A new kind of Apple Mac magazine

WIN an Apple PowerCD – page 89

mac FORMAT

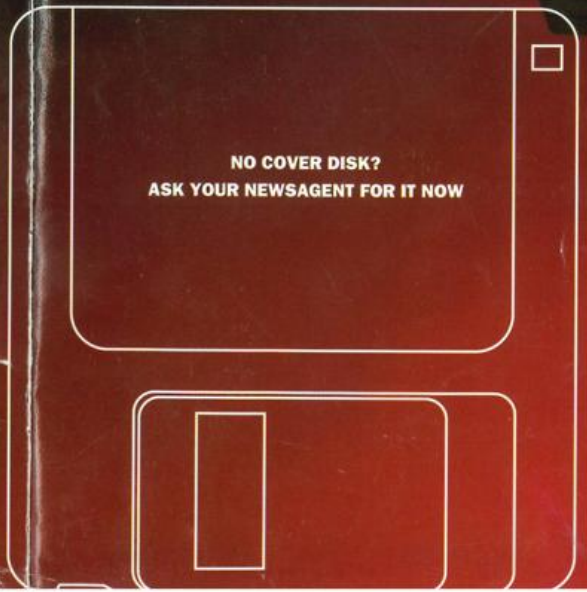
BIGGER THAN EVER BEFORE

9 terrific Mac programs crammed onto your amazing high density disk!

- Do It All!
- PopChar
- Greg's Buttons
- Safety Belt
- AJ Times
- Bomb Shelter
- Operation Intercept demo
- Fast Unfrag
- Pathways into Darkness demo

NEARLY 3 MEGABYTES OF CODE

Full details on pages 7, 8 & 9



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- Hot US news

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OCTOBER 1993

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Birmingham, High St
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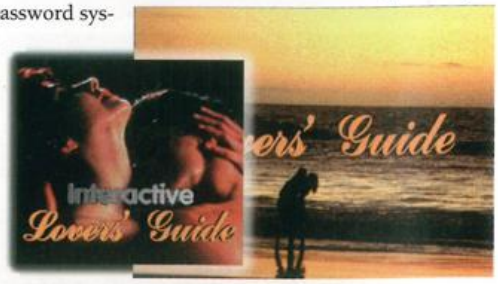
lovers guide is a sensitive guide to sex, desire and communication and is one of the best selling videos ever. It has been adapted and enhanced for CD ROM by combining the material and footage from the video with entertaining, well researched psychometric tests which enable users to enhance their relationships. Using the in-built password system it can be easily turned into an educational aid.
SRP £34.03



zoa The Zone of Avoidance. Alone in space on the border, your job is to defend the space station against hoards of asteroids and hostile aliens bent on your destruction. Zoa includes fluid full 3D graphics and excellent sounds. You'll need to sharpen up your space fighter skills before trying this one!
SRP £39.99

virex 4.0 is the new version of the popular virus protection package. Virex was the first comprehensive solution to threat of computer viruses. Not only does Virex detect whether there is a virus present it will also remove it. The new versions features include an enhanced interface supporting drag-and-drop testing and a variety of startup discs to work on all Macs which include the dual function Scan/Installer program.
SRP £69.99

iron helix. Control a robot probe whose mission is to stop a renegade starship on an automated course of destruction. Prevent intergalactic war and the spread of deadly a virus by destroying the doomsday weapon—codenamed Iron Helix. Navigate through dozens of corridors and rooms. Search for ways to stop the looming annihilation while eluding the ships deadly defender robot. Iron Helix takes advantage of the CD ROM and blazes a new trail for interactive virtual media, every scene and all movements happen entirely in 3-D!
SRP £89

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morph 2.0 is the latest version of the breakthrough application which lets you smoothly transform one image into another. With v1.1 you can take two static images and create a movie of the transformation. With v2.0 you can additionally take two movies and morph between them, you can warp an image (make Mona Lisa smile!) or use the innovative caricaturing features to accentuate various key facial features.

Morph v2.0
SRP £179
Morph v1.1
is SRP £119

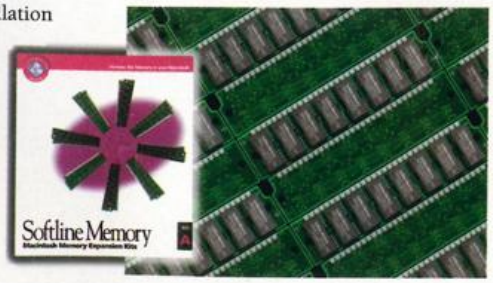
crystal crazy It's back! The all time favourite Crystal Ques now has a sequel and it's even more addictive! Crystal Crazy con ues the quest to collect the crystals but this time there are also jigsaws to complete, ridiculous pictures to erase, pool balls to sink and beautifully fragile ornaments to smash against the walls! To aid you in battle try collecting different shields and guns to help increase your chances against those nasties!
SRP £39.99

HOT NEW RELEASES

dinosaurs! The ultimate guide to the most exciting creatures that ever walked the earth! Dinosaurs answers almost every question people have to ask about these fascinating prehistoric creatures. Over 600 megabytes of video, photographs, illustrations, narrations and animation make this by far the most comprehensive dinosaur reference work available. You'll find out how dinosaurs lived and died and how their huge bodies worked. Total and unadulterated dinosaur bliss!
SRP £51.09

free morph 2.0 demo disk

softline memory The amount of memory you need depends on the software you use and whether you want to have more than one application open at each time. If you find yourself wanting to try more demanding applications or you've already come up against out of memory problems Softline Memory Kit's are the answer. They supply you with everything you need to upgrade the memory of your Mac in convenient boxed Kits. Each Kit contains detailed installation instructions, SIMMS and an anti static wriststrap. Upgrades from 2MB upwards available.



don't delay—act today!!!

Complete and return this form to Softline. Please send me a free
- ☐ Morph 2 demo disk.
- ☐ Details of a reseller near me.

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PowerCD

It's a CD-ROM drive, it's a Photo CD player, you can hook it up to your hi-fi and it's portable! So at £405 is it worth your serious attention? Andy Storer takes Apple's PowerCD for a spin

p23

Portable power p31

How to choose the best Mac PowerBook to suit your needs at a price you can afford

50 TOP QUARK XPRESS TIPS

Quick Quark tips p52

Yes, we've got 50 scorching tips to help you speed up the way you use *QuarkXpress*

Shareware zone p63

Where to get the fact-packed low-down on the latest in low-cost and no-cost software

mac FORMAT

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Take a trip with superb CD sound and graphics

Freddy Pharkas
Role play the days away in the really Wild West...

Rise of the Dragon
Cyberpunk sensation or dire digital drag?

WIN £1,894 WORTH OF KIT!!!

Yes, MacFormat has an Apple PowerCD worth £405, a Kodak Photo CD player worth £369 and ten *QuickTime Starter Kits* worth £116 each to give away. Don't bother reaching for that calculator to make sure they add up to £1,894 though – just rush to pages 89 and 106 right now and answer the three ridiculously easy questions you'll find on each...

That's pages 89 & 106 – easy money!

mac ANSWERS

We solve your Mac problems, posers, queries and quandaries! Whatever your hassle, our panel of experts will sort it... p83

COVER DISK COVER DISK

FINDER

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Apple's given us 10 *QuickTime Starter Kits* – get your hands on one here 106

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We specialise in improving your Macintosh with memory upgrades and the latest enhancement products. If you need the most performance that your Mac has to offer, we can help you accomplish exactly that. Our customers know we offer the best value and highest quality products. They also know they can count on service after the sale.

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16mb £399	PowerBook 140-170 6mb..... £189	32mb LCIII/Centris..... CALL
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"PRICES CHANGING" (due to market fluctuations)

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Spreadsheets? CAD / CAM?
A co-processor (or Floating Point Unit FPU) takes over maths computations from your Mac's CPU speeding them up by up to 100 times.

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Performa 600 Maths Co-Pro. £72	Duo Dock 512k VRAM *(8 to 16bit)* .. £38

Video Ram Simms

Need to see more colours? Some Macs have slots for VRAM simms to enable more colours to be displayed on screen at any one time.

Cache Cards Accelerators

These high speed products often possess on board processors faster than that of the Mac its going in to. Using an accelerator speed improvements of 600% are not uncommon. Call us for accelerated video solutions.

Daystar 030 PowerCache:	Radius Rocket 25i £949
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Int.240mb HD £250
Int.1GIG HD £849

DoveFax

The award winning range of DoveFax fax modems allow fax and data communications directly from your Macintosh. The DoveFax Plus can additionally record voice messages onto the Mac. The DoveFax LAN system allows a network user to send faxes from any client Mac. Please call us for more information.

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All products are new unless otherwise stated

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HP LaserJet 4M 8ppm 600dpi PS L.2	£1539
HP DeskWriter 550C Colour *(w/cable)*	£495
HP DeskWriter *(w/cable)*	£239
Star LS-5TT 5ppm	£845

Software

PowerPrint - *print to IBM printers*	£115
QuarkXPress	£535
Apple System 7.1	£50
Apple PC Exchange	£50

Call for many other software titles

Monitors

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HP DeskWriter C/550C Colour Cartridge	£20.00

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Cover disk bigger than ever

Your cover disk

2.8 Megabytes of code!

We've packed four disks' worth of goodies on to this month's enormous disk. Check out these great programs...

Start here!

This month we have changed the disk to a huge high density floppy so we can fit more on. Almost all Macs made in the last four years have a SuperDrive and so can use these disks, but older models can't. Don't worry, however, you can exchange your HD disk for two ordinary ones – see below for details.

Because we've compressed the software to fit more on, you can't run the programs on the disk straight from the floppy: first they must be decompressed and copied on to your hard disk. To do this just double-click on the MacFormat #5 icon, and select your hard disk. When it's finished you'll find a new folder called MacFormat #5 ƒ, inside that there are three more folders called Games, Applications and Extras, and inside those you'll find the programs themselves. You'll need around 2.8Mb of free disk space before you begin. If you bought August's MacFormat (issue 3) you'll have a copy of the excellent *Compact Pro*, which you can use to open the archive and select which programs to decompress – useful if you don't have enough disk space for them

If you have an older Mac

If your Mac is chronologically challenged and it can't use high density disks (Pluses, SEs and original Mac IIs can't; anything since the SE/30 including Classics and Performas can) don't worry. To get the same programs on two ordinary disks, just send your disk with a self-addressed return envelope to: MacFormat Disk Swap, DisCopy Labs, PO Box 21, Daventry NN1 5BU. Make sure the envelope is big enough for two disks and sturdy enough to make it through the post. If you don't want the hassle of doing this every month, then subscribe and you can choose to get your two disks delivered for no extra money! See page 66 for details.

Compatibility

We spend hours checking all the programs on the disk with as many different machines as possible, but we can't check every combination and we can't guarantee that the programs will work with your system. The information on compatibility in these pages and on the disk is intended as a guide only. Nor can we warrant the programs or be in any way responsible for any problems arising from their use. Check the Read me! file on the disk for common-sense guidelines you should follow when installing any software.

Do It All!

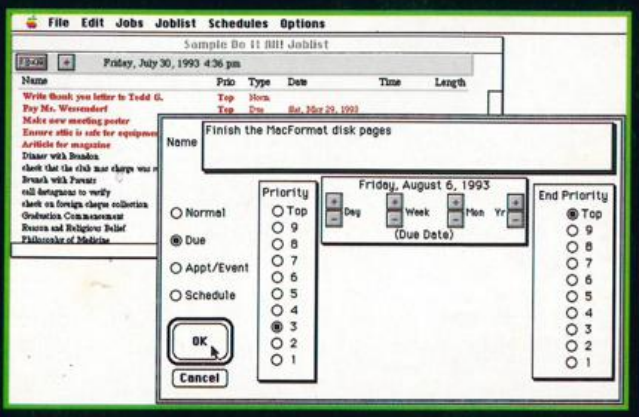
Shareware fee: £25
Compatibility
Macs: any
System: any
Display: any

Adding events to your appointments diary is as simple as clicking on the appropriate time

Do It All! is a to-do list, job prioritiser and appointments manager in one. You can use *Do It All!* simply as an electronic diary, entering your appointments on its week-at-a-glance display, but *Do It All!* can do much more than that. For one thing you can program alarms for events so that you're never late. In addition to entering your appointments, *Do It All!* allows you to keep a list (in the form of a pop-up menu) of all the jobs you have on currently as well as the dates they're due.

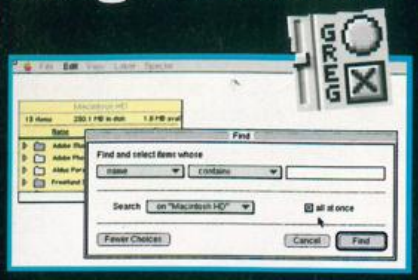
By assigning a priority to each job, *Do It All!* can show you the order you should be doing things. Give *Do It All!* a job's deadline and it will gradually increase its priority until it makes it to the top of the list in plenty of time to get done. And *Do It All!* can juggle as many jobs as you can! For when you're away from your Mac *Do It All!* prints out your schedule neatly for you to carry around.

Because of its power, *Do It All!* can be a bit daunting for the first few minutes, but once you've spent half an hour or so sussing out stuff like, how to move between the diary and things-to-do lists (just click an icon), it soon becomes clear. There's an excellent on-line help facility too.



Rank a job's importance and when it needs to be done by and *Do It All!* will work out your daily schedule

Greg's Buttons

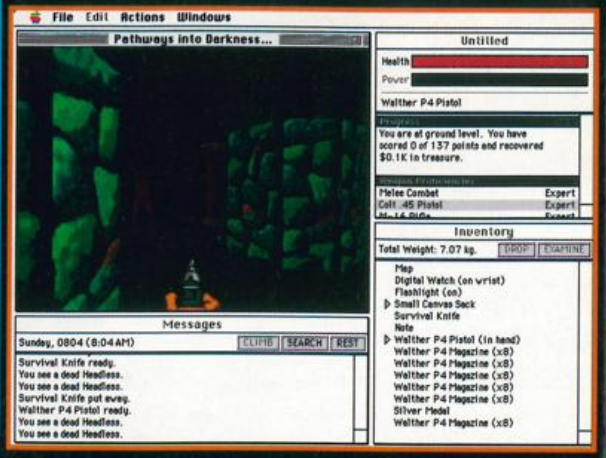


Shareware fee: £10
Compatibility:
Macs: any
System: 7.0 or 7.1
Display: any, but most effects need colour

The Mac customiser's dream program! This control panel lets you add 3D buttons, colourise your menu bar and windows, and change the font used in the menu bar. You're right, it has no practical use, but it certainly makes your Mac look better!

Greg's Buttons lets you mess about with your Mac's appearance to your heart's content. Beats working is all I can say

Pathways Into Darkness



Despite trying to sneak around a corner, you've been spotted by a 'headless' who intends mayhem. Only your Luger stands between you and certain death

Shareware fee: none
Compatibility
Macs: minimum 2Mb RAM
System: minimum 6.0.5
Display: 256 colours

If you've seen *Ultima Underworld* on the PC, you'll have an idea of what to expect from *Pathways into Darkness*. You are a Special Forces agent with a mission to save the world from a hostile alien demon. To complete your mission you must detonate a small nuclear device at the bottom most level of the demon's tunnels. To complete the mission and survive you must return to the surface and signal an extraction team to pick you up.

That, however, is more easily said than done. You move around a dungeon, rendered in 3D in real time with your Mac. You can explore using the mouse, and it's a good idea to find a weapon before the monsters find you!

This fully working playable demo will give you an idea what to expect when the full version ships from BungieSoft "real soon now". I have to confess that the zombies always get me before I've even finished the demo!

Goudy Hundred

Shareware fee: none
Mac: any, requires PostScript
System: any
Display: any

An 'antique' font based on a design by Frederick Goudy. This is a PostScript Type 1 font, so will not work with a StyleWriter unless you have Adobe *Type Manager* installed.

Operation Intercept

Shareware fee: none
Compatibility
Mac: any, but we found problems with some SE/30s
System: minimum 6.0.7
Display: any

This has to be the fastest action game the Mac has ever seen. It's a shoot-em-up: enemies attack in waves, your lone ship with its laser must defend the planet, the usual scheme.

There's music, there's frenetic action and I'm damned if I can get past level five. It is so fast that if you're running it on anything faster than a Classic, you might need to turn the speed down – thankfully something the program lets you do. Show it at full speed on a Quadra to a Nintendo owner, and then ask them which has the fastest action!

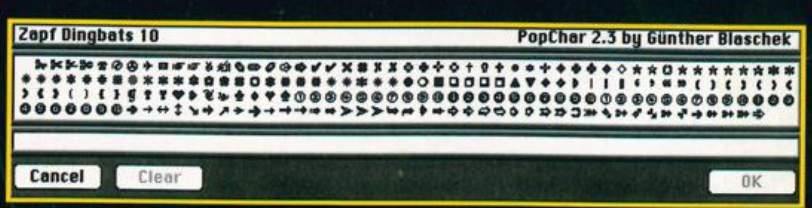
This is a demo version, so your ships are limited and the two-player option is disabled. However, it still gives you an excellent taster of a groundbreaking game for the Mac.

Operation Intercept goes so all out for speed that it disables our screen grabber, so you'll just have to imagine spaceships, aliens, laser beams, et al

PopChar

Shareware fee: none
Compatibility
Macs: any
System: any, but we had a problem with some versions of Adobe *Type Reunion*
Display: any

PopChar is a handy control panel which can assist you in typing the more unusual characters, such as ü, é and ß. When installed, clicking in a designated corner of the screen brings up a chart of every available character in the currently selected font. Choosing a character pastes it into your document at the cursor. *PopChar* is especially useful for working with Symbol and Zapf Dingbats, when you can see what you are typing.



There's no excuse for not writing to that German penpal now (er, unless of course, you haven't got one) because *PopChar* makes finding obscure characters – like umlauts – a doddle

Safety Belt

Shareware fee: none
Compatibility
Macs: any
System: any
Display: any

Programs often use temporary files to hold the changes you make to documents in between saves. If your Mac crashes and you lose work, it is possible that some of it might be retrieved if you could get at the temporary files – unfortunately, they're invisible! *Safety Belt* is a control panel which spots these files when you restart after a crash, and makes them visible. It won't repair them, but it might just give you (or your local wirehead who understands odd file formats) a chance to get your work back. *Safety Belt* is written by those nice guys at Alysis, who have made it free for everyone to use.

Bomb Shelter

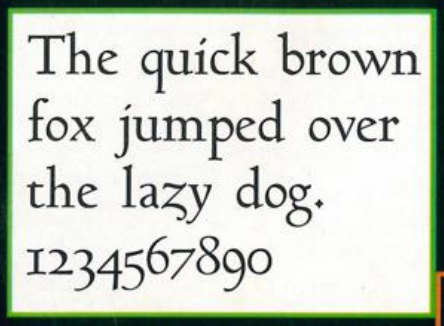
Shareware fee: none
Compatibility
Mac: any
System: any
Display: any

When your Mac crashes out with a System Error, as likely as not the Resume button just sits there taunting you by not doing anything when you click on it. *Bomb Shelter* attempts to make it do something useful by quitting the program that crashed and returning you to the Finder. You'll still have lost anything you were doing in the aberrant application, but you might (note, might) be able to save work in any other programs you have open. Even if *Bomb Shelter* does return you safely to the Finder, it's a good idea to restart your Mac as soon as you can.

Fast Unfrag

Shareware fee: $10
Compatibility
Mac: any
System: any
Monitor: any

When your hard disk is brand new, the Mac starts saving files at one end of the disk, and saves them sequentially and contiguously until the disk is full. After a while, when you have deleted a few files, 'holes' of empty space appear where the deleted files were, which are then filled up by new files. When the disk gets nearly full, the Mac may have to split a file up into several pieces to fit it in the available holes of free space. This slows access down, and is called fragmentation. *Fast Unfrag* will attempt to remove as much fragmentation as possible by rearranging the files on your hard disk – this should have the effect of speeding it up. It requires a fair amount of free hard disk space to completely de-fragment a disk, but it will do a partial job with what space it can.



Fragmented files can slow down your disk, but *Fast Unfrag* can help speed it back up again by rearranging the files on your hard disk

WARNING: before using any disk defragmentation software, back up your hard disk. If the program crashes while it is working, data on your disk may be lost.

Kingyo

Shareware fee: none
Mac: any
System: any
Display: any

This is, well, sort of a... oh, just try it!

AJ Times

Shareware fee: none
Compatibility
Mac: any
System:any
Display: any

Does your Mac's clock run fast or slow? Mine certainly does both of these, and as I tend to tell the time via *SuperClock!* rather than my watch, I'm often late for appointments . (Well that's my excuse, and I'm sticking to it.)

AJ Times is a control panel which allows you to get your clock working accurately. Just use the Speaking Clock to set the precise time to the second, wait a couple of days and do it again and *AJ Times* will calculate how inaccurate your clock

Backing up your cover disk

We recommend that you back up your cover disk because floppies can easily become corrupted. All you need to do to back up your disk is this:

1 Insert the **MacFormat** disk in your Mac
2 Drag the disk icon to your hard disk's icon. The contents of the disk will be copied into a folder called **'MacFormat** disk 5'
3 Drag the floppy disk icon onto the Wastebasket to eject it
4 Insert a blank disk. If you need to, initialise it as a double sided and name it **'MacFormat** 5 backup'
5 Drag the **MacFormat** folder from your hard disk on to the new floppy disk's icon
6 When it has finished copying you have a back up of the original disk. You can now delete the **'MacFormat** 5' folder on your hard disk by dragging it into the Wastebasket

If your cover disk won't work

Unfortunately when you duplicate as many thousands of disks as **MacFormat** does, a few duds are bound to slip through the net. If you think you have one, just read the installation instructions again to make sure you're not missing something.

If it still won't work, then return the disk by 26 October along with a stamped addressed envelope to:

MacFormat Disk 5
Disk Copy Labs Ltd
PO Box 21
Daventry
NN11 5BU

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Newton MESSAGE PAD

Newton Facts
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A Big WOW
With a Newton Message Pad you can organise your life, take notes, turn doodles into drawings, format & print letters, communicate with your PC, tap into on-line services - even send a fax!

Message Pad comes with application software:
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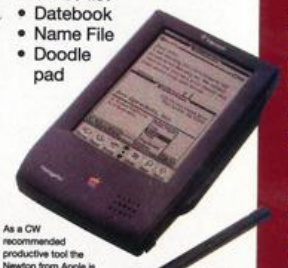
- To-do list
- Datebook
- Name File
- Doodle pad



As a CW recommended productive tool the Newton from Apple is just sooo cooool!

AND MORE ON THE WAY ON PCMCIA cards: Ol' CW's got loads of Newton software coming soon, including: Calculators, Games, Puzzles, Forms, Financial Management software and More!

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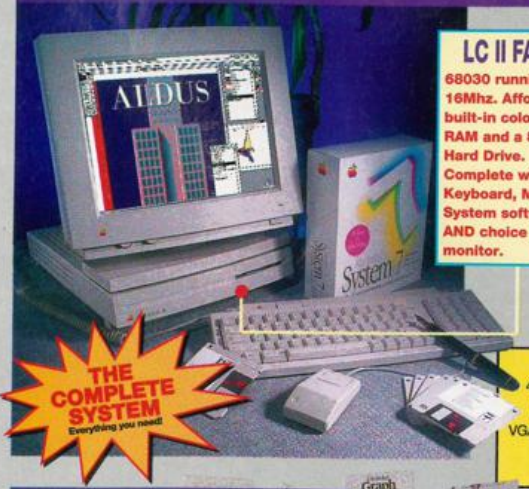

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- NETWORKING
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Claris Retrieve it	£65	Quark Xpress 3.11	£520
Claris Power to Go	£65	Star Trek Screen Saver	£28
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Microsoft Excel	£225	Astound (better than P.Point)	£95
Microsoft Office	£395		
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LOWEST PRICES

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AV Macs add video power

The first two Macs that can plug straight into a video camera or video cassette recorder have been released by Apple.

The eagerly awaited Centris 660AV and the Quadra 840AV – known in development as the Tempest and Cyclone – mark a major breakthrough in multimedia communications for Mac users. They're the first Macs that have direct video and audio support and both have built-in CD-ROM drives as standard.

Centris 660AV features

- 25MHz 68040 processor
- 55MHz digital signal processor
- 8Mb RAM expandable to 68Mb
- 16-bit colour support
- Works with NTSC, PAL, VGA, SuperVGA displays and all Apple monitors
- Internal CD-ROM drive
- Direct video input and CD-quality sound
- Built-in Ethernet

Both combine video and speech technology and telecommunications in what Apple calls 'AV Technologies'. These include:

- Desktop video conferencing for communicating with other computers. The Macs are capable of displaying full motion video from VCRs, Laserdiscs and camcorders. You can even connect the AV Macs to a standard television for presentations purposes. PAL and NTSC, the UK and US standards for video are supported.
- Facilities to access voice mail, electronic mail and faxes. Collectively named GeoPort, this is all achieved through a plug-and-play access system. Using GeoPort, the AV macs can act as an intelligent answerphone.

Speech technology comes in the form of Apple PlainTalk, originally known as Casper, a system extension which recognises speech. But this is not shipping with the Macs in the UK because it only recognises North American English – a disappointment considering the hype that has been surrounding it in the past. The UK version isn't due for release until next year. Until that time there is an option of buying the North American version and speaking with an accent...

The Centris 660AV has a 'reference' price of £2,291 (8/230) and £2,655 (8/500), remarkably similar to its non AV counterpart the Centris 650's £2,750 (although rumour has it that many authorised Apple dealers are actually offering the Quadra 800 for less than £3,000, more than £1,000 cheaper than its reference price). The Quadra 840AV is priced at £3,819 (8/500) and £4,582 (16/1,000).

Centris 610 and Quadra 800 owners will be able to upgrade to the high powered Macs using logic board upgrades which should be available towards the end of this year. The AV technologies may be available through add-on boards for other Macs from third parties.

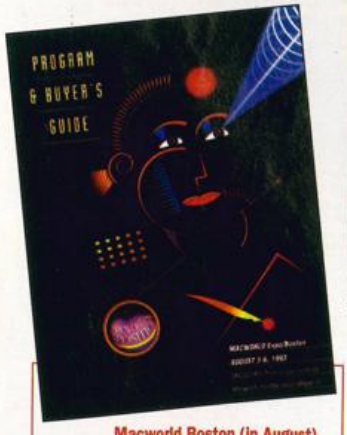
Call Apple free on 0800 127753 for more info.

All Apple products have reference prices. These are merely guides as prices may vary.

Quadra 840AV features

- 40MHz 68040 processor
- 66MHz digital signal processor
- 8Mb RAM, expandable to 128Mb
- Supports 24-bit colour on monitors up to 16 inches with 1Mb upgrade
- Works with NTSC, PAL, VGA, SuperVGA displays and all Apple monitors
- Internal CD-ROM drive
- Built-in AppleTalk

Macworld Expo report



Macworld Boston (in August) featured more than 400 stands with the very latest Mac kit on show

MACWORLD EXPOSITION Boston

Every year, there are two Macworld Expo shows in the United States. They are used by Apple and third party developers to showcase their products and announce new releases (many of which won't actually see the light of day for months). This year's Boston event (the other is in San Francisco in January) was held at the beginning of August, and on the next few pages you'll see some of the more interesting stories that emerged. Because many products don't yet have UK distributors, we've had to give US prices and contact numbers.

The highlight of the show, for many people, was the official debut of the Newton MessagePad – queues at the stands actually selling the things were enormous. Because of this, Apple's other big news – the release of the Centris 660AV and Quadra 840AV – had a rather lower profile, although the machines themselves provide plenty of new features and are certainly an important step forward for the Macintosh line.

For those who are worried that the debut of the PowerPC next year will mean the end of 680x0-based Macs, there were words of reassurance from Ian Diery, Apple's new Executive Vice President of the Personal Computer Division. He said of 680x0-based Macs that we'd "certainly see them after the end of the year, especially at the low to mid end." He also pointed out that PowerPC-based Macs will be able to run standard Macintosh applications.

Despite his resignation as Chief Executive Officer, John Sculley was at the show to demonstrate his commitment towards the Newton. The personal computer market over the last year "has been like Bosnia-Herzegovena," he said, but he was convinced that Newton would help Apple to re-establish its lead over the other computer manufacturers – even though "in some ways this is the highest risk thing Apple has ever done."

Mac prices slashed

Apple has made sweeping price cuts on much of the Mac range – some prices drop as much as 39%.

At the bottom end of the range, the LCII 4/80 with a basic Apple monitor (the type sold with Performas) is now available for £704, while bundled with the standard 14-inch monitor the machine will sell for £821. The Colour Classic 4/80 is now also available for £704 – suggesting that the LCII is not likely to last much longer on the product line. Here are some of the more notable changes:

Mac	Was	Is now
LCII 4/80, 14-in monitor	£999	£821
LCIII 4/80	£1,289	£998
IIvx 4/80	£1,888	£1,606
IIxv 5/230cd	£2,433	£2,089
Centris 610 4/80 & Ethernet	£1,888	£1,253
Centris 610 8/230cd	£2,433	£1,884
Centris 650 4/80	£2,751	£2,363
Centris 650 8/230cd	£3,326	£2,863
Quadra 800 8/230	£4,929	£3,175
Quadra 800 8/500cd	£5,723	£3,518
PowerBook 165c 4/80	£2,344	£1,698
PowerBook 180 4/120	£3,402	£2,873
PowerBook Duo 210 4/80	£1,528	£1,174
PowerBook Duo 230 4/80	£1,688	£1,463

WordPerfect perfected

MACWORLD EXPOSITION Boston

WordPerfect 3.0, a major enhancement to the popular Mac word processor, is scheduled to be on sale within the next two months.

Enhancements include ruler bars with easy access to features such as fonts, styles and tables; 'button bars' – customisable tool bars for single-click access to menu items. *Grammatik 5*, a grammar checker, is included in the package – making the range of features very similar to Microsoft *Word 5.1*. No UK pricing has yet been decided.

An 'interim release' of WordPerfect *Works*, 1.2.1, has begun shipping. It provides faster scrolling, faster switching between modules and better compatibility with System extensions.

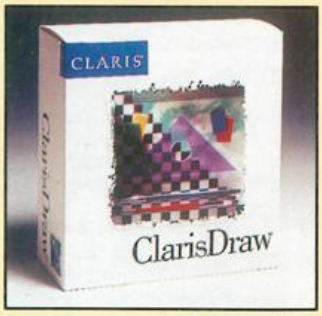
Try before you buy CD-ROM

An updated CD-ROM disc which now contains almost 300 applications is now available from Instant Access, a new form of try-before-you-buy-software distribution.

Lotus 1-2-3, *After Dark Painter* and *Ritz Accounting* are among more than 90 additional packages that can be found on the latest disc. Other packages include training programmes and more than 20 upgrades and extensions.

A yearly subscription costs £49.95. Once you've decided what you want to buy all you need to do is call the Enablement Centre. An access code is then issued which downloads the software onto your hard drive. Software purchased is backed by technical support from Instant Access. Instant Access 081 200 0100.

Claris pair make impact



ClarisDraw comes with more than 3,000 pieces of 'smart' clip art which can be resized and altered as required

MACWORLD EXPOSITION Boston

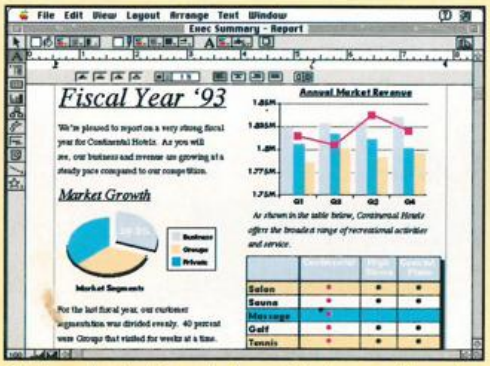
Claris is to introduce two new graphics products in the next few months. *ClarisDraw* will replace *MacDraw Pro*, while *ClarisImpact*, according to Claris, 'creates an entirely new category of productivity software: business graphics processing.'

ClarisDraw has many new features, but is essentially an improvement over *MacDraw Pro*, rather than a completely new product. One of the reasons for the change of name is that the program will be offered on both Macintosh and Windows platforms; the Mac version should be available in the next couple of months, and the Windows version will ship in the first half of 1994.

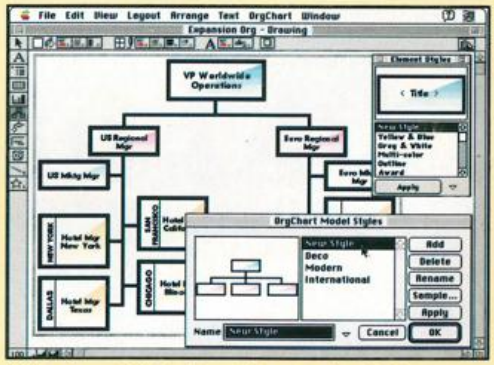
ClarisDraw comes with more than 3,000 pieces of 'smart' clip art, called the SmartSymbol library, which can be re-sized and altered. If an object from the library is cloned, any alterations to the original are reflected in the clone. New tools include gradient fills and Bézier curve creation.

ClarisImpact, which is due in the spring of 1994, is aimed at people who create business graphics. It includes tools for the automatic creation of graphs, calendars, organisational charts, timelines and so on, and has an integrated word processor similar to *MacWrite Pro*. Changes made in one part of the graphic alter the whole thing – so, for example, adding another box to an organisational chart alters the image so that everything fits correctly. The program has built-in presentation features, and comes with the same SmartSymbol library of clip art as *ClarisDraw*.

The company has recently announced that *ClarisDraw* will be £323 and *ClarisImpact* £264.



ClarisImpact is aimed at people who create business graphics, and should be available here by spring 1994



Make an impact with *ClarisImpact*: the program has built-in presentation features and has a SmartSymbol library of clip art

Newton software on the way

MACWORLD EXPOSITION Boston

At the launch of Apple's Newton MessagePad, the ground-breaking personal digital assistant, there were a number of third party developers on hand to show their own products for the platform. Apple itself has set up a new division, Starcore Publishing, which will release some Newton products before the end of the year, but plenty of other companies are also actively developing.

Starcore's products include *Fodor 94 Travel Manager: Top US Cities*. This is an electronic version of the popular Fodor's travel guide, and includes details of eight US cities. More than 500 locations are detailed for each city, including restaurants, hotels, airports and local sites of interest. The product will retail for $120 in the United States. Among Starcore's other products is *Columbo's Mystery Capers*, loosely based on the TV detective series and described as having 'more than 40 brain teasers complete with graphics and text-based clues'. It will sell for $80.

Claris' first product will be *ClarisGames for Newton*, a collection of five traditional games including *Enigma* (hangman) and *Pegs* (solitaire). No price for this has yet been set. On the more serious side, MobileSoft will have a spreadsheet for the Newton called *Mobile-Calc*, Dubl-Click software is preparing *GoFigure*, a package of calculators, and Portfolio, the company behind *DynoDex*, will launch *Dyno Notepad*, a 'free-form writing and thinking tool'.

None of the software was immediately available; most will ship in the next couple of months. Apple estimates that more than 25 Newton applications will be available by the end of the year.

■ Keeping a low profile at the show was Sharp's own version of the Newton, the Expert Pad. Sharp was not selling the device at the show, although sources said the company had agreed with Apple not to sell the rival device until after the show. The Expert Pad will retail for $899.

Companies are falling over themselves to develop software for the Newton MessagePad

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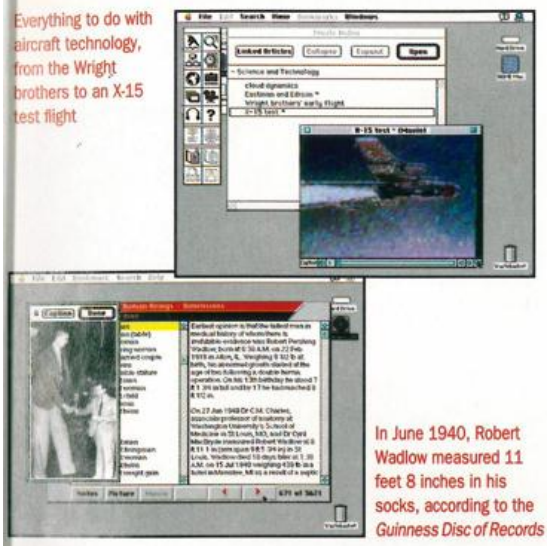
DIREK TEK DISTRIBUTION

Fact-packed CD-ROMs

Compton's Encyclopedia

All 26 volumes of Compton's Encyclopedia have been put onto one CD-ROM. The £353 disc, called *Compton's Interactive Encyclopedia*, incorporates 'virtual workspace' which means that any topics or pictures can be active in windows on screen simultaneously. There are more than 33,000 articles, 120 video/animation sequences, sound, an atlas and the 165,000 full entry Merriam-Webster OnLine Dictionary which is a dictionary with definitions, not just a spelling checker found in DTP and word processing applications.

To run the disc you'll need either the MacPlus, SE, Mac II or Quadra range of Macs with at least 4Mb of hard disk space free. For more info, call Active Distribution on 081 838 1280.



