme Sports. Here's how to get the most out of your free, death-defying CD.

Get your adrenalin pumping and take it to the max with 20 of the world's most extreme sports.



EXTREME S

Installation – follow these instructions to get Extreme Sports up and running

Making your Extreme Sports CD-ROM work is easier than leaping off a 120m high bridge attached to a rubber rope. And a lot safer too. Simply insert the disc into your CD-ROM drive and close the drawer.

Now, Windows 95 users will be able to install the disc by opening their CD drive folder in the My Computer window, or via a drive shortcut if there is one. When you've opened the window representing the CD-ROM drive, double-click on the icon called Setup, which looks like a key in a lock.

If you have Win 3.1x, you'll have to select Run under the File menu. Browse your CD drive (usually drive D) for the file SETUP.EXE. Choose this and run the file to install Extreme Sports.



Installation takes a few minutes, so you might want to make a trip to the fridge to get a can of Pepsi Max or some such bevvy. Or, you can watch the Medio... Just before the Setup is complete, you'll see a test video of a rocket launch. If your processor, graphics card and CD drive are up to the job, you should get a message reading: "Your computer system has excellent video performance so the video in Extreme Sports should look very good." Happy news – the CD contains video clips by the truckload. If you don't get this message, try running in 256 colours.

Finally, a registration card will pop up. As PC Review has licenced this disc for the UK, there's no need to register it. Just click the Register Later button and you won't be bothered again.

Max Control



Clicking the compass down in the bottom right corner of the screen calls up this controls and options menu.

SPORTS

Welcome to *Extreme Sports*, a full multimedia product that just a few months ago would have cost you £30 to buy in the shops. This month, however, you get it for just £4.99 with the CD-ROM version of *PC Review*, and hey, you get the magazine with *CD Review* too. Aren't we good to you?

Anyway, enough rambling. The thing we really like about *Extreme Sports*, apart from its, er, gnarly subject matter, is that you can use the disc in so many different ways. If you don't feel like using the cube on the main interface to find the information you want, there are plenty of other routes to take.

For instance, if you want to see the video about sea kayaking immediately, all you need to do is click the Video Gallery button from the main interface, then pick the sea kayaking box. Soon you'll be watching the brave mariners defying the wild waves and radical rocks at sea.



Scuba diving. No-one things that's extreme... until they're chomped on by a hungry shark.

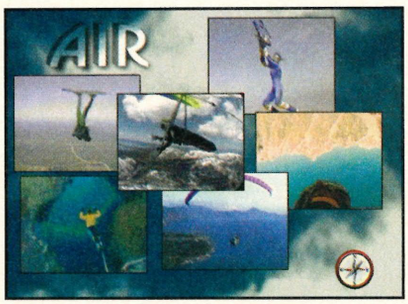
On the other hand, if you click on the little 'I' in the corner of one of the boxes in the Video Gallery, you'll be whisked off to the full information screen on that sport. Using the 'I' on the sky surfing box takes you straight to the full Sky Surfing screen. A video demonstrating Helicopter spins will roll automatically. We recommend, however, that you pick the Entire Video and Full Screen options.

When you're done with the impressive video sequence displaying whatever sport you're interested in, you might want to find out some of the history behind the sport. Via a scrolling text panel, you'll learn that there are both racing and aerial brands of BMXing, or that extreme skiing (doing monster-steep jumps on mountain sides), originated in Chamoix, France in the 1970s.

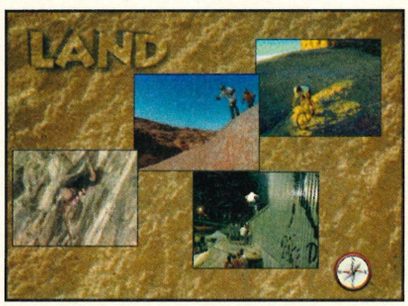
But there's a lot more to it than just background details and trivia. For a start, each sport features an interview with an expert. Top boardsailor Christopher Wyman is in there to tell you about dealing with big wind, and Tamara Koyn's the lady to ask about sky diving.

Of course, if you really want to get into any of these sports, a good place to start is the Gear section from any of the main sport screens. Data on all the required kit is available. But before you rush out and actually try any of these sports, however, cool off with a look at Risk Management. If you're still serious about it, take some lessons. This disc is merely infotainment – it's no substitute for the kind of training you'll need before you can become a true daredevil stuntster.

Finally, there's heaps of text and photos all around the disc for you to discover. It's easy. And should you have an aversion to reading the text on screen, don't worry, it can be printed out. Don't be daunted by the fact that it may be presented as 48 or more pages on screen. Most of the sections print out to around six or seven sheets of A4. Anyway, that's all from us. Like the disc says: Get Extreme! ***(GW)***



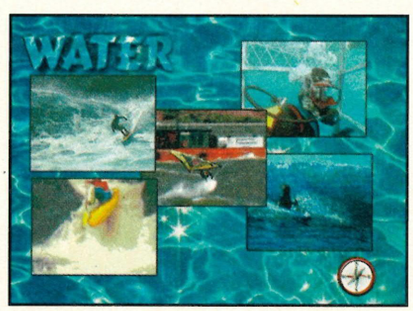
Air offers sky surfing, bungee-ing, gliding, paragliding, sky diving and BASE jumping.



The Land section has rock climbing, in-line skating, mountain biking and BMX biking.



Snow. Get yer extreme skiing, snow boarding, ice climbing and iditbike racing.



Water is where to find surfing, kayaking, boardsailing, scuba diving and sea kayaking.

Speed



Speed skiers can average 100km per hour on some stretches of slope. Windsurfers, meanwhile take advantage of winds blasting at up to 30 knots and reach speeds of 40 miles per hour.

Getting High

Some hang gliders have managed to rise above the legal altitude of 18,000 feet. BASE jumpers, meanwhile, will plummet more than 750 feet from the tops of buildings or high cliffs. Failure to open the 'chute in this sport results in... wait for it... a Splat Attack

Got a Problem?

If you have any technical problems with Extreme Sports, please call 01225 442244 and ask for our trouble shooter, Trevor Witt. He'll try to assist you with your queries.

GETTING THE MOST FROM YOUR FREE CD-ROM

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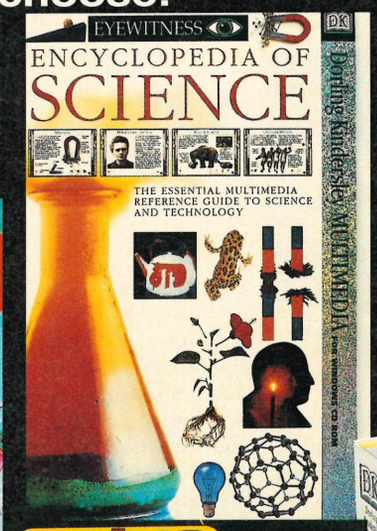
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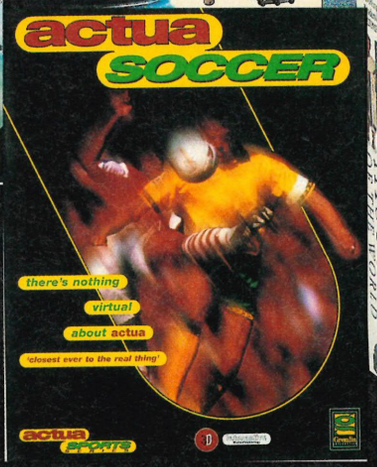


Science

The *Dorling Kindersley Encyclopedia of Science* offers an information-packed and user-friendly reference guide to the world of science.

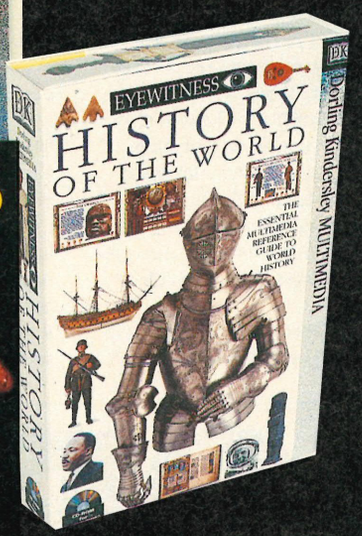
History

Interested in the past? Then you'll be wanting to take a look at *Dorling Kindersley's History of the World*.



Actua Soccer

Without question the finest footy game you can buy for the PC, Actua Soccer is a vital addition to any self-respecting game player's collection.



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EURO 96

England hosts the European Championship and in a touching show of national pride UK developer Gremlin gets to design the game...

Euro 96 isn't as much fun as *Sensible Soccer*. Let's get this out of the way. What the team at Sensible achieved years ago has not been surpassed for sheer competitive edge or excitement. But then *Sensible* isn't like real soccer. It's a wonderful arcade game and nothing more. It's a cheerful abstraction of football that never strives for realism. That's why it never disappoints.

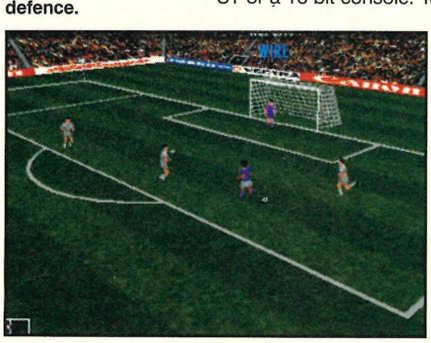
But we've all got to move on haven't we? You bought your PC because you were interested in believable virtual worlds. If you wanted to stick to *Sensible* then you could have made do with an Amiga, an Atari ST or a 16-bit console. You want progress. And you deserve *Euro 96*. It isn't as much fun as *Sensible*... but it really is rather good.

By the time you read this, the media machine will be humming with football. *Euro 96* will be in full swing. Football has, in the words of David Baddiel, truly 'Come home'. Men who had no idea they even liked football will be able to name the England squad and drop soccer comments into everyday discourse, just like the new lads. And that's the wave of public attention Gremlin Interactive is cashing in on with this game license.

At a first glance it may look a tad cynical. Gremlin has dusted down the brilliant *Actua Soccer* engine, given it a sprinkle of fairy dust and introduced better controls and stacks of new tricks. It might look cynical, except, when you appreciate that *FIFA 96*, the licensed game *Actua* was up against first time round, sold much better than *Actua* did, despite being an inferior game.

What we're saying then, in a round about way, is that if you shelled out for *FIFA 96* then this is the game to soothe your fevered brow. You like sports licenses. We understand that. But you really should have read the reviews and got *Actua* instead. If you've already bought *Actua*, then forget it. Make do with that. Now we've shooed off anyone who's already bought *Actua* and welcomed all the *FIFA 96* deadbeats, we can get stuck into what it is that makes *Euro 96* such fun.

It's obvious from a mile away where most of the attention went in the design of *Euro 96*. Hell, it's obvious from the aerial view, the isometric view and the touchline view. *Euro 96* looks gorgeous which ever way you look at it. There are plenty of camera angles on offer. The default is a wire camera that follows the ball closely



Action inside the box. Looks like the offside trap has failed for the defence.

PC REVIEW ESSENTIAL

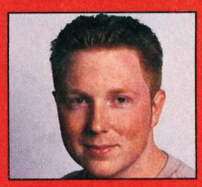
CD REVIEW

We bring you the world exclusive playable demo.

Euro 96 on the Web

Microsoft has set the Euro 96 ball rolling with www.euro96.com, the tournaments official Web site. If saturation media coverage doesn't sate your football cravings, then log on for the latest scores, match autopsies, photos and interviews. What's more, you can get a uniquely personalised report by nominating the teams and players you're most interested in. The next time you visit the site you'll automatically receive a summary of their progress. Graeme Le Saux, the injured England and Blackburn left back, brings an expert perspective to the site, and on-line chat will let you debate with other fans England's progress or lack thereof.

PLAYER



Yes. We've gone football crazy with a big review of Euro 96. As if that wasn't enough we've got a Euro 96 competition (page 38) where you could win a Vauxhall Corsa and even reviews of the two latest footie compilations (see page 56). But there's more to life than sport, there's blowing stuff up too. And we're pandering to your destructive urges with seven new action games... eight if you count the shoot-'em up sections in Muppets Inside!

Also in the Player section, the latest fishing game, a stack of budgets and solutions to Civ 2 and Ripper.

James Binns
Editor
jbinns@futurenet.co.uk

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face to face – meet just three of the characters profiled



Gary Neville

The England right back, as shown at the base of the page. 21 years old and only his seventh cap. Tackling is his game, but he's a nippy winger too.



Tim Flowers

A man with safe hands straight out of Blackburn Rovers. Competing for his place with David Seaman for a place on the starting lineup. Watch out for those divots, Tim!



Manual Diaz Vega

The Spanish ref with a whistle in his mouth and a red card in his right hand. Gets 62 per cent for vision and a kinky 89 per cent for discipline.

GET WIRED

Already in league of its own, Euro 96 is also the first software release to recognise Wireplay, BT's new games network. With Wireplay you can tackle players from Manchester, Liverpool and indeed anywhere else in the UK by simply plugging a modem into your PC, shouting 'ere we go, ere we go' and dialling BT to sign up. Once you've registered, you're thrust into an exclusive world of friendlies, leagues, locker rooms and your own personal fixture list. There's even a Wireplay National Challenge organised to run concurrently with the European Championships. You'll find full instructions on how you can register at www.wireplay.com.

which should suffice for most of your needs. Then there's the far camera which views the match from the stands (not much use), the plan camera (even less use unless you want to pan right out for a *Sensi* experience), the goal line camera (useless, other than for flashy replays) and the ref camera (again useless, unless you want to check his eyesight). Players weaned on *FIFA*-classic (that's before the Virtual Stadium technology) will lap up the isometric viewpoint, while the player camera is strictly for gamers looking for that individual career feel, but most gamers would much rather be where the action is. In addition, you can toggle between low and high resolutions, set screen size, and alter pitch and player detail. The choice is yours, but remember to push your chip as hard as it will go. A P90 will run the works with only the occasional shudder.

Bodies at play

Like *Actua*, *Euro 96* uses textured polygons to render the players rather than sprites. Motion capture data was used to give them realistic movements, conveying just about every nuance of the human body at play. They chip, boot, header, sidefoot and chest the ball, following through convincingly. They even celebrate in the proper fashion. This is the reason you bought a Pentium – to see computer people doing your bidding and believing they're real.

A good sports sim needs an intuitive control mechanism and *Euro 96* offers an original approach. Classically you'll play using the keyboard or joypad for instant response. Push left, go left – WYPIWYD (what you press is what you do). *Euro 96* goes for a different approach and favours analogue rather than digital controls. With all these floating cameras zipping around the place, you need controls that won't confuse you. Gremlin has chosen short term trauma in return for a long term payout. The direction you push the joystick is the direction the on-screen player will move in. So whatever the viewing angle, push up and your selected player will jog obediently towards the top of the screen. Fiddly at first, but don't worry. It catches on.



The right back demonstrates slick close control. Now boot it out! Make it safe!

Double triggered

As the player you need to worry about two buttons. These control your shot or pass if you're on the ball and your sprint and slide tackle if you're chasing the game. Selecting your control mechanism is more fiddly than it should be, with a few menus to negotiate to set it up just the way you'd want it. The game fails to see the connection between you configuring a joystick and wanting to play with it. A vexing and time wasting foible.

The commentary is provided by the smooth-tongued Barry Davies. On a clumsy dive he'll tell you, "That was acting Brannagh would have been proud of." Fail to produce excitement and he'll announce, "The crowd not really warming to this one." Do a particularly brutal tackle and he'll crack a gag about wrestling federation talent scouts. All dead amusing first time round but he gets



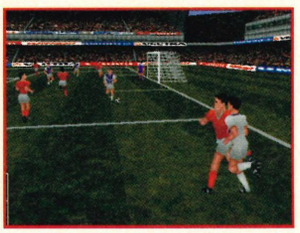
Holland on the offensive.



Draws the defender and shoots.



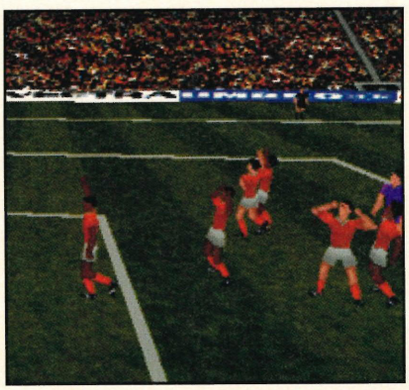
But the goalie had it covered.



Scotland choose to dribble it out.



Nifty passing technique. A Swiss mid-field back heels the ball to a team mate.



What's the goalie doing so far forward while the Dutch team celebrate in his box. Get out!



The players celebrate like the Norwegian centre-forward Jan Fjortoft. But who's that forlorn geezer standing behind the net? Hey, it's Jan.

repetitive after a while. On top of that, the AI routines governing the speech patterns are sloppy. Try a gentle pass between members of your team near your box, and Bazza will bellow their names. Far too much excitement there. At other times he's simply wildly inaccurate. Suppose if they'd got it right, it would all have looked a little too suspicious. After all what's commentary without some Coleman-balls.



Get your defenders moving. The striker's in position to shoot.

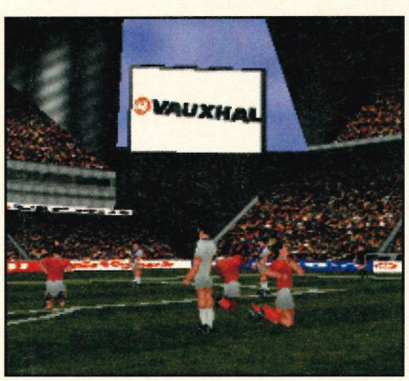
Above all else, what *Euro 96* offers is a tie-in with the competition, a chance to design your dream teams and ask 'What if?' What if the managers had used the squad you used? What if the players had played as well as you? Each of the 16 international sides has been lovingly recreated using piles of stats, right down to nifty preview screens where the rendered players actually bear a resemblance to their flesh and blood counterparts. And all the stadia have been recreated too. It's the ultimate footy collectable for gamers who've been there, done that and already got their kit signed by the players.

Euro 96 isn't perfect. You'll need to practice to get to grips with the controls and the AI isn't as snappy as you might wish. The commentary can be all over the place and yes, it's not as instantly playable as *Sensible Soccer*. But then, it's just like real soccer, an imprecise but fluid experience. It's head and shoulders above any other next generation soccer games and that's all it has to be to score an eight in the *PC Review*'s book. An essential purchase. You deserve it. ***(JB)***

It's the ultimate footy collectable for gamers, who've been there and done that.



Drop and give me 20, lads. That will teach you to be such clumsy sods when you're meant to be representing your respective countries.



Buy Vauxhall cars. Or, alternatively, try to win one with our Gremlin-Vauxhall competition over the page. Don't you love sponsorships?

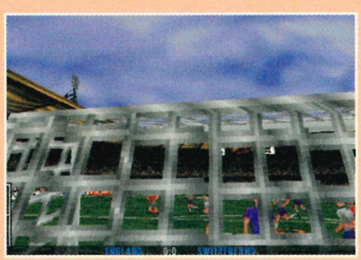
Those tricky corners



Set pieces start out promisingly with players jostling for position. The varied viewing angles come into their own.



The ball is hoofed across. Wait for a one touch shot star, a symbol at the player's feet starts flashing.



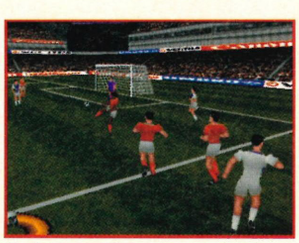
A second later, and what the Hell just happened? Maybe it's best to stick with the isometric view for corners, eh!

DEVELOPER
Gremlin Interactive
PUBLISHER
Gremlin Interactive
CONTACT
0114 2753423
PRICE
£39.99
MINIMUM SYSTEM
486DX2/66, 8Mb RAM, double speed CD drive, 4Mb hard disk, VGA

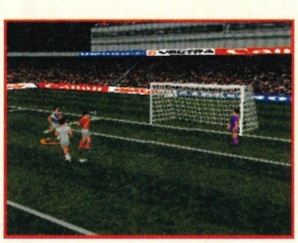
PC REVIEW VERDICT

It's not perfect, but it's still the finest next generation footy experience you can buy.

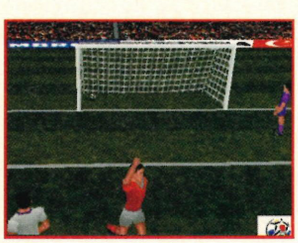
8



Bad move. Kluivert was alert!



Centres it for the header.



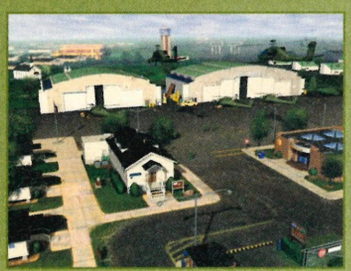
Which buries it in the net.



Time to salute the Dutch Gods!

THE AH-64D LONGBOW AS SEEN BY AN ENEMY TANK.



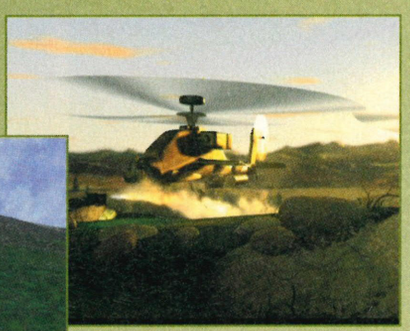


Precision avionic information supplied by Jane's Information Group allows for absolutely accurate flight dynamics.

AH-64D is the result of 40 years of programming hours, a century of Jane's expertise, and has been fully tested by U.S. Army combat pilots.



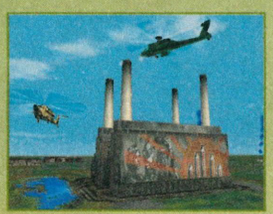


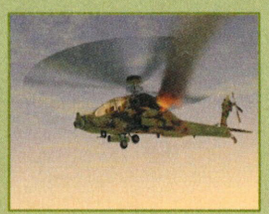


Fly around 20,000 square kilometres of fully-textured 3-D rolling terrain accurately modelled on U.S. Geological Survey maps for unrivalled realism.









The latest project of Andy Hollis, the master of combat flight simulation. (creator of Gunship & F-15 Strike Eagle)

AN ENEMY TANK AS SEEN BY THE AH-64D LONGBOW.



AH-64D LONGBOW

'The maximum in realism through the ultimate in technology'

Also available

ATF™ Advanced Tactical Fighters

92% PC ZONE

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Jane's® COMBAT SIMULATIONS™

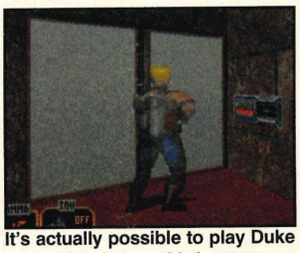
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or http://www.ea.com/janes.html

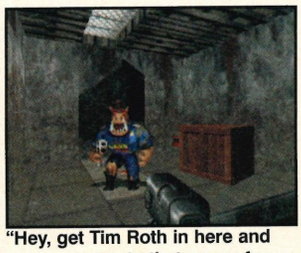
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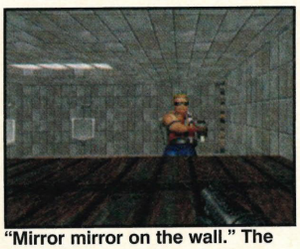
For more information about AH-64D Longbow, please telephone 01753 546 465, email uk-support@ea.com, or write to Electronic Arts, P.O. Box 835, Slough, Berkshire SL3 8XU.

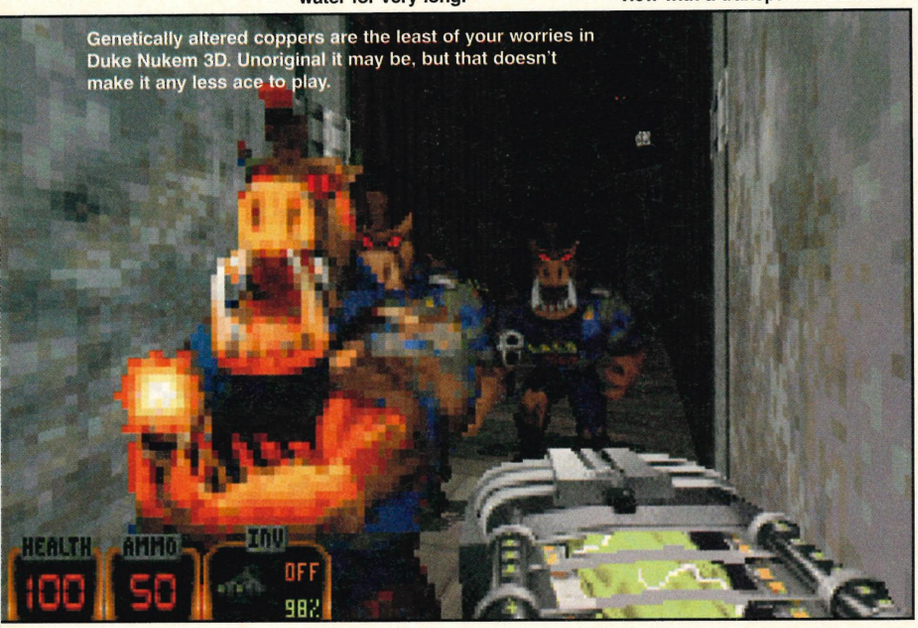
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It takes more than a natty bit of scuba gear to survive under the water for very long.

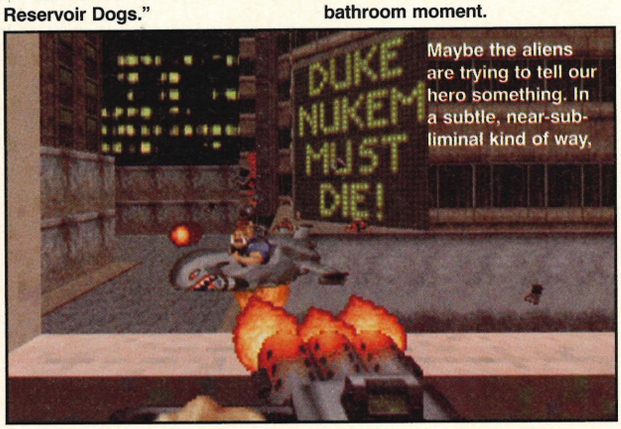

It's actually possible to play Duke Nukem 3D from a third person view with a transparent Duke.


"Hey, get Tim Roth in here and we can recreate that scene from Reservoir Dogs."


"Mirror mirror on the wall." The Duke was in a rare, reflective bathroom moment.



Genetically altered coppers are the least of your worries in Duke Nukem 3D. Unoriginal it may be, but that doesn't make it any less ace to play.



Maybe the aliens are trying to tell our hero something. In a subtle, near-subliminal kind of way.

With its liberal use of sex, guns and rock 'n roll. The long-awaited 3D blaster talks loud. But is it saying anything new?

DUKE NUKEM 3D

TAKEOVER

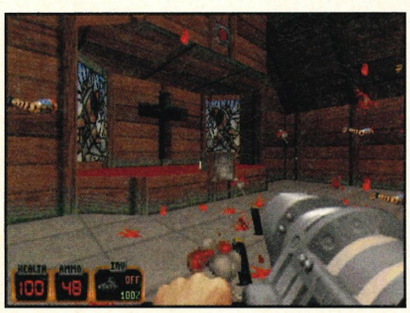
At the recent Electronic Entertainment Exhibition in LA, the shock announcement came that Apogee, the company behind 3D Realms, will not be distributing its future games through US Gold. Hence, Duke Nukem Forever, Shadow Warrior, Blood and Prey will all be sold to you by GT Interactive.

Doom 2 is the most popular PC game of all time – this much we know. But even its creators, iD, couldn't have imagined the number of cash-ins, clones, facsimiles and *Doom*-beaters that would appear. And still, there's only one *Doom*. Well two, actually. But you know the score: nothing has offered quite the same gaming experience.

The first odd thing about *Duke Nukem 3D* is the way it replicates every single positive aspect of the *Doom* games, right down to the loading and menu screens (a bunch of options with a demo level running in the background) and the score tallying at the end of each level. There are even three different multi-part scenarios to wade through. It all feels like home to a *Doom* fan. The doppleganger effect on the front-end is only the beginning, however. Jump into the inferno of the first scenario, *LA Meltdown*, and it becomes obvious that *Duke* even feels the same. The style of movement is replicated, including the sliding and running options, and the weapons feel familiar too. There's even a shotgun in there. The casual observer could be forgiven for thinking this was another *Doom* WAD.

The flattery is, thankfully, only half the story. Where other post-*Doom* games have taken the formula and simply rejigged it a bit, *Duke Nukem 3D* actually adds some new ideas. Hence, controlling *Duke* may be familiar, but there's also a look up and down option, there's now the ability to quickly turn the head to the left or right. And in the world created here, jumping and ducking aren't just fun, they're downright essential. While the display system

Duke can shoot out windows, use or smash lavatories, even check himself in the mirror.



Sending blood and scraps of alien matter flying through the air inside a church should be bad enough...



...but what about finding this demonic image. Surely that can't be among of the usual decoration?



Try pushing it and thing get very spooky. The cross is inverted, and someone splashes blood on the lights. Oh no.

High Res

Here's Duke Nukem 3D in glorious 640x480 SVGA. There's even an 800x600 option if your processor can handle it. Generally you need a Pentium for this kind of view.

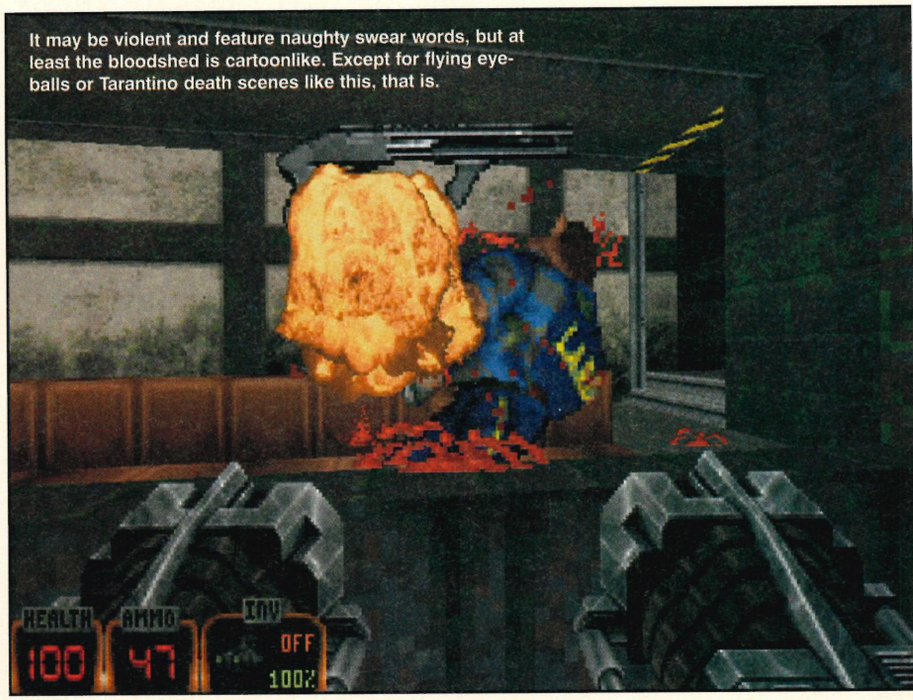


Low Res

However, VGA mode is more than adequate for you to experience all the gore, girls and big guns. This is in no small part due to Duke's great animation and lighting effects.



It may be violent and feature naughty swear words, but at least the bloodshed is cartoonlike. Except for flying eyeballs or Tarantino death scenes like this, that is.



isn't quite the full monty (it doesn't seem to use true vanishing point perspective), it does offer solid 3D locations to explore. Levels with rooms above rooms sure feel good after the flat maps of yesteryear.

Monster screaming disco party

Sound is given prominence too, with some excellent musical effects provided by discos and clubs on some levels, their tunes getting louder as Duke approaches and opens doors. The compliment of weapon noises, explosions, monster screams and speech is certainly evocative. And our hero is pretty vocal, too, swearing and spitting wisecracks with regularity. The way practically every line is culled from some cult movie – *Evil Dead 2* and *3*, and *They Live* – nearly works, while suggesting that 3D Realms' magpie-like tendency can get out of hand sometimes.

But the real magic lies in the level design. *Duke* matches iD's classics in terms of polish and practicality, but is different in its general structure, look and feel. Rather than opt for the closed-in, compact style that iD employs, *Duke* goes all out to create real environments. The *LA Meltdown* levels are a mass of seedy streets, cinemas, clubs, porn shops and even prisons. Each location is packed with hidden ventilation passages, and neat incidental details (working taps, pool tables with rebounding balls, disco lights etc). The second set of missions takes things into space while the final episodes go back to Earth, further east and deeper into trouble. One or two locations don't make the grade, lacking textures and the necessary attention to small details and believable geography. Nonetheless, the quality is generally high, and the results more satisfying than the generic corridors-of-Hell routine peddled by *Doom*.

Toys, gimmicks and collectibles are given full attention here, too. Cutest of all are the video screens which give access to various cameras dotted around the levels, some stationary, others rotating, all destroyable. The excitement generated when one of these screens shows a hidden room or an area packed with armed enemies is classic stuff. Items like jet-packs and night-vision goggles are rather more predictable, though the Holo-Duke (nicked from Arnie's *Total Recall* movie) is neat. The inclusion of scuba gear and loads of underwater areas in which to make use of it is welcome, too. There's no wavey effect, but the movement is suitably aquatic, and the water-specific bad guys enough to make grown men cry.

All is brilliantly clear now

A deathmatch style option for network, modem and serial link play is included, of course, for all the extra multi-player fun you'd expect. And, there's a number of resolution options, including an 800x600 pixel display mode, offering brilliant clarity for distant objects.

It's only really in the area of combat that *Duke* falls short of its target. Irritatingly, shots must be aimed dead centre, which doesn't fit the game's attempts to recreate the pace and explosiveness of the best action movies. Plus, it's all too easy to self-inflict damage when the more powerful weapons are used in confined spaces. Fighting against whole hordes of aliens in a tiny room with anything more powerful than a shotgun is simply a no win situation as a result.

Such problems dull the shine, but *Duke Nukem 3D* is still stupidly compulsive. Thanks to tried and tested gameplay, levels that present real environments, the ability to interact with surroundings (to the point where Duke can shoot out windows, use or smash lavatories, even check himself in the mirror), and heaps of attitude, *Duke* comes out on top. Sure, there's plenty of plagiarism here, but it's time to face the facts. *Duke Nukem 3D* is better than *Doom 2*. Now hasn't that been a long time coming? ***(MR)***



One weapon allows you to freeze the aliens then crash into them. Good fun.

DEVELOPER
3D Realms
PUBLISHER
US Gold
CONTACT
0121 6253366
PRICE
£39.99
MINIMUM SYSTEM
486 DX2/66, 8Mb RAM, 33.5Mb hard disk, major soundcard, (stick, mouse, modem, serial link or network optional)

PC REVIEW VERDICT

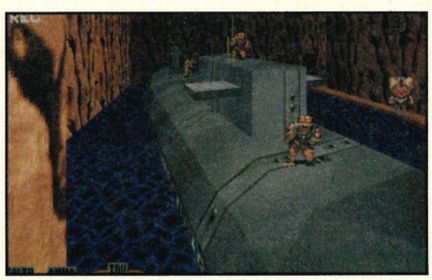
At last, a game bigger, better, and more explosive than *Doom 2*. Not an original concept, mind you.

8

Monitoring the situation



Walk up to one of these video screens for a peek at other areas of the level...



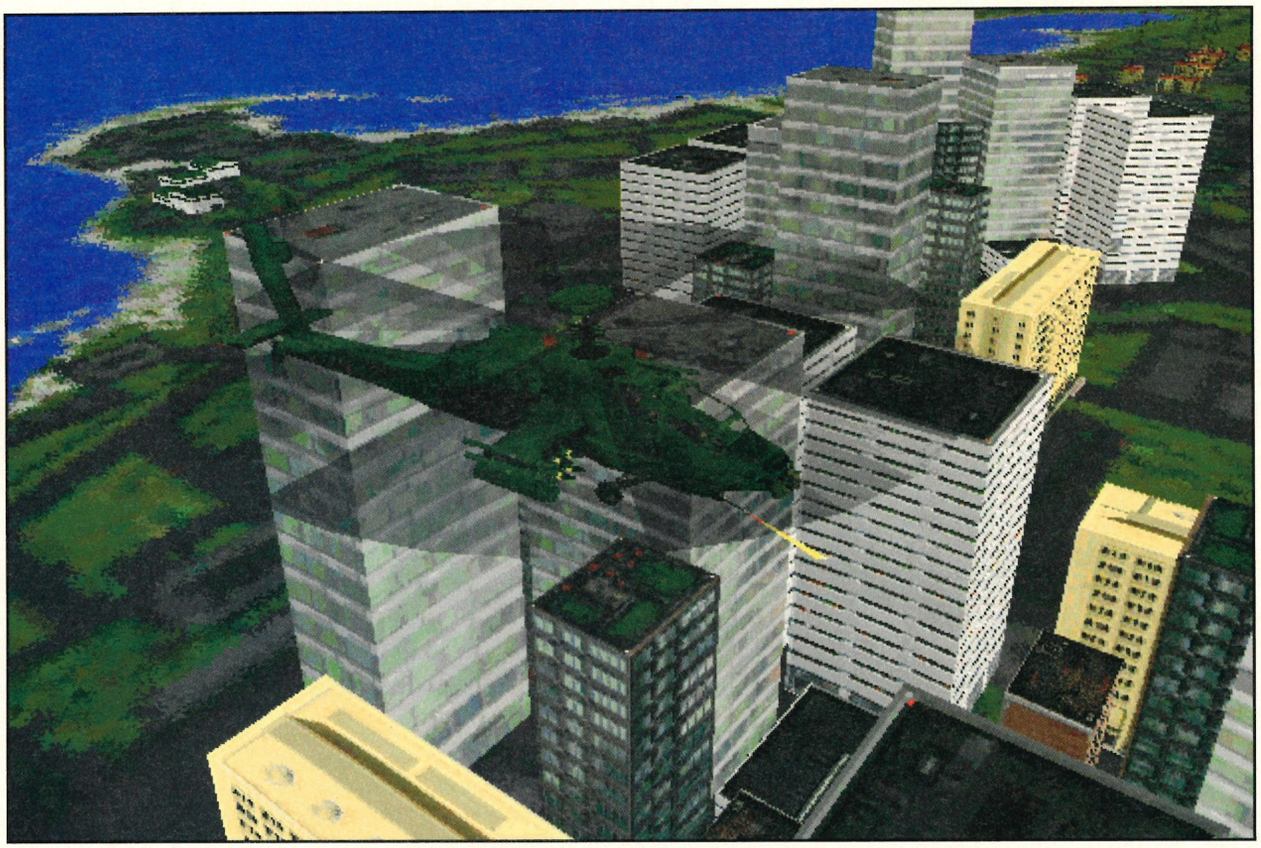
...like this wonderfully ominous nuclear sub scene, for instance.







THE PRETTY PICTURES
A gratuitous spread of marvellous rendered scenes. One day maybe the in-game stuff will look this good.



With its 'impressionistic painting' ground textures, some neat smoke effects and wonderfully detailed cityscapes Longbow sure looks the part. Pretty though it is, it's far from being kids' stuff.

ACRONYM ACRIMONY
Even with the tutorials, would-be pilots are likely to get lost in a quagmire of acronyms and bizarre uses for almost every key on the keyboard. Can the average gamer really remember the meanings of LOAL, LOBL, and IHADS? After several hours with the training sections most will find they have to RTFM.

JANE'S

AH-64D LONGBOW

Following last month's ATF fighter sim, Jane's military books come to life once again, this time with the whir of a rotor.

There's a battle raging here. The testosterone thrills are fighting it out with the hardcore simulation side of *AH-64D Longbow*. The music shows the former's true colours – flashy pieces of guitar rock that normally accompany the winning smile of your Tom Cruise brand of pilot. This audio sits well with the game's whole presentation style, bolstered, as it is, by countless gorgeous rendered scenes, a mammoth speech-driven training section, and impressive point-and-click selection screens. It all points to instant action ahead.

Not so fast, though. It's the serious side which emerges triumphant here, making *Jane's AH-64D Longbow* the most electrifying real copter simulation to date, if not the easiest to grasp.

To its credit, the game does offer a top-notch training section, with the sort of interactive tutorials every flight sim should feature. Every aspect of flying a helicopter is covered, from a basic tour of the machine itself to heads up display visuals, weapon use, navigation and even strategy. It's all wonderfully done, but it's also necessary.

The accuracy isn't limited to the flight and weapon controls, either. The idea here is not only for things to feel true to life, but to look it too. To this end *Longbow* features an ambitious landscaping system. Offering views that only haze right at the horizon, the game conjures up all sorts of terrain, with no end of detail, undulation and variation. Sadly, the effect is marred during low level flight, where the textures get rather blocky. The way the landscape is composed of square tiles is all too visible at times too. Plus, in the near essential SVGA mode the game chugs along, even on a Pentium 133. Still, the city scenes are gorgeous.

The actual conflicts are wonderful – if you've mastered the controls by this point. While lacking, for the most part, the up-close-and-personal battles of MicroProse's old *Gunship 2000* game, it does feeling frightening real – that adherence to realism adding genuine impact to battles. And the inclusions of historical missions along with the usual (nicely handled) campaign section and quick action flights is most welcome.

This is a fearsomely complex game that's sure to leave the instant flight junkies cold. Even the training sections feel all too real, taking it beyond a game and simply too close to simulation at times. But many helicopter buffs are bound to relish this sort of thing, and such a treatment is really only natural for a game based on Jane's military hardware books. ***(MR)***



The desert is rather dull to look at, naturally. All the better to see the enemy approaching.



This is more like it. The landscape takes on a grainy look, and the contours do the job.

DEVELOPER
Electronic Arts
PUBLISHER
Electronic Arts
CONTACT
01753 549442
PRICE
£44.99
MINIMUM SYSTEM
486 DX2/66, 8Mb RAM, 30Mb hard disk, SVGA, double speed CD drive, mouse (optional: joystick, sound card)

PC REVIEW VERDICT

The new hard-core king of the flight simulation world, *Longbow* is one for the real propeller heads.

7



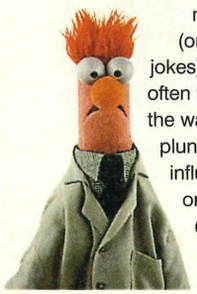
Kermit and Fozzie await the Data Bus as they host your journey through a Muppet-ified version of your PC's innards.

MUPPETS INSIDE

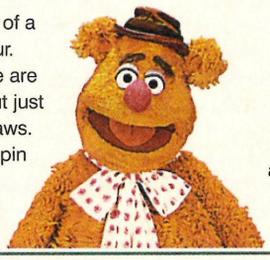
Sex, violence, laughter and tears - the Muppets bring their TV show's recipe for success to the PC.

The secret of good kids' TV is to avoid aiming it at kids. Target adults who appreciate puerile gags, childish stunts and irreverence and you've got a winner. It's something *The Muppet Show* tapped into so well all those years ago, and which it's set to do all over again with a new movie and TV series. First, however, we have the CD-ROM spin-off. But this is no cash-in. Rather, *Muppets Inside* is a laugh-in of the highest order. This is insanely good stuff.

Muppets Inside spins out a tall tale in which the world's favourite puppets get trapped inside your PC. It's an idea that's pushed to the limit, with an opening scene where the Windows screen splits in two, and then a whole game structure where Kermit The Frog and Fozzie Bear drive around the motherboard in a data bus (one of the milder computer in-jokes), dropping the player into often familiar mini-games along the way. These bite-size games plunder both TV and computer influences, offering a *Muppets*-orientated take on shows like *Celebrity Squares* and *Name That Tune*, as well as games like *Doom* – here *Kitchens Of Doom* starring the Swedish Chef. Most inspired of all the games has to be a bizarre retake of *Missile Command*, where Fozzie must be protected from flying fruit and veg, hurled as a result of a his attempts at stand-up humour.



Just like the TV series there are plenty of gags which fall flat, but just as many elicit giggles and guffaws. Watching staples of television spin out one-liners about CD-ROMs and the like is very surreal, and a very funny business.





Celebrity Squares is re-invented as a puppet-infested gameshow called Trivial But True. Kermit tries to keep everyone in check.



At the wheel of the Data Bus, the mini-games are represented as folders lying around on the motherboard. Cute.

Obviously it's the familiarity offered by Miss Piggy, the Swedish Chef, and Gonzo which turns this set of games into something more substantial. But that's the whole point. *Muppets Inside* captures the flavour of the characters better than any other licensed game around, to the point where the games themselves are almost irrelevant. Almost…

It's inevitable that a bunch of mini-games will only offer mini-thrills, particularly when completing *Muppets Inside* requires players to go through the same game formulae several times. And while there's a fair amount of video footage culled from the show, a loads of gags old and new, and even a bunch of daft singalong numbers, Muppets Inside can't help but pall after a few games. You'd only want to watch your favourite episode a few times, after all. ***(MR)***

Cruelty to animals

The shocking thing about both Muppets Inside and the TV show is the way it glorifies violence. These people must be stopped!



And what about the senseless violence inflicted on these poor fish - all in the name of music? Call the RSPCA now!



Surely children should be protected from Gonzo's masochistic tendencies.

Developer
Starwave
Publisher
Ocean
Contact
0161 832 6633
Price
£39.99
Minimum System
486/66, 8Mb RAM, 25Mb hard disk space, VESA video card, double speed CD drive, Windows 95

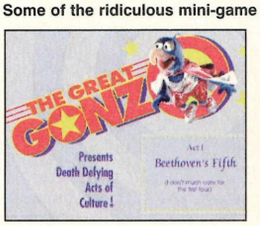
PC REVIEW VERDICT

More sketches and game styles would up the longevity, but this is belly-burstingly good nonetheless.

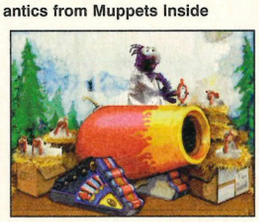
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Gonzoid behaviour

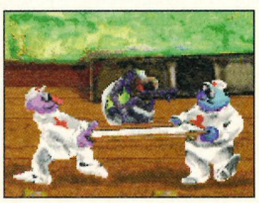
Some of the ridiculous mini-game antics from Muppets Inside



Gonzo is the star of this particular mini-game, so we know there's going to be violence involved somewhere. Hurrah!



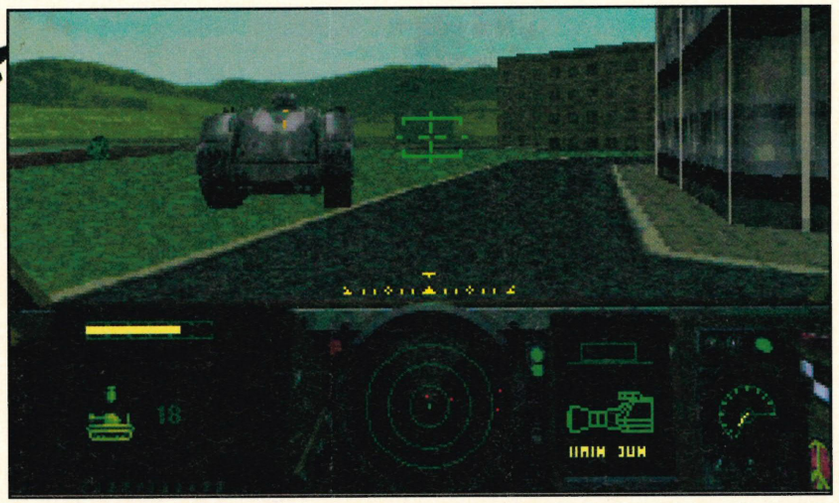
It's the shot from a cannon routine, but here Gonzo will play Beethoven's 5th on the harmonica as he flies through the air. Culture.



Unfortunately, it's culture combined with a bad landing. Luckily Gonzo is impervious to pain. Or at least he doesn't mind it too much.







It's extremely unusual to see the enemy at such close quarters as these. You'll have far more success picking them off at range.

SHELLSHOCK

You are De Wardenz raw new recruit, your specialised subject is tank warfare, and your time starts... now.

The fact that tanks have inspired so many games and that so many of these have been so similar is not exactly surprising. A tank is after all the ultimate boy's toy. The ultimate expression of mechanical power and strength, crushing all in its path, with a healthy dose of explosive aggression, bristling with a whole range of deadly weaponry. Lovely. All in all, perfect material for a computer game.

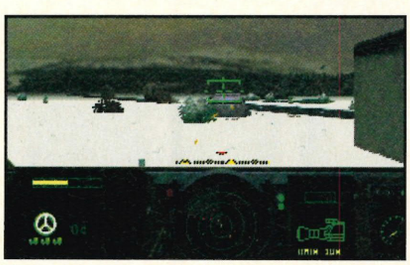
Shellshock once again puts you into the driving/shooting seat, this time as a new boy amongst the shady justice dealers, De Wardenz. Abandoned by US forces as expendable and denied back-up during an operation, this freelance armoured unit is determined to dish out the sort of explosive solutions that the international community is too ham-strung to deal with. It sounds like the A-Team, but on an international scale. With caterpillar tracks and huge guns.

De Wardenz provide your front end via their 'Pen', a disused correctional facility in New York. From here you can access the simulation room, basketball court, tank, briefing room and, if you like, DOS. At each location you'll chat to one of your new team mates.

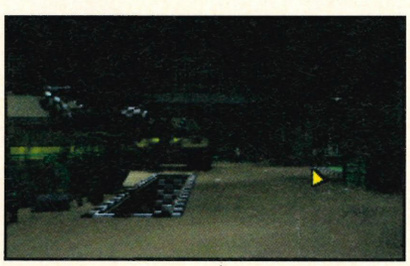
Once you've waded through all the attitude and posturing, however, your first impression will be that it was worth it. The controls are simple and intuitive and, for once, suited to your keyboard – especially if you opt for the classic dual track Battlezone configuration. You can of course rotate your turret and while it's confusing at first, it's still oddly satisfying to be able to rumble along firing sideways. The tank sounds and feels good too. There's a real sense of weight and momentum, thanks to the growling engine, subtle inertia and vertical view shifts, while you never feel as though your M-13 Predator is careering out of control.