Everything to do with aircraft technology, from the Wright brothers to an X-15 test flight

In June 1940, Robert Wadlow measured 11 feet 8 inches in his socks, according to the *Guinness Disc of Records*

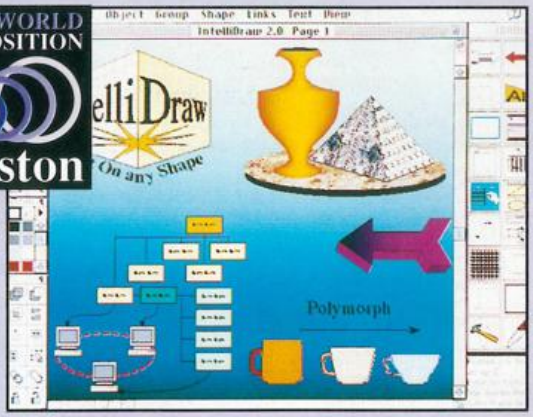
Guinness Disc of Records

The *Guinness Disc of Records* has all the features of the book on one disc complete with pictures, sound and video. It may not look as good as the hardback variety sitting comfortably on your book case for all to see, but when loaded onto your Mac you'll experience all the topics from the original which are brought to life with video sequences and synchronised audio.

The 1993 disc includes more than 2,000 updated records, over 750 pictures and a Random Record Explorer which includes 400 photo and text records. Information has been indexed and records can be accessed alphabetically so it's easy to locate the topic of your choice. The disc costs £60, from Softline on 081 401 1234.

IntelliDraw smarter

IntelliDraw, Aldus' 'smart' drawing program, has been upgraded to version 2.0. *IntelliDraw* is designed for people who aren't graphics professionals, but who need to produce professional-looking illustrations. Things like technical diagrams, room plans, flow charts, organisational charts and so on are easy to create, using the program's built-in templates. Version 2.0 introduces 'drag and drop' templates – a window of graphic elements which can be dragged on to the main drawing area and then resized or reshaped.



Professional-looking technical diagrams, room plans, flow charts and organisational charts are easy to create in *IntelliDraw 3.0*

Other enhancements in the new version include new file import filters for *Illustrator 1.1* and *Illustrator 88*, PhotoCD, *MacDraw* and *MacDraw II*, PCX, TWAIN and Metafile formats, full OLE (Object Linking and Embedding) support and compatibility with Aldus *Fetch*, the company's graphics cataloguing utility. There are also extra special effects such as perspective and 'envelope warping', which allows users to bend and twist graphics and text. A 'Polymorph Shape' command lets users smoothly transform one shape into another.

In the US, the program will be available in the fourth quarter of 1993 for $199 – version 1.0 retailed for $299. Pricing and availability in the UK has not yet been announced.

Power Tools to pep up Photoshop

Kai's Power Tools has become a firm favourite among *Photoshop* practitioners. Extra effects now include 'noise' and 'video cyclone'

***Kai's Power Tools*, the *Photoshop* plug-in package, has been significantly enhanced with version 2.0, which contains 33 plug-ins; providing users with a wide range of extra effects to alter images. These include smudging, textures, fractal generators, 'noise', pixellation, 'video cyclone' and many more. The user interface has been improved, and the plug-ins now show previews before they are applied to the image.**

Since its release, *KPT* has become a firm favourite with *Photoshop* users; the new version is significantly more powerful, and will undoubtedly prove a big success.

The US retail price for *KPT 2.0* is $199. It will be available here some time in September.

CD-ROM market expanding

One thing clearly demonstrated at the Macworld show was that CD-ROM is finally coming of age as a distribution media. Speaking at a pre-show press briefing, Apple Chairman John Sculley said that the company had sold around 50,000 CD-ROM drives last year; this year, Apple expects to sell one million. And there were certainly plenty of CD-ROM products on sale; ranging from interactive cartoons to encyclopedias, games to porn, you could find just about anything you wanted on disc. Some of the highlights included:

■ *Space Adventure for the Macintosh*. This disc covers space exploration, the universe, rockets and the search for extra-terrestrial life. It's due to ship in the Autumn, and will have a US price of $89.95 for the CD-ROM version.

■ *Wallobee Jack*. This 'interactive cartoon' is destined to be a huge hit. The characters are professionally-drawn, and the whole thing looks just like a cartoon on TV. Wallobee Jack's first adventure is The Bingi Burra Stone, and developer Tune 1000 plans to release several sequels.

■ *Rads, Ergs & Cheeseburgers*. This disc features a 'magical energy blob named Ergon' which 'introduces us to our own planet. It's due to ship before the end of the year.

CD-ROM looks like the distribution medium of the future, with plenty of new releases due this year

Lawnmower Man on the Mac

MACWORLD EXPOSITION Boston

Bringing culture to the masses – a game based on *Lawnmower Man* is to be put out on CD-ROM

Lawnmower Man – the film that brought the concept of virtual reality to the masses – is soon to be available as a CD-ROM game. It will have more than 30 levels, incorporating puzzles, 'fly-through' challenges and original footage from the film and its sequel (the inventively-titled *Lawnmower Man II*), which is due for release in early 1994. The game's manufacturer, The Sales Curve, is working with the film's director to shoot some footage specifically for the game – the first time that this has ever been done.

According to Sony Electronic Publishing, the game's US publisher, the CD-ROM will be 'the benchmark for all future CD development, not only in its visual appeal but in the way the game actually plays – more like an interactive film.'

The Lawnmower Man is due to be released on Mac CD-ROM in the first quarter of 1994; price has not yet been set.

■ Sony is also working on CD-ROMs of *Bram Stoker's Dracula*, *Cliffhanger* and *Last Action Hero*, all due for release some time in 1994.

The 1992 film stars Pierce Brosnan as a scheming scientist looking for a guinea pig for his experiments. And who better than the man who mows the lawn...

User-friendly comms

MACWORLD EXPOSITION Boston

Aladdin Systems, creator of the *Stuffit* file compression program, has branched out into comms with the forthcoming *SITcomm*. It's designed to be easier to use than other comms programs, and features automated compression and decompression of fil as they're uploaded and downloaded.

***SITcomm* supports the XModem, YModem and ZMode protocols as standard. Because it uses the Comms Toolbo other protocols can be added by dropping Extensions in the System folder. A toolbar gives quick access to t program's main features, and automatic log-on procedur are provided for a range of commercial US bulletin boar (although whether these will be localised to deal with U services has yet to be decided).**

***SITcomm* is expected to be available in October November this year; it will retail for $120 in the US.**

Sim City to go 3D

***Sim City*, one of the most popular Mac games, is to go three-dimensional by Christmas.**

Renamed *Sim City 2000*, it will feature a large number of new structures which can be viewed at three levels of magnification. You can even rotate the 3D model through 360 degrees for a more realistic feel.

Mindscape, distributor of the Sim series believes that '2000 will be ready for release in December, just in time for the Christmas rush As yet no price has been fixed bu the original *Sim City*, now name *Sim City Classic* is still availabl and costs £40.

For more information ca Mindscape 0444 246333.

Super-fast graphics program stuns sho

Live Picture is a new imaging package which provides th speed of high-end workstation packages on the Mac. It ha been created by French company FITS Imaging, and wa demonstrated at the Boston show by US distributor HS Software, generating considerable excitement from graphic professionals. Huge files can be opened in a matter o seconds, and effects such as rotation, skewing and scalin take only three seconds or so.

A Quadra with at least 32Mb of RAM is required to ru the program, which will be available in two or three months

COMMENT

By far the saddest sight at the Macworld show was a queue of testosterone-filled men waiting to take a peek behind the curtains at one of the many 'porn on CD-ROM' booths that seem to have suddenly become popular. Once inside, they were (allegedly – MacFormat didn't check it out) treated to the sight of naked bimbos cavorting around – all in glorious, jerky *QuickTime*. On the way out, a photo of a Playboy/Playmate from about 1963 was pressed into each sweaty palm, personally autographed in lipstick by said bimbo.

If this is the future of multimedia, we should put a stop to the whole technology right now. Why on earth would anyone want to buy porn that they can watch on their Macintosh? Is it somehow more acceptable than buying a video of the same material? And who could possibly be stimulated while sitting in front of a computer?

Even better than the curtained booths, one enterprising vendor was standing in an aisle, whispering, "Erotic CD-ROM, only $5" to any male who walked past him. Presumably he would hand over the offending article in a plain brown wrapper.

APPLE BITES

Kids cut out

Kid Cuts, from Brøderbund, is part of the same line of products as *KidPix*. It has many of the same drawing features – rubber stamps and magic wand – but also comes with a large range of 'templates' for things like animal shapes and puzzles which can be coloured in on screen and then printed. It even comes with a pair of safety scissors, so objects can be cut out. *Kid Cuts* costs £35 from Electronic Arts, 0753 549442.

SIMMs saved

MacSIMMiser is an add-on card which allows new Macs to use older memory SIMMs. The latest generation of Macintoshes, including the Centris family, use 72-pin SIMMs rather than the 30-pin devices that earlier Macs use. It accepts four old-style SIMMs and then plugs into the 72-pin slot – so owners of new Macs don't have to throw away memory cards.

Available from Interex Computer Products, 0101 316 524 4747.

Plate power

Three new rechargeable batteries for the PowerBook family are now available from Technöggin. Two of the PowerPlate batteries are designed to attach to the bottom of the PowerBook, providing up to three and five times the standard battery life. The third is a stand-alone device which connects to the PowerBook via a cable and offers up to three times standard battery life.

Technöggin: 0101 513 321 1777.

Good games

Several new games from GameTek are set to appear before the end of the year, including *Wheel of Fortune* featuring Vanna White, *Jeopardy!* featuring Alex Trebek, and *Air Warrior*, an air combat game that involves flying any of 11 World War II planes. GameTek is on 0753 553445.

■ Also from Gametek is *Nascar Challenge*, a hold-on-to-your-seat-belts stock car racing sim reviewed in this very issue on page 92.

Deluxe print

Brøderbund has upgraded it *Print Shop* layout program reviewed in MacFormat issu 3 – to *Print Shop Deluxe*. Th new package allows users t create greetings cards calendars, banners an stationery easily using pr defined templates. It no supports TrueType fonts – 3 are included in the package and a wide range of graphic formats for import. *Prin Shop Deluxe* costs £55, an is available from Electroni Arts, 0753 549222.

Dragon burns holes in Desktop

MACWORLD EXPOSITION Boston

An innovative new 'screen saver', *UnderWare*, has been developed by US company Bit Jugglers. Rather than blanking the screen, it animates items on the desktop – and is guaranteed to reduce productivity seriously! The program will run *After Dark* modules, but animates them as the computer is being used. There are also effects such as icons which grow legs and walk off the screen, and a dragon which burns holes in the Desktop.

The program also works as a conventional screen saver, and allows you to change your desktop patterns to textures such as granite. Guy Kawasaki, the original Mac evangalist, is behind the one product at Macworld Boston guaranteed to raise a smile.

UnderWare is due to ship within the next couple of weeks, and will sell for $60. As we went to press, no UK distributor has yet been announced.

Fun fonts go wild

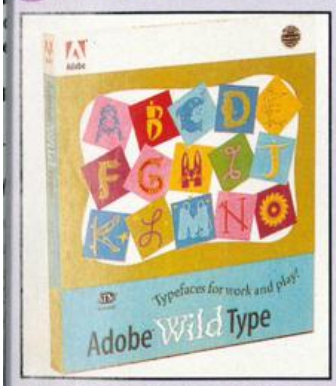
GiddyUp Thangs, Rad, Mythos. Believe it or not, these are some of the typefaces included in the latest font package from Adobe.

Adobe *Wild Type* costs around £47, and for this you get the weird and wacky fonts such as Critter – creatures who say who they are by their letter – and Mythos, featuring legendary beasts.

Adobe says the fonts can be used to add a bit of fun to invitations, design or brochures.

Alongside the 'Wild Ones' are five original Adobe type faces: Myriad Sketch, Myriad Headline, Myriad Tilt Birch and Utopia Headline.

Call Leading Edge on 071 454 9360.



Adobe forges ahead in the competitive arena of font technology – with Adobe *Wild Type*

Faster, cheaper PowerBook replaces 160

The Apple PowerBook 160 has been replaced with a Mac that is not only faster but less expensive.

The PowerBook 165 has a 33MHz 68030 processor while the 160 only ran at 25MHz. Features include:

- 4Mb RAM as standard
- 640 by 400 display with 16 grey scales
- 256 colour support for some external displays
- built-in microphone
- sound in and sound out ports

The estimated price tag is £1,500 for the 4/40 while a 165 4/160 configuration will cost £1,900 or £2,100 with an express/fax modem.

For more information call Apple free on 0800 127753.

ElasticReality changes shape of movies

ElasticReality **is a new, high-end morphing package for the Mac from ASDG. The program has been adapted from the Silicon Graphics Workstation version, and uses an 'outline-based' technique – the user draws over the outlines of the two shapes to be morphed, and the program does the rest. There is control over the speed at which different parts of the image move, both still and moving images can be morphed and the program is resolution independent – so morphing between very high-resolution images can be previewed using low-res versions, and the transformations can then be applied to the high-resolution images when the user is satisfied with the effect.**

ElasticReality **has already been used, in its Silicon Graphics version, in the production of several movies and TV shows. The Macintosh version sells for $995 in the US; no UK distributor has yet been appointed. ASDG: 0101 608 273 6585.**

ElasticReality: the user draws over the outlines of the two shapes, and the program does the rest

ElasticReality has been used, in its Silicon Graphics version, in the production of movies and TV shows

APPLE BITES

Book talk

Voyager's *Expanded Book Toolkit*, which allows users to create their own 'electronic books', now includes support for nine different languages. Users import text and graphics into the program, which then creates a stand-alone application similar to the electronic books that Voyager itself sells, with a table of contents and text search capabilities.

Voyager:
0101 212 431 5199.

Power tool

WizTools for PowerBook, from ASD Software, is a collection of modules that provide file security, file synchronisation, battery status display and simulation of function keys for PowerBooks. The product, which should be available by the end of September, will compete with Connectix *PowerBook Utilities*, Norton *Utilities for PowerBook* and Claris ClearChoice's *Power To Go*. ASD Software, 0101 909 642 2594.

Framed!

Screenies is a range of 51 'frames' for Macintosh monitors, featuring illustrations of different scenes and designs. They attach to the monitor using Velcro pads, and are available for 13-, 14- and 15-inch monitors. Some of the designs are also sold for the 9-inch screen 'compact' Macs such as the Classic. Not yet available in the UK, they sell for $11.95 each in the States.

Screenies:
0101 707 939 6060.

Mixed ink

HJ-400, an inkjet printer aimed at home office users, is the only inkjet that can be used in both a Mac and Windows environment.

The HJ-400 costs £351 and should be available from most high street computer retailers.

It has been designed for the desktop, so those with a limited workspace will see its small size as an advantage. It also features 18 TrueType fonts and uses a Canon inkjet cartridges.

Cheap PS

Freedom of Press Classic is a new version of the software *PostScript RIP* which allows users to output PostScript-quality graphics and text to QuickDraw printers such as the StyleWriter, Hewlett-Packard DeskJet and Apple Colour Printer. It combines all the features of the previous versions, and includes 35 fonts mirroring those provided in most PostScript printers. We'll let you know UK pricing and availability as soon as we have it.

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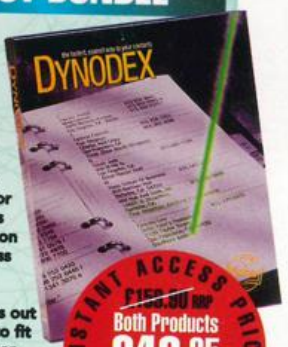
More Glider

Enhance your glider games with this add-on pack which gives you more rooms to navigate, and more dangers to escape from!

CONTACT BUNDLE

Dynodex v3.0

Still the best way to store all your useful contacts on the Mac. This is the program for professional socialites and people who rely on telephone and address databases.
Ideal for business or pleasure it even prints out address book pages to fit your personal organiser.



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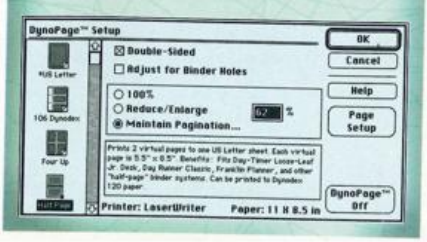
Dynopage v2.0

Turn your laser printer into a sophisticated print finishing plant to handle complex folds, double sided printing, weird formats and more - with ease. Over 100 layouts included - design your own too!



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Give your **Photoshop technique a well-deserved boost with this incredible range of power filters to generate effects, tricks, textures, and finishes you hadn't even dared dream about before. The Expert Version includes many of the most powerful functions.**

LOTUS 1-2-3

Big business's first choice of spreadsheet is now available on the Mac with full file compatibility with PC and other versions.

Features Tear-off menus, Style Palette and menu promotion, plus in-cell editing in the worksheet.

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Dynamic linking between worksheets and graphs allow the changes you make in one to be reflected in the other; plus a host of superior charting and graphing styles

NEW RELEASES ON ISSUE 2

NOW FUN!

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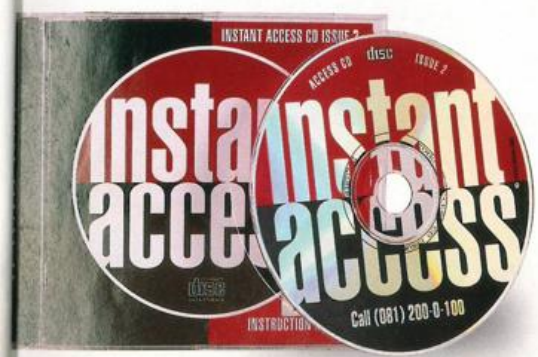

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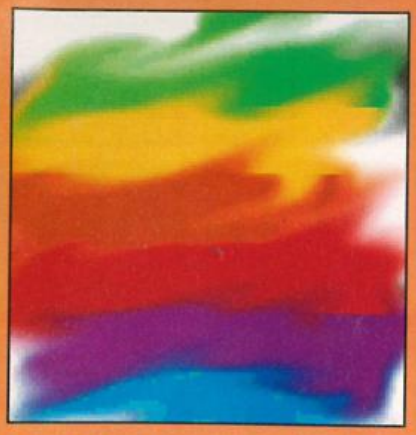

TALK

Pleased, peeved, irate, enraged, amused, amazed, stunned or astounded? Whatever your feelings – about anything in the Mac universe – make sure you write in and tell the Editor – Andy Storer – at:

Apple Talk
MacFormat
30, Monmouth St
Bath, BA1 2BW

Yeah it's a new office – with twice as much space for your sacks of letters to the Editor...

Total systems crash?

Let me be the first to congratulate you on your achievement of becoming monthly. Let me also point out to you what a wonderful magazine **MacFormat** is. I would just like to ask how many PC users do you know that transfer their work to a Mac format disk. I don't know any. Whenever I want to exchange text with any other PC it is always me who has to transfer the file using Apple File Exchange it is NEVER the other way round.

Oh yes, and while I remember here is something for your Cruising The Keys bit. 'How to get out of a crash'. I don't know if this works on all machines but it certainly works on my old SE. When you get a bomb message box press the interrupt button (not the reset button) on the programmers switch. You should get a dialogue box with a >. Now type SM 0 A9F4 then hit the return key then type G 0 and hit return again. The 0s are zeros by the way not capital Os. You don't have to worry about capital letters because it will come out in capitals anyway but do make sure you get all the spaces in the right place. Keep up the good work,

Loise Hurst, Canterbury

Thanks Loise – funnily enough we've covered three PC programs that'll let you read Mac disks in this issue! I think it'll probably be the only time we cover PC applications but we thought it would be bound to be useful to someone. Oh and thanks for the Cruising the Keys tip – have a fiver!

The Mac answer

Thank God someone has finally brought out a Mac magazine which I can actually understand. I'm just a poor little schoolboy and so find wading through masses of business software reviews and pages and pages of hardware that I could never afford even if I took on another 70 paper rounds, too boring for words.

Anyway, I'm thinking of getting a Mac to help me organise and word-process all the work I'll be taking on when I start my 'A' Levels. I'd find it damn helpful if you could suggest which would cater to my needs best.

Daniel Wallace, Bath

Well, the first thing to do Daniel is make sure that as a student you get hold of an educational discount. Call Apple free on 0800 127753 for details. As for the model you should buy for word-processing and the like, well, the best deal on price/performance is probably the Colour Classic. You should find one for £600 or so with the discount.

Flights of fancy

When I decided five years ago that my professional practice should go Macintosh, little did I expect to fall prey to what has become a true addiction: computer games!

I am particularly interested in flight simulators, and I wish to comment on your review of *Falcon MC* from Spectrum Holobyte.

One of the first flight sims I bought was the *Falcon* version 2, which I found, in those Mac Plus days, positively astounding. Much later, *Hellcats* came along, and I found that fantastic.

Then Spectrum Holobyte released their *Falcon 3* for IBM-compatibles, which simply knocked my socks off; by that time, I was literally foaming with expectations of what lay in store for the Macintosh version; I actually phoned Spectrum in California to enquire!

I mail-ordered a copy direct but to be honest, I was thoroughly disappointed.

Wouldn't you agree that Spectrum misses the point when pretending that *Falcon MC* puts you in the seat of the most realistic air combat simulator for Macintosh, when it fails to provide a real-world terrain and a true historical context?

Why are Macintosh users deprived of the topical environments, such as *Desert Storm*, which *Falcon 3* delivers to IBM-users with an atmosphere so dense it seems beamed over live to them by CNN?

Alright, there are noteworthy improvements over the previous black and white version; now it's in colour (albeit only 4-bit deep!), the mission scenarios are woven into a global campaign, and the soundtrack is Oscar-class.

But why such a small screen resolution (507 x 358 pixels only)? Why no replay or recording facility? Why, for such a complex simulator to master, no training ground?

Falcon MC – it might be good – but it's not *that* good says Paul Saussez. What's his problem? *Falcon*'s got no atmosphere, historical context or real world terrain – and *Hellcats* is better

I agree that *Falcon MC* is technically very sophisticated; in a word, it's a serious game; in fact too serious! It lacks that built-in cheekiness found in *Hellcats*, or the redeeming facilities of *Red Baron*. In *Falcon MC*, at expert level, I can't possibly imagine any player staying alive more than ten seconds when in combat zone!

As for as I am concerned, *Hellcats/Leyte Gulf* is the best aerial combat simulator currently available for Macintosh. Here's why: (**TIP: start holding your breath now – Andy**) Exceptional fluidity, 256 colours, full-screen window, gradual pan views in all directions, moving ground targets, intelligent enemy tactics, varied missions in varied locations, excellent graphics (could be slightly more detailed) fantastic replay shots (could be longer), soundtrack could be improved (music by Glenn Miller?); concise, to-the-point manual; full bonus points for the highly interesting reproduction of the actual F6-F pilot's manual; and above all, true

Roll on System 8!

...or handy little suggestions where you can post us the improvements you'd like to see made to your Mac. When we've got a good batch we'll pass 'em onto to Apple's crack coders in Cupertino and see what they reckon. This month's wannasee is from Mark Fields of Brighton: 'Why doesn't Apple include automatic file compression in its software to preserve hard disk space like DOS 6 does? It could be user-definable so that only those programs you don't use much are permanently compressed.' Hmmm, sounds alright to me.

Cruising the keys

...Or another batch of £5- winning hidden secrets from your favourite keyboard....

● This is a useful tip for owners of *Word 5* or 5.1 who don't own a screen saver. Go to **Commands** under the **Tools** menu to get to that huge list of menu items. Then type 'scr' so that screen test is highlighted. Activate it so that it appears under the **Tools** menu and assign a keystroke for the screen test.
Then watch the beautiful patterns!!!

Jerome Dewhurst, Bucks

● Here's another **Map** secret. Just after you double click on the **Map control panel** icon, hold down **[option] [shift]** and **[control]**. This will magnify the map without magnifying the text. Different combinations of keys magnify to different levels.

Robert Wood, Leeds

● Hello there, here are my hidden delights: First, you must have Mac IIci – set the date of your Mac to 20.09.1989.Then restart and hold down **[command] [option] [C] [I]**. Just wait a while and see what happens.
If you have Mac IIfx, try the same as above, but set the date to 19.03.1990 and use the **[command] [option] [F] [X]** keys.

Simo Neuvonen, Tuusnieme, Finland

● If you use *HyperCard 2.0*, have you noticed how it displays the name of a different author each time you select **About HyperCard**? Now try it while holding down the **[option]** key!

Ben Poole, Essex

Thanks for those, young cruisers – keep sending 'em into Cruising the Keys, MacFormat, 30 Monmouth St, Bath BA1 2BW and win yourself a fiver!

historical context and real-world terrain. I can't wait for Graphic Simulations' next offer (*F-18 Hornet*).
Or am I again expecting too much?

Paul J Saussez, Wezembeek-Oppem

Phew! you really like your flight sims don't you? Mmm, I think the main problem with delivering the level of detail you're after is speed. You'd need at least a Quadra to update detailed scenery past a cumbersome beast like System 7. On the PC, you just bypass DOS and you're 'hitting the metal'. On the Mac, a programmer has to get his finger out. It'll happen though. And if enough people like you and me speak out it'll happen sooner.

There you go then

There are three reasons why I am writing;
1. I want to achieve world-wide status

Ben Willis, Saltash

And there you have it, Ben. Sorry I didn't have space for the other two but thanks for your long letter and yes, I'd like to see a footie game for the Mac too.

Racialist idiots indeed

I was shocked to read in **MacFormat** under the heading 'You won't believe this' your sneering reference to the availability of a computer interface in Tibetan.

What sort of racialist idiots think it is amusing to have a computer interface available in different languages? There are a couple of million Tibetans, some of whom presumably have computers and therefore would need to have a system in their own language, and in this respect they are no different from the English, the Greeks, or the Chinese.

That certain English people can consider this 'ludicrous' – and be awarded a prize for saying so publicly – is a sad comment on them and you.

Seamus o Brogain, An Charraig Dhubh, Co Bhaaile Atha Cliath

What can I say? Other than to offer my utterly unreserved apologies to all our many Tibetan readers for this alarmingly unprofessional lapse. Great address!

The finer points

First off – a simple mistake:
On page 77 of issue 4, you say that *Word*'s File Finder can only scan its own files – not true! It can scan any files – try it.

Secondly, you print a letter about Stylewriter driver upgrades – beware, apparently using the II driver on the I increases wear on the print head because the II was re-engineered. And – they do print in the background don't they – just select 'background printing' in the Chooser.

Thirdly, please remember that lots of kids will be reading your magazine – don't review crap like *Virtual Valerie*! You need to be a teensy bit more responsible – think of your audience as if they fit a 'PG' rating.

And finally, re *HyperCard* – I'd like to make contact with *HyperCard* scripters out there, particularly someone who can help me with basic programming concepts and structure – mostly I just thrash around until something works.

Overall **MacFormat** is excellent. One last thing – can you do a feature on insurance? It would need to cover Macs in transit in cars, your own Mac at work, working at home, PowerBooks at home etc. Insurance companies always quote silly prices – surely somebody must be aware just how careful we are about our Macs!

Arthur Battram, Luton

Any *HyperCard* programmers out there should send in disks and chat, tips, tutorials etc etc to Rod Lawton at MacFormat, 30, Monmouth St, Bath BA1 2BW as I'm sure he'd build them into column. And yes, it's a good idea for a feature on insurance – I'll look into it. As for *Virtual Valerie*, well, I take your point but it's no use us thinking of our readers as 15 year-olds is it? Our questionnaires showed most are at least twice that age. But, yes, when it came to the crunch we probably wouldn't review it in any case.

PowerBook 100 rules okay?

It's not just brilliant: it's become indispensable since I snapped it up at a bargain price.
My colleagues using inferior PC notebooks try to hide their envy with pointless arguments about their wide choice of software, but why bother to reason with men whose trackballs are on the wrong side of their keyboards?

Now I find myself the custodian of a small, but much admired piece of MacHistory which would be seriously devalued should your campaign for its reinstatement be successful. Yes, I own a PB100 and I'm awaiting the delivery of a PowerPortrait screen, a spare battery, a charger, and a 12-volt car adaptor which together will cost more than my original investment. Long live the PowerBook 100! I'll be severely embarrassed if it doesn't.

A Hardwick, London

Yes, I'd like to track one down too. Ian Wrigley bought one and I'm seriously impressed. On the other hand, perhaps some enterprising dealer would like to give me one. I'll write about you every issue, honest.

Win a year's subscription!

So just which two faces did we merge last issue to make up the rather heavy-duty looking geezer-morph on the left? No, Buddy Holly didn't get a look in, nor did Anthony Perkins, John Major (why is it he crops up every time – even in the one that merged The Incredible Hulk with Samantha Fox?), Sylvester Stallone or Boris Karloff. No, the correct names were ageing crooner Lou Reed and Michael Douglas (in Falling Down mode). And the winner of a year's free sub is... ta da da da J Faith of Exeter! Well done J and hard luck everybody else.

All you have to do to win this issue's free sub is work out which two faces comprise the world's most famous living morph on the right. Yep, I know it's really difficult but you'll get it in the end. When you do, send the names to: 'Now what was his sister's name again?', **MacFormat**, Future Publishing, 30 Monmouth St, Bath BA1 2BW. Oh and no, Diana Ross isn't in there!

Hyper queries

It was great to see the start of the *HyperCard* series last issue. Is a colour version in development and, if so, when will it be released?

I have read brief descriptions of a program called *SuperCard* that translates *HyperCard* stacks with colour. How effective is this program in translating existing stacks and adding colour?

Martyn Gawthorpe, Hull

***SuperCard* does handle colour and is brilliant but you do have to fiddle with some HyperTalk scripts. We'll review it. As for a colour version of *HyperCard*, last I heard it wouldn't see the light of day until the launch of Macintosh PowerPC! Mysterious eh?**

MacFormat 5 was produced on two IIvis, a IIsi, an LC II, a Classic II and a Quadra 700. All networked to a Spectraset 2200 outputting film at 2,400 lpi at 150 dpi. In-house copy this month was written with *Word 5.1* – which is *the* best; simple as that (this month). Each of our 83 editorial pages were sweet-talked and seduced by the lip-bitingly beautiful *QuarkXPress* 3.11 while *Flash-It!* lit, styled and shot the proceedings and *Photoshop* 2.5 took them to a darkroom and got intimate. Favourite team pastimes this issue were moving office, being quiet for long periods and keeping the blinds drawn. Has somebody died or what? *MacFormat 6* is out October 5th!

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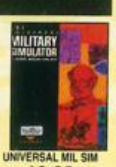
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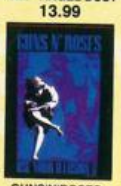

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SHREWD MOVE!

It plays CD-ROMs, Photo CDs and audio CDs. It's PowerCD, and at just over £400 it's worth every penny. Or so Andy Storer reckons after taking it for a spin....

PowerCD comes to you courtesy of Apple's Personal Interactive Electronics division, perhaps better known for its development of the Newton MessagePad. PIE's mission is to combine computer and telecommunications technology with consumer electronics to bring affordable hi-tech boxes to the high street. Such convergence may well mean more diversification and fatter profits but it still marks a brave departure for a company more used to delivering hi-tech boxes to personal desktops. Whether it will succeed against the likes of Sony, Matsushita and Philips remains to be seen, but at least MessagePad and PowerCD are innovative. Both deliver a promise of ease of use and functionality wrapped up in a stylish casing almost too sleek. But beneath the soft sci-fi exterior lies some hard profit-conscious reasoning. PowerCD has the code and connectors to run CD-ROM disks when it's hooked to a Mac, Kodak Photo CDs when it's plugged into a TV and every audio CD in the entire universe when it's jacked into your headphones or hi-fi. What's more it weighs only 3lb and it'll run off batteries. So it's portable. So portable, you can have all three of these facilities available depending on where you are.

So just how well does it handle these three modes? Does it compromise on quality to deliver versatility? Jack of all trades, master of none?

...as Photo CD

In taking on Kodak's £299 entry-level PCD265, PowerCD comes with a phono cable carrying a video feed, so as long as your TV has got phono-style inputs you can hook it up no problem. However, most TVs don't, so you'll either have to buy an optional RF unit which'll let you plug PowerCD into your TV's aerial socket or go through a video recorder which will more often than not have the right video input sockets. Unlike some CD-ROM drives, PowerCD is 'multi-session' capable; this means that it can read disks that have had new images added to them since they were first mastered. So this is a very cost-effective feature; it's possible to have up to 100 images on a disk for around £20, instead of a number of disks with a roll on each. The feature on the next three pages shows you how you can both view and edit Photo CD pictures on your Mac, but as far as setting up PowerCD with your TV is concerned you're confined to viewing only. However, PowerCD's remote control offers more than just a slide show of images. With it you can pan, scroll and zoom into images, rotate them, enlarge specific areas and program sequences of your favourite pictures for automatic shows. In other words, it's easy to use and great fun. Now, the quality of the images appearing on a domestic TV will depend on the set's specs, but Photo CD's quality is very good and PowerCD does a great job of handling them.

...as hi-fi kit

Whilst any CD-ROM drive can be used to play audio CDs, they all have one major drawback – you have to have your Mac connected to them. This is fine as long as you want to listen to music on headphones while you're working or you have an amplifier and speakers right next to your desktop, but either way you're constrained by the need for a controlling computer. Enter PowerCD and a full set of functions you'd expect to see on any regular hi-fi CD player. With its remote control you can program just the tracks you prefer, randomly shuffle the play order, scan backwards and forwards and repeat and pause your favourite selections. Simply connecting a lead between PowerCD and headphones, powered speakers or an amplifier's audio sockets means that any audio CDs can be treated to this range of controls. What's more, using the remote you can store any preferred program orders, of up to 30 tracks per program, permanently in PowerCD's built-in memory so each time you load up that disc it will only play the selected tracks. This, as I've no doubt you can imagine, is an absolute boon and something you won't want to live without once you've tried it. Another innovative feature is Time Edit which enables you to play music for any time up to 99 minutes – essential for easy copying to cassette.

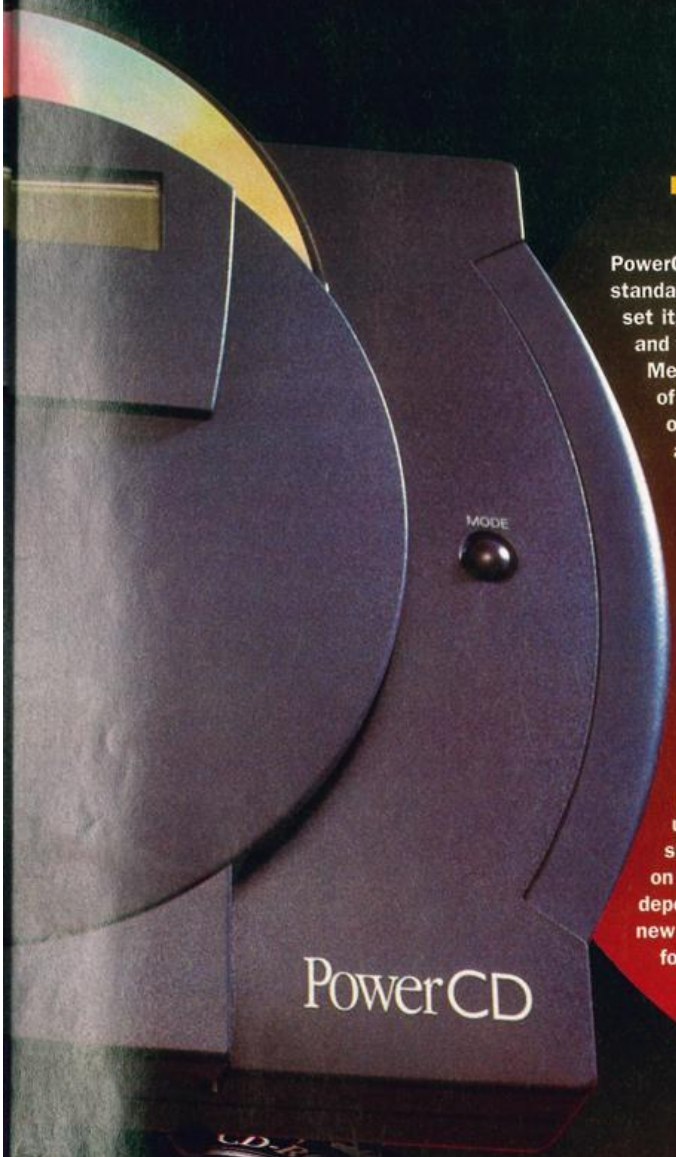
But how good does it sound? Well, the three principal gauges Apple publishes specs on are signal-to-noise ratio (95dB), dynamic range (80dB) and channel separation (90dB). Now I'm not an audiophile and this is not an audio buff's magazine but if these mean anything to you, corresponding figures for a top of the range 18-bit 4-times oversampling CD player come in at 105db, 97dB and 100dB respectively. All I can say is it sounded pretty impressive to me, and my home CD player cost £600. So check out those specs with a sales-man who knows his stuff – I think you could be surprised.

PowerCD

...as CD-ROM

PowerCD hooks up to any Mac running System 6.07 or later with a standard SCSI lead attached via the unit's base. All you then have to do is set its SCSI ID number, drop the bundled extensions in your System folder and the brave new whirl of CD-ROM is all yours. Each disc can hold over 650 Megs of data – the equivalent of 270,000 pages of text, up to eight hours of speech and music depending on sound quality, hundreds of hi-res images, or a combination of each. Once connected to your Mac, PowerCD can be accessed just like a hard disk and CD files can be run and copied – but remember it's strictly one-way traffic; you can't write to a CD. Not yet. Not in any affordable kind of way at any rate.

So how well does it perform? The two factors to take into account with any CD-ROM drive are its data access time and its data transfer rate; the former refers to the average time taken to find a particular chunk of data, the latter to how fast the drive can pump that data to the host computer's memory. Now, for my money the best Mac drive on the market today is Apple's CD300 which you can pick up for around £320. This can access data in as little as 295 milliseconds and transfer 2.5 Mb of it to your Mac in a second. PowerCD can't match these figures; managing to find data in 550ms and sending it at 2.1 Megs a second. While these figures may not seem to be worlds apart the difference in access times is pretty significant. You can improve this no end by buying a cacheing utility like *CD-ROM Toolkit*. This aside, you're still looking at a much slower system. Having said that, the CD300 is the one of the fastest on the market and sells for an absolute giveaway price. But it all depends on what you want to use a CD-ROM drive for. If it's for the new breed of games arriving on CD then it's probably better to go for a CD300. But if you just want to occasionally run multimedia encyclopedias, shareware CDs, Photo CDs or just listen to music while you work on your Mac, then PowerCD will do the job.



But can you use it on the move?

Assuming you would want to be seen on a tube, train, coach or plane carrying the CD equivalent of the Starship Enterprise, how well does the PowerCD function as a portable? Well the good news is that at 3lbs it doesn't weigh you down too much, but it's a bit inconvenient. The eight AA batteries it needs to power it for true portability fit into the PowerCD's base unit, which also holds the SCSI port, so instead of carrying something shaped like a discus you're left holding something much more unwieldy.

The other bad news is that even with eight batteries in position it doesn't operate for very long. While a regular audio CD player will perhaps give you three hours on two AA batteries, you'll be lucky to get away with an hour of continuous play on PowerCD. While you can use rechargeables instead of AAs, the problem then becomes carrying enough to last you for whatever journey you're on. So is this really the use a portable should be put to? Perhaps not. Perhaps it's more destined for on-the-road surveyors, engineers and sales forces who need access to CD data they can display on a PowerBook. In this light, the PowerCD is far more functional and versatile than a mains machine.

So is it worth your hard-earned loot?

I think PowerCD is great value for the price and should definitely be considered if:

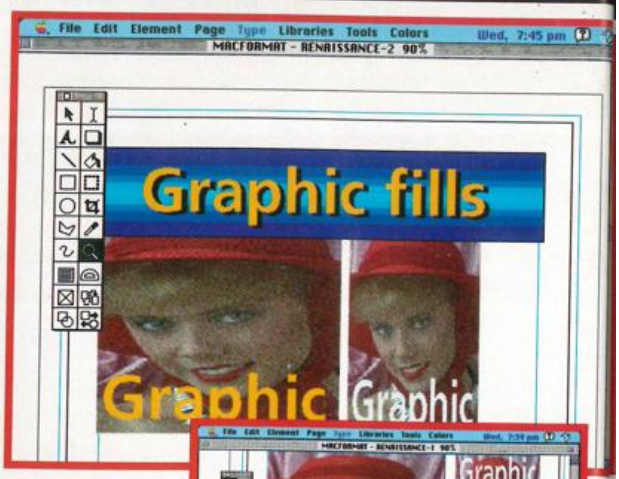
a) you don't already own an audio CD player
b) you want to view Photo CDs on your telly
c) you need a portable CD-ROM on the road
d) you don't mind looking like you're from Alpha Centauri

Otherwise, buy a CD300 drive instead

Where to get it (apart from p89, that is):
PowerCD, Freefone Apple, £405

Turn over to see how to use Kodak's Photo CD ☞

Will Photo CD revolutionise photo scanning? Kodak reckons so, and has even produced its own family of software to go with it



Kodak *Renaissance*: it's a no nonsense 'grab and go' design program with one tear-off toolbox, which has plenty of powerful tools letting you create type, draw shapes, select colours and import your pictures

If you're into photography and you've got a Mac, Kodak's new Photo CD technology is set to take your world by storm. Or so Kodak claims... Gordon Druce gives you the facts and checks out four new applications for the system

PICTURE THIS

Kodak's Photo CD is a really elegant system which offers a reasonably priced way of getting excellent quality digital images on to your TV. More importantly, with the aid of a Photo CD compatible CD-ROM drive, it lets you display and edit them on a Macintosh.

Suddenly that trusty (or should that be dusty) old 35mm SLR camera that only comes out at weddings and Christmas, is now a potential high end input device for your machine... could this be the death knell for 35mm desktop scanners? With Kodak's combination of marketing power and some very impressive sample work produced using this system, it looks to be that way.

The Photo CD system works something like this. You snap away merrily on your roll of 36 exposures or whatever, (no special film is necessary, anything from a roll of supermarket 'happy snapper' to Kodak's own range of films will do). Then you can either go to your local branch of Boots the Chemist, a professional photo lab or any of the many other high street stores offering a CD transfer service.

Within a week you will get your gold-coloured compact disc back, with your original negatives or slides and a full set of regular colour prints. If you have old 35mm slides or negatives (colour or black and white) it is also possible to transfer them to CD. Professional photographic labs have Kodak imaging workstations which create your CD from your slides or film. At the moment it is only possible to produce the CD images from 35mm film, but Kodak hopes to accommodate larger film formats later in the year.

For most people the flexibility of the system will probably be its most attractive feature; the fact that you can get your colour film processed and printed in the usual way, then decide which pictures you would like to place on your compact disc and also add more images at a later date if you like, until your disc is full. The Photo CD will hold up to 100 colour images and many more if you are shooting on black and white film.

There is one drawback with this method of adding more images to your disk at a later date; you will need a Multisession CD-ROM drive (try Apple's CD300 drive, PowerCD or the Toshiba TXM 330). This system lets you read in your picture files from any number of different image copying sessions. This will be very useful if you are working in the design or publishing industries, as you can archive your pictures for instant access and retrieval, plus it will no doubt be used by Mac photographers to make up a 'digital portfolio' or it could be just a neat way of storing all those cherished moments from your own slide collections and transferring them to digital format for future generations (although Kodak reckons that the discs have an expected lifetime of around 50 years).

When you receive your CD, it contains copies of all your images. The resulting files, which are in Kodak master format, hold five different versions of the scanned images in an Image Pac, Thumbnail or Wallet at 128 lines by 192 pixels, Snapshot at 256 lines by 384 pixels, Standard (TV) at 512 lines by 768 pixels, Large at 1,024 lines by 1,536 pixels and Poster at 2,048 lines by 3,072 pixels. These images are all compressed, using Kodak's own compression system, from an 18Mb original image scan for a single 35mm frame, down to a 5Mb file with little or no loss in picture quality, and then stored on the CD. To get to grips fully with Photo CD you will need a CD-ROM XA Mode 2 drive (Apple's own

Kodak *PhotoEdge*: it's an image editing package which lets you sharpen or soften your pictures, plus it gives you control over brightness and contrast, helping to correct overexposed or underexposed pictures

5 tips when taking top quality photographs

1 At the beginning of each roll of film shoot a colour test card or grey card. This will help you get better results from the processing lab as your exposure and colour balance will be more accurate over the whole roll.

2 Talk to your lab about doing a clip test. They will cut the first two or three frames off your roll and process them separately. If there are any wrong exposures the lab can go some way to improving the results before you take the plunge.

3 If you are shooting a scene which is mostly lit by artificial light, it's important to correct it with colour filtration at this stage.

4 Ask your local camera shop for advice about films, filters and lenses; they should be only too happy to help. You may find they offer a Photo CD service.

5 Minimise reflection problems in close-ups by wrapping black cloth around the legs of chrome tripods and/or use a large piece of black card with a hole cut in it to shoot through.

CD300 drive is now only £323) then you can spin that photo disc and view your thumbnail images. Kodak's own fleet of Photo CD players ranges in price from £299 to £429 (**MacFormat** is giving away a Kodak Photo CD 865 on page 89!).

But not content with coming up with this high quality storage medium for digital images and producing Photo CD players for viewing them on your TV, Kodak has branched out and produced its very own family of Macintosh and PC software packages.

Four programs have been released so far, all aimed at the design/publishing and photographic market. First is *Photo CD Access*: this program lets you view your CD images in digital contact strip-style, plus it lets you save your files ready for importation into DTP and word processing documents. Next up is Kodak's own image editing software *PhotoEdge*, then comes *Renaissance*, which is the most extensive of the range and includes powerful design/layout plus drawing tools. Number four in the family is the Kodak *Shoebox* (not a great name, guys!), which is a smart image database in the same vein as Kudo *Image Browser* or Aldus *Fetch*.

All these programs have some tough competition in this area of the current market, which has some stunningly powerful software on offer. How does the Kodak family of software stack up against the Macintosh design software premier league like Aldus *PageMaker 5.0* and Aldus *Fetch* or Fractal Designs *Painter 2.0*? For that matter, how does it fare against the best of the budget packages? Let's take a look at each of the four Kodak programs individually.

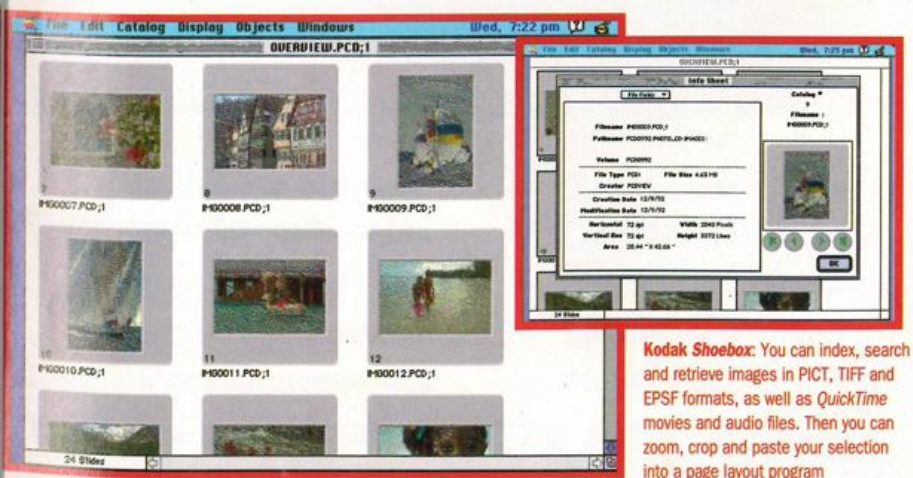
KODAK RENAISSANCE

This is pitched somewhere between a basic drawing program and a DTP program like *Publish-It! Easy* and *Personal Press*. It's a no nonsense 'grab and go' design program; one tear-off toolbox with 20 tools which let you draw shapes, select colours and create type; all the tools necessary for you to lay out newsletters, posters and stationery.

My first gripe comes in the way *Renaissance* controls type. It may well be intuitive and fun, but pulling type about like it's made of elastic does not aid the design or communication process. Any designer who cares about communicating with type will be insulted by these controls. For example, say you want to make a word or character italic; you can just grab a handle on the top corner of the text box and 'yank' the type into an 'italic style' …primitive!

This is a real shame because some of the features in *Renaissance* are neat and well executed: colouring type is quick and simple, as is working with colour blends, preparing interesting picture treatments, editing Photo CD pictures and other image files.

It seems as if most of the smart work went into looking after the imaging side of the *Renaissance* and some of the fundamentals of good design software got lost in the mix. But *Renaissance* is a serviceable design program and as the packaging slogan goes it is 'intuitive' and has many handy features for the non-professional editor/designer. For example its dummy text boxes with preset styles for body text, by-lines, captions, drop caps and headlines are helpful.



Kodak *Shoebox*: You can index, search and retrieve images in PICT, TIFF and EPSF formats, as well as *QuickTime* movies and audio files. Then you can zoom, crop and paste your selection into a page layout program

JUDGING THE QUALITY OF PHOTO CD

Reprographics house drum scan from a transparency

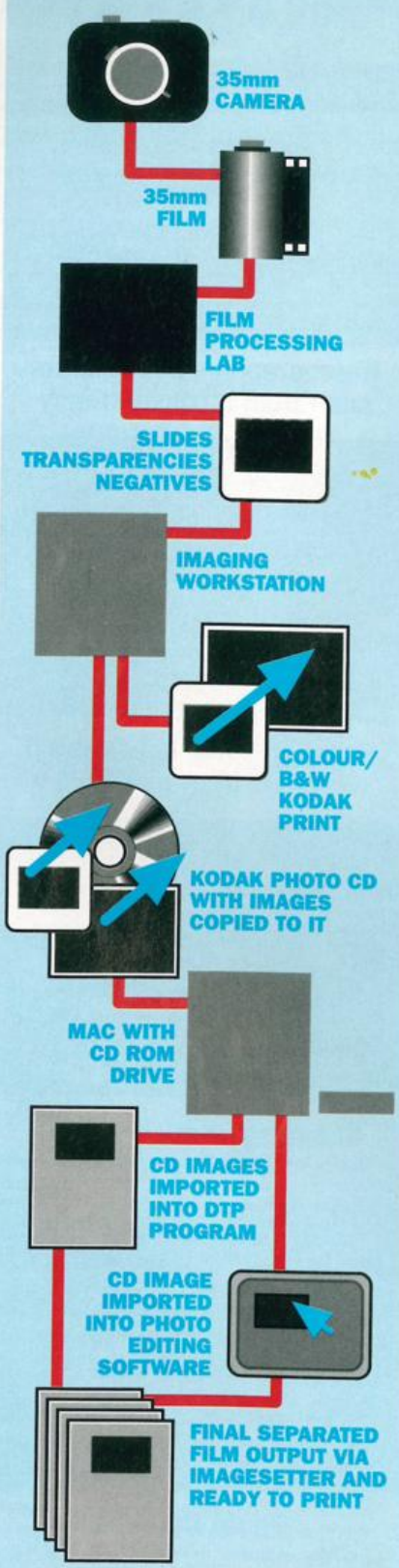
Photo by R Scott

Reprographics house drum scan from a print

Scanning method used in MacFormat

Photo CD scan

HOW PHOTO CD WORKS



KODAK PHOTOEDGE

Kodak *PhotoEdge* is an image editing program. First off, this is NOT *Photoshop* in disguise, (at £130 how could it be?) but it is a fairly powerful image editing package. *PhotoEdge* lets you sharpen or soften your pictures, plus it gives you control over brightness and contrast. You also have the usual manipulation tools and functions associated with this type of program, like changing the perspective, rotating, flipping and cropping your images. But it might be worth paying a bit more and going for something like *ColorIt!* or *Colour MacCheese* which has many more features.

KODAK SHOEBOX

Kodak *Shoebox* is a Photo CD image catalogue or audio/visual database of your material that allows you to attach keywords and descriptions to your images for easy retrieval. It lets you index, search and retrieve images in PICT, TIFF and EPSF formats, as well as *QuickTime* movies and audio files. You can also copy files between catalogues, zoom and crop your images and there's a neat touch added which lets you customise your contact sheet style, allowing you to adjust the size of your thumbnails and control the brightness and background colour which they are viewed against.

The *Shoebox* indexing system is about the most friendly I have seen; it gives you a set of 'pop-up' lists and you select values rather than having to key in all your entries.

Where to get it

Kodak *Renaissance, PhotoEdge, Shoebox* and *Photo CD Access* are all available from Computers Unlimited, 081 200 8282

■ ***Shoebox* is on offer at £117 until the end of October 1993**

Does Photo CD stack up against desktop or high end scanning?

Is Photo CD really a cheap way to good quality scans? Well Kodak reckons a typical cost for your images to be transferred to disk would be around £2.50 an image (there is also a small charge for the disk to be added to the overall cost). Compare that with the usual printers' or repro house charge of around £10 or £12 a scan, and you can see that even with the purchase price of a CD-ROM drive at, say, around £300, this still looks like good value if you are using images regularly in your work.

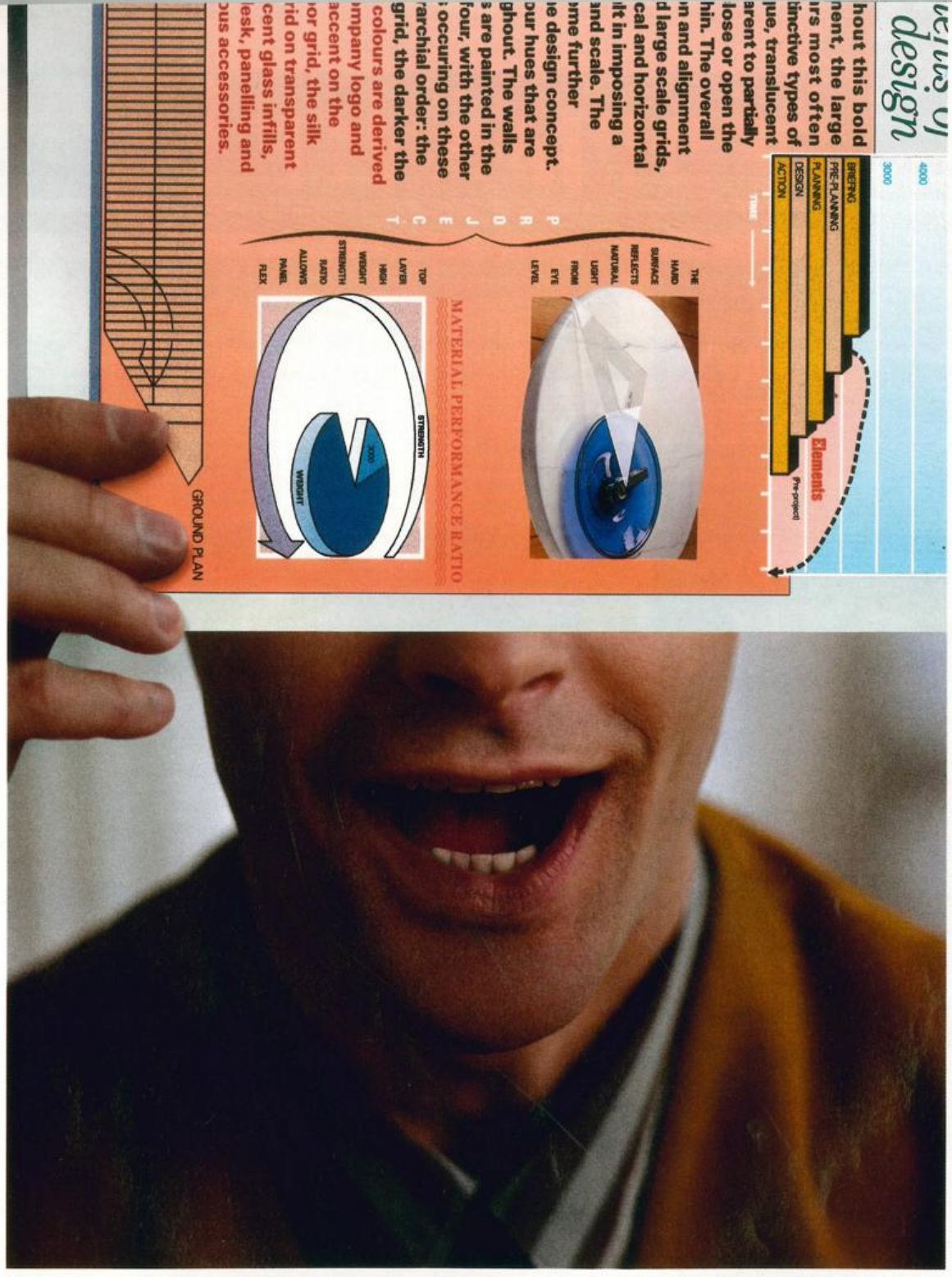
But I know what you're saying... what about quality? I've spoken to a number of people about Photo CD images, from print buyers to professional photographers – and all agree that Photo CD images capture the full range of detail and colour saturation that you would expect to see on a good original. It may never match that kind of quality perfectly and there will always be photographic printers or highly trained high-end scanning operators who will tell you that shadow detail is "not there yet", but Kodak's Photo CD system offers great quality images at a realistic price.

KODAK PHOTO CD ACCESS

Photo CD Access lets you load photographic images stored on your Photo CD disc and view the stored photos on screen in a contact sheet format or as single images in a variety of sizes. You can then select and display a single photo or a group of photos and edit them by using the cropping tools, change the image size, colour settings and orientation. *Access* also lets you copy an original or edited photo to the Clipboard so you can paste it in to DTP or word processor documents or you can 'Save as' to one of the following file formats: PICT, EPS and TIFF. **mf**

Photo CD Software

TURN TO PAGE 89 FOR YOUR CHANCE TO WIN A PHOTO CD PLAYER!



"When I saw the great discounts on printers HP are offering Mac users, I couldn't believe my eyes."

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4Mb LCIII/Centris	£135.50	**Power Book / Duo**		8Mb Duo	£249.00
4Mb Quadra 800	£176.50	4Mb PB 140/170	£167.50	10Mb PB 160/180	£437.50
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MAUI AAUI TwP (2xAAUI to Twisted Pair) Tranceiver	£89.00

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Impact 32MHz 030	£349.00	Impact RGB 21 with FPU	£849.00
Impact 32MHz 030 with FPU	£399.00	**DiiMOCache 50Mhz 030 for II, IIx, ci, si, cx, vi, vx**	
Impact RGB 12 (32Mhz / 24 bit on 12")	£499.00	DiiMOCache 50Mhz 030	£599.00
Impact RGB 12 with FPU	£589.00	DiiMOCache 50Mhz 030 with FPU	£685.00
Impact RGB 16 (32Mhz / 24 bit on 16")	£599.00	DiiMOCache adapter for II, IIx, cx, si	£59.00
Impact RGB 16 with FPU	£649.00	DiiMO LCIII cache card	£159.00

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128Mb Verbatim Cartridge	£29.00	240Mb Quantum external 10ms	£319.00
650Mb Ricoh Optical internal	£1,859.00	525Mb Quantum internal 10ms	£589.00
650Mb Ricoh Optical external	£1,949.00	525Mb Quantum external 10ms	£659.00
650Mb Verbatim Cartridge	£85.00	1.2Gb Fujitsu internal 9ms	£949.00
170Mb Quantum internal 17ms	£189.00	1.2Gb Fujitsu external 9ms	£999.00

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Portable power

The price of a small, perfectly formed PowerBook is tumbling. So is it worth picking one of Apple's finest? Ian Wrigley investigates

Until fairly recently, portable computers have been the province of the rich, the yuppies, and the poseurs who wanted to show off about how technologically trendy they were. But with Apple's PowerBooks now at (relatively) sensible prices, perhaps it's time to start wondering whether portable computing is something that you might want to try out for yourself.

Over the last few months, Apple has rationalised of its PowerBook range, reducing some prices and adding a couple of new models. However, it's still a bit of a minefield – and that's where **MacFormat** comes in. On the next page you'll find a chart listing all the PowerBooks – and how they compare with desktop models in terms of processor and speed.

Although it's not an exact equivalence in terms of speed – most PowerBooks don't have a maths co-processor, for example – it will at least give you a ball-park estimate of how fast the machines are. We've included obsolete models, too, because you can often get a decent deal on a second-hand PowerBook.

A replacement Mac?

One part of the PowerBook family which attracted a great deal of interest when launched was the PowerBook Duo range. Duos are 'cut down' PowerBooks – but for some people they're the ideal solution. The idea is that a Duo is both a desktop and portable computer. It doesn't have a built-in floppy disk drive, or even a socket to directly connect one; nor does it have any of the standard interface ports (printer port, SCSI and so on). Instead, to access such facilities you plug the Duo into a 'Dock', using the machine's single, large expansion port. This gives you the normal range of interfaces, as well as possibly providing useful things like an extra hard drive, NuBus slots and so on, depending on the Dock. In effect, when you take the Duo out of its Dock it's like taking your desktop Mac on the road with you.

It's perfectly possible to use a PowerBook as your main Mac

For some reason, though, the Duos (there are two models, the 210 and 230) haven't taken off as well as Apple had hoped. Perhaps it's because they are more expensive than conventional PowerBooks, or perhaps it's because a PowerBook will do all the things that a Duo will, with the added advantage that you've got a floppy drive, SCSI port and so on already built in. Even so, Apple is committed to producing more members of the Duo family over the next year or so – perhaps even a PowerPC Duo late in 1994.

Your only machine?

When PowerBooks first appeared, they were great – but definitely 'second Macs'. Practically no-one had a PowerBook as their only machine. Now, though, much of the range supports built-in support for external monitors, and it's perfectly possible to use a PowerBook as your main, desktop Macintosh. When you get to the office (or home, or wherever) you just plug in an external display (and keyboard and mouse, if you wish) and you won't notice the difference between your PowerBook and a traditional machine.

Be warned, though: the new low-cost PowerBook 145B doesn't directly support an external display – if you want to plug a monitor into that particular model, you'll have to use a SCSI-based adaptor, such as Sigma's PowerView. This kind of solution has the disadvantage that it's not totally compatible with all applications – especially graphics programs like Adobe's *Photoshop*.

The history of the portable

Before the PowerBook and Duo ever appeared on the scene, there was the Mac Portable. This veritable giant was basically a Mac SE in a luggable case, using an Active Matrix screen (such as is used on the PowerBook 180 today). The Mac Portable was one of those things that seemed like a good idea at the time; people had been asking Apple why it didn't have a portable Macintosh, and the marketing team thought that it would become the ultimate status symbol for yuppies everywhere (yes, they still had yuppies back then). It was launched in the UK with a major multimedia event, featuring sci-fi author Douglas Adams, at that time Apple's pet media person, and went on to sell… er, very few, actually. The problem was that it was just too damned heavy – it weighed in at 7.4 kilos – and too big to be carried easily . The early models had non-backlit screens, which made it difficult to read most of the time, and battery life was dreadfully low. On the other hand, the machine does have its fans: on the whole, people who still possess one tend to heap praise on them.

The original Mac Portable still has its fans today – despite the fact that you were likely to dislocate your shoulder if you tried to carry it

If you want a (large) chunk of Apple's history, second-hand Mac Portables are still available in the States, for around $400 or so.

Battery life

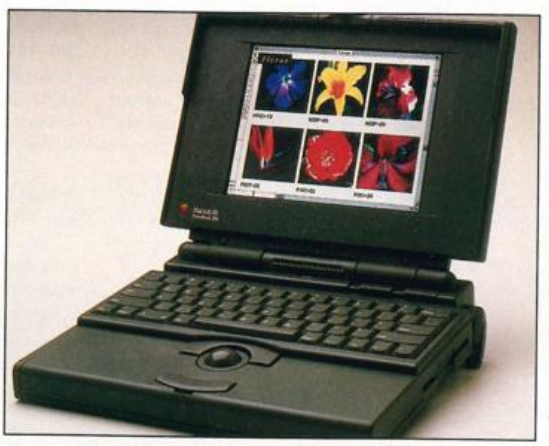
Battery life restrictions are the bane of any portable computer user's life, and PowerBook owners are no different. Apple gives nominal figures for the battery life of each of its models, but in reality things tend to be somewhat different, since the Apple estimates are normally fairly optimistic. If the official figure is three hours, for example, then you should bank on no more than two to be on the safe side. There are some things that you can do to increase the length of time that your batteries function, though:

- Buy a package such as Connectix *PowerBook Utilities* (CPU), which we review in this issue on page 78. This helps optimise settings to get the most power possible.
- Keep the backlight as dim as you can. The screen's backlight is essential for readability, but it draws up to 30 per cent of the power that the computer uses. If you are in very bright light and you can turn it right off, even better – you'll get far more usage from each battery that way.
- Set the Time Before Sleep to as small a figure as you can.
- Likewise, allow the hard drive to 'spin down' (turn off) after a minute or so of idle time. It doesn't take much power to start it up again, and you're saving loads of battery power, while it's not spinning.
- Make sure that your batteries are fully charged before you leave! Stories of people who go off on long trips with three spare batteries – only to find that they're all empty – abound. And take your mains adaptor with you, if you can – tha way you can charge up the batteri if you find yourself somewhere w a power supply.
- If your PowerBook supports a RAM drive, and you have enough memory to make one practical (4Mb at the very least), use it to store documents or even applications. Indeed, if you've loads of RAM, put your System folder on the RAM drive and make that you startup disk – it's much faster, and will save a great deal of hard drive access. Because everything's in RAM, the hard drive can happily spin down. Be warned, though – n all PowerBooks retain the content of the RAM disk through a restart or shutdown! Check with your use manual to see if yours does.

Which one to buy?

The question of which PowerBook to buy is not one that's easily answered. For a start, you have to take into account whether it's your only Mac or not. If you already have a desktop machine, then you'll probably only be using your PowerBook for word processing, perhaps a bit of spreadsheet juggling and the like. In that case, go for the cheapest model that you can fund. At present, the 145B can be bought for about £1,170, but you may do well to look around for a second-hand PowerBook 140 or (even better) 100. These will cost you somewhere between £500 and £900, and for many people will represent excellent value for money.

If you don't already have a desktop Mac, Apple would like to convince you that a Duo is the machine for you. However, although it' undoubtedly a cool piece o kit, you should consider whether you couldn't do just as well with, say, a PowerBook 160. You can plug an external monitor straight into the back, it already has a built-in disk drive (so there's no need to buy an extra Dock), and you can always attach an external keyboard and mouse if you want. The onl thing you can't do is expand it with NuBus card – but many people will never want to do that anyway. (An important point to remember is that you can't plug an external monitor into a PowerBook 145B – unless you use a third-party expansion that plugs into the SCSI port – so that's something you should consider if you're looking to buy a PowerBook as your only Macintosh.)



The PowerBook 180c is the top-of-the-range model, with a colour Active Matrix display which gives superb results. Battery life, though, is rather short – something to consider if you're likely to be using it on the road with no access to mains power

The PowerBook range

Model	Processor (MHz)	Clock speed	Equivalent desktop machine	Basic/max RAM	Internal screen	Support external screen	Approx price
145B	68030	25	IIci	4-8	Monochrome	No	£1,174
165	68030	33	LCIII	4-14	Monochrome	Yes	£1,569
165c	68030	33	LCIII	4-14	Colour	Yes	£1,698
180	68030	33	IIvx plus	4-14	Monochrome	Yes	£2,873
180c	68030	33	IIvx plus	4-14	Colour	Yes	£3,171

The PowerBook traveller

There are a number of things that you should consider essential when you take your PowerBook away with you. Of course, as is always the way, you'll carry them around with you for months and never need half of them – but the moment you don't bother taking, say, your Norton Emergency Disk, the PowerBook will crash to a grinding halt. So prepare the first aid kit now – you know it makes sense...

Preparing your disk

Make sure that your hard drive has all the applications that you're likely to need. Don't forget a comms package if you've got a modem (and get any local access number to on-line services such as AppleLink that you use), and make sure that everything is installed correctly by running each application before you set off. If there's room on the disk, install a second System folder, using a PD or shareware application like *System Switcher* or *Blesser* to make sure that the Mac knows which is its primary System. That way, if you have a System crash you've got a backup ready and waiting.

If you think that you might run out of disk space, invest in *Stacker*, which we reviewed in MacFormat issue 4. That doubles the size of your hard drive – and the speed decrease isn't particularly noticeable, especially if you're just using fairly basic applications.

Vital items

- **Emergency disk.** Whether it's Norton *Utilities*, *Safe & Sound* or whatever, you must have an emergency recovery tool with you. A crashed disk on the road can mean not only that you've lost the work previously saved, but that you won't be able to do any more until you return home.
- **Blank disks.** Try to back up any work that you do on to spare floppies, and keep them separately from the PowerBook. A portable Mac is a tempting target for thieves.
- **System disks.** If you've the room, take copies of your System disks. That way, if it all went horribly wrong you could at least re-install the System. And since the disks contain a copy of *TeachText*, you've even got a very basic word processor available to work with.
- **Spare battery.** A very worthwhile investment – especially if you're on a long plane or road trip with no access to a power supply.
- **Mains power supply.** It's bulky, it's heavy... and it's worth its weight in gold. Use it whenever you can – it recharges your battery whenever it's plugged in. If you're going abroad, make sure that you take an adaptor so that it will fit into the local mains sockets. Don't worry about different power supply voltages – the unit supplied with PowerBooks automatically handles anything from 100 to 240 volts.
- **Floppy drive.** Any PowerBook 100 owners out there – there's no point having an emergency disk if you haven't bothered to take your external disk drive with you!
- **Modem.** If you intend to send files back from wherever you are, you'll need to get yourself a modem. Ideally, go for a fax modem – then you can at least send hard copy, even if the recipient doesn't have a modem themselves. If you're going abroad, make sure you remember to take an adaptor so that the phone lead will fit into the host country's phone sockets.
- **Aspirin.** Portable computing almost always involves hassle somewhere along the line...

Why not a PC?

If you shop around, you'll find that you can probably pick up a portable PC for about £600 or £700. So why not save yourself some dosh and go for one of these rather than buying a PowerBook, the cheapest of which will set you back more than £1,000?

There are actually a number of reasons – although if you already have a desktop Mac, and money really is a major issue to you, you may well find that none of them is all that overwhelming.

First of all, consider the fact that you'll have to learn another, more primitive operating system. DOS is horrendous – avoiding it is probably one of the reasons you bought a Mac. And Windows isn't much better; if all you're used to is DOS, it's a blessing, but Mac users find it incredibly limited.

Assuming you go for a PC that can run Windows (and many of the lower end models can't, so you really are stuck with the horrors of DOS), you'll come across the second major problem: portable PCs aren't designed for a graphical user interface – which means, quite simply, that they don't come with a built-in trackball. Instead, you either have to plug a trackball or mouse in or use the cursor keys on the keyboard, which is not a great deal of fun to say the least. If you've ever seen someone on a train, balancing a huge 'laptop' on their briefcase as they struggle with a real mouse to try and move the cursor, you'll begin to realise just how much better the PowerBook really is.

Next there's the issue of new software. Much Mac software is sold with the restriction that you can only use it on one computer at a time – which is fine, since you won't be able to use it on your desktop machine while you're on the road with the PowerBook. This means that you don't have to buy a new word processor or whatever – and, of course, you're totally familiar with its operation. If you have a PC-based machine, on the other hand, you'll have to shell out for a new program – so it's extra money and extra learning time too, as you get used to your new program's quirks (there will be lots – it's PC-based, remember!).

And finally, you'll have the hassle of saving your files in a format that your Mac programs can understand, writing them to a PC-format disk and then reading them in using *Apple File Exchange* or whatever. Then tweaking them since, whatever format you used to transfer them, there are bound to be some problems. Beware of programs that claim total file compatibility – although theoretically that's the case, you'll discover all sorts of problems – typically, just when you're rushing to meet a deadline.

So all things considered, the PC laptop approach doesn't seem such a good idea after all, does it?

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Hands-on a PowerBook 145B

ve been using a 145B, loaned Apple, for a month now and fore we go any further I'd st like to say, 'Boss, please ace an order for me now'. truth, I have to say the 145B by no means perfect though. I hate the tracker-ball, in e big outdoors the screen's ap, and there's annoying lays while the beast wakes between sleeping sessions. n the other hand, the 145B's ht, it's got a good keyboard d it's fast enough to run avyweight applications like *uarkXpress* which I need for y job. So would I fork out e recommended retail price £1,145? Well, let's have a ok at those pros and cons in ittle more detail.

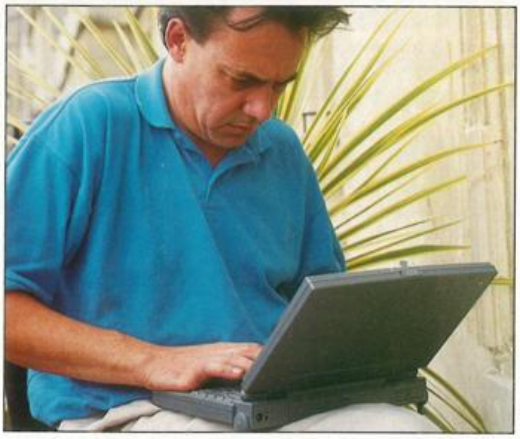
First the cons. I've been ing a Mac every working y for the last six years, so a mouse second nature to me. Over that time ve learnt a fair few time-saving key mbinations but there are some nctions which are just all too easy evoke with little mousey. Like rolling down a document, double-icking to open documents and ghlighting text which needs chang-g, cutting or copying. So getting ed to a track-ball is no easy feat – fact it took me about 20 minutes to ve up using it completely and plug mouse in the back instead. Then it as all plain sailing, just like I'm ed to, instead of fiddling about with is annoying, little ball which is too uch like the old arcade game *Missile Command*.

I've always thought Apple missed e boat completely here. What it ould have done was to include a ini-mouse, on a retractable cord, hich slipped into the back or side of PowerBook and was fast enough to t on a retractable thin metal sheet st a few inches square. But then I'm ergonomic designer; just a user for lf of Apple's history. So on a scale 0 to 10, I'll make the point by ving the track-ball about minus 50.

creen test

ext, that screen. First of all the ntrast and brightness controls are r too sensitive. Move either slider a uch too much and the display disap-ears completely. It's much easier to djust the slope of the display to hieve the optimum quality. Once u've set this up for your current sition, the screen text is crisp and ear, but you have to watch reflec-ve light if you're indoors.

But, step outside and the sun comes something approaching the at flash of a 500 Megaton bomb. If s sunny, you want to wear sun



Of course, the main reason everyone wants a PowerBook is so they can work in the glorious outdoors. Or in the Editor's case, sit in the garden – preferably on some sunny Mediterranean terrace – and write that Great Novel – or something. Here he is dreaming away, trying to make out what's on the 145B's screen...

glasses which means you can't see the screen. If you take them off, you still can't see the screen because it reflects ambient light too much. So bang goes any idea of writing that Great Novel on a Seychelles beach. You'd need a backlit model to achieve that, and at the price they come in at, you'd probably be on your second Great Novel in any case.