This is, naturally, where things go slightly awry. What with the quick game engine, huge gun and up-front attitude of the whole game you might be expecting a no-holds barred blast-fest. But no. While you'll be doing plenty of blasting you'll have to restrain yourself. *Shellshock* turns out to be quite strategic. Wade in and you can marvel at the explosions, get into the action and – thanks to the enemy units – die.

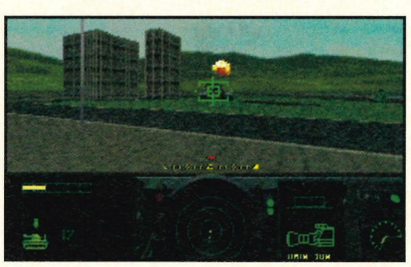
But if you want to get anywhere in the game and take advantage of the tank upgrades, varied missions etc, you'll have to spend most of your time concentrating on your tank's instruments. If Core had tinkered with the game structure as much as it did the engine by, for instance, beefing up your armour, to give a more intense combat experience, then *Shellshock* would have been a much more exciting prospect. ***(WG)***



The snowy escort mission. Herd these trucks safely past a series of pill-boxes that can only be destroyed with your chain gun.



This is the Pen, where you'll do everything in the game except the actual fighting. You'll talk to De Wardenz and recieve some gruff tuition.



He's heading at you full tilt. Hit him first and hope he doesn't get a shot off – your armour is perpetually low.

DEVELOPER
Core Design
PUBLISHER
Core Design
CONTACT
01332 297797
PRICE
£29.99
MINIMUM SYSTEM
486/33, 8 Mb RAM, double speed CD drive, 2Mb hard disk space, SVGA

PC REVIEW VERDICT

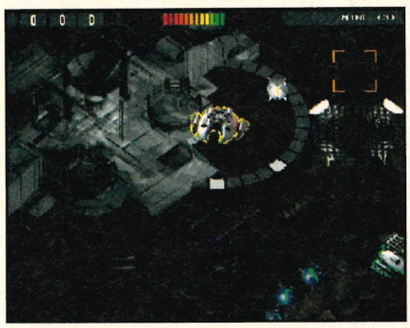
The engine is slightly wasted on what is mainly a strategic game. Proficient but not deadly.

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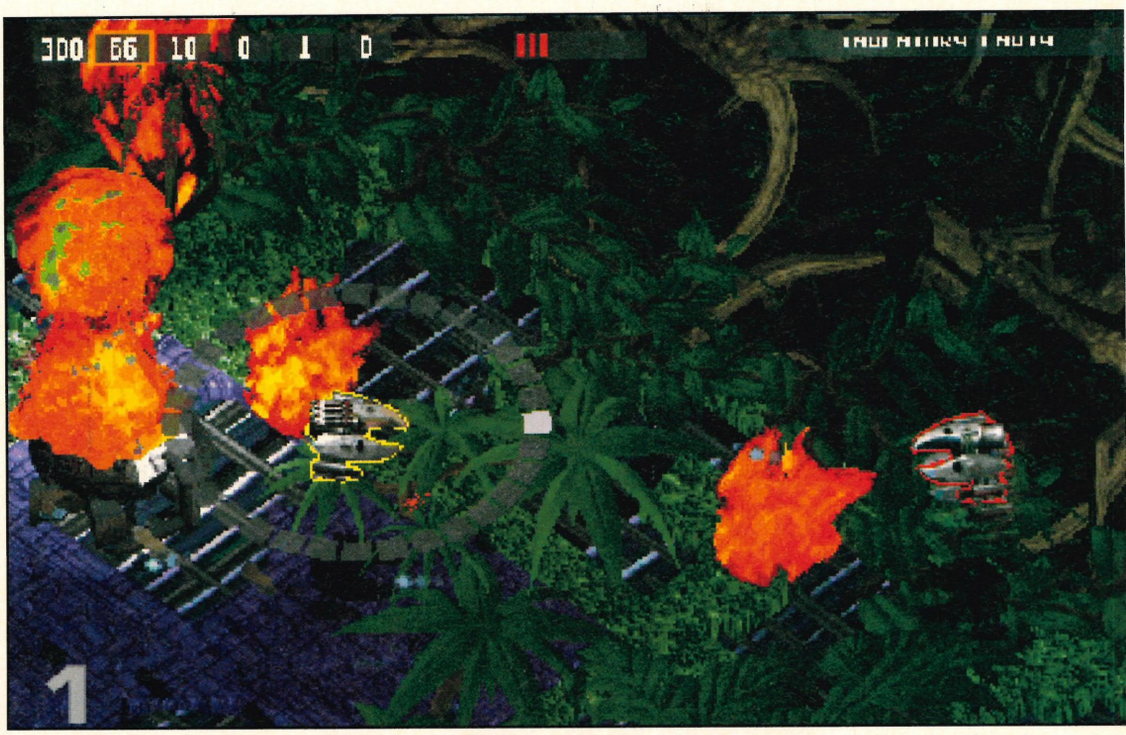
It sounds like the A-Team, but on an international scale. With caterpillar tracks and huge guns.



The white square in the bar around the ship denotes which direction you should head in.



Urban grey is the colour of choice for most of the backdrops in Firefight.



Feel the jungle vibe baby! Check out the forest fires. Now who's going to put that out. Multiplayer action puts coloured bands around your ship – so's you can tell who's who.

FIREFIGHT

Old fashioned gameplay gets a new lease of life as console action hits the PC once more.

Those infernal consoles have been a good thing for the PC. Not a popular theory, but true nonetheless. It is because of them that more developers are paying attention to the arcade capabilities of the PC. More fast action games, more fighting games and more racing games have come through during the last year than the previous four or five put together.

Firefight is something like airborne *Crusader: No Remorse*, with a 3D isometric view. It is slick and simple and this simplicity is where its addictiveness lies. All you have to do is fly around a level, following your radar and killing everything in sight. No worrying about complex controls, deep exploration or puzzle solving, just head down and fire with the odd bit of picking up to do along the way.

While the play is simple the graphics most certainly aren't. The blend of jungle and industrial landscapes is highly detailed and with the weather effects imposed on top make for impressive backdrops.

3D effects are introduced when it comes to flying through sections of the local flora. You actually see your ship under the trees through gaps in the branches and the same goes for the enemy. While a major plus in the graphics department, this leads to the game's only real drawback. When enemies come onto the screen near a tree or bush then you can't see them, allowing them a couple of sneaky shots at you before you realise what's going on. It would have been preferable if players could use the landscape features to hide in as well.

The colours are also quite dark, which can sometimes lead to problems when things start to heat up and move fast. It can be extremely difficult to spot an enemy ship if there are lot of explosions going on and the screen is moving at anything more than crawling pace. You can work around it with some careful and slow paced movement but shouldn't really have to. Most gamers would rather rely on skill than luck anyday.

This aside, *Firefight* is a good shoot-'em-up. It's got 12 tough levels with some amazing enemy ships later on in the game. There are also eight multi-player levels where up to four people can go head to head.

So, *Firefight* has only one real flaw in the gameplay. The other problem is the price. A steep £40 seems a bit over the odds for such a simple game. That's not to say that it plays like a budget game – it's just that there a lot of high quality titles at lower prices now and this should be one of them. Firefight is a damn fine shoot-'em-up, but for something so simple it's a little overpriced. ***(LE)***



Beware the lilac, ice cloud things. Or rather don't – they're just backgrounds.



Incoming from three directions. Our advice. Reverse and hammer fire.

DEVELOPER
Epic Megagames
PUBLISHER
Electronic Arts
CONTACT
01753 549442
PRICE
£39.99
MINIMUM SYSTEM
486 DX2/66, 8Mb RAM, 33.5Mb hard disk, major soundcards, (optional: joysticks, mouse, modem, serial or network compatible)

PC REVIEW VERDICT

Slightly over-priced but the solid gameplay more than makes up for it. A superior shoot-'em-up.

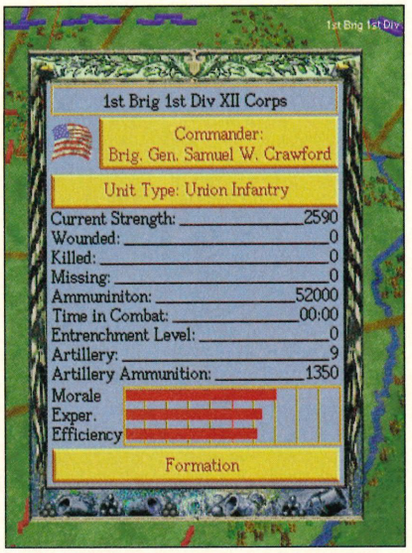
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Sporting at War

Baseball is popularly believed to have been invented and first played during the American Civil War - in American at least. We, however, know that it's derived from the British game of rounders. But if you're American, this game will set you straight.

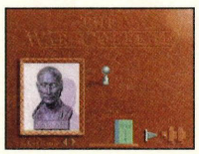
Below you see the opening screen to the interactive history lesson about the Battle of Austerlitz. It doesn't get any more exciting than this.





A right mouse click over the selected unit brings up just about all the information you could wish for about that unit.

WAR COLLEGE



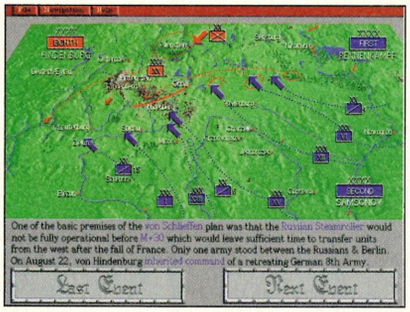
The main screen. You already get the feeling this isn't going to be an inspiring game don't you?

Find out what it was like to army at Pharsalus, or Napoleon's Grand Armee during his finest hour at Austerlitz.

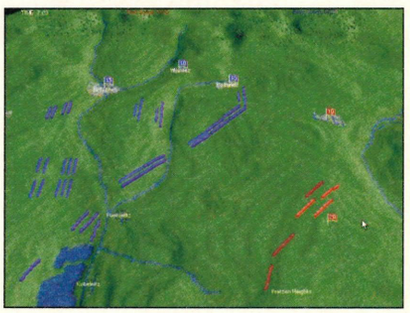
War College, or *Universal Military Simulator 3*, is a war game cum military history CD-ROM. There are four battles from different eras, starting with Caesar's victory at Pharsalus and concluding with Hindenburg's first and last experiment with cavalry in The Great War, plus a multimedia military history lesson to boot.

In between, you can command Napoleon's Grand Armée at Austerlitz, or play out Antietam, one of the key battles in the American Civil War and the bloodiest day in American military history. There's no option for designing your own battles, which was a feature of the previous two UMS releases. It's quite likely you'll get fed up with the four scenarios fairly quickly.

Although nearly the entire game is point and click, units are extremely difficult to select and manoeuvre. The rest of the interface is none too clever either. The units themselves are represented by thin red and blue blocks. The default is not to identify units, but if you turn the name flags on, you won't be able to see the units or the battlefield. You can select multiple units by dragging a rectangle around them, but there's no way of doing it precisely. You may well end up giving a unit orders you didn't mean to, or missing a vital one out.



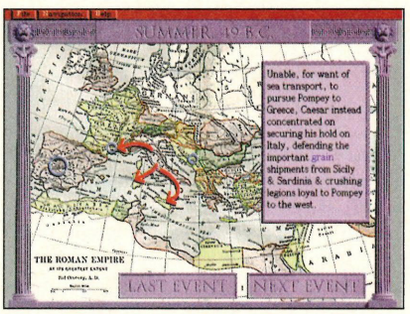
One of the tactical maps from the battle of Tannenberg. Believe it or not the guys in blue lost in the original. Can you do better?



The exciting, dynamic and, above all, easy to use gaming interface that completely lets down War College.

Navigating around the battlefield isn't very easy either. There are two levels of zoom, neither of which gets you close enough to the action to really see what's going on when things gets complicated.

You can't give a unit an order to attack another unit, rather you can only tell it to march to a given way point. This may be good for historical accuracy and realism, but makes it very frustrating when you're in a strong position and your units carry out to the letter the orders you've given them, even if it means marching past an enemy unit then stopping in the middle of the field.



Any serious war gamer will already know the ins and outs of Caesar's tussle with Pompey. Still, nice map though.

War College does have its plus points. It's not a hex-based game, which makes it much more realistic, but this makes it very difficult to judge distances and speeds, especially as there seems to be no indication of scale. It also claims to be the first war game to use 'unit facing' in its calculations. This means you have to manoeuvre your units correctly and accurately – not an easy feat with the clumsy interface. A lot of work has gone into the accuracy of *War College*, but at the expense of playability.

The interactive war history section is alright, but don't expect to pass any exams with it. Chances are, if you're an experienced war gamer you'll know most of it anyway.

The casual gamer will be turned off by the difficult interface, while dedicated war gamers, who might be able to put up with some of the frustrations for better accuracy, won't find enough in it to make it worthwhile – four scenarios just isn't enough. ***(JGT)***

Developer
Intergalactic Development
Publisher
Gametek
Contact
01753 553445
Price
£39.99
Minimum System
486SX/33, 2Mb RAM, double speed CD drive, DOS 5.0 or higher.

A clumsy and inelegant interface lets down the hard work that's gone into the game.

PC REVIEW VERDICT

5

A MULTIMEDIA EXPLORATION OF HUMAN EVOLUTION

ORIGINS of MANKIND

CD-ROM
Windows
& Macintosh

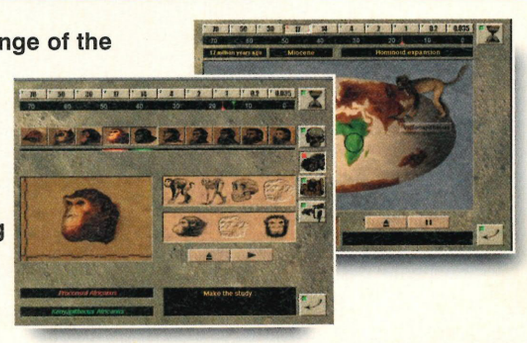
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Rooms with views

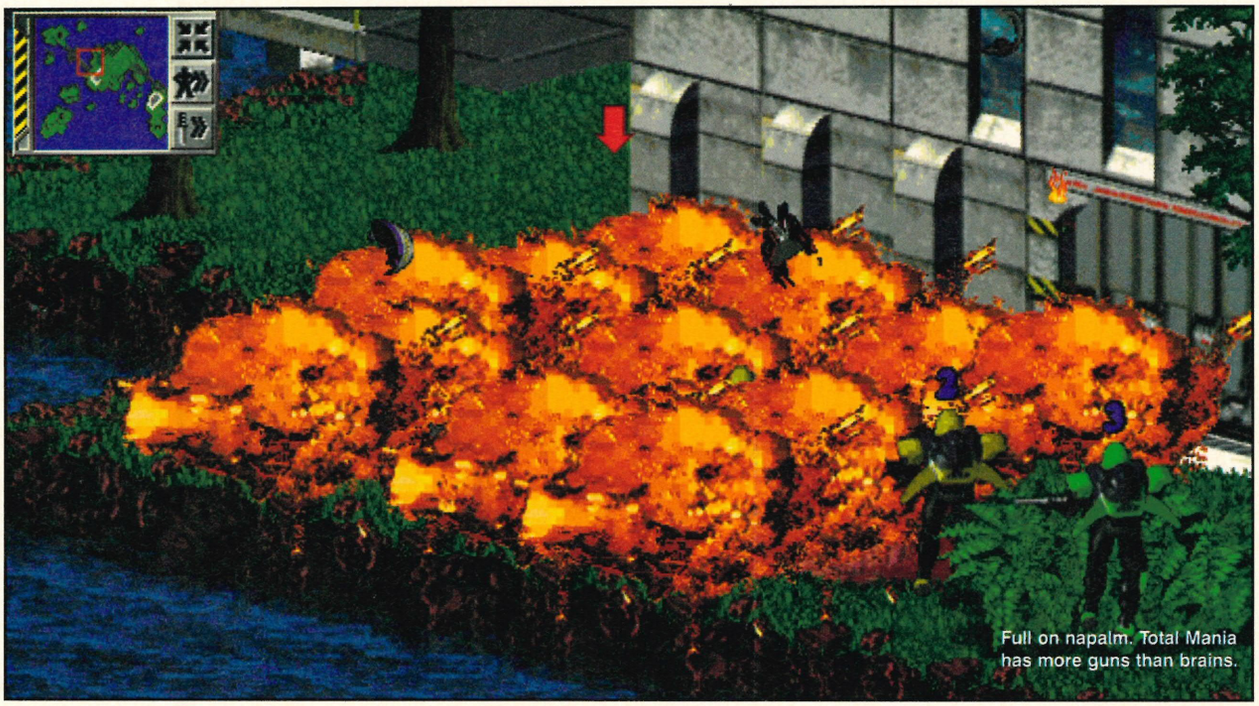
Total Mania tries its hardest to keep the troops visible at all times, by blocking out sections or whole buildings. Occassionally it's a little too confusing.



Now you seem that huge grey building...



And now you don't. Your next mission is to find the door on the now invisible wall.



Full on napalm. Total Mania has more guns than brains.

TOTAL MANIA

Big guns and bigger explosions are just two very good reasons for gamers to get their heads round the latest strategy action-fest from Domark.

In the last couple of years the battle for accessible wargames has been hard fought, with the likes of *Command & Conquer* and *Warcraft* taking the concepts of the once-quaint, hex-based cerebral wars into the realms of genuine action.

Along the way PC gamers have seen the occasional bit of mindless fun like *Cannon Fodder*, as well as the more tightly focused science fiction blend as with *Syndicate*. It's the latter to which *Total Mania* is likely to be compared. Both put a small group of armored troops under player control as they complete missions by exploring and blasting their way through a variety of environments. *Total Mania*, however, shares few of *Syndicate*'s dark tendencies or typical Bullfrog weirdness.

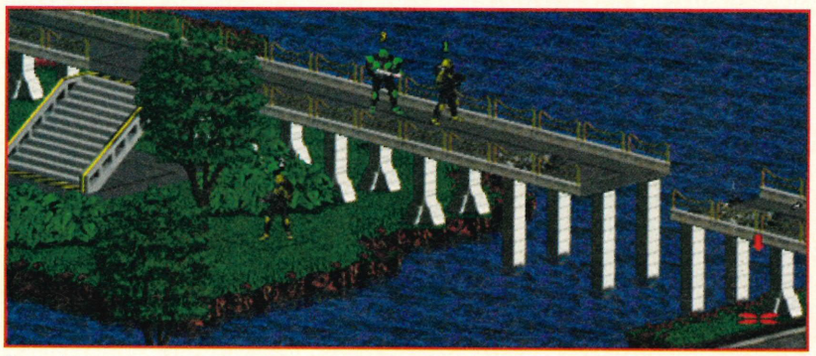
Action on the menu

Instead, comparisons with *Jagged Alliance* are more valid. Sure, that game was turn-based with a semi-overhead view. But it also had a pace and object fetish totally in-keeping with arcade games, leaving players to implement attack strategies to whatever degree they saw fit. So it goes with *Total Mania*, an arcade shoot-'em-up with about as much wargaming strategy as the player cares to add. Which is nice.

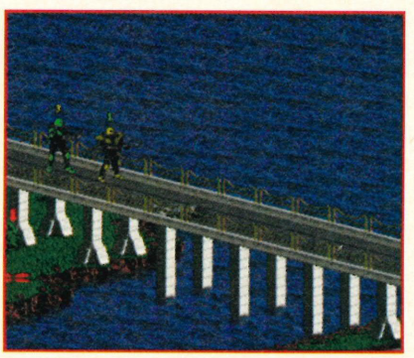
This is science fiction land, obviously, where the machines have taken over. Enter a hardy band of rebels fighting for the oppressed masses, infiltrating enemy strongholds, recovering technologies and commodities, and destroying pretty much everything else along the way. And naturally, finding hidden keys to use on colour-coded doors comes into it too. Okay, so the whole scenario is full of holes, but since when did that matter? *Total Mania* thankfully pushes the story only as a basis for the missions and an

Take it to the bridge

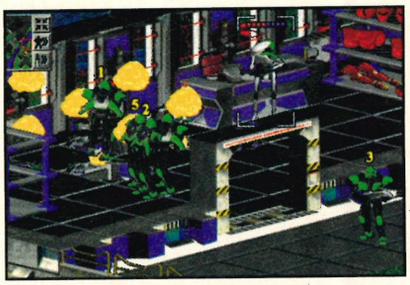
Slowly but surely the level designs start getting rather sneaky. Here's an early puzzle.



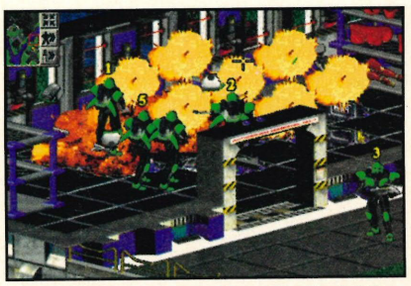
Our soldiers need to get to the other side, but there's no way they can jump the gap, not in all that armour. Some initiative is needed, chaps.



A quick scout around reveals a pressure pad at the bottom of the steps. Go for it.



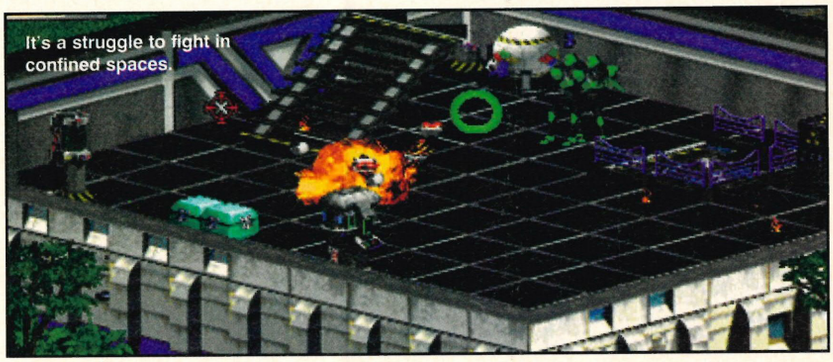
Even the most modest of skirmishes have a habit of deteriorating into...



...something very spectacular. Top firefighting action, it has to be said.



Moody menu screen ahoy. Mechwarrior 2 has a lot to answer for.



It's a struggle to fight in confined spaces.

excuse to show lots of lovely pre-rendered stuff, some nice menu screens, and introduce plenty of ridiculously powerful hardware. Just what the kids want.

Needless to say, *Total Mania* is an action based game. The player must juggle the actions and movements of up to six troops, and the control system is a point-and-click affair. Despite ability to send soldiers off on their own steam – vital later on – direct control is where the fun lies. There are 20 missions in all, increasing in complexity and difficulty and spanning four terrain types.

Collectable cuteness

One cute feature is the way troops can collect materials to be exchanged for credits at the end of a mission. The credits can then be used to buy kit like better armour or more power, or purchase top weapons and gadgets (invisibility, mine detectors, scramblers and the like). This adds a welcome management element to things, making *Total Mania* more than a simple collection of missions Instead, it's possible for gamers to customise the soldiers to suit their tastes as well as the tasks ahead.

Then there are the multi-player modes, offering both Deathmatch and capture-the-flag game styles. In truth, it's the structured nature of the missions that provides the most enjoyment, but the chance to interact (ie shoot at) fellow humans is always welcome. And with up to eight players on the network mode, the amount of on-screen carnage gets very impressive indeed.

The display system used is a tricky blighter – by turns gorgeous and clumsy looking. Much of the latter can be attributed to the nature of the isometric display. The walls of buildings are blacked out when troops go behind them, or cutaway views provided when the buildings are actually entered. It's a practical solution, but not one which looks great – a shame, because there's obviously been a fair time spent on landscaping the levels. A better implemented feature is the zoom function, offering two view modes. The close-up view is certainly the most fetching and useful for accurate control, but it's the wider view offered by the second which helps most when navigating and forming strategies. Pleasingly, there's practically no delay when switching between the two modes, a real boon given that seasoned players are likely to use it constantly.



This white Christmas scene is about to become a black and charred one.

Combat in Total Mania is nothing if not explosive. On early levels the enemies display little intelligence, but stiffer challenge soon arrives as the robots get progressively smarter and together. Actual fighting can be left to the troops themselves, but aiming and firing with the cursor gives the fastest results, and the greatest feeling of satisfaction. Explosions are of the napalm-blast variety, and the best weapons can even blow holes in the sides of buildings.

The learning curve offered by both troop control and the levels structure is what makes *Total Mania* compulsive. From the easy starter level the number of objectives in the missions soon increases, as does the resistance from the enemy droids. The introduction of new troops for the player to control adds greatly to the challenge. It can take a fair while to learn how to best utilise a six man team, but once the knowledge is acquired the advantages of real thought over simply storming around the place soon become obvious.

Play with guns

So, Total Mania is fast moving, easy on the eye and packed with gunplay. There are a few problems here, however – both in the nature of the game and the actual implementation. Actually navigating round the 3D landscape can be a pain, for instance, as can the way vital objects get obscured by bits of land. It's possible to find at least one level near impossible to complete because a key is hidden behind a grassy hill. There's something slightly disappointing about the action-based bias of it all, too. It's great to have arcade action, but there's a tendency for missions to fall into the fight, find the key, flick the switch, collect the goodies formula. You can forget strategy and just blast.

Total Mania's blend of wargame and arcadey gunfest doesn't offer a huge leap forward, then. But, while undeniably simpler than it first appears, there's a tremendous amount of action waiting inside these isometric walls. Certainly the real-time nature of combat is fantastic, and the emphasis on futuristic hardware is likely to please even the most picky gun fetishists. And watching six one-man armies torch a dirty great droid really is the business. Oh yes. ***(MR)***

So it goes with Total Mania - an arcade shoot-'em-up with about as much wargaming strategy as the player cares to add.

CD REVIEW

Blast away with the exclusive demo of Total Mania.

DEVELOPER
Cinematix
PUBLISHER
Eidos Interactive
CONTACT
0181 780 2222
PRICE
£39.99
MINIMUM SYSTEM
486/66, 8Mb RAM, double speed CD drive, mouse, Windows 3.1 or 95 (optional: all major soundcards)

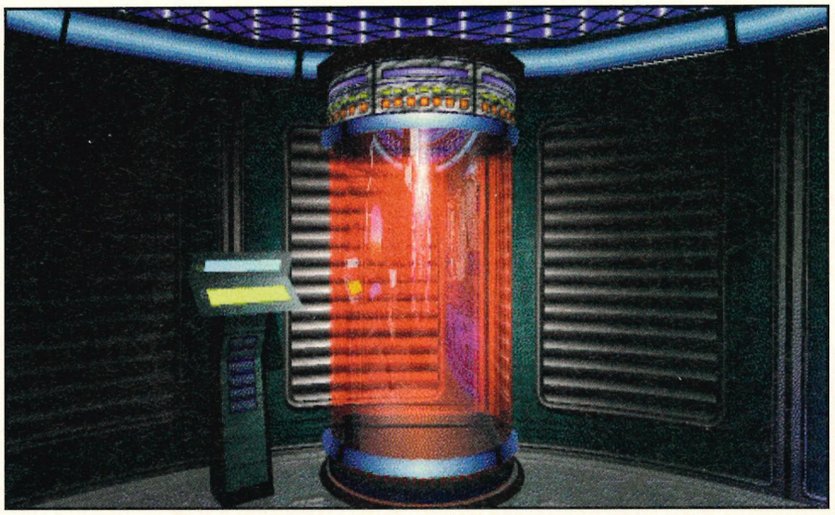
PC REVIEW VERDICT

Not exactly strategist's Heaven, but it's amazing how much fun you can have with heavy weaponry.

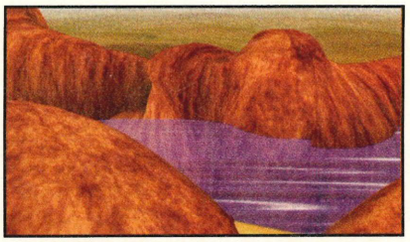
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About the author

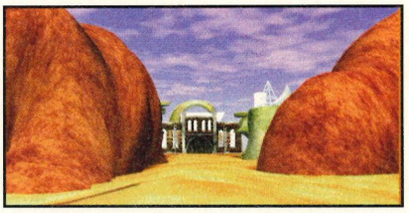
A prolific writer of quality science fiction, Ray Bradbury's other major works include Fahrenheit 451 (1953, a dystopian view of a future where books are burned and not read), The Illustrated Man (1951, a collection of his some of his finest short stories) and the screenplay for the film Moby Dick (1956, written in conjunction with the late John Huston). The B-Movies, It Came From Outer Space (1953) and The Beast from 20,000 Fathoms (1953), were also based on two short stories written by Bradbury.



The transporter aboard your spaceship. The sight of this marvellous machine begins to annoy well before your 82nd rematerialisation.



It sure beats the Kennet and Avon Canal for colour. No gypsy canalboats though.



The mysterious city of Xi. If we wait around we may see a ghostly martian walk by.

The Martian Chronicles

Ray Bradbury's The Martian Chronicles Adventure Game

Where have all the Martians gone? Take a rocket trip to the red planet via this new graphical adventure and find out.

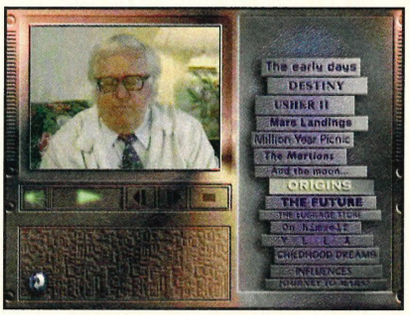
Suspend your disbelief and visualise the scene. Your spaceship has just landed on the canal-scarred surface of Mars at the perimeter of Xi, an ancient Martian settlement. Having travelled from an Earth ravaged by conflict and on the brink of nuclear war, you are understandably relieved to have reached a relatively peaceful city. However, the ship's computer informs you that the crew of the previous two expeditions to the planet have mysteriously disappeared, along with the indigenous population (masters of telepathy and illusion), and your relief gives way to feelings of apprehension and curiosity. That cup of tea and inter-galactic Hobnob will have to wait. After donning a pressurized helmet, you teleport yourself onto the planet's surface, pass through a steep sided canyon, and enter the mysterious Xi. So lies the alien foundation of *The Martian Chronicles*, a game adaptation of Ray Bradbury's 1951 science fiction classic of the same name.

Using a sub-standard movement format – forward, right and left, and to go backwards you must turn left or right twice – your mission is to find the lost *Martian Archives* and in doing so both solve the mystery of the lost Martian race and unlock secrets that may help prevent the destruction of Earth. But do you really want to find them?

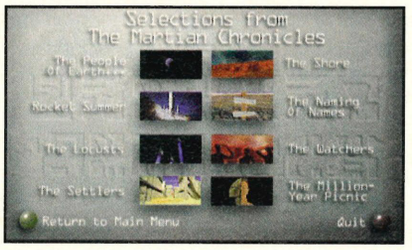
Although *The Martian Chronicles* has a lot to praise, namely the attractive SVGA locations, impressive (though few) animation sequences, and a rather nifty scanner that enables its user to magnify objects, translate Martian symbols and elucidate the strange illusions that often crop up, the adventure itself just isn't compelling. Alright, for the first few hours you will eagerly attempt to solve the puzzles that will bring you closer to your goal, rubbing your eyes as ephemeral figures sporadically appear then fade away before you, hinting at the existence of a ghostly population, but before long you may become tired of the limited stepped movement and yearn for a fluid *Doom*-esque sense of semi-reality – the feeling of being there. Okay, it's not meant to be an arcade-style adventure, and is proud of maintaining the traditions of PC adventures of yore, but the movement aspect of the game could have been much better.



The buttons on your toolbar include, from left to right: a mapping tool, data recorder, status display, scanner, and transporter.



Here Bradbury is reflecting on one of 15 topics relating to his life, the themes of his books and broader alien issues.



Also available on the disk are eight narrated excerpts from the original text accompanied, of course, by animations.

Still, there is an exclusive video interview with Ray Bradbury broaching subjects such as the Mars landings and childhood dreams, that serves as an interesting and informative addendum to the game. All in all, *The Martian Chronicles* is an average release that will win a few hearts, if only because of its connection to the great writer. With just a little more thought put into the user interface, it could have done justice to the novel. ***(JT)***

Before long you may become tired of the stepped movements and yearn for a fluid Doom-esque sense of semi-reality.

Developer
Byron Preiss Multimedia
Publisher
CIC/Viacom
Contact
0181 563 4013
Price
£39.99
Minimum System
486 DX/25, 8Mb, double speed CD drive, Windows 3.1 or better, SVGA, soundcard

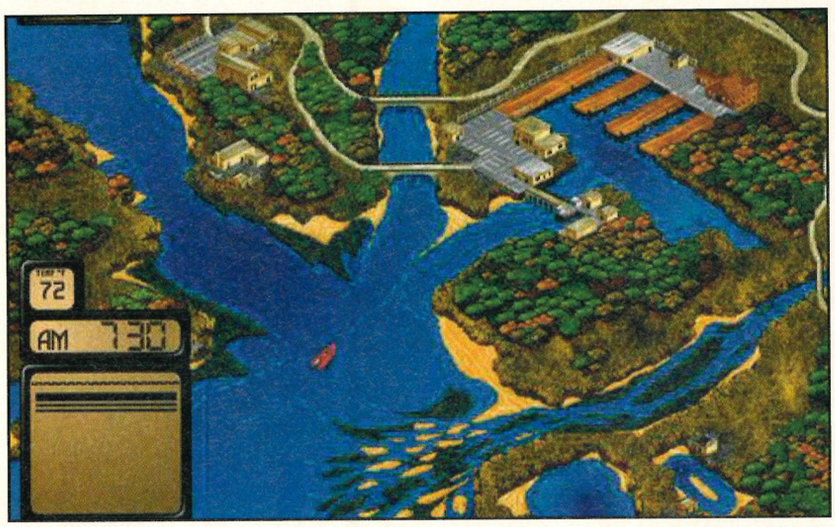
PC REVIEW VERDICT

An attractive and intriguing graphic adventure but bland puzzles and limited exploration destroy it.

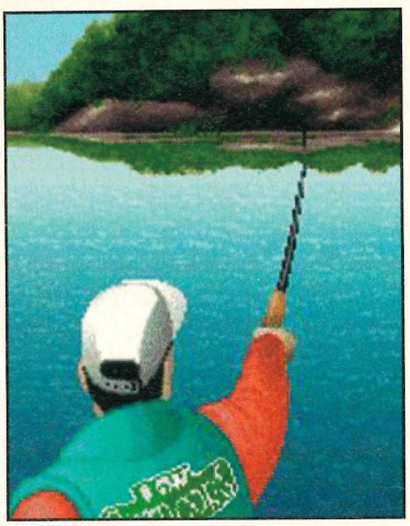
5

TNN OUTDOORS BASS TOURNAMENT 96

Don't have the time or money to boat around American lakes catching bass? Then give it a try from your living room...



One of the strong points of TNN Outdoor Bass Tournament is the variety of locations in which you can fish. The red dot here is your boat.



He's cast his line, but has he chosen the right tackle? Only the fish knows for sure.

DEVELOPER
American Softworks
PUBLISHER
Electronic Arts
CONTACT
01753 549442
PRICE
£39.99
MINIMUM SYSTEM
386DX/40, 4Mb RAM, CD drive, SVGA, DOS

PC REVIEW VERDICT

Simple to play and easy to get into fishing game – but you need to be a fishing expert to understand it.

5

Having dealt with just about every sport known to man, it was only a matter of time before game makers turned to fishing. Over the past year a few PC games have attempted to simulate this popular pastime, and *TNN Outdoors Bass Tournament '96* is the latest to arrive.

From the main screen you choose either normal fishing or tournament play. The former allows you to choose one of the lakes featured in the game so you can practice your casting or just fish. Tournament play is similar, except you're competing against other fishermen to catch the greatest weight in bass is a single day. Winning a tournament allows you to enter more advanced ones, and nab some prize money too. Sadly this cash can't be used to throw a party or take a holiday, but you can use it to buy lures, rods and reels, and even a faster boat.

Where *TNN Outdoors Bass Tournament '96* succeeds is in its simplicity. Finding fish is a a matter of cruising the lake using the cursor keys and keeping an eye on your echo-locator. When you find fish you switch to the casting screen where a top-down echo-locator screen pin-points the fish. You can move your aim left and right, then cast by clicking the mouse to set a power bar.

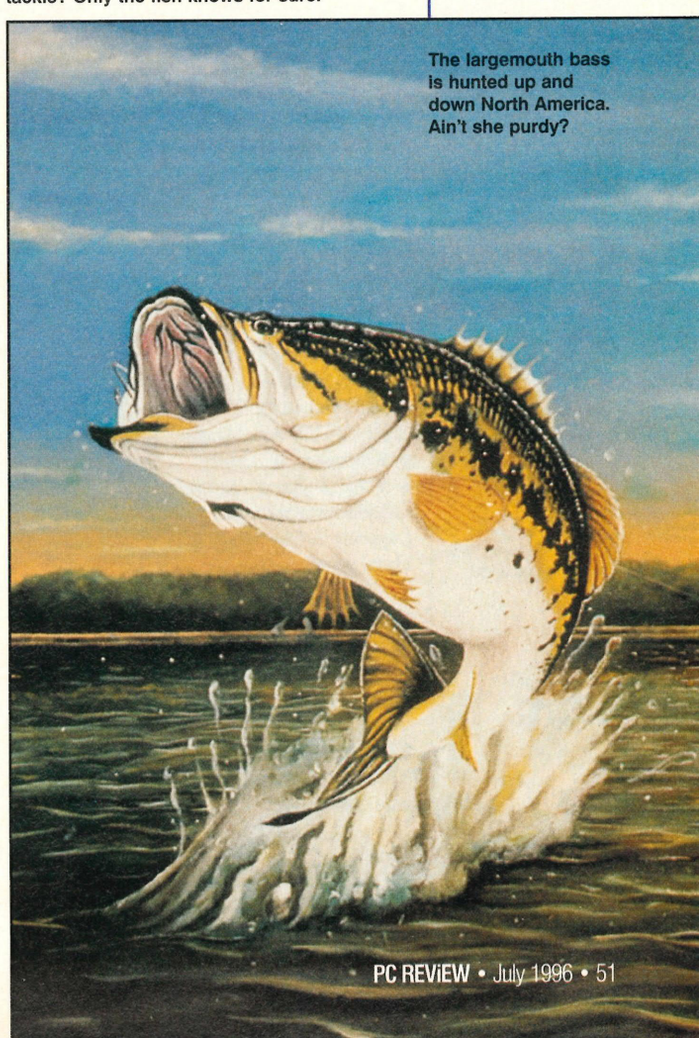


Now, should we use a simple worm-on-hook, or the elabourate crawfish lure?

Once the lure is in the water, the view changes to a top-down close-up. You can adjust the speed at which you reel it in, and its depth, while keeping an eye on the fish. If one bites, you strike and adjust the drag on the line – a tension bar shows how much the fish is pulling – in an effort to work it in without letting it slip the hook or break the line.

Unfortunately, while it's easy to pick up and quite enjoyable, the game is not without problems. What lets it down is the complete lack of advice in the manual. You know you've got to catch bass, but you're not told how to do it – where bass are likely to be found, what depth they swim at, the usefulness of the dozens of lures available and so on. You're left pretty much in the dark, trying things at random, unable to make sensible decisions. In normal fishing you can ask for advice from an 'expert', but the game's short video clips appear to be somewhat random.

If you're an expert on bass fishing, you may find *TNN* to your tastes. Less accomplished anglers, though, should steer clear. If you really want a fishing simulation, try *Bass Fishing* from Sierra, which at least explains what's going on. ***(AB)***



The largemouth bass is hunted up and down North America. Ain't she purdy?



Here's the quite distant view – great for anticipating turns, bad for control.



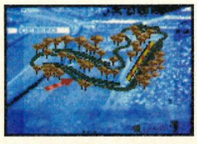
Then there's the driver's seat view, a favourite with the Daytona crowd.



This sort of view is all very nice, but not exactly practical.

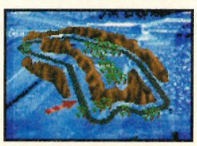


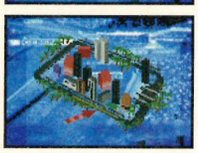
The sparks fly in the overtly, aguably overly, arcade-based Speed Haste.



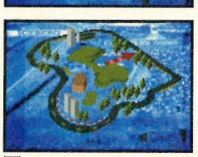








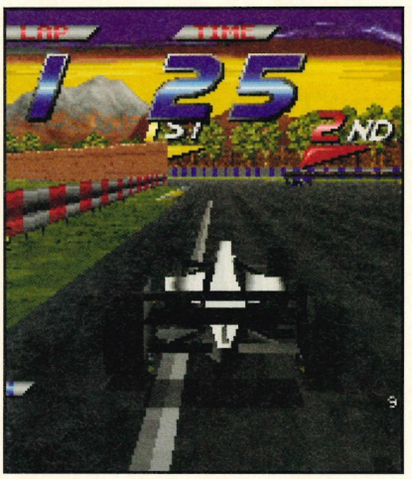




TRACKSVILLE
Here are seven of the courses.



Now this viewpoint is much more like it. You're right up in the action, crashing into the blocky looking cars and making sparks fly eveywhere. Reckless.



Even in VGA mode the game is pretty enough. Shame not much speed or haste in it.

SPEED HASTE

So, do you feel the need? The need for speed? Better start looking elsewhere, then.

In the crazy mixed-up world of PC racing games the action and simulation camps rarely meet without causing the most horrendous gameplay pile-up. Sure the *Formula One Grand Prix* games have arcade help systems, but players are still firmly in tyre pressure and chassis mass simulation territory. At the other end of the scale lurk the likes of *Screamer*, tyre-squealingly fun but a bit predictable. What we need is something which combines the visual finesse of the classic *Sega Rally* with the degree of realism necessary to add untold longevity. Sadly, *Speed Haste* is not that game.



Varying levels of opponent AI makes for interesting races.

Instead, *Speed Haste* does its best to look like one of the simulation fraternity, with its shiny, clean graphics and the inclusion of both stock and F1 cars. One spin round one of the eight tracks is enough to reveal its true racing colours, however. Realism only takes the merest peek at the driving dynamics, and is left behind like so much road kill when the cars collide, spin or generally go way out of control. Picture the offspring of a *Screamer* and *Destruction Derby* union and you've got the general idea.

Speed Haste needs to be judged in terms of a quick arcade thrill, then. Certainly the car selection (with three automatics and three with manual gearboxes) does the business. Eight tracks isn't exactly breaking the bank, though, particularly when they're all rather flat and boringly decorated. Those crisp textures may look lovely, but the lack of peripheral detail robs the tracks of individuality. The intelligence levels of the computer cars are better handled – the inclusion of some really average drivers along with the AI elite making for a nicely balanced challenge. Split-screen two-player modes and a clutch of network, modem and serial link hook-ups are most welcome, too.

The thing is, run *Speed Haste* in SVGA mode, which it's obviously been designed for, and the game just doesn't really possess any speed. Even on a high end Pentium the game is slow enough to make car handling awkward. Quite why *Speed Haste* is so sluggish isn't obvious – it's not as if the 3D system is doing cartwheels or anything out of the ordinary.

What really makes knackers, though, is that car handling. Frankly, driving the cars in *Speed Haste* is a depressingly mediocre experience. The cornering feels average, the collisions are dull, and there's little urge to check out the spectacular scenery around the next bend – because there isn't any. In multi-player mode there's a degree of fun to be had here, but that's more down to the element of human competition than anything else. This could've been a real belter, instead it sticks firmly to the middle of the road, and fails to drive with due car and attention. More speed, less haste next time, please. ***(MR)***



Car selection. There might be F1-style cars, but there are no F1 dynamics.

DEVELOPER
NoriaWorks
PUBLISHER
Electronic Arts
CONTACT
01753 549442
PRICE
£44.99
MINIMUM SYSTEM
486/33, 4Mb RAM, 7Mb hard disk space, CD drive

PC REVIEW VERDICT

4

Like Destruction Derby without the destruction. Doh!

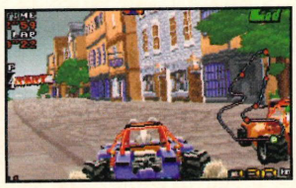
This could've been a real belter, instead it stays firmly in the middle of the road.



On the lamb in sunny France, watch the wool fly.



Looks just like the neon and chrome wonderland of Tokyo.



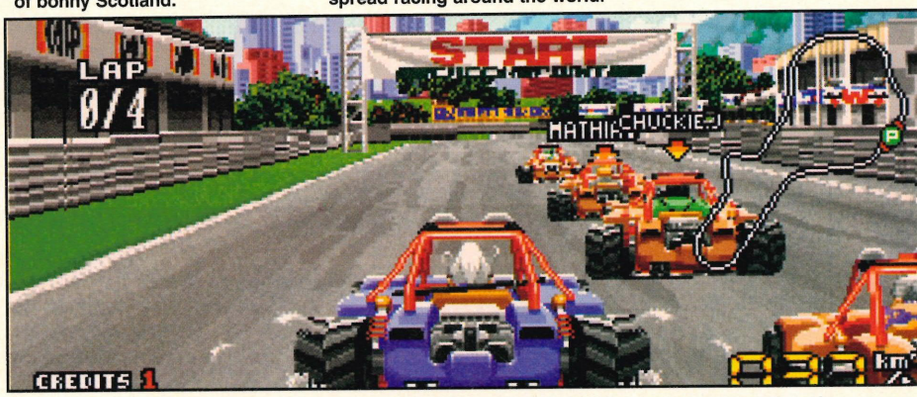
Powersliding through the streets of bonny Scotland.



The four competition levels spread racing around the world.



Out amongst the cacti and animal bones in the good old US of A. The scenery zips along at a fair rate, but detail isn't high on the agenda.



Driving down to Rio, World Rally Fever style. This is one of probably the easiest course, though it's not the first one players have to tackle.

WORLD RALLY FEVER

You've pootled around in Manic Karts, now get ready for the skid marks left by the latest retro racer.

The manual's introduction only tells half the story. "All the fun and playability of the best arcade race games," it enthuses. But what isn't mentioned is that *World Rally Fever* is closer to the arcade race games of the 80s. Die-hard arcade machine fans can forget *Sega Rally*, drop all thoughts of *Daytona*, and leave *Ridge Racer* out of the equation. Rather it's the simple pleasures of *Out Run* and *Power Drift* that are being resurrected here. State of the art it's not.

To play *World Rally Fever* is to take a trip back to the days when racing games were big and chunky, with sprite-based cars glooping along through sturdy, basic landscapes. There are some concessions to modernity here, notably the way the screen tilts on the corners and the inclusion of power-ups, but mostly it's business as usual. Choosing from one of eight drivers, there are 16 rally tracks to belt around, each conjuring up an individual flavour appropriate to the country. The USA has the Statue Of Liberty in the background, France has cornfields and comedy sheep on the road, etc. The characters themselves are displayed on the intro screens in a vaguely Manga style (we know this because the manual repeats it every few sentences), to the point where two of them resemble a couple of familiar *Street Fighter 2* faces. But once in the game all such artistic leanings are abandoned, leaving players to get to grips with the skid-tastic control system and five laps of bashing, jumping and power-up usage.

The message here is clear – who needs whizzy polygon-based 3D visuals when there are lashings of good-old fashioned gameplay to wallow in? All well and good, except *World Rally Fever* isn't actually that much fun to play. Doh!



Disappointment number one is provided by the lack of any multi-player mode whatsoever, be it split-screen, modem, serial or network. It's just the player versus a bunch of computer drivers which all lack any real individual driving skills. And then there's the way cars handle. Making the car skid on every corner is great – powersliding is always the best thing about rally games, after all. But here there's no real feeling of true physics, the car merely tilts a bit, then snaps back at the end of a corner. No attempt has been made to simulate a driver's fight to keep control of the vehicle. Even the token inclusion of power-ups fails to pepper the affair sufficiently. Play *World Rally Fever* for more than 30 minutes and video game rigor mortis soon takes hold.

The old game ideas are often the best, undoubtedly. But genres such as driving games have been refined rather than muddied over the years, so why resurrect the simplistic look and feel of the old ones? *World Rally Fever* is as much fun as it looks. It really is that average. ***(MR)***



It's the simple pleasures of Out Run and Power Drift that are being resurrected here. State of the art it's not.

DEVELOPER
Team 17
PUBLISHER
Ocean
CONTACT
0161 832 6633
PRICE
£29.99
MINIMUM SYSTEM
486/66, 4Mb RAM, 5Mb hard disk space, (optional: joysticks and all major soundcards)

PC REVIEW VERDICT

Token manga presentation and fumbled coin-op stylings of the last decade - not the stuff of legend.

5



CONNECTIONS

James Burke, a man with science at his fingertips and a TV camera in his study, presents a graphic adventure...

DEVELOPER
Discovery Channel
PUBLISHER
Astrion PLC
CONTACT
0181 2020011
PRICE
£29.99
MINIMUM SYSTEM
Minimum system: 486/33, 4Mb RAM, Windows 3.1 or higher, CD drive, mouse, Windows-compatible soundcard

An incohesive blend of game and science lesson. Oddly, the science lesson bit saves the day.

PC REVIEW VERDICT

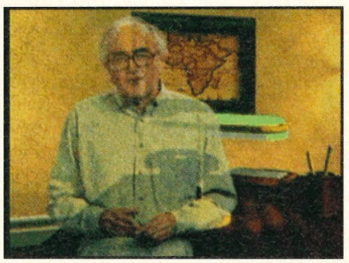
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Despite the rise in popularity of edutainment titles, learning games are rarely games at all. *Connections* is different, though, not least because it features James Burke, probably the only man in television history to make watching science programs seem interesting and sometimes even essential.