Also, whether you're indoors or outdoors, the cursor 'ghosts' all over the shop. Sure, you can't expect anything else from a machine without active matrix screen technology but try explaining that to my daughter who can't play *Lemmings* properly because she can't see the cursor 90 per cent of the time. The problem is a

Apple should have included a mini-mouse on a retractable cord

black cursor on a dark background and there's no simple built-in solution to change the cursor's colour. Okay, most Mac applications are black text on white background, so maybe I'm being too picky.

And then there's the hassle you get with Sleep mode.

Waking up slowly

To be honest I'm not that bothered about having to wait a few seconds now and again while the PowerBook kicks back into gear after having a little nap. It's just that whenever it needs to access the hard disk, there's an annoying delay and everything freezes up. The solution is to use a RAM disk to minimise hard disk seeks and, once I'd installed one, prolonged working sessions were a lot smoother. But why it needs to do this at all when you're actually hooked up to the mains is beyond me. It's annoying, but as I said, you can live with it.

Onto the pros

But the keyboard is brilliantly responsive and far better than the new rubbery jobs Apple seems convinced we all want with our desktop machines. It gives perfectly crisp clicks and is a joy to use since it actually improves your typing speed. And at just a few pounds the 145B is easily portable and can be casually slung under your arm without the need for steroids. Best of all though there's a full set of sockets on the back so the machine is *functionally* portable – you can easily hook it up to networks, printers and modems when you get into the office.

So at £1,145, the PowerBook 145B is Apple's entry-level notebook and since it packs a 25MHz 68030 CPU it's pretty quick to boot. This is compounded by the display being only mono so screen updates are much faster than equivalent desktop machines. It ships with 4Mb of memory as standard and this is just about enough with System 7, but 8Mb would be better. Also the 40Mb hard disk is a little small, but you could use *Stacker* to whack this up to a more comfortable 80Mb.

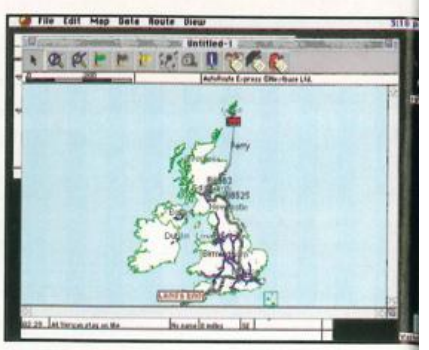
So would I buy one at that price? Well, first of all I'd hang on a few months to see if the price dropped to under a grand. Then I'd see if I could persuade The Boss that it was an essential purchase for me and then, if I was unfortunate enough to have to use my own money, I'd save up for a slightly better specified machine. At any rate, a PowerBook with an active matrix backlit screen, an 80Mb hard disk and 8Mb of RAM.

But I'll get one. Because once you've got used to using a Mac notebook you realise that life just isn't the same without one. And if you think that sounds like hype then consider this: how many times a week do you find yourself wishing you had your Mac with you – so you could just add something to that letter, report, design or spreadsheet – or just try another level on *Lemmings* – when you're in the pub, park, on a train or in your car?

Me, I have my best ideas while I'm walking to work; so I guess I'll wait for a Mac I can dictate to.

All ready to roll

Andy Storer bins the shrink-wrap on this month's new product releases



This month we're off on a journey across the sunny British Is without leaving our desk – courtesy of Autoroute Express

We'll kick off with a look at some real Mac essentials this month. The rather fetching glasses adorning the cactus below arrived courtesy of Optix Wales and they're meant to be worn while you're using a computer. No honest! To cut out glare. For £14.95 you've got yourself a cool multitasking alternative to all those staid monitor anti-glare guards. Just the thing you need to go with a PowerBook; stylish and cool. Jeez.

Why bother with screen guards and glasses when you can buy one of these nutty radiation junkies and be a truly green Mac owner. This little beauty is a two year old Mexican mutant

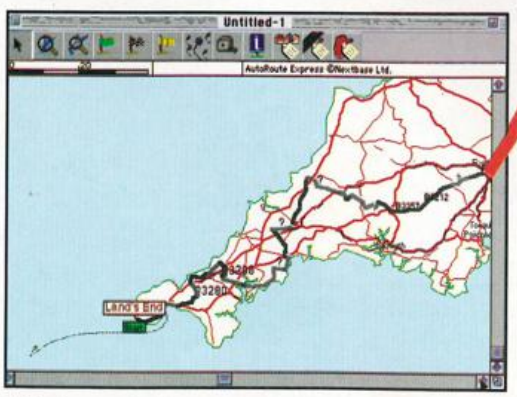
But I don't know about glare – I reckon radiation's the problem. I used to get tremendous headaches using my Mac. I suppose it had something to do with the back of someone's else monitor on the next desk pumping raw electromagnetism straight into my face for forty hours a week. Anyway, the solution I came up with was to get the boss to buy me a Mexican cactus. They absorb radiation beautifully for some strange reason – I suppose that out in the desert they take whatever they can get. It's actually called the Computer Cactus and is covered in about two million spikes. But it worked a treat. Result: no more headaches. They start out at six inches or so and go all the way up as long as they're well cared for – and you can buy them for only £3.50 including post and package. Only thing to watch out for is those spikes. They're painfully sharp. I wimped out after too many brushes with the mutant and bought an Acco glass screen guard instead. I've used one ever since.

Those specs in full

But back to those specs the cactus is wearing. We're talking 23% blue tint acrylic lens with 100% ultraviolet block. And 'fashionable unisex design'. There's also a clip-on version for early adopters. So what do I reckon? Well I refused to have my photo taken wearing them but funnily enough, they seem to work. They're actually quite soothing. I just don't like looking like a prat though.

But apart from sci-fi shades the other major Mac low-tech device has to be mousemats. Ever wondered why no magazine has ever printed a comparative review of mousemats? I reckon the worldwide market for mousemats must be worth a billion at least. Okay so name me someone who hasn't got one? Massive market=massive audience. And, I reckon Mousemat User magazine's reader profile would break down into those who like a fast clean cruise – slide factor 5 and up – and those who prefer precise surface friction – slide factor 5 and down.

My mouse and I prefer something approaching slide factor 9. Yet all the new mats these days come in at around 2 or 3. Take the psychedelic jobs which came in the other week and look like the bottom of a carpet somebody's been sick under. They're so slow! Get a mat that's sliding around factor 8 or so and it's the equivalent of sticking a 33MHz 030 board in a Classic II. Honest. Well, it certainly seems like it. I'm currently using the best mousemat in the entire world; the purple Softline Circular Promo mat manufactured by Scott Print on 0628 850778. Slide factor 9.5 easy. Brilliant technology combining a sturdy low-profile underside grip with top-end turbo nutter mayhem. It's absolutely fearsome and I wish it coated the entire surface of my desk.

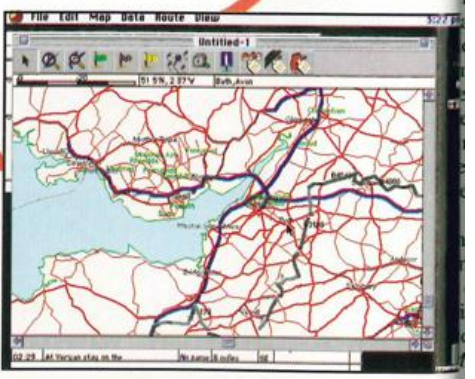


This is the start of our desktop drive – sunny Land's End where the mighty Atlantic Ocean throws its damnedest at plucky little Blighty

Stacs of crash

Anyway enough of this madness. And back to another. Remember *Stacker*, the hard disk compression software? Well, yes, IT happened. The whole hard drive did crash into some unsalvagable mush and I had to trash the lot. Now I'm not for one moment suggesting it was down to *Stacker*. You have to bear in mind it's a well known fact I have the largest collection of INITs and CDEVs known to mankind and even on a careful day they take up the best part of three rows across the bottom of my startup screen. Over the years I've found that when things go wrong it's usually down to conflicting extensio and control panels. It's one of the reasons Mac are so much fun to own – pumping your syster full of wonderfully useful and wonderfully useless little patches and seeing how far you c push it before everything falls over.

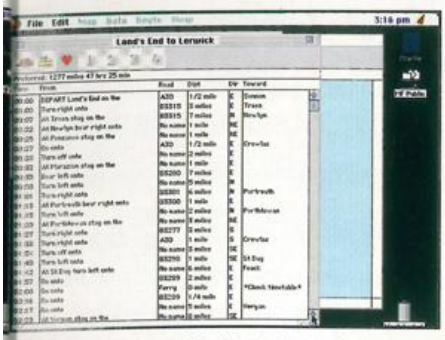
In this case though I was in deep trouble. M hard drive was completely unreadable – even after using *SCSI Probe* and *Safe and Sound*. I then tried Norton *Utilities* which is probably th best diagnostic software on the market at the moment. Hey presto, Charlie the Hard Drive showed up, and all the files and folders were there. So I copied the ones since my last backu onto floppy and re-booted off the SyQuest I'd backed everything onto before installing *Stack* But on loading them, no joy I'm afraid. They' been corrupted somewhere along the line.



And here we are passing sunny Bath – working museum and home the mighty **MacFormat** – as well as scavenging packs of dog-like crusties who never have change for a twenty pound note

As I said last issue, before you take the risk doing something as fundamentally radical as reformatting your entire hard drive with a utili that's going to magically double its capacity whilst preserving all your existing data, you m back-up. And it's got to be worth doing it at le once a week in any case. There's a quite a few off-the shelf packages that aid this tedious process but the one I use is absolutely free. I back-up using System 7's View by Date option in the Finder to copy only altered files.

Ah well enough of hard drives, how about some hard drives of another kind? The route planner *Autoroute Express* arrived the other da and I've been visting most parts of the UK without leaving my desk. Besides being



ow long your particular model of Mac takes to calculate a urney would be a novel way of benchmarking its power

xtremely useful for anyone going anywhere, it's so a fun program to use. Like how long would it ke you to drive from Land's End to Lerwick in hetland if you had a pathological hatred of any rmac other than a B-road? The alarmingly ccurate answer is 47 hours 25 minutes travelling 30 mph for 1277 miles. And that's straight ving with no rests apart from the ferries. Okay that's maybe a little extreme but if you don't ke boring motorway journeys it's a great way to nd an alternative route. You can also, say, go to place like Ambleside in the Lake District and p in all the places of interest in a certain radius. arious companies like the AA and National rust are supplying overlays to this end. nfortunately CAMRA hasn't got round to roducing one yet; meaning the kind of places I nd interesting en route are nowhere to be seen.

Other than that despicably massive oversight *utoroute's* good. And at £176 you would expect to be, but if you do a lot of travelling for a ving I guess it'd be pretty indispensable – particularly if you have a PowerBook to run it in your ar. Because there's an Avoid Roads option so ou can hear where the nearest jam is on the radio nd route yourself around it. We'll give it a full eview next issue in any case but for the time eing just consider it as being well worth a look – mean, unless the Ministry of Transport totally -tarmacs the whole of the UK, *Autoroute's* ever really going to go out of date.

Unlike Michael Schenker. Who? Oh some oustachiod axe-rocker who used to be in UFO nd Scorpions. Who? Never mind; the point being company called rGB Solutions sent me a floppy isk they'd put together as an interactive promoonal device for said guitar fiend. Authored with *lacromind Director*, it combines good quality ound and images with point and click pages to oduce what the movie world would call a biopic nd what rGB calls a PopDisc. Obviously the tention is to distribute these floppies as promotional devices for the legions of unknown hopefuls and wannabees who're trying to strike record deals. And it works quite well. A little *QuickTime* footage wouldn't go amiss and I guess it should be on CD so the bozos who pass for A+R men these days can't wipe it but, nevertheless, PopDisc's a brave enough effort. Pity about the music though.

FO? – alright I bet you remember that album cover with the ower – yes it's an interactive music-bio on floppy; PopDisc

Modern directing

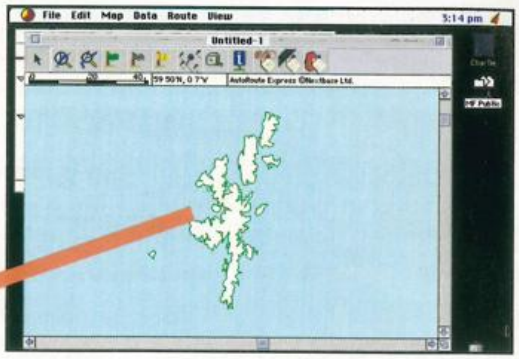
I've played around with *Macromind Director* a bit myself and it's a very capable application. You can run it on a Classic with 2Mb of RAM but unless you want to wait around longer than it's taken the green shoots of economic recovery to appear you'll need a mega-fast colour Mac, at least 8 Megs of RAM, a massive hard disk – the program itself takes up 11 Megs – and over a grand to buy it. And let's face it, all of us have those don't we? I prefer *SuperCard* but that's because I'm a *HyperCard* graduate and never had a system that could run *Director* properly. But still, it's more or less the de facto Mac multimedia application now.

Recently though, I've been using *Passport Producer* which is more affordable though not as interactive – it's a presentation package. So while you can't build in buttons and menu options, you can direct sequences made up of text, images, animations, *QuickTime* movies, sounds and MIDI files. Which is to say it's extremely versatile. What's more you can combine each of these media onto the same screen so what you're left with is a pretty powerful authoring application.

Yes, it's Fergie, would-be ambassador to the mighty UN and shining light to millions, making it to the Mac on ITN News

Heavenly beats

I like the inclusion of MIDI as an option, though trying to track down MIDI files rather than create them yourself is a little difficult. Step in Heavenly Music, which by all accounts has a good reputation in the music biz, producing a range of copyright-free files. There's hundreds to choose from, ranging from classical to pop; with whole albums transposed to MIDI. Like Tubular Bells, Rhapsody in Blue, Essential Jarre etc etc – so all you need is a Mac, a MIDI interface and a synth and you can see just what Gershwin sounds like as a cutting techno-raver. You'll need *Apple File Exchange* or an equivalent because the disks are PC formatted. Still, even Heaven isn't perfect.



And here's our destination – sunny Shetland where the brutal North Atlantic eternally damns the last bastion of true British grit

So back to hell – in the form of *ITN World News '92* CD-ROM. Billed as 'Television News Online!', this compact guide to a year's worth of international news culled from News at Ten features 1,700 news reports and over 90 minutes of *QuickTime* movies. And of course there's Sandy Gall et al with their reassuringly dramatic voice-overs talking you through the carnage, horror, exploitation, sorrow and downright hopelessness which makes good old Earthy such a great place to live. Personally, I've had quite enough of news – what with this wall to wall continual Bosnian update – but somehow watching news on your Mac makes you realise much more effectively just how deeply depressing the stuff really is in a way that TV seems to have lost. And that's despite TV becoming ever more intrusive and gratuitous. So, thankfully there's a '...And finally' section where Trevor McDonald would otherwise be sending us all off to bed with some rosy heart-warmer about the young Royals or a little girl finding her puppy or something.

Meanwhile, with *Halliwell's Interactive Film Guide*, also on CD-ROM, you can access every rosy heart-warmer you've ever bought your gal a box of choccies and Kleenex for. Or at least its details – in a copious, cross-referenced barrage for which even The Great Barry would get out of his armchair for. So it's a pity there's no *QuickTime* clips, just stills, to go with the century's hottest celluloid – but you can't have everything. Not yet, anyway. But I bet I'll be reviewing Mac movies from Hollywood in '94!

Unwrapped and unplugged this September:

	Distributor	Phone	Price	System requirements
Optix glasses	Optix Wales	0269 845826	£1,4.95	2 eyes, any Mac
Computer Cactus	Abbey Brook	0629 580306	£3.50	light, water, radiation, green fingers
Acco screen	Spicers	0272 553054	£92	any Mac
Autoroute Express	Nextbase	0784 421422	£176	6.07+, II and later, 2Mb RAM
PopDisc	rGB Solutions	0734 696535	£3.50	6.05+, colour Mac, 2Mb RAM
Director 3.1	Computers Unlimited	081 200 8282	£1,056	6.05+, any Mac, 2Mb RAM
Passport Producer	MCMXCIX	081 963 0663	£499.95	7+, IIci or faster, 8Mb RAM
Beat 'n' Bass	Heavenly Music	0255 434217	£19.95	any Mac with Apple File Exchange
ITN World News '92	Softline	081 642 2255	£69	CD-ROM drive, 1Mb RAM
Halliwell's Film Guide	Softline	081 642 2255	£46	CD-ROM drive, 1Mb RAM

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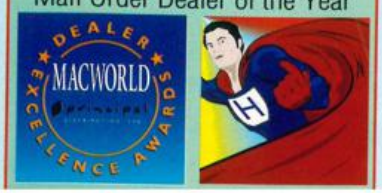

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Freehand 3.1 (Professional PostScript drawing & text)	£295.00
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IntelliDraw (Aldus' brilliant new package)	£125.00
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PhotoShop 2.5 (pros choice, king of the image enhancers)	£525.00
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SuperPaint 3.0 (24 bit colour, paint & draw)	£89.00

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Publish It Easy 3.0 (MacUser US best DTP winner)	£99.00
Quark Xpress 3.1 (the other of the two major sellers)	£545.00

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GCC BLP Elite (low cost PostScript laserprinter, 4Mb)	£875.00
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ScanMan OCR (scanner with CatchWord software)	
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Typist (handheld with best built in OCR, needs 4Mb)	

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Screen Machine (view and capture broadcast video)	
VideoVision (Radius' superb video digitiser)	
VideoSpigot (video capture card ideal for QuickTime)	from

SOFTWARE

Animation Works (great value animation package)	
MacroMind Director 3.1 (key multimedia tool)	
Morph (change one image into another - perfectly)	
Premiere 2.0 (Adobe's brilliant QuickTime editor)	
QuickTime Starter Kit (Apple's QuickTime Init)	

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DOS Mounter Plus (same as above)	
MacLink Plus (best Mac/PC link with100's translators)	
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Soft PC Pro 3.0 (DOS emulation on a Mac)	
Soft PC Universal Pro (for LC and Classic users)	
SoftNode (links SoftPC to a Novell Network)	
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HyperCard menu tour

Rod Lawton continues his exploration of the amazingly versatile *HyperCard* with the first of a two-part guide to its powerful menu structure

Last month we looked at *HyperCard's* basic structure and how to make sense of what you see on the screen. This time, we're starting a two-part tour through the menus. Describing every option in detail would take an age, so we'll ignore the options that speak for themselves and look at the unfamiliar ones.

HyperCard has seven menus – **File**, **Edit**, **Go**, **Tools**, **Objects**, **Font** and **Style**. If you choose any of the painting tools, though, the last three (**Objects**, **Font** and **Style**) are replaced by **Paint**, **Options** and **Patterns**.

This month we'll look at the first four menus – those that are visible all the time. The **File** menu is for general stack handling, the **Edit** menu let you manipulate objects and text while the **Go** menu is for stack navigation. The **Tools** menu i in fact a palette, and the centre of operations when creating cards.

Oh, and if you can't access all the menus ju type ⌘-M and type 'set userlevel to 5'…

FILE MENU

The File menu contains some options unique to *HyperCard*, together with a way of handling files ('stacks') which is a little bit different. Here's a run-down of what to look out for.

New Stack...

There are three options to note here:
1) You can copy the current background when you create your new stack. That means the new stack will start with just one card and one background, and that background will be the same as the current one.
2) You can open the new stack in a new window. This means you effec tively have two stacks open at once. Otherwise, *HyperCard* will close the stack you're in currently while creating the new one.
3) The new stack's card size (*HyperCard 2* only) can be any size you like, including standard Mac screen sizes (9-inch, 12-inch etc). If you choose a size larger than the screen, though, you'll have to use the scroll box (see the **Go** menu) to move around each card.

Open Stack...

As with the **New Stack** command, click the check box to open your new stack at the same time as the current stack.

Close Stack

This option is only available if you have two stacks open at once (*HyperCard* always has at least one stack open).

Save a Copy...

In common with most database software, *HyperCard* saves changes as you go along, so there is no 'Save' or 'Save As…' option. However, this option lets you back up your stack before a major change, or just as a precaution. (You carry on working on the original stack, not the copy.)

Import Paint

Both this and the **Export Paint** options are only visible when one of the painting tools is selected (see the Tools Palette). It lets you import a mono bitmapped *MacPaint* image.

Export Paint

If you've created or edited a mono bitmapped image in *HyperCard*, you can save it out as a standard *MacPaint* file.

Compact Stack

Like other database programs, *HyperCard* sometimes develops 'empty spaces' in its stacks. This is a by-product of editing the stack. This space can be eliminated using the **Compact Stack** command. (To see how much space is unused, check the **Free in Stack** figure from the **Stack Info...** option on the **Objects** menu.)

Protect Stack...

HyperCard is very well protected against unauthorised use. A sophis-ticated password system lets you protect your stacks against peeping toms and meddling fingers.

Print Field...

You have the option of printing entire cards if you want to, but if you just want the information in single fields, this option not only lists them but lets you check their contents too.

Print Card

Simply prints the card as seen on the screen. All the graphics are bitmapped, but any PostScript font text within fields is printed properly (ie it's not bitmapped).

Print Stack...

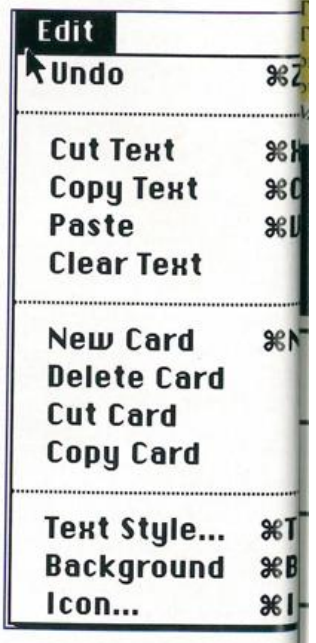
A powerful set of options that lets you print some or all of the cards in a stack, one or more per page where permitting, in a range of sizes and orientations complete with a sophisticated Header facility.

Print Report...

In *HyperCard* you can print singl fields from a card instead of the whole card, similarly, you have th option of printing 'reports' of chosen fields on all the cards in a stack (or just 'marked' cards).

EDIT MENU

HyperCard's **Edit** menu looks lik **Edit** menus everywhere. There ar some differences to note, though:



Text Control

These commands work the same way as in any other Mac applicati (**Clear** deletes an item without saving to the Clipboard).

Card Control

HyperCard lets you cut and paste cards within a stack, thus letting you modify their order. Yet cards are always pasted after the card you're currently looking at. So how can you replace the first card in a stack? Simple – you cheat. First of all, go to the first card, paste in its replacement, then go back to the first card. Cut this card and paste it wherever else in the stack you want it. The second card you'd just pasted in now becomes the first. It's not very elegant, but it's the only way.

Text Style

Whether you're typing text into a field or using Paint text, this calls up a dialog where you can choose font, size and style.

Background

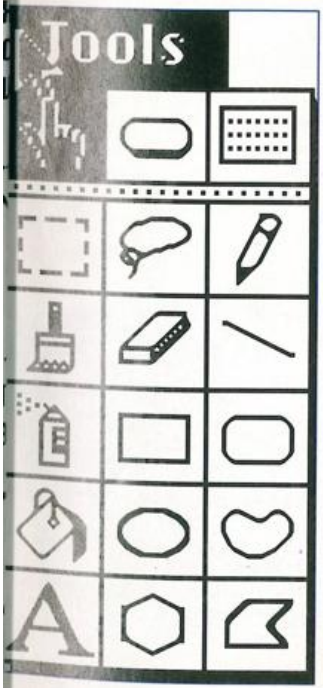
You'll know from last month's instalment that cards have a background layer. This option toggles between editing the card layer and the background layer.

Icon...

You can attach icons to *HyperCard* buttons, and dozens are supplied to do this. You can also create your own with this built-in icon editor.

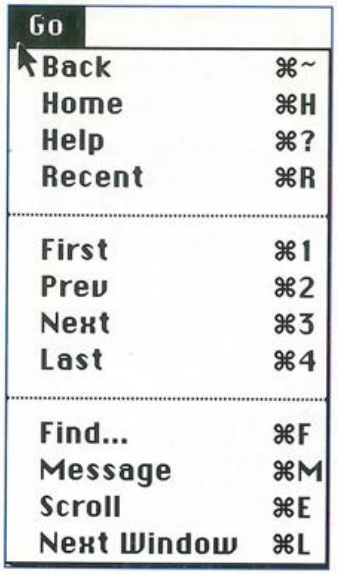
TOOLS

This is actually a palette not a menu. The top row of three tools are for browsing/editing and handling buttons or fields. The rest are *Macpaint*-style paint tools.



GO MENU

Because of the way *HyperCard* is structured, an entire menu is devoted to navigating your way.



Back

This command takes you back to the last card you visited.

Home

This command takes you back to the first card of the 'home' stack.

Recent

This feature displays the last 42 cards you visited in miniature – click on any card to go back to it.

First, Prev, Next, Last

These four options take you to the first, previous, next and last card before or after the card you're on.

Find...

A very rapid search function that finds the text you specify anywhere within a stack.

Message

This calls up a one-line 'message box' which lets you send commands to *HyperCard* directly.

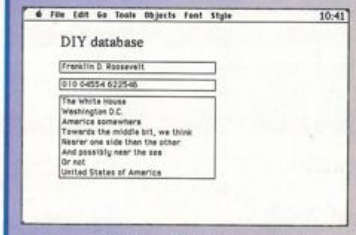
Scroll

For scrolling, *HyperCard* offers a window containing a box (representing the visible part of the card) which you drag around.

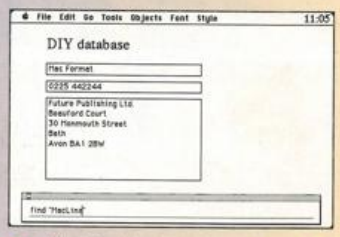
NEXT MONTH

We'll finish off our brief look at the *HyperCard* menus, improve the look of our DIY database and answer some of your questions

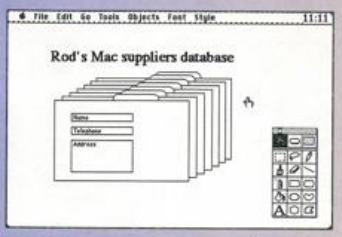
DIY HyperCard database stack: part 2



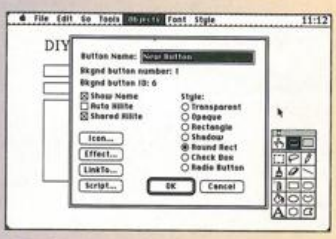
1 In part 1 of our DIY database stack, we developed our database to the point where we had fields for names, telephone numbers and addresses, plus a title, plus the ability to add new blank records with a simple menu command (**New Card**)



2 Now's the time to put in more names and addresses and get used to how the **Find...** command (**Go** menu) works. This option calls up a dialogue at the bottom of the screen (the **Message Box**). Just type in the name or string you want to find and press **[return]**

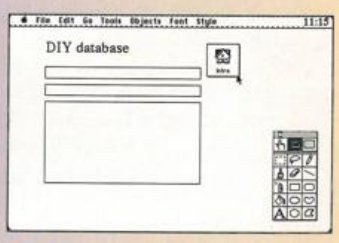


3 Some sort of introductory card would give our database a more polished look. So create a new background (**Objects** menu) and design your intro card. Once you've done that, see 'Card Control' in our menu guide to find out how to make this the first card in the stack

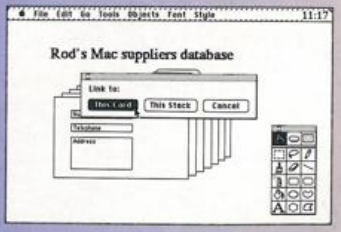


4 To return to this intro card at any time from any other card, just pick any record, enter the background mode and create a new button (**Objects** menu). Double-click on this button (or select **Button Info...** from the **Objects** menu) to bring up its info dialogue...

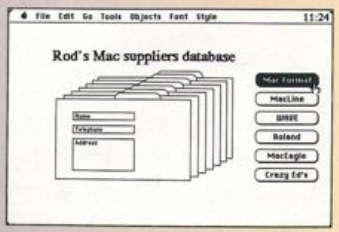
5 Let's call the button 'Intro'. By default, the standard button style is a somewhat dull round-cornered rectangle bearing the button's name. Try this: 1) select 'Shadow' from the list of Styles; 2) click on the **Icon...** button. This brings up a choice of icon images



6 Pick one of the little 'houses' – the standard Hypercard image for going 'home'. If the button needs resizing to accommodate the graphic, drag on a corner until the graphic and the title's visible, then double-click on the button again to make the other changes



7 You're now back at the button info dialogue. Click on *Auto Hilite* then click on the **LinkTo...** button. Now choose the card you want the button to link to. Select **First** (**Go** menu) and you should be back at your new intro card. Click on the **This Card** button and that's it



8 There are lots more options in the buttons dialogue that we'll cover another time. For now, experiment with creating new buttons and links. You can start by going to your intro card and creating buttons to link to especially useful or frequently-used records

Where to get it

Although *HyperCard* version 2.0 is no longer available commercially, *HyperCard 2.1* costs £170 from your local Apple dealer. To find your nearest, phone Softline on 081 401 1234. A 'play only' version is available for £34.

When you've finished working, hit

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The show is at Olympia from November 11th to 14th, and getting a ticket is as easy as picking up the phone – call 051 356 5085. Tickets cost £6.95 and are only available in advance – family tickets admitting two adults and two children cost £24.95. If you book for the 12th you'll get a free ticket for Aladdin!

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Sound and vision

Ian Waugh gets his hands on a Cubase how-to video and gives a step-by-step guide to transferring your musical masterpiece from one sequencer to another

Cubase captured on video!

As promised last month, I've now had a decker at the new Cubase video – *Cubase First In Series* – from Labyrinth. It's presented by Chris West who used to look after the Steinberg stuff at Harman.

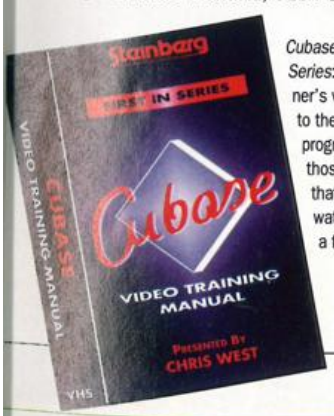
The video is very much a beginner's guide to the program. It covers all three computer formats – Mac, PC and ST – and spends the first 20 minutes taking you through the installation procedures. It assumes you have a basic knowledge of how your computer works.

In the first part Chris runs through basic sequencer concepts – tracks, patterns, copying and pasting and so on. In the second part Chris takes you through your first recording session and in the third part he dips into the four main edit screens – Score, Key, List and Drum.

Of necessity, many of the more complex and interesting functions are omitted and some explanations are not very thorough. The whole is very loosely scripted and gives the impression of being a 'live' recording of a demo. But perhaps that's no bad thing. The camera work is far from static, however, and there are close ups of the relevant parts of the screen when required along with a few neat video tricks.

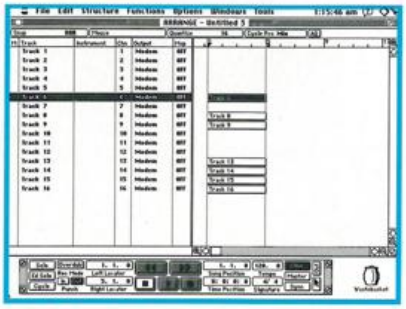
The video is very informative but only scratches the surface. Unless you are a raw beginner to computers and sequencers who refuses to read the manual, you could learn almost as much simply by fiddling about with the program.

Cubase First In Series costs £34.95. More from Labyrinth Video Manuals, 0254 662096.

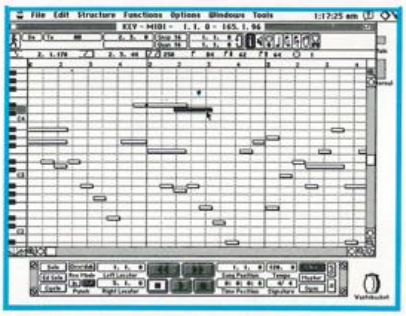


Cubase First In Series: a beginner's video guide to the Cubase program. For those beyond that stage, watch out for a follow up...

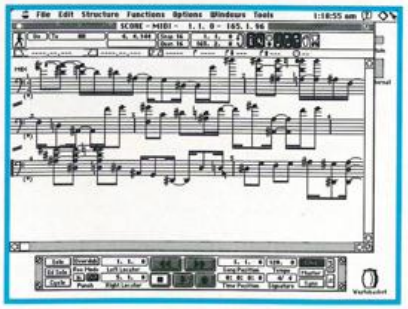
Some of the faces and facets of Cubase, explored in the Cubase Video Training Manual



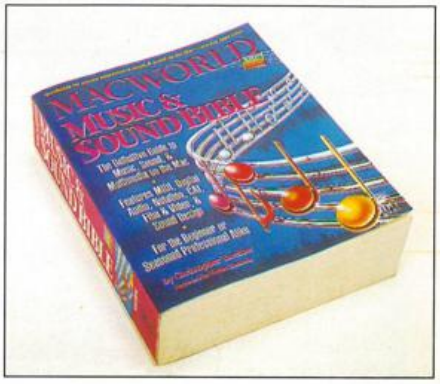
The *Cubase* front-end lets you record music patterns and assign them to tracks quickly. You can easily drag the patterns around the **Arrange** screen



The *Cubase* Key Edit page is ideal if you can't read music. You can drag notes around the grid while a piano keyboard shows the pitch



For musicians who can read music notation, *Cubase* has a sophisticated **Score Edit** page where you can edit the 'dots' directly. You can print it out, too



Book of the month

I won't pretend to have read all of *Macworld Music & Sound Bible* – at more than 1,400 pages I doubt anyone would believe me! It's subtitled *The Definitive Guide to Music, Sound & Multimedia on the Mac*. And who could doubt it?

It contains 29 chapters which are divided into nine sections: Basics; Sound; Composition; Notation; Performance; Post-Production; Film, Video and Synchronisation; Multimedia and Education.

You'll find copious information about sequencing, scorewriting, computer-assisted composition and virtually every MIDI and software-related subject you can think of. There's a massive 36-page index – now that's what I call an index! – to help you locate the vast number of subjects it covers.

The book uses three icons to draw your attention to certain items – special product features, shortcuts to productivity and in-depth information.

The only area where the book falls down is where all books about computers fall down and that's where it discusses equipment. It's almost impossible for a magazine to be up to date where the latest software and computers are concerned, so a book has no chance. Also, the book's American so it refers to equipment and software we will never see – there are 30 pages of software listed! It also refers to items we do see but at prices we will never see them at.

However, the book is full of essential and sensible purchase options and considerations. In fact it's a veritable storehouse of information.

It would be difficult to recommend this book too highly to both the novice and the more experienced musician and Mac user. At first glance, it may seem expensive but on a pound-per-page costing, it's way cheaper than most books.

Macworld Music & Sound Bible costs £34.95 and is available from Computer Manuals on 021 706 6000.

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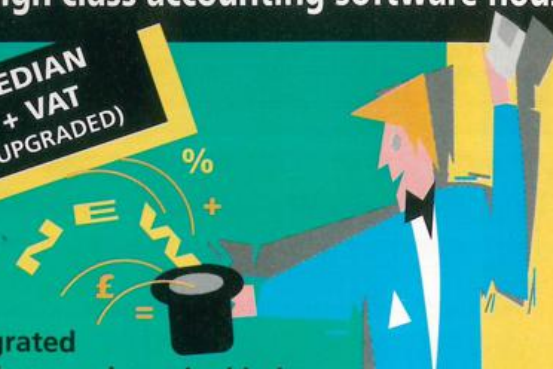

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With the new Audio Gallery from Korg (makers of the world's leading music workstations) computer sound has finally caught up with the pictures.

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Hooked up to any GM-compatible sequencer, multimedia or game software it'll let you create anything from a simple piano track to a full orchestral ensemble. With the opportunity to mix in samples from your own computer via audio inputs.

Bundled software includes 'Trax' which lets you edit, compose and print original music, 'Quick Tune' to get you started, 'MIDI Player ' and 'Jukebox' which lets you assemble songs for continuous replay.

Audio Gallery comes in two formats: AG101 for Windows 3:1 and AG102 for Macintosh System 6.0.3 and System 7.

Either way, it'll make your computer sound terrific, not tinny.

KORG

BREAKING SOUND BARRIER

Transferring music from one sequencer to another

Mac music news

There's a load of old musical equipment floating around out there. Surprisingly, a lot of it is worth more now than it was then – makes you wish you'd put your old analogue stuff in the cupboard-under-the-stairs instead of in the bin, dunnit?

Anyway, you might have the gear but do you have the all important manual? Well, if you don't, Chris Newman might, and what's more, he's prepared to photocopy it for you for a nominal fee – around £5-6 depending on the size. What a nice guy! Chris is an avid manual collector and has manuals for lot of old gear. To test his collection, give him a call on 0638 510155 or fax him on 0638 712702.