Some of the puzzles are of the old fashioned adventure variety – the key to a nearby locked box is under the castle's welcome mat, for instance. Others are far more tricky, and usually related to the science topics covered.

Connections – a sort of *Tomorrow's World* with real science – was first aired by the BBC in 1979, temporarily inspiring countless kids to actually watch educationally valid television. Sadly, the series came to an end, and the amiable presenter Burke disappeared from our screens. The idea was resurrected by the Discovery Channel a short while back, and it's this series on which this game is based, blending the usual adventure elements with Burke's quirky way of connecting seemingly unrelated events and bits of history.



Burke explains how connections must be made to restore order in the game world, and stop his image fading out.

The idea is simple enough. You have to roam around interacting with certain objects and collecting others for use in the whole connected scheme of things. There's some scenario about how the reality of the game-world (or the Web, as Burke calls) is disintegrating. Connecting the clues is the only way to hold it together. But what matters here is the way information is handed by the player in a remarkably painless fashion – through footage of Burke both new and culled from the show.

It's all rather disjointed, sure enough, and the old tiny viewing windows with QuickTime movie images doesn't exactly help get things across either. Gamers will probably want to play a straight game, while those hooked by Burke would no doubt be happier watching the TV show. And of course, it has that edutainment feel to it. But *Connections* is just that little bit too nice to dislike, and the way it educates without anyone ever realising it is a canny trick. Just like Mr Burke's original series, in fact. ***(MR)***

PIRANHA

If classy revivals of arcade hits are your thing, this probably isn't.

DEVELOPER
OTM
PUBLISHER
OTM
CONTACT
01827 313302
PRICE
£19.99
MINIMUM SYSTEM
486/66, 8Mb RAM, 25Mb hard disk space, VLB or PCI video card, CD-ROM drive (joystick optional)

Sometimes resurrecting the dead has horrific results. The original Asteroids was better than this.

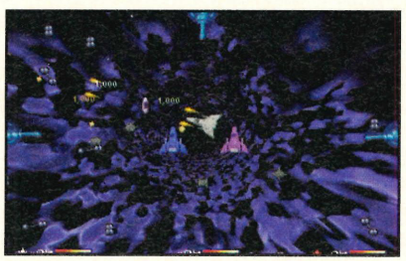
PC REVIEW VERDICT

3

Redo something that was originally done over 15 years ago and it pays to not only do it right, but to do it differently to the way somebody else did it a few months ago. That something we refer to is *Asteroids*, while the recent update of it is *Super Stardust 96* (*PCR55*, 7). And, alas, the remarkably familiar, but failed second attempt to bring the original concept up to date is *Piranha*. Oh dear.

The problem is not only that *Piranha* copies *Super Stardust*'s idea of putting power-ups into *Asteroids*, along with rendered rocks, clever alien space ships, cute backgrounds, and loud techno music. Rather, it's the fact that *Piranha* does all these things less competently. Even the music here is insipid. Furthermore, there's no 3D tunnel section. But there are two- and three-player modes, and an arena-based battle option which owes a lot to those old Atari tank games of 1980.

Not only does *Piranha* look a touch sub-standard, it plays wrong too. The levels get stupidly hard all too quickly, with so much debris flying around that avoiding it is just a matter of luck rather than skill. And with only energy, smart bomb, and gun-boosting power-ups to collect, players are poorly equipped to deal with the gun emplacements, gravity-heavy planets and nasty alien spaceships which appear with regularity in the later levels. All these things are fine, it's just the way they're implemented that's poor.

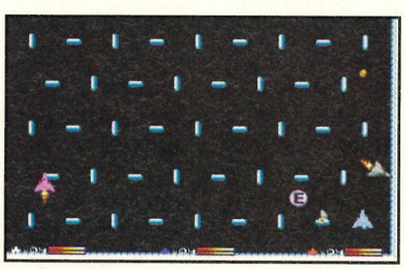


The inclusion of two and three player modes is neat, but that's about as daringly different as Piranha gets.

The original *Asteroids* was a game where control of the inertial ship was the key to success. The original's designers understood that simplicity was the thing – a mere handful of rocks threatened the player's existence – that made it so gripping. Death was almost always down to bad piloting or lack of arcade-fast reaction times. *Piranha* possesses none of those qualities. What it does possess is a nice line in pre-rendered rock formations. But that's not really going to set the world on fire, is it? ***(MR)***



Quick paint package sketches in the background, a few rendered rocks and hideously misjudged gameplay. That's Piranha for you.



The league battles are actually fun after the mundane goings on in the main game's 100 levels. They're still only up to shareware level.

Guaranteed to melt away the miseries of mediocre games... FAST!

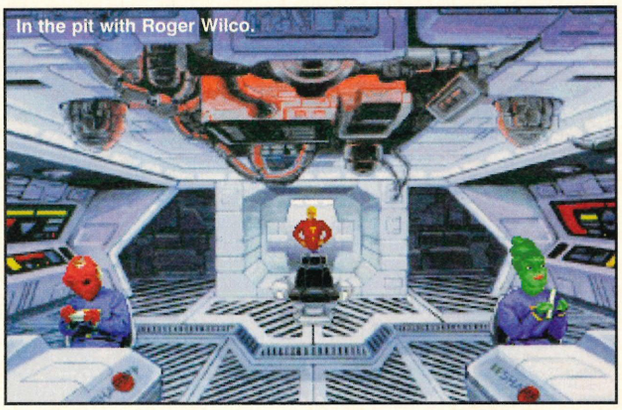


"more challenging, more interesting and more feature filled than its illustrious predecessor" PC ZONE, April 1996.
"a must for fans of the original and gamers who like God sims" PC Power, April 1996.
"Corking product" Gamepro, May 1996.
"Guaranteed to keep you locked away for hours" CD Powerplay, April 1996.
"a sequel that is set to take the world by storm" PC Home, April 1996.

Blue Byte Software Ltd • 22 Billing Road • Northampton • NN1 5AT • United Kingdom • Tel: 01604 - 232200 • Fax: 01604 - 24553
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Re-issues

More budget wonders along with the obligatory 'why on earth is that so cheap?' queries.


In the pit with Roger Wilco.

Space Quest V

Sierra Originals £9.99

Imagine you're a top executive for a multinational software publisher. Someone comes up to you with a great idea for a new release. "It'll be a graphical adventure game called Space Quest V, and it'll have the same jokes as the previous four." For fun, you question the logic of releasing the same game in yet another guise. "But this'll be completely different," replies your top ideas man. "We'll bring in new graphics, stupider characters and we'll give Roger Wilco, the hero, completely illogical puzzles to solve."

What would you do in the executive's position? Well? Then it's a shame you're not in his position, isn't it? The top executive is so good with the horse flogger, he'll even release *Space Quest V* on budget.

PCR VERDICT	6/10

Bioforge

EA Classics £11.99

A year on and the *Bioforge* universe is still one of the most detailled alternative realities there is. Assuming the rippled, panel beaten body of Lex, a bizarre mechanical mutation, you're out to meet and pulverise your maker, the vicious Dr Mastaba. The tale unfolds as a move and explore adventure, with stunning movie sequences and a decent combat game punctuating more cerebral puzzling.

You view Lex and his 3D environment through dynamically selected camera angles. The sci-fi scenery is a treat with great texture mapping behind the real world objects: buttons to press, doors to open, guns with which to get trigger-happy. For an adventure game, *Bioforge* is heavily detailed. When you hit opponents they bleed and when you blast them they eviscerate. Everything screams, bringing the game to life. The characters even walk like living creatures (EA digitised real actors in 3D to create the motion templates) and Lex careers around like a drunk when he's damaged. Best of all is a story that drives the action onward. The creators of *Bioforge* realised that a half-decent decent plot is the cinema element worth stealing, not the passivity. So there's no thumb-twiddling and wondering when the popcorn's arriving.

Of course even at a budget price it's not perfect. Occasionally, you'll find yourself attacked by unseen opponents when the dynamic camera selection breaks down and the game director comes over all art-house. Also, with the game striving to present a truly epic tale, it's perhaps inevitable that the script can sometimes become a bind. You're ready for the next act but you don't know how to get there. Boredom rears its sleepy head and the universe suddenly seems all too unreal. But in full flight, *Bioforge* is a mech-mutoid that still shreds mustard.


The Doctor will see you now.

PCR VERDICT	9/10

Wing Commander 3

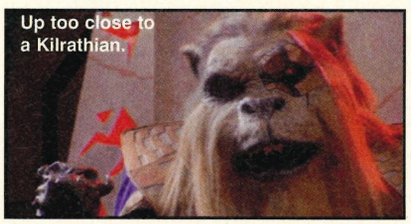
EA Classics £11.99

Reach for the stars with Mark Hamill and friends in this legendary space opera. You play the heroically named Chris Blair, fighting with the Terran Confederation against the Kilrathis who are, essentially, cats. Luckily for the gameplay, these felines have moved on from teasing mice. They've mastered the skills of space fighting and galaxy pillaging and now they're after your brand of civilisation. What have you got going for you? A whole host of special vehicles and weapons, naturally. Oh, and the aforementioned Mark Hamill, the original Skywalker.

It cost $4 million to make, with half of that going on the actors and the rest on the coding talent. The game's chock full o' interactive cinematic sequences, as you might have hoped for but, until *Wing Commander 3*, you'd never have expected, the Hollywood stars actually shine. Interacting with the characters is entertaining enough. Just as well as you need to make the right allies early on if you're to triumph. Every chance meeting presents the opportunity to destroy the makings of a beautiful friendship. Whilst the political diplomacy will eventually have you running for your Thunderbolt VII, there's a great feeling that your destiny is completely in your own hands.

It's combat that makes the game though. Outside your cockpit is a universe where space and time are immutable laws. As you approach a monster ship it rushes up like an enormous wall, and a beautifully detailed, riveted, blinking and flashing wall at that. Meanwhile your headset buzzes with crackled words from your buddies. Eventually you might wish for more strong, silent types in the Terran forces but the sensation of chasing down an enemy fighter with a bunch of redneck pilots egging you on is frighteningly addictive.

The downside is that loading takes forever. Get *Wing Commander 4* and you'll spend much less time watching the CD light winking cheerily between the mayhem. But does *Wing Commander 4* cost £12?


Up too close to a Kilrathian.

PCR VERDICT	7/10

PGA Tour Golf 486

EA Classics £11.99

Back in 1994 the power of Intel's 486 demanded a top quality showcase. *PGA Tour Golf 486* wasn't that game, but it was pretty smart all the same. To the 486 version EA brought video and smooth, detailed graphics, while retaining the serious golfing action that made the original such a classic.

Whether you're a novice, a casual player or a regular, *PGA Tour Golf 486* can match your game. You'll need a lot of practice to improve your skills and a cool hand to beat the PC at the top levels. But rather than annoying the plaid pants off you, gradually accumulating golfing ability makes you feel you've really earned your clubs. The game's there to help, dishing out advice the first time you encounter a hole and allowing you to rehit the same shot repeatedly.

The game's glaring fault has always been the ridiculous amount of time it takes to load and draw new holes. Time hasn't been kind to *PGA Tour Gold 486* and you're likely to find the delay even more frustrating than a round with the father-in-law and his dodgy knee.

PCR VERDICT	8/10



PGA 486: Glorious if you're patient.

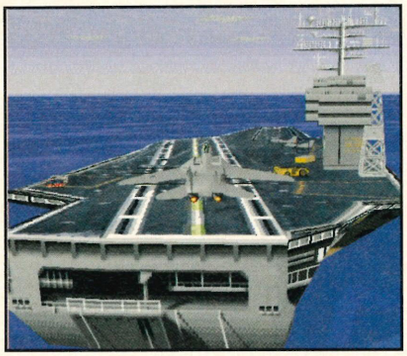
US Navy Fighters

EA Classics £11.99

Wonderful flight graphics, top sounds and a hangar full of options weren't enough to make *US Navy Fighters* a classic in its day, and they're not enough now. It's difficult to pinpoint what's wrong: like Tom Cruise, it has all the right elements of greatness save the spark of genius. Is modern combat simply too remote? Our breath just isn't taken away with breakneck thrust and megadollar missiles. We long to descend through crisp blankets of cloud, with barely a lawnmower engine keeping our feeble frames from terra firma.

Still, it's easy to heap faint praise: the wingmen babbling, the Gouraud-shaded aircraft, the 50 level campaign's storyline, the once unique SVGA mode. And although the movie clips are cheesy, it's the flight that matters. There's no denying the thrill of sinking a ship in plumes of smoke. Destroying your own side is great fun too, and the mission designer lets you to kill all the Yanks you want. But ultimately there are better vehicles for airborne mayhem (Empire's *Dawn Patrol* for instance). Unless you're collecting the Rowan set, you may want to look elsewhere.

PCR VERDICT	7/10



Landing on a battleship in US Navy Fighters.

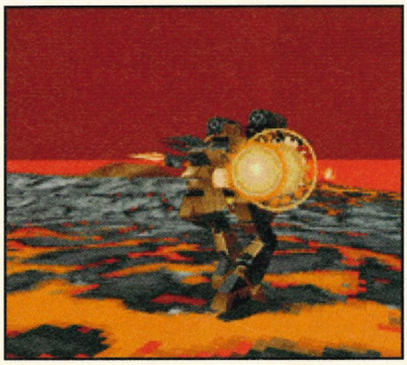
Earthsiege 1

Sierra Originals £9.99

It's machine versus man and machine again in this top robot stomper. *Earthsiege*'s *Terminator* inspired world sees humans crushed by the metal boots of progress. Luddittes that we are, we refuse to roll over. You play one of the plucky resistance fighters. Armed with a brilliantly animated HERC - a giant robotic exoskeleton, packed with weapons – you shoot at anything that gets in your way. Even better, the strategy side of things is well thought out. You can take part in every stage of the conflict, from recon to defence and, of course, all out war.

So, what's the catch? Well, there's no all-important multi-player mode and *Earthsiege* is nowhere near as hot as Activision's *Mech Warrior II*. The gameplay, while frenetic and realistic, also eventually becomes a mite repetitive. More importantly, there's nothing really new here. Rather, it's all the usual robo-war elements – the thrilling sound of Armegeddon, ploddingly brilliant animated robot legs and a massive 3D landscape – but this time decently executed. And in Budgetland you can't ask for more than that.

PCR VERDICT	9/10



The robots in EarthSiege feel solid.

The Euro 96 cash in head to head

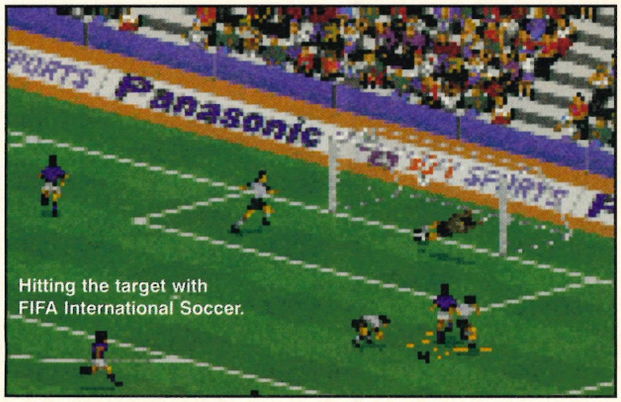
The Ultimate Football Collection, Ubisoft £34.00

Versus

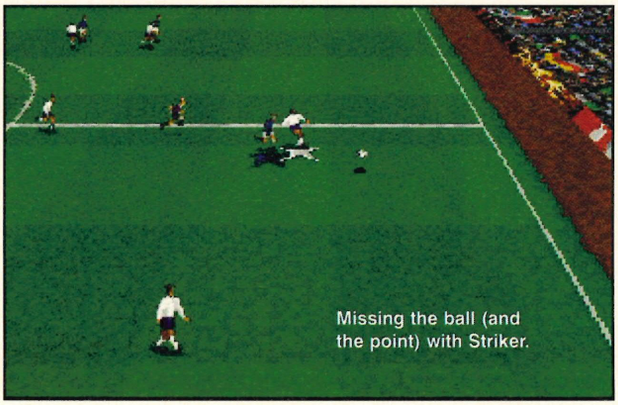
Euro Soccer Stars 96, Empire £29.99

You could buy both of these compilations and have all the football games you never wanted… most of them twice. *The Ultimate Football Collection* has *FIFA International Soccer*, *Premier Manager 3*, *Kick Off 3*, *On the Ball*, *Sensible Soccer*, *Championship Manager 1993/94*, *Goal!* and *Striker*. The basic game doesn't change much. It's a game of two halves and whoever scores the most goals wins out in the end. *Premier Manager 3* is the best of the management games while *FIFA* and *Sensible* are the action games you'll return to.

It's the same story with Empire's collection. You're offered more footie games than you'll need. *FIFA* and *Premier Manager 3* are again up for grabs. *Championship Manager 1993/1994* is back again too, although you probably won't want that. But where's *Sensible Soccer*? In the Ubisoft compilation, that's where! Instead you're offered *On the Ball*, *Player Manager 2 Extra* and *Kick Off 3 – European Challenge*. It's not a fair swap and, even though it's more expensive, you're probably better forking out the cash for the Ubisoft collection.



Hitting the target with FIFA International Soccer.



Missing the ball (and the point) with Striker.

Little Big Adventure is back, and you'll be wanting to know how to get more health while playing. Meanwhile, Fatal Racing fans can enjoy the secret vehicles and anyone still stuck on the Hive can now skip to any level. That's not all, we've also got cheats for Civilization II and Ascendancy.

PLAY TO WIN

In addition to our solutions on the following pages we also specialise in much smaller tips. They may be tiny but they're strong. Read on...

Fatal Racing (PCR49, Score: 8)

While Fatal Racing may sound a thoroughly unpleasant passtime, we suggest you take the bull by the horns, as it were, and give it a try. Give it a good thrashing, in fact. Chances are you'll like it. And you'll like it even more if you type in any of the following cheat codes from the main configuration screen. Rev it up!



Under no circumstances park your car on its roof. Bad for the paintwork y'see.



There's already a transporter lorry-load of cars available. But now there's more.

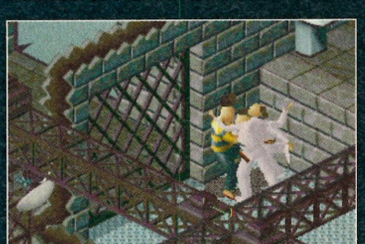
LOVEBUN	Reveals a secret car.
MAYTE	Another secret car.
TINKLE	Reveals yet another secret car.
SUICYCO	Reveals the penultimate secret car.
2X4B523P	Reveals the final ever so secret car.
FORMULA1	Allows access to each team's second car.
SUPERMAN	Enables the exciting sounding 'Destruction Mode'.
DR DEATH	Gives all human players indestructible cars.
GOLDBOY	Begins the 'Premier Cup' event.
MREPRISE	Begins the 'Bonus Cup' event.
CUP ON	Treat yourself to the game's end sequence.
I WON	See the race winners replay.
ROLL EM	See the game's riveting credits.
DUEL	All the other cars will be after your blood.
TOPTUNES	Alternative sounds and tunes.
CINEMA	Widescreen mode.
REMOVE	Remove any of the above cheats.

Fail to enter your name when prompted to play in black and white.

Little Big Adventure (PCR56, Score: 8)

LBA is currently enjoying a second-coming as a budget title and we wish it all the best on account of it being a bit good. It therefore seems a good time to resurrect one or two cheats too.

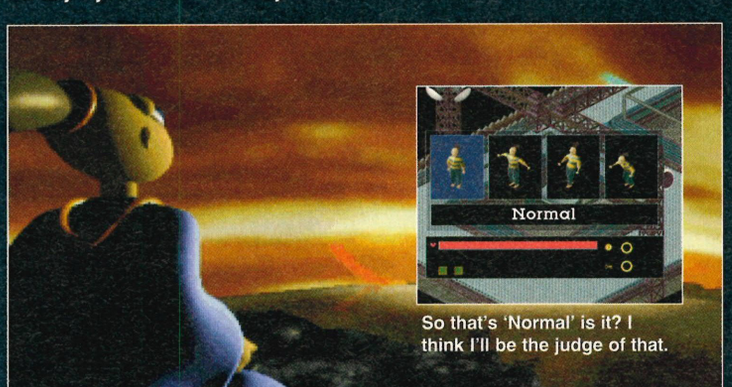
To restore your Life Health and Jetpack Power to their original heights of tippety-top top-ness hold down the letters [B], [I] and [G] on the keyboard. Alternatively, hold down [ctrl], [alt], [Right shift] and [F12] together to see what your current co-ordinates are. Frighteningly useful.



Seems this bloke is getting a little *too* friendly if you ask us. Run away. Now.



This rubbish truck comes in rather useful. So it's not 'rubbish' at all. Ha ha.



So that's 'Normal' is it? I think I'll be the judge of that.

Twinsen tears himself away from LBA for a moment to enjoy the sunset.

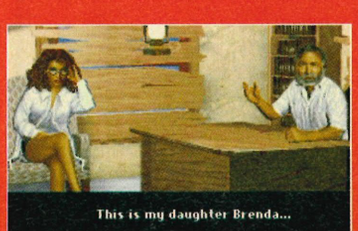
Jagged Alliance (PCR44, Score:5)

Is your team of crack mercenaries not so much crack but cack? Then this particular cheat may be of some use. Well, it's not so much a cheat as the programmers failing to tidy up a useful loop-hole. Bless them.

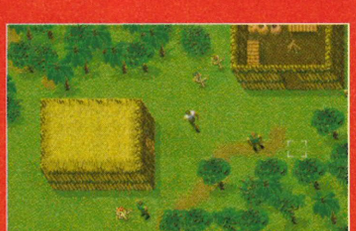
The distance your chaps can walk is dependant on their action points, which never quite let you walk them as far as you'd like to. Until now that is. Have one of your chaps walk a great distance, keeping an eye on his action points as he makes his way there. When the points are approaching zero, right click on his photo to reveal his 'Reserve points' button. Click on the button, then right click on the photo again to flip it back round. Amazingly your bloke will continue walking, paying no heed to his insufficient action points, all the way to where you told him to go.



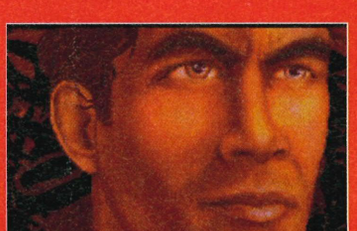
A helicopter approaches an untouched isle - and blows the hell out of it.



Well hello Brenda. I've always gone for girls in glasses. No honest.



Huts – bleedin' fousands of 'em. Just one of the many delights in *JA*.



In between levels recharge your karma by going all wistful for a bit. Ahhh.

Ascendancy (not reviewed)

What Civ II does on earth, *Ascendancy* tries to do in space. But even in the far reaches of space you can't escape running into a hidden cheat mode or two. And what a particularly fiendish one this is.

The cheat mode built into *Ascendancy* is just itching to get out. Thing is, getting it out is a rather strange affair. It involves the creating of an extra file called NOUGAT.LF in your *Ascendancy* directory. The presence of this file triggers the cheat mode the next time the game starts, enabling all sorts of useful features. The contents and method of generation of this NOUGAT.LF file doesn't seem to matter but we recommend the following tried and tested method.

First type in at a DOS prompt the instruction **COPY CON NOUGAT.LF** and press [Return]. Now type in anything you want, just a few characters will do, press [F6], then press [Return] again. There, you now have a file called NOUGAT.LF which you can copy into your *Ascendancy* directory with **COPY NOUGAT.LF C:\ASCEND** (or whatever your game's directory is called). Now begin a game as normal.

As if by magic the cheats will have begun working. Placing your cursor on a ship will tell you its Power, Moves and Integrity points and there are umpteen other useful button presses to try.

Press [1] through [7] on the main starmap to play as other species, or [8] to see everything all the other species in the game can see. [Alt] + [E], again pressed from on the main starmap, anable you to steal knowledge from other races with every turn. Then press [Alt] + [E] again to restore normality.

To increase population to the maximum value , press [O] from the planet screen. Pressing [I], meanwhile, will speed up the completion of your current project and [T] will create a new colony.

You can then press [R] to claim the planet it is on as one of yours. [C] at the research screen will complete the current research. Then move your mouse over one of the circles to update the screen.

Finally, press [D] to reveal everything you can't yet see. As before moving the mouse over the research tree will update the screen.



Cheats... in... SPACE! Get your space-age civilisation of to a flying start.

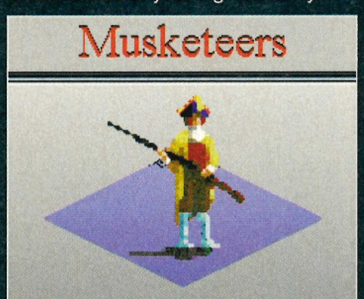
Civilization II (PCR54, Score: 9)

We know what you're thinking. How can we possibly have a cheat for *Civ II* when it's got a very powerful cheat mode built in? Well, as you may know, the one disadvantage of this cheat mode is that once engaged it records the fact that you sought help in the high score chart, rendering your performance totally un-boastworthy.

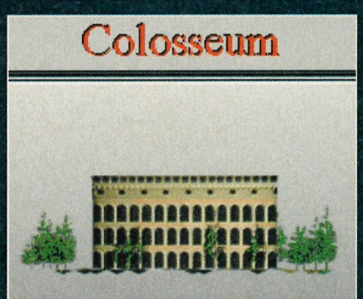
The following cheat will allow you to cheat and still invite all your friends round to admire your high score by removing any trace of your cheat mode dalliances.

First you're going to have to possess a hex-editor. Load a saved game into the editor and alter address 0F from XX to A7. Now load your saved game into *Civ II* as normal and cheat away to your heart's content.

The game will magically alter this number to 27 when you save it again but don't worry about this. All you should concern yourself with is that no trace of your evil doings have been recorded. Mum's the word.



They're called Musketeers on account of their fine muskets. Well done lads.



This is a colosseum. So called because people come a long way to 'sseum'. Um.

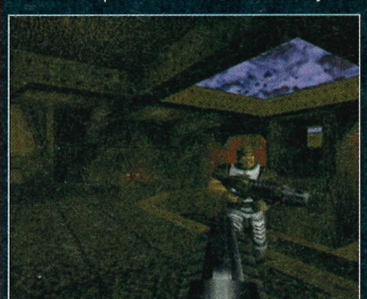
Quake (not reviewed)

Yes it may be a bit premature dishing out cheats for a game that only those people blessed with Internet access and their immediate families have had the pleasure of, but there's such a wealth of interest and such a glut of cheats already in existence for this soon-to-be-classic that we though we'd simply have to divulge a few. Alright?

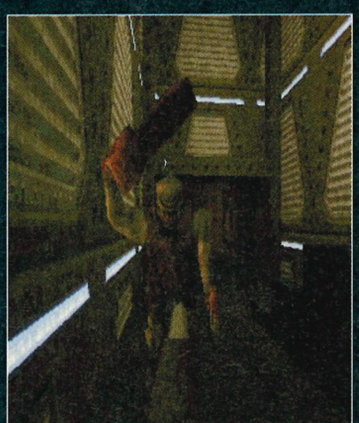
Hit [F10] to enable God mode. Depress [F9] to switch off clipping mode and perform the old *Doom*-style 'walk through walls' trick.

Punch [C] and [D] with clipping disabled to move through the floors and ceilings. Lean on [9] to award you with the full complement of weapons.

And finally, load up the test map of your choice and type **1234567890** for all the weapons and ammo. That should help in most situations.



This bloke is just asking for it isn't he? Give it to him, then.



Quake is packed with freindly folk like this chap. Or it will be when it's finished...

The Hive

The Hive's sense-battering deluge of high speed shoot-'em-up action can be a bit much for some. If this is all sounding terribly familiar then prepare yourself a delicious mug of warm milk, sit yourself down in front of your PC in your comfiest armchair and enter your name as **Toryo**. You'll now be able to access any level with a new menu option so you can skip the ones you find too taxing. After that have an early night for a change and make sure you eat a proper breakfast in the morning.



These jolly big spaceships move jolly quickly.

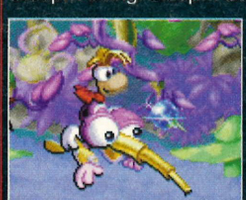


Finding it all a bit much? Don't fret, help is at hand.

Rayman

What a jolly platform romp *Rayman* is. And to commemorate this fact here is a very curious bonus cheat. Rather than making the game in any way easier to finish, as is the norm with this kind of thing, this cheat requires that you first finish the game unaided before it can weave it's game-altering magic. Bizarre.

So, first you have to complete *Rayman*. Once you've done that, type in **CBRAY** at the World Map screen to reveal a hidden *Breakout*-based game. Bloop... boing. Bloop... boing. What a treat.



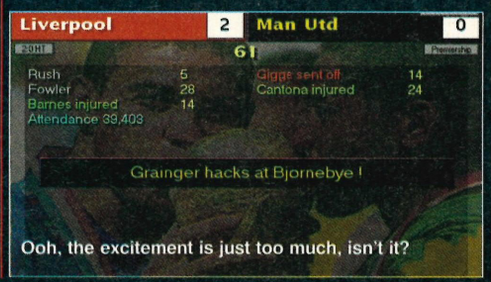
Aw look! He's found himself a special friend. Blub.



And look, his hands aren't attached to his body.

Championship Manager 2 (PCR48, Score: 9)

While the prospect of managing our fair nation's football team may scare most of us witless, there are still one or two deviants out there who would relish such a responsibility and the regular tabloid mauling it entails. The rest of us will stick with playing *Championship Manager 2*, thanks. Where we can simply type in the name of **Terry Vennables** and be instantly promoted to the rank of International Manager and receive all the kudos of the role.



Ooh, the excitement is just too much, isn't it?

"As you might have guessed, Sid Meier's latest creation is pretty compelling. It's complex, absorbing, detailed, exciting, imaginative and utterly addictive. Civilization II is a classic in every sense of the word." – PC Review issue 54, April 1996.

CIVILIZATION II

Civ 2 is a highly complex game. But there are only really two roads to victory: science and war. We'll be here to guide you down both of them. This month, the blood-spattered road to WAR!

Ha! It's war. Sure, you can try to win using science, but we'll look at that next month. Now, then. War.



1 Genesis

Your Settler is usually already in the ideal spot for a city at the start. If he isn't move him to one. Locations on the coast are good for the construction of harbours and ships later on. There's often a shoal of fish or whales nearby which will provide vital food supplies.



2 Up the shields

Once your city is built, optimise your output of shields and science beakers on the city map. Remember, however, you've still got to feed the people. Your main aim now is to build arms and speed up the sciences.



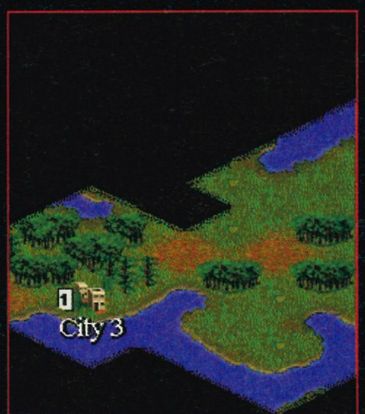
3 Going for bronze

Your new city will automatically begin work on some Warriors. Skip turns while you wait for these to arrive. Fortify the city with the new warriors and go for the Bronze Working.



4 Get the lay of the land.

Once you've got the Bronze Working you can begin building yourself a Phalanx – much better than your poxy Warriors. Go for Horseback Riding next. When the Phalanx is done, assign them to fortify your city and begin exploring with your Warriors. Work out from your city in concentric circles. It may be tempting to rush off in one direction but there might be interesting things close by that you can't afford to miss. Once you've got Horseback Riding go for Alphabet and build Horsemen. They are good explorers.



5 Time to branch out

Let's spread out a bit. When you find a good spot for another city yet, take your newly completed settlers there and build a second city. Build a Phalanx there to fortify it. The fourth advancement you go for should be Writing. Set both of your fine cities building Settlers. By now you should have a good location for your next city. The instant your next set of Settlers is ready, send it there and set build city three. As before, build a Phalanx.



6 Go for gunpowder

Your tiny civilisation should now be thriving. You did remember that we we're going to show you how to beat all the other civilisations in a war, didn't you? Well, here's the way to do it: Gunpowder. Be the first to discover Gunpowder, guard the secret well, and victory in any battle is assured. From now on, whenever you obtain an advancement and are asked which one you wish to go for next use the Help feature to find out what you should go for in order to obtain gunpowder. Take a direct root to 'pow'!



7 Brush up on your reading

You should have uncovered quite a large area with your Horsemen and Warriors by now and perhaps happened upon another civilisation. If you have, steer clear of it, being cordial when prompted to. Under no circumstances should you provoke a war at this early stage. There will be plenty of opportunity for that later, so be patient. Once you've discovered Writing you can build Libraries. Nice places for the citizens to read? Pah. Libraries speed up shield production. Go for Literacy next. Set city three building a Library whilst keeping cities one and two building settlers. All this reading will take you places.



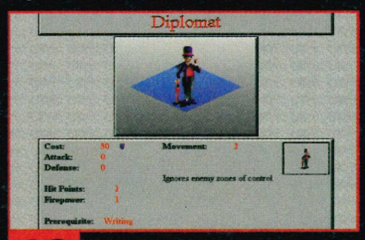
8 A fledgling civilization

Got a Settler going spare? Turn him into city number four and set the city he came from building a Library. Remember, whenever you're asked what advancement you want next, check to see which would give you Gunpowder. If you've another Settler ready build city five. With five cities in good sites you've expanded enough to get a decent war machine going.



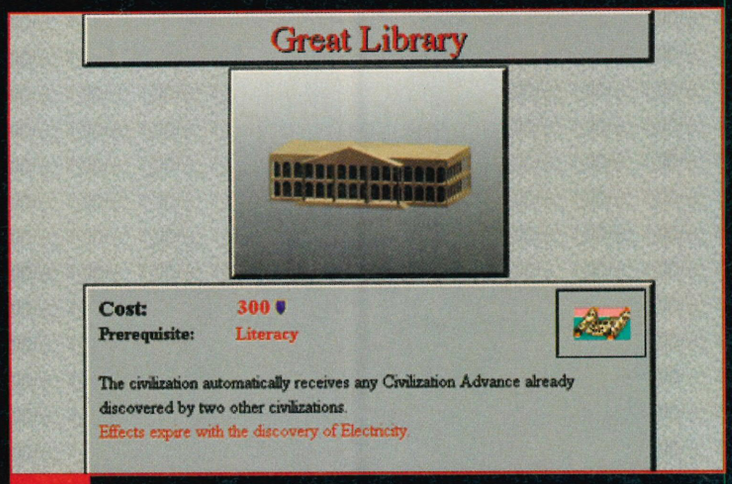
9 Time to work wonders

Set one of your five cities building a Colossus, and the other four building Libraries. If you don't have an Settlers, set one of your cities building them instead. Keep a check on your city maps to ensure that the each is producing the maximum shields and beakers.



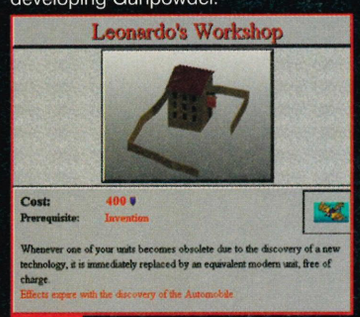
10 Soon to sail

Set your cities building Harbours next (you did build them by a coast didn't you?) they'll boost your food output. Use spare Settlers as your caretakers, send them out irrigating the farmland and building roads. A Diplomat will now come in handy too.



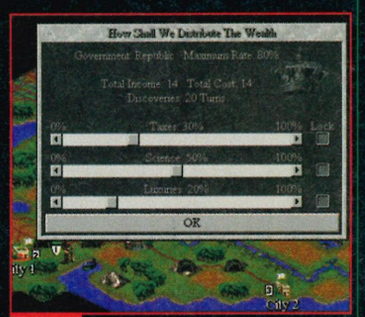
11 The Great Library

If the great council pop up listen to their pleading advice – then dismiss what they say. At this early stage they'll all be squabbling for their own needs. Ignore them. After libraries and marketplaces set your biggest city building a Great Library as your second wonder. Aim for a Library, Marketplace, Courthouse and Barracks at every city. They're all good for leading your citizens along the road to wholesome lives, but they're also instruments to your underlying aim of developing Gunpowder.



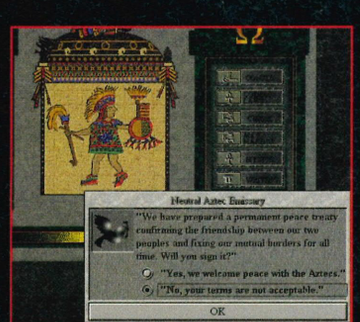
13 Pacify the populace

You may begin experiencing discontent in some cities. Build them a Temple, Cathedral or a Coliseum to keep them happy. Shakespeare's Theatre is great for pacifying an unruly population. As your next wonder have a stab at Leonardo's Workshop. This will turn Warriors into Musketeers when your Gunpowder arrives.



15 The Taxman cometh

Had a change of government lately? Adjust the taxes accordingly. Balance science output (the rate at which you gain advances) the luxuries (which keep the people happy) and taxes (which pay the bills). Try to keep science as high as you can, taxes just enough to break even and enough luxury to placate your population.



14 Visitors from afar

Trade is good. Build and establish one or two caravan routes between your cities. Keep checking your cities' outputs. You want lots of shields and lots of beakers. Make it so. If you're visited by other civilisations be courteous with them, you may swap advances if you like but don't give away anything that could help them obtain Gunpowder.



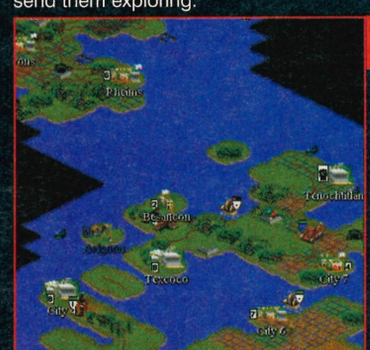
16 Ready for action

Soon you'll discover Gunpowder. Your stockpile of Warriors will become Musketeers. Load them onto your Triremes or Caravels and send them to your neighbour. If you're at peace send a Diplomat to make yourself unpopular. Hah! You've caught them with their pants down. Send Musketeers into battle against their pathetic Warriors and Phalanx.



12 Begin to build your army

Keep going for Gunpowder via your advances and keep exploring the darkened territories. Begin building Troops, just Warriors will do as they won't be doing any fighting yet. Building them will make sense to you later on. While you're waiting, don't be afraid to skip turns. Rest assured, while you don't seem particularly busy your little chaps are beavering away. Why not build a couple of Triremes too? Once ready you can either put them to sleep for the time being, or send them exploring.



17 Victory is Yours

Set all your cities building Musketeers and research Conscription. Once attained, Leonardo's Workshop will transform your Musketeers into Riflemen. Guard your cities well. The last thing you want is rivals stealing the Gunpowder secret. Capture the enemy – wipe them out. The added resources will come in handy for more weapons of war, like Cannons and Ironclads. Use these to defeat the next city you come across.

18 Repeat to fade

And that's all there is to it. Keep fighting your way to victory, never letting the secret of Gunpowder fall into enemy hands. It'll be ages before an opposing civilization gets it and when they do things could become a might trickier for you. The trick here is to be as quick as you can. Explore and locate your enemies while building your army and amassing the supreme weapons technology. Then storm in and destroy them before they manage to develop similar weapons. It never fails. Your megalomanic tendency should now be satiated.

Continued Next Month

Reach for the stars

Violence, please remember, is not the only way to solve a problem. Indeed not, you can win Civ II by using the sheer force of your scientific progress to reach the stars before your rivals.

This, however, requires a distinctly different plan of, ahem, attack to the one above. So, when you've mastered war, as spelled out this month, you're going to have to turn your mind from Gunpowder developement to stocking up on those little test tubes. As with our war scenario, chances are there will be a big requirement for Libraries and other foundations of learning. But of course, these will be put to entirely different purposes.

You'll need to swell your population to obscene proportions, trade goods and ideas with other civilisations, and (gulp) be nice to people for a change. Prepare to win the space race, next month.

Why not start a science civ now, then see how our experts do it around July 18? That's when issue 58 goes on sale.



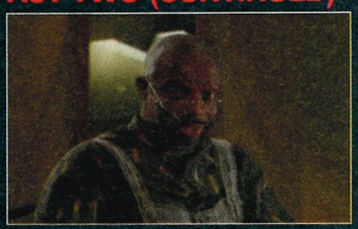
"The acting and adventuring work in close harmony, and time and money have been spent on the script and controls as well as on the movie footage. It doesn't quite make the A-list, but it succeeds as a kind of B-movie. Fitting for a game called Ripper." – PC Review issue 55, May 1996.

Ripper part two

We started it last month and we're back to finish it off, once and for all. Who is the Ripper? Follow this solution and you'll soon find out.

Remember last month? We left you pondering how to get through the voice-locked door. Here's how it opens. Check Catherine's notes as they have continued decrypting, then go and visit Soap Beatty for some words of wisdom.

ACT TWO (CONTINUED)



Soap's always got some good advice for you. Check him out.

You can get the audio editor you need from the library in cyberspace. Use your terminal in the newsroom to get there. Visit Dr Burton at the gym and talk to her. Once she's done protesting her innocence go to the voice-locked door and zoom in on the lock. Open your WAC and use the audio editor to examine the recording of Dr Burton. Use the 'quantize' feature to break the words apart, then drag the words to the blank file to form the sentence: 'This is Dr Burton. Open up.' The door will pop open.

Inside, you'll be confronted by a monkey wired up to a box with three sliders on it. Moving the sliders makes the monkey 'say' things. Try moving the first slider to 25%, the second to 75%, and the third to 50% which will result in the monkey saying: 'She can kill others like me without touching them in cyberspace.' This is the correct reply.
Nip back to the newsroom and dive into cyberspace. Go to Falcon Eddie's.



Good Lord - a talking monkey. Now we really have seen it all.



Fat-boy Farley suffers a particularly sticky end. Nasty.

The password is 'Leather Apron' as written in Catherine's journal. Once inside there's one of those annoying sliding shapes puzzles. Since the pieces are in different positions each time you meet this puzzle there isn't a defined solution, so you're on your own with this one. Try to learn the way in which the pieces move and get the edge of the picture correct before moving on to the face. When you're done, have a look at the book and letters there.

Next, return to the gym, where Dr Burton is still working out. Tell her what you know before going to the police station to tell Magnotta the same. Now go to the Tribecca centre and deck into Catherine's brain. Ask her all you can then leave and talk to Dr Cable who's lurking nearby. Have a look at the developing Ripper image in the room next-door. Round about now you'll receive a message from the Ripper and one from Farley, telling you to go to the Cafe Duchamps to meet him. At the Cafe you can grill Farley, where he will quite literally spill his guts. Immediately after this the game goes into auto-pilot for a while.

ACT THREE

Your progress through Act III may be slightly different to ours as the game steers you towards a different one of the four possible endings, but it shouldn't deviate too much.

Go to Magnotta's apartment. The door code is a simple number problem. Look at the circuit box to the left of the door to reveal some numbers. Divide each by four to come up with 2, 2, 6, 4, 8, 1. Key them in that order The top row is 1 to 4, the bottom 5 to 8. Turn left once inside and look at the table to find Catherine's WAC. Scan it into yours and read the final entry. You can also read the rest of her now decrypted journal. Do so.



Catherine's WAC is on the table in amongst Magnotta's girlie mags.

Return to the newsroom and receive a WAC from the Ripper and a surveillance transmission from Magnotta's office. Go to Falcon Eddie's well and look at the new book you'll find there (turn left a couple of times to see it). Flick through the pages. Near the end is a list of books on the left and a blank page on the right. You must place the books in order on the right according to the letter from Jack. This is a tricky problem that's even trickier to explain. Suffice to say that this the correct order: Home Repair, Auto Racing, Epileptic, Neo New Age, Earn Thousands, Duchess, Fly Fishing, Phoenix, Role Playing, Haemorrhaging, Deficit, Van Gogh, Keeping Sharp and Rabbit's Foot.

When they're in place you'll be awarded an audio file which you can listen to via your WAC. When you're done go and see how Dr Cable is getting on at the Tribecca centre. Oh dear, not too well eh? Give him a hand by entering the dates from 11/18 to the 11/23 into the computer there, pressing Return after each one. Now talk to Dr Cable once again. Next deck into Catherine's brain and talk to her as much as you can. She'll tell you about the Pan Financial Bank, which you can now visit.

Talk to George Rhodes behind the counter at the bank. The combination for the safety deposit box was written by his name in Catherine's rolodex. It's 18 56 21. Type in the combination then scan the data card inside the box into your WAC. It's time for more cyber-shenanigans. Go to the newsroom and enter cyberspace.

Visit the Berman well, the password is on the data card you've just got – berman4. The aim of the puzzle there is to reveal three identical barcodes. Again, this is different each time. Try



Old George is a timid bloke. Try not to put the willies into him.



The Berman puzzle isn't too tricky. Just match three the same to win.



Hang on, it's that geezer from the Indiana Jones films! Indy! Indy!

going for code 34117 00863 which you'll find on blocks in the top left, bottom left and bottom right quarters of the board. Watch how each quarter moves when you click on it. Have as many goes as you like, it shouldn't take you too long to turn up three the same. When done you'll be allowed access to two very dull pieces of paper.

Now go to Wofford's well and meet Hamilton, Covington's dead brother. Listen to what he has to say. Now go to each of the three weapon wells. Weapon one's password is Pegasus, as Hamilton said. The chess problem there is bloody tricky. You can either figure out the highly-baffling rules for yourself or just type in `aspirin` on the keyboard for an instant sneaky solution. One down, two to go.

Weapon wells two and three are similar. They're both easy shooting games. Weapon two's password is 'Orestes'. Shoot the blue eye to win. Just hold down the left mouse button whilst aiming, switching to the right button to activate your shield when the monster leans in close. Weapon three's password is 'Odysseus'. Do as before, this time shooting the red eye.

Visit Gambit Nelson at Cafe Duchamps and talk to him. Now visit Soap and talk to him. Now return to cyberspace and go to the Warp space well. The password is 'warp'. Look at the records and game ads there. Now go Kane's well (Soap told you the password, it's 'Digital Eden') and talk with him. He'll send to Isis well. Go there next, the password is 'psy bard'.

At the Isis well you must decode the five inscriptions and select the five symbols they describe. The vulture symbol is letter A and the rest of the alphabet continues clockwise from this start position, ignoring the four corners. The five lines therefore say Shelter, Noose, Mouth, Quail, Folded cloth. These are the five symbols you need, you'll find them at positions H, O, R, U and S. Select each in turn.

When you're done, return to Kane's well. He'll tell you to go to the Anti-viral well. The password is 'exterminator'. You have to be quick to beat the puzzle there. You're trying to get across the board to the skull on the other side. Try the following set of moves: Left, Forward, Left, Forward, Forward, Left, Forward, Right, Right, Right, Forward, Backward, Forward, Right, Left, Right, Forward, Forward. It may not work every time, it depends where he moves. If you fail, just keep trying until you get it right.

Now exit cyberspace and pay a visit to Detective Brannon who is behind the desk at the police station. He'll tell you about Haman and where to find him. Go to the Cafe Duchamps to talk with him. Go to the newsroom and tell Ben all about what you've found. Visit Falconetti at his hideout to tell him the news and Magnotta in his office to do the same. He'll give you a ropey looking Ripper image of Falconetti. Return to the Tribecca centre to check on the Ripper image and talk to Dr Cable. Go down the corridor to Claire Burton's office. She'll tell you that Ben can help analyse Magnotta's dodgy Ripper picture.

Go see Ben again, then get the audio visual editor disk from the desk by the window in the newsroom. Open the picture of Falconetti in your WAC and click on Analyse. Now go back to Magnotta to tell him you know it's a fake. Visit Falconetti again to tell him the deal.

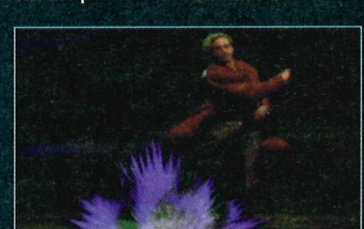
After all this running from one end of the city to the other and back again you should receive a WAC transmission from Dr Cable, telling you that he's nearly cracked it. Go to the Tribecca centre immediately. This is the final stage of the game. Save your game now. If you kill the wrong Ripper you can return to this point and have another go.

Click on the Ripper image screen to enter cyberspace. There you'll find a Tarot card puzzle. The cards should be arranged in order left to right according to the lyrics from the song: Seasons, Fear, Reaper, Wind, Sun and Rain. Once complete, each of the four suspects will appear in turn protesting their innocence. They appear twice and you must click on who you believe to be the Ripper.

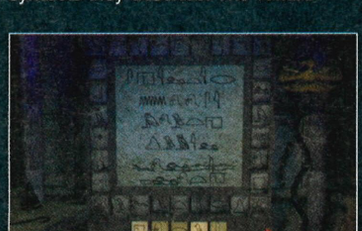
This varies from game to game but you'll know if you've got it right. Choose correctly and you'll see Quinlan typing up his story, choose incorrectly and you'll see him lying in a pool of blood from a Ripper's eye view. Reload the game from that last save point and try again if you get it wrong. That's it. You've solved *Ripper*.



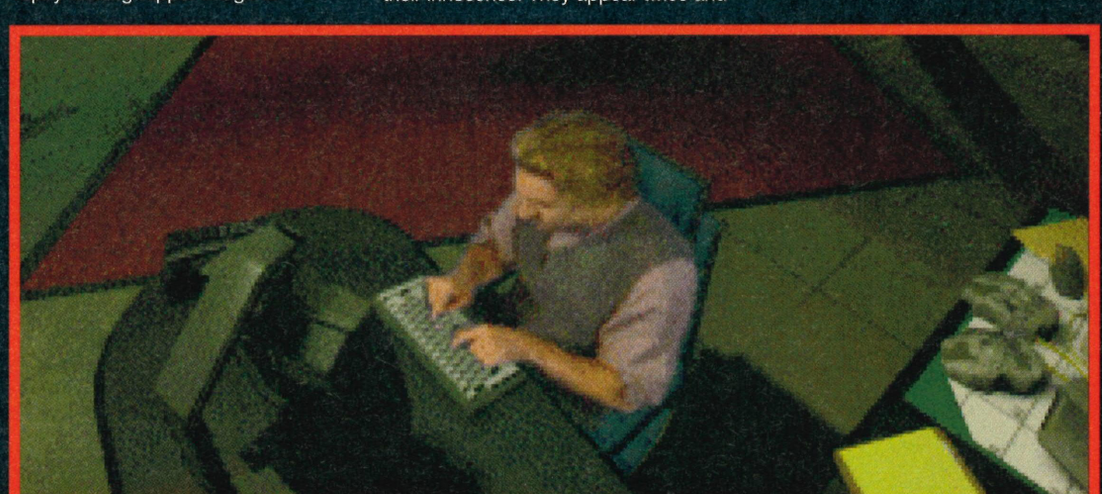
Whaddya mean it's a fake? Someone call the police! I've been diddled!



Let fly with your anti-Ripper weapon at the culprit. But who will you choose?



You don't need to be an expert in hieroglyphics to decode this one.



A happy ending and a still-breathing Quinlan hammers away at the keyboard after solving the Ripper mystery. Perhaps he feels a Pulitzer prize coming on. Perhaps he's writing Ripper II.

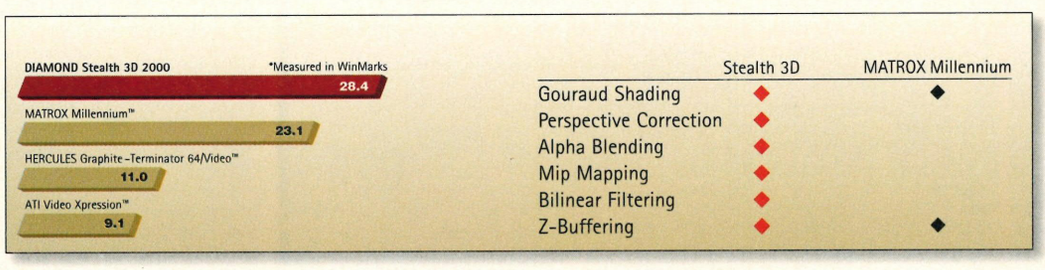


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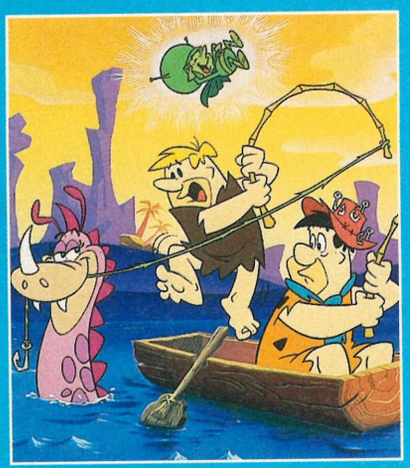


2D is back!

Have you ever thought of learning how to make your own 2D animations? Although 3D film and video effects get top billing in the professional world, there's still a lot you can do working in 2D at home on your PC. With the right software it's easier than you think – and don't forget, Walt Disney, Warner Brothers and Hanna Barbera all started out in 2D. Here's the definitive PC Review guide to making your own cartoons, videos, and experimental animations armed with nothing more than some cover CD software and a lot of imagination.



Animation is is becoming ubiquitous, even on the Net. Here's AOL's interface screen.



The level of humour attained through exagerated 2D action is unbeatable in 3D.

It's so easy

Doesn't 2D animation sound a bit boring these days. After all, with films from *Predator* through *Jurassic Park* and even Disney's *Toy Story*, 3D is where today's glam is at. But while it's true that you won't be able to get rendered dinosaurs charging across virtual savannahs, brilliant refraction, reflections and textured effects in 2D animation, this flat form of on-screen motion can still be used to achieve things 3D rendering programs just can't touch, despite their extra features and that vital third dimension.

Firstly, there's the speed factor. 2D animation doesn't need nearly as much computer power. To make a 2D image a PC merely has to be able to draw shapes and fill them with colours. A medium speed 486 is more than capable of that. For 3D you need a much heftier computer. Even with a fast Pentium, high resolution scenes can take hours to render, especially when you start trying to add those special lighting details noted above.

Because of this, 2D animations are much easier to tamper with than 3D ones. In a 2D sequence, if you don't like something you can change it quickly and easily. In a 3D one you may have to re-render the same series of frames five or six times before it looks right. This can take hours, days or even weeks. 2D is both more accessible to and far easier to experiment with.

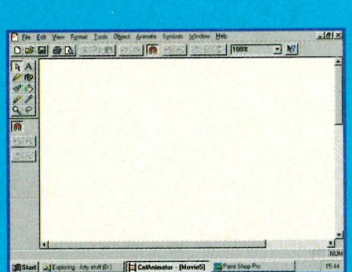
You'll also find you won't need to strain your design skills with 2D. Thinking in 3D and worrying about camera angles, shadows and light source placements can be a headache. In 2D you can concentrate on the interesting parts of the action, and on getting the characters right. Aren't they so much more expressive and fun than the unnatural, stiff-looking 3D rendered characters seen in many PC games?

In fact, characterisation is 2D's greatest strength. Just look at cartoon-ish games like *Sam & Max*, the *Kings Quest* games or even *Lemmings*. Their characters are so much more expressive and fun than the robo-humans seen in today's PC games. 3D animation can be too good, yet not good enough at the same time – not quite real enough for real life, but too polished to have the depth and personality that marks out a good drawing.

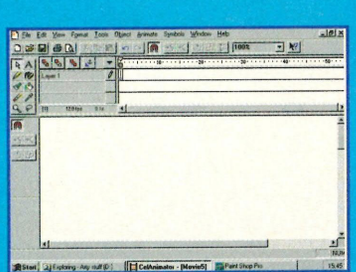
Add dimensions, lose character

The early 2D games like Lemmings were great, with countless hopelessly cute cartoon characters plunging to their deaths in a variety of spectacular ways. But somehow, the 3D version just wasn't the same. The lemmings looked like furry green monks in smocks. Although detail was added, some of the character was lost. It's the same with a lot of 3D work. Look closely at the cut scenes in many 3D games, and you'll see characters that look like they've been modelled out of toilet rolls, toothpicks and

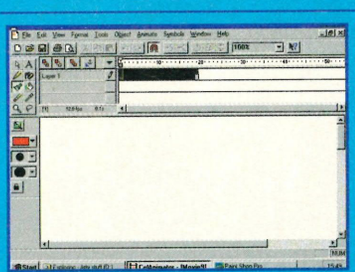
Getting started with CelAnimator



1 Make a new document. You can use CelAnimator as a drawing program in this state, with access to all the usual text, painting and undo features. Take the time to familiarise yourself with these – you'll be using them a lot later on.

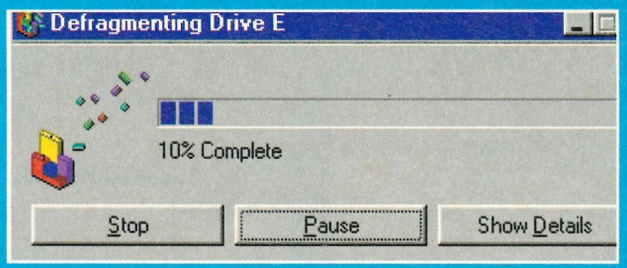


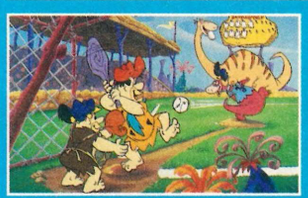
2 Next, add the time-line window by hitting [Ctrl]-[L]. This brings up a new window along the top of the screen, with a time-line ruler ticked off in frames and a selection of other boxes for controling of objects and layers. The heart of the animation system.



3 To the right of the pencil icon (next to where it says Layer 1) are two grey boxes. Hold down [Shift] and move the mouse so it's on these. Click and drag to the left for 19 frames. This sets up your first animation. A dark bar appears in the time line to confirm this.

4 Click on the tiny grey box to the far right of the grey bar. Select Insert Frame' and then do it again, selecting Make Key Frame this time. Now you have twenty key frames, which you can draw into individually. To move between these click, on the topmost frame-counter line. To draw inside them just select the drawing tools you want to use and go to it. If you want to place furniture around your scene, you can load in some clip art. You can use text, or draw filled shapes. To play your animation hit [Enter] or select Animate and Play. Fool around with it for a while, we're sure you'll find it easier and more rewarding than using 3D software.







Different species, but all from the same farm. On top we see a Win 95 2D animtion, but below more top action from the Flintstones.



Six characters riding in a Stone Age vehicle chased by reptile infused with canine behaviour. This is the kind of thing the 3D boys find tough to competently replicate.

in 2D

tennis balls. Do the same in 2D and you have much more scope to concentrate on getting the feel and the atmosphere of the images right. With 2D you can play with shapes and colours, faces and postures in a way that's much quicker and more interesting than anything done in 3D.

Exaggeration in motion

A lot of cartoon work relies on exaggeration, like those famous 'Aaaauuugh!!?' moments when characters realise that something deeply unpleasant is about to happen. Their eyes come out on stalks and their tongues end up on the floor. Just think of the last minute 'oh no' look on the Wiley Coyote, the wide-mouthed 'Wiiiiiilma' bellow of Fred F., or the fawning blinks of Bambi. 2D animation is much better for this kind of work because it's much more forgiving. It's much harder to stylise 3D characters in the same convincing, emotive and humorous way.

It's also much easier to make characters move in 2D. 3D animations tend to look unbelievably clunky because the different body parts have to be linked intelligently, and even with advanced techniques like inverse kinematics – which maintains lists of how each body part is relatively connected to the others, and constrains their movements appropriately – this is very hard to do. Many 3D animators rely on short cuts such as spline curves – the smoothest line between a collection of 3D points – to work out the paths along which their figures move. But the results are always more or less unconvincing because 3D is detailed enough to be compared with real life, but not accurate enough to do it well. 2D movement is less of a challenge because it lives in a physics-free world all of its own. It's easy to exaggerate a walk into a swagger or reduce it to a mouse-like scamper. Even though the results would look ridiculous in the real world, they work in 2D because we're used to seeing cartoons where these kinds of motions are taken for granted.

Exaggeration has been a strong point of animation since the early Disney days. Disney is the undisputed master of this – the way a Donald and Mickey move says as much about their personalities as the way they're drawn. If you look at any recent Disney animation, you'll notice that the characters move in subtly exaggerated ways. Women are always lithe and graceful, men stocky and solid, villains loom and comedy figures look crumpled, sad or clown-like. When the script needs to set a mood the movements become even more pronounced – but never to the point where they become impossible or distracting. Getting this kind of subtle movement into an animation takes years of practice and a fair amount of artistic skill. But it's possible to do a lot with the same basic principles even if you're just starting out.

Most people get into animation through doodling. Almost everyone has played with the flick-book idea at some time. A really good way to get involved with 2D computer animation is to look at it as an extension of the same idea. Instead of drawing each frame on paper and flicking it by hand, the PC does the flicking for you. Stick figures, morphing shapes, and ▶



In 2D you can play with shapes and colours, faces and postures, in a way that's much more interesting.

CelAnimator - More advanced techniques

JARGON

Cell Animation
Animation originally done with 'cells' of coloured objects and backgrounds. Now done much more quickly by computer.

Key frames
Reference points within the animation at which certain effects start or stop. Ideally you control the animation at each key frame and the software fills in the frames in between.

Tweening
Moving between the image at one keyframe to the image at another. Usually done automatically.

Onion skinning
Adding greyed out previews of surrounding frames to get an overview of an animation.

Frame
Each single step in the animation with all the objects, backgrounds and other layers included.

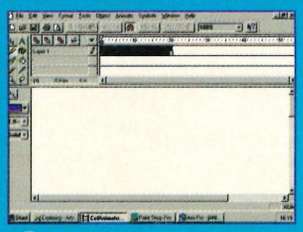
Time-line
The part that holds it all together. The time line shows all the different objects in an animation together with what's happening to each one during each frame.

Object
One item in an animation - a background, a shape, a character, or anything else at all

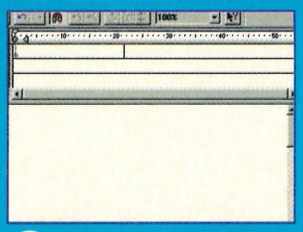
Scaling
Changing an object's size as it moves from one key frame to another.

Rotation
Changing an object's angle of view as it moves from one key frame to another.

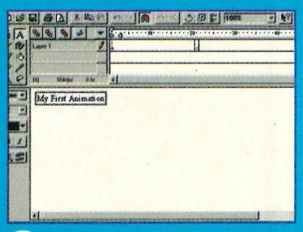
Layers
Characters and objects move. Backgrounds (usually) don't. To separate the two, the different layers are handled individually.



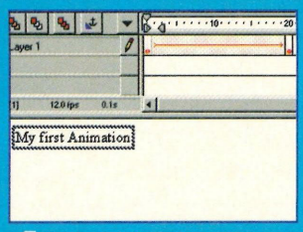
1 Start with a new animation area, with the timeline selected and visible again. Click and drag in the line for layer one to frame 20. Then let go. This marks out the length of the animation.



2 Click the grey box and select Insert Frame, then Make Key Frame. This marks the frame as the end of a sequence. A dot appears on the timeline to mark the sequence's start and end.



3 Click on the first frame in the top ruler of the timeline. Then select the text tool, click somewhere on the top left hand corner of the drawing area and type: My first animation.



4 Click and drag from frame 1 in the top layer to 20 and let go. Select Interpolation and Motion. In the box that appears select Interpolate Scaling. You will see a blue arrow appear.

simple copied backgrounds with foreground action are all excellent places to start. These can help give a feel for the basics.

Obviously it helps to be able to draw cartoon-like figures, but this isn't essential if the rest of the animation is planned carefully. And cartoons are easier to draw than many non-artists suspect. It's much easier to copy a simple cartoon figure than a photo or painting, so the next stage is to do some simple sketches based on characters you know and love. Pick a favourite and draw him, her or it on-screen, then animate some simple movements – facial expressions, arm movements, head movements, and so on. Try some morphing as well, just to practice your drawing skills.

When you've been doing this a while and feel confident with it, move on to making the character move. Add walking, running, or jumping sequences and work on more outrageous possibilities such as making the character disappear from one part of the image and appear in another, and then wink. Once you've had some fun with this stage you can try adding some backgrounds, or other characters, or creating completely new ones and scripting adventures for them.

To make the animations involving, it's a good idea to keep thinking of strong and effective ways to keep the viewer's attention. Animated think-bubbles and text are good ways to do this. Another excellent idea is to make the backgrounds and the characters shimmer and change slightly from frame to frame. The hit 70s TV cartoon series *Roobarb and Custard* used a technique where the backgrounds were changed very slightly every few frames. This gave the cartoon a very distinctive feel, and added an extra level of depth and interest that would have been hard to add in any other way.

Sketching and storyboarding

Once you get to the point where you find you are writing stories, it's a good idea to start planning each animation more thoroughly. Professional animators use storyboard sketches to plan their works. Each frame on the storyboard illustrates a key part of the action. You may want to sketch sub-animations to make it clear exactly how you'll be animating each scene in detail. It's also a good idea to tie animations to real life actions. For example, if you want to animate a character opening a door, time yourself opening a real door, watch how your hand and arm moves and see if you can get the rhythm and angles of the real-life action into the animation.

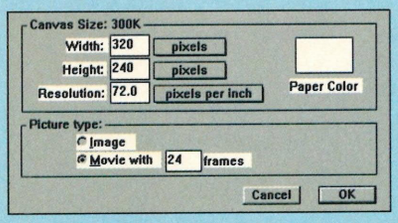
From there it's possible to move on to longer and more involved animations. It makes sense to keep backgrounds as separate files that you load into each frame, before adding the characters in a separate layer. An interesting advanced technique to play with is the use of multiple layers. With a foreground, middleground and background layer it's possible to create depth effects by panning from left to right and moving the background much less than the foreground. This makes it look as if the foreground is much closer, and gives a 3D effect to a 2D image. Some shoot-'em-ups and other games use exactly this parallaxtechnique to distract gamers away from the idea of a dull 2D playing area.

Once you've mastered the basics you'll

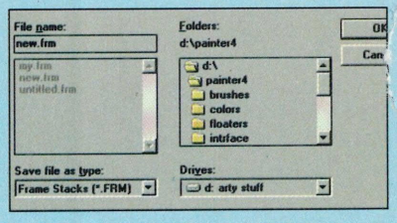
A quick trick with Painter 4

Fractal Design's *Painter* and *Dabbler* packages include some basic frame animation tools. You get some blank frames to play with, and fill them as you want. Unlike *CelAnimator*, *Dabbler* and *Painter* don't have any hand-holding options to get you started, though they do include some examples for you to work from, plus other options for you to play with.

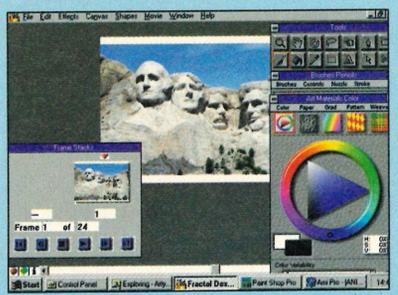
One way to use these full-frame animation features is to stop thinking in terms of objects and characters and start thinking in terms of images. *Painter* includes some powerful image processing tools, rather like those in Adobe's *Photoshop*. Of course, you can import images which have been processed in other software into a frame, so there's nothing to stop you taking a single frame and running it through filters, colour splitters or any of the other image editing tools. Here's a guide to using the frame-based animation system in *Painter*.



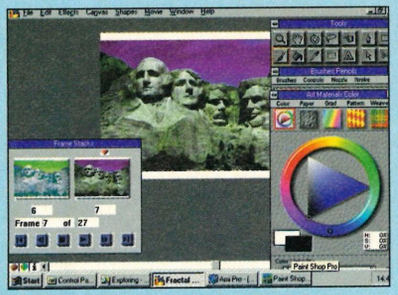
1 Select 'New' and 'Movie'. Fill in the number of frames – make it 24. You can select the size of each frame here too.



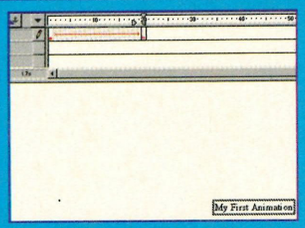
2 Name your file. The next dialogue box specifies colour depth and set the Onion Skinning parameter to five.



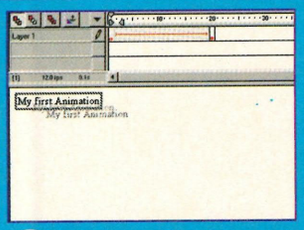
3 Load in a stock photo and use that as the basis of the animation. Be warned, it may need to be resized to fit.



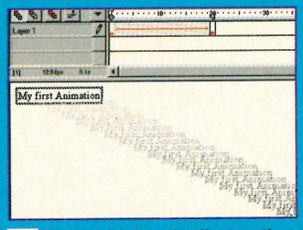
4 Here each frame has been recolourised to create a psychedelic effect for an animation of pulsating colours. Extreme.



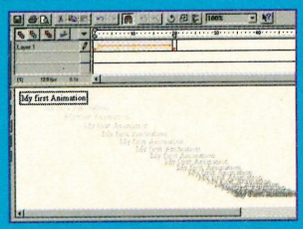
5 In the frame counter line at the top of the timeline click frame 20, then on the text in the drawing area. A multi-arrow icon will appear. Drag the text to the bottom right of the screen.



6 You can now Play it to see it move, or select the left hand button above the words Layer 1 – the 'hint' message says 'Onion Skin'. Greyed out copies of the text appear.



7 Onion skining duplicates the layers of tracing paper used by animators. You can change the number of onion skin images by dragging the right hand arrow to the end of the animation.



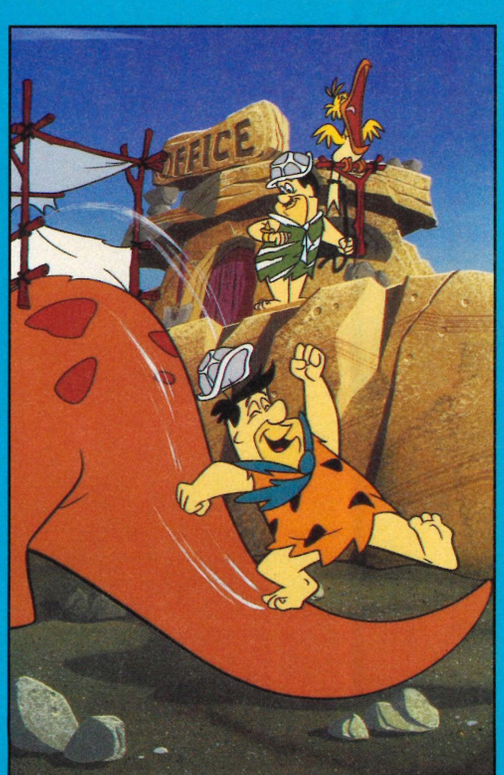
8 To change the speed of the animation, select Interpolation and Motion and explore what happens when you move the Ease in/Ease out slider to its extremes...

find that 2D animation is used in a very wide range of applications. Windows 95 has all kinds of small animations dotted throughout to make it appear friendlier and more interesting, and plenty of multimedia software is crammed with it. Sometimes it's only little touches, such as on-screen buttons and boxes, that are animated. At other times 2D animation runs throughout the whole of a CD-ROM. Even on-line services, such as AOL, employ animations to make their user interface look more appealing.

Shall we play a game?

And, of course, animation is essential for game design. Because games are coded to very tight memory constraints programmers have to cram much more action into much less space, so game animations tend to be relatively crude. But if you look at the animations in *Doom*, *Quake* or *Hexen*, you'll see that it's possible to do a lot with very little. In fact most game characters are animated as sprites – little sub-drawings that show the character from every possible angle. To make a character walk a sequence of eight sprites is drawn with the legs (or tentacles, or whatever) in different positions, and then the whole sequence is displayed as a sub-animation within the game. You can use the same technique in your own animations. Draw each frame by hand and then use animation software to loop the set so a character appears to walk smoothly.

If all these techniques and possibilities have whetted your appetite for some hands-on work, follow the beginners' tutorials and examples on these pages. When you get more confident you can have a go at drawing your own cartoons, adding backgrounds and even using animations for logos and Web pages. With our exclusive demo preview of *CelAnimator* you'll find it's much, much easier to get started than you think. ***(RW)***





Turn the page to find out just why there are so many Fred Flinstone pictures in this feature. Zoiks!

Animation Software

Here are a few of the 2D animation you might consider if you want to get into making your own cartoons on your PC.

Autodesk Animator Studio

£249 Autodesk
01483 300066
This is a high-end, professional package with a vast range of complex features that can be used for a great deal more than cartoon making. Only tackle this once you know what you're doing.

Dabbler 2

£49.95 Computers Unlimited
0181 200 8282
Fun art software for the home user. With the classic Fractal Designs stamp of quality its animation capabilities are limited but accessible. And you get all those art features as well. A good bet.

Painter 4.0

£468.82 Computers Unlimited
0181 200 8282
Again from Fractal Designs, this is aimed at those wanting to replicated paint techniques on screen, its animation section is similar to that of Dabbler. Pricey, but good if you paint too.

CelAnimator

£199 CGS Computerbild
0181 679 7307
Good, powerful program which is an excellent ticket to producing your own cartoons and other 2D animations. Ideal for making animations for Web pages or multimedia programs. We'll be giving it a full review next month.

Complete Animator

£99 Iota Software
01223 566789
All you need to create your own animations with features like onion-skinning, a wide selection of pre-made images and a sound editing module. A Great all-rounder for the beginner.

More▶

Zoiks! – the plot

Things are amiss in the art gallery. Priceless treasures, like the Mona 'Shaggy' Lisa and Mutley as the Laughing Cavalier are set in a strangely quiet environment. Dick Dastardly, has been stealing the cartoon's sound effects with his ingenious hoover-type machine. Playing Fred Flintstone and accompanied by several other characrers, you must find the sounds and set the cartoon world to rights.



Fred and Dino – it's not Fred and Barney because Hanna Barbera wouldn't let them have both superstars, but they're still cute...



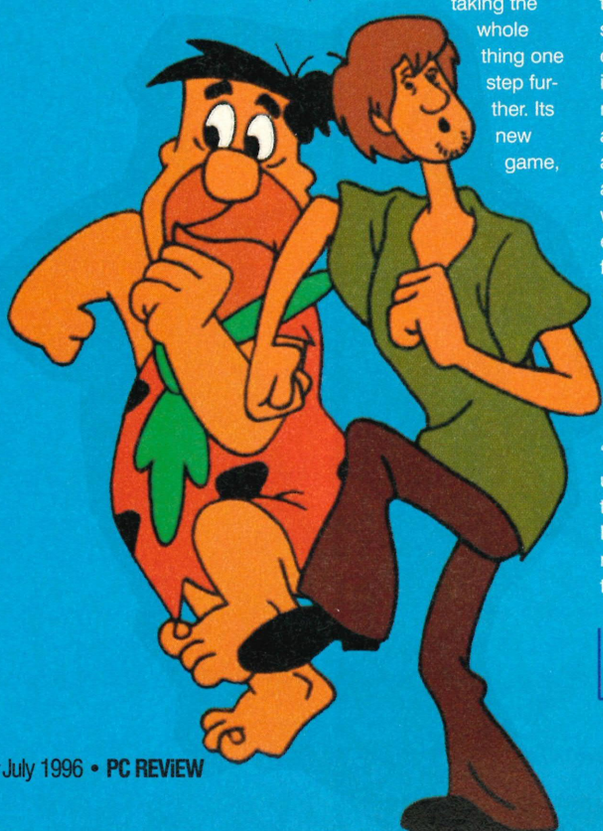
...and here they're joined by Scooby and archetypcal beatnik and under-achiever, Shaggy. What a mottley crew.

OCEAN-OGRAPHY

Now we talk to the professional 2D animators behind Zoiks!, Ocean Software's upcoming cartoon adventure game which stars a range of Hanna Barbera heroes and heroines...

When it comes to animation, Hanna Barbera reigns supreme. Of course, you've probably heard of Disney, and a few others too, but kids with access to Sky's Cartoon Network are still firmly glued to *Scooby Doo*, *Wacky Racers* and the *Flintstones*, just like their parents before them. Good cartoons are timeless, appeal to all ages and are simply brilliant fun.

Plenty of software firms try to bring the delights of cartoon animation into computer games and kids' software, from the numerous point-and-click adventures to Broderbund's *Living Books* series and all the copycats vying for a share of that market. But Manchester-based Ocean Software is taking the whole thing one step further. Its new game, appropriately called *Zoiks!*, features an all-star cast of Hanna Barbera characters including Scooby, Shaggy, Fred Flintstone, Huckleberry Hound, Dick Dastardly, Penelope Pitstop and Mutley.



While the choice of characters might not be too surprising, their epic journey from film and TV screens to gaming is a little more strange. In this age of computer generated images, animation and special effects, Ocean has taken a much more traditional route – 2D, hand-drawn animation. Team leader, Gerald Weatherup explains:

"The trouble with computer animation is that the results are too stiff and wooden. The joy of the original cartoons is in their fluid, exaggerated movement and that's almost impossible to achieve with computer animation techniques. Disney managed it with *Toy Story*, but they had to develop enormous, complex systems and spend fortunes on technology and big teams to bring it about. Even then, it's a different feel and isn't really comparable with more traditional cartoons."



Here's the 'Tribe', Ocean's new in-house development team at Manchester.

So how is Ocean managing to create a faithful reproduction of the characters we all know and love so well? Gerald continues, "If you want good animation, you have to use good animators, and we have some of the best." Some are ex-Disney and Cosgrove Hall (of *DangerMouse* fame) – not that it makes them better than other members of the six-strong team. "The main thing is that the animation sequences for the characters are all done as line drawings on animation paper in the traditional way – 24 drawings for one second of animation."

So where do the PCs come in? "Once the drawings are complete we photograph them on a special rig and run them through as a video clip to check the continuity. When we're happy, the animation sheets are all scanned in and coloured up using *PhotoShop*. Backgrounds are painted or airbrushed before they're scanned, since there are a lot less of these, but they're also retouched in *PhotoShop* until we've got exactly the results we're after.

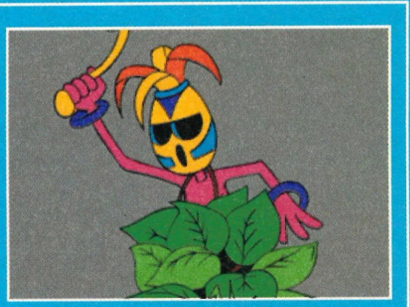
"The real computer work comes when everything is scanned and coloured up. We use an animation package called *Animo* which runs on a high-end PC. It's really a tool that was developed for film production, but basically it allows you to set up lighting and camera angles and pan across backgrounds while different foreground and character animations are running at the same time. *Animo* costs about £14,000 and a new version is due out next year, more geared to producing computer games. *Toons* from Soft Images is a very good package as well but it costs around £25,000 and you need to spend another £20,000 on a Silicon Graphics Workstation to run it on."

It all sounds simple enough, but it's no surprise to learn that things get complicated. "It can take days to set up a complex scene

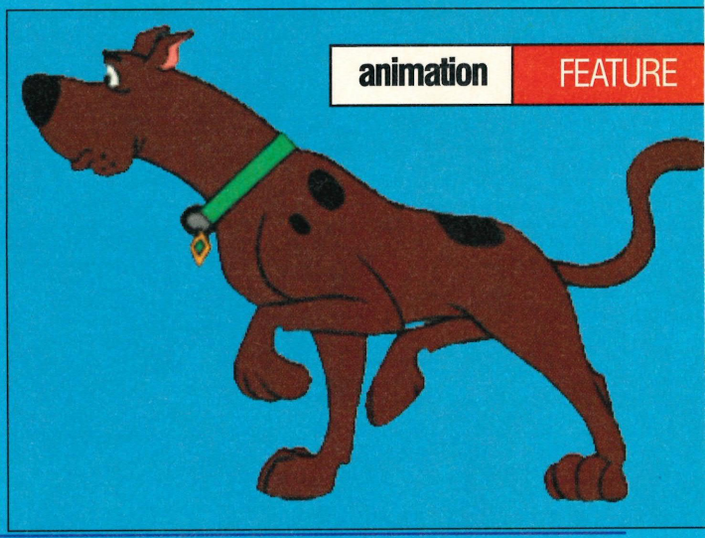
Good cartoons are timeless, appeal to all ages and are simply brilliant fun.



The graphical detail and quality is astonishingly good, even when you zoom in close enough to see the whites of their eyes.



Political correctness is such that the indigenous tribe person has to wear a mask to hide the true colour of his skin.



and then the final results all have to be rendered which takes ages," continues Gerald. "After all that, we often find that once it's been run through compression it simply won't run on a DX2, which we've used as our target delivery machine. Then we have to start again and simplify the scene with less movement of complex and detailed backgrounds."

The backgrounds are one of the bones of contention between Ocean and Hanna Barbera. "They wanted much simpler backgrounds to fit in with the original feel of the cartoons," says scriptwriter Samantha Evans. "The trouble is that this is a computer game and simple backgrounds would get boring. In the end we reached a compromise. Even then, we've had a lot of trouble getting stuff signed off. For example, they might say Fred Flintstone's fingers look too long or he looks too tubby. It's a painstaking business because all the characters have measurement charts that we adhere to and we're very strict. But Shaggy's really thin and when he's on screen with Fred, poor old Fred's bound to look a bit porky. In desperation, we've submitted work that we traced from original HB cartoons and even that got rejected."

As if that wasn't enough, there's a great deal more to creating an interactive game than a linear cartoon. The player is continually confronted by choices and varying outcomes have to be created for each, making for enormous amounts of animation work (350 to 400 set animations of 15 to 20 frames each) and a horrifically complex storyboard to be narrated (see Sounding it Out).

Finally, once the animation, gameplay and graphics have been brought together, the all important sound has to be added. Again, this can be problematic, as Gerald explains, "In cartoons, the voices are recorded first and then the animators work to ensure lip-sync. But because of the gaming elements we had to record the voices last and that's meant quite a bit of re-animation and general fiddling about to get things right, especially when there are close-ups of the characters talking."

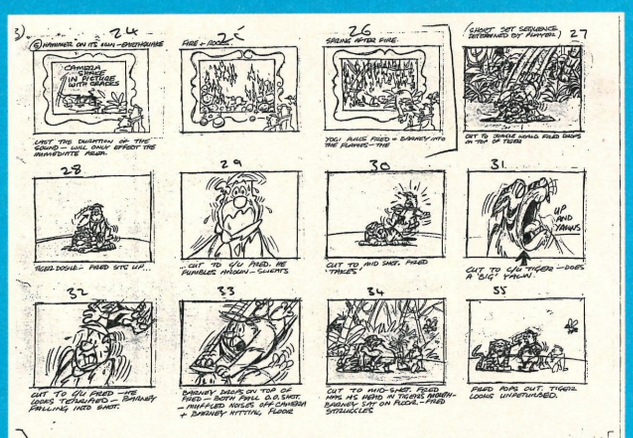
Zoiks! has been a labour of love. The team has been working for 14 months and are already planning a sequel. 3D animation might look very flash, but the 2D approach suits the character of this game perfectly and gives it a totally genuine feel. And *Zoiks!* might just prove to be the best example of interactive TV the world has yet seen. ***(MRR)***

Sounding it out



Samantha Evans, script and storyboard writer.

"The first thing I had to do was to storyboard the whole game" explains Samantha Evans. "This is a set of about 20 A4 sheets, each with 12 pictures and captions that leads you through the story, covering the different permutations allowed by the interaction. Then I had to write the script, which was huge. Because there are so many choices in the game, the complete script ran to about 150,000 words. We used the original voice talents that appear in the Hanna Barbera cartoons, where possible, though the original Dick Dastardly has sadly died. Also the guy that does Mutley has given up smoking so he finds it almost impossible to do that brilliant laugh. Anyway, we recorded 10 DAT tapes of vocals in the States and we have access to all the Hanna Barbera sound effects archives. Sound is a vital element in cartoons and I love the way it's formed such a pivotal part of the plot."



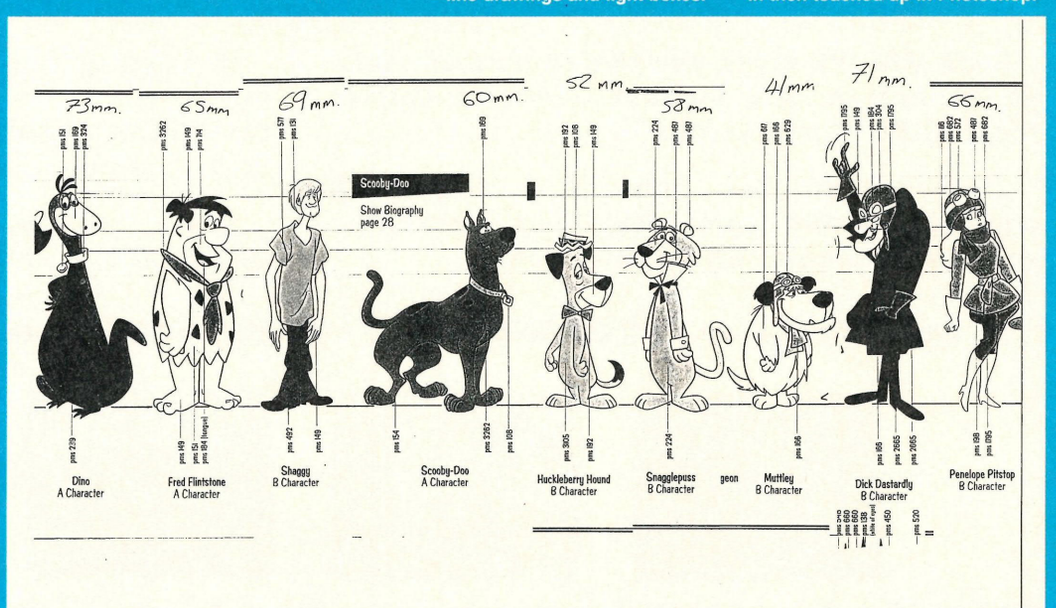
Just one sheet from the hugely complex and frighteningly thick wodge of storyboard pages. Everything that happens, happens here first.



Animation the old-fashioned way – line drawings and light boxes.



Air-brushed background, scanned in then touched up in Photoshop.



The usual suspects – this infamous height chart has exact measurements for the different characters and everything has to be spot on. Huckelberry Hound is a real short-arse, especially when he's on screen with leggy Penelope Pitstop.

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The alien race called Greys. Not little and not green. Bah.

THE UNEXPLAINED

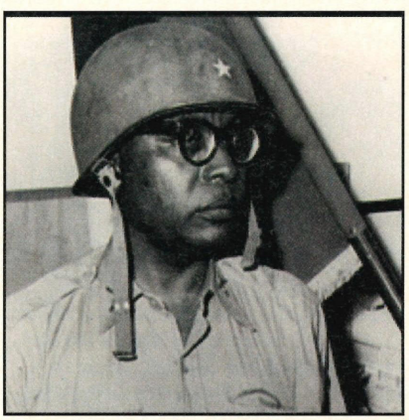
PC Review has waited a long time to get a decent disc about greys, werewolves and alien abductions. Finally, The Unexplained allows us to indulge our wildest curiosities.

Without doubt, most of what exists in the universe lies beyond the pale of human knowledge. Despite our best efforts of to quantify, classify and explain, every so often something from that great realm of darkness pops up within our range of observation. If we have time to study the phenomena – be it natural, unnatural or supernatural – we can make it fit into our understanding of things. If not, our brief experience with it enters that vast field of modern mythology popularised today by shows like the *X-Files*, *American Gothic* and the *Outer Limits*.

The Unexplained rides the same wave of interest as these series. At last, here is a broad ranging disc covering everything from alien abductions to the undead; from auras in the astral plane to the Yeti; from crop circles to plagues of fish and toads raining from the sky. It's the multimedia answer to the *Fortean Times*, or the numerous TV documentaries devoted to such topics.

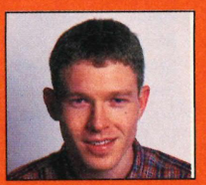
Documentary is, in fact, the operative word. *The Unexplained* presents much of its content using the multimedia documentary format that is the mainstay of FlagTower, maker of the disc. Basically, the disc is made up of ever-changing montages of images, animations and video clips all supported by narration. It's very similar in its modus operandi to CDs like *Great Generals* (*PCR 54*, 7) or *History of Medicine* (*PCR55*, 8).





An early drawing of a flesh-eating undead beast (left). Papa Doc Duvalier (above) ruled Haiti using mysterious voodoo networks.

MULTI-MEDIA



Summer isn't really the time of year to be sitting in the house clickety-clicking your way through multimedia discs, is it? But that hasn't perturbed FlagTower, one of Britain's leading publishers in the field. The company has boldly gone ahead with the launch of The Unexplained – and what a goodie it is. Read our review and I'm sure you'll find its line-up of odd events, aliens and supernatural monsters quite intriguing.

Speaking of aliens, just for the hard core Trekkies we've done a review of Klingon - the CD-ROM package designed to teach you the world's fastest growing language. On the other hand, if physical activity is what you crave, have a look at Martial Arts Explorer on page 81, or Alan Shearer's Pro Skills Training over on 80. Finally, our reference title of the month is SoftKey's Infopedia, a fully Anglicised CD packed with facts, quotes and definitions which sells at a rather tasty price.

Garrick Webster
Deputy Editor
gwebster@futurenet.co.uk

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Lycanthropy

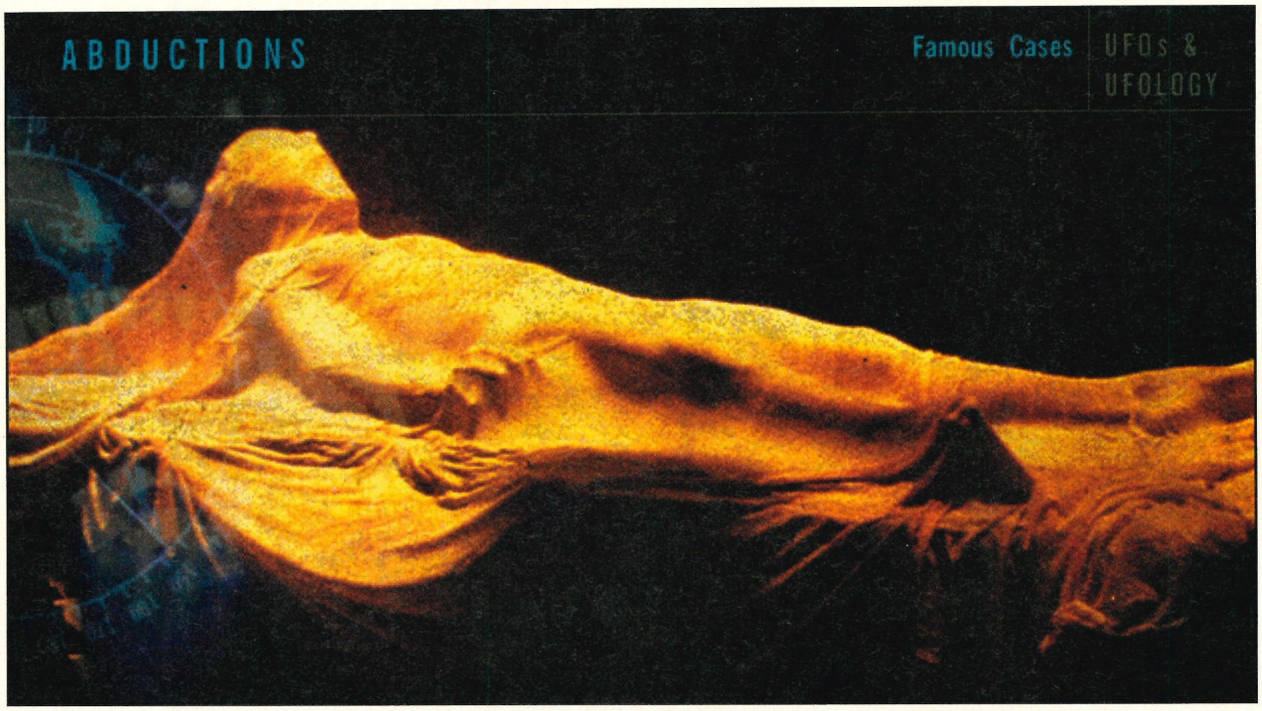
This is a modern word describing the belief that people can contract a disease which will turn them into a beast by night. Most commonly we hear of werewolves, but in Africa there are legends of were-leopards, werejackles and werehyenas, and in India, weretigers. Some believed that if you became a werewolf, you would remain one for nine years. But if you ate human flesh in that time, you would be condemned for eternity.

Voodoo Government

When François 'Papa Doc' Duvalier took over Haiti in 1957, he proclaimed his intention to rehabilitate voodoo as the political and spiritual heart of the Haitian people. Instead, he used voodoo networks as his secret police. Called the Toutons-macoutes, these bands upheld Papa Doc's reign of terror, which was continued by his son, Baby Doc. When mobs overthrew Baby Doc in 1986, they slaughtered the exclusive groups of voodoo priests associated with the regime and made voodoo a free religion.

Barney & Betty

The Hills, a couple from New Hampshire, were followed in their car by a bright light. It drew close and Barney saw human entities looking at him through the window. During regression hypnosis it was revealed that the Hills believed they had been taken aboard an alien ship for examination. Betty later believed she was being followed by aliens a great deal of the time and that she could communicate with them by flashing her car headlights. (See picture at far right.)



The body under the sheet is meant to represent an abductee. Is he alive, or is he dead? Has he an implant in his head? Or is this someone from FlagTower having a lark? The images are often stunning, but not always fully explained.

But despite the often impressive design and linking of images, using *The Unexplained* is a simple and rather passive experience. Choose the Abductions section from the UFOs & Ufology chapter and, after a swirling animation and some whoorp-bleep sound effects, a grabbing photo of a body covered by a sheet appears. The words 'Kidnapped by Aliens' flash up like a News of the World headline. "Of all the aspects of UFO phenomenon, abductions are the most terrifying, and yet the most exciting," says our female narrator. "Betty and Barney Hill, a couple from New Hampshire, were the first to report the classic type of abduction. It took them over two years to piece together what happened on September 19, 1961."

By this time, a picture of the couple and a drawing of a flying saucer, alongside a rather impressionistic painting of a large alien head, have appeared. "Over 30 years later, investigators and psychologists are still arguing about it. Did the hypnosis they underwent bring out real memories, or was it personal fear translated into fiction?" we're asked. New pictures appear and disappear, each vaguely illustrating what we assume to be the Hill's experiences. There's even a black and white animation of a flying saucer.

Remember, you were taken

The tale continues with drawings of wide-eyed aliens, flying saucers and so on, each accredited to an abductee. The narration moves along too, plucking details from reported cases and describing regression hypnosis, used to revive memories of abduction, concluding with a few suggestions as to why aliens abduct people – they're updating their knowledge of us, or they need something from our genetic make-up that is absent from their own.

The above is just a snapshot of how the disc works and what it has to tell, but it also goes to show what *The Unexplained* appears to lack. Throughout the Abductions section the narrator refers to the classic claims of abductees but doesn't give us any concrete details about what these claims are. The presentation merely scratches the surface, but would be far more interesting if it actually conveyed some of the wild stories that have been told.

Fortunately, the disc does offer another, slightly deeper level of information. While each presentation runs you have the opportunity to click on a series of buttons at the bottom left of the screen to step out of the running commentary and look at certain cases in greater detail. Returning to Abductions, you can read supplementary screens on the Hills, What have they done?, Out-of-body Abductions and so on.

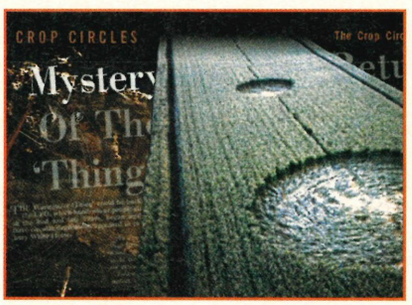
It is these screens that hold the specific and detailed information *The Unexplained* has to offer. Each has a large illustration (which may or may not be used in the documentary) plus 200 or so words of text. What's more, they're generally well written and either interesting, amusing or both.

Often, these screens simply convey the points the narrator hasn't the time to deliver.

Six sections of strangeness



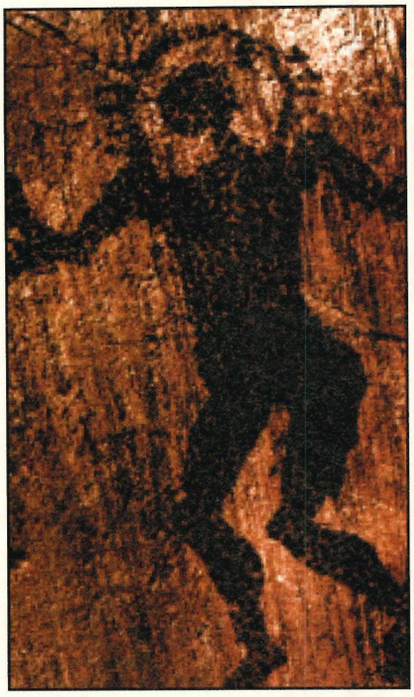
Strange Phenomena. This part of the disc explores things like sky visions, auras, mysterious fires, strange rains and coincidences. It includes strange details on spontaneous human combustion.



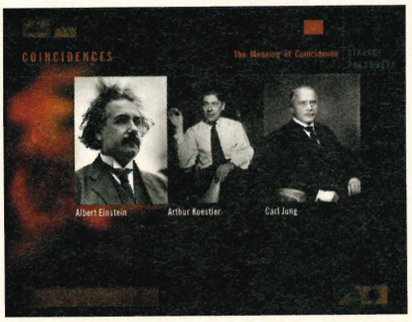
Earth Mysteries is your source of strangeness on ancient mystery sites, Earth energies, crop circles, sacrificial altars and the pyramids. Hey, isn't that a Led Zeppelin album cover.



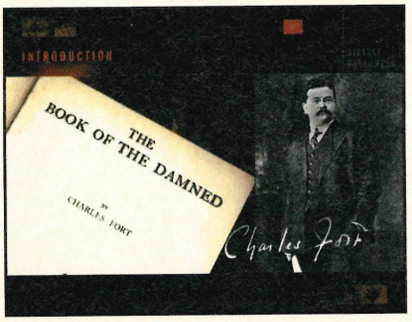
Beyond Science. The place to learn about space, astrology, auras and thoughtforms astral planes, mind over matter and out-of-body experiences. Here's an ancient Egyptian zodiacal chart.



Prehistoric spaceman, or maybe just some guy saying, 'Whaddaya want from me?'



Einstein, Koestler and Jung – three smart men who have all thought about 'coincidences'.



The Fortean connection. Charles Fort appears here and there, perhaps to give it some cred.



The astral plane – an alternative reality of spirits and auras.



Regression hynosis revealed that the Hills think they were abducted by aliens.

Pyramid Power

A Czechoslovakian radio engineer discovered that if he placed a blunt razor blade under a pyramid structure of the same proportions as the Great Pyramid it would magically resharpen itself. In 1959 the Cheops Pyramid Razor Blade Sharpener was patented and is still available today.

In the Earth Mysteries section, we learn that the Bighorn medicine wheel in Wyoming is an imperfect stone circle with 28 spokes and six prominent cairns. Certain spokes align with solstice sunrises and the risings of three major stars, but it's not clear who made it or whether it was intended for ceremonies. In Ghosts and Spirits, on the other hand, you can read of Bristol's poltergeist heritage. In 1762 in the city, two girls were repeatedly throttled and even bitten by an unseen being, sometimes in front of witnesses.

In certain cases, the supplementary screens include not just pictures and text, but audio recordings too. In the section entitled Beyond Science, we hear about the Kiwi cloudbuster Dr Rolf Alexander. "Apparently, he only works with fair weather cumulus, and clouds of this type usually disappear within 15 to 20 minutes anyway," says an actor playing a detractor.