General MIDI is really catching on. As if to prove the point, Yamaha has produced a disc of GM sound for the SY85 synthesiser. Although the SY85 is not a GM instrument, the disc will give you access to GM voices and performances. And it's free. Aren't they nice guys? For more information contact Yamaha on 0908 366700.

If you're into programming and that sort of thing you'll be interested to know that Opcode has upgraded Max, the object-oriented MIDI programming language, to version 2.5. New features include support for QuickTime and Apple Events. It also introduces a snd object which can play up to six sounds through the Mac's internal speaker. (a 'snd' is a file used by the Mac to play sounds.) It costs £399.95. More from MCMXCIX on 071 723 7221.

In the vast metropolis known as musicland there are lots of different sequencers running on many different computers. Given this state of affairs it is not inconceivable that at some stage an occasion may arise when you want to transfer a piece of music from one sequencer to another.

The easiest method is to use Standard MIDI Files saved to a mutually-compatible disc format. These days all popular computers can read MS-DOS disks, although some may need a little help, even the Mac (believe it or not!) – try *Access PC* or *DOS Mounter* if you don't want to faff about with *Apple File Exchange*. Occasionally however, you will come across a sequencer which can't save SMFs and/or handle MS-DOS disks. It may be a software sequencer (such crippled beasts are still around) or a hardware sequencer with a file and disk format all its own, or perhaps a hardware MIDI Data Filer. The obvious solution is to link the two sequencers and record the data in real-time. It's tempting cases to make the sequencer doing the transmitting send the sync messages.

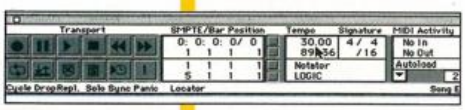
This approach works but you'll probably find the received notes are offset by a few ticks. This is because MIDI Clock signals have a higher priority and tend to push the notes away from their allotted time positions.

A better approach is to put the receiving sequencer in charge. The principles involved are the same for any two sequencers but let's say you've been using Steinberg's *Pro 24 v2* on the Atari ST and have upgraded to Emagic's *Notator Logic* on the Mac. Connect the source sequencer's MIDI In to the destination sequencer's MIDI Out and vice versa. Now if you're sitting comfortably, we'll begin.

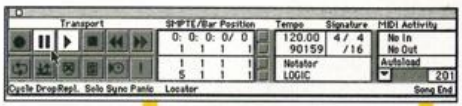
In *Pro 24* switch off the **MIDI Thru** function otherwise you'll create a MIDI loop

In *Pro 24* set the **Sync** function to MIDI (or possibly **External Sync** in other sequencers)

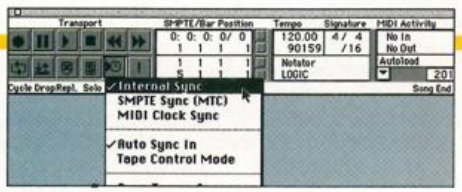
In *Pro 24* click on **Play**. (It needs to receive a MIDI Clock message to actually play)



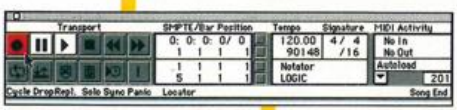
To give the system as much time to do the transfer as possible, reduce the **Tempo** in *Notator Logic* to around 30bpm



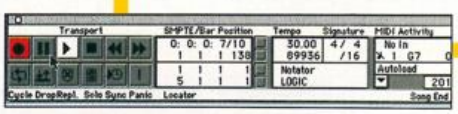
When you want to put the system into 'get ready' mode, click on Pause



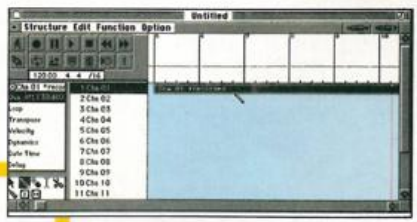
In *Notator Logic* make sure the sync option is set to **Internal Sync** (some sequencers may have a **Transmit MIDI Clock** option)



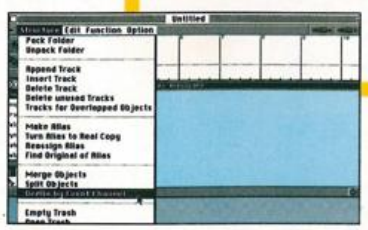
Click on **Record** to let the program know you want to record as well as play back



Click on **Pause** again to start recording (with some sequencers you will only have to click on **Record** to start the whole process)

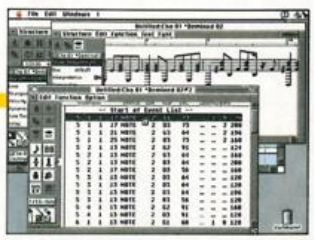


The recording will be put on one track no matter how many MIDI channels it actually contains



You can extract each MIDI channel and put them on different tracks (although not all sequencers have this facility)

In *Notator Logic* each MIDI channel is assigned to a separate track as in the above example



If you look at the result in an editor, you will find that the timing of the note data is very close to the original

Hidden symbols

Have you ever wanted to say ✌ ✎ ✳ ❼ → ❤ ❀ ✂ → in a letter to a friend? Martyn Lester demonstrates the hidden properties of your keyboard

Symbols, icons, pictograms – whatever you choose to call them, small graphic elements can make a big difference to your publications. A few well chosen (and well placed) images will alter the reader's perception of your design, turning a tidy but modest page into a more professional looking document.

The first thing that the availability of small symbols will do for you is to broaden the range of stylistic flavours available to you. For example, although the blob • that you get from pressing **[option] [8]** is generally useful for turning a bland list into 'bullet points', it's rather bland and characterless.

It's always worth thinking about whether there is an alternative device available to you that will enhance your document either by reinforcing the message or by complementing the feel of the typefaces you are using. Would a snowflake ❄ sit comfortably with the type in your list of skiing holiday bargains? Do you have a set of points that would be usefully enlivened if you were to thrust readers into them by using an arrowhead ➤ as your bullet point?

Choose with care

Of course, in some documents the snowflake will seem horribly twee or clichéd; the arrowhead might scream inappropriately on a page which is otherwise full of calculatedly delicate type. I'm not recommending these two symbols as such, but rather that you always think about whether there is a more sympathetic device than the standard **[option] [8]** blob. If there is, then why not use it?

One reason (apart from laziness) that some desktop designers give for not making use of these little devices is that they are 'meaningless ornamentation'. Certainly, you should never clutter up your work for no good reason, but if you write off all ornamentation as 'meaningless' per se, you're in danger of producing documents which at the end of the day, might just as well have been created on a typewriter.

More importantly, this attitude overlooks the fact that symbols are often a lot more than just ornamental. For one thing, they can often help you to emphasise a point that you are trying to make.

Selling by numbers

Say, for example, that you are producing a brochure which has as its key theme the fact that your company promises six kinds of after-sales support compared to the sketchier service offered by your rivals. Instead of using asterisks or blobs for your bullets, why not open each of your paragraphs with ❶ ❷ ❸ and so on?

Don't worry that you'll offend your readers by implying that they can't count – people really don't think like that. At worst, they won't really notice the numbers in the bullets; at best, you will be hitting them with an important message at what is perhaps a slightly subconscious level: 'Look, we really do have six different benefits to offe you – here's the proof...'

A thousand words..

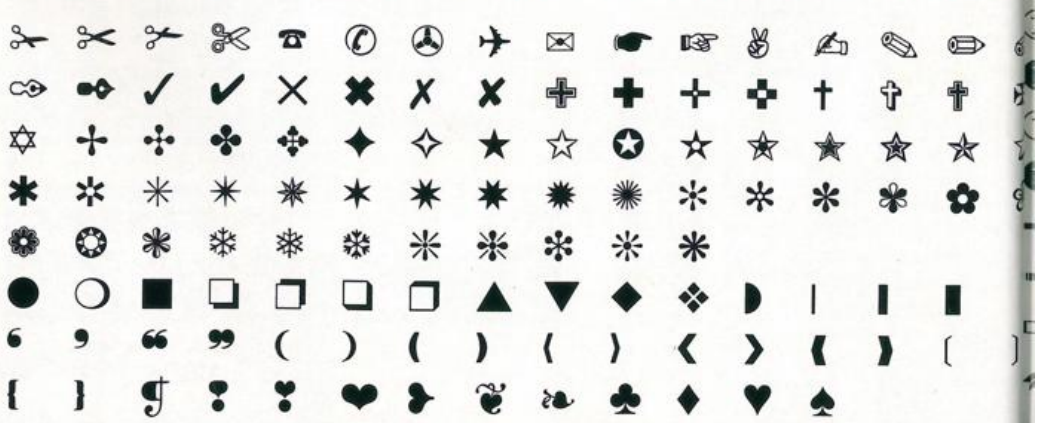
Beyond that, you can use symbol to get across ideas to people in a fraction of a second – something you can't do anything like as quickly in words. For example, a column of spaced out paragraphs down the side of a page could be just about anything. The same column with a little square box n to each paragraph tells people at glance that you are giving them a checklist; or if there is a tick or cross next to each paragraph, the they know they're getting a list o dos and don'ts.

We can take this even further. broken line down the inside of yo checklist says something, but not directly as it might; add a pair of scissors ✂ to that line, and there no doubt what you're saying – th is a set of information that you think readers will consider valuab enough to cut out and keep.

Some people regard this kind thing as a trifle crass – rather too much like holding your readers b the hand as if you were leading

THOSE DINGBATS IN FULL ● THOSE DINGBATS IN FULL ● THOSE DINGBATS IN FULL ●

If you view the font Zapf Dingbats using Key Caps, it's easy to miss the fact that many of the characters were deliberately designed as sets of grouped symbols. As you can see here, there are more themes than just the four sets of serif/sans serif black/white circled numerals



Did you know

Zapf is not a silly word – it's the name of the Dingbats' designer, Hermann Zapf (b. 1918). Palatino and Optima are just two among his highly rated 'normal' typefaces

Characters that live in hiding

Maybe your first experience of the Mac was something like mine five or six years ago – I walked into an office to do a week's sub-editing for a magazine, was parked down in front of an old Mac Plus and invited to get on with it. "Manuals?" they said, when I asked for some documentation on how to use the beast. "We don't bother with manuals for these things – they're so easy..."

That's where the Mac's biggest strength, user friendliness, can also become its biggest weakness. You get it out of the box, find out how to do the basic things very quickly, but the less obvious features can sometimes elude you for months. For example, one of the things that non-readers of manuals don't spot for a while is accented characters.

It rapidly becomes obvious that there are 'special characters' above and beyond the normal and shifted alphanumerics and punctuation – the first time that you accidentally press **[option]** instead of **[shift]** and end up with something like Ω shows you that. But what is much less likely to occur by accident is discovering the characters that need *two* keystrokes to bring them up.

For example, if you press **[option] [I]** nothing happens. But if the next key you press is **[A]**, rather than getting the standard a, you get an â instead. For anyone who hasn't spotted this phenomenon yet, using **[option] [I]** in this way will give you a circumflex accent over ten characters in all: â ê î ô û Â Ê Î Ô Û

[option] [E] followed by a vowel produces acute accents: á é í ó ú Á É Í Ó Ú

[option] [`] gives grave accents over the same letters: à è ì ò ù À È Ì Ò Ù

[option] [U] produces a dieresis or umlaut over 12 characters: ä ë ï ö ü ÿ Ä Ë Ï Ö Ü Ÿ

and **[option] [n]** offers these six characters with tilde marks: ã ñ õ Ã Ñ Õ

These double-keystroke characters are where the 'missing' Dingbats lurk under System 7 – here's how to get them:

① .....**[option] [U]** plus **[spacebar]**
❷ .....**[option] [`]** plus **[shift] [A]**
❸ .....**[option] [N]** plus **[shift] [A]**
❹ .....**[option] [N]** plus **[shift] [O]**
❨ .....**[option] [U]** plus **[shift] [A]**
❩ .....**[option] [E]** plus **[shift] [E]**
❪ .....**[option] [N]** plus **[shift] [N]**
❫ .....**[option] [U]** plus **[shift] [O]**
❮ .....**[option] [U]** plus **[shift] [U]**
❯ .....**[option] [E]** plus **[A]**
❰ .....**[option] [`]** plus **[A]**
❱ .....**[option] [I]** plus **[A]**
❲ .....**[option] [U]** plus **[A]**
❳ .....**[option] [N]** plus **[A]**
➘ .....**[option] [U]** plus **[Y]**
♠ .....**[option] [E]** plus **[spacebar]**

them across a busy road that you don't think they are capable of crossing on their own. Well, you can afford to be that precious if you are publishing documents which you know are going to be read by every recipient from the first word to the last – but most of us don't often (or ever) have that luxury.

Perhaps we need to get people to buy our work from the newsagent's shelves, in which case we want them to be able to see from a quick flick-through that this is the kind of magazine that has useful cut-out-and-keep lists, and may well prove to be worth the cover price. Alternatively, we may be producing a brochure to be handed out at an exhibition or a leaflet which we are going to post out to potential customers, and we need to persuade them to read it. Any device that we can use which says there's something here that people will find valuable or interesting to read is going to reduce the chances of our publication being thrown away unread as presumed 'junk mail'.

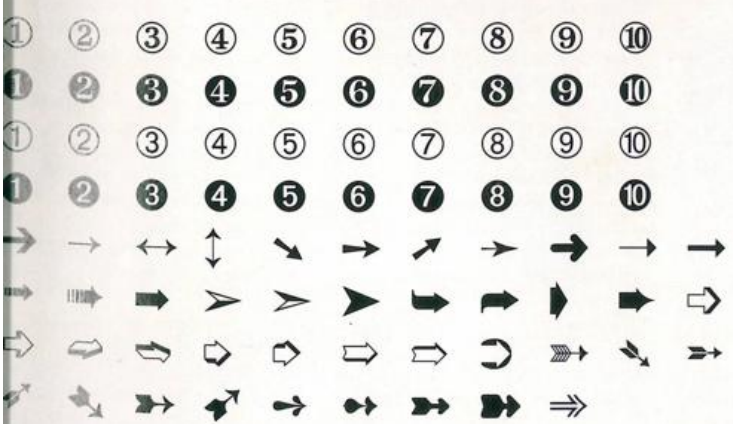
Guide the reader

And there's another, slightly more subtle reason for using symbols, which is to help your reader navigate their way around the document. What I mean is that, rather than getting across the 'cut along this line with your scissors' type of idea, you can use small pictograms (publishers with Mac or Windows experience have taken to calling them 'icons') to direct your readers to the bit of the page that that they know they are going to be especially interested in.

For example, I once edited a photography magazine which featured a nature notebook each issue, with an occasional major feature on wildlife photography. Although some readers had a broad general interest in nature, many were much more specialised, and we wanted to be able to direct them straight to the items they would be most interested in. What we did was to design a few simple silhouette icons to represent the different subject areas, and then use these like bullets or drop capitals at the beginning of relevant paragraphs or panels – so a fox's head indicated 'mammals', a beetle 'insects, arachnids etc', and so on for flowers, trees, birds, reptiles, fungi...

Again, this may sound like unnecessary hand-holding, but using icons in this way has two important functions beyond that of 'brightening up' the page. Firstly, it means that potential readers flicking through the publication can quickly get an idea of what you're offering them ('great – there are about half a dozen tips on insects this month'), and secondly, you're making it easier for readers to find their way around and to relocate a piece of information when they need it

DINGBATS IN FULL ● THOSE DINGBATS IN FULL



Pick 'em with a pop-up

The reason that Zapf Dingbats appear to be a mess when viewed with Key Caps is that they are not organised by keyboard order, but by a standard set of character numbers known as ASCII. It is this code order that the utility *PopChar*, supplied on this issue's disk, uses to display fonts. So if you choose to use *PopChar* on your Mac, you will be able to see Dingbats with the symbols grouped properly together. See page 7 for installation details

Psst! Want to find a font?

There are many pictographic fonts (mostly PostScript) available for the Macintosh. If you are looking for a particular set of symbols and can't find them, drop me a line and I'll see if I can track them down for you

- Adds emphasis
- Easily recognisable
- Stands out from body copy
- Draws attention

❦ Adds emphasis
❦ Easily recognisable
❦ Stands out from body copy
❦ Draws attention

☛ Adds emphasis
☛ Easily recognisable
☛ Stands out from body copy
☛ Draws attention

☆ Adds emphasis
☆ Easily recognisable
☆ Stands out from body copy
☆ Draws attention

❤ Adds emphasis
❤ Easily recognisable
❤ Stands out from body copy
❤ Draws attention

❀ Adds emphasis
❀ Easily recognisable
❀ Stands out from body copy
❀ Draws attention

The symbol you choose to mark a set of 'bullet points' will impart its own tone to the list, in terms of both weight and style. The six examples shown above all have the same text at the same size and in the same font, yet they appear different. The plain vanilla blob top left is the most emphatic, but it also imparts less flavour than any of the other Dingbats used

hours, days or even years after they first read it.

The idea of making life easy for your readers is one that shouldn't be knocked. We all have energy and attention limits, even when faced with something we particularly want to read. Save people effort and they'll read more of what's in front of them – what's more, they are likelier to buy/read the next publication you put in front of them too. But if you make them work hard at their reading, they'll start to look elsewhere for their information.

You can always create your own graphics in art packages – either keep them together in a folder for importing them into your documents, or put them in a library palette if your software is sophisticated enough to offer this facility. But one of the great things about publishing on the Mac is that you can buy sets of symbols as fonts, which means that you can place pictorial characters in your documents just by changing font and making a keystroke or two.

Zapf Dingbats

The best known and most used font of this type is Zapf Dingbats – a collection of stars, snowflakes, asterisks, arrows and other miscellaneous items which is built into the ROM of most PostScript laser printers and offered by any DTP bureau worth its name. This font is widely available, but it's worth noting that it has recently made appearances in two packages that offer particularly good value for money – the PostScript version comes bundled with Adobe's *SuperATM* (see last issue for full details) while the TrueType version has finally appeared as part of the *Apple Font Pack for the Macintosh* as covered in **MacFormat** issue 3's DTP column.

Next month, I'll be taking a look at some other symbols that can be picked up at a bargain price, and illustrating a few further techniques for using these graphic devices to improve your documents. In the meantime, here are a few tips for Zapf Dingbats users to be going on with...

☞ If you are new to Dingbats and looking through them using Key Caps, it will probably strike you that there are some symbols missing, because there are incomplete sets – where, for example, are numbers 2, 3 and 4 in the series that runs from ❶ to ❿? (If you are an experienced Dingbat user, you will know that they used to be there, but may wonder why you can't now find them where they once were).

The answer is that, under System 7, there are no longer characters allocated to the accent control keys, and so the Dingbats ① ❷ ❸ ❹ ❨ ❩ ❬ ❭ ❪ ❫ [ ] ➘ ♠ now have to be keyed in with the two-keystroke combinations reserved in other fonts for accented characters. (See top of page 47 for details).

☞ By the way, if you're having difficulty spotting ❶ using Key Caps, unusually it appears in the spacebar – you need to key **[option] [spacebar]** to get it. This was also the location for this character under System 6.

☞ Bear the above information in mind if you are a System 7 user and putting together a Dingbats character chart for yourself. Making one of these charts under System 6 is a cinch – you just key in the plain character, shift-character, option-character and option-shift-character for each key on the keyboard. (Some people prefer to do this from a to z, then 1 to 0, then punctuation and miscellaneous keys; others order the characters in keyboard rows of `,1,2,3... then qwer... followed by asdf... and finally zxcv...)

But if you do this in System 7 and forget about the control keys, then the next thing you hit (a shi option-character combination) w not give you the right Dingbat fo that combination, but rather whatever is allocated to the modified key. For example, after **[shift] [e]**, leave a gap to show there is no **[option] [e]** Dingbat, and then when you press **[option] [shift] [e]** you will get ➤ which the correct symbol. If you actual key in **[shift] [e]** when making your chart, your next press for **[option] [shift] [e]** will produce double character ♠➤ which will make your chart inaccurate.

If you think no one would be daft enough to make this error, I afraid you're wrong – I recently spent a couple of hours checking and correcting one of Adobe's Dingbats charts for System 7, because it contained no fewer th 16 errors and omissions, includi those caused by control characte

☞ Don't feel that you have to us symbols at the same point size as your copy – they will probably look too small to be effective. Fo example, the Dingbat telephone is a sign that isn't even as large a the lower case characters of man typefaces. If you are trying to gr readers' attention, then use the symbol at a large enough size fo them to spot it without having to spend several minutes searching for it (see illustration left). **mf**

cut along dotted line

Is the top line trying to say something, or is it just a broken rule chosen to be less brutal solid one? Text makes the intention clear enough, but relatively slowly and without charm scissors inserted in the bottom example may not be worth a thousand words, but they're more than the four words in the middle example – they're so much more direct

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If you want to say something with symbols, then don't whisper – spit it out! If the text above right was buried in a document, it would take a long time to find it. The bigger Dingbats in the version on the left would help the reader to find your address or phone number at a glance

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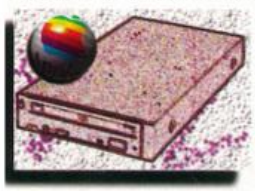

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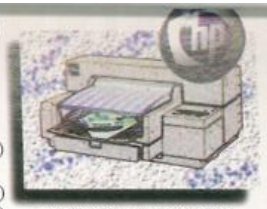

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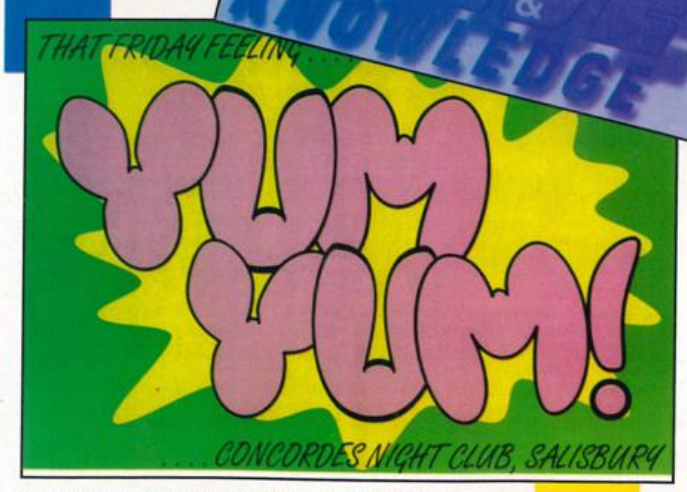
DESIGNING EFFECTIVE

Gordon Druce shows you how to produce striking promotional material on a budget

The 'love energy' flyer – designed by 'POPz' – shows the effective use of a simple but dynamic graphic, plus the confident use of colours. But black type and a heavy cyan background diffuses the overall legibility...

This one makes great use of a modified logo from a popular fruit drink... designed by Jez Norton at Fab 4 in Bristol



Designed by MJCH Promotions for the Yum Yum night at a club in Salisbury, this flyer shows the fun that can be had creating your own cartoon-style type or logos in a draw program

Some of the most dynamic and inventive British graphic design of the last few years has come from designers of rave and club flyers – so don't treat flyers as throw-aways. Above are some examples of this vibrant work. We also recommend *Design After Dark* by Cynthia Rose (£12.95), an excellent book about club flyer design, which we would have featured if the publisher – Thames and Hudson – had given us permission

Powerful, attention-grabbing headlines and graphics – that's what advertisers use daily to make millions from us poor consumers. But now you too can have a piece of the action with your humble Mac and a few good ideas.

This issue we are going to take a look at some practical hints and tips on producing more effective promotional material for your club, society or business with the emphasis on dynamic layouts and cost effective ideas to help you – whether you're contemplating a brochure for your products or services or just a simple low-budget fly sheet.

As I mentioned in **MacFormat** issue 3, with the aid of a budget DTP program or word processor, a laser printer, and/or a little help from a service bureau or local printer you can set about producing your own business stationery. The same is also true for producing your own basic sales material, such as flyers, budget brochures and information sheets.

Careful planning is one of the keys to good sales or promotional material, so give yourself plenty of time to select the right format (see leaflet diagram on the opposite page). Figure out how long you want your promotion or products to be current. How much time will it take to put together and how will your sales treatment be focused? Is it just one product or service, or do you have a range of skills or products to sell; are you targeting specialists and enthusiasts or is it for more general consumption? Carefully consider your product's potential user. You may want to tailor your material to appeal to h or her emotions, by persuading th your product will enhance their image or lifestyle.

Fly me to the moon

Printed hand outs or flyers are the most basic form of promotional material, and primarily contain ti dependent information, which ca anything from a product or servic on special offer to an announceme of a new club or society. Flyers ar the perfect vehicle for your messa when a modest budget and immed acy are of utmost importance. Yo have a lot of information to comm nicate quickly and succinctly, so your flyer must pass the 'at a glan test. Go for large, bold, attention-grabbing type. Balance it off with powerful graphic element, say a cartoon or logo. This can easily b scanned into your Macintosh usin good budget hand scanner or you could prepare your graphic in a pa or draw program.

Your flyer is likely to be printe on a less than premium quality pa stock, so keep your type bold without any fancy typefaces. Cheaper paper stocks tend to be more absorbent and ink will sprea more on the paper, filling in any fi work on your visuals, so keep you graphics simple. Also, keep your body text to a bare minimum – jus the who, what, when and how exp nations plus some 'teaser' lines.

Try making the format of your flyer a standard paper size since th

A quick and easy guide to

- Make sure all your text is legible – especially important on flyers, as your readers must get the message at a glance
- Remember to reflect accurately the aims and character of your services and products when designing your material
- Make sure your logo or trade mark, address/phone and fax numbers are all clear and correct
- Remember to make it easy for the reader to respond – use a large user-friendly order form or coup
- Double check all your informatio proof read your final layout, ma sure you have not mixed the fa and phone numbers up or your products prices!
- Make sure your printed hand-out reflect the look of your other printed matter
- When promoting events make clear in as few words as possib the who, what, when and how. Include a map if possible.

FLYERS AND LEAFLETS

ill save you on printers' trimming harges. Use A4, or maybe you can et away with a smaller size, A5; his way you can get up to 1,000 yers out of a single ream of A4 aper with only a small trimming harge. Also think about using loud' coloured papers for your romotion (if it's appropriate). This ay you can give the effect of a wo-colour job – without the two-olour print bill!

If your promotion has an order orm or a 'money off' coupon, make easy to use. If boxes have to be icked and addresses have to be illed in, then give them plenty of oom. Make your tick boxes or redit card number boxes around 12-4 point if you are using Zapf Dingbats boxes and ask for the form o be filled out in capital letters for ase of processing. Also, try using a ight dotted line for the name and ddress details as this is far more friendly' than the heavy black rules sually used on order forms.

Top quality info

One step up from a flyer is a product or service information sheet (see diagram below), which gives a detailed look at prices and specifications, including a picture and quotes from satisfied customers or glowing statements from the press. It's also common to print them on higher quality paper, all helping to enhance the perceived high quality of your service or product.

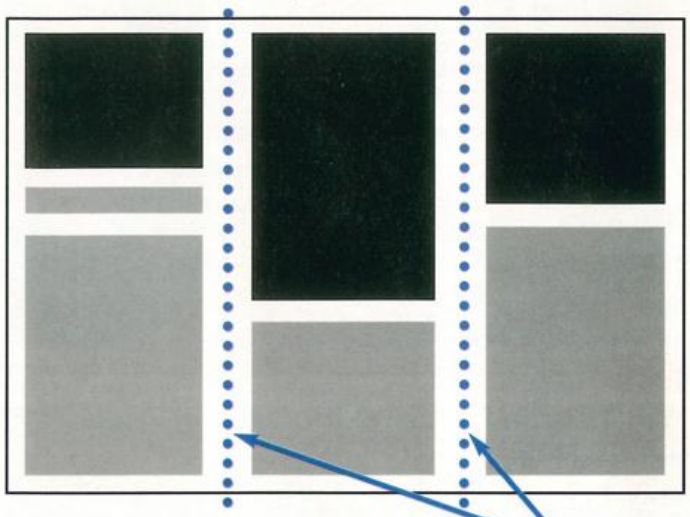
You can achieve great results with a modest desktop set up. Using DTP programs like *Publish It !-Easy* (reviewed in **MacFormat** issue 1) or *Personal Press* (**MacFormat** issue 2), it's possible to get great professional-looking printed material.

What usually puts people off attempting this is the high price of quality paper stock and the low quality of budget desktop colour scanners, so images tend to look fuzzy. I suggest shopping around for a good paper quote. What's more, the quality of your scanned images can be greatly improved by preparing only text and line work on your Macintosh, then taking your file along to a bureau or Mac-friendly printer, who may be willing to scan in your high quality picture and then by outputting your file to combine the two (whether it's from a high resolution laser printer or output from an imagesetter to film or paper). This will greatly improve the quality of pictures and artwork of your document. Combine this with a clean, smart, well thought out layout and you're well on the way to giving prospective customers the impression you are a smart, reliable and profitable outfit.

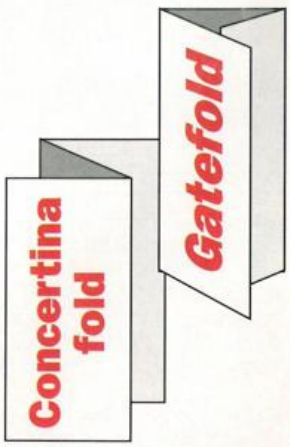
I'm not suggesting it is possible to produce glossy magazine-style full colour catalogues and glossy brochures from your humble Classic, parked on your living room table. But by combining some basic rules of typography and grids, (see **MacFormat's** DTP and design columns, issues 1 and 2), it's perfectly possible to come up with some really effective and highly presentable work.

If you intend to embark on producing (or part way producing) a brochure, then one important consideration is that your brochure shares a common look and feel with any other material you or your club/company has already produced. Remember it is likely to be mailed out with a letter on your headed note paper and a contact card, so use the same typefaces and type sizes. If you have previously used borders, rules and margins make them consistent if possible.

If you are working on a very tight budget then it's possible to extend the shelf life of your brochure by giving a general outline of your products or services and then by using single product information sheets inserted into the brochure. You could even produce a glossy A4 folder with your logo and/or club/company name on it, containing loose leaf documents carrying details of your products. **mf**



Take care when laying out the gatefold and concertina-style leaflets; keep your text and graphics away from the fold lines. Give 5mm or more each side of the fold line to be safe



Both these simple brochure styles work effectively, as they give six equal sized panels to get your message over. The gatefold style works well with a simple direct line of copy on the front face, then a large area to make your 'big splash' in the centre. The concertina style is commonly used for budget promotions, whether it is a tourist attraction guide or a product price list. This type of brochure has a 'walkthrough' feel; as the concertina is opened out the reader discovers more about the attraction or service

laying out effective flyers and brochures

You only have a second to communicate your message, so make it clear at a glance what your company or club is

Your flyer must have attention-grabbing text and graphic elements. 'Flashes' can be used with direct marketing style copy like 'special offer', 'free' or 'win'

Using reverse outs can help to grab the reader's attention; this also adds 'colour' to your job with no extra cost

Make your core information easy to read; don't pack too much in. Guide the reader to the best deals and to your contact number

Just the simple act of having your job laser output or printed on to coloured paper can give it much more impact

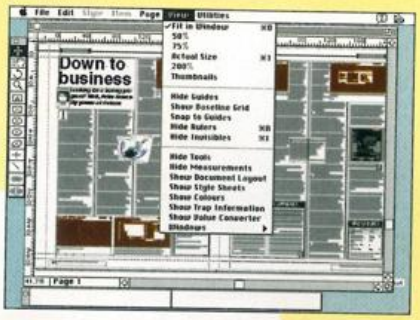
50 TOP QUARK XPRESS TIPS

Want to get the best out of *QuarkXPress*, and get it more quickly and easily? Alex Soboslay shows you how you can have it all in this already-superb package

Power users? No such animal. Lazy users, more like – or at least smart ones. All they've done is search out the keyboard commands and other shortcuts that make it easier to use a complex program like *QuarkXPress*. If you want to Modify a text box, for example, you can just hold down the **[⌘]** key and double-click on the box. Didn't know that one? Well, here are another 50 tips, some of them undocumented, to help make life with *XPress v3.11* as easy as you want it to be.

VIEWS

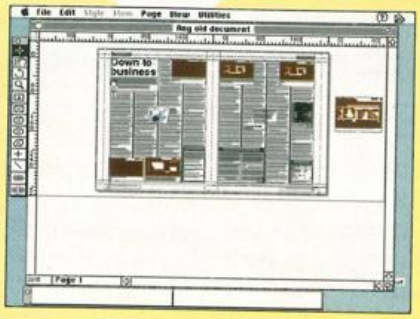
1. Zooming



Alternatives to using the **View** menu:

- Fit in Window = **[⌘] [0]** or **[option]**-click from 100%
- 100% = **[⌘] [1]** or **[option]**-click from any other magnification
- 200% = **[⌘] [option]**-click (or, if you're at 200%, this gets you back to Actual Size).

2. Wider Fit



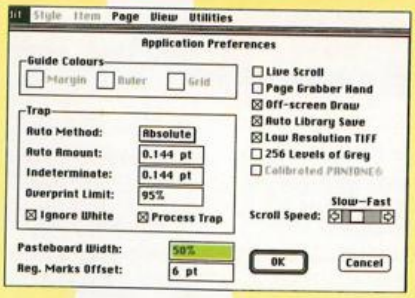
Fit in Window fits a page on screen according to its height. **[Option]-Fit in Window** (**View** menu only) fits the document according to its width, so its widest spread is on-screen.

3. Zoom tool

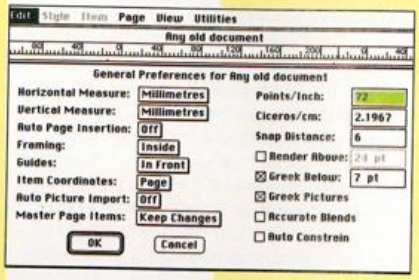
Select this (fourth tool from the top) and click to zoom in by 25% increments; **[option]**-click to zoom out.

- If any other tool is selected, hold down the **[control]** key and it changes to the Zoom tool.

4. Speed up screen redrawing

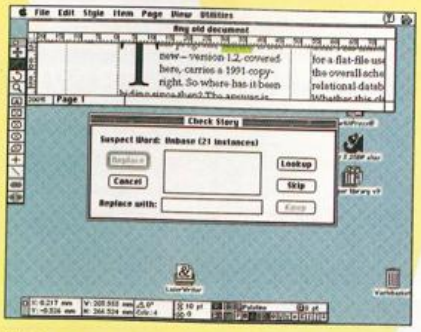


- In **Preferences: Application** (**Edit** menu), select **Off-screen Draw** (redraws the whole screen in memory before redisplaying it, rather than a piece at a time, which in theory is faster). Select **Low Resolution TIFF** (imported TIFFs are displayed at 36 dpi rather than 72, taking less time to render). Do not select **256 Levels of Gray**, and move the **Scroll Speed** slider to the right.
- In **Preferences: General** (**Edit** menu or **[⌘]**



[Y]), select **Greek Below**, say, 7 point (greys out tiny text which you couldn't read in any case) and **Greek Pictures** if you don't need to see them. Do not select **Accurate Blends** (the screen representation of colour blends isn't perfect anyway).

5. Minimise redraw



Stick to one magnification as long as possible.

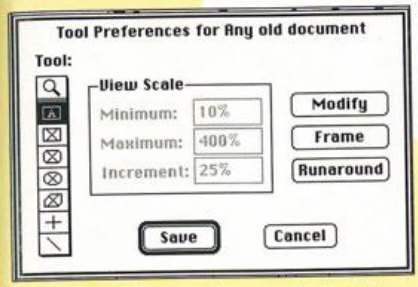
- When you're checking spelling (**Utilities** menu) or using **Find/Change** (**[⌘] [F]**), make the *XPress* window as small as possible.

TOOLS

6. Tool palette shortcut

[⌘] [tab] selects the next tool down from the one you're in (and shows the Tool palette). **[⌘] [shift] [tab]** selects the next tool up. (But use the mouse if the function concerned involves mouse movements anyway, like drawing a new box or a line.)

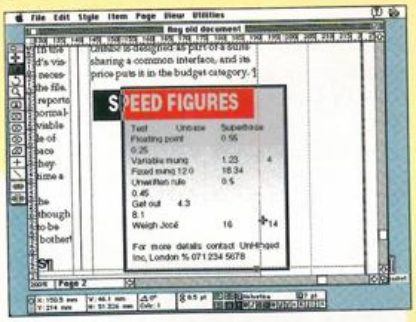
7. Tool preferences



Double-click on any tool except the first three or the last two, and you get the **Tool Preferences** dialogue box, where you can set defaults for all those tools.

- Alternatively, select **Preferences: Tools** (**Edit** menu).

8. Item tool shortcut



If you're in the Content tool, hold down **[⌘]** and it becomes the Item tool. This will move a selected object individually, even if it is grouped – the only way of doing this without ungrouping.

9. Stay in tool

The tools below the first group of four are 'single-use' tools – once used, they revert to the Item tool or Content tool, depending on which was selected before. To stay in any tool until you click on another, **[option]**-click when you select it. This is especially useful when drawing elements such as crop marks – particularly when done with 7, above.

10. Arrow key – Item tool

With the Item tool selected,

- the arrow keys move the selected item (or group) one point at a time;
- **[option]**-arrow keys move the selected item in increments of 0.1 point.

11. Arrow key – Content tool

In a picture box with the Content tool selected,

- the arrow keys move the picture in the box one point at a time;
- **[option]**-arrow keys move the picture in the box in increments of 0.1 point.

12. Arrow key – Content tool

In a text box with the Content tool selected,

- the arrow keys move the cursor one character at a time (up and down = a line at a time);
- **[⌘]**-arrow key moves the cursor one 'unit' – a word sideways or a paragraph up and down;
- **[⌘] [option]**-arrow key moves the cursor to the limit in that direction – the start or end of the line sideways, the start of the 'story' up and the end of the 'story' down.

13. Arrow key – selecting

To select text, hold down the **[shift]** key at the same time as the arrow key combinations in number 12:

- **[shift]**-arrow key selects one letter sideways or one line up or down;
- **[⌘] [shift]**-arrow selects one 'unit' – a word or paragraph – so **[⌘] [shift]**-down arrow selects the rest of the paragraph;
- **[⌘] [option] [shift]**-arrow selects all to the limit in the appropriate direction – so **[⌘] [option] [shift]**-down arrow selects to the end of the 'story' (ie even the overflow text not visible in a text box).

14. Adding to selection

These **[shift]**-arrow key combinations will add to any currently-highlighted selection if they are movements in the same direction as when you made the selection; otherwise they de-select.

15. Deleting items

If the Item tool is selected, the delete key deletes items (boxes, lines or groups). In any other tool, **[⌘] [K]** (for 'Kill') deletes items (but not groups as a whole).

16. Deleting contents

If you are in the Content tool, the delete key deletes the content of a picture box or any highlighted text in a text box.

- If no text is highlighted, it deletes one character to the left.
- **[shift] [delete]** deletes one character to the right.
- **[⌘] [delete]** deletes one word – the word in which the cursor is currently placed, or the word to the left if the cursor is between words.
- **[⌘] [shift] [delete]** deletes one word to the right.

17. Undoing deletes

If you delete a group (or an item from a group) you cannot undo with **[⌘] [Z]**. You can always **Revert to Saved** (**File** menu) – save when you have something worth reverting to.

18. [option] [command]

If there is an 'extended' version of a command, you can (very logically) apply it by adding **[option]** to the command:

Save ..... **[⌘] [S]**
Save As ..... **[⌘] [option] [S]**
Print ..... **[⌘] [P]**
Page Setup ..... **[⌘] [option] [P]**
Preferences: General ..... **[⌘] [Y]**
Preferences: Typographic .. **[⌘] [option] [Y]**
Check Spelling: Word ..... **[⌘] [W]**
Check Spelling: Story ..... **[⌘] [option] [W]**
Duplicate ..... **[⌘] [D]**
Step and Repeat ..... **[⌘] [option] [D]**
Fit picture in box ..... **[⌘] [shift] [F]**
Fit picture in box but maintain aspect ratio ..... **[⌘] [option] [shift] [F]**

19. Dialogue boxes

In a dialogue box with several parameters, tab selects the next field and shift-tab the previous one.

- Return selects the button with a heavy border – usually 'OK'.
- **[⌘] [.]** (ie **[⌘]** full stop) will cancel.

20. Keyboard commands

In the **Open...** and **Get Text/Picture** dialogue boxes, type **[⌘] [D]** for Desktop, use the arrow keys to locate the folder you need and press **[return]** to open.

21. The Measurements palette

The keyboard commands also apply to the Measurements palette (**[⌘] [option] [M]** – logical, because it's like an extended 'Modify'.

- Click on the arrows next to a parameter to increment or decrement it; **[option]**-click to make finer adjustments (changing leading, for example, in steps of 0.1 pt rather than 1 pt).

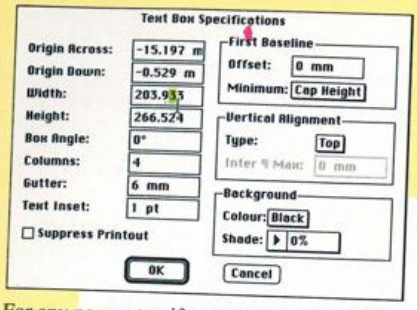
22. Continuous Apply

Whenever a dialogue box has an **Apply** button (to preview changes without saving them), you can keep this selected by **[option]**-clicking on it.

- Keyboard equivalents:
  Apply ..... **[⌘] [A]**
  Continuous Apply ..... **[⌘] [option] [A]**

ADVANCED TOOLS

23. Unit conversion



For any parameter, if you specify units different from those set as the default (in **Preferences: General – [⌘] [Y]**) – typing in 'pt' for 'points', for example, when the default is millimetres – *XPress* will automatically convert the units for you.

- If you don't specify the units, *XPress* will assume you mean whatever the default is.

24. Add to parameter

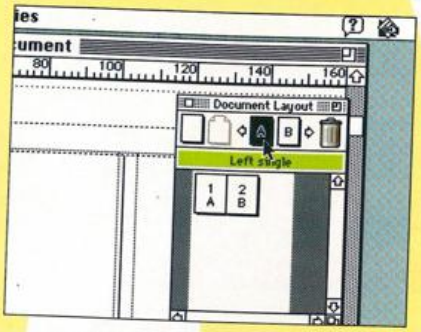
If you position the cursor after the parameter and type a minus sign and a number, *XPress* will automatically subtract that amount from the parameter. It can also add a specified amount.

25. Setting defaults

Close all *XPress* documents but do not quit *XPress*. You still have access to certain commands in the **Edit** menu and elsewhere. Any changes you now make will apply as *XPress* defaults from then on.

26. Master changes

- If you have selected **Keep Changes** under **Master Page Items** in **Preferences: General** (**[⌘] [Y]**), items you have previously modified on the page will be preserved – objects you have resized, text boxes you've typed in, etc. If you selected delete Changes, you simply lose these previous changes.
- To change a page from a right-hand to a left-hand, drag a left Master Page over the existing right document page in the **Document Layout** window.
- In a 'Facing Page' document (see **Document Setup, File** menu) you can just drag the document page to the other side of the centre line in the **Document Layout** palette.



MANAGING PICTURES

27. Resizing pictures

- Resize the picture box without altering the picture by dragging the box handles.
- Holding down shift while you do this constrains the box to a square or a circle.
- Resize the picture box and the picture by pressing **[⌘]** while you drag the handles.
- Resize the picture in the box using the % figures in the Measurements palette or **[⌘] [option] [shift] [>]** (to increase the size by 5% steps) and **[⌘] [option] [shift] [<]** (to decrease it by 5% steps).
- **[⌘] [shift] [F]** 'Fits' the picture in the picture box; **[⌘] [option] [shift] [F]** gives the best fit possible while maintaining the original aspect ratio.

28. Tilting pictures

- Tilt the picture box with the Rotation tool (third from the top) or the angle parameter in the middle of the Measurements palette.
- Tilt the picture inside its box or skew (slant) it using the parameters at the right-hand end

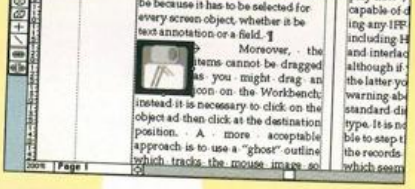
29. Moving pictures

- Move a picture inside its box by dragging it with the Content tool, or using the arrow keys.
- Centre the picture with **[⌘] [shift] [M]**.

30. Anchoring pictures

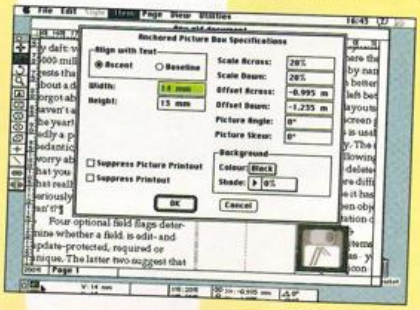
If you want a picture to move with a piece of text, you can anchor its picture box in the text. (You can also anchor a text box within the text.)

- Select the Item tool and cut or copy the box.



Then change to the Content tool, place the cursor where you want the box, and paste.

- You can anchor only single boxes, not grouped items. (But you can anchor several items, one after the other.) You can't anchor another box within an anchored box.
- The anchored box becomes part of the text, so you can cut, copy and paste it with the text. You can apply Baseline shift to the box, but none of the other attributes in the **Style** menu.



TEN TOP TIMESAVERS

1. Go to page

Go to page. Usually, the fastest way to get to a given page is to 'Jump' there using **[⌘] [J]**. However, if you are working on text that flows from one text box to another, place the cursor in the last line in the current text box and hit the down arrow key. This takes you to the next line, even if it's a few pages hence.

2. Find/Change

Find/Change usually searches forward from the current cursor position only. However, if you hold down the **[option]** key, the **Find Next** button becomes **Find First**, so you don't need to go back to the start.

- Search with attributes means you can alter character attributes throughout the document.

3. Font shortcut

In a text box with the Content tool selected, highlight the Font parameter in the **Measurements** palette and you can change font by typing just the first letter of the font you want (T for Times, say), or the first few letters if several fonts begin with the same letter (like News Gothic and New Century Schoolbook).

4. Paragraphs

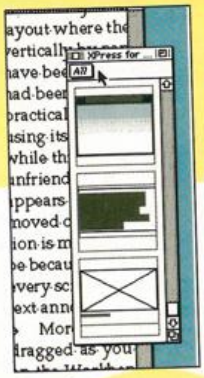
If you want to change any format that applies to a whole paragraph – any of the parameters in **Paragraph Formats** (**[⌘] [shift] [F]**), such as **Left Indent**, **Space Before**, you don't need to select the whole paragraph, just place the cursor anywhere in it. To modify several paragraphs, highlight any part of them.

5. Copy para

Copy paragraph. To copy all of these Paragraph Formats settings from one paragraph to another in the same text box: place the cursor in the paragraph you want to copy to (like highlighting the text to be modified), then move the cursor to the paragraph you want to copy from and **[option]**-shift-click in it. The settings will now apply.

ADVANCED FEATURES

31. Libraries



To save having to re-create or copy any page elements, save them in a Library (**Utilities** menu).

- One Library can contain different kinds and any number of items.
- Using Libraries is preferable to having everything on your Master Pages and just deleting what you don't need, because these extra elements remain part of the document, making it much bigger.

32. Duplicate selection

Duplicate creates a copy of the selected group if the Item tool is selected. In the Content tool, it copies the selected object only, and the duplicate will not be grouped even if its original was.

- You can't make a duplicate of a linked text box or a duplicate that would be drawn outside the pasteboard area because of the Duplicate offsets.
- You can alter these offsets using **Step and Repeat** (**[⌘] [option] [D]**), a configurable Duplicate where you can also set the number of copies made at once.

33. Layering

Normally, items are 'layered' on the page in the order that you put them there – newer objects on top of older. You can alter this layering with **Send to Back** and **Bring to Front** (**Item** menu).

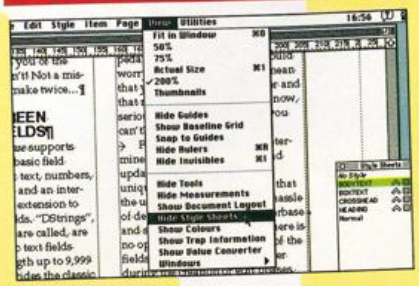
- However, avoid **Send to Back** – it sends items behind every other box, including the basic text box on the page.
- If you have lost an item behind others, **[⌘] [option] [shift]**-click over its location. This cycles through the layers, and the missing item's handles appear when it is selected.
- Contrary to what the manual says, this works with either the Content tool or the Item tool selected.
- Hold down **[option]** and **Send to Back** becomes **Send Backward** and **Bring to Front** becomes **Bring Forward**. These move a selected item just one layer at a time.

34. Space/Align

Space/Align (**Item** menu) is a shortcut for placing two or more items relative to one another.

- In the Item tool, **[shift]**-click on two or more objects to select them simultaneously. **Space/Align** becomes available.
- **Space/Align** moves the selected item or items furthest from the origin point (the top left corner of the page) to position these relative to the item closest to the top left.

35. Style Sheets



Set up repeated text formats as **Style Sheets** (**Edit** menu). These can include **Character** and **Paragraph Formats** definitions plus **Paragraph Rules** and **Tabs**.

- Applying a new **Style Sheet** to a paragraph will alter any existing characteristics applied through another **Style Sheet**, but not commands you have added 'manually' – say, by italicising some of the text yourself. To strip out all existing commands in a paragraph, first change the **Style** to **No Style**.
- A shortcut for this: **Show Style Sheets** (**View** menu), place the cursor in the paragraph, then **[option]**-click on the **Style** you want in the **Style Sheets** palette.

36. Hyphenation

To force a break where you want one, type a 'discretionary' hyphen (**[⌘]**-hyphen). This will cause the word to hyphenate at that point if it falls at the end of a line and can't all fit. Otherwise the 'discretionary' hyphen is invisible and will not print.

- This overrides some of settings in **H&Js** (Hyphenation and Justification, **Edit** menu), but not all; you can't have more successive lines hyphenated than the **H&Js** setting allows.
- To prevent a word breaking at all in a particular case, type a **[⌘]**-hyphen just before the first character of the word.
- To prevent a word breaking at all wherever appears, enter it in **Hyphenation Exceptions** (**Utilities** menu).
- To pre-set word breaks where you want them, enter the words in **Hyphenation Exceptions** and type a normal hyphen in the place or places where breaks are allowable.

38. Special characters

- Special space characters:

Non-breaking standard space = **[⌘]** space (Prevents the two words joined by it from being separated at a line break)

Breaking en-space = **[option]**-space

Non-breaking en-space = **[⌘] [option]**-space (The en-space provides a space bigger than standard. Note though that in *XPress* it isn't the width of a letter 'n' in a given font, as normal, but the width of a zero)

- Single characters in special fonts:

For one Zapf Dingbat: **[⌘] [shift] [Z]**, then character.

For one Symbol font character: **[⌘] [shift] [Q]**, then character.

- Shortcuts for text styles – **[⌘] [shift] [I]** for italic, etc. – apply not just to previously-highlighted text: type the command and they apply to text you then type in.

39. Hanging indent

Hanging indent. To create a 'hanging indent' like this, type the invisible 'indent' character **[⌘] [\]** in a line and all subsequent lines in the paragraph will be indented to there.

Alternatively, go to **Paragraph Formats** (**[⌘] [shift] [F]**) and specify a Left Indent and an equal but negative First Line parameter:

(a) In justified text, the 'indent' character may not fall the same distance from the left margin in different paragraphs, so they will not line up.

TEN TOP TIMESAVERS

6. Leading

There are three kinds of leading: Absolute ('fixed'), Auto, and Incremental. Avoid the second – characters in some fonts (such as Zapf Dingbats) are different heights from those in other fonts at the same point size. To use the last, specify say '+2pt', which adds that amount more than the point size.

7. [option] [tab]

To tab text all the way to the right-hand margin, type an **[option] [tab]**. (The manual calls this a 'Right Indent Tab', but in fact if the paragraph is right-aligned it will tab text to the left-hand margin.) This adopts the 'Fill Character' of the last pre-set tab, but it makes no difference what kind of tab that was (Right, Decimal, etc.).

8. Picture boxes

Avoid pic boxes with the **Background Colour** set to **None** in the **Modify** dialogue (**[⌘] [M]**). If a page won't print, this is the first thing to check for.

- Even if it does print, a tilted transparent pic box is likely to have 'jaggy' edges.
- Just set the **Background Colour** of any pic box to 0% White (or some other colour).

9. Colour seps

XPress v3.11 itself cannot colour-separate pictures it imports. The pictures must have CMYK data already.

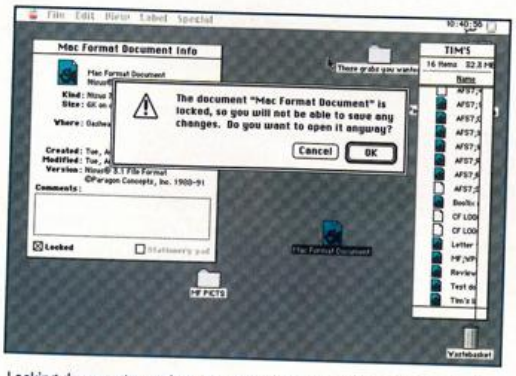
That means you need to use a program like *Photoshop* to produce either DCS (colour separated EPS) files or CMYK TIFFs (Tagged Image File Format). Avoid PICTs if you intend to do colour work.

10. Print dialogue

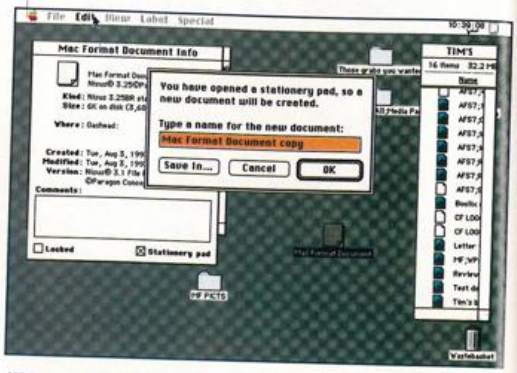
If you're having printing problems, turn off **Background Printing** and hold down the **[shift]** key when you OK printing in the **Print** dialogue (**[⌘] [P]**). This brings up the extended **Print** dialogue – a blow-by-blow report of the document being processed, so you can spot exactly what is causing the problem.

Writing to rule

You can make your word processing life a lot easier if you use templates. Tim Smith shows you how to speed up the way you work



Locking documents, such as the all-important templates, ensures that you can't over-write them with any useless information. Very handy



With System 7, you can use the Stationery Pad option which means that you have to name the new document before the application opens!

Making life easier, that's what it's all about really unless you're Chris Bonnington or Graham Souness. So just take a few seconds out and ask yourself this question: "Why do I waste valuable minutes mucking around with margins, fonts, text alignments and most of all… tabs before I actually court the muse and get into the text?"

Why indeed? The chances are that if you're new to the Mac then this is exactly what you do, and if you don't then you're probably just typing into the blank basic document that came with *ClarisWorks*, Microsoft *Word*, *Nisus* or *TeachText*; and this means that you're not getting the most from your investment.

Templates, that's what you want. These wonderful little devices mean that not only will your documents start to look (and consequently read) better but you will save time and unnecessary hassle.

A template is a blank document with all the irritating bits such as margins, indents, headers and footers, and associated user dictionary, built in by you in advance.

Creating templates calls for two skills: the ability to think ahead and the ability to use your imagination – just because you've created a standard document, there's no reason for it to look standard.

We're going to look at two of the most popular forms of the template in order: the standard letter and the tabbed document.

The standard letter

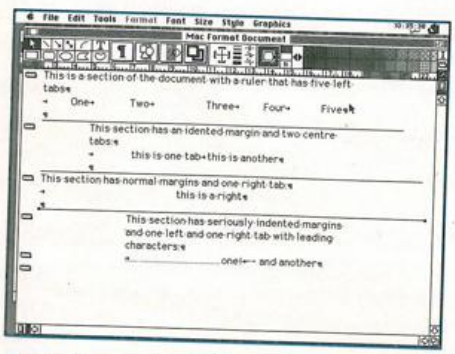
Face it, you want to present a good image of yourself whether you're writing to strange Auntie David or the head of the local Chamber of Commerce. This means that you have to be consistent. With the standard letter template you are looking at five basic elements: your address, their address, the typeface(s), the margins and the headers and footers.

Addresses can of course be taken from mail merged documents (see box-out on next page) but they still need to be styled up. There are two approaches to adding your address here: the stick it in the middle to make it look posh; or the shove it on the left. Both will do, but there is another, smarter option and that's to use the Footer or the Header.

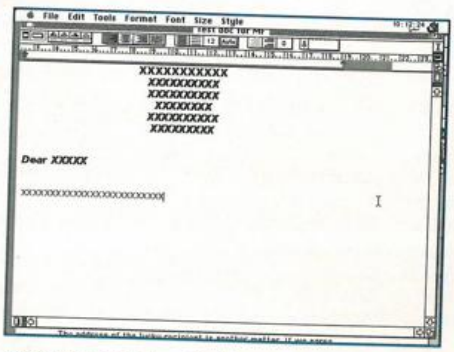
Putting your address in either of these places means that it will print out on every page of the document without taking up any valuable space that you could be using to harangue your local MP. You do have to remember to increase the size of your header or footer to give it some prominence so that your reader won't forget you're there.

You can also use the header or footer to hold the relevant 'live' information such as the date, page number and even the relevant references – yours and theirs. All this frees up page space for you.

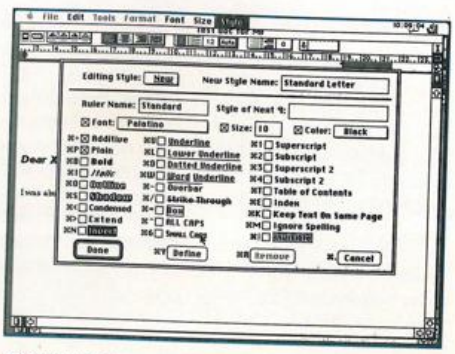
The address of the lucky recipient is another matter. If we agree that the date and the references are going into the footer this frees up a great deal of space at the top of the document for the all important recipient. Make sure you put this address in a different font to the body of the letter. If your word processor comes armed with such a thing, it is a good idea to make use of the Style option. This will enable you to move away from typing in a line of 'X's in the required typeface, weight and alignment. The Style



The use of rulers can't be beaten for jazzing up a document. This single document uses six different rulers with ease



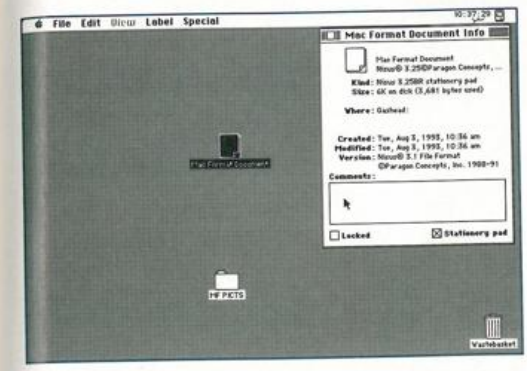
This is the old and slow method of setting up a style in a letters template. The quicker way is to use the **Style** menu



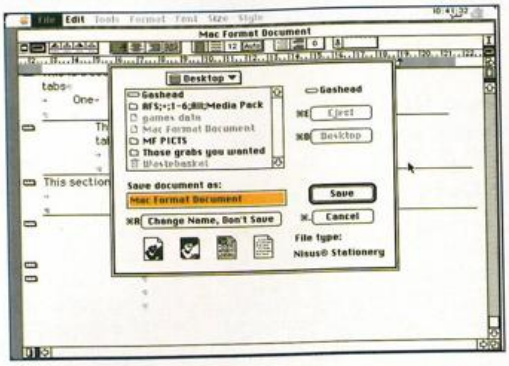
Style menus are common to most Mac word processors. This one looks intimidating but it does allow for many possibilities

Ten time-saving tips

1. Make sure you keep a copy of your user dictionary in case the original corrupts.
2. Get a scan of your signature to use with standard letters. It personalises them.
3. Always remember, if the option is available, to include auto-date and auto-time updating on headers or footers.
4. Save time and put template aliases into your Apple Menu Items folder.
5. System 6 users just put the locked documents on your desktop or use On Cue!
6. You don't have to be stuck with one user dictionary you know, you can have several relating to different areas of interest and different documents.
7. Always save a copy of your template(s) to floppy in case of disasters.
8. Remember the capabilities of your printer! There is no point in creating a fabulous template with coloured this and multi-font that if your printer can't handle it all.
9. Remember right and decimal tabs can be as useful as the common or garden left tab. Don't be afraid to use them.
10. Always, always save your templates as either Stationery Pads or as locked documents; that way you can't overwrite them.



Locking or making a Stationery Pad couldn't be simpler. Just highlight the document name, press **[command] [I]** and check the right box



With an application such as *Nisus*, you can create Stationery Pads without having to exit to the desktop. Most useful indeed

option means that you can bang away at the text, highlight it and let the application do all the hard work.

Tabbed documents

The element that probably causes people the most problems with word processing is the tab. The common tab can cause people to tear out hair, curse and generally feel glum. There's no reason to feel this way though… especially not if you're using Microsoft *Word* which comes with its own, built-in 'Make Table' function. For the rest of us though, the idea of setting up a tabbed template where the tabs act as more than simple paragraph indents is a labour and time-saving device supreme. The first thing to bear in mind is the kind of information you are intending to tabulate. Type in some dummy copy to give you a rough idea of where the tabs are needed, then simply build in one tab for each element. Now clear the text, save the document and bingo! The chances are, however, that you will need to use different tables for different parts of a document – and this is where rulers come into play. Most decent word processing packages come armed with rulers that enable you to section off parts of documents. Into each ruler you can store information regarding margins and tabs. Several rulers can then be saved as part of the template. This means that you can store a ruler with five decimal tabs and inset margins, another ruler with 12 centre tabs, and so on.

Obviously, you can turn the idea of templated documents to whatever use you require; from recipes to your first screenplay. The joy is that you can store them for perpetuity without having to rebuild them. **mf**

Mastering your merging

A few years ago the idea that your standard, normal person-at-the-desk could get involved in something as cabalistically magickal (sic) as 'Mail Merging' would have been scoffed at by the corporate world.

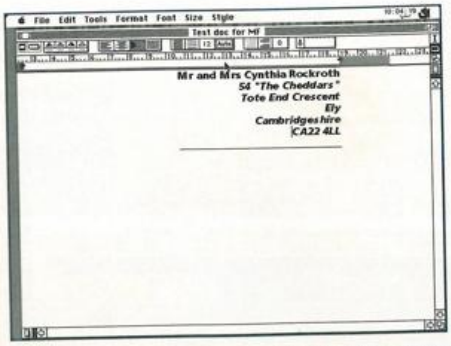
But then again, a few years ago the idea that the normal, average person-at-the-desk could own a Mac was equally silly.

Mail merging is one of those 'power' options that can be of use to anyone and, in principle, is not as difficult to use as you might think.

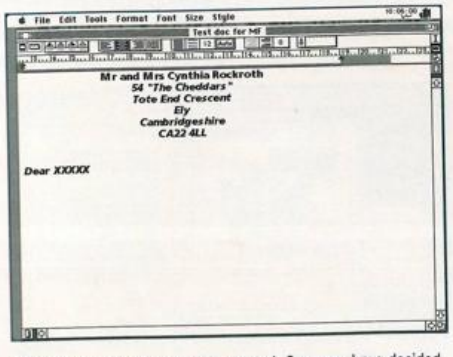
The idea of mail merging is that you can set up a standard format document – be it a letter, a fanzine, a newsletter, or even a poster – this acts as the vessel for the next element: the data file. This is a file (ASCII, Tab or Comma delineated or even RTF) which contains information that you can update as and when you need it. This information can take any form from a bunch of figures taken from your spreadsheet, names and addresses taken from a desktop address book such as *AddressBook* or *QuickDEX* (this is probably the most common form), recipes, team sheets, form text of letters of complaint to the council or Graham Taylor… you get the picture.

To set up the basic document, all you have to do is to type in some standard codes such as <DATE> or <WicketKeeper>. They are used to tell the data file where to put the relevant data (the codes are reflected in the data file) and Robert is your male relative!

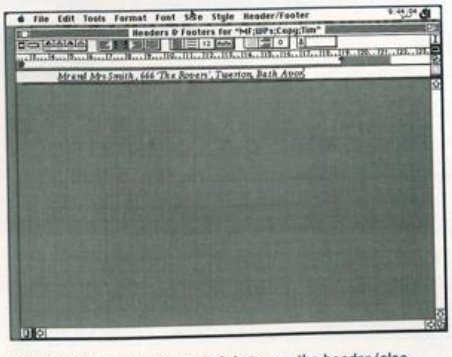
All you need to do now is to merge. Or rather you let your program do this for you. All this operation does is to flow the information from the data file into the document or documents you have previously set up. Stay tuned for a detailed look at Mail Merging in forthcoming editions of **MacFormat**.



Watch your margins! This address is set right, tight to the small margin marker at the top of the page (the up arrow)



This one, on the other hand, is centred. Once you have decided which you prefer, highlight it and save it as a Style



Of course the smart way to do it is to use the header (also common to most applications) to run on every single page

Sheer excellence

Does *Excel* offer value for money? Simon Brock and Greg Morrison test out this high performance spreadsheet program

You have probably seen adverts for Microsoft *Excel*. You may have even considered buying it, but what additional features do you actually get for the extra money? There are so many extra functions in *Excel* compared with say, the *ClarisWorks* spreadsheet module that we shall not try to list them all. Instead we will look at some of the major functions which are not 'more of the same features'. The extra attributes expand what can be done beyond basic functions and help you to use spreadsheets effectively. These are the innovative elements which go beyond those found in other packages. We shall look at some of the major tools and add-ins and see how these can make complex spreadsheet modelling easier. We will also look at features that make difficult to use standard facilities (such as charts) easier to use.

Excel can deliver

If there is a need for these advanced facilities then *Excel* can deliver, though it may require a lot of power to make it practical to use for specific problems. An analogy is the pocket calculator; 99% of the time people use the basic four functions. These extra features are the equivalent of that other 1% of calculator keys which can do very powerful things but are rarely used except by a minority.

Where to get it
Excel 4.0 is available from all Microsoft-approved dealers for £376

Analysis

One of the major uses of spreadsheets is to forecast and answer 'what-if' questions. If there were a spreadsheet model of a manufacturing company I may want to ask, "If the costs of materials goes up, what will the effect be?". This kind of question is asked all the time by spreadsheet users. In these situations many entry level spreadsheets rely on the user entering the variables which can change then copying the results of a question to a separate area then entering some new data and repeating the process. This can be very tedious.

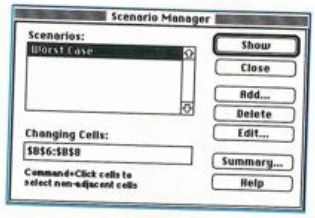
Excel has three features which allow the user to automate the process of testing and recording changes to a model: the scenario manager, what-if, and the solver.

Scenario Manager

The Scenario Manager allows the user to specify a range of cells on the spreadsheet as input cells and assign groups of values to those cells. These groups are called a scenario. Once set up the user can look at the same model with each scenario.

An example of some scenarios might be a worst case, average case and best case for some variable, for example interest rates. This allows the user to look at the same spreadsheet in different ways without actually having to change the cell values on the spreadsheet.

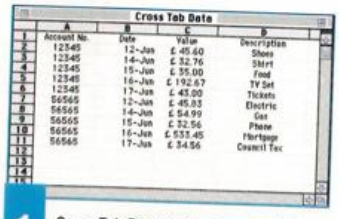
The re-entering of the input values is performed by the scenario manager. Once the scenarios are complete, a report of the results for the different scenarios can easily be produced.



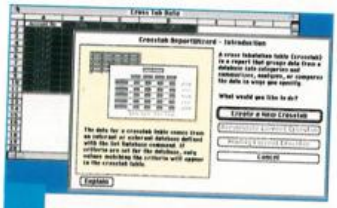
Look at the same spreadsheet in several different ways with the Scenario Manager

Cross Tab ReportWizard

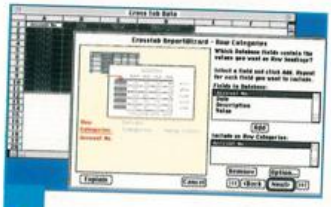
Sometimes there will be a mass of data in a spreadsheet that needs analysing and formatting as a table. Analysing large tables of figures is a common problem so *Excel* includes a special, easy to use set of macros and extensions for this purpose. These build the table without all the tedious work of reorganising the data by hand and adding summary functions. This uses the new 'Wizard' interface which makes difficult features easier to use. To create a cross tabular report all you have to do is to state what the different variables are and any simple aggregate function such as SUM, that needs to be applied to the data and you are away. Let's look at an example:



1 Cross Tab ReportWizard uses a simple approach. This is the data

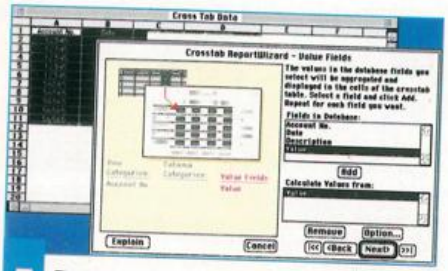


2 Select the data to be analysed and start the Cross Tab ReportWizard

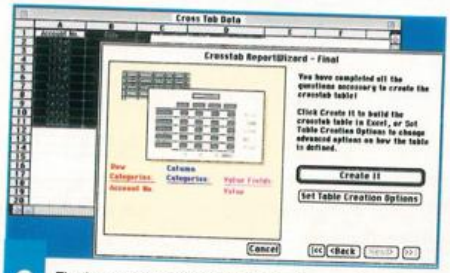


3 Select the fields to be the rows, in this case the account numbers

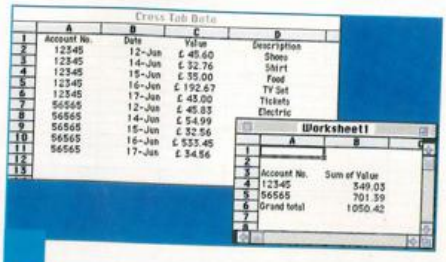
4 Select the column categories. In this case only the totals are of interest



5 The **Value Fields** window allows you to select which field the table values will be calculated on



6 The last window informs you that you've completed all the necessary stages. Finally, click on **Create It**



7 The new summary report is in a new document with the totals as requested

What-if

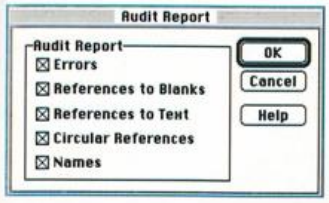
This add-in allows the automatic generation of input values without saving them as individual scenarios. An example of this might be working out the effects of interest rate changes on a model in .25% increments over a range of 5%. This gives 20 scenarios and can easily be made into several hundred variations when different payment methods are chosen. What-if can also handle a number of variables so the question may be what is the effect of the interest rate changes on a variety of different sized overdrafts.

Solver

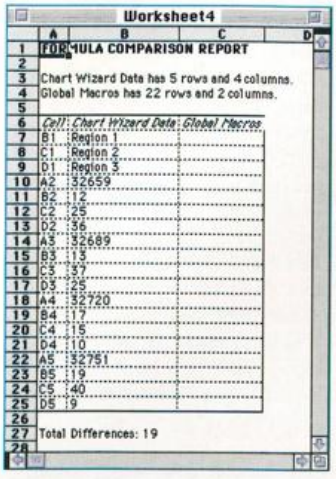
The Solver is a system for searching for answers where there are many different constraints and possible solutions. It works by trying successive inputs and looking at the results then modifying the inputs again; but serious computer power is needed.

Auditing

One of the most difficult things to do on a spreadsheet is to check it to see there are no obvious errors. The spreadsheet may be well designed and neatly laid out but if there is one rogue reference it makes the model completely useless. Spotting these rogue references is part of the function of the worksheet auditing tools. To help this auditing process there are two tools, one of which scours the spreadsheet analysing it for references which may be suspect and produces a comprehensive report at the end. The second tool compares spreadsheets. This add-in simply takes two spreadsheets and reports the differences. This is useful for spotting where changes have happened between different versions of the same spreadsheet.



The options available in an audit report – the tool that finds mistakes in your spreadsheet



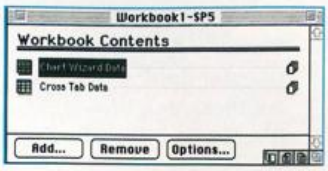
This is the result of comparing two worksheets with the help of auditing

Workbooks

In spreadsheeting terms, a workbook is a document which keeps several, related spreadsheets together. To explain; when spreadsheet models grow they are often split into separate sheets for different needs. For example, one sheet may have income records and another may have expenses and so on. This may lead to a large number of spreadsheets which can be difficult to manage, and use effectively.

Excel addresses this problem by using workbooks. Workbooks are documents that have multiple spreadsheets within them. Each workbook has an index of the contents which can include spreadsheets, macro sheets or charts. To go to a particular spreadsheet the user simply clicks the name of the sheet in the index.

Using workbooks helps make models simpler and easier to manage within *Excel*. If there are links between different spreadsheets, workbooks can guarantee that all the supporting spreadsheets are there.



Workbooks simplify spreadsheet management

Jargon Busters

Add in: a set of macros which extend the facilities of *Excel*

Auditing: checking for errors

Cross-tabular report: a table of values sorted by field

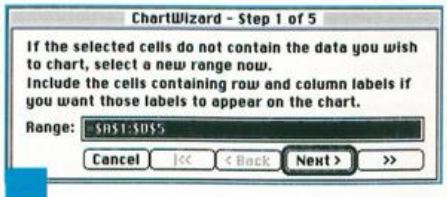
Macro: a user-written extension to perform a particular function

Solver: a tool for solving complex problems with many constraints

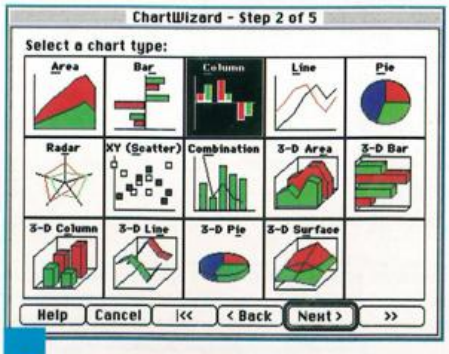
Wizard features: software features which help by assisting the user through a complex task

ChartWizard tool

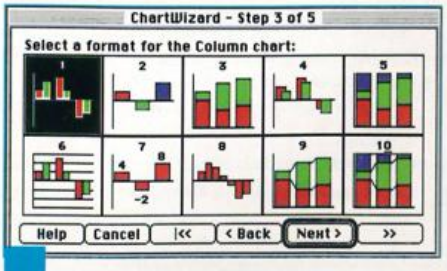
Creating charts has traditionally been one of the hardest tasks in spreadsheeting. The data area has to be set, any labels defined, the chart type selected and so on. What the ChartWizard does is automate the process giving sensible defaults where appropriate.