Meanwhile, in the Mysterious Beings chapter, you can hear a German describing a big hairy monster (BHM in Fortean parlance) he saw in China. "He was about seven foot tall, with shoulder's wider than a man's and a sloping forehead, deep set eyes and a bulbous nose with slightly upturned nostrils," says the man.

Click the mystery button

What's good about the broad range of back-up material, though, is that it gives the disc a certain amount of longevity. The documentary presentations are one-dimension and facile – not really of much worth beyond the first viewing. The supporting screens, however, are accessible via an A to Z index that enables you to get to any subject quickly. And for the casual browser, there's even the Mystery button which will randomly drop you into a section of the disc.

Many would add that *The Unexplained* could have taken a more encyclopedic approach. It is slick, attractively assembled and accessible to new multimedia users, but so much more information could have been included if the glorified narrated slide shows were left out. Furthermore, the sections could have been hyperlinked far better if the presentation structure were cast aside. And besides, a good proportion of what's in this disc will already be known to people already interested in things odd and other worldly.

Working as it does at two levels, *The Unexplained* is probably ideal for the family environment and might spark the interest of those mildly into this type of subject matter. The hard core X-phile, Fortean follower or ghostbuster will probably, however, be demanding a bit more. How about an *Encarta* of the unexplained instead? That's what we'd like to see. ***(GW)***

"He was about seven foot tall, with shoulder's wider than a man's and a sloping forehead, deep set eyes and a bulbous nose with slightly upturned nostrils."

CD REVIEW

Have the undead explained with our exclusive demo.

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PRICE
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MINIMUM SYSTEM
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PC REVIEW VERDICT

Not quite in-depth enough, but worthwhile for the price. An interesting intro to the subject.

7



UFOs & Ufology. Basically, it's about flying objects, abductions, close encounters and that sort of thing. This is George Adamski, who was abducted from California in 1952. He kept on smiling, though.



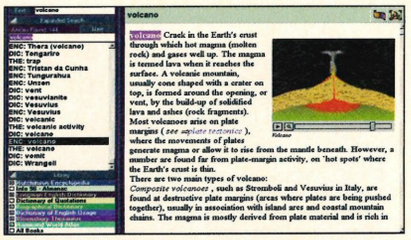
Ghosts & Spirits. Now we're talking about poltergeists, mediums and modern ghost mysteries. Here's a young Cheshire girl being chucked around her bedroom by a malicious spirit. Pyjama party, anyone?



Mysterious Beings. Monsters, the undead, wild beasts, fairies and angels are to be found here. Meet the Australian Bunyip, which once made an appearance in Home and Away but today stars in Bugs.



The guided tour shows you just what you can do with Infopedia – courtesy of the resident virtual librarian.



Most of animations and video clips are well-chosen and play back smoothly.



With project folders, Infopedia can create a customised timeline based on your choices.

WHAT'S IN IT

Altogether, Infopedia contains 250,000 text entries, 5,000 photos, 450 sound clips and 150 videos and animations all with a UK flavour.

INFOPEDIA UK

Softkey's Infopedia is a UK-specific multimedia reference collection that combines dictionary, thesaurus, atlas and encyclopedia for under £40. So how good is it?

Wander into your local library and in all likelihood, the reference section will be next to empty. Not a soul in sight. Look through the CD collection of the average multimedia PC owner, though, and you're bound to find at least one heavy-weight volume. It isn't hard to see why.

Multimedia, the use of carefully chosen video, sound, text and graphics, has changed the way we feel about reference works. If more proof is necessary, just look at the success of titles like *Encarta* and *Cinemania*. Softkey, one of the biggest players in the CD arena, has just launched its own multimedia reference, *Infopedia UK*.

As the name suggests, *Infopedia* was developed especially for the UK and, unlike *Encarta* and its ilk, it offers a wide range of reference elements, including a proper English dictionary.

Infopedia UK is a complete reference work on a single CD ROM. For purveyors of trivia, or those who simply need to know a wide range of facts and figures, there's the *Hutchinson New Century Encyclopedia*, the *Hammond World Atlas*, *Info 96* (an almanac) and the *Concise Dictionary of National Biography*. For language lovers, on the other hand, there's the *Longman English Dictionary*, *Bloomsbury Thesaurus*, *Bloomsbury Dictionary of Quotations* plus a brief *Dictionary of English Usage*.

Infopedia has a neat but rather bland interface with a single results window. This means you can view a video, image or animation or hear a sound clip, but only one at a time. It doesn't have the depth of a dedicated encyclopedia and there are no long essay-length articles, but it does have a considerably broader range of shorter entries than other reference CDs. Places, people and events are all well-covered. *The Longman Dictionary* and *Bloomsbury Thesaurus* score consistently well when put up against standalone competitors like the *Concise Oxford* and *Collins Electronic* dictionaries, also available on CD. All the dictionary lacks is a wildcard search feature.

A reference work is only as good as its tools and *Infopedia* has plenty of quality ones to choose from. The combined Boolean (and/or) search facility lets you look for words you can't remember. For instance, a search for "young AND horse" produces "filly, colt, and foal." You can mark entries as you go along and then copy them into a project file. This project can then be printed out, complete with a contents page and an optional timeline based on the entries you've marked along the way. This is particularly useful for educational use, as each project can be saved to disk.

Infopedia UK is far better than its US-orientated competitor, *Microsoft Bookshelf*. None of the individual components are exceptional in any way but, taken as a whole, they make *Infopedia* an excellent all-round reference work. ***(AW)***

A reference work is only as good as its tools and Infopedia has plenty of quality ones to choose from.

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8

PC REVIEW VERDICT

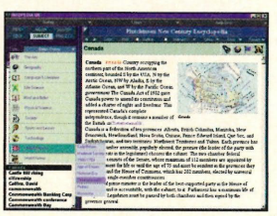
Info-pedalling through Infopedia



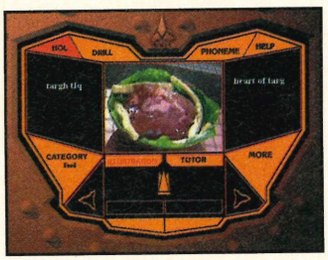
If you want to browse, rather than search, you can look through photos, animations, sound clips or videos...



For intensive searches, the Boolean AND/OR commands enable you to narrow down the search dramatically.



Or you can navigate your way through Infopedia by key word or one of several dozen carefully chosen subjects.



Klingons have healthy appetites (all that fighting and killing works up a hunger), so loads of authentic foods are included.



The language lab is the best part of Star Trek: Klingon. Here's the main screen where you choose what to study next...

STAR TREK KLINGON

Say 'hi' to the nice alien, son. Go ahead, use his tongue.

Everyone knows about Klingons. They're the big, hard, warrior guys with the silly foreheads. The baddies in the *Star Trek* universe.

For most people, of course, that's all you really need to know about them. But for serious fans of the *Trek* shows, the Klingons hold a special fascination. They are most fully detailed and documented of the *Star Trek* aliens, with a complex language, culture, and society. *Star Trek: Klingon* is a two-part multi-media package that explores Klingon language and culture to frightening depth.

The first part of *Star Trek: Klingon* is a holodeck simulation. You play the part of Pok, a young Klingon who must not only complete his Rite of Accession (a kind of 'coming of age'), but gets caught up in the dangers of Klingon politics. The other part is a Klingon language laboratory that teaches you the meanings, use and pronunciation of Klingon words. It includes thousands of words and a wide range of phrases.

To be honest, none of this will be of the remotest interest to anyone apart from serious *Star Trek* fans. Unless you're seriously into the shows, don't even think about it. For those people who are, though, there's a great deal of interesting information and insight into one of the best developed alien races in science fiction. ***(AB)***



A whole range of handy phrases are included, so you'll know just what to say to chat up a Klingon bird next time you're at a Trek convention.

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CONTACT
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PRICE
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MINIMUM SYSTEM
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PC REVIEW VERDICT

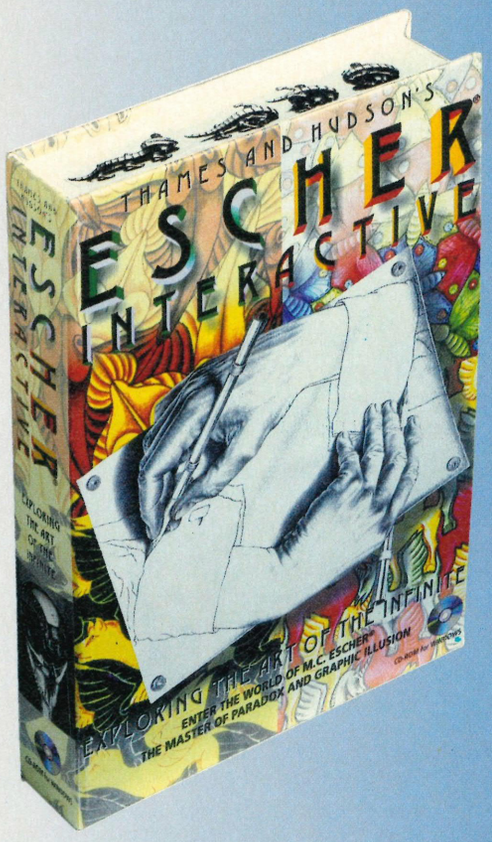
Learn the language and live the life. Strictly for the obsessive fans.

8

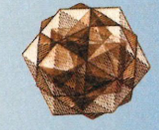
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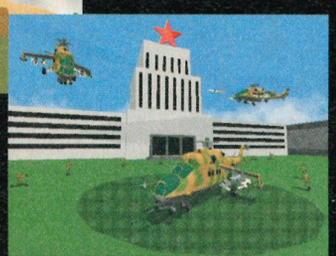
The follow up to the award-winning Apache Longbow "Simulation of the Year"
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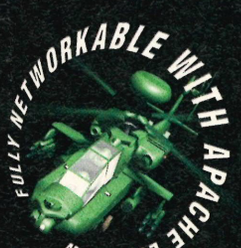


BETTER RED THAN DEAD

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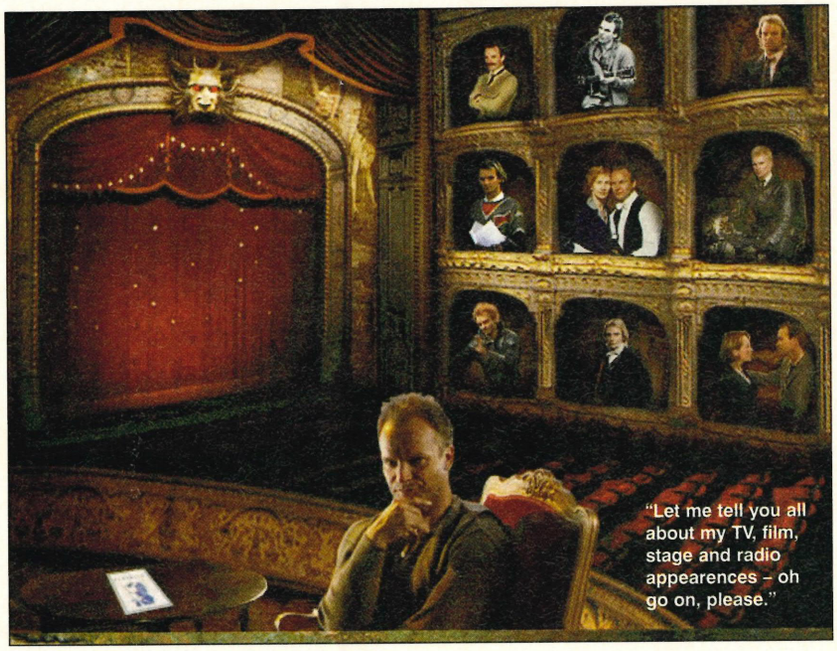
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Digital Integration

Sting

All This Time

"My earliest memory was also a musical memory, sitting on my mother's feet while she played tangos on the piano." But is there still musical mileage in Sting – even after all this time?



"Let me tell you all about my TV, film, stage and radio appearences – oh go on, please."

Tired old rockers never die, they just get digitally re-mastered. After all, Peter Gabriel's *Explorer* isn't above criticism, Bowie's *Jump* is best forgotten, and *Yes Active* is better never discovered in the first place. It might be true that Sting's finest hour was nearly two decades ago, but he's written some great songs since then.

Refreshingly, the only prima donna aspect of this double disc set is its presentation which, though stunning with 64,000 colour artwork, runs too slowly.

Start the disc and you're dealt a hand of Tarot cards in Celtic Cross formation. The whole Tarot thing isn't quite a gaming element, it just adds a little spice. If your travels uncover all ten cards that you were originally dealt, you'll receive a special surprise reward at the end. We won't spoil that surprise here.

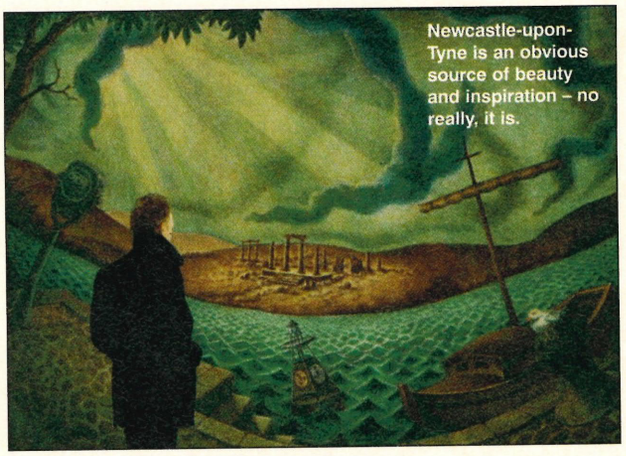
Using the CD, you'll visit a movie theatre and hear Sting comment on his TV, radio and film career, with clips from *Quadrophenia*, *Dune*, *Plenty* and so on. There are also medieval castles, churches, turtles and many other things to investigate.

Here and there are videos (the discs feature 15 full songs reproduced in CD quality stereo) and shorter clips from demos and unreleased material. It's a testament to the production that these are among the least interesting parts. The narrated slideshows are actually fascinating, and it's great to see full-screen photos in 16-bit colour instead of naff video clips everywhere.

At the entry of the medieval castle, Sting pokes fun at himself, dressed in a suit of armour while trying to convince you that he and his music are bang up-to-the-minute. "Of course, I wouldn't go out dressed like this," he says, "not without a horse, anyway." The library is well worth a visit, with excerpts from Schumacher, Koestler and other writers from whom Sting has taken inspiration. One of his heroes is Quentin Crisp and the song *Englishman In New York*, was written about him – "Be yourself, no matter what they say…"

Just through from the library is the music room. You can sit in on a jam session or listen to Sting talk about his music, "I'm not very good at the guitar," he says. "I'm really a bass player with big, gnarly fingers." Elsewhere, in a strange alchemist's room, he talks of his song-writing. "All my love songs have a 'twist of the knife' in them – that's what interests me. When I start writing 'I love you and you love me' songs, it's all over, for me anyway." If this disc is anything to go by, it's certainly not all over for Sting yet.

It would have been easy for this CD to descend into syrupy self-indulgence or arty silliness, but instead it's a fascinating look at an undeniably influential character in modern music. ***(MRR)***



Newcastle-upon-Tyne is an obvious source of beauty and inspiration – no really, it is.

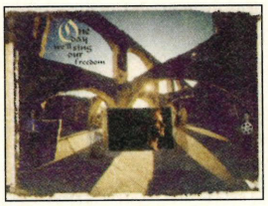
Play us a Toon



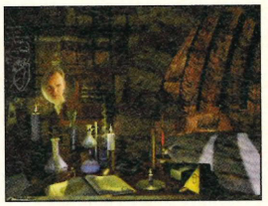
Sting makes a mean slide show narrator, describing the Newcastle of his youth. There's the Tyne Bridge (a prototype for the much larger Sydney Bridge), the now sadly defunct ship-building yards, the monstrously Gothic-looking old school, the end of Hadrian's wall, the Roman excavations where his old house used to be, and even the pier under which he lost his virginity. Or so he claims.



At the start you're dealt a Tarot card, like this Hanging Man – if you're lucky.



Videos are cleverly woven into larger, arty screens to disguise the small windows.



And now for a little alchemy with potions and poisons. Don't try this at home kids.

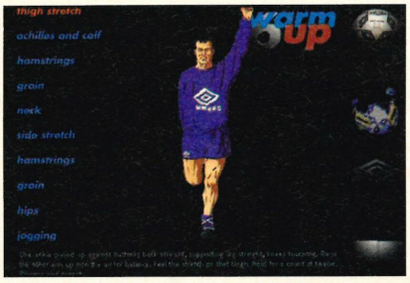
Developer
Starwave
Publisher
Philips Media
Contact
0171 911 3081
Price
£39.99
Minimum System
486DX2/66, 8Mb RAM, double speed CD drive, 64,000 colour SVGA, mouse, Windows 95 only

PC REVIEW VERDICT

Stunning imagery and compelling narration, but too slow on anything less than a Pentium.

8

"I'm not really very good at the guitar. I'm really a bass player with big, gnarly fingers."



Feel the stretch on that thigh. Hold for twelve.



Blocky videos teach team play and strategy.

An activity to improve your team's attacking play. According to the program the key is converting possession into penetration.



THE PRO TRAINING

SKILL FACTOR

Just in time for Euro 96, Umbro releases an expensive alternative to juggling mouldy oranges and listening to Alan Hansen. Will it be a top scorer in our multimedia league?

SHEARER, SHEARER!

"Alan Shearer once scored 13 goals in a single game for his school. Brought up in the North East of England, he was a Newcastle United fan as a boy. But after failing to impress at a trial at St James' Park, Shearer went to Southampton.

At 17 he made his debut for the Saints against the mighty Arsenal. He scored a hat trick. In 1992 he was transferred to Blackburn Rovers for £3.3m." - from the profile of Alan Shearer on the disc.

Gone are the days when football training merely consisted of placing a ball in a fishnet shopping bag and tying it to an ankle for the sole purpose of improving your close control in living room situations. Likewise, borrowing an orange from the local fruit and veg' and proceeding to balance it on your foot in the style of a well-known South American star now seems a little jaded. Welcome to the future. Top kit manufacturer Umbro has ventured into the world of multimedia with what the box copy describes as 'the definitive interactive guide to football training'.

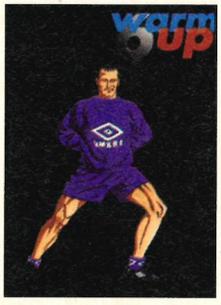
Created with the help of the Blackburn and England striker Alan Shearer and professional coach Mick Wadsworth, *The Pro-Training Skill Factor* helps you to brush up on the finer points of the Beautiful Game through five tactical based modules: Winning the Ball, Defending as a Group/Team, Attacking Play, Possession and Movement, Changing of Mode and Attacking and Scoring. There's also a warm-up section detailing ways in which you can prepare yourself for that big match down the rec. However, those sceptics who think that you can't really provide an adequate training aid on a computer for what is essentially a very physical, outdoor pursuit, where tactics and strategies need to be tested there and then, are most definitely correct.

This CD is relatively well presented in terms of its interface and the 50 or so minutes of Quicktime video clips range from profiles of Shearer and Wadsworth to live action footage from Umbro training sessions which feature Manchester United, Chelsea, Nottingham Forest and England. Still, the provision of a few questions at certain points during the clips to test that you have been following is the only real example of interactivity in the package apart from the occasional click of the mouse button to activate the video clips.

Yes, the advice given by Shearer and Wadsworth is useful (especially for teams rather than individuals) and the video clips nicely compliment the printable training manual, diagrams and other assorted textual information that provides an overall aid to playing football that little bit better. But why buy a CD-ROM like this when there are numerous books and videos out there retailing at about a third the price? A great kit manufacturer Umbro might be, but this product lies firmly in the relegation zone of the multimedia market. ***(JT)***



That bloke's watching telly when he should be snogging his bird. Well, it is the World Cup.



How to warm up your groin without the aid of artificial stimulants.

DEVELOPER
Workhouse/Total Sport and Leisure
PUBLISHER
CD Vision
CONTACT
0171 240 7764
PRICE
£29.99
MINIMUM SYSTEM
486/33, 8Mb RAM, double speed CD drive, Windows 3.1 or 95, SVGA, 16-bit sound

PC REVIEW VERDICT

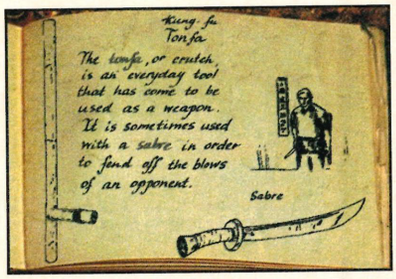
Although useful for the serious footballer, the medium doesn't lend itself to the concept. Pricey for what it is.

3

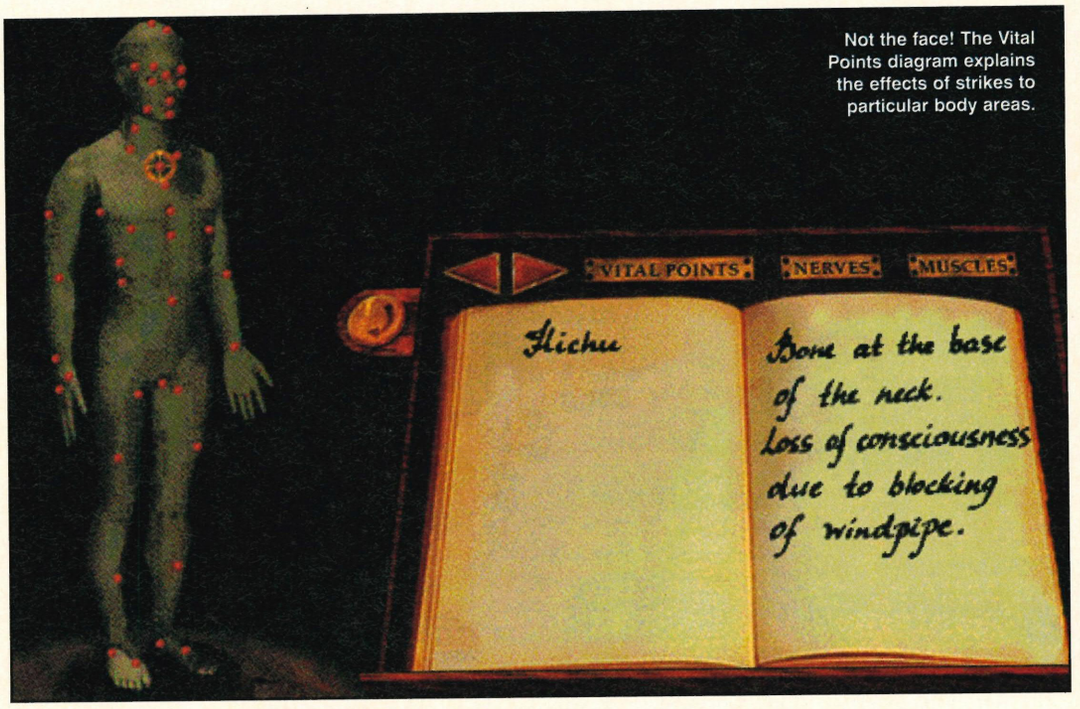
Why buy a CD-ROM like this when there are numerous books and videos retailing at a third the price?



Large supplementary sections detail the philosophies connected with various arts (Zen, Taoism, Buddhism).



Tansakusha's Journal. If you've seen Bruce Lee's Tao of Jeet Kune Do you'll recognise the style. Clicking the sketch plays a video.



Not the face! The Vital Points diagram explains the effects of strikes to particular body areas.

MARTIAL ARTS EXPLORER

Can the CD-ROM's vast capacity hope to offer genuine insight into twelve different martial arts styles? Future Vision gives it a shot.

Neatly presented as the collation of the knowledge of Tansakusha, a fictitious globe-trotting martial arts chronicler, *The Martial Arts Explorer* enjoys a rich visual style and a decent interface.

Unfortunately, however, two problems conspire to severely limit the longevity of the disc. The impossibly broad scope of the CD (12 styles are included, each of which can take up to a lifetime to fully understand) and, more annoyingly, an overly respectful deference to all styles make *MAE* a pretty superficial examination of the arts, broadly showcasing their forms and techniques but offering little worthwhile comment as to their practicality, intricacies or weaknesses.

Forming the hub of the disc is Tansakusha's Journal, an 80-page on-screen book highlighting key points from all the major arts. Each page contains a varying degree of hand-written information and a sketch. Clicking on each sketch will pull some appropriate FMV from the disc. Stylistically, it's a pretty good take on Bruce Lee's Tao of Jeet Kune Do, and it's here that the disc gets closest to offering some genuine insight into the differences of each style.

Similarly impressive on the first visit is Tansakusha's private cinema which shows an extended urban fight sequence. The FMV can be paused at any time and captions pop up detailing the name and effect of each fighter's moves. This is actually one of the most useful elements of the disc, but is let down by a poor video controller. There's no means of flicking back a frame at a time if you missed the move you were trying to examine. Instead you must rewind the FMV in chunks and play it again, hoping to catch the move using the Pause button next time.

But it's in the ComparaView section where *MAE* really falls down. At first, the opportunity to select video footage of a wide variety of techniques from every style and run them in next to each other seems impressive, but it quickly becomes apparent that the actual usefulness of this facility is extremely limited. You only see combatants fighting with those from a similar discipline, and there's a limit to the conclusions which can be drawn by merely contrasting a clip of two judo experts and then two kendo fighters.



The disc is positively alive with FMV, 3D graphics and narration. But even on our Pentium 133 PC with six speed drive the audio frequently hiccups and access times are sluggish.

What would have been really interesting would be to see the kendo guy taking on a kung-fu expert. Or see how ninjutsu locks fare against taekwondo's long-range kicking attacks? Without this kind of flexibility, the *Martial Arts Explorer* becomes little more than an assortment of video clips and information concerning the origins of each art – information any dedicated martial artist will probably already know. What's really missing here is some insight.

The package also features *The MAE Companion*, a 166 page book containing the most useful texts contained on the disc. The inclusion of a good book in the box, however, just leaves us wondering why weren't the text sections of the CD weren't simply removed to make room for more analysis and comparison? ***(JD)***



ComparaView at its best. You can examine in fine detail the intricacies of each style, but the 'comparing' must be done by the user.

Love of Pain

Given their expertise in inflicting injury, it is surprising the language martial artists use regarding their skills. Wing Chun (a popular style of kung fu) means Beautiful Springtime, and Aikido is defined by its founder as "the way of love of mankind".

Developer
Virtual Arts
publisher
Future Vision/Softkey
Contact
0181 246 4000
Price
£29.99
Minimum System
486SX, 4Mb RAM, double speed CD drive, Windows 3.1 or better

PC REVIEW VERDICT

Well presented and well intentioned, but a bit of a missed opportunity.

6

What would have been really interesting would have been to see the kendo guy taking on the kung fu expert.

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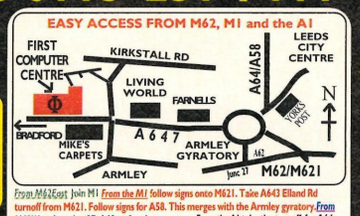
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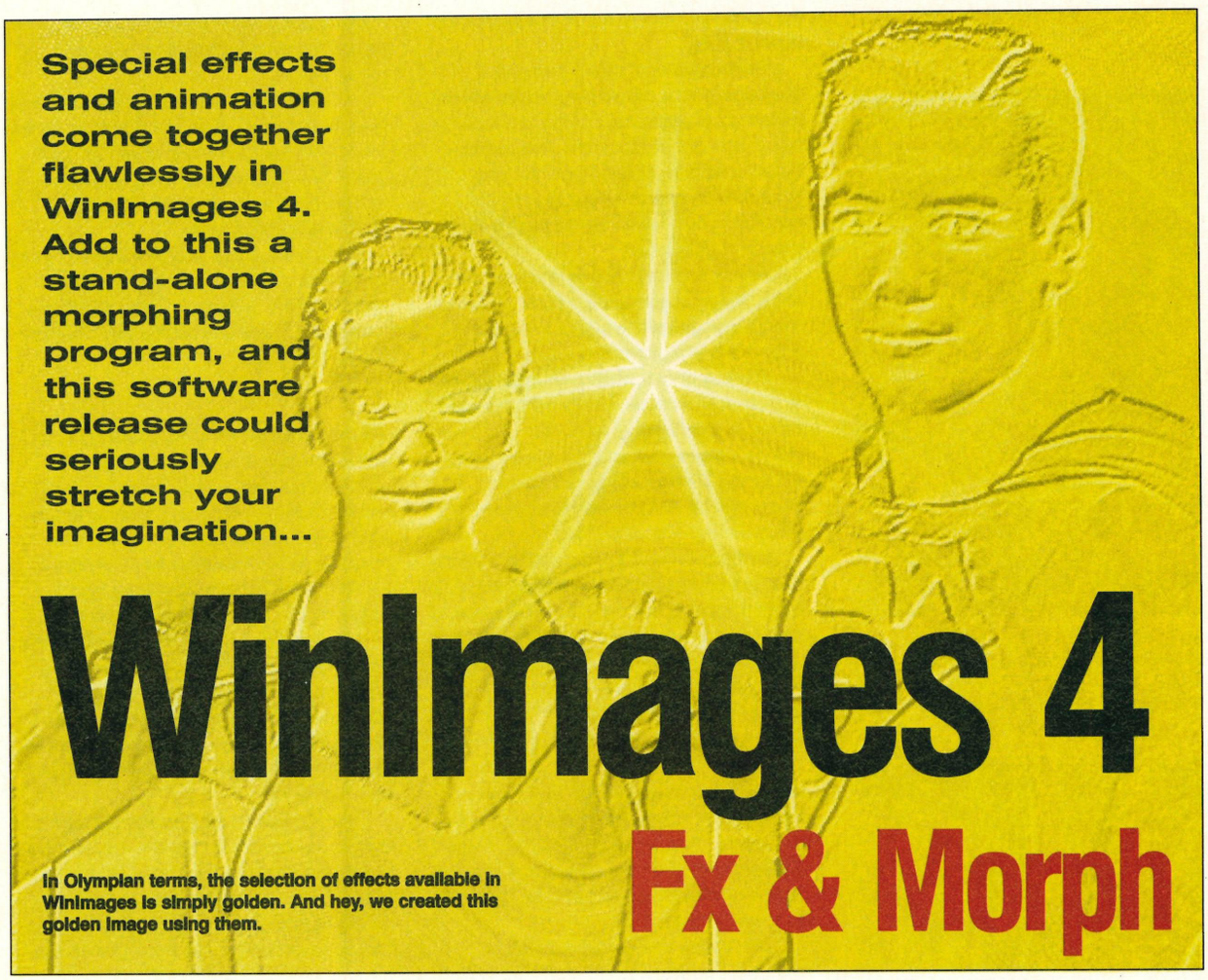
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Special effects and animation come together flawlessly in WinImages 4. Add to this a stand-alone morphing program, and this software release could seriously stretch your imagination...

WinImages 4 Fx & Morph

In Olympian terms, the selection of effects available in WinImages is simply golden. And hey, we created this golden image using them.

PC REVIEW ESSENTIAL

Tinkering. It's a national pastime. Nothing ever seems quite right, does it? So we have to fix it. And the saying 'If it ain't broke, don't fix it if it ain't broken' falls on deaf ears.

So the latest upgrade to the *WinImages* program is heaven-sent for people who like to edit and tweak images until their monitors and retina burn out. Anyone with a creative streak who enjoys computer artwork and animation will feel right at home here. You're in the driving seat and on the dashboard is a classic suite of programs, and there's no horizon.

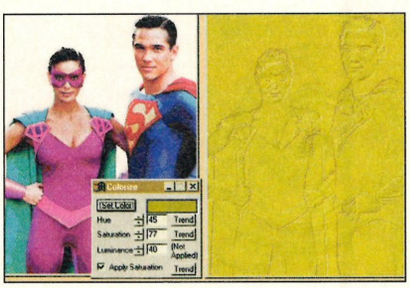
The software boasts a comprehensive array of special effects, extra-special effects and how-the-Hell-do-they-do-that effects. And what's more, the controls are so easily mastered anyone can get stuck in and start producing the kind of enhancements which previously marked the dividing line between amateur and professional work.

The only real drawback is the lack of a printed manual. The on-line one is a model of efficiency and includes pictures of almost every requester, but all too quickly it can get bewildering, making you follow trails for help on a topic you're floundering with in the middle of a creative project. That said, you'd be hard-pressed to find a package offering so much at this price. And the whisper is that it won't be so cheap in the future. Black Belt intends to up the price, which is understandable with a product of this quality.

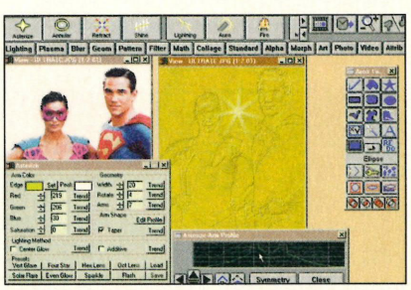
The program loads images saved in almost all the popular file formats, but a notable exception is GIF. ▶

CD REVIEW

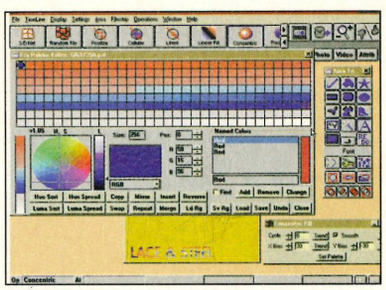
Try our working demo of WinImages 4 with CD Review.



1 Using Emboss on a full colour image allows you to create a bas-relief effect.



2 Having Colourised the slab to mimic gold, it's time to add a flare, and this is done using Asterise.



3 Text is added in line with the current effect operation, and here it's gradient fill.

This version of WinImages is heavensent for people who like to edit and tweak images until their monitors burn out.

THE WORKS



Welcome back to The Works. While we've got a stunner in the form of WinImages 4 for our main review, let's not let that put the rest of the section in the shade. The section is, as usual, packed with new software and hardware reviews.

With heaps of new CD-ROM drives hitting the market, we've done a round up of eight speeds – essential reading if you're ready to go for a faster drive. Speaking of drives, Summer's a great time to upgrade to a larger hard drive. We show you how on page 102.

Let's not forget that software, though. The poweful Extreme 3D is fully tested on page 89, while we hit the high notes offered in Music Works 2 over on 86. And to get the full range of sounds, music and otherwise, from your PC, why not take a look at the Yamaha SW60 on page 87. I must admit, this is the most exciting thing I've seen this month. Enjoy.

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Technical Editor
pcreview@futurenet.co.uk

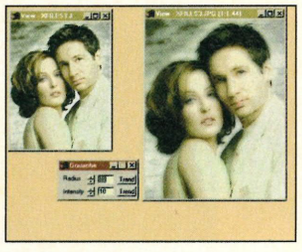
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The effects files



Scully and Mulder never looked weirder... The ripple effect can be quite spooky and is very effective when used over an animated sequence. The gouache treatment (below left) gives a watercolour effect to an image, as if freshly painted, while explode (below right) adds a shock-horror kind of focus to the same image.





New operations in version 4

Kaleidoscope
Mirror
Add Texture
Combine
Extend
Build Palette
Gouache
Oil Painting
Pseudo Colour
False Colour
Solarize
Blue Print
Monochrome
Negative
Adjust Hue
Saturation
Adjust Value
Glare
Antique
Colour Gel
NTSC Filter
Frame Rate Conversion
Film Grain
Aspect Ratio
DPI
Author Name
Annotation
Copyright

▶Try this and a curious message pops up telling you the file type is still the subject of legal wrangling.

Once an image is loaded up and on-screen, the range of effects you can use on it is staggering. Each of them can be used just by itself, or combined for greater creative effect. If this sounds like a recipe for disaster, don't worry. Right from start-up, a user can specify how many Undo buffers to create.

This means artists can experiment all they want – there is no penalty for failure because a click on the Undo button shows a history of past actions, and lets you select the stage you want to regress back to. This is very handy.

Selecting one of the Fx categories displayed across the screen reveals different groupings of scrollable tool icons based on that theme. For instance, the Texture Group includes tools for Relief, Linear Fill and Random Tile. And as all the options are mirrored in pull-down menus, there's little chance of getting lost.

Effects can be imposed on either the whole image or selected portions, and most operations can be fine-tuned by editing parameters in a pop-up requester.

The colour of lightning, for instance, can be user-defined as well as its thickness and the angle of its forking. Linear fills can have multiple ranges defined from a palette box, and things such as waves or explosion effects can be tinkered with for a seemingly infinite variety of possibilities.

Sometimes crossing the border between madness and genius, these requesters invite experimentation; but even the on-line manual can't prepare you for the subtleties achieved by a few mouse clicks. As you can imagine then, tinkering is the only way to can get a feel for the nuances on offer.

See me, feel me

Textures are the outstanding joy of the program. Well-integrated and simple to use, this feature offers a powerful tool for image enhancement. Even the drabbest of images can look awesome given just a few minutes' work applying a texture.

WinImages comes with a batch of textures – images of wood, paper and other natural materials, together with some computer-generated ones. Using them is just a matter of loading in your main image, choosing Add texture from the Filters option, and loading in a texture.

You can specify how transparent the texture is, or how much of the original will show through. For small texture images, you can Tile them to form a seamless covering.

One thing we've discovered is that using *Netscape 2* on the Net allows you to build up a cache to hard drive. This includes the images used on graphics-rich pages and also the textures used for the background tiling process. Using an image viewer, you can check out the cache, and copy any interesting images. The cache has its own naming convention, but if you use a viewer such as *Qpeg*, you can look at any file, regardless of extension, then copy and rename it.

Closely aligned to the texture tool is the Canvas operation. With much greater control over the merging of two images, you can generate professional-looking composite images based on natural or computer generated backgrounds.

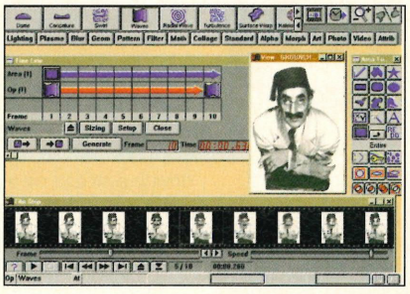
Again, the entire image or parts of it can be treated, and there are three separate features of the operation – colour emboss, transparency and sharpening any of which can be turned off .

Animation & Morphing

WinImages:Fx allows all its operation to be generated over a sequence of frames to create an animation, in either AVI or FLI/FLC format. Creating animations has never been without its problems on the PC, but the programers of WinImages have created a useable, semi-intuitive interface which includes drag and drop transition control.

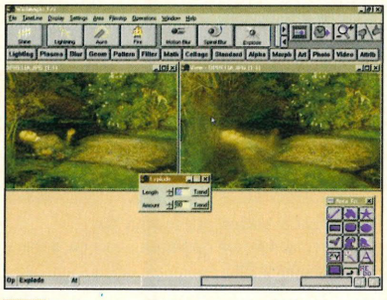
To create an animation you need to load up an image (more than one if transitions between pictures are to occur), set the number of frames for the sequence, give it a filename if you intend saving it direct to disk as it's rendered, then select an operational filter. You're away.

It's possible to specify different start and end parameters for an effect – maybe have a ripple start life small on frame one and grow over subsequent frames. Actually defining these settings gets on the fiddly side, but it can all be done from the animation control panel called the Time Line. This is a graphical representation of the animation, showing duration and content. Click and drag are well implemented for easier editing

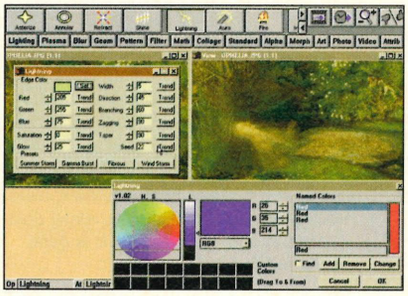


The Time line is the key to making animations with WinImages. On the left are details of just one effect on the image of Groucho. At the bottom are thumbnails of the frames.

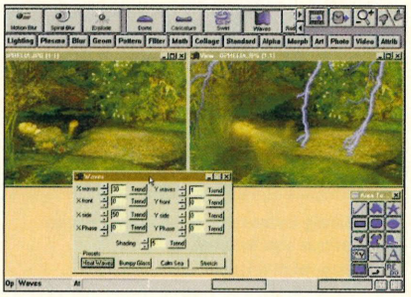
Ophelia makes waves



1 With the original on the right, the left image has had the Explosion operation performed on it.

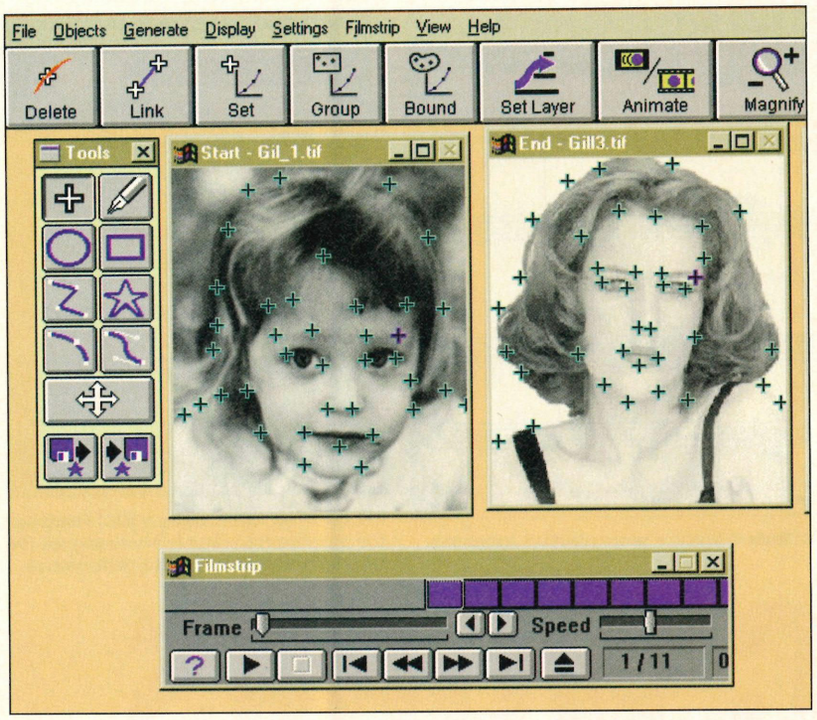


2 Before adding lightning, you have over a dozen parameters to tinker with, including its colour.

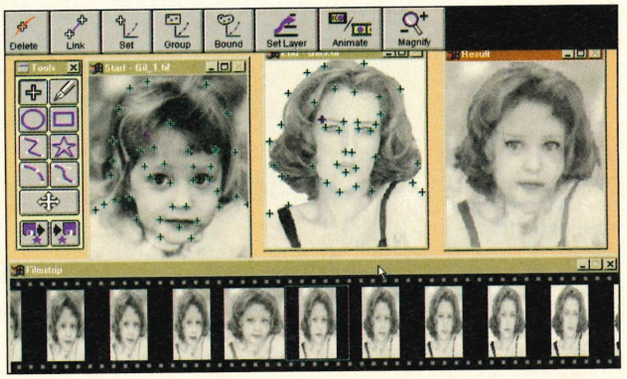


3 Here a radial wave is defined, which will add ripples around the floating body of Ophelia.

Gillian grows on you...



1 Then and now. Images of X-files star Gillian Anderson when she was a tot and today. Both are greyscale and share the same resolution and size, which helps in creating good morphs. The morphing nodes on the start image are duplicated automatically on the end one, then relocated at the right points.



2 The transition has been effected, and a film strip along the bottom shows a frame-by-frame representation, which can be also be played in miniature as a movie. The frame on the right shows the frame mid-way through.



3 Using the zoom feature, precise positioning of morph nodes is possible – here with two distinctly different pictures of Teri Hatcher. The film strip across the bottom shows the individual frames after the morph sequence has been generated.

on a frame-by-frame basis.

A Film Strip option offered by the program allows artists to maintain thumbnail records of recent screens, as well as single frames from an animation. It's possible to actually preview a finished animation from the strip to get a taste of how things went. Output of the animation can be configured to suit display preferences. For instance, 256 or 16 million colour options are there, together with a selection of image sizes to cater for slower or faster machines.

Completing the package is *WinImages: Morph*, an independent utility for turning men into boys, cars into panthers or Fred Flintstone into Wilma. Waaaah! This is a truly intuitive program with plenty of power and flexibility, and used carefully can create some beautiful transitions. Used incorrectly, of course, it turns out junk. This, however, is all down to the artist. Images have to be selected carefully – not just in terms of their size and shape, but also their content. The software is clever, but it can't paper over the cracks if it's given an impossible tasks to perform.

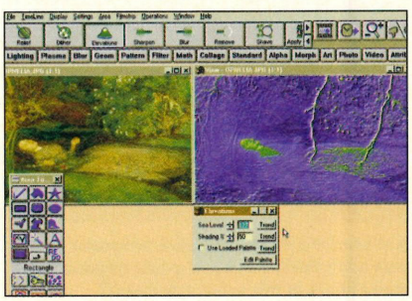
Creating a morph is simply a job of clicking around key points in the source image, then right-clicking on the same points in the destination picture to move them to correspondingly important areas. There's a useful zoom option for precision.

Images can be deformed on their own – noses enlarged, eyes bulged – or more interestingly melded into a completely different pictures over a series of frames. The whole sequence can be saved to your hard drive as AVI or FLC files for later playback.

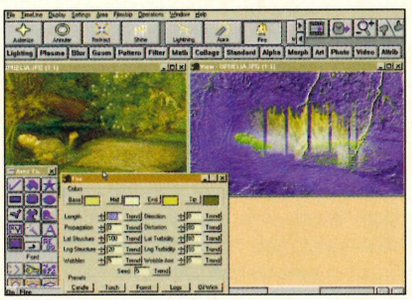
New in this version of *WinImages: Morph* are Layers. These allow you to draw objects distinct from the background image, which can remain unblemished while what's in the foreground gets the full morphing treatment.

The morphing part of the package is among the easiest to master of any similar program on the market. Combine that with the thoroughness of the image manipulation part of the *WinImages* set and you can't help feeling you're get an awful lot of power – and potential too – for your money. *WinImages 4* comes with our recommendation. ***(PL)***

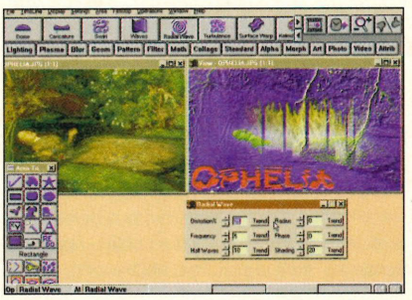
The morphing part of the package is the easiest to master of any similar program on the market.



4 Using the Elevations feature, it's possible to generate striking alternative colours.



5 High drama is added with the inclusion of a few roaring flames around the woman.



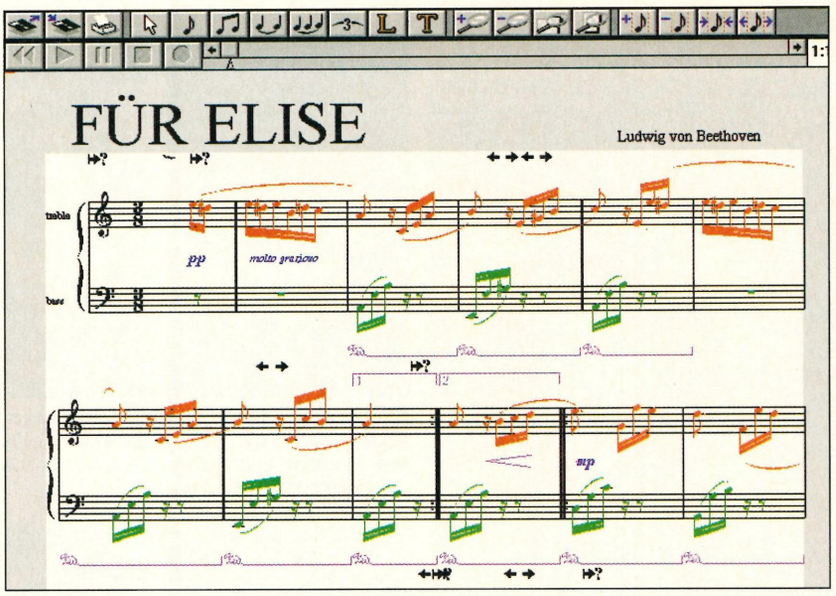
6 Finally, we add the text which is given a Ripple effect. That's how quick and easy WinImages is to use.

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Black Belt Systems
CONTACT
USA (406) 367 5513
e-mail: sales@blackbelt.com
WWW: http://www.blackbelt.com/blackbelt/bx_top.html
PRICE
£132.00
MINIMUM SYSTEM
386, Windows 3.1 or 95, 8Mb Ram, 6Mb free hard disc space, SVGA. (NOTE: You must specify which Windows platform you use, as the 95 version won't work on 3.1.)

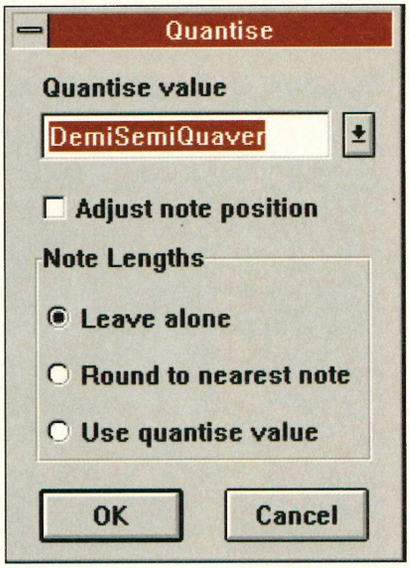
PC REVIEW VERDICT

Powerful, versatile and fun to use. At this price it's nearly a giveaway.

9



Music Works is not really that far removed from far more expensive score creation programs such as Encore 4 and Music Time.



You can enter music using a MIDI instrument. The quantise requester is where you set the program's sensitivity to your performance.

Musical notes

Crescendo
A symbol that denotes a gradual increase in volume.
Dynamics
Symbols that indicate the volume of a section of music.
First & second endings
A type of score marking that denotes repeated sections of music.
Ornaments
Musical symbols used as instructions by the composer to modify the way that the basic notes are performed.
Score
A piece of sheet music
Sequencer
A program for recording music made using a MIDI instrument.
Slurs
A score marking that indicates that a sequence of notes should be played for their full duration, which gives the effect of smooth transition from one to another.
Staccato
A symbol indicating that the note it applies to should be played more quickly than normal.
Staff
The "tram lines" onto which musical notes are placed.
Tuplets
Notes which occupy less than their normal face value.

MUSIC WORKS 2

Even if you don't own a musical instrument, you can still create fantastic tunes and scores with this program.

There are plenty of sequencers around, but if you don't play an instrument, you'll find that their note entry systems less than friendly. *Music Works 2* is an inexpensive program with many features usually only found in programs costing five or even ten times as much. Primarily a scoring package, its features are geared towards working in a traditional notation environment. That means what you see on the screen is similar to the sheet music proper musicians read from when they play. There are tens of thousands of pieces of printed music available to buy – everything from punk to classical – so a package like this, which enables you to make music by merely copying what you see on the page, has a great advantage over programs that use their own hard-to-read proprietary note entry systems.



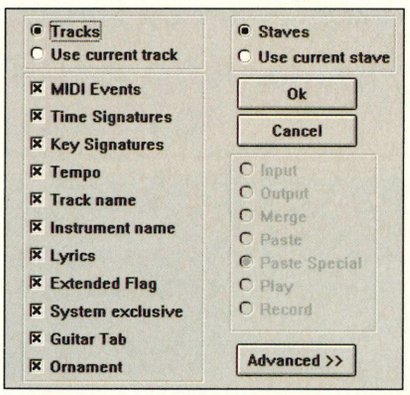
These are just four of the 12 palettes that you use to create scores. The screen soon becomes so on. Even a simple piece of music will require at least two palettes, and because there are so many types, the screen can soon become cluttered.

Music Works provides you with a score onto which notes and other symbols are placed using the mouse. The notes and symbols are stored in multiple floating palettes which can only be accessed via a menu option. Each palette holds a particular type of musical signs such as notes, rests, dynamics, time signatures, MIDI events and

As you place notes on the score, you can slide them up and down the staff, listening to the pitch in each position. This feature is absent in even expensive programs, and is a great bonus for anyone wanting to write their own tunes.

There are many types of notes, but strangely enough, triplets are the only kind of tuplets provided, and double dotted notes are not supported either. Admittedly, these are a little off the musical beaten track, except in classical compositions, but a far worse omission is the program's inability to convert musical symbols into playback effects. It's to be expected that *Music Works* can't manage advanced ornaments, especially as the performance of these is both context sensitive and down to performer interpretations. However, it can't even handle things like staccato, slurs or crescendos which simply alter the duration of a note. Dynamic symbols denoting volume are the simplest possible elements of music, and it doesn't manage them either. All volume changes need to be made at the MIDI data level. Worse still, instructions such as first and second endings aren't considered in playback, so even if you save a tune as a MIDI file it will never play as it should.

Music Works 2 is like a cut-down version of *Encore* or *Music Time*, but a few bits have been incomprehensibly omitted, resulting in a program with no soul. If you need to print sheet music, or your playback requirements are limited, it's a very fairly priced piece of software. ***(MB)***



Not even the most expensive programs provide such flexible cut-and-paste options. How many filters in this paste requester?

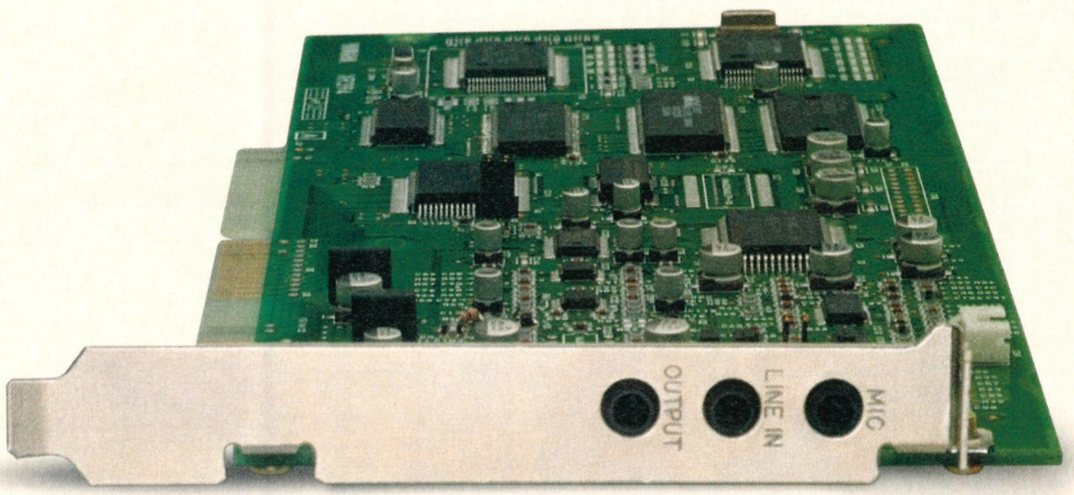
DEVELOPER
Middle Earth Software Systems
PUBLISHER
Guildsoft
CONTACT
01752 895100
PRICE
£58.69
MINIMUM SYSTEM
386, 4Mb RAM, Windows 3.1 or 95

Music Works 2 offers a variety of tools focused on the visual, rather than the audio side of score creation.

PC REVIEW VERDICT

6

If you need to print sheet music or your playback requirements are limited, it's a fairly priced piece of software.



Yamaha SW60

PC REVIEW e ESSENTIAL

For half the price of a decent sound card, you can buy an amazing sound card. Is the Yamaha SW60 the buy of the summer?

Less than a year ago, Yamaha destroyed the MIDI sound card market. They released a daughter-board that was so powerful it single-handedly redefined the meaning of quality and value for money. That card was the DB50-XG, an incredible chunk of electronics that took your existing sound card up to another dimension. There was only one problem, you needed a sound card with a Wave Table daughter-board slot on it to use the DB50-XG. Most older, or cheaper cards don't have such slots, so many potential customers have been forced to look on in envy while everyone else raves about this amazing new hardware.

Now Yamaha has announced the SW60, a stand-alone card, that plugs into any 16-bit ISA slot. It doesn't have MIDI in ports, so it doesn't require an IRQ, or other valuable resources. That means that you can bung it straight into any PC without the fear of causing conflicts. You can even use it in conjunction with an existing MIDI card, adding another 32 note polyphonic instrument bank to whatever you already have. The card uses MPU-401 emulation for compatibility with current multimedia applications and games, but in native mode its capabilities extend far beyond the tired General MIDI (GM) standards. For starters, it comes with a total of 676 voices (instruments) – 128 GM ones, and a further 480 XG sounds. It can also emulate General Standard (GS), Roland's extension to the GM protocol, and in that mode, the SW60 offers 579 instruments.

But they're just extra instruments, they add variety to music, but not texture. For that, the card's awesome bank of 64 studio effects come into their own. They're handled by a Digital Signal Processor (DSP), which can apply up to six effects at once. Like the DB50, these effects may be used to modify the current MIDI instruments that are playing, enabling you to add such things as reverb, chorus, pitch shift and more. However, the SW60 manages to exceed the already superlative standards laid down by the DB50 because it can even apply these effects to a live audio signal. The card has a line in socket on the back, and by connecting an audio source such as a microphone or CD player, you can alter a real-world audio signal. If you want to lower the pitch of your singing voice so that you sound like Barry White, no problem. If you want to use the SW60 as a guitar effects box, it's just as easy. There's even a karaoke mode that totally removes the vocals from music, so that you can use your favourite tunes as backing tracks. Once you've added effects to a signal, you can play it back out for recording or listening. Oh, and by the way, you can simultaneously add effects to a live signal, whilst playing back a MIDI file, also with effects.

Frankly, the SW60 is little short of miraculous, especially at the price. The DB50-XG was the stuff of fantasies, and this is even better. It's powerful, easy to use and cheap, it's the future. ***(MB)***

What the SW60 will do for you

It will...

1. Give you an XG MIDI instrument capable of replaying up to 16 superb quality instruments and 32 notes at a time.

2. Act as an effects box, adding effects to live vocals and music.

3. Work in addition to your existing sound hardware..

4. Remove vocals from live music so that you can use your tapes and CDs as karaoke tunes.

5. Provide superb quality backing music for your games and multimedia software.

What the SW60 won't do for you

It won't...

1. Play the digital effects or vocal samples in your software.

2. Enable you to record or replay your sound samples.

3. Connect to an external MIDI device.

Developer
Yamaha
Publisher
Yamaha
Contact
01706 228039
Price
£151.58
Minimum System
386,1Mb RAM

PC REVIEW VERDICT

The SW60 cannot fail to become an immense success. And deservedly so too.

9

If you want to lower the pitch of your singing voice, so that you sound like Barry White, no problem.

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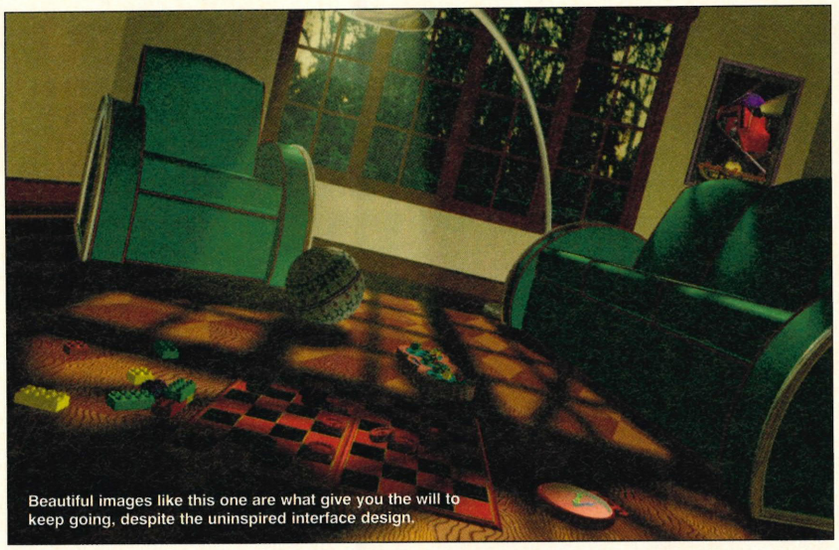
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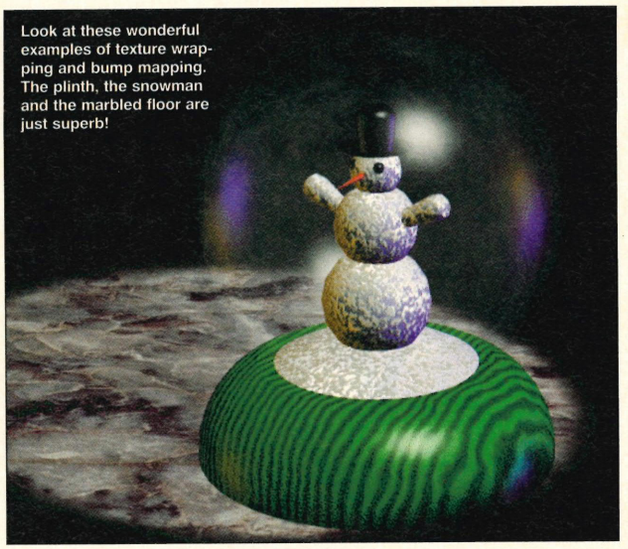
PC ANSWERS



Get the best from your PC and Win95 Issue 30 August 1996 (Also available with HD disk) CD-ROM edition



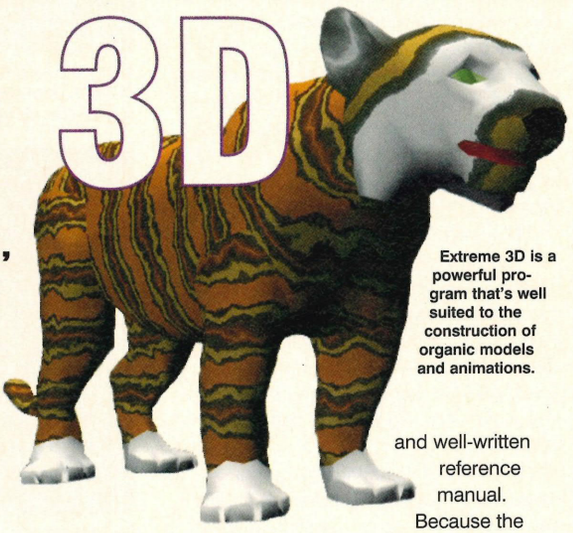
Beautiful images like this one are what give you the will to keep going, despite the uninspired interface design.



Look at these wonderful examples of texture wrapping and bump mapping. The plinth, the snowman and the marbled floor are just superb!

Extreme 3D

3D animation can be complicated, but the right program can make it much easier. The question is, is Extreme 3D the right program?



Extreme 3D is a powerful program that's well suited to the construction of organic models and animations.

Aimed at 3D users in general, *Extreme 3D* is particularly strong in the field of animation, where it provides many innovative tools to make things easier.

The demo on *CD Review* should be more than enough to get your mouth watering, but almost as soon as you start using the program you'll realise that it'll be a long time before you're doing anything really impressive or professional looking. *Extreme 3D* leaves a lot to be desired interface-wise. Even simple operations like starting a new project and setting up the work space can be overly laborious, causing frustration long before you start modelling or scene building.

The box itself is reason for unease. Instead of an exciting summary of *Extreme 3D*'s features, the packaging is more like a technical specification list with no sense of enthusiasm whatsoever. This is very much the pervading mood as you use the program. Its unfriendly and lifeless interface seems designed for mathematicians rather than graphics people, and you're forced to work in a rigid environment.

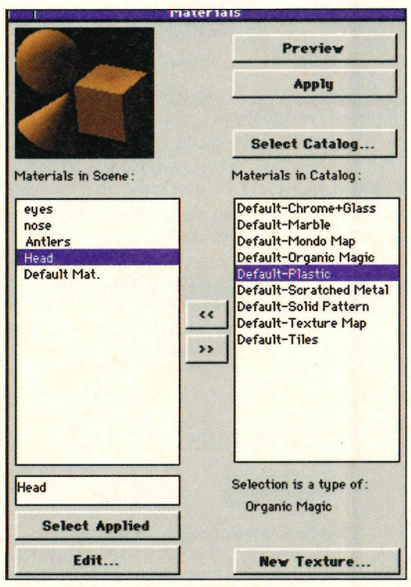
Fortunately, the program is supplied with an excellent tutorial which reveals another glimpse of *Extreme 3D*'s underlying power. It enables you to explore the spline-based modeller as you create an animated jack-in-the-box. This tutorial demonstrates many essential principles, but still falls short of firing your imagination. The remainder of the program is described in a comprehensive and well-written reference manual.

Because the interface is often counter-intuitive, you'll find that your desire to go on unguided voyages of exploration is stifled before you ever really start. A number of important options can only be accessed using key presses. In an age of drag and drop ease, such old fashioned design sticks out like a sore thumb!

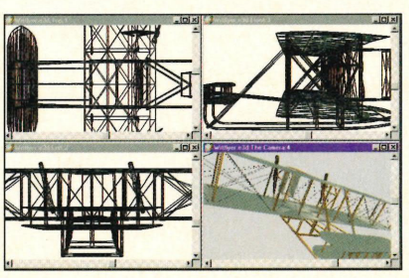
While the mathematical nature of *Extreme 3D* does make it feel rather sterile, when combined with the modelling or animation tools, this apparent disadvantage becomes a plus as it greatly simplifies the creation of even complex motion.

It's a full 32-bit application, so you should ideally use it under Windows 95 or Windows NT to get the best out of it. Under Windows 3.1, however, it uses the Win 32 shell. In our tests, *Extreme 3D* tended to crash using Win 32.

Extreme 3D is a program of mixed blessings. When it comes to the application of textures and other surface properties, the program scores very highly. It's good for making complex, organic type models, and is very useful when it comes to constructing precise, hierarchic animations. Weighed against that, is the fact that its interface is very poorly considered, although Macromedia vehemently asserts that it's an acquired taste. One might argue that you shouldn't need to change your tastes just for one program. ***(MB)***



Yuck! This materials requester demonstrates the horrible, bland, DOS-like design of the program. It might be powerful, but it's not friendly.



Here's the quad-view. The toolbar is hidden off the page, but there are very few tools or palettes available anyway.

Splines

Curves that have at least three control points. By moving a control point, the angles of the curves, and consequently the shape of the model, are changed. It's true that this makes it easier to produce smooth curves.

Patches

These models are made or connected triangles, much like a patch-work quilt. Each is flat, and 2D, but by altering the angles of the edge joins, curves may be represented. It's quite memory intensive for curved shaped.

CD REVIEW

Experiment with the powerful demo on our CD-ROM.

Developer
Macromedia
Publisher
Macromedia
Contact
0181 200 8282
Price
£645.08
Minimum System
486/50, 16Mb RAM, Windows, 20Mb hard drive, SVGA, CD drive

PC REVIEW VERDICT

A big, flexible program that hides much of its power behind a creaky front-end, and high price tag.

6

DISK MANAGEMENT

Hard drive headaches? Here we review two programs, one for adding new drives to your system, the other for disk security.

Disk Manager

DEVELOPER
Ontrack Computer Systems
PUBLISHER
Ontrack
CONTACT
01372 741999
PRICE
£97.53
MINIMUM SYSTEM
386, 512k

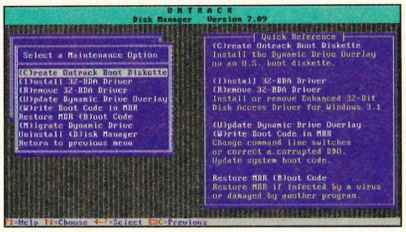
PC REVIEW VERDICT
Get the most from your hard disk. An adequate, but expensive and inflexible utility.
6

Your hard drive is a fundamental part of your PC, yet it's not without its limitations. Older motherboards may only recognise IDE drives up to 528Mb in capacity, and even with a brand new one, you may not be getting the very best performance from your drive.

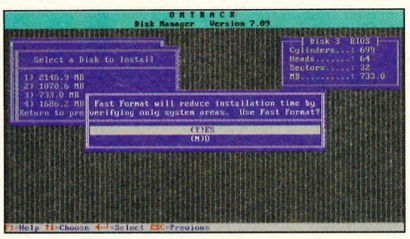
If you've bought a large hard drive and connected it only to discover that space beyond 528Mb is not available, your BIOS was written before large modern hard drives became available. *Disk Manager* is designed to address that problem, and a few others. It's a DOS program and you run it as soon as you want to add a new drive, or re-partition an existing one.

The program comes with detailed instructions describing how to add extra hard drives to your system, and this includes a comprehensive list of jumper settings for most drives. Once you've physically fitted a new drive, you can use *Disk Manager*'s Quick Install to mount the software on the new drive, or to reformat and partition an existing drive.

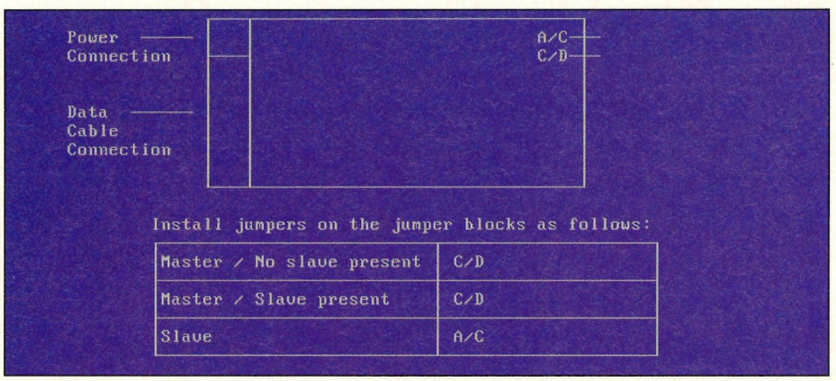
Unlike *Partition Magic*, the program doesn't allow you to re-partition data-filled drives on the fly, and any existing data will be lost. However, it does provide a quick format mode that prepares a 1Gb drive in under a minute. The installation will mount special software if required – to make the drive work with older motherboards – and it can also add fast 32-bit drivers, and optimised mode 3 and mode 4 EIDE drivers. It can even accelerate the transfer rate of old RLL, MFM and ESDI drives. ***(MB)***



Even if your BIOS doesn't support drives over 528Mb, Drive Manager's Quick Install will mount the software to access up to 8Gb.



You can re-partition your drive for more efficient use of space, but you'll lose any data if you do it to a drive that's already in use.



Drive Manager includes a comprehensive (but not very pretty) catalogue of drive jumper settings to help you set yours up correctly.

Folder Bolt

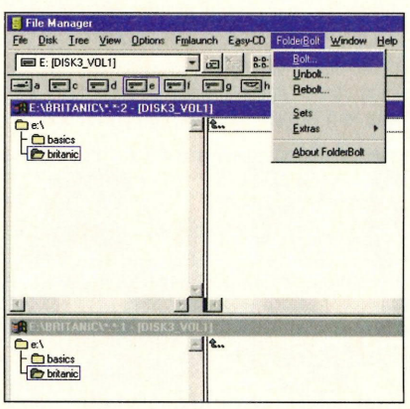
DEVELOPER
Kent.Marsh Ltd.
PUBLISHER
Xcom
CONTACT
01737 223044
PRICE
£92.83
MINIMUM SYSTEM
2Mb, 386, Windows 3.1, 270k hard disk

PC REVIEW VERDICT
A secure, easy to use utility. Safety is only a mouse click away.
8

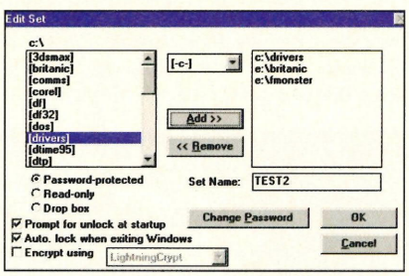
Data can be worth money, and you might want to protect it as fiercely as any piece of physical property. There are all kinds of data security programs available, but in general, they either have complicated password entry systems, or they take ages to work.

Folder Bolt is different to other programs because it simply locks folders so that prying eyes can't get at their contents. You decide which folder to lock, set the password, then lock it. There are three types of lock – full, read-only and drop-box. With a full lock, the directory name is still visible, but its contents don't appear in a directory listing and they can't be accessed, nor can the directory be written to. Read-only protection enables other users to get at the contents of a directory, but they can't change its contents. A drop-box enables users to store files in a directory, but they can't view or alter them. As an additional measure, you can also encrypt individual files as well.

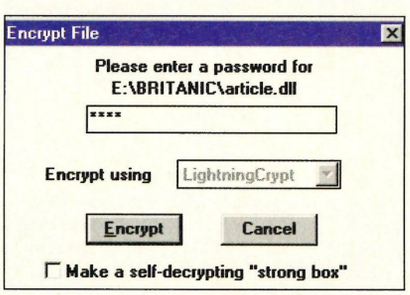
The program even uses a cut-down version of encryption algorithms that are not exportable from America without government license, so it seems pretty secure. It's also extremely fast, with none of the hours of waiting that characterise programs such as *Deadlock*. Because the program is keyed to a unique disk signature, you can use the original floppy to bypass the protection. However, if you want, you can create locks that have no emergency back doors, so if you forget your password, you're done for, and your data's lost. Still, *Folder Bolt* does the job. ***(MB)***



Folder Bolt automatically attaches itself to File Manager, so you can use it to lock and unlock files from there.



If you create sets of lockable folders, Folder Bolt will automatically lock them all when you exit Windows, so your system becomes safe as soon as you power down.

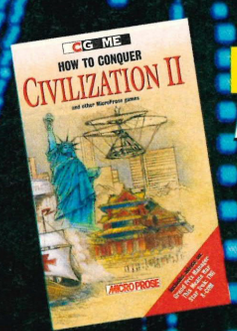


The program provides good encryption, but those barmy Americans have prohibited the most powerful types from export, as if that would stop foreign powers getting hold of it!

X-WING vs TIE FIGHTER

In July's issue of PC Gamer, LucasArts speak about their brilliant new multi-player Star Wars game.

Plus!
Details of Jedi Knight: Dark Forces 2!



Free book!*
A 100-page guide to getting the most out of Civ II and other MicroProse games.
*UK copies only.

PC GAMER On sale now

Your Next CD-ROM

CD-ROM drives are getting faster and faster, but just caught up with batch of speedy new ones fresh from factories around the world. But are they worth buying?

The write stuff

CD writers are very popular, and you can buy one for as little as £500. These drives enable you to create your own CDs using special blanks known as gold disks. The writer uses a laser beam which literally burns holes into a micron-thin layer of gold sandwiched between two layers of plastic. The writers are relatively inexpensive, but it can be costly getting the hardware needed to run one.

What you do with your computer is dependant upon the performance of your hardware. If you own the wrong kit, you may not even be able to load certain pieces of software, let alone enjoy them to their fullest. The specification of your CD-ROM drive is just one of the figures which helps describe the minimum requirements in order for your PC to earn a multimedia rating. The current top standard is MPC-3, for which you need a wave table sound card and a quad speed CD drive.

Given that fact, why should you bother to buy a faster drive? Ater all, there isn't even that much MPC-3 specific software around yet anyway. So, what benefits can you expect, and is it really that important for you to upgrade? The honest answer to the latter question is no, it isn't really that important to have anything better than a quad speed drive. Your computer won't grind to a halt if you don't upgrade from quad speed to six

CDA-868



Supplier
Aztech
Contact
01734 814121
Price
£99.95

Price is the key here, and Aztech has fought hard to make its drive cheapest eight speed around.

9

PC REVIEW VERDICT

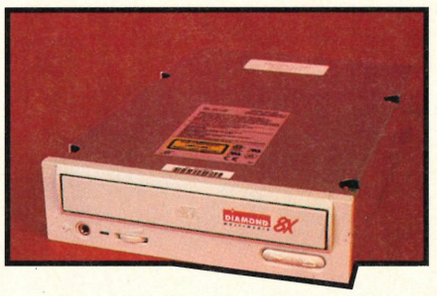
This was one of the very first eight speed drives to become available, and since its release, its price has fallen three times. Sceptical observers might be driven to ask exactly what Aztech is so scared of, especially since it was always the cheapest unit on the market anyway.

Unfortunately, cheapness is a term that can be equally applied to both price and build quality. It's made of nice, heavy duty plastic and appears very robust, but the door slides open if you shake the unit, and it doesn't seem terribly well engineered. To give Aztech its due, the door is much weightier than the other drives, and that could be the only reason that it falls open as it does.

Anyway, the CDA offers a throughput of 1183K per second, 17k short of the required 1200 mark. Nevertheless, it would be short-sighted to get unduly hung up on the numbers, especially when it misses by such a small percentage. You're certainly never likely to notice the deficit. The drive also manages an access speed of 269 milliseconds, which brings it inside the 300ms level required to meet the MPC-2 standard which is used to measure a PC's multimedia functionality.

The CDA-868 is an ATAPI device, so you can attach it to any IDE or E-IDE controller, or optionally you can buy it with an appropriate interface for a few quid more. The driver software is absolutely minimal, and there are no dedicated Windows 95 drivers, so it won't run optimally in that environment. Still, the simplicity of the installation, whatever your operating system, is a big plus, especially for PC beginners.

Diamond 8X



Supplier
Diamond Multimedia
Contact
01754 501400
Price
£333.00

An adequate performer, and stylishly designed. This drive is just too expensive to consider.

4

PC REVIEW VERDICT

Despite the implication of the company name, Diamond Multimedia is only really any good at making graphics cards. The company does offer multimedia kits and CD-ROM drives, but just doesn't seem to be able to find a selling price low enough. At £333, this drive is way out of the game, and nobody in their right mind would consider paying that price given the excellent competition. (Diamond, in fact, would probably prefer not to sell CD-ROMs on their own anyway.)

It's scary how quickly a seemingly good product can be superseded. Only three months ago, this drive's specification put it at the head of the class. Already, however, it seems like a tired old has-been. It has a data throughput of 1194K per second, which just falls short of the rate required to truly earn it an eight-speed stamp. An access time of 237 milliseconds is perfectly acceptable, as is the CPU load of 45 per cent. The drive appears to be well made, presenting no physical problems when we tested it. It includes the near-obligatory audio CD controls on the front panel.

The Diamond 8X uses an IDE interface, which is not included. However, if you have an E-IDE controller in your computer, or you're only running a single hard drive from your IDE controller, the drive will be a doddle to set up.

At the end of the day, Diamond 8X is a solid if unexceptional performer, but it sells at a price that's slightly short of ridiculous.

DRIVE...

speed, or from six to eight. If you're using a drive slower than a quad speed, however, there are still major benefits to be gained by upgrading, but once you reach quad speed or beyond, any further upgrade will be largely a result of your impatience than a requirement of the software you're using.

Let's look for a moment at the figures. With a quad speed drive it'll take about 1.6 seconds to load a 1Mb game. With a six speed drive you can shave that down to 1.1 seconds. But ask yourself, is it worth doing surgery on your bank account and on your PC for that extra half second?

Of course, the time consumed becomes greater the more data you load, so if you use productivity software, such as *Corel Draw*, that involves a lot of CD accesses and shifting large files around, the seconds, minutes and even hours soon mount up.

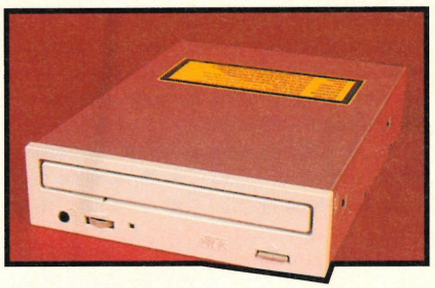
If that's the case, then you're probably using your computer in a working environment and the cost of a drive weighed against the savings in time and frustration makes the whole thing much more viable. But remember this, in a year or so, whichever drive you buy, no matter how fast it is, it will be obsolete and worth a fraction of the price you paid for it. Don't get involved in keeping-up-with-the-Joneses type games with your friends, because you'll always end up losing out in the inevitable stampede of technology. When buying a drive, choose the most robust, most reliable and flexible one that your finances will allow. Then buy it, use it and be happy. Don't torture yourself by looking at how much prices have fallen in six months – it always happens. Enjoy your drive, play some great games or use some excellent utilities. If it is one of these eight speeds you buy, you won't need to worry about demanding software for quite a while.

Up the resolutions

Data is stored on a CD as a series of small holes (known as pits), which represent binary data. The pits are read by a laser beam which can identify the microscopic holes and reconstitute the data. Different coloured lasers have different wave-lengths, and beams with shorter wavelengths can read finer information from a CD. Most CD drives use red lasers, but plans are underway to sell blue laser readers. CDs designed for them will have a greater capacity.

Another way of increasing the capacity of a CD is to make it layered, with each layer holding as much as a conventional disk. For that to work, readers need to be able to take precise control over the focus of the laser.

CDR-7930



Supplier
Hitachi
Contact
01264 336991
Price
£129.25

PC REVIEW VERDICT

A competent drive at a more than reasonable price, but not if you want to listen to lots of audio CDs.

8

You probably know Hitachi more for its TVs and video recorders than for its computer equipment, yet this drive clearly demonstrates that the firm is perfectly capable of competing with the PC hardware heavyweights too.

The CDR-7930 is a feisty all-round performer, but the most remarkable thing about it is the incredibly small amount of processing power it requires to work at full capacity. This is described in terms of its CPU load and while the other drives are turning in results between 30 and 78 per cent, this drive blows them out of the water with an incredibly low 4 per cent. We triple checked the results because they seemed so exceptional, but the same score came up time and again. This leads you to wonder what Hitachi is doing differently from the others that its drives require so little processor power.

With a throughput of exactly 1200K/s, it was the first drive we tested which actually earned its eight speed wings. Its 156 millisecond access time puts it in the faster half of the table too.

The CDR-7930 came with just a single sheet of instructions, but it was so easy to install that a full manual wasn't really needed, anyway. That's the beauty of IDE drives – you've installed one, you've installed them all.

One visible area in which Hitachi has made economies is in audio player controls, which consist solely of a volume dial and an eject button. The omission of anything more complicated, isn't really a disaster unless you planned to listen to a lot of audio CDs, in which case, try one of the other drives instead.

CD-MASTER 8E



Supplier
Samsung
Contact
0181 391 0168
Price
£151.58

PC REVIEW VERDICT

This is a very middle-of-the-road piece of kit. Although fairly priced, it doesn't excel in any area

7

At £151, this Samsung drive is anything but over-priced, and its overall performance is certainly good enough to get you by. In fact, closer inspection, reveals a drive whose performance is remarkably similar to the Hitachi unit, in all but one important area. Its data throughput is a rock-steady 1200k per second, like the Hitachi, and it even manages a slightly faster 143 millisecond access time, so it can find and start reading data on a CD that tiny bit quicker. Unfortunately, it chomps up a disconcerting 88% of your CPU's processing power when in use. The effect that this will have upon your overall system performance, will vary according to the type of data you're reading, and slower transfer rates levy a lesser toll on your processor. Certainly, when it comes to playing audio CDs or videoCD movies, both of which are surprisingly undemanding, the CPU load won't matter, but perhaps if you use high-performance games, you might notice a slight problem.

Although the drive carries a "Designed for Windows 95" sticker, it doesn't come with dedicated drivers. You can still use it, but you may have to resort to 16-bit drivers that will force your system into the slower Real Mode of operating.

Whilst the CD-Master is about £20 more expensive than its close rival, it's better built and has proper CD audio controls on the front panel. In fact, the drive is one of the more stylish units in this round up, if such things make a difference to you.

XM-5522B



Supplier
Toshiba
Contact
0181 286 5000
Price
£222.08

PC REVIEW VERDICT

A six speed drive, yet it costs more than the eight speeds. Still, you pay for reliability.

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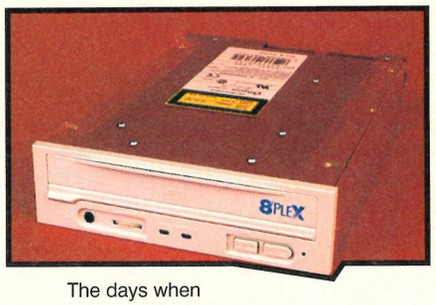
Here's the only six speed drive in this group test, and to be honest, it's only any good to the discerning buyer who places reliability and stability at the top of the list. Even an eight speed drive would be expensive at this price, and at first glance you won't notice what makes this worth considering.

Under testing, one thing becomes most apparent: the drive is very consistent. It doesn't offer a single kilobyte per second in transfer speed more than it needs to, but a CPU load of only 30 per cent, is acceptable. For multimedia titles such as encyclopaedias access time can be as important as transfer speed, and this unit scores well in that regard. Access time is measured by taking 100 readings of the time it takes to find and read random chunks of data on a CD, then averaging the results. With the other drives, the highs and lows vary wildly, but with this one, almost every reading is the same. That's good because it means that the drive has a robust, well-designed mechanism, so you can expect it to keep performing well long after lesser units have given up the ghost.

It comes as a surprise to note that, like the Hitachi drive, this well-made unit comes with just the bare minimum of controls for playing audio CDs. You can alter the volume or eject, but there's no track skip, or other such niceties.

If you use a lot of data CDs, or longevity is very important to you, it might be worth splashing out on this drive.

8PLEX



Supplier
Plextor
Contact
01420 541880
Price
£325

PC REVIEW VERDICT

A well made drive, and a great all-round performer, but the price is absolutely ludicrous.

5

Plextor prides itself on the quality of its mechanisms and durable drives. Like many others the firm skipped six speeds, and went straight for an eight speed unit. Just when everyone else has gone over to IDE, Plextor still produces SCSI drives. Despite the fact that other manufacturers are happily releasing tray-loading ten speeds, Plextor claims that the only way to give reliable performance is to use caddie-loading systems. That mean that you have to first place your CD into a plastic caddie which is itself inserted into the drive.

As for performance, transfer times varied greatly according to the SCSI interface the drive was connected to. On an Advansys 16-bit ISA controller, it only managed a very sluggish 1002k per second, but hooked up to an Adaptec 2940 PCI controller, and that time leapt to a stunning 1448k/s – almost ten speed!

Unlike most other drives in this round up, the 8Plex comes with a very large and comprehensive manual. Because it's SCSI, the drive is extremely easy to set up – just set the ID number, connect it up, then run the supplied installation software. Speaking of software, the unit comes with excellent Windows software that enables you to sample directly from CDs. The software also acts as a media player, and will identify the type of disc in the drive.

The days when CD-ROMs didn't necessarily play various types of media, such as CD-i discs, seem to be in the past, and like the other five drives, this one plays everything you can throw at it. There are simple controls on the front and a headphone socket in case you want to use the drive as an audio CD player while you get on with something else.

	8Plex	8x	XM-5522B	CDMaster8E	CDR7930	CDA-868
Speed Rating	8x	8x	6x	8x	8x	8x
Transfer rate	1448k/s	1194k/s	901k/s	1200k/s	1200k/s	1183k/s
Access time	123ms	237ms	165ms	143ms	156ms	269ms
CPU Load	75%	45%	30%	88%	4%	46%
Interface	SCSI	IDE	ATAPI	E-IDE	ATAPI	ATAPI
Included?	No	Yes	No	No	No	No
Loading System	Caddie	Tray	Tray	Tray	Tray	Tray
Compatibility	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent

Conclusion

As ever, there's really not a huge amount of difference between the drives in this round-up. The Diamond 8X, while a solid performer, priced itself completely out of the market. The Plextor unit is the only SCSI drive here, and it's certainly no slouch if you have a decent SCSI controller card. Plextor's insistence on a caddie-based loading system is a pity, but this does mean that you can mount the drive horizontally or vertically within your computer case. It's not for the average user, but if you have a SCSI machine, and lots of money, it's a great piece of kit.

If you're IDE-based there's plenty of choice, but you'll notice that all the drives work much closer to the transfer rate tolerances than six or quad speed units used to. Unlike them, none of the IDE eight speeders managed that. Bear in mind, that 10-20k shortfall of the Diamond and Aztech CDs only equates to 7-15 per cent below par, so don't give undue weight to that.

Although there's little wrong with the Samsung drive, it's hard to find a reason to spend the extra £20 given the fact that it's cheaper rivals are just as good. Ultimately, the Hitachi and Aztech drives offer excellent value for money, and either would serve you well. If you value reliability and don't want to upgrade for a few years, the Toshiba drive is nice, but expensive for a six speed.

Top choices? The Plextor if you have SCSI and money's no object, or the Aztech CDA-868 if money is of prime importance and you have an IDE-based computer. ***(MB)***



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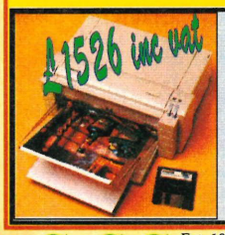
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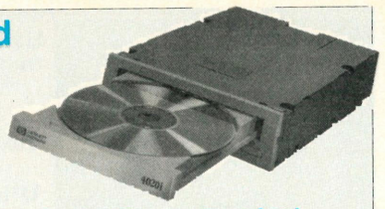
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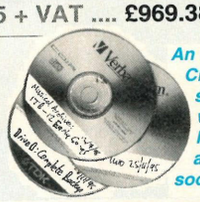
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Q&A

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Got a problem you just can't fix? Well, write it down on a piece of paper and send it in to PC REVIEW, Helpline, 30 Monmouth Street, Bath, BA1 2BW. We'll try to solve it.

WINDOWS

Quick Format

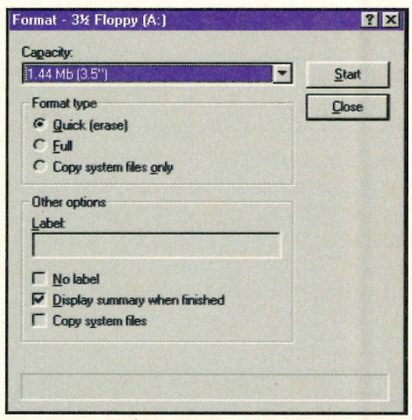
Q I've been playing with the Quick Format for floppies option in Windows, and it works as it should, but only sometimes. What does it do? And why can't I use it all the time?

A Any disk, floppy or hard, has the same two kinds of information on it. Firstly there's the information that you put there – all the text, graphics, software and other files – then there's the internal filing information your PC uses to keep track of where everything is. This is kept on a special part of the disk called the FAT (File Allocation Table) and you can't change it without using special software. This is good, because digging around in the FAT without knowing what you're doing can wipe out or damage all your files.

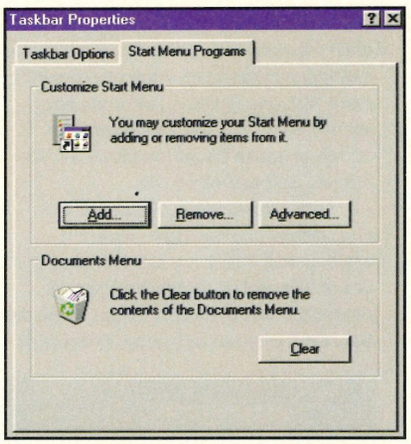
Quick Format wipes the FAT. This means all the indexing information about where the files are kept on the disk is lost, and the disk appears blank. Now, in fact, the information is still there, and someone with a FAT editor may – perhaps – be able to recover it. But for everyday use you have a blank disk.

Full Format wipes the FAT and everything else on the disk as well. This takes a lot longer, but is more thorough. If you're worried about security for example, Full Format is the way to go.

Completely fresh blank disks don't have a FAT yet, so Quick Format won't work. You have to Full Format these first. Then you can Quick Format them if you ever need to use the disks again.



You can use Quick Format to perform a speedy format on a disk – but only if it's been formatted with a Full Format already.



You can customise the Windows 95 taskbar for instant shortcuts to any package.

Task bar tasks

Q How do I add my own entries to the task bar in Windows 95?

A Click on Start, and go to Settings and Task Bar. Click on the Start Menu Programs tab and Add. Use the Browse option to find the software you want to add. Select Open to choose it – this won't run it – and then pick where on the taskbar you want it to go. If you select Start Menu it will appear at the top of the bar. Otherwise it will show up in one of the program folders. You can create a new one by clicking on the New Folder button, or create or choose a sub-menu by clicking inside an existing one. Then click Next and the program will appear in the taskbar ready to be used.

Save and Resume

Q I have Windows 3.11. Is there a way to save the Program Manager settings without having to quit and reboot every time?

A All you need to do is go to the Options menu and make sure you've selected Save Settings. Then quit out of Windows, but hit the Cancel button instead of Ok. As soon as you start the Quit process Windows saves the settings, and you can then quit back to the desktop. It's a slightly long winded and awkward way of doing things, but there doesn't seem to be a shorter one. And it does work.

Control Panel Improvement

Q In Windows 95 I'm getting impatient waiting for the Control Panel settings to load every time I make a change. Is there any way to put all the applets in a task bar folder? I managed something similar in Windows 3.1.

A Indeed there is, but it's somewhat obscure. You need to follow these steps exactly. Right click on the Start button in the task bar and select open. A window appears showing the top directory of the Start menu. Right click on a blank area and select New, then Folder. Now for the strange part. Give your new folder the following name, following all the punctuation exactly:

```
Control Panel.{21EC2020-3AEA-1069-A2DD-08002B30309D}
```

Absolute Beginners

Q Multitasking – what is it? Why is it so great? What can I do with it? Does it mean I can play games while downloading software from the Internet?

A In the world of big grown-up computers that the PC aspires to, multitasking means being able to do lots of things at the same time. On a true multitasking computer you could indeed play games while working on the Internet, printing out your accounts and taking calls using a voice mail system.

On the PC, Windows 95 will do all this, but only with the right software. It depends on which hardware resources are required and how it's been set up. Windows 3.1x isn't quite so convincing at it, but does let you switch between more than one program in memory – if you have enough of it. DOS doesn't multitask at all, although it's usually possible to set up printing so it works in the background while you get on with something else.

Useful multitasking related commands are [Alt]-[Tab] which cycles through the software in the memory and [Ctrl]-[Esc]. In Windows 3.1x this brings up a list of loaded software, and lets you select one package to work with. Windows 95 does this with the taskbar at the bottom of the screen.

Now when you click on the start button you'll find a new Control Panel entry that lists all the programs in the Control Panel and doesn't take an age to load.

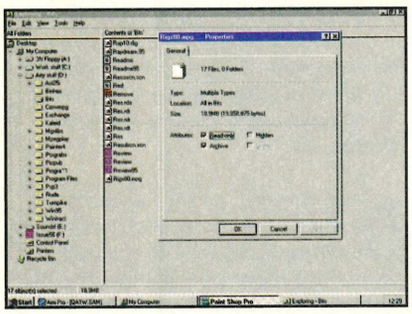
If any readers would like to write in and explain exactly how and why this works we'll print the tip here and offer a small prize.

Delete Made Easy

Q I've copied some files from a CD-ROM drive backup and now I want to get rid of them again. Even when I select them all, I get the 'This is a system or read-only file...' message for each one, so I have to go through them all one by one. Is there any way round this?

A Whenever anything is written to a CD-ROM it's automatically given a Read-only tag – because of course, that's exactly the kind of file it becomes. When you copy it onto your hard drive this tag remains. Installation routines for most software clear this tag, but if you're copying something off, say, a magazine's cover mounted disk or a ROM backup it's going to remain unchanged.

There is a quick way round this. You can set properties globally in both Windows 3.1x and 95 by selecting a group of files and then calling up the Properties box for the files. You'll see Read-only and perhaps Archive ticked. Untick them and all the files will be converted at once. You can then delete them in the usual way.



Deleting CD-ROM backup files doesn't have to be a painful process, if you change their properties and delete them all in one go.

HARDWARE

Speed Demon

Q I'm trying to set up my PC so it goes as fast as possible, because I'm sure the company I got it from didn't bother. I've worked out most of it, but don't understand two entries in the CMOS setup page – the read and write precharge and wait-state times. What are these for? Are they important?

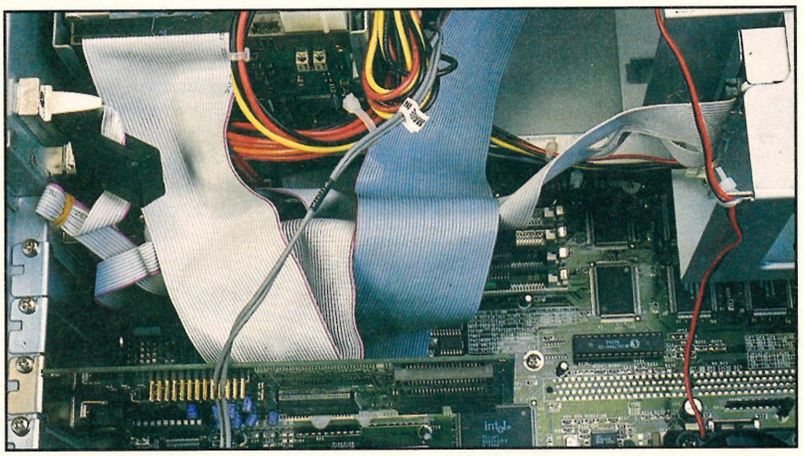
A In many PCs there's a mismatch between the speed at which the processor can read or write data to the main memory, and the speed at which the memory can respond. If the memory isn't ready fast enough then the processor stumbles and pauses. Wait-states are added to pause the processor in a more efficient and organised way.

There are all kinds of theoretical calculations you can do to work out whether wait states are needed on your PC or not, depending on memory speed, processor speed and the speed of the data bus. Most of these boil down to a rule of thumb – high speed 60ns and EDO memory won't need wait states, but bargain basement 80ns RAM will. The easiest way to check which you have is to experiment. You won't break anything, and no data will go AWOL if you get these settings wrong. But you will find that the correct setting is noticeably faster than the incorrect one. To check, build yourself a big spreadsheet or do some complex rendering – anything to give your PC something solid to chew on. Make sure the calculations are so complex they won't all fit in the 256K high speed cache. Then time the results. You'll soon see which works best.

Hard on

Q Okay, I know it's supposed to be easy. I have a very new PC and an even newer 1.7Gb hard disk drive. Why do I only get 528Mb appearing when I try to partition it? Please help – I don't understand!

A All the newest PCs can handle large drives as standard. But you need to know how to set them up. Some newer



Wait states demystified: Do you know how fast your RAM can go? Setting up the BIOS to match the RAM can noticeably speed up your PC.

DOS

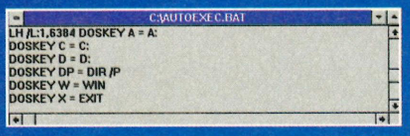
Doskey Shortcuts

Q I'm using a shareware rendering package and I keep having to type in the same command line every time – no joke when it's almost a whole line long. Is there anything I can use to speed this up? Like a batch file, maybe?

A You could indeed use a batch file, but this only works if you're typing exactly the same line over and over again with no changes. If that's the case just type the full command line into a file, call it something like MY.BAT and save it in the directory with all the other files you're using for your project. Then type MY and it will insert that line for you.

There is another way. A special program called DOSKEY lurks deep in the heart of your DOS directory, and it's ideal for short-cuts of all kinds. You can run it by hand every time you want to use it, or just add the line DOSKEY to your AUTOEXEC.BAT if you want it in memory all the time. Now you have a record of every DOS command you enter. To access it, just use the up and down arrow keys. Hit [Enter] to run the command. You can use the edit keys to change the command before you enter it.

You can also use DOSKEY to add aliases for common commands. DOSKEY X = EXIT for example means you can get back to Windows by hitting [x] and [Enter] instead of the full word Exit. What you use this for is pretty much limited by your imagination – and also how lazy you are...