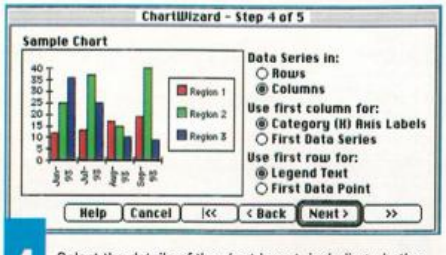
1 Select the data range for the chart and the position of the chart on the spreadsheet. Invoke the ChartWizard



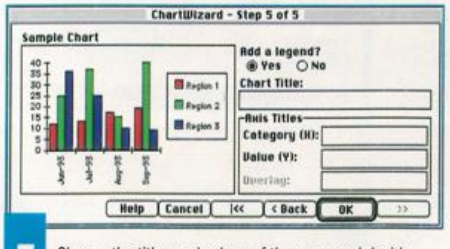
2 When you follow the steps, Select the type of chart. ChartWizard will give you a choice of chart



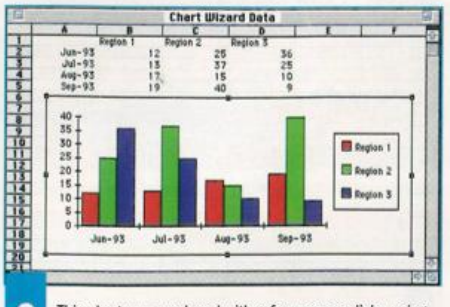
3 Once you've chosen a chart (ChartWizard gives a suggestion), select a format for it



4 Select the details of the chart layout, including whether to show the information in rows or columns



5 Choose the titles and values of the axes, and decide whether to have a legend



6 This chart was produced with a few mouse clicks using the suggestions of the ChartWizard. How simple

The import export game

Sooner or later you will need to transfer data from one database to another. Jack Weber shows you that it's not as difficult as you might think

Two issues ago, we looked at the various database options that are available with integrated software. One of the real benefits of using an integrated application is that it's easy to shift data from one module to another. Elsewhere, such things generate a good deal more exasperation. But, even if you do use an integrated package, what's going to happen when you upgrade to a dedicated database program and want to carry on using all your valuable information? Or when you need to share your data file with a colleague who uses different software? The fact is that, sooner or later, we all have to come face to face with data transfer.

The difficulty is that a database contains much more than data – there's also formatting information, data types, layout information for each of the forms you've designed, scripts, formulas, data validation criteria and perhaps even relational links to join different files together.

First the bad news – you're going to lose all of that. All you can do is to transfer raw data; numbers, dates, text. Any calculations or display layouts will be re-created in the receiving application.

Now the good news – it isn't nearly as difficult as it appears. Leaving aside the special requirements of mail merge, suppose you want to copy some of the fields in some of your records to another application. How do you go about it?

Generally, what you have to do is export your data to an intermediate file format, then import that into the receiving application. So, the first step is to pick a format. Have a look under the **File** menu – there's usually something labelled **Data Export** or **Import/Export**, if not, these options may be hidden under **Save As**. You should find at least one text-based option and several identified by cryptic abbreviations. Choosing the right one depends on where you plan to send the data.

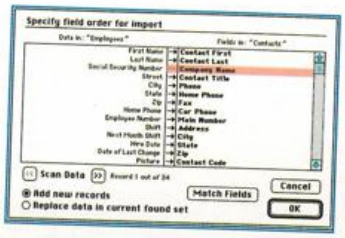
If the data's going to a spreadsheet, you'll want it to end up neatly arranged into rows and columns. The rule is that each record goes into a separate row, with the different fields represented by columns. That's always the way that spreadsheets do it – if you want to alter the layout, you'll have to do so later. Conversely, if you plan to move information the other way, from spreadsheet to database, you must make sure that you start out with the right arrangement: Fields = Columns, Records = Rows.

Used imaginatively, data export can open up new possibilities

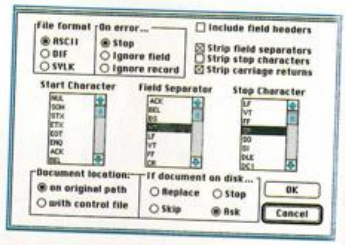
Unlike databases, spreadsheets aren't nearly so sniffy about talking to each other and various widely understood formats have evolved over the years. Many database programs can handle at least some

5 steps to export success

1 Before you begin, select the records you need to export by using Find, then Sort them into the order you want
2 Use an application-specific format if you can. If not, try Tab-Delimited Text
3 If you're exporting from a spreadsheet, try to include a top row of cells containing column names. This will appear in your database as the first record and provides a quick check that data is going to the correct fields.
4 Remember that if you export a calculated field to another database or spreadsheet, you will only get the value it contains, not the formula
5 Be careful with related and look-up fields. All you'll get is a snapshot of the current field value. If you want to move a set of related files, export only the fields that you enter, then re-define any calculations and relational links in the new application



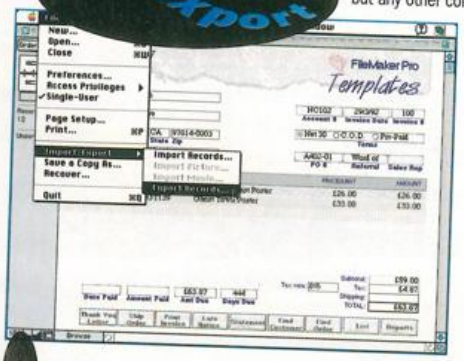
This is how *FileMaker Pro* avoids mismatching data transfer. On the left are the incoming data fields; on the right, the field names in the file that will receive them. By selecting which fields to import, and rearranging the field order on the right, you can line everything up properly



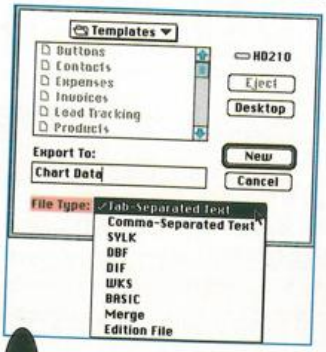
Omnis 7, like most heavyweight relational programs, has a fairly uninviting interface, but plenty of power. For example, you can export fields from any combination of related files in a single transfer; but setting the export field list can be rather fiddly

Effortless export

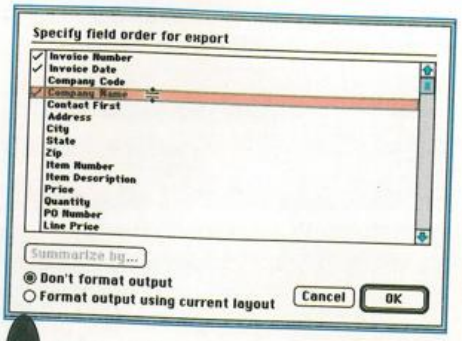
Creating a chart from information stored in a database is easy – all you need is a spreadsheet and a bit of export experience. These are the steps to follow if you're using *FileMaker Pro* and Microsoft *Excel*, but any other combination of database and spreadsheet will work in a similar way.



1 Once you've found the exact set of records you want to use, go to **Export Records** under the **File** menu



2 Select a format, name the file and decide where it's to be saved



3 Click in the left-hand column to mark chosen fields, then drag the field names up or down to put them in order

7 reasons to play import export

1 You've just upgraded to a better application, but want to carry on using your existing data

2 In order to share your data with someone who uses a different database application

3 To send data to a spreadsheet for more involved calculation

4 If you have a long list of records to key in, it's often easier to type them as tabbed-columns in a word processor, then import the lot into your database

5 You use PowerBooks to acquire data away from base, then need to update those records to a central database back in the office

6 To produce graphs from your data using a spreadsheet application

7 To create the address book for a fax modem automatically from your database of contacts and numbers

of these, such as SYLK, DIF and WKS (see box for file format explanations). If your database doesn't offer these, you'll need to use one of the text-based formats. Tab-Delimited Text and Comma-Delimited Text are the usual ones.

As a general rule of thumb, try to use SYLK or an application-specific format if you're sending to a spreadsheet, and try Tab-Delimited Text for exporting to a word processor or another database. If in doubt, try Tab-Delimited format in all cases.

Next, you need to select the records and fields that will be exported and the order in which you want them to appear. For example, if you have a database of students' test scores and want to export the last month's worth into a report that you're writing, it will be a whole lot simpler to select the date range and sort the records by name before the list appears in your word processor document. Fortunately, all database programs let you do this – when they export data it's the currently selected records and the current sort order that you will get.

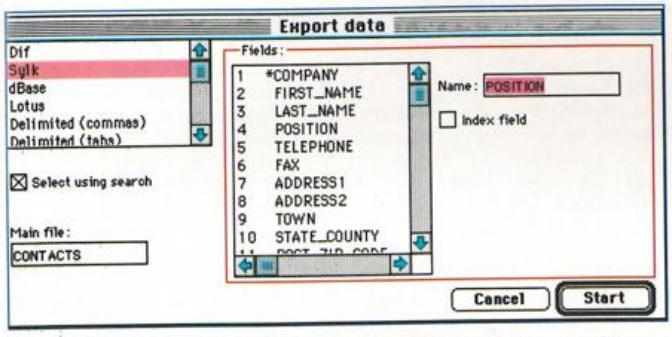
Having picked the records, you now need to select the fields. Again, all database programs allow you to select which fields you want to export and in what order. Some let you do this in ad hoc fashion, others insist that the export file should reflect a pre-defined layout and sort order. The rest is easy – you save the export file and open it in the receiving application.

With luck, everything will look just the way you imagined. Then again, it may not. First, spot check the file – if things start out fine, then go out of step so that data appears in the wrong fields, it usually means that some spurious field-delimiting character has crept in and shunted everything along. Try to track it down in the source file.

If everything looks wrong, make sure that you haven't included any unwanted fields or left out any that you do need. If it still doesn't make sense, try a different file format.

That's export. What about import? Importing into a database is usually simple, but first you have to create a set of fields, each of the right type. The crucial next step is to align the fields with the data so that every item of information ends up in the right place. Provided you kept a note of the export order, this should be easy. Otherwise a bit of trial and error may be needed – import the file, then check a few records to see if everything looks right. The best solution is provided by *FileMaker Pro*, which lets you preview the incoming data while you adjust the field order.

At times, data export may seem like a necessary evil. But, used imaginatively, it can also open up new possibilities, allowing you to split, combine, share and use your data files in many ways. **mf**



The standard export options work in almost all cases, but some programs – this is Helix *Express* – let you select any combination of characters to mark the divisions between records and the fields

File formats made easy

ASCII: American Standard Code for Information Interchange. A pure text file in which each character is represented by a number

Comma-delimited text: this is ASCII text with commas used to separate the fields and returns to separate records. Can be a problem because text fields sometimes contain commas. Some applications cope with this by inserting quotes around each field entry, but there's still room for confusion. Use with care

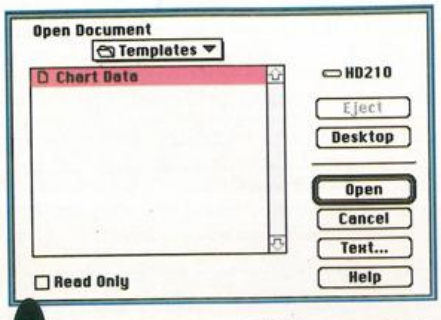
DBF: dBase Format. Used, not surprisingly, by *dBase* – a database that ruled the non-Mac world for many years. Can be useful if you're sharing data with PCs

DIF: Data Interchange Format. A spreadsheet format that was in use before the Mac was even invented. Useful if you have a museum collection of PCs

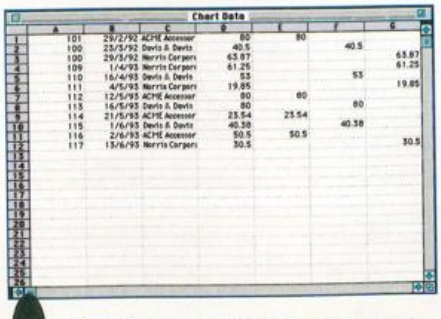
Merge: used for mail merge. Normally, you would use Tab or Comma-Delimited Text and polish it up in the word processor, but a few databases offer ready-made standard merge files

SYLK: SYmbolic LinK, a common spreadsheet format. Many databases support it, and it's a good choice if you're moving data to or from a spreadsheet

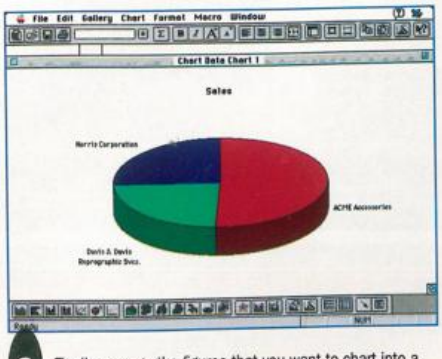
Tab-delimited text: ASCII text with tabs between fields and returns between records. This is as close as you get to a universal standard for data exchange. It's also an easy way to move data into a word processor so that it will automatically appear as neat columns when you set the ruler tabs



4 The export file is now saved to disk. You can run *Excel*, find the file you've just saved, and open it



5 All the data that you've exported will appear, with each record in a separate row and all the fields in columns



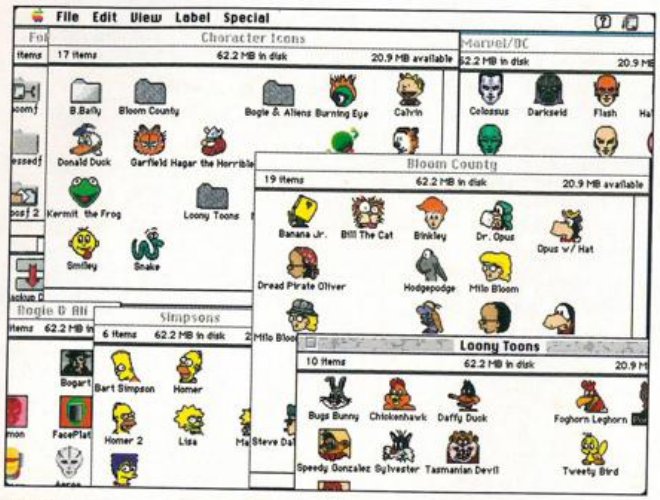
6 Finally, arrange the figures that you want to chart into a table, select those cells and click the **Chart** button

PremiumPD

Supplying the best in Macintosh™ PD and shareware

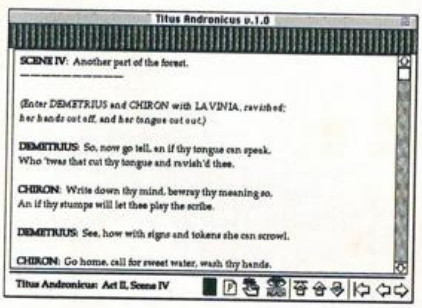
On this page is a small selection of the PD and shareware that we have available. To order, just fill in the form at the bottom of the page – or write to request a free catalogue.

Just £5 per disk!



I101

Bored of the boring old System 7 file and folder icons? I101 contains loads of replacement icons featuring cartoon characters, 'sensible' images… you name it, it's there! The disk contains full instructions for using the images; note that you must have System 7.0 or above to use them.



H103

This disk contains four complete Shakespeare plays in HyperCard format: **Titus Andronicus, Twelfth Night, The Tempest** and **Othello.** Requires HyperCard 2.0 or above (not included).

SOFTWARE SEARCH SERVICE

If you know of a PD or shareware program, we can find it for you. Just let us know the name, and give a brief description of what it does (so that we can try to find any similar programs, which we'll put on the disk for free). This service costs £5 per program, and takes up to seven days.

G101

Maelstrom – The ultimate space shoot-'em-up. It's based on the arcade classic Asteroids, and requires a 256-colour monitor to run. Great sampled sounds, great graphics, great gameplay. You can't be without this game!

G116

This disk contains three great games: **Seahaven Towers** (pictured) and **Forty Thieves**, both excellent colour Patience-style card games, and **Stained Glass**, a game of skill which teaches primary and secondary colours at the same time (requires a colour monitor).

NOT INTO GAMES? HOW ABOUT…

B101: Business essentials, including **BiPlane**, the popular shareware spreadsheet; **MiniWriter**, a great word processor in Desk Accessory form; and **ToDo**, for managing that list of jobs that you keep putting off!

C101: The essential Comms disk: contains **ZTerm**, a fully-featured comms package; **Pretzel**, for accessing Prestel-style Viewdata services; and **DownLine**, for automatically un-stuffing and de-binhexing downloaded files.

S106: The excellent **SoundMaster** utility, for adding sounds to just about all the Mac's actions, along with a range of sounds from the *Star Trek* TV series. **Many more** sounds disks are available – write for a catalogue.

This is just a tiny selection of the disks we have available. Write now for a full catalogue!

Please rush me the following disks within two working days. I enclose £5 per disk:

B101 ☐ **C101** ☐ **G101** ☐ **G116** ☐ **H103** ☐ **I101** ☐ **S106** ☐

Please find me the following program(s). I enclose a cheque for £5 for each program:

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Send orders to: Premium PD, Dept F, PO Box 14, Ravenshead, Notts NG15 9DR

SHAREWARE ZONE PD

Ian Wrigley checks out essential – and not so essential – PD and shareware for your Mac. This month's choices include a druggie's version of *Pacman*, a package for managing your System Extensions, Shakespeare on *HyperCard* and a colouring book for small children

MacPostit

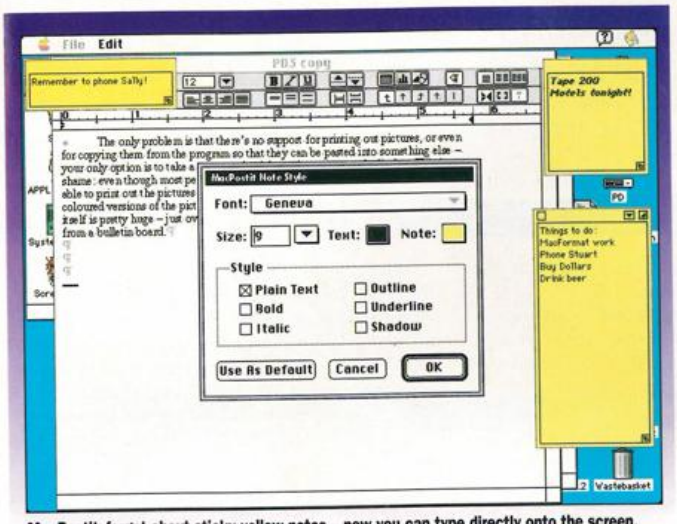
Electronic 'Post-it'

If your desk, monitor, and all other available surfaces are forever filled with little yellow sticky notes, *MacPostit* might be the ideal program for you – or, on the other hand, it might not…

Basically, you run this program in the background; when you want to make a note, bring the application to the front, select **New** and type your data into the new note that's placed on the screen. You can customise things like font, type style and colour, drag the note to anywhere on the screen and resize it as you wish. Each note can contain up to 32,000 characters of text, and you can have as many as you want on the screen at the same time. Because they're automatically saved, each time you run the program the same notes appear. (You can delete a note when you've finished with it, of course.) And since the program works like any other Macintosh application, you can see the notes on the screen even when *MacPostit* isn't the foremost program.

In theory, this is a great idea – eco-friendly and all that. But do you really want to turn your Mac on each time you need to refer to a note you've jotted to yourself? And what about when you just need to gather them all up and stick them in your wallet, so you can deal with things when you're not in the office?

Nice idea, but sadly the paperless – and Post-It-less – office is still a thing of the future, as far as I'm concerned.



***MacPostit*: forget about sticky yellow notes – now you can type directly onto the screen. But don't you find that you need to make notes when the Mac's turned off, though?**

HappyWeed

Pacman with a twist

Let's start off by saying that **MacFormat** in no way condones games of this sort. Drugs are illegal, and are not big, clever or funny. So changing the *Pacman* concept to a little guy running around collecting marijuana leaves, joints, bongs and so on while being chased by policemen is… well, quite funny, actually.

The program requires a Mac running System 7, and a 256-colour monitor. It's fairly customisable: speed, keys and even the layout of the playfield are all under the user's control. There are some amusing sounds, and each level has a different 'superdrug'. This is equivalent to the power pills in conventional *Pacman*, but running over them doesn't immediately activate them. Instead, you can choose when to set one off by pressing a key, at which time you get a 'high' for a few seconds, when you can chase and run over the drug squad officers, sending them back to their base.

The actual gameplay isn't brilliant: sometimes the speed of the characters varies as you're playing, and some layouts are impossible to complete, because the cops appear right next to you at the start of the game. On the other hand, it's more configurable than most games, and the range of speed options should mean that you can play it regardless of how fast your Mac is. And, above all, it's a good laugh, and an interesting twist on an old game.

But remember, kids: Just Say No… I don't have any spare.

***HappyWeed*: your little guy runs around the playfield collecting the dope, bongs and so on, while chased by the evil Campus Police. Run over a 'superdrug' and you get to chase them, sending them back to their headquarters**

Polytris

SHAREWARE at least $1

A 'super-Tetris' game

If you're a big fan of games of the *Tetris* brainteasing genre, then *Polytris* is probably the ultimate program for you – and at a shareware fee of 'a minimum of $1', it's damned good value for money as well!

If you're not familiar with *Tetris* (what planet have you been on for the last few years?!), the idea is that you steer blocks of 'bricks' left and right as they drop from the sky. If you can fill a horizontal row, it disappears – and all the bricks above it drop down one row. If there's no room for any more bricks to appear (that is, you've let the pile build up to the top of the screen), the game ends; the more blocks that have dropped, the more points you score.

The principle, then, is pretty simple. It's the practice that makes it one of the most addictive and challenging games around. As the game progresses, bricks drop at an ever increasing speed, and just one misplaced block means minutes of feverish fiddling to reduce the height of the wall again.

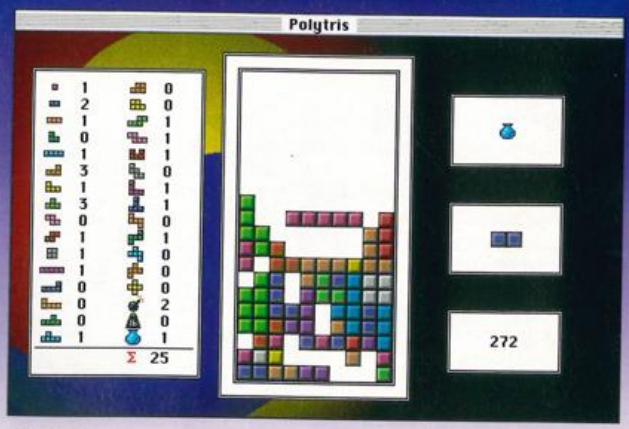
There are plenty of versions of *Tetris* about; the original was a commercial program, but many shareware and PD authors have produced their own variations. Now *Polytris* author S T Han has brought together all the best bits of other peoples' programs and combined them into a superb, totally configurable version of his (or her) own.

Most versions of *Tetris* are pre-configured with things like the maximum number of bricks in any block, whether there are any special features and so on. In *Polytris* all of this is user-configurable. You can, for instance, have only one, two and three-brick blocks if you're just starting or if your children want to play. Or, for those with quick reactions, set the program to give you only 'penta' (five-brick) blocks – but you won't last long!

There are also three 'special' blocks that you can choose to include: a weight, which destroys all blocks in its column down to the bottom of the play area; a bomb, which destroys any blocks in its immediate vicinity; and a water bag, which turns in to up to three blocks, filling the area where it hits (very useful, that one).

As well as this, you can decide how many blocks to have already in the play area when you start, the size of bricks, whether you're playing in black-and-white or colour, and, oh the list is endless.

All in all, *Polytris* really is the most complete game of *Tetris* that I've played – whichever other version you're using, get hold of a copy of this instead!



***Polytris*: probably the most fully-featured and impressive version of *Tetris* you're ever likely to see. Whichever version of *Tetris* you're using, get hold of this one instead!**

Extension Kit

SHAREWARE any donation

Utility for managing your System Extensions

Extension managers control which System Extensions (INITs) load when you start up your Mac. This can be useful in a range of situations: for instance, if you've installed a new INIT which seems to clash with one of your others, causing a crash at start-up, you may want to disable INITs selectively until you find the problematic one. Or you may want to reduce the amount of System memory to its minimum, while still keeping, say, an anti-virus extension in place.

The 'manual' way to do this is to physically remove extensions from the System folder before you reboot, but this is time consuming and awkward – a program which does the job for you automatically really is a boon.

There are plenty of these around: *Extension Manager*, *INIT Picker* and *Startup Manager* are just three that come to mind. Well, now *Extension Kit* has been released as a contender in the market – and very good it is, too.

Unlike most such programs, *Extension Kit* comes as a system extension and an application; most programs take the form of a combined extension/control panel. There are advantages to the *Extension Kit* approach: mainly, that if you change your mind after you've made changes, quitting without saving those changes doesn't alter anything.

The program allows you to select up to ten different 'sets' of extensions; one of those is set to be the default set, which will automatically load on startup. To choose another set, you simply hold down the key on the numeric keypad corresponding to the number of that set as you restart – the '3' key for set three, for instance. If you want to select specific extensions that aren't part of a set, you hold down the space bar as your Mac restarts and a dialogue box appears, allowing you to select the ones that you want.

Sets are chosen and changed by running the *Extension Kit* application. This is extremely easy to use: it scans your System folder for extensions, displaying them in the left-hand window. Double-click on one and it's transferring into the window on the right, which displays the current set's contents.

Extension Kit works in a different way from many of the other programs, which either move extensions around to new folders within the System folder to 'hide' them, or change their type (a hidden Finder attribute) so that they don't look like extensions. Instead, this program sets and resets a special 'flag' that the System looks at, to see if a file is an extension.

If you're not already using an extension manager, and you have anything over and above the normal set of system extensions, you should certainly get hold of *Extension Kit*. And even if you're already using another program, this one could be well worth a look.

One final point: the author says that he is releasing the program as shareware with many reservations, since the try-before-you-buy system hasn't worked for him in the past. This is a great program, so if you use it, do send him a contribution – his programming is too good to be lost!

***Extension Kit*: a powerful program which provides complete control over any System Extensions which you have installed. With this application, Extension conflicts are a thing of the past**

Stars and Stripes

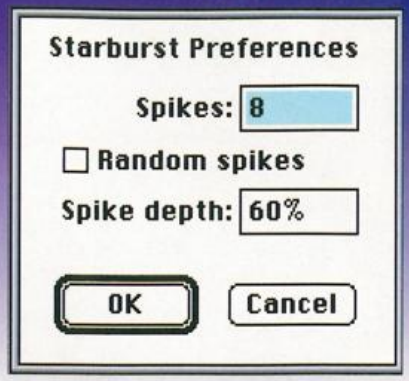
QuarkXPress XTension

Stars and Stripes is an XTension released by Quark for addition to its high-end page makeup program *XPress* – so you need that to use this utility. If you have *XPress*, though, you really should find yourself a copy of *Stars and Stripes* – most of the art editors I know would kill for it! Not that it does anything incredibly spectacular; but the automatic creation of 'starbursts' is something that many people have been begging for since the program first appeared, years ago – and which most people currently use other programs such as *Illustrator* to create.

Basically, *Stars and Stripes* adds another item to the Tools palette – a Star tool. Double-clicking on this tool allows you to select how many points the star has, and how 'deep' each of those points should be. Single-clicking selects the tool, which can then be used just as if you were drawing a normal picture box.

The other, seemingly rather less useful, feature is a 'custom underline': rather than the normal black underline, you can now have coloured underlines at different point sizes and distances away from the text. I say 'seemingly' less useful because although initially I couldn't see much point for it, I've already thought of at least three layouts that would have been far easier to do with this feature.

Stars and Stripes is provided by Quark to see, according to its release notes, whether users find this sort of feature useful and would like it built in to the program in future. The answer? Yes!



***Stars and Stripes*: easy starbursts from *QuarkXPress*. Quark wants to know whether people find this useful...**

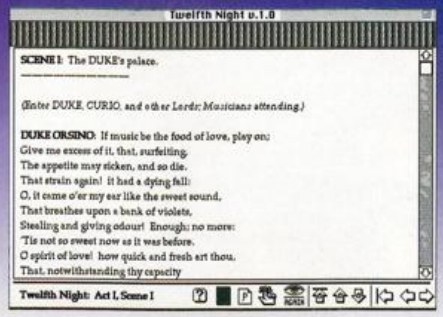
Twelfth Night

HyperCard *stack of a Bill Shakespeare play*

Mark Zimmerman has produced a number of these *HyperCard* stacks – *Twelfth Night* is just one, but you can also find *Othello* and *The Tempest*, among others. The idea, apparently, is that a book isn't good enough in this technological age; you need to read the Bard's words as he originally wrote them – on the Macintosh. To that end, Zimmerman has entered the whole text of the play, and has enclosed it in a fairly attractive *HyperCard* interface.

The look and feel of the whole thing is perfectly pleasant; cards scroll up as you move on to the next screen, there's a 'notes' field where you can enter you comments for each scene (although after entering notes I couldn't seem to alter or delete them), and you can even print scenes out. But I kept asking myself one thing: is there anyone who actually reads stuff like this on the Mac by choice? (We'll leave the question of whether anyone actually reads Shakespeare by choice at all for another time.) It's far easier to go out and buy a copy of the play printed on paper, when you can read it in the bath, on the train, in bed or whatever.

Still, if you do want to read books via the Macintosh, these are fine.



Shakespeare in *HyperCard* – but it's pretty difficult to do a spot of bed-time reading with a Mac balanced on your knee

Fractal!

Creates pictures of fractal landscapes

Fractal landscapes: something that just about all Amiga, ST and PC users have heard of, but which are not particularly well-known on the Mac. Basically, they are representations of coastlines, hills, valleys and so on which are created mathematically using fractals – yes, finally you can create something that actually looks attractive with fractals, rather than just screen images that look like a tie-dyed T-shirt.

There are plenty of fractal landscape-creating programs on other platforms, but the Mac has been rather neglected in this area. *Fractal!*, though, goes a very long way to curing the problem: it's extremely good, and future promised upgrades will make it a worthy competitor to anything available on other computers.

The program is very easy to use. The whole landscape idea works by taking a 'seed' number, and applying various mathematical permutations to it, these permutations being influenced by the setting of some other variables by the user. (If that sounded a bit woolly, that's because it was: you don't have to understand the theory at all to use the program.) So, simply by choosing a starting number (or having the Mac generate a random value) and selecting **Render**, your landscape is created. If you like the basic appearance, you can then set things like the colours used to draw the various 'heights' that appear in the image (a snow colour for high peaks, for instance, and darker greens as you get lower), select whether to have a 'sea' which appears at a certain level, and what colour to draw that sea, choose the angle and position of the 'sun' (lighting), determine how 'foggy' things should be and so on. Or, if you don't like the landscape, just have the Mac draw another one.

Once you're happy with all the parameters, you can have the Mac go ahead and render your image. This can take some considerable time – the one shown here took well over half an hour on my Mac IIci, and is only at level 9 out of a possible 11 – running at level 11 would probably have taken all night. These levels determine the 'smoothness' of the image, so it makes sense to run at a rough but fast level until all your parameters are set, and then increase the level for the final rendering, so there's not much that you can actually do with your finished picture. But it does look pretty good – and at least now you can prove to Amiga-owning friends that your Mac is superior to their computer in absolutely every respect.

***Fractal!*: create fractal landscapes, just like those upstarts with Amigas and Atari STs have been doing for years**

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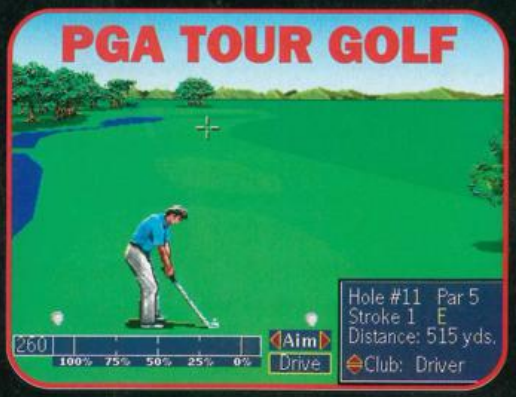

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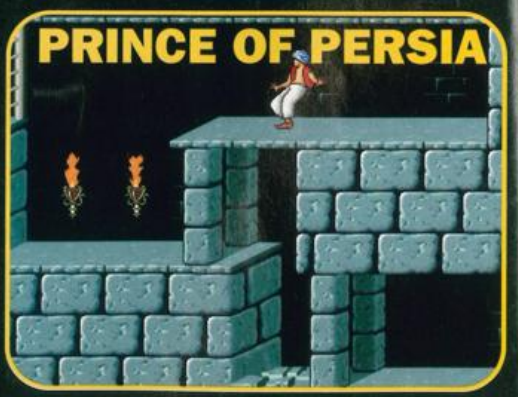

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CatFinder

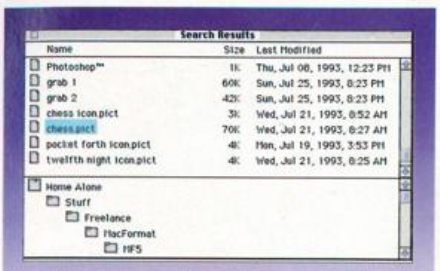
Disk cataloguing utility

SHAREWARE $30

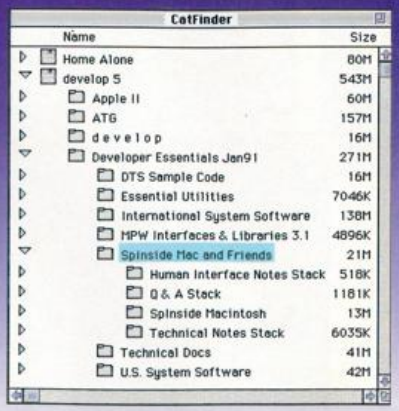
CatFinder is a disk cataloguing utility which should prove particularly useful if you have a large number of floppy disks containing archived material, or if you've a collection of CD-ROMs. The program scans any disk – floppy, hard or removable – and stores its catalogue as a file in a selected folder (normally one on your main hard drive). You can then display this in a 'Finder'-style display, and search it for any particular file. Actually creating the catalogue can take some time: a CD-ROM, because of its size and relative slowness, will take anything up to ten or 15 minutes, and the resulting catalogue file is likely to be anything up to a megabyte in size. However, once stored, searching is quick and easy; you can search for a full filename or just a part of one, or you can look for files created by a particular program, simply by entering its creator type.

CatFinder will even print disk labels for you, if you want – great if you need to catalogue a large number of floppies. Personally, I'll be using it to keep track of the contents of my SyQuest drives – it's far faster than inserting each disk in turn to look for a particular file that I know is lurking on one of them.

The only real problem I found with this program is that it needs quite a lot of memory to perform a 'disk report' (that is, a full directory listing) of a CD-ROM. But then, in reality you'd probably be unlikely to do that anyway – the program's main use is for floppies and smaller hard drives.



Issuing a Find command from *CatFinder* displays the location of a file in the standard hierarchical fashion



***CatFinder* will catalogue CD-ROMs – but be warned, it takes some time, and a lot of RAM to do so**

Pocket Forth

Programming language

FREEWARE

Forth is a programming language that looked like it was going to become very popular in the early to mid 1980s. It's a powerful language, and was used to program radio telescopes, among other things (just a bit of trivia for you). However, it never really caught on, and is now only really used by aficionados. One of the main reasons for this is that it's unlike just about any other language around. It uses a stack-based approach, and works totally in Reverse Polish Notation (RPN). This is a method of specifying the operand before the operator – or, to put that in English, putting the numbers before whatever you want to do with them. For example, to have Forth print out the value of '2 + 3', you'd enter: 2 3 + .

This rather odd-seeming approach means that the language is very fast, and Forth interpreters/compilers are relatively easy to write – but it also means that actually learning the language can take some time. Anyway, if you fancy a crack at learning Forth, *Pocket Forth* is certainly worth getting hold of.

This program comes with copious example files, and can even (according to the manual) be used to create stand-alone Mac applications and DAs – although if you want to do that, you'll have to get your hands fairly dirty with the Macintosh Toolbox, which isn't something to be taken on lightly. The manual doesn't purport to teach you Forth – a textbook is recommended, and some files are included to make *Pocket Forth* behave like the system used in that textbook – but it does tell you just about everything you might want to know about this particular implementation.

Pocket Forth includes support for Apple Events, Drag-and-drop, floating point mathematics, and there's even a DA version included for people not running System 7 or MultiFinder. Best of all, it's totally free – so even if you decide that Forth isn't for you, you haven't lost anything.