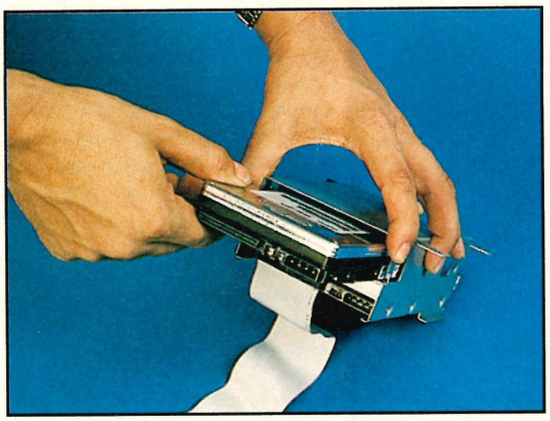


If you're incredibly lazy you can use DOSKEY to set up aliases for your various hard drives, so you don't even need to type the ':' at the end.

Secret Batch Files

Q I'm trying to create a batch file that does some things but keeps the commands hidden, and is also impossible for the user to break into. Can I do this? If so, how?

A ECHO OFF hides the output of any commands you type. CTTY NUL directs the output of a user's typing to the null device. In other words, it ignores it. It doesn't, unfortunately, ignore [Ctrl]-[C] breaks but with ECHO OFF and CTTY NUL the PC just hangs if you hit a [Ctrl]-[C], as the information to and from the processor



Big Disk BIOS Setup: If you don't tell your PC about the kind of disk you're using, you could find yourself wasting megabytes of space.

BIOS types have an option to auto-detect the number of cylinders, clusters and so on that a hard disk has. But these don't always get it right first time with large drives.

The secret is to go into the BIOS setup page and change the disk mode from Normal to Large or Auto. (The Large options sometimes appears as LBA or LRG. Mode 1 – the original small disk mode – may be shown as CHS). Then when you partition the drive the BIOS will know that it's dealing with a huge expanded drive and not a small and fiddly 528Mb drive, and FDISK will let you partition it accordingly.

Stupid modems

Q I've just bought a new all-in-one card that includes a modem, sound-card. voice mail system and CD-ROM interface. It has Windows 95 drivers on disk, but I'm still using Windows 3.11. The Windows 3.11 drivers are only on the CD-ROM. So of course, if I try to install the card I can't use my CD-ROM to install the drivers to drive the CD-ROM... Am I just being stupid here? There has to be a way around this

A Actually, this is an example of stupidity on the part of some manufacturers. It's amazing that an industry that employs some of the brightest people in the world does things like this, and does them regularly too.

Rants and raves apart, there are three options here. Firstly, take the card back to the shop. It's not 'fit for the purpose for which it is intended' and therefore you're entitled to a full refund. You may or may not decide to do this, depending on how annoyed you are. If the manufacturers have an email contact you may want to fire off a quick one to tell them what you think of their stupidity too.

Secondly, you can try using a friend's CD-ROM drive to copy the drivers onto a floppy. Even if they're on CD-ROM you may well find they're arranged as Disk 1, Disk 2 and so on. There's a good chance they'll even fit onto one floppy.

Finally, if you already have a CD-ROM drive there's nothing to stop you doing this yourself. In fact, you can even copy the driver installation software to your hard disk and run it from there. That should sort everything out.

Modem Madness

Q Last month I bought a cheap internal 14.4K modem at a car boot sale, and now I can't install it. There's no software with it, and there doesn't seem to be any way to change it from COM 2. Since my motherboard already has COM2, this is causing a conflict which hangs my PC when I try to use it. Have I wasted my money? Is there anything I can do here?

A Car boot sales may be cheap, but if you're after backup and support – and everyone needs some of both, even if they know what they're doing – they're not exactly the most convincing places to buy new kit.

Fortunately, there is a solution to this particular problem. On just about every motherboard ever made you can disable either or both of the COM ports. Newer boards let you do this from the CMOS setup page. For example, the AWARD BIOS has the port settings available on the Chipset Features Setup page.

If you have an older motherboard, you'll find that you can turn the ports on and off by moving the jumpers. Your motherboard manual will have the details.

If you can't do either, then yes, you have wasted your money. I'd suggest you wait till you've accummulated some other junk, and then take it all to car boot sale and sell it. ▶

Reader's Tip

Some hardware installation instructions recommend unplugging everything from the mains. This is wrong – you should leave the PC's power lead connected because it earths the case and makes it much less likely that a board will be zapped by static. Unless you have a very old PC indeed, you'll find that most of the currents and voltages inside a PC are very small. Mains never gets outside the power supply, which is hidden away inside its own special case. So unless you're working on the power supply itself, you can leave the mains plugged in – but do turn it off at the wall socket, just to be sure.
Edward Merrick, Tyne and Wear

remains in limbo-land. The opposite of these commands is CTTY CON which connects the keyboard and monitor back to DOS, and ECHO ON starts printing messages again. Bracket a batch file with these and it will be about as secure as it can be.

Contrary to some people's beliefs, BREAK doesn't turn off [Ctrl]-[C] trapping. What it does it takes it up a level. Normally [Ctrl]-[C] is only possible in the middle of a program or while waiting for a keystroke. BREAK ON will turn it on during disk operations and other time critical operations too. This is an all-round bad thing, so it's best to leave break alone.

Path Problems

Q I don't understand the PATH command. What's it for?

A When you type a command – such as DIR – into your PC, it has to find the program that goes with the name. Usually it looks in the current directory. But what if you type a DOS command and you're in your word processing directory?

There has to be some way of telling the PC to look in other places – and that's what the PATH command does. Usually the PATH command goes in the AUTOEXEC.BAT file and looks like this:
SET PATH = C:\WINDOWS;C:\DOS;C:\NETSCAPE(...)
and so on. Each entry in the list is another place for DOS to look. Remember that the searching happens in the order you specify. So here DOS will look first in the current directory, then in Windows, then DOS, then NETSCAPE, then in any directories you add to the list. The directories can be anywhere on any drive. If it can't find a match by the time it falls off the end of the list DOS, comes back with a BAD COMMAND OR FILENAME error. Otherwise it executes the first matching entry it finds.

Reader's Tip

Watch out for files PKZ300B.EXE and PKZ300.ZIP! These claim to be the latest versions of PKZip, but really they're nasty trojan horse programs which will wipe your hard drive. You'll find them on the Internet and on some bulletin boards. Don't be fooled! I found out the hard way. The current version of PKZip is 2.04G. Anything more recent is bogus.
Michael Blumlein, Wimbledon.

MIXED BAG

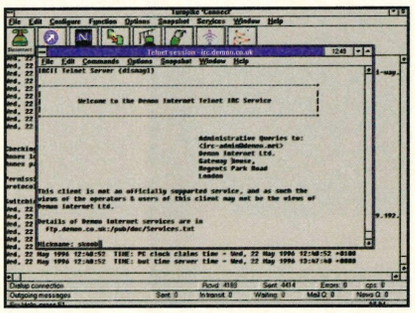
IRC Revealed

Q I'm new to the Internet – a real Newbie to use the diction of the medium. I started off with the Internet through CompuServe where I chatted to loads of people through their forums, however, I have since decided to use another service provider which just offers Internet access and doesn't give access to extra features like the CompuServe forums. Do you know any way that I can talk to people through the Net? I've heard of IRC but don't know exactly what it is or how to get it.

A IRC is exactly what you're looking for, It's a planet-wide chat system. To use it you need a SLIP or PPP account and a copy of a program called Telnet.

Then you need to find what's known as an IRC server, which is a system that will link you to the IRC network. The best and most popular is at **irc.demon.co.uk**. Once there follow these instructions. Type `/help` for help, and you'll soon be away. When you're prompted for a nickname make up a new word and type it in. You can use your real name, but most people take the time to think of colourful new ones such as cAnOlA or fweep or skoob.

There are countless chat channels available on every subject and in every language under the sun. The only problem is modem lag – it can take seconds, and in some extreme cases, minutes – before your replies appear on someone else's machine. There's no cure for this as yet, it's just part of the fact that the Net is heavily overloaded most of the time.



Using IRC on the Internet is easy. All you need is some Telnet software and an address. Here's the welcome page from Demon's popular IRC service.

Crime Doesn't Pay

Q I'm worried about having my PC stolen. It's happened to some friends of mine, and I'd like to make sure it doesn't happy to me. What can I do, apart from putting bars on the windows and buying a guard dog?

A PC theft is getting to be a serious problem in some parts of the world. RAM chips and top end Pentium chips aren't quite worth their weight in gold yet, but they're getting that way. And thieves have no problems selling on the goods. Next time you go to a car boot sale and see a 28.8K internal modem without a box or software, ask yourself where it came from. The most effective way to avoid PC theft is to move somewhere relatively crime free, like a small village in the middle of nowhere that no one has ever heard of and hasn't had any crime in living memory. This will work a treat, but it's usually pretty damn expensive and inconvenient too.

Barring a move to the country, why not try the following more practical solutions?

1. Mark all your PC components with a UV marker pen. Put your name and postcode on the casing, and perhaps somewhere inside too. Most recovered PCs aren't returned to their owners because the police have no idea who the owners are.

2. Change the volume name on your hard disk to your postcode.

3. The fewer people who know about your PC the better. If you live in an urban area and keep your PC in a bay window, for example, you're asking for trouble.

4. Securing your PC to the desk with a lock down plate or a steel cable will deter casual or opportunist burglars, but won't stop the determined PC thief who will come armed with tools and bolt cutters that make short work of most of these security arrangements.

5. Take out insurance on your PC and keep backups! This is actually the most practical thing you can do. Backups are especially important as sometimes the information in a PC is worth far more than the hardware. Insurance is expensive, but you may find you're covered under your home and contents policy. Otherwise, you will probably be able to extend the policy to cover your PC.

A Zip in Time

Q I'm thinking of getting an Iomega Zip drive, but I have one question – is it likely to become the floppy disk of the future? I need to invest in something that I'll be able to use for some time to come. Everyone I've talked to seems to think it will. But what do you think?

A It's really far too early to be sure, but so far the chances are looking good that it will. The competing Syquest EZ drives don't seem to be selling too well, although technically there's very little between the two formats.

Our advice would be to go ahead and get a Zip drive anyway. They're relatively cheap and you should have no problems selling it second hand if you don't want it. They do work very well indeed. And there are signs that some of the major manufacturers, such as Gateway and Dell, are seriously considering adding Zip drives to their newest PCs as a standard feature.

Error Arena

Q I've just had a message that says 'Drive A: doesn't exist.' But it does! I'm looking at it! What's my PC doing?

A This error has been known to give less experienced users virtual heart attacks. You'll see it pop up if someone steals your floppy disk drive during the night, or if it becomes disconnected by accident. If it's the former the thieves will usually have taken the rest of the PC with it, so as messages go it's really not that useful.

Unless there's some other problem. If the floppy disk drive stops working or the cables at the back fall out – which they do from time to time, especially if there's plenty of spaghetti wiring inside your PC and you disturb it when you installed a new card – then this message appears regularly. A quick poke and prod inside the case to check the plugs usually sorts this out.

You'll also see this error if Windows can't read a floppy disk because it's been formatted by a different kind of computer. Your PC is clever enough to know there's something on the disk, but not clever enough to work out what, so it isolates the disk from the rest of the system to prevent problems and complications. If you don't need the information on the disk, you can cure this by reformatting.

Iomega's Zip drive is proving very popular among PC owners. Is this the floppy drive of the future?



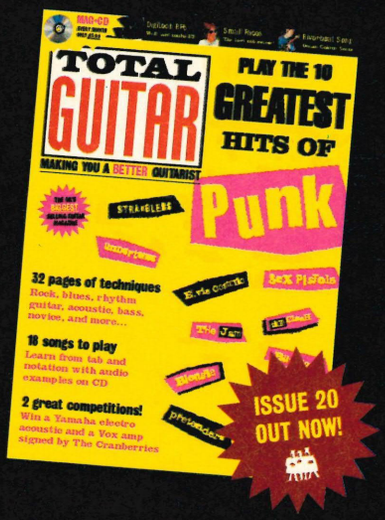


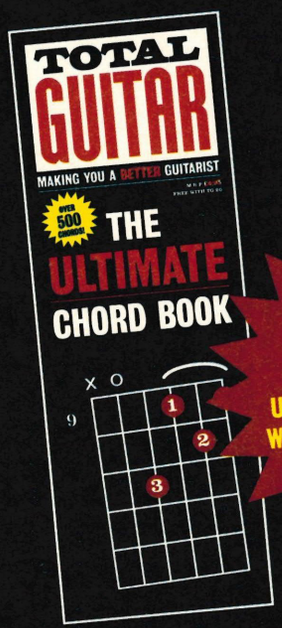
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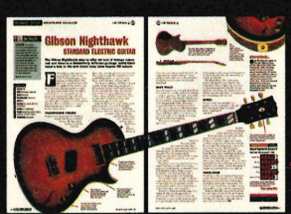
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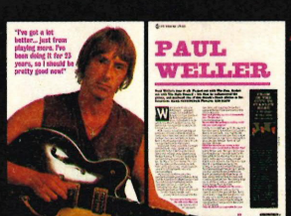
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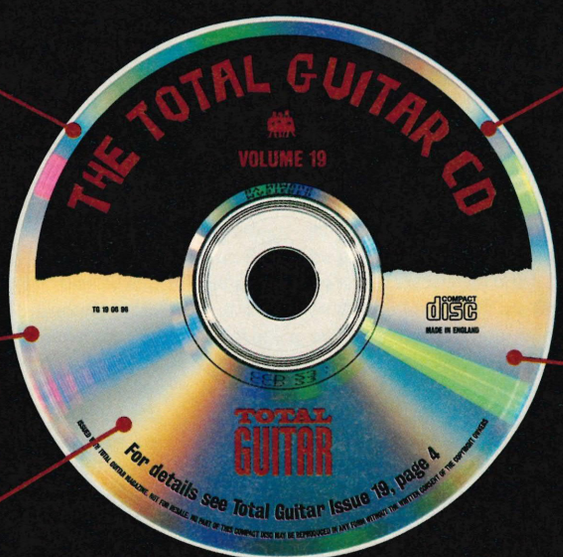
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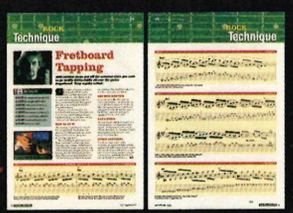
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Drive Harder

With hard drive prices plummeting, now's a great time to add an extra one to your system, and it's far easier than you think. We show you how.

BEFORE YOU START

Before you delve into your PC, don't forget to turn the power off, both on the computer and at the wall. You'll need to remove any fixing screws holding the case shut at the back or the sides. Be careful not to unscrew the power supply too. Its screws are near to the power socket, and usually set further from the edges of the case. Once you've unscrewed the case, remove the lid or panel. This should be a matter of firmly sliding it backwards, possibly with a tilting action to release any catches. Cases are designed to be opened, so if yours gives you trouble, take the time to examine it. Perhaps you're pulling it the wrong way.

The next stage is crucial. Once the case is open, touch any bare metal part of the inner frame. This discharges any static electricity that might otherwise damage delicate electrical components.

Modern software seems to be designed for chomping up as much hard drive space as possible. Many programs require over 100Mb of space for a proper installation, and there are some that run into gigabytes.

But its not just for your space hungry software that you'll want to upgrade your hard drive. Extra drive space can make your existing Windows programs run faster and more efficiently thanks to something known as a 'swap file'. Your computer has a limited amount of RAM, and when that runs out, it can use your hard drive for short term storage. Using a swap file is slower than using RAM, but the more swap file space you have available, the larger swap files you can use and the faster the application will run. High powered programs such as *3D Studio* can use 300Mb if you let them.

Hard drives are described according to the way they connect to your PC, and there are numerous protocols and sub-protocols. In the early days of PCs, MFM, RLL and ESDI were common, but as speed and capacity demands increased, they were superseded by IDE and SCSI. If you have a 286 PC, you may still have one of the older drives.

Most PCs come with IDE as standard. IDE or EIDE interfaces are cheaper than SCSI, and they're built into most new motherboards. SCSI is more versatile, and performs better. A single SCSI controller can support at least six additional devices and the data transfer rates can be spectacular. Not only is the controller more expensive, but the drives are too. SCSI is generally seen as the professional's choice.

You can buy a 1Gb (1024Mb) drive for between £100 and £200, and fitting them is generally no more than 15 minutes work. If you don't already have the appropriate controller card, you'll need to buy and install that first. An EIDE card will cost about £25, while a SCSI card will set you back £100 to £250.

If you decide to upgrade from MFM, RLL or ESDI to IDE or EIDE, you'll need to tell your BIOS about the change (see step 4). However, you can add SCSI drives (with an appropriate controller), without making any changes to your system BIOS. Your computer will still boot from the original MFM, RLL, ESDI, IDE or EIDE drive, but the additional SCSI drives will be available to store data on.

Extra drive space can make your existing Windows programs run faster and more efficiently.

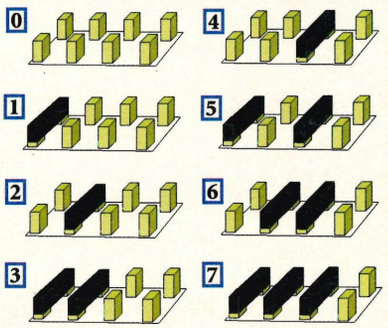
A question of jumpers

Every drive has jumpers – brass pins across which tiny connectors can be placed. You can only run two drives from a single IDE card, or four from an EIDE card. If you have one drive, it's known as the Primary Master. If you have two, they should run from the primary channel with its faster transfer rates. If you do run two drives from one channel, one of the drives is the boot drive, and is designated the Primary Master. The other drive is used for data and called the Primary Slave. You should ensure that the jumpers on each drive, correctly indicate its status or your machine simply won't boot.

SCSI drives are different. There are no masters and slaves, but each drive must have a unique ID number from 0-7. If two SCSI devices (the protocol supports other hardware) share the same ID, one of them will be invisible to your system. SCSI IDs are also set using jumpers. There are always at least three jumpers, and they use the binary numbering system. When using SCSI, the first and last devices on the cable (regardless of ID numbers) must be terminated with a jumper or termination pack. The first device is usually the controller card and the last a drive. If you add an extra drive to the chain, remember to terminate it and remove the previous terminator. The drive with the lowest ID number is the boot drive.

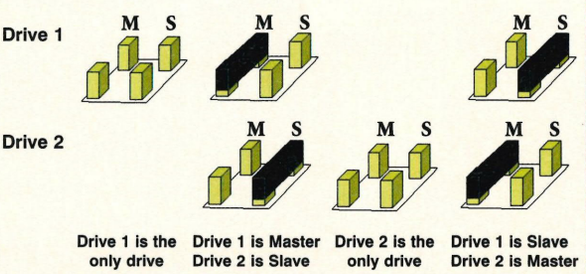
SCSI device numbering using jumpers

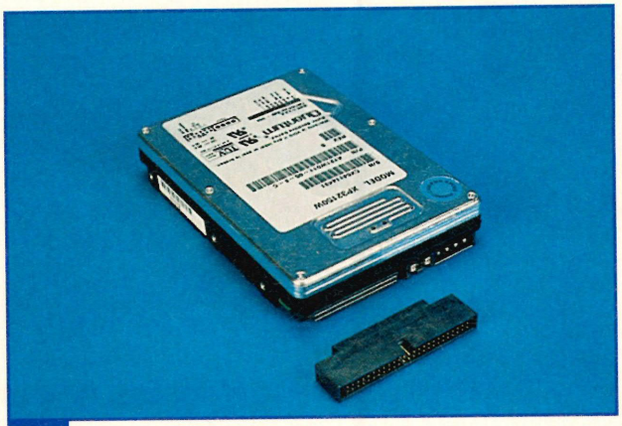
This diagram shows how a left to right binary number system is used to assign SCSI device ID numbers. Nevermind the extra pins.



Different system Configurations

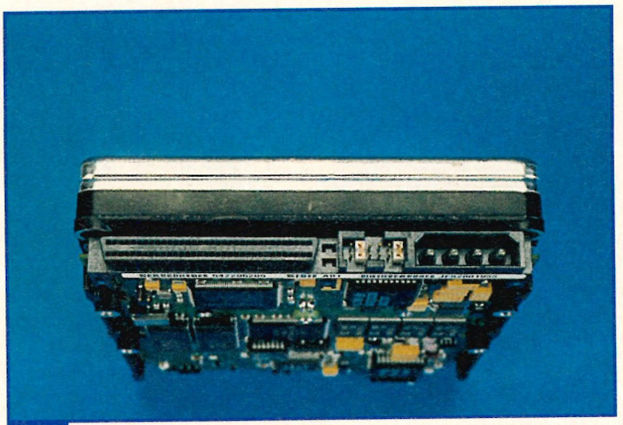
This shows the IDE drive jumper settings. When a drive is the only one on a system, it doesn"t usually require a jumper to be set.





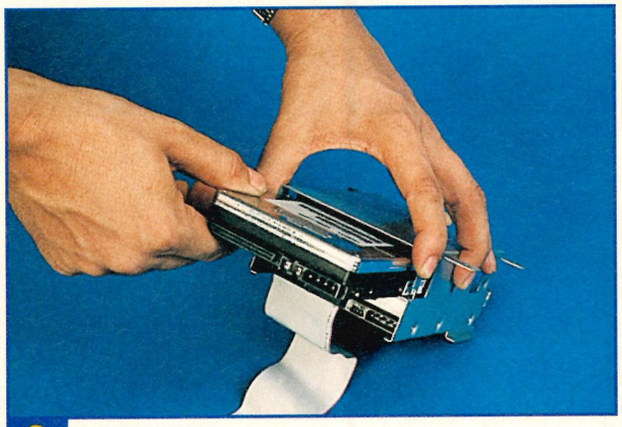
1 Installing a Drive

The first stage is to set up the drive's jumpers. If it's a SCSI drive, this simply means giving it a unique ID. If it's the last drive on a SCSI cable, you'll also need to switch termination on. If it's an IDE drive, you'll need to set its master/slave setting. To use it as a second drive, connect the jumper blocks labelled 'Slave', then change the other drive from 'Master – No Slave Present' to 'Master with Slave Present'. To use the new drive as the boot unit, set its jumper to 'Master with Slave Present', and set the other drive as 'Slave'. This only applies to two drives sharing the same E/IDE cable. For a solo drive, you need to make sure it's set to 'Master – No Slave Present'. If you get these settings wrong, your computer will simply fail to boot, or will attempt to boot from the wrong drive.

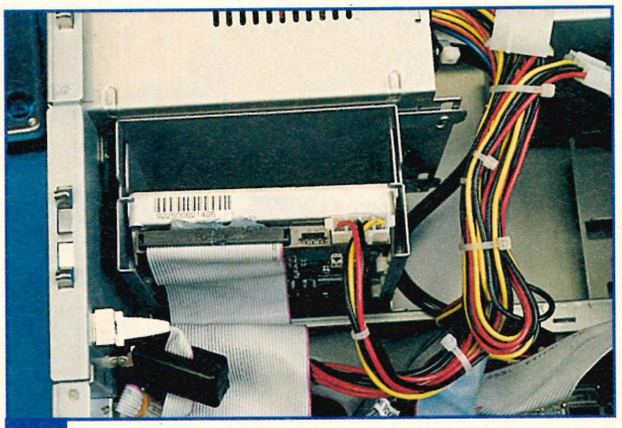


2 Once you've opened your computer, you'll need to determine where an extra hard drive will be mounted. If you're lucky, there will be a 3.5-inch hard drive bay waiting for you with extra space. There might even be a removable drive frame that you screw the drive into. If not, there's probablygoing to be a spare 5.25-inch bay which you can use as an alternative.

While these are usually only used for CD-ROM drives and other full-sized peripherals, you can purchase a mounting cage into which the hard drive is placed. The whole cage is then fixed into the 5.25-inch bay. You'll notice that there are four screw holes on the sides and bottom of the drive. Use the screws that were supplied with it to secure the drive into the case or mounting cage. Don't tighten them too much or you might damage the drive permanently and you'd have to get a new one then.



3 Now to reconnect the cables. This shouldn't be too tricky. The power cable is keyed so that it can only go in one way around. If there isn't a spare power cable inside your computer, you'll have to buy a splitter from your local peripherals store. Whether it's a SCSI or IDE drive, the ribbon cable has a red line or dashes along one edge. This edge of the cable always aligns with pin 1 on the plug. That's the one nearest to the power plug (usually on the right as you look at the back of the drive). If you're using IDE, the interface can only support two devices on a single cable, and it doesn't matter which drive connects to which plug. SCSI can support up to seven drives, but you may need to get an appropriate cable made up with enough connectors. Again, it doesn't matter which drive is attatched to which plug.



4 The final stage is to close the case and test the set up. If you're using IDE, you'll need to tell the BIOS about the extra drive. Turn on the machine and hold the [Del] key. Press [F1] and the BIOS screen should appear. Go to the IDE hard drive section and choose Auto-Detection. When the Master and Slave drives have been detected (if you've added a second drive), accept the selection then choose Save and Exit from the main screen (you may need to press [Esc] first). Your system should reboot. SCSI users don't have to bother with this as the drive should work immediately. If the new drive is going to be a boot drive, you'll need to install DOS or Win 95 from the installation disks. Insert disk 1, reboot the machine and follow the instructions. If it's a data drive, go into DOS and use the FDisk and Format commands to prepare it. Type HELP from DOS for details.

IDE Problems

If your PC starts to run through its normal boot-up routine, but never gets as far as the CONFIG.SYS file, there's a conflict. This is due to incorrect setting of the master/slave jumpers or the BIOS. Remember, the boot drive is the master, and the other drive is the slave. If those settings are correct, it's quite possible that the ribbon cable has become disconnected from the drives or the motherboard/ controller card.

If the computer starts but then gives you the message 'Drive not bootable' (or something similar), it means that the boot drive doesn't contain a copy of MS-DOS. Have you specified the wrong drive as the master? If you're using a brand new drive as the master, you'll need to insert the first of your MS-DOS installation disks. These should have been provided with your computer, unless you've since bought a newer version of DOS or Windows 95. Once you've inserted the disk, follow the instructions on preparing for use.

If you're using a large drive, and the computer recognises it, and boots properly, but the capacity of the drive is only about 540Mb, it may be that your BIOS doesn't support drives over this capacity. You'll need a special software patch to make the drive work properly. Speak to your hard drive manufacturer.

Problems with SCSI drives

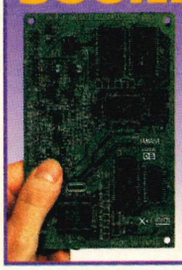
If the computer starts but gives you the message 'Drive not bootable' (or something similar), it means that the boot drive doesn't contain a copy of MS-DOS. Have you used the wrong ID number for the new drive? If you're using a brand new drive to boot from, you'll need to install DOS onto it. Start by inserting the first of your MS-DOS installation disks. These should have been provided with your PC, unless you've since bought a newer version of DOS or Windows 95. Once you've inserted the disk, follow the instructions for preparing for use.

If the PC starts and appears to work normally, but the new drive doesn't appear, or one that existed before has disappeared, it almost certainly means that two drives are sharing the same SCSI ID number. Change one, then continue. If that's not the answer, check that all drives are correctly connected to the ribbon cable.

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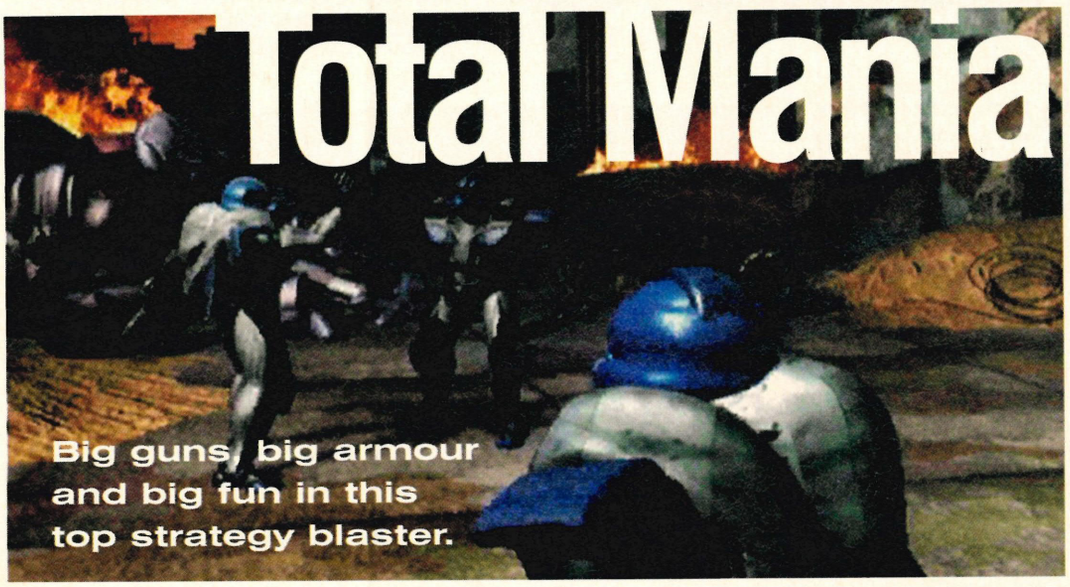
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CD REVIEW

Total Mania



Big guns, big armour and big fun in this top strategy blaster.

The age old man versus machine story is given a tip top sheen and a whole lot of firepower in Cinematix's single or multi-player strategy-tinged actionfest. Network and solo modes are available in this demo arctic level, the former offering connection using all the usual Windows methods.

This mission sets four objectives for your two troops. To complete the tasks, a fair amount of thought will have to go into attack and defence strategies. The entire ground area must be scoured for vital keys, new firepower, and extra power and ammo.

To guide your soldiers, move the cursor to the desired location and click the left mouse button making sure any obstacles between the men and their destination are navigable. Notice that moving the cursor to the edge of the screen will scroll the display. A single right click will select a highlighted target (the cursor will change to look like a sword), such as an enemy robot or gun emplacement. Hold the right button and the soldiers will begin firing at the target, or mouse crosshair if no target is selected.

Walk over objects to collect them, and they will appear on the control bar at the bottom right of the screen. Simply click on an object to use it. Items like batteries will automatically be used, but to use keys and bombs troops must be in the right place first.

To use a door, place the cursor over it until it changes to a door icon then left click. Similarly, to climb stairs, place the cursor on the stairs until the icon changes appropriately. Don't forget that enemies aren't visible unless they're in the troops' line of sight. You can zoom in or out at any time by pressing the [Z] key.

It's possible to divide the soldiers, by clicking on their display information on the control bar at the bottom right then pressing [Shift] key to highlight a troop. To switch between them, click on their info boxes. Using the [Space] bar to regroup. Note that there are icons to the right of the control bar which enable you to order the troops to stand guard, defend, attack at will, remain under player control or go into berserk mode.

Finally, keep an eye on the map at the top left of the screen. This shows the position of your soldiers and any sighted enemies. The blue dots are mission objectives. The three icons to the right enable you to zoom in and out, change the selected soldiers to the next level of readiness, and centre the display on the next visible enemy

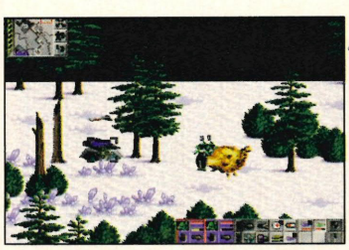
Developer: Cinematix
Publisher: Eidos Interactive
Contact: 0181 780 2222
Minimum system: 486/66, 8Mb RAM, double speed CD drive, mouse, Windows 3.1 or 95



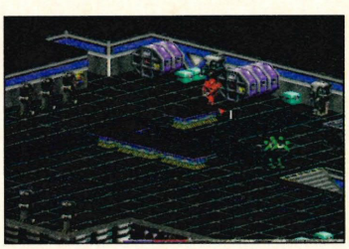
The bad guys pack just as much firepower as the humans in Total Mania. Luckily they have poor aim.



The close-up view is best used inside the buildings where shooting accuracy is essential and there amore obstacles.



Objective two in this demo mission is to knock out this gun emplacement. Wade straight in and shoot.



When both player display boxes are highlighted this means both troops are under your direct control.

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Euro 96

Be the best at Euro 96. In conjunction with our demo, we show you how.

Just the one touch...

Mastering one touch football is vital to your success. Listed below are all the possible combinations and moves.

First time touch
This can be performed when the symbol at the players feet is a star. Hold in the Shoot button, with the joystick centred. When this button is released the player will shoot at goal.

First time control
When the symbol at the players feet is flashing, press the pass button. The symbol will stop flashing. The player will then control the ball.

Chip shot
Hold both buttons down and then release the shoot button to chip the ball forward. The power of the chip is determined by the length of time the button is held down.

Power shot
Press the shoot button when the player is standing still.

Dummy pass
This can only be performed when the player is standing still. Hold the pass button, select a direction and then release the pass button.

Disguised pass
Hold both buttons, select a direction and then release the shoot button. This will look like a dummy pass, but will be passed to a team mate who must then shoot or punt the ball up-field.

High pass
Hold down both buttons. Release the pass button to make a high pass to a team mate.

Power pass
Pressing the pass button will pass the ball along the ground. The power of this pass is determined by the length of time that the button is held down. The direction pad can be used to control the direction of the pass.

Our demo of the brilliant *Euro 96* is one of the most complete and entertaining previews we've ever run. You get a complete half of action against the Swiss hordes, so we've pestered Gremlin to give you some help to beat them... it was the decent thing to do! So, first up, a sure fire way to score...



The Swiss in on the attack.

An advantage of the one touch feature (see the boxout) is that it allows strikers to first time crosses from the wing. These are possibly the most satisfying and spectacular ways to score. We suggest that you select a formation that has players on the wing, such as 4-4-2. Then when going forward, play the ball out to the wing and run with the ball to the side of the penalty area until the symbol at your player's feet turns to a square. Twist and turn in a Ginola-esque manner until you lose your marker. If the square is still at your feet, press the pass button once. This should send the ball floating invitingly into the box. Once your cross is released press the shoot button once. This will set up the striker's first time shot. Sit back and see him volley, head or scissor-kick the ball into the net. Remember though, these one touch shots (which are automatically targeted on goal and give the keeper less time to get into position) are difficult to perform from short passes. Only attempt them when you have the time to set the shot up.

Always look out for rebounds from their keeper. The best time to score is when the goalie's still on the floor and always put after touch on a shot if you can. With the best keepers after touch is the only way to score from long distance. When taking a penalty select the wire camera. Aim your shot at the corner of the goal and use the power shot. Then quickly pull down on the joystick to keep the ball hard and low.

Keep the opposition's shooting chances to a minimum – always go for a long clearance rather than a gentle dribble out. Look out for rebounds from your keeper. The Swiss team will always maintain an attack until the ball is in the keeper's hands. Turn the offside option on. This means that your defenders will always stand a chance of blocking a run on goal. However, it also means that your strikers won't find it as easy to go one on one with the keeper.

Don't leave yourself too exposed at the back. If you're playing against a much better team or one that plays with an attacking formation, you'll need to select a formation that has a four or five man defence. Never be afraid to pass back to the keeper. He will automatically clear it if you do.

The key to successful passing is creating space. Don't be tempted to pass when an opposition player is right on top of you. Either release the ball quickly, or twist and turn until you're clear.

Aim for the gaps, and look for players in space. Remember that you don't always have to be facing the player you want to pass to, but if you aren't then the pass is less likely to be successful. If your players have good vision they will look to pass to the man in the best position. They will also run on to the ball when it is passed to them.

Effective tackling is essential if you expect to break down your opponent's attack. Try not to pull players out of position to make a tackle, especially in the penalty area. If you do you may be leaving an opposing player unmarked. A better tactic is to hold your ground and keep in-between the forward and the goal. Don't lunge from behind – you'll get booked. Sliding tackles should be used only when you're sure you can win the ball.

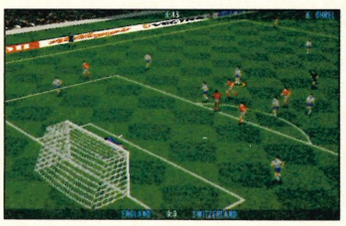
The most successful approach is to run into a player (use the sprint button to help you make up ground), shouldering him off the ball. Be aware of which referee is in charge of the game. One too many tackles with a strict ref and it's time for an early bath for one of your players.

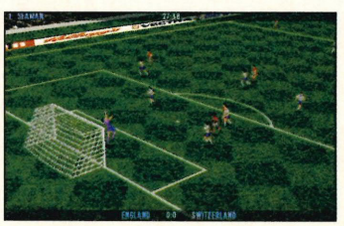
That's all you need to know to give the Swiss the hammering they deserve. Now get out there and give it to them!

Developer:Gremlin Interactive
Publisher: Gremlin Interactive
Contact: 0114 275 3423
Minimum System: 486DX/66, 8Mb RAM, double speed CD drive

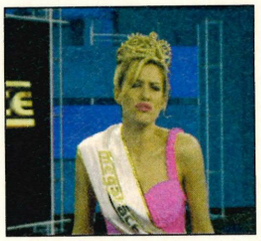


This is how it all begins.


Buried into the back of the net.


A close save by the England keeper.

MEGARACE 2



Game show host Lance Boyle returns, for another season of the hit future blankety blank *Megarace*... which is actually nothing more than just an excuse to drive quickly and blow stuff up. Featuring more weapons, extra opponents and additional tracks, we should have a review of the full game in time for the next issue of *PC Review*. In the meantime, get stuck into our demo. The intro movie is impressive, but to skip straight to the action, just hit [Space].

The track featured in the demo is set in Tibet and comes complete with temples, mountain paths, lane change intersections, and hazards-a-go-go. Vehicles and obstacles are real time rendered in 3-D, while the track is spooled from the CD-ROM. You can use your front weapons to shoot other drivers to slow them down, alternatively scupper them with your rear end, dropping mines and oil slicks to delay them. Start your engine now.

Developer: Cryo
Publisher: Mindscape
Contact: 01444 246333
Minimum System: 486, 16Mb RAM, 86Mb hard disk (or run from the disc)

Witchaven II



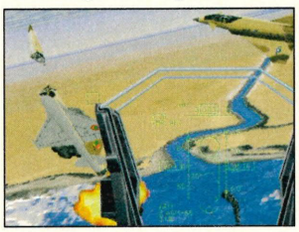
Developed using the same 3D Realms build engine, as seen in *Duke Nukem 3D*, this sequel is certain to appeal to fantasy fans.

You play a lone geezer, exploring a series of labyrinths. On the magic side you've got a selection of spells such as Scare, Night Vision, Freeze and Magic Arrow. Then of course there are your weapons. You won't have to make do with fists for long, as you'll soon find a dagger, and graduate to more sophisticated mellee weapon like the battle axe. The cheat codes which will help you get the very best out of the demo are to be typed when playing. Type WEAPONS to get all the kit and ENCHANT to power up all the weapons you have in your inventory.

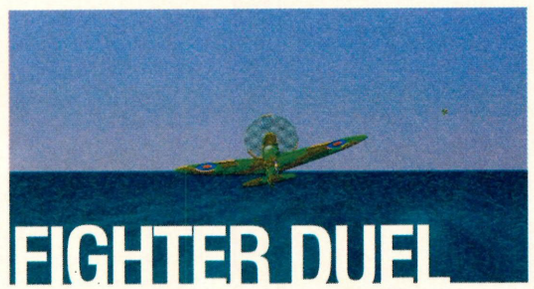
Developer: Capstone
Publisher: US Gold
Contact: 0121 625 3366
Minimum System: 486, 8Mb RAM, 56Mb hard disk

Jane's: Advanced Tactical Fighters

Based on the best selling plane manuals this sim puts you into the cockpit of a super modern jet aircraft. You're on a mission to wreak some damage... but don't get too carried away. Here's a game using about half the keyboard. It's this strive towards realism that compromises the jump-in-and-blast action at the expense of a slower, but more rewarding curve. The close in fighting is simply excellent.



Developer:Jane's Information Group
Publisher: Electronic Arts
Contact: 01753 549 442
Minimum System: 486DX/66, 8Mb RAM, 8Mb hard disk



This demo puts you into the sky in the cockpit of a Spitfire MK1. The scenario given away goes by the name of the Flying Circus and lets you fly for up to 3 minutes at a time. Time to kill, enough to die in too. It's a one player demo and your mission is to take out anything you come up against.

Developer: Jaeger Software
Publisher: Philips Media
Contact: 0171 911 3000
Minimum System: 486 DX2, 8Mb RAM, 17Mb hard disk

BATTLE ARENA TOSHINDEN

We brought you an earlier version of this demo last month, but now, here's an updated version, which has been optimised and runs up to 30% faster. You can play as three characters from the full game.

Eiji is a swordsman, Mondo carries a staff and Sofia can do nasty things with a whip. There's a one or two player option, so the demo should hold your interest for ages. Get in there with a punch-kick combo straight away.

Developer: Digital Planet/Playmetes Interactive
Publisher: FunSoft
Contact: 0181 748 3444
Minimum System: 486, 8Mb RAM, 6Mb hard disk

Return Fire

In *Return Fire*, your main objective is to destroy enemy defenses, capture your enemy's flag, and bring it back safely to your Bunker before your opponent does the same. This rather super demo features options for single player action and two player split screen play.

Developer: Prolific
Publisher: Warner Interactive
Contact: 0171 391 4300
Minimum system: 486, 8Mb RAM, Win 95



SETTLERS II

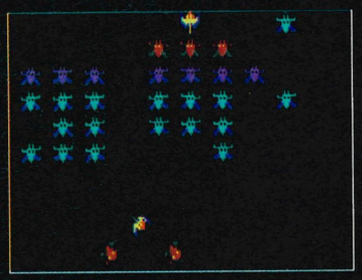
Reviewed last month where it scored an eight, we can now bring you a playable demo of *Settlers 2*. Put your little computer people to work and see just how hot Bluebyte's latest is. See the Read Me file on the disc for full instructions.

Developer: BlueByte
Publisher: BlueByte
Contact: 01604 232200
Minimum System: 486, 8Mb RAM, 58Mb hard disk



Retro game of the month Number 2

Galaxian



Try our homage to the original colour arcade shoot-'em up. It's Galaxi.

Oh my God. It's in colour. Most people remember the first time they saw *Galaxian*. They'd been used to the coloured cellophane strips of *Space Invaders*. But *Galaxian* was something different. It replaced the rythmic, predictable movement patterns of *Space Invaders* with crazy, multi-coloured, dive bombing aliens.

Player controls were simple. Left, right and fire. Modern gamers are spoilt rotten when it comes to projectiles as *Galaxian* players had only one shot at a time. A yellow missile would pop up to replace the one you'd just fired upwards at the enemy.

Recently, Namco resurrected the *Galaxian* franchise with the coin-op *Galaxian 3*, a dead pretty action game on rails, with a cross hair target. We prefer the original here at *PC Review*. And that's why we're bringing you this freeware clone of the game in the form of *Galaxi*.

Galaxian will soon, however, see new light on *The Return of Arcade* from Microsoft (reviewed next month) but in the meantime the freeware offering *Galaxi* provides a respectable enough homage to the classic. It's got a similar feel to the original and even if the screeching sounds of the aliens aren't as piercing as first time round, it has rockin' interludes between levels.

Developer: Kurt W. Dekker
Publisher: Kurt W. Dekker
Minimum system: 386, 4Mb, 1Mb hard disk



The very cabinet Galaxian came in. And beside it, Missile Command, next month's retro game.

Extreme 3D

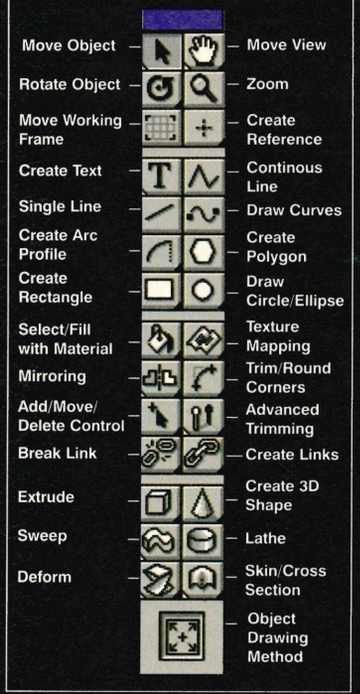
You've read all about those budget 3D programs aimed at home users, but now in an exclusive deal, PC Review are proud to bring you a usable demo of Extreme 3D, a package for professionals. The program incorporates many excellent features, and you can explore most of them to your heart's content.

Our try-out version of *Extreme 3D* is complete, although save disabled. That means you can try out all of the features but won't be able to save anything you create. You can experiment with animation, object modelling, texture and bump mapping, lighting and even single frame rendering. Full on-line help is available to guide you through its maze of requesters, icons and menu options. However, to set you off to a flying start, you should work your way through our lightning tutorial, which examines many of the essential functions, from object modelling and creating your own surface textures, right through to animation.

One important functions, is the History Backward option, which you'll find tucked away in the Edit menu. This option provides you with multiple Undos, so you can experiment with even the most complicated or destructive effects, safe in the knowledge that you can recover if you make mistakes.

Although *Extreme 3D* may look a bit daunting, especially compared to simpler packages, its austere exterior, conceals a rendering and modelling engine of quite impressive power. If you get as far as experimenting with textures, deformations and boolean modelling, you'll discover entirely new ways of working, that can be used in the creation of models which would be simply impossible using lesser programs. Moreover, *Extreme 3D* is a lot of fun and can have rewarding results.

TOOL BAR

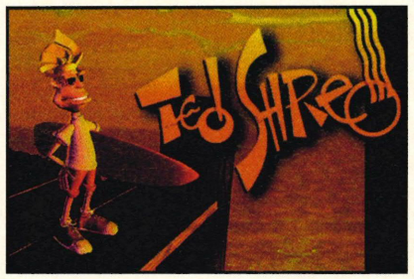


The

Ted Shred

Ted Shred is a three quarter view scrolling screen saver with some extreme sports action to wistfully while away the boring moments of your day. Ted will surf, canoe and skateboard around your screen avoiding monsters, villains and obstacles with such finesse that you will find yourself loading up this superb saver on purpose just to watch him shred. The accompanying background music will be with you wherever he goes, whether you like it or not, but thankfully the programmers have seen fit to include an option which supports standard audio CD's. So what are you waiting for, insert that favourite Des O'Connor album of yours and catch some serious waves at the expense of our mate Ted Shred. For more extreme sports action, see our second CD.

Publisher: Digital Domain
Contact: http://www.d2.com
Minimum System: 486DX2/66 MHz, 8Mb RAM, 10 Mb hard disk, Windows 95, VGA

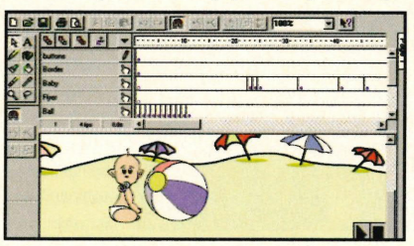


Meet a man on a mission, Ted Shred

CelAnimator

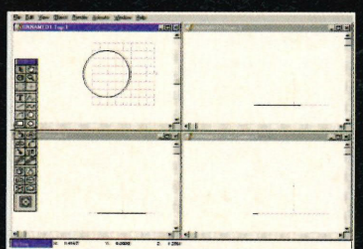
Exclusive to *PC Review* readers this month is the excellent animation package, *CelAnimator*, which was put together mainly with Internet and Multimedia developers in mind. The program creates very compact animation files which lends itself ideally to the Internet, where speed is of the essence due to the poor data transfer rates compared to CD-ROM's and hard disks. It's easy to use, with extensive step-by-step instructions and an excellent tutorial for those of you who are rather limited when it comes to drawing. Once you have mastered the basics you can move on to some more serious stuff , and who knows, in time, maybe you can give Hanna Barbara a run for its money. You can enjoy this fully working Beta version until August 1st, by which time you will have had a chance to read the review of the full product in the next *PC Review*. Check out our 2D animation feature on page 66 for details.

Developer: Future Wave Software
Distributor: CGS Computerbild
Contact: 0181 679 7307
Minimum System: 486DX2/66, 8Mb RAM, Windows 95

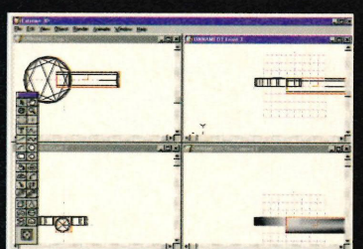


Create an animation masterpiece with CelAnimator.

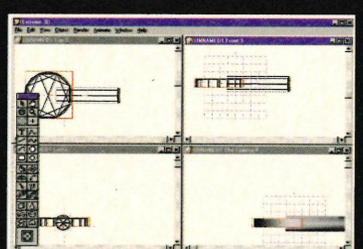
The ping pong animation



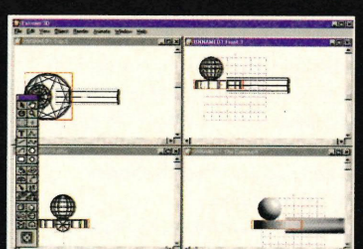
1 Go to the window menu and select Four-view Setup. Go to the Top View window and position it so that you can see the entire grid. Imagine that the bottom left corner of the grid is labelled 0,0. Select the circle tool and click at 2,4 (x,y). Drag the cursor down to 2,2 and release the button. Get the extrude tool, select the edge of the circle at 2,1 and drag an extrusion line down one.



2 Using the bottom scroll bar, position the window so that the grid is over to the left. Select the rectangle tool. Click 7,4. Drag back to 3,3, then release the mouse button. Choose the lathe tool. Click once at 8,4, then release the button and click at 5,4. Go to the front view and move the handle upwards by half a square so that it's centrally positioned over the bat.



3 Uncheck the "Show working plane" option in the object menu. Click on the link icon. Holding the button down, move the cursor to the right and select Lock Link. Now move the cursor over the bat handle until the white cursor goes black, then drag the cursor onto the bat head until the circle turns black again, then release the button. The handle should turn grey and the head should go red.



4 Turn on the working plane again and go the front view window. Click on the cone icon and hold the mouse button down to choose the sphere. Go to 1,7 and press the mouse button. Keep the mouse button held down and drag out to about square 2.5,7. Now you've created your own ping pong ball. When the ball's drawn, drag it down so that it rests exactly on top of the bat head.

Works

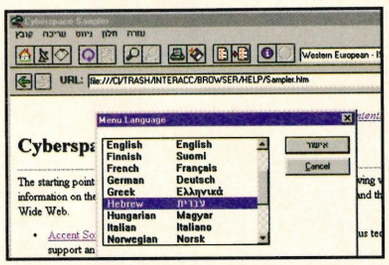
Internet with an Accent V 1.0

Internet with an Accent is a multilingual product from those cosmopolitan people at Accent Software International. This time they have applied their foreign language skills to develop a new version of the popular World Wide Web browser, *Mosaic*, and a roaring success it is too. You can now view foreign Web pages without any of the annoying disruption to the screen layout because your Internet browser does not support a particular font or character included in them.

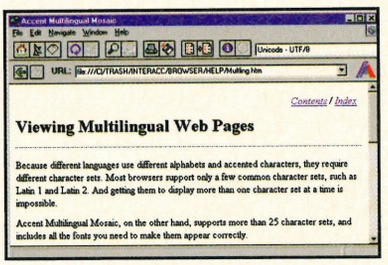
Although the program doesn't interpret the foreign text into English, or whatever your native tongue may be, it is still far better to look at foreign language pages in the way that they were originally designed. The program also includes a wide variety of network utilities which can aid your connection to other Internet services such as Gopher servers and UseNet news articles. In addition, you get an excellent file transfer protocol device and a dialogue program so that can chat with other users on the Internet.

Before installation, have a thorough pore over the read-me file from the *CD Review* menu. We recommend that you are wary of the custom install option, because it can copy anything from 8 to 50 Mb of data to your hard disk, so select only what you think you will use. The Internet browser market is very active at the moment with Microsoft's *Explorer* and Netscape's *Navigator 2* lining up to steal the honours, but we doubt the usefulness of this special version of Mosaic will be overlooked. Have fun on the multilingual side of the Web.

Publisher: Accent Software International Ltd
Contact: 01923 208 435
Minimum System: 386, 8Mb RAM, 8 to 50 Mb hard disk, Windows, modem or Internet access



Changing the language of your browser is a simple as this.



Internet with an Accent is based around the popular Mosaic Internet browser.

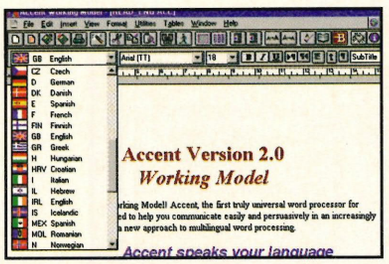
Accent Version 2.0

We are very pleased this month to bring you a working model version of this cost effective but powerful word processor. *Accent 2* is packed with all the features you'd expect from a high calibre word processor, from a large spell checker and thesaurus to advanced graphics and page design functions.

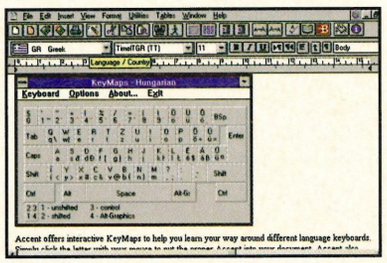
The program scores most highly in other areas too, because not only does it contain itself in a fraction of the hard disk space used by more established products like Microsoft *Word*, but *Accent* is one of the first truly international word processors. The aforementioned spell checker supports an amazing 17 international languages and the integral *Berlitz Interpreter* can translate documents in 5 languages to give you a completely new approach to multilingual word processing. This makes it ideal for businesses which can now interpret documents from foreign clients with ease and for the home user who might be learning a new language or who writes to multiple countries frequently.

Accent can support over 150 fonts and in excess of 50 interactive character maps, so that all the symbols and letters utilised by a particular language and the keyboard layout itself are fully supported. The Accent working model has to be installed to your hard disk, this is attained by activating the *CD Review* menu and pressing the install button on the relevant page of the Works section. In all, *Accent* is a stunning word processor, with advanced page design and editing functions. We think you will quickly rely on it as your first choice for entering and editing text on your PC. So if you're English, Dutch, Croatian, Italian, Spanish or just plain Greek, don't take our word for it, load up the working model on the cover CD-ROM, now!

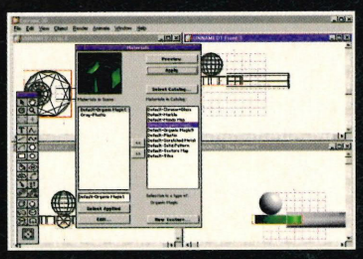
Publisher: Accent Software International Ltd.
Contact: 01923 208 435
Minimum System: 386, 4Mb RAM, 4Mb hard disk, Windows



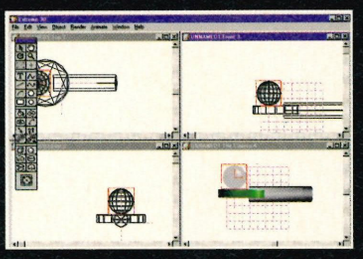
Change you language at the touch of a button from this drop down menu.



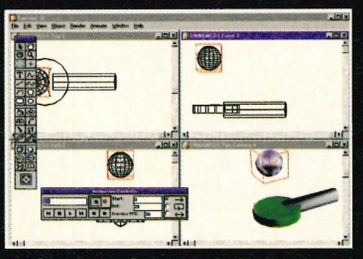
Accent support a wide range of international keyboard layouts.



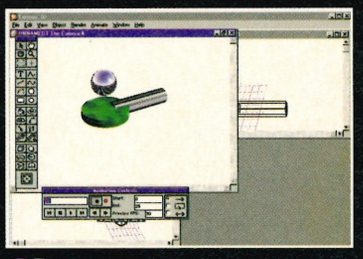
5 Select the bat head, then choose Materials from the Window menu. Double click Default Organic Magic, then select it from the left column. Choose edit. Click the Material 1 tab, then click on the Color box. Choose a pale shade of green and click OK. Repeat the process for the Material 2 tab, but choose a darker shade of green. Click Apply, to add the new texture to the bat head.



6 Without closing the materials requesters, select the bat handle. Double click the Default – Solid Pattern, then select it from the list on the left and choose apply. You've just added a stripy pattern to the handle. Select the ball and repeat the process using the Default - Chrome and Glass material this time. When you've finished shut the materials requester by clicking at its top left corner.



7 Select the Camera window and choose Three Quarters from the View menu. Select Animation Controls from the Animate menu. Type 25 into the end frame box and 12 into the unlabelled one. Drag the ball upwards an inch or so using the side view window. Go to frame 25 and drag the ball back to its starting point. Select the camera View window and click play to see your animation.



8 The demo is save disabled so you can't save your animation. Still, you can view a single hi-res screen. Make sure you're in the camera view window, go to the frame you want to see, and click the expand button at the top of the window. Select the magnifying glass, then drag an outline around the bat and ball to zoom in. Release the button and click Final Render to Screen from the Render menu.

WinImages 4 – FX and Morph

Impressed by what you've seen and heard about WinImages in our review on page 83? We were – here's a tutorial telling you how to use the demo.

Once you've installed the software from the CD, you'll find every special effect and morphing feature is included for you to experiment with. Nothing's been left out. The only restriction is you can't save your work to disk when you're done. There are two programs, *Fx* and *Morph*. The following examples are meant to quickly guide you through control of the software, though it's really intuitive. Remember, if you get stuck, the program has a packed on-line manual to help out, so you can explore every facet of this powerful graphics application. So, here are some quick hands-on examples to help you get the most out of our stunning demo.

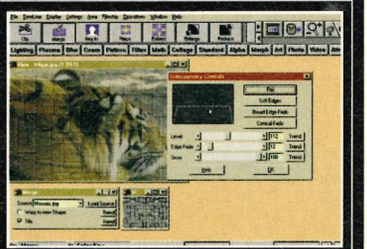
Bouncy letters



First, let's try single frame distortion. Select Distortion from the Settings menu and load **For_warp.tga**. Add points and duplicate the image to the to the last frame by the software. Move the points around. When the sequence is generated, the letters move around with an elastic and bouncy effect.

On the tiles...





1 Go to the File/Load image pull-down menu and from the sample images which installed with the program, load in **atiger.jpg**. Click on the Collage button, and from the line-up of icons which display, choose Merge. In the resulting requester Load Source as **mosaic.jpg** from the image directory.

2 Click on the title bar and press [F3] for the Transparency control. Here's where you decide the degree of blend. Set it to 112 and click on Flat. In the example you can see how the tiled effect was superimposed on the tiger. Altering Transparency will bring out detail in one or other of the images. Any images can be blended.

Share

Partners and Penpals

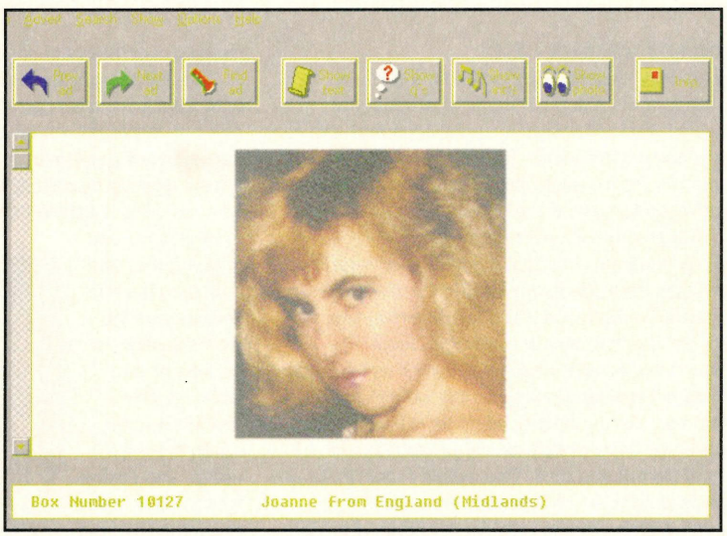
Feeling lonely? Are you looking for that special someone? Well, let *CD Review* put an end to your worries with *Partners and Penpals*.

This program allows the user to browse and search through a collection of digital personal adverts. The people who placed the ads are from all over the world, but a high percentage of them come from the UK. Each advertiser is seeking correspondence, romance or even marriage.

Luckily, many of the adverts are accompanied by a colour photo, so you can see exactly who you'll be dealing with should you try and contact somebody.

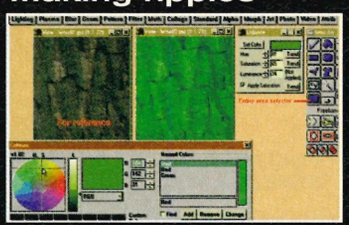
A new edition of Partners and Penpals is released every two months, with an ever increasing number of advertisers choosing to include themselves. Contact the makers of the disc if you'd like to goin in. This version has around 130 recent ads and 50 photos.

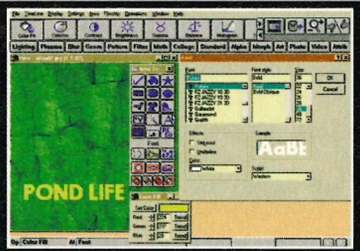
Developer: Sapphire
Publisher: Sapphire
Contact: 0121 680 2555
Minimum System: 386, 4Mb RAM, 2.5Mb hard disk space

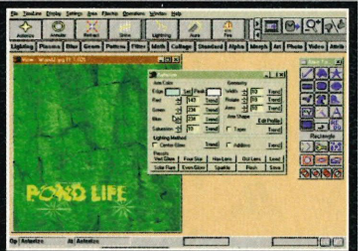


Make a lifelong friend with Partners and Penpals. Maybe this girl is looking for someone like you.

Making ripples





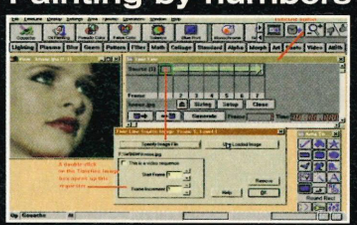


1 Continuing from the previous example, call up Transparency from the Area pull-down menu and reset the values, otherwise they'll carry over. Load in **wood2.jpg**, and from the Standard operations, select Colorize. Click Set Colour, and choose a dark green. Click the Entire tool in the Area palette, and click on the wood image. It will go green.

2 To add text to an image, Select Standard options, and Colour fill as the action. Right click on the Text Tool (a capital A), select your font, colour and size from the requester, then left click on the text tool. Place your cursor where you want to start typing, in our example at the lower left, and click. Enter your text, hitting [Return] to complete the function.

3 To get the ripple, click on the Geom button, and select Radial Wave. Using the rectangle tool draw a box covering the lower third of the wood image and text. Ripples will be added based on current settings. You can tweak these to get different effects. As a finishing touch, add start-burst reflections to the pool. This is done from the Lighting/Asterize option.

Painting by numbers



1 This tutorial shows how to automate an effect over a series of frames in an AVI movie. Load in the image **knose.jpg**. Click on the Timeline icon, and double click in the empty slot above the frame 1 number. A requester appears, asking the name of your source image. Click on Use Loaded Image, then on Use image currently in memory.

ware

Duke Nukem 3D Screensaver

We can't bring you a fully playable demo of *Duke Nukem* (it has an 18 rating) but we've got the next best thing – a fully functional screensaver!

The shareware version has one animated screen saver (There are five animated modules in the full retail version). The module is installed to your Windows directory and functions as standard Windows screen savers. Setup will automatically select the *Duke Nukem* screen saver and sets the time-out delay to one minute (shortest possible delay). Screen savers automatically activate when there has been no keyboard or mouse activity for the specified delay period.

Developer: Rhode Island Soft Systems
Publisher: Rhode Island Soft Systems
Contact:1-800-959-7477
Minimum System: 486, 4Mb RAM, 1Mb hard disk space



Another one bites the dust. The Duke, firebrand that he is, engages in a bit of free range carnage in this cool shareware version of his screen saver.

WinU

WinU is a Windows 95 menu system with timeout and security access features. It features three distinct levels of security control, password protected desktops and programs, and numerous flexible configuration options. It's easy to set up, easy to use… and virtually impossible to circumvent, so make sure remember any passwords you set up using it.

This security makes *WinU* excellent for parents who want to allow children to use only certain software on the family PC without worrying that they might delete the household tax records. You can set up a different password-protected WinU desktop for each member of the family.

Developer: Chris Marriott
Publisher: Thompson Partnership
Contact: 01889 564 601
Minimum System: 486, 4Mb RAM, 2.5Mb hard disk, Windows 95



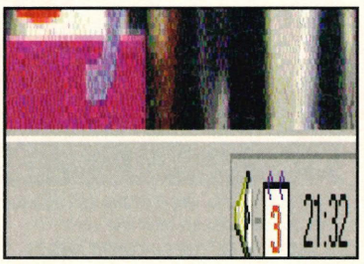
WinU is perfect if you want to let people use your PC but don't want to give them access to all your private applications and data. Remember those passwords.

Tray Day v.5.0a

TrayDay places an icon showing the date (day of the month) in the system tray (the part of the taskbar which includes the clock). The icon resembles a page of a "tear-off" calendar. When you double-click the icon, or select "Insert Date", the date is copied to the clipboard and pasted into your document at the insertion point. So with your favourite word processor running, simply double-click the icon and the date is "typed in" for you.

To install copy SHAREW\TrayDay.exe and the Readme.txt to a new folder. For convenience you could call the folder *TrayDay*. Simply click the Run button and you'll notice that the date will appear in your system tray.

Developer: Martin McKean
Publisher: MJM Software
Contact: 0131 449 3830
Minimum System: 486, 4Mb RAM, Windows 95



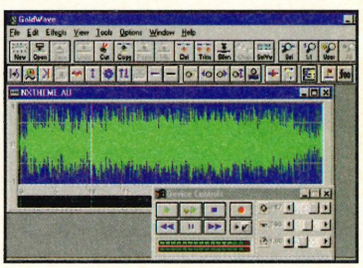
By placing a shortcut to TrayDay.exe in your startup folder, you can have the date always available. (Hint: Using the Explorer, right click and drag

GoldWave

Goldwave is a complete sound editing program which can do some incredible things for a simple shareware program. It includes 8- and 16-bit sampling in mono or stereo at up to 48KHz, a built in CD player for recording from CD, cut and paste facilities, a huge range of effects like fade, flange and distortion to spice up your sounds plus much, much more. GoldWave sounds (literally and figuratively) excellent.

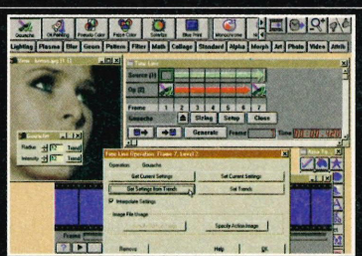
Our shareware version is fully functioning, but keeps count of how much value you've had out of your copy, and forces you to restart when you've had $1.50 worth of use in any one session, so register it!

Developer: Chris Craig
Publisher: Chris Craig
Contact: P.O. Box 51, St. John's, NF, CANADA A1C 5H5
Minimum System: 386, 4Mb RAM, 1.5Mb hard disk space



True fans of the series will know that behind these wavy lines lies the Northen Exposure theme tune. Now, lets see if we can jazz it up using GoldWave...

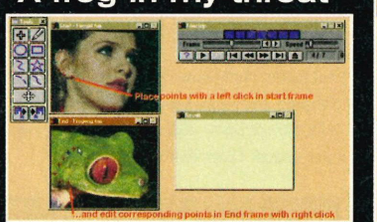
A frog in my throat



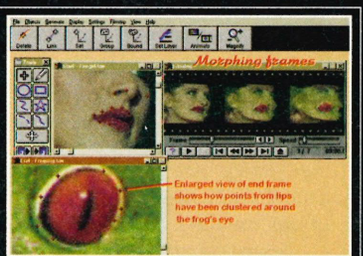
2 Click on the Art button, and choose Gouache from the options. Click and drag into the Timeline. The icon will copy there. Do the same for the last frame (7). Double click on the gouache icon on frame 1, and edit the settings so they read 1 for radius and intensity. Click Get Settings from Trends. Do the same for the last frame, double click on the gouache icon and set it to 15.



3 Click on the Filmstrip to display it, and from the Timeline requester, select Generate. Your sequence will now render. Although you cannot save it, you can play it back via the Filmstrip to see how good it looks! It turns a photograph gradually into a water-colour image of real subtlety. However, you can generate any effect of varying strengths throughout a sequence.



1 Quit *Fx*, and run *Morph*. From the File menu load in **firegirl.trm** as the start frame, and **frogorig.trm** as the end frame. Left click on the woman's face and place morph points on key areas. As you click, counterparts are placed on the end image. Right click on the points placed on the picture of the frog, and move them to areas where you want the morph to move to.



2 Once you're happy with the positioning of points – you can add them to the frog, and move them on the girl's face. By the way, it's a two-way street. From the Generate pull-down menu select Sequence generate, and the frames will be worked out. Remember, you can't save with this demo version, but you still get plenty of entertainment value.

MULTIMEDIA

Star Trek Technical Manual

Star Trek's finest hour has surely been the comparitively recent *Next Generation* spin-off, which this disc details. The *Star Trek Technical Manual* is your complete guide to the Enterprise. With the aid of this disc you can turn your computer into a serious piece of Federation kit.

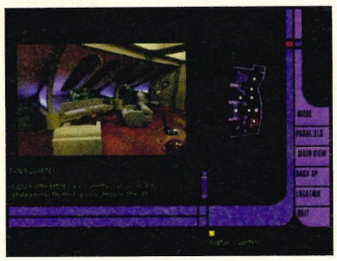
Riker is on hand for a guided tour of the ship and you're free to choose any area of the ship including Engineering or the Sickbay.

All the infomation is delivered in a totally believable manner. It even explains how a transporter works, and makes it look entirely convincing!

On the gimmick front this disc is one of the few to make use of Apple's QuickTime VR which allows you to rotate your point of view through a full 360 degrees. Move your mouse pointer around the edges of the video window and the display view scrolls with you.

Although the *Technical Manual* deals only with inaminate objects, and not the characters from the series it's still stuffed with enough information to keep any enthusiast happy. With our interactive demo you can see what it's got to offer.

Developer: Simon & Schuster
Publisher: CIC
Contact: 0181 846 9433
Minimum System: 486, 4Mb RAM



Here we are in the Captain's quarters. It's a nice place you have here Jean-Luc. Unimaginative wallpaper though.



Navigating the Enterprise is no mean feat. Those guys in yellow uniforms must know what they're doing.



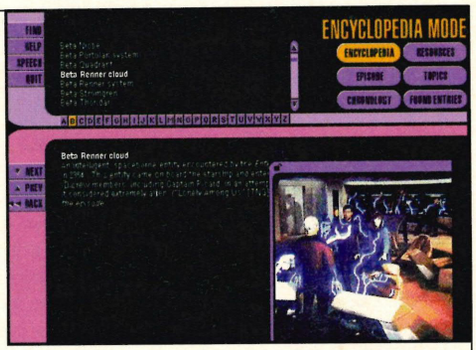
The Bridge, the heart of the Enterprise. Our demo comes complete with authentic Star Trek computer bleeps.

Star Trek Omnipedia

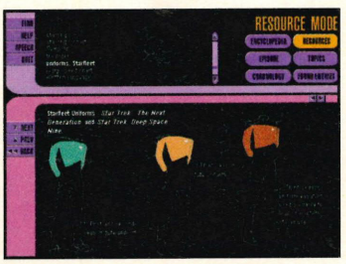
For the first time, a complete guide to the ever expanding universe of *Star Trek*. The *Star Trek Omnipedia* is an extension of the *Trek Technical* manual, and adds data on the original series, the movies, *Voyager* and *Deep Space Nine*. It covers people and events as well as the technology. The full version of the *Star Trek Omnipedia* comes with over 100 video clips taken from various *Star Trek* incarnations to enhance the database of facts.

Our rolling demo gives you a taste of what the disc has to offer. The highlight of the demo is a video of the Borg collective slicing away at the saucer section of the Enterprise. In the words of the ever optimistic Commander Riker 'they're slicing us up like a Roast'. Later on they beam Captain Picard onboard their seemingly invincible oxo-cube shaped craft to assimilate him into 'Laqutos of Borg'. Will Jean-Luc make it?

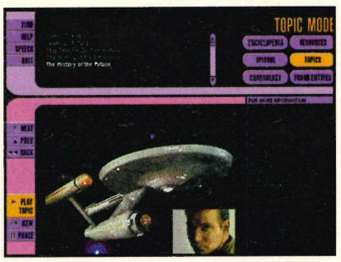
Developer: Simon & Schuster
Publisher: CIC
Contact: 0181 846 9433
Minimum System: 486, 4Mb RAM



A shocking time for Jean-Luc as the entity know as the Beta Renner cloud comes on board.



The fashion conscious Treky has a luxurious range of Star Fleet uniforms to choose from.



The portly adolescent, James T Kirk. Yes, you can rediscover the glory days of Star Trek.

The Unexplained

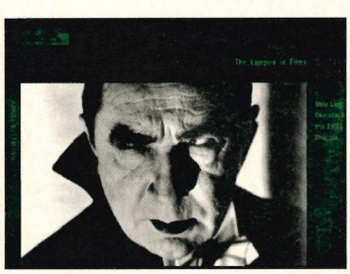
X-Files fever has gripped the country and the supposed appearance of our alien buddies (small, slender and grey with the large oval eyes) is now a familiar part of pop-culture. The full version of this CD focuses on phenomena the *X-Files* has popularised. There's a wealth of information here from strange rains, earth energies and ancient mystic sites, through to ghosts, monsters, angels and fairies.

Scare yourself silly with our superb, fully interactive demo which contains the entire section on The Undead. You can find out everything you've never wanted to know about vampires, werewolves and zombies.

From the main menu click on Mysterious Beings and then click on The Undead to begin your journey. This title uses FlagTower's interactive documentary style, so as the section is read to you you'll find icons appear on screen which lead to even more information on the subjects

In the realm of the unknown only one thing is certain – where science fails and conventional explanations don't fit, there lies *The Unexplained*....

Developer: FlagTower
Publisher: FlagTower
Contact: 0171 393 3000
Minimum System: 486, 4Mb RAM, 1Mb hard disk space, QuickTime for Windows



The classic image Bela Lughosi as Dracula. Find out loads of vampire 'facts' with our demo.

Escher Interactive

This release lets you experience the works of Escher (the artist famous for his so-called 'sterioscopic interlocking images' which seem to defy the laws of physics) in a way that a book never could. Our great demo lets the interactive medium introduce you to his ideas by animating some of his drawings and morphing his creations into one another.

After looking around at what the disc has to offer click on 'Impossible Puzzles' to play an interactive game which echos Escher's preoccupation with seemingly impossible objects. You have to position three parts of a shape to create the finished object, and it's not as easy as it sounds. Be careful the next time you go up or down a staircase after using this demo of the disc.

Developer: Thames and Hudson
Publisher: Pinnacle
Contact: 0171 636 5488
Minimum System: 486, 4Mb RAM



Trying to figure out the perspective in this drawing is pretty much impossible.

Raw materials

PC Review has teamed up with DVS UK to bring you a brand new, regular section for *CD Review*. Each month we'll give away a top selection of resources to keep – 12 fonts, 12 clip art pictures and 12 PhotoCD images. They're royalty free so you can do whatever you want with them.

DSR titles are available direct from the Bluepoint corporation which has stacks of clip art, fonts, images and software. Available from all good retailers priced at £14.99. Thanks to Wiz Technology Europe and DVS Ltd (tel 01908 371999). Call the Bluepoint corporation on 01908 277007 for a free cataglogue of their whole range. You'll find the images in the directory PSC. This holds three directories, PHOTOS, CLIPART and FONTS. Go get 'em!

Fonts

ACHE BANCO CALLI DECOC
ENGINO FLATBRUSH GALANT
HOBBY IRONWORK JOLT KELT LEO

Photos (filenames as per captions)


Alarm


Ambulance


Amusment


Amt card

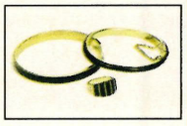

Animal1


Baby bottle

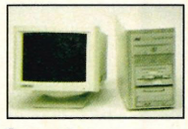

Baby boy


Banana


Backpack


Braclett


Clap


Computer

Clip Art


Earth


Abs-01


Face


Jamaican

Windows 95

Some DOS games have problems running in Windows 95. We've included an option to run the DOS games that we know work in Windows 95 from our menu, but we can't guarantee they'll work on all systems. If you're having trouble running a DOS game in Windows 95, try running it from our DOS Menu instead.

First select Restart in DOS Mode from the Shut Down Menu. When DOS has started type D:\PCR, where D is the letter of your CD drive.

Install options

Make sure you select the default Installation path for all demos, otherwise when you click the Run button nothing will happen.

Support

If you need help getting a demo to work, call our support line on 01225 442244 and ask for Trevor Witt. Or email him on support@futurenet.co.uk

Disclaimer

CD Review is thoroughly checked for all known viruses and independently certified before duplication. While every care is taken in selection, testing and installation of *CD Review*, Future Publishing cannot accept responsibility for loss or damage occurring during its use. You are advised to have recent, verified back-ups of all important files before installing new software.

Memory

If you have trouble running a demo it may be because you need more conventional memory. Conventional memory is the memory below 640K. Even if you have a PC with 8Mb of RAM, that doesn't mean you'll have the conventional memory to run a *CD Review* demo.

To find out how much free conventional memory you have type `MEM[Enter]` at the DOS prompt. If the figure beside the line 'largest executable program size' is less than about 550k then you're system isn't set-up right.

You can free up more conventional memory by loading the EMM386 driver which allows you to move device drivers into upper memory, thus freeing up more space. To add the EMM386 driver you need to edit your AUTOEXEC.BAT and CONFIG.SYS files. It is always a good idea to make copies of them before editing them. At the C:\> prompt type:

```
COPY C:\CONFIG.SYS
CONFIG.BAK [ENTER]
COPY C:\AUTOEXEC.BAT
AUTOEXEC.BAK [ENTER]
```

If you have any problems later on you can return to these by typing:

```
COPY C:\CONFIG.BAK
CONFIG.SYS [ENTER]
COPY C:\AUTOEXEC.BAK AUTOEX-
EC.BAT [ENTER]
```

To edit your system files type `EDIT` followed by the name of the file. These lines should be in your CONFIG.SYS file:

```
DEVICE=C:\DOS\HIMEM.SYS
DEVICE=C:\DOS\EMM386.EXE
NOEMS
DOS=HIGH, UMB
```

Any lines starting with `DEVICE` should be changed to:

```
DEVICEHIGH
```

In the AUTOEXEC.BAT any device should now be sent to high memory. For example:

```
C:\MOUSE\MOUSE
```

should read:

```
LH C:\MOUSE\MOUSE
```

These changes will free more conventional memery

Another way to free up more conventional memory is to remove any Terminate and Stay Resident (TSR) programs from the system files. The following lines are not essential for using *CD Review*. Kill them by putting REM at the start of the line.

In CONFIG.SYS:

Any line containing `SMARTDRV.SYS`, **`DISPLAY.SYS`** or **`COUNTRY.SYS`**

In AUTOEXEC.BAT

Any line containing `SMARTDRV`, `DOSKEY`, or which loads a virus checker.

When you've made all the necessary changes reboot. To restore your system, simply reverse any changes you've made, or replace the new CONFIG.SYS and AUTOEXEC.BAT files with your back-ups.

EMS Memory

Some PC games require EMS memory rather then XMS memory. To configure your PC for EMS memory change the line in your CONFIG.SYS reading:

```
DEVICE=C:\DOS\EMM386.
EXE NOEMS
```

to:

```
DEVICE=C:\DOS\EMM386.
EXE RAM
```

Reboot your machine for this change to take effect. You will have to reverse the above change for other programs to work.

The Essential Selection

To help you out with all your computing needs, and to assist you in getting the most out of this *CD Review*, we've bundled together a set of very handy utilities. It's called the Essential Selection for an obvious reason: if you don't have these things already, you need them.

Video helpers

Because multimedia products are so often produced on Apple Macs, you'll find QuickTime for Windows 2.03 handy whenever one of those Apple standard videos rears its head. Likewise, there's a run-time version Video for Windows 1.1a for the Windows-based video files.

PaintShop Pro

Every PC user needs a graphics package and the most widely used is *PaintShop Pro*. We've included both Windows 95 and 3.1 versions on *CD Review*. Remember, this version of *PaintShop Pro* is shareware. Pay the fee and you can upgrade to the commercial version.

WinZip

Winzip is an invaluable compression tool which can even help you free up more hard drive space when you need it. It's also extremly useful if you send or receive files over the Net or when you need to squeeze something onto a floppy disk. Again, we've included both Windows 95 and 3.1 versions on our disc.

Win32

A lot of Windows 3.1 programs require you to have Win32 installed on your system. You'll find a version here. Register it if you keep it.

RUNNING PROGRAMS MANUALLY

If you have memory constraints, or you find there are palette problems and the display colours look wrong when running programs from our menus, then you may need to run the demos manually. Here's how.

Program Directory and File name

Accent 2.0 Working Model	ACCENT\SETUP.EXE
Battle Arena Toshinden	GAMES\TSD\INSTALL.BAT
CelAnimator	CELANIM\CELWINB2.EXE
Duke Nukem 3D Screen Saver	SHAREW\DUKESCR\SETUP.EXE
Escher Interactive	ESCHER\MENU.EXE
Euro 96	EURO96\INSTALL.EXE
Extreme 3D	E3D_DEMO\SETUP.EXE
Fighter Duel	GAMES\F_DUEL\GO_SMALL.EXE
Galaxi	GAMES\GALAXI\INSTALL.BAT
Goldwave	SHAREW\GOLDWAVE\INSTALL.BAT
Internet with an Accent 1.0	DISK1\SETUP.EXE
Jane's ATF	GAMES\ATF\INSTALL.BAT
Megarace 2	MRACE\M.EXE
Partners and Penpals	SHAREW\SAPHIRE\SETUP.EXE
Raw Materials	PFC
Return Fire	GAMES\RFIRE\RFIRE.EXE
Settlers 2	SETTLER2\INSTALL.BAT
Star Trek Omnipedia	SAMPLER\OMNIPEDI.EXE
Star Trek Technical Manual	SAMPLER\TREK_WIN.EXE
Ted Shred Screen Saver	TED\SETUP.EXE
The Unexplained	SETUP.EXE
Total Mania	GAMES\MANIA\SETUP.EXE
Tray Day V5.0a	SHAREW\TRAYDAY.EXE
Winimages	WINIMAGE\SETUP.EXE
WinU	SHAREW\WINU\INSTALL.EXE
Witchaven 2	NSTALL.EXE

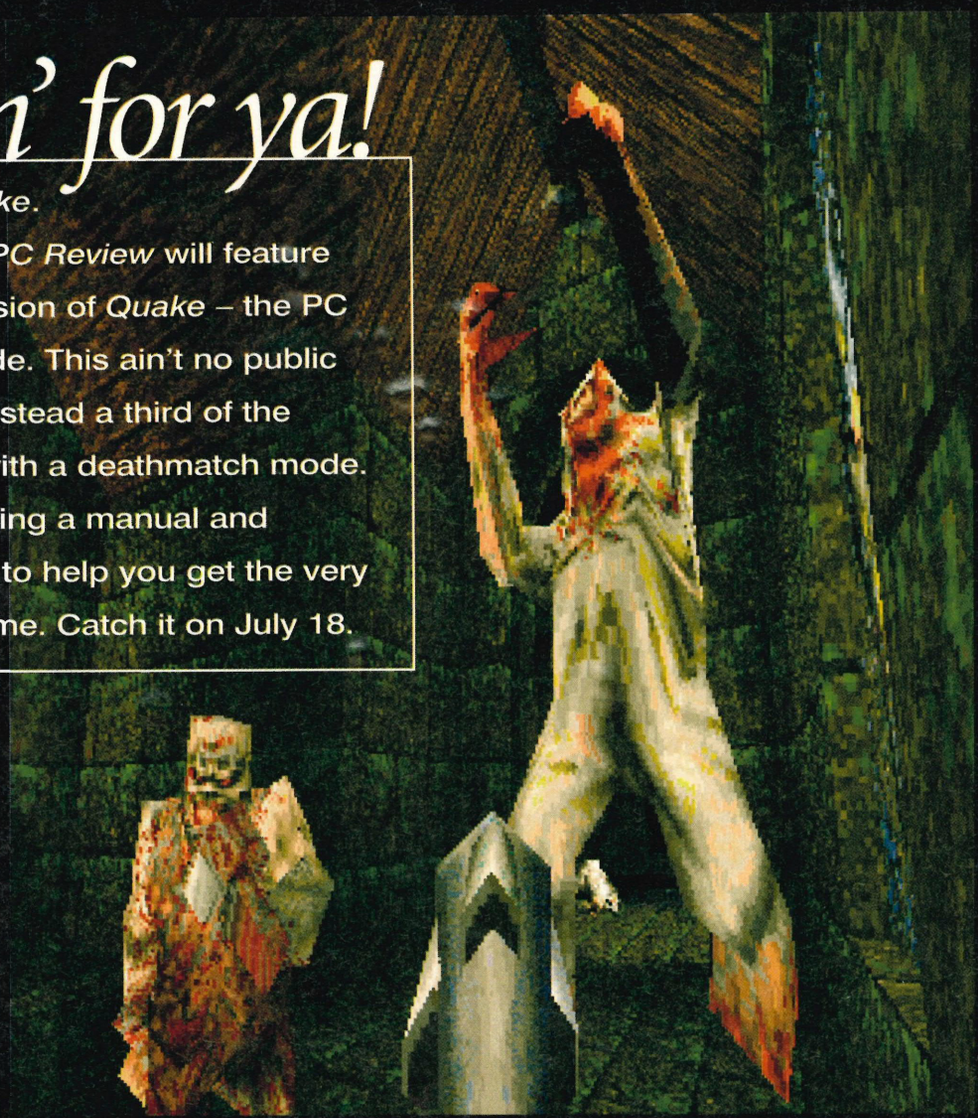
COMING **18 july**

NEXT MONTH

Comin' for ya!

We bring you *Quake*.

The next issue of *PC Review* will feature the shareware version of *Quake* – the PC game of the decade. This ain't no public test version, but instead a third of the game, complete with a deathmatch mode. Plus, we'll be printing a manual and complete solution to help you get the very best out of the game. Catch it on July 18.



Two minutes of Quake...





The level begins in a narrow corridor. Ahead of you is a pile of power ups and ammunition. Running forwards, the artifacts drop through a trap door out of sight. But, you've triggered a trap and the demon faced doors along the corridor slide away. The path you've just taken is suddenly flooded with zombies and your shotgun is worthless against the undead. You need explosives. Heading left at the fork, you take another right and leap across a chasm to pick up a pipe bomb launcher. Retracing your steps the bombs make mince meat of the zombies. In one of their side rooms you find a switch. Pushing this opens the right hand fork. Picking up a box of rockets and taking the newly opened route you take a narrow winding stairway into a room with a square lava pit on which sits an obelisk. Sidestepping the lava you head to a lift at the back of the room. Stepping on it races you upward, popping you out on to a roof where… a wizard is waiting. For a second you hold your ground. Flinging pipe bombs into the air at the floating form. But you should have switched back to the shot gun, as the bombs simply fall through the roof, never reaching the wizard. He swells up and flings an energy orb in your direction. You turn to run round a corner. The orb follows, thudding into your back and flinging your lifeless form into the room below. Dead again.

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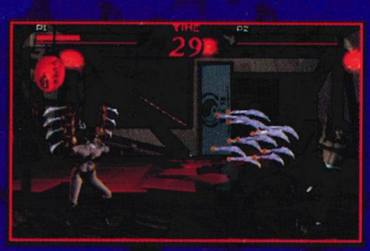
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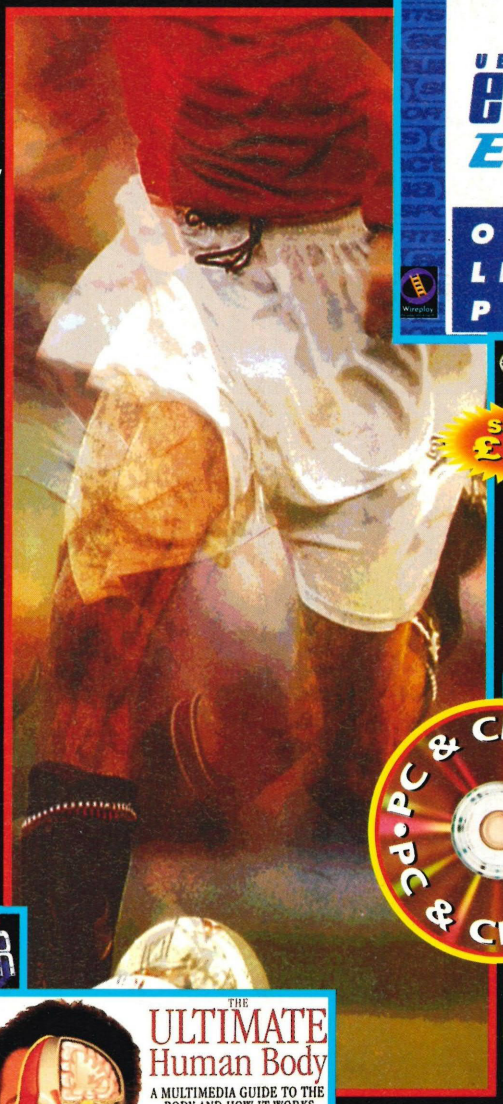
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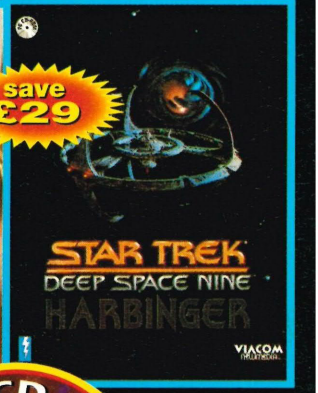
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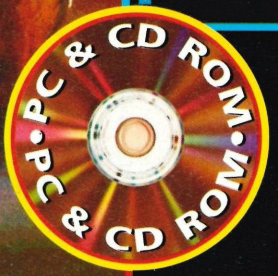
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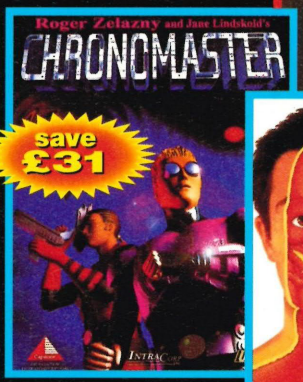
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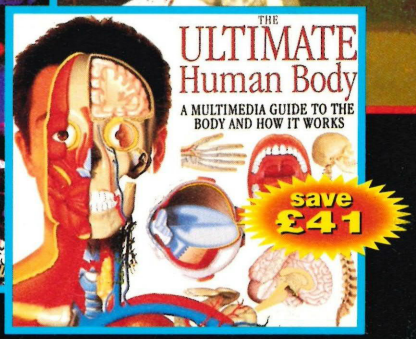




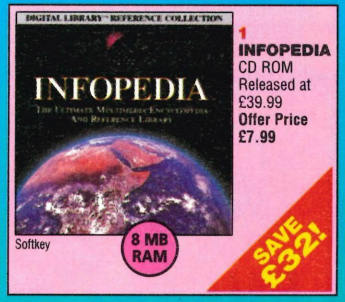




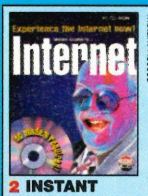




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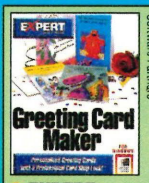


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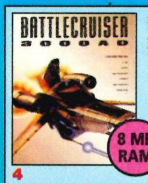
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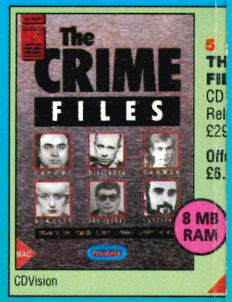
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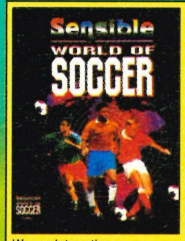
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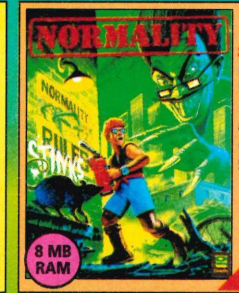
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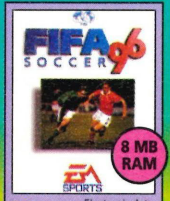
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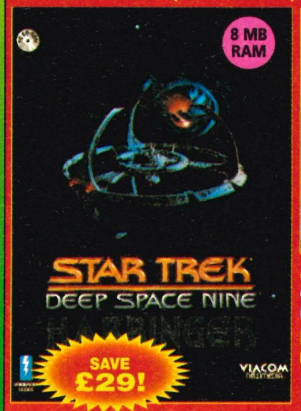
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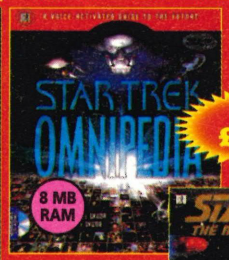


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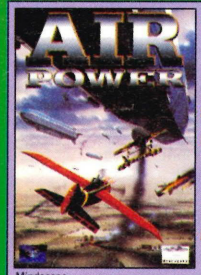
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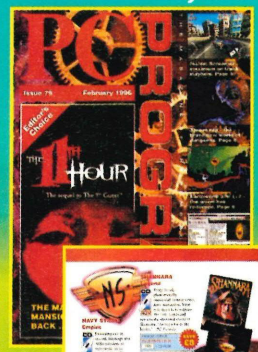
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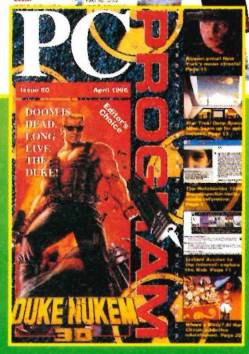
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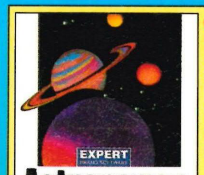
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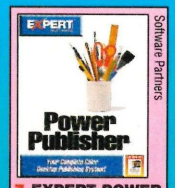
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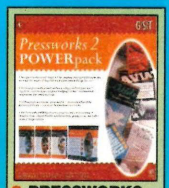
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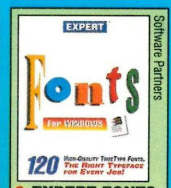
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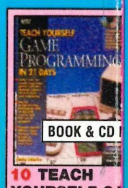
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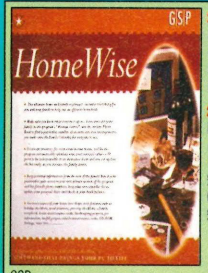
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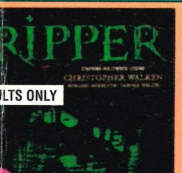


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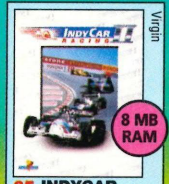


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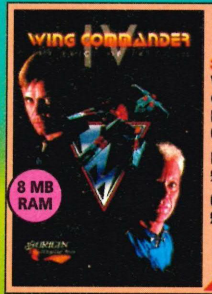
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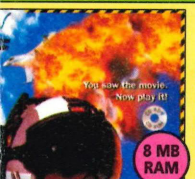
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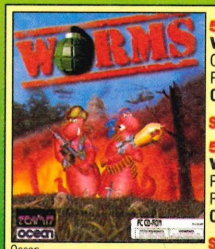
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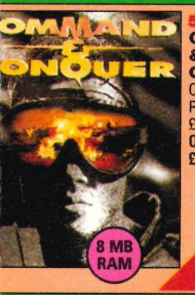
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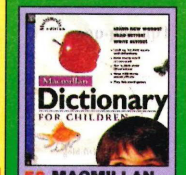
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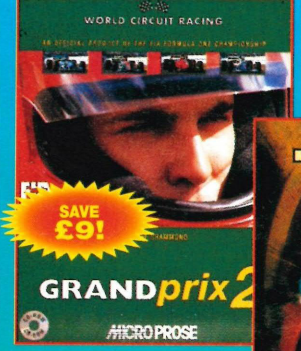


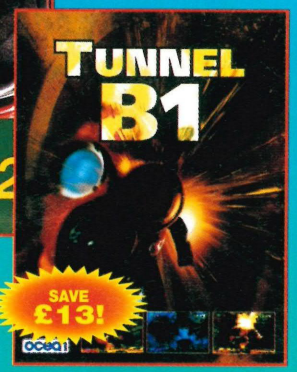
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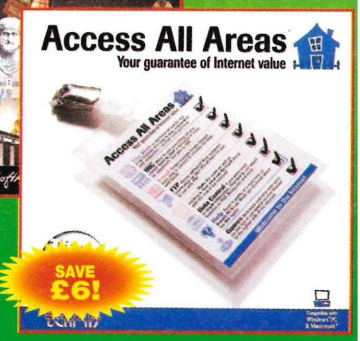
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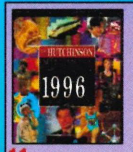
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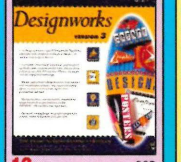
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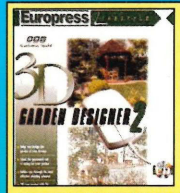
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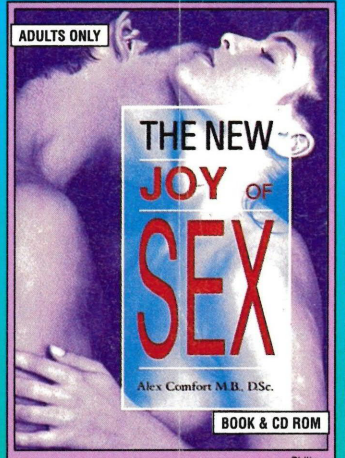
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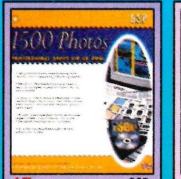


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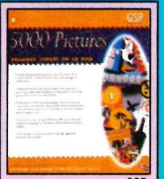
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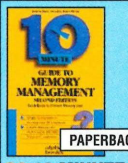
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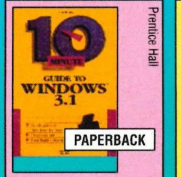
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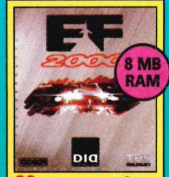
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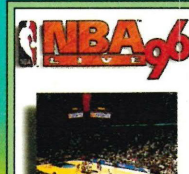


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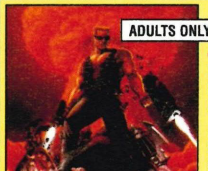


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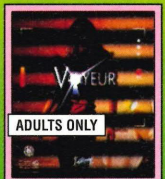


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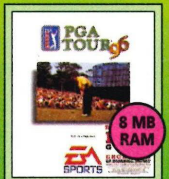
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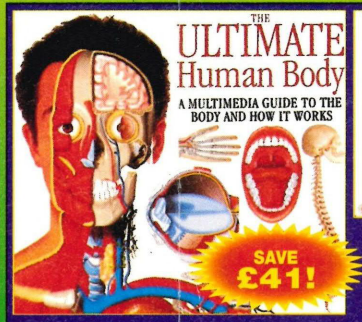
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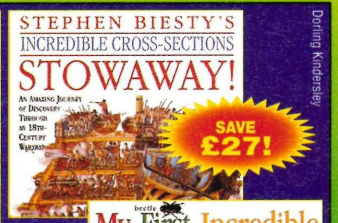
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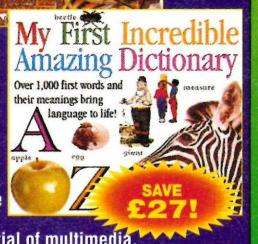
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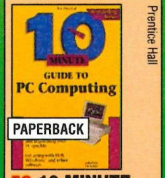
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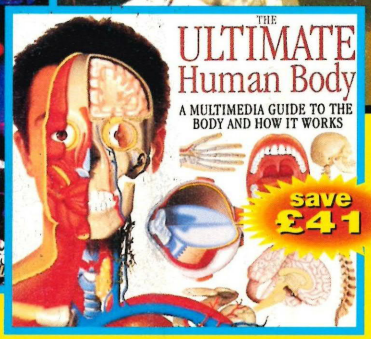
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