Coloring Book

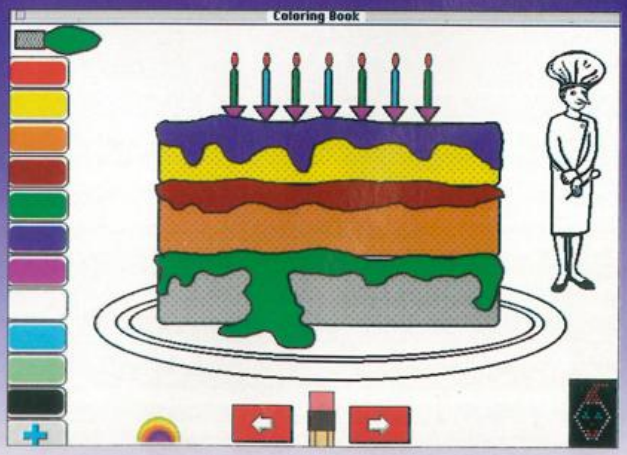
Little kids' colouring-in book

SHAREWARE $12

Got a problem staying inside the lines when you're colouring in pictures? *Coloring Book* is the program for you – or your very small children. This is a program really aimed at those too small even to use a package like *KidPix*; quite simply, it displays one of a number of pictures on the screen, which can then be coloured in by clicking on a colour, then clicking on the area to be filled. Each time you click, a different sound effect is played, and some of the pictures – for example, the birthday cake shown – have extra surprises: click on the chef and she tells you what colours she'd like the cake in; click on the background and you get 'Happy Birthday to You' played by a chorus of dogs barking (hey, I only report it…).

This program is great for really small kids who haven't the manual dexterity to use a 'real' paint package; the sound effects will keep them amused, and there are enough outlines to keep them occupied for some time. There's also a 'peg board' option, which displays a matrix of circles, each one of which can be coloured in.

The only problem is that there's no support for printing out pictures, or even for copying them from the program so that they can be pasted into something else – your only option is to take a screengrab of the entire screen, and edit that. This is a shame: even though most people don't own a colour printer, it would be nice to be able to print out the pictures in shades of grey – and, of course, to print out un-coloured versions of the pictures to be filled in with real crayons.



***Coloring Book*: ideal for small children, this program allows them to colour in pre-defined images without having the strain of drawing the pictures in the first place. Added features mean that it should keep them interested for some time**

GNU Chess

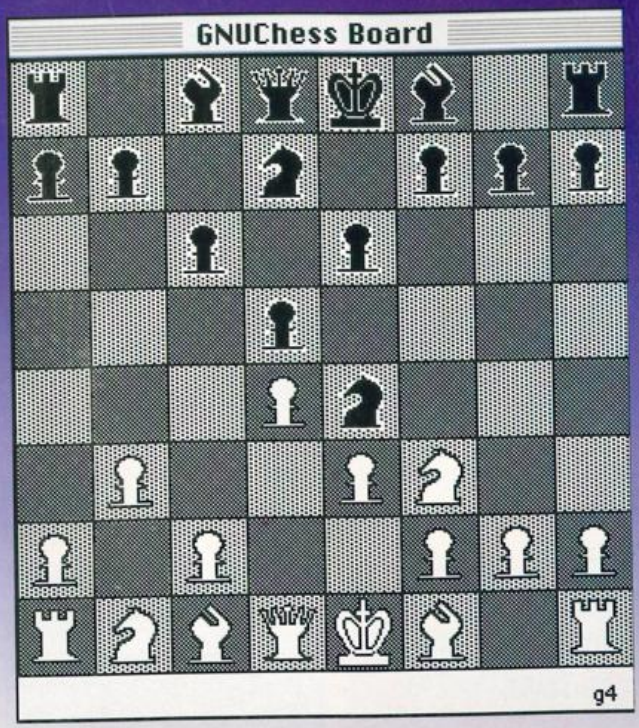
Ah, chess. Oldest strategy game in the world (or something). There are a number of commercial versions of the game available for the Mac, but the big advantage of *GNU Chess* is that it's absolutely free – it even comes with source code, should you want to port it to another kind of computer. This is because it's part of a range of software controlled by the Free Software Foundation, a group of people who believe that software should be… well, free. The FSF also has things like Ghostscript, a free PostScript interpreter, on its books, and insists that all its software is distributed with a lengthy licence agreement and all of the source code.

GNU Chess was originally written by Stuart Cracraft, but has been added to by many other people – all submitting their work to Stuart, who combines it into new versions of the program. By that method, according to Stuart's documentation, the program has progressed from playing a very weak (class D) game to Strong Master status (whatever that is). Basically, what this boils down to is that it beats me every time. Because it's available on a range of platforms – you'll find it on everything from PCs to huge Unix workstations – the programming effort has come from loads of top-class programmers; indeed, for that reason it has advantages over many commercial packages.

All the features you'd expect are there: you can play another human (although why you'd want to use the Mac to do so is beyond me), play the Mac (you play either black or white), or let the Mac play itself. You can set the computer's level of play, and windows show the list of moves and elapsed time. It will work in the background if you want to switch back and forward as you're doing other things, although it does seem to take up a fair chunk of processing power – as it runs in the background now, my word processor has become distinctly jerky and is having trouble keeping up with my typing.

It's great to see a program of this quality in the public domain. The Free Software Foundation does excellent work, and this is a brilliant example of how the concept can really come together. If you're a chess fan, this is a must.

Er... take a guess!



***GNU Chess*: a product of the Free Software Foundation, this is a superb example of just how impressive public domain software can be. It's just as good as a commercial package, and should give a good game to all but the best players**

PD and shareware – what exactly are they?

PD is short for 'public domain'; it's software that may be freely shared around among users – there is no fee to pay. It can be obtained from PD houses (companies which specialise in collecting together and distributing this sort of software, usually for a fee), user groups and bulletin boards.

Actually, most free software isn't PD – it's what's known as 'freeware'. This is because putting a piece of software into the public domain deprives the author of any rights to, or control over, that software. So someone else can modify it, claim ownership of it and even sell it as a commercial package. Clearly, most programmers are not at all happy at that sort of thing, so the concept of 'freeware' was created. This is software which you can use for no charge, but which the author still retains rights over. For example, many freeware authors specify that their programs must not be altered, and may only be distributed if they are accompanied by the documentation files. For simplicity, though, most people still refer to this type of software as 'PD'.

Shareware is a different thing altogether: it's a form of 'try before you buy' approach to software selling. The idea is that you can obtain the programs from the same sources as PD and freeware, but that if you like the software, you send the author a contribution – normally somewhere between $5 and $40 (most shareware authors live in the States). This fee, called the 'registration fee', is for you to become a registered user of the program. Sometimes you get added benefits from the author – such as a printed manual, or a version of the program with extra features – but whether you receive such goodies or not, you should register any shareware which you regularly use.

The shareware idea benefits both users and authors. Users get to try out a program before they buy it, while the author saves money on things like marketing and distribution. Unfortunately, many people treat shareware as if it were PD – they use the programs all the time, but never send payment to the author. Now, while it's true that sending money overseas isn't as convenient as just writing a sterling cheque out, it's still your duty to do so. If shareware authors don't see any money coming in, they are more likely to program purely commercial products in the future – which is a great shame.

Where to get it

You can obtain PD and shareware from a number of different sources. First, there are the commercial PD houses (check the adverts in MacFormat for addresses). These are companies which collect software, package it on to disks and then sell it on to you for a moderate charge.

Next come bulletin boards. To access one of these you'll need a modem, of course, but once you're connected you will find that there's a wealth of software available. If you use the CIX bulletin board (modem phone 081 390 1244, any speed from 1200baud upwards, log on as 'new'), check out the 'files2' and '93.files' topics in the 'mac' conference – and, of course, our own 'macformat' area. If you use CompuServe (voice phone 0800 289378 for an information pack) there is a multitude of different Mac areas; check manual and the monthly magazine for details.

Finally, many Mac user groups have a range of PD and shareware available; and, of course, you can swap it with your friends – it's not software piracy, all of these programs are freely distributable.

Young entainers

Kellie Simmons takes a look at three of the latest, brightest education packages aimed at the younger Mac user

Congratulations. You've got a child and you've got a Mac; put them together and you've got a receptive young mind and the best possible computer with which to educate it – particularly when you add one (or what the heck, even all) of the following packages: *Alphabet Blocks*, *Putt-Putt Joins the Parade*, and *Putt-Putt's Fun Pack*.

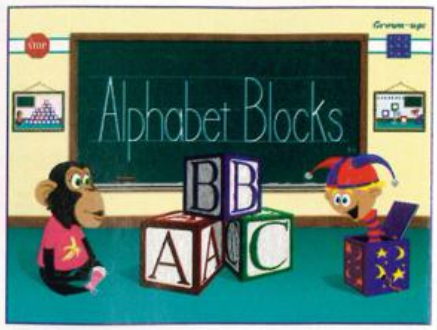
All are designed to teach your child various skills, but in a way that's so much fun, you could hardly call it learning. And yep, it has to be said, we at **MacFormat** certainly enjoyed reviewing them, despite being ever so slightly over the recommended age group...

Logitech Kidz Mouse

It's easy for adults to control a standard Apple mouse, but small kids tend to find it a bit cumbersome for their little mitts.

Logitech has come up with a great and fun solution in the shape of the Logitech Kidz Mouse. It's actually shaped like a mouse with the cable as its tail and two buttons as its ears and only costs £43.

It's small, sweet and ideal for miniature Mac enthusiasts



Alphabet Blocks is a fairly easy to use interactive edutainment package. It's set in a child's playroom which you can explore by clicking on various objects

Alphabet Blocks

There's only one thing wrong with *Alphabet Blocks* and that's the last letter of the alphabet is pronounced 'zeeee'. Most, if not all, of these 'edutainment' type packages come from the US so they're always going to be fairly American as far as speech is concerned. Apart from that *Alphabet Blocks* is a fine bit of software for young kids.

The game's set in a child's playroom. You can explore the playroom by pointing and clicking on various objects. There are four games and two coaches: Jack, a jack-in-the-box and Bananas, a monkey.

To choose a coach you just have to click on the one you want. The same goes for the game you want your child to play. The games in question are: 'Match letters', 'Identify letters by name', 'Identify letters by sound' and 'Identify words that begin with a letter sound'. The titles speak for themselves.

If your child gets something right, they're rewarded by points (a peeled banana if your coach is Bananas, and a jack-in-the-box if your coach is Jack).

Alphabet Blocks is easy to use but feels more suited to the lower end of the age bracket we're concerned with. The only real hiccup is definitely the US twang, but then it is only an obvious problem with the letter 'zeeee'.

There are four entertaining games to choose from. You have to identify letters by sound in this one. The only snag with 'zipper' is that the first letter is pronounced 'zeeee'

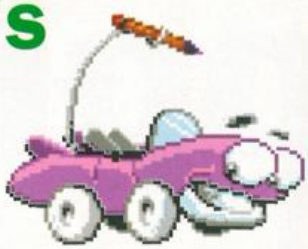
£40 Sierra/Softline 081 401 1234
Requires: full colour monitor, 3Mb, System 7
Age: three and upwards
Aim: teaches children letters and sounds of the alphabet, with a points system as reward

MacFormat rating **79%**

Identifying letters by name is the order of the day here. Jack or Bananas will ask you to find the first letter of a word among the many alphabet blocks in the playroom

If you find the right letter you are rewarded with a peeled banana or a Jack-in-the-box at the top of the screen and little animated toys will dance across the screen

Putt-Putt's fun pack



Putt-Putt's Fun Pack is one of the first in a series of Junior Adventures by Humungous Entertainment.

There are six different activities, but I'd prefer to call them games, with four different levels of difficulty which include the character Putt-Putt, a cute purple car with a heart of gold.

The games include:

- Tic-Tac-Toe, noughts and crosses to you or me.
- Pinball, where the child can create his own pinball board. It's difficult and probably the least interesting of the games because, well, not a lot happens.
- Checkers (otherwise known as draughts). Playing against Putt-Putt, just point and click where you want to make your move and Putt-Putt will do the same.
- Cheese King: a little like hangman, but if you spell a word incorrectly, the cheese king will scuttle on to the screen and take a piece of cheese away from you.

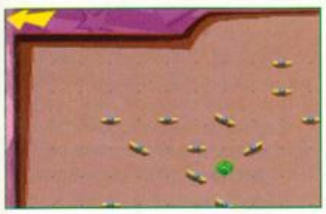
This package looks more like a game than a learning tool; the entertainment value is huge. It's got enough going for it to keep kids interested, so it could prove a useful aid in developing a young child's co-ordination and spelling skills.

There are six games to choose from. This is Circus Puzzle Blocks. Just match them up!

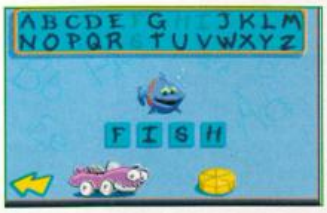
Playing checkers with Putt-Putt is fun. Point and click where you want the checkers to go

£25 Electronic Arts/Softline 081 401 1234
Requires: full colour Mac, 2Mb RAM, System 6.0.7 or higher
Age: three to eight years old
Aim: a series of games to develop the minds of young children

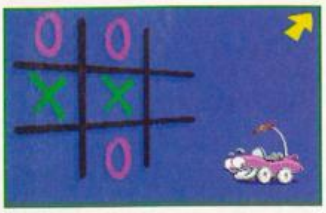
MacFormat rating 81%



I'm not sure about this one. You can create your own pinball board but that's about it



Cheese King is a bit like hangman. If you pick a wrong letter a mouse swipes some cheese



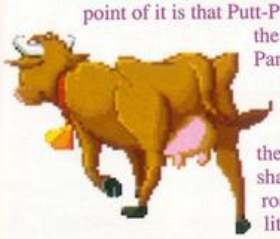
Putt-Putt scratches his bonnet as he decides where to go next in Tic-Tac-Toe

Remember! is useful for practising memory and pattern recognition skills

Putt-Putt joins the parade

Great stuff! *Thomas the Tank Engine* eat your heart out. Putt-Putt is a great character. *Putt-Putt Joins the Parade* is a small kid's version of most of the interactive adventure games designed for us mere adults. The difference being that this is probably more rewarding for the kids because it allows them to think, make up their own mind and use their initiative.

The adventure is set in Cartown and the whole point of it is that Putt-Putt wants to go to the annual Cartown Parade. Obviously there are a few obstacles that get in his way before the parade starts, like sharp objects on the road, mischievous little birds and a hell of a lot of lawns to mow. Kids get to explore more than 30 different areas of Cartown before they and Putt-Putt eventually join the parade. There are talking characters, lots of music and sound effects and an easy point and click interface as well as a few hidden puzzles.

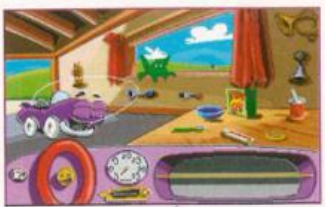


As adults, we'd see this as purely a game, let's hope the kids will too. At the end of the day, you'll probably find that as well as having lots of fun, Putt-Putt has taught them a lot about thinking for themselves and making decisions. I can't see how anybody – adult or child – could fail to fall in love with the cutest little car in town.

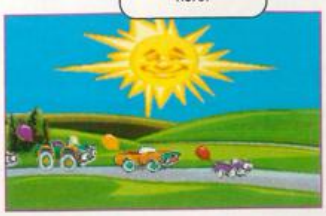
Putt-Putt's glove compartment acts as an inventory. Just point and click at useful objects and then click on the dashboard

£40 Sierra/Softline 081 401 1234
Requires: full colour monitor, 3Mb, System 7
Age: three and upwards
Aim: teaches kids letters and their sounds

MacFormat rating 89%



Interaction galore! Just about every object you see will do something when you click on it



The aim of the adventure is to collect everything you need to take part in the parade

Various chores must be done before you get close to the end of this adventure

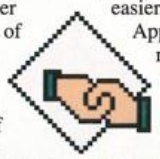
Putt-Putt takes a long, luxurious hose-down underneath a Heath Robinson contraption

Apple's own

Ian Wrigley connects up to AppleLink, where anyone who's anyone in the Mac world hangs out... but at what price?

Over the past few issues we've looked at a range of on-line services – CIX, CompuServe, Demon and so on – but there's one service we haven't covered as yet: AppleLink. This is Apple's own bulletin board, and just about anyone who's anyone in the Macintosh community has an account on it. Whether you want to send a note of congratulations to Michael Spindler, Apple's new CEO, or a sharply-worded letter of complaint to a software company that hasn't provided you with an upgrade, you can be almost certain that you can do so via AppleLink.

In keeping with Apple's idea that a user interface should actually be usable, AppleLink is totally graphical – everything is done with dialogue boxes and menus, there's no need to enter arcane commands at DOS-like prompts. However, although the idea is nice, things aren't totally intuitive – enclosing a file with your memo, for example, can be anything but straightforward, and occasionally files just refuse to be sent correctly. After a little practice, things become much easier – but at the rates that AppleLink charges, you really don't want to have to spend too much time practising!



When it first appeared in the UK, the range of services available on AppleLink was rather limited, to say the least. In fact, it was essentially just a glorified e-mail service. But things have improved radically, and now you can do everything from check Apple's technical documentation on the latest Macs to plan your holiday. Many Apple developers have support areas where you can ask questions, read about the latest versions of packages and download support files and bug-fixes; there's even an area where some of the most popular shareware and PD is available for download.

Counting the cost

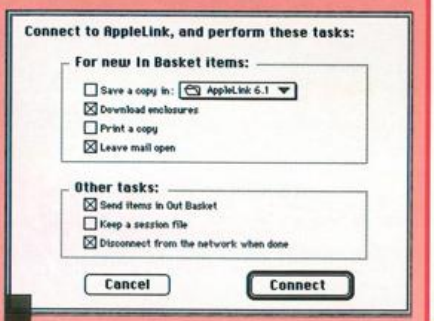
Compared to many other on-line services, AppleLink is not a cheap option. The basic connection kit – which includes the software required to use the system and the allocation of your user name – will set you back £112, with a monthly subscription fee of £5.88. Connection charges range from 30.4p per minute for 1200baud access, up to 51.7p per minute at 9600baud. These costs soon mount up – just logging on once a day to

Make the connection

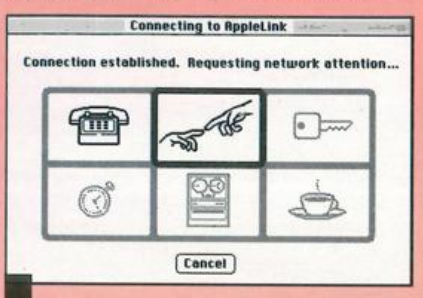
1 Sending electronic mail from AppleLink is easy. Just select **New Memo** from the **File** menu, and type away

2 When you click the **Send** button at the top right-hand corner of the window, you're prompted to address the memo. Once the memo is addressed and you've filled in the **Subject** field, just click on **Send**

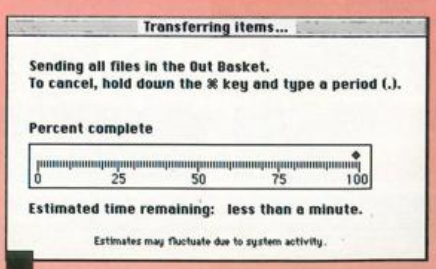
3 To connect to AppleLink, you must enter your user name and password. Hitting the **Connect** button logs you on, while clicking on **Auto mail** takes you...



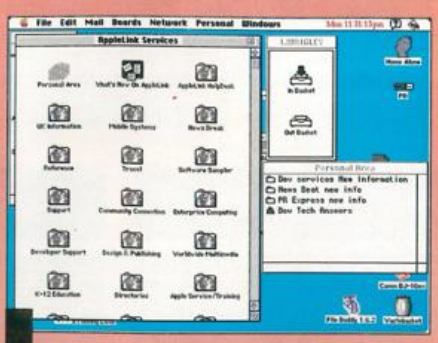
4 ...to this dialogue. Here you can ask the program to log on, send any mail you have in the out basket, collect any incoming mail and log off again... at pre-specified times



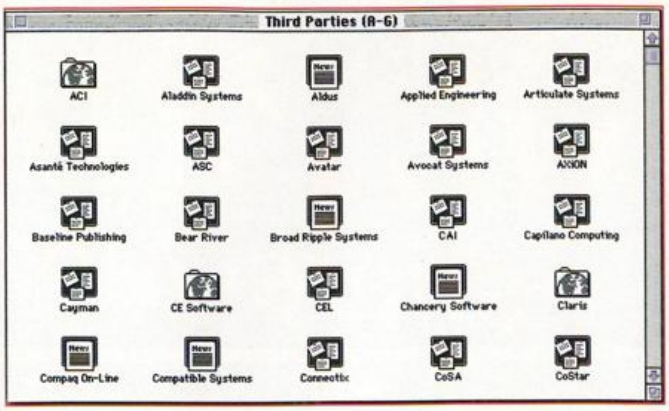
5 The connection process itself is automatic, and icons show you how far you've got



6 If you've selected Auto mail, your memo will automatically be sent, and you'll then be logged straight off. At 51p per minute, the less time you stay connected the better!



7 If you choose to connect normally, this is the display that you'll be presented with when you're on-line. The arrow pointing to the In Basket shows that there's mail waiting



A fair number of third party developers have areas on AppleLink, so you can ask them questions about their products and get up to the minute information on their latest developments

collect your mail can easily set you back £40 or so per quarter in charges, and Apple developers, who need to frequently use the service, report quarterly charges of anything up to £400!

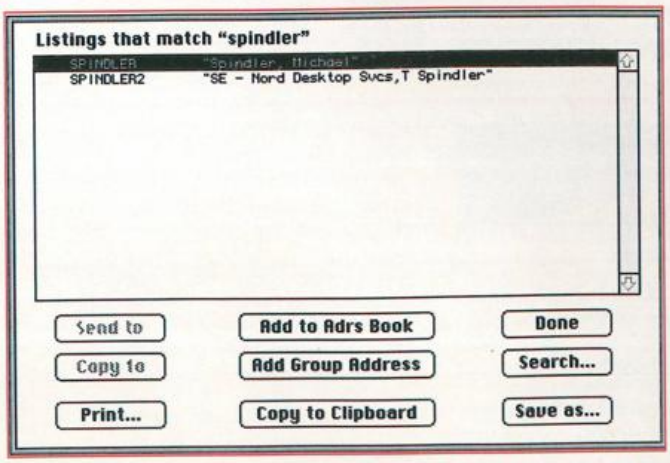
So is it worth it? Well, although it's true that you can e-mail to an AppleLink user from any on-line service which provides you with e-mail access to the Internet (see panel), plenty of AppleLink users don't realise that they can reply to such a message. Certainly, if someone asks if you're on AppleLink and instead you give them a standard Internet address, you're likely to be met with a somewhat blank look.

Apart from simple messaging, there are other benefits to being on AppleLink – especially if you need to keep up with what Apple's doing. There is a section on the board which stores the company's latest press releases, so you will know about things like the release of new Macs well before you can read details in the press. And the fact that well over a thousand Apple technical notes and common questions and answers are also available means that you're likely to be able to find the solution to just about any problem you may have.

In essence, whether you should subscribe to AppleLink depends largely on whether you can't get all the information that it contains from other sources, such as CompuServe for example. On the other hand, if you're involved in the Mac in a professional capacity, or you want easy e-mail access to the industry's movers and shakers, it's well worth considering – despite the high price.

Where to get it

For further details on AppleLink, and to order the connection kit, call the free AppleLink helpline on 0800 585682



Want to send a note or memo to Apple's Chief Executive Officer? Just check the address book for Michael Spindler, and there he is!

e-mail made easy

With so many different on-line services offering e-mail gateways, it's easy to get confused. But fear not! **MacFormat** presents the concise guide to getting your e-mail from here to there…

Simply find the service you're using, then look down to the service your recipient is on and mail to the address shown. Remember, though, to replace the sample user name with your recipient's!

AppleLink

To: CIX
Sample user name: bloggs
E-mail to:
bloggs@cix.compulink.co.uk@internet#

To: CompuServe
Sample user name: 12345,678
E-mail to:
12345.678@compuserve.com@internet#
(NB: replace the comma with a full stop in the address)

To: Internet
Sample username:
fbloggs@ucla.edu
E-mail to: fbloggs@ucla.edu@internet#

CompuServe

To: AppleLink
Sample user name: MACFORMAT
E-mail to:
>INTERN:MACFORMAT@applelink.apple.com

To: CIX
Sample user name: bloggs
E-mail to:
>INTERN:bloggs@cix.compulink.co.uk

To: Internet
Sample user name:
fbloggs@gibbon.co.uk
E-mail to:
>INTERN:fbloggs@gibbon.co.uk

CIX

To: Applelink
Sample user name: MACFORMAT
E-mail to:
MACFORMAT@applelink.apple.com

To: CompuServe
Sample user name: 12345,678
E-mail to:
12345.678@compuserve.com

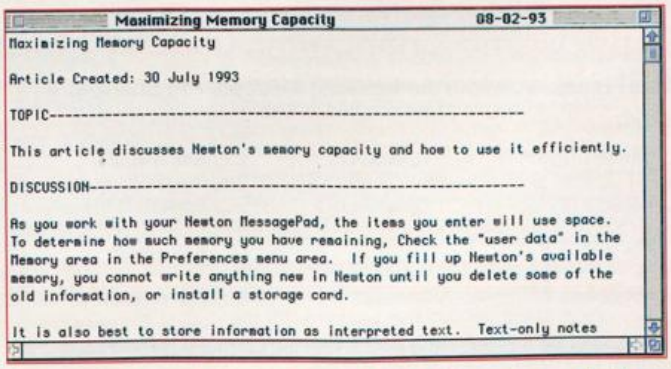
To: Internet
Sample user name:
bloggs@gibbon.co.uk
E-mail to: bloggs@gibbon.co.uk

Internet

To: AppleLink
Sample user name: MACFORMAT
E-mail to:
MACFORMAT@applelink.apple.com

To: CIX
Sample user name: bloggs
E-mail to:
bloggs@cix.compulink.co.uk

To: CompuServe
Sample user name: 12345,678
E-mail to:
12345.678@compuserve.com



AppleLink contains thousands of technical notes and questions and answers – so you should be able to solve any problem that you have. Here we're looking at information about the Newton

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shareware

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Latest top-line leisure

Hot games 1

Beamwars: Tron- style fast action bike game (colour)
Blade: Arcade action shoot-em-up (colour)
BattleShips: Play this classic against your Mac
Classic Daleks: One of the all-time great Mac games
Canfield: Play Solitaire on your Mac
Eliza: Talk to your very own Mac psychiatrist
Mac Defender: Brilliant conversion of the classic
MacTrek: Help the Federation defeat the Klingons
MacTurnover: A great version of Othello/Reversi
StuntCopter: Pilot a crazy attack chopper

Hot games 2

Risk: Great Mac version
BlackJack: Popular version of Pontoon
8 BALL: Brilliant pool simulator
Brickles Plus: Just like Breakout (colour)
Biorythm: The top Mac biorythm program
Glider: Guide a glider through your home
Core Wars: Great conversion of this old time favourite
Orion: Fantastic spaceflight simulator

....bags more games in our catalogue

Time-saving business tools

Timesavers 1

MiniWriter: Apple menu pull down word processor
theDirectory: A Rolodex for your Mac
Phones: Easy to use phone number database
Ck21: Easy to use home accounting software
DOITALL: Reminders and diary and appointments
Easy Envelopes: The easy way to print envelopes
Macsee: Load Mac disks on a IBM PC
Doswasher: Mac to IBM and back for text files
FileTyper: Essential for changing file creators
HideFiles: Make sensitive files invisible

Timesavers 2

Personal finance: Simple but sophisticated accounting
Meeting Cost Monitor: Cut the time you spend in meetings
MacSink: Very powerful Apple menu word processor
Smart Calendar: Great calendar with built in reminders
Niff: Converts your DOS &Unix text files to Mac and back
Dateprog: Calculates the number of days between two dates
Little Black Book: Handy quick reference database
MailMenu: Use voice paging over your network!

Easy to use graphics programs

View-it!

BMP2PICT: Convert PC BMP pictures to run on your Mac
FolderView: See all your PICT files in any folder at once
Imagery: Great graphics converter for PC, Amiga and ST pics
Imagjpeg: Uncompress JPEG graphics files
Imagutil: Mega collection of various graphics utilities
Picdecomp2: View all your JPEG files
Superconvert: Convert any TIFF file to EPS
Gifconverter: Load, view and convert GIF graphics files

.many other graphics utilities can also be supplied

Create-it! Over 1250K

UltraGrabber: Capture any part of your Mac's screen
Theatre Maker: Add backgrounds to your QuickTime movies
Popcorn: Easy to use QuickTime movie viewer and editor
Rays: Brilliant ray-tracing program
Deskpict: Put a full screen picture on your desktop
Rename: Photoshop plug-in for renaming PICTs
Wildmagic: The great QuickTime enhancer
Pico: Image-processing for colour Mac II range
Banner Maker: Print your fonts as BIG as you want
ScreenSnap: Guaranteed to take a snapshot of ANY screen

Power-boosting utilities

Power 1 (Sys 7)

AutoMenus: Make menus drop down automatically
Iconapp: Turns any open application into an icon
Spfind7: Speed up your Finder
Orwell: Record & Send sounds over a network
QMRecorder: Put voice messages on QuickMail.
SaintEdit: Great text editor for instant access
Talk2Me: Make your Mac an intercom
Shutdown Later: Make your Mac turn itself off later
Altwdef: Turns any open window into an icon
Alias director: Get your aliases under control

Power 2 (Sys 6) Over 1250K

KeyTools: Speed up your keyboard use with shortcuts
FlashWrite: Special pad for taking and editing notes
Mouse2: Make your mouse move twice as fast
ProSwitch: Instantly switch between programs
Unstuffit Lite: The ultimate file compressor
Boom202: Speed up the way you save files
MacPassword: Protect your Mac from prying eyes
Apollo: Have all your favourite programs on a menu
NOTES: Post-It type notes
Speedo: See how your Mac compares to others
Stylus: Powerful Text Editor with built-in fonts!

Pro Presentation tools

Extra fonts

Windsor: TrueType font
Architect: TrueType font
Goudy: Postscript 1 font
Rhyolite: Postscript 1 font
St-frans :Postscript 1 font
Thomas: Postscript 3 & TT Font
Mira: TrueType font
Andesite: TrueType font
Ashley: Postscript 1 font
Ballet: Postscript 1 font
Caraway: Postscript 1 font
Art Deco: 30's style font

A great selection of fonts from Art Deco to Hi-Tech

Perfect print

Skeys: Make sure you've got curly quotes on print outs
Batchprint: Select any files to print without loading
Tt2win: Truetype converter
Serial DA: Run any printer connected to your serial port
Daisy: Run any Daisy Wheel printer
Typebook: Get a print out of all your fonts
Multispool: Printing in the background for non-laser printers
Sdw22: Connect your Mac to a HP Deskwriter
Proprint: Output to any printer but only text
Hpdj: Use the HP DeskJet printer with your Mac
Fontmaster: Excellent font displayer and lister

...Do you have a program you want us to find?

Desktop fun

Audio studio Over 1350K

Star Trek: Top sounds from the cult TV series
SoundTrecker: Play Amiga, Atari and PC sounds
HAL alert: 2001's computer on your Mac
Deadterm: Make your Mac talk like Terminator Arnie
Sound Manager: Instant control over sounds
Big Ben: The most famous chime in the world
SoundMaster: Add any sound to any action!
RapMaster: Play rap music on your Mac!
SoundExtractor: Get sounds from other programs
Twin Peaks: Great collection of sounds from TV series

ask for a catalogue for more!

Screen Madness

Flow: Just watch your screen flow away
The Grouch: great animated dustbinman
Blue Savannah: Collection of great desktop patterns
Cursor animator: Replace that tired old watch
Spinit: Make all your windows open by spinning
Oracle: Your Mac gives you a random daily quote
MacEyes: Eyes that follow your every move!
Aurora: Change all your window and menu colours
SuperApple: Make your Apple icon move
Welcome: Change your 'Welcome to Macintosh' screen

Please help us to help you

HOW TO ORDER
All Metropol disk prices include postage for UK purchasers. Please allow normal bank clearing times for processing of orders made by cheque. Disks paid for by Postal Orders will be processed immediately.
If you're ordering from outside the UK, please send an international money order made out Metropol and add £2.50 to the order total to cover additional postages.

COMPATIBILITY
Unless specifically stated all Metropol Pro titles will run under both Systems 6 and 7. Also, unless stated, all programs will run on both mono and colour Macs. However, should you encounter genuine difficulties with any file, we'll be only too happy to help you out with an alternative choice.

REGISTRATION
Many of our individual titles are shareware, which means that their authors expect a small payment for the program should you choose to use it on a permanent basis after a reasonable trial period.
This is a unique feature of shareware and one which should be honoured since in many instances the programs are of commercially viable quality. Besides, if you register you'll receive free updates and documentation, and make someone feel it's all been worthwhile.

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Name .....

Address.....

.....

.....

Postcode.....

☐ Tick here if you run system 7

☐ Tick here if you run a colour Mac

☐ Tick here if you own or plan to own a CD ROM Drive

CROSSING THE GREAT DIVIDE

It's easy enough for a Mac to read a PC disk, but how about the other way around? Huw Passmore checks out three utilities that will help you do the round trip

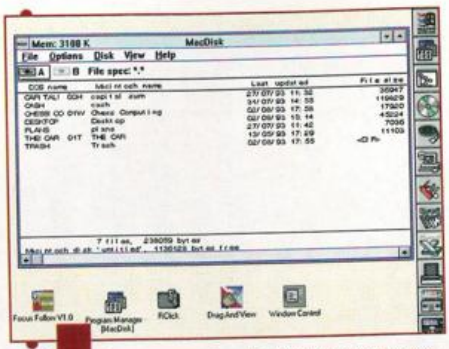
Getting Mac documents to load on PCs and PC documents to run on Macs can be a constant source of hassle for anyone occasionally wishing to bridge the gap between these two platforms. If you're using both types of computer on a regular basis then there are a number of packages available which will make the job that much easier.

Perhaps the ideal solution is to use emulation software on your Mac to run actual PC applications. Insignia Solutions is perhaps the best known name in this area. It publishes a range of solutions for putting a software-only PC onto your Mac; there's the entry-level *Soft PC Universal* which emulates PC ATs in CGA and EGA graphics modes, the mid-range *SoftPC Professional* which handles VGA graphics and at the top-end *SoftPC for Windows* which really requires a Quadra for it to be usable.

While Insignia's emulations can handle a PC's extended and expanded memory, printers, modems, and even CD-ROMS, you do need a 68030-based Mac machine with plenty of memory to make those emulations work effectively. However if you're a PC user and you want access to Mac files the emulator solution is a no go – there are no Mac emulators for the PC! So what's a poor PC user to do who needs to be able to load and edit Mac documents? There are a number of alternatives available which include transfer by serial cable, using a front-end such as Argosy's *RunPC* to handle all the pain of protocols, or a comms program to take care of the transfer.

If all you want to do is transfer a few word processor documents, spreadsheet and image files between the platforms at the Mac end it's easy enough to use Apple's *PC Exchange* software to read PC disks directly. However, if you've got an older Mac with double density floppy drives, you'll only be able to read single density 720K PC disks so you'll need to run *Apple File Exchange* in order for it to recognise your documents. But again, when it comes to the PC end you'll be hard pushed to find any software which will allow you to read Mac disks.

Until now that is. Three new PC programs, *MacDisk*, *MacSEE* and *Mac-ette* will now allow you to do just that. Up to a point. Because let's face it, nothing's ever that simple is it? In this case the proviso is that any PC can read Mac disks as long as they're high density Mac disks. So, for you Mac owners with 800K drives, it's yet another reason why you should consider buying a 1.44Mb SuperDrive.



1 As you can see from *MacDisk's* directory listing in Windows, the *Excel* spreadsheet file 'Capital sum' is magically renamed 'Capital! OOH'

2 It's easier if you display the Mac name first; in *MacDisk* you can get a listing of all the Mac files on a floppy and check what they've been renamed as

MacDisk

Insignia's latest product offering, *MacDisk*, is an inexpensive utility for reading and writing files on Mac disks from any MS-DOS or Windows-based application. Insignia claims that 65 per cent of all Macs sold worldwide are used in environments with large PC installations and many applications are now available for both the Mac and PC. As a result, there's a growing need for PC users to access files on Mac disks. *MacDisk* differs from *MacSEE* and *Mac-ette* in that, once installed, it allows you to

MacDisk allows you to copy, delete and even format Mac floppy disks

open from and save to Mac floppies directly from a PC application without any intermediate file transfer utility. In addition, you can also copy, delete and even format Mac floppy disks.

MacDisk can be installed either from within MS-DOS version 3.1 or later or Windows version 3.1 And in either case it's pretty straightforward. The installer simply modifies your Autoexec.bat file to add a *MacDisk* folder as a working directory and copies the relevant files to the hard disk where they take up a maximum of 275K. In Windows, a new Program Manager Group is automatically created. If you wish you can configure *MacDisk* to run as a TSR program at startup so you can always expect the PC to be able to read a Mac disk. This only takes up 57K of memory and can be loaded 'high'. The only annoying aspect of this option is that on booting up the PC it searches your A: drive for a Mac floppy and if it doesn't find one reports the familiar 'Abort? Retry? Fail?' error message, temporarily suspending any batch file routine.

Once installed, *MacDisk* is totally transparent in so far as you can open any Mac document which will load into the PC application you're running. Documents in folders can be opened just as easily from the standard Windows file requesters and the same convention of a backslash (\) is used to open folders in DOS. But it's when you get to the actual directory listing that you see the major difference in appearance between Mac and PC files; the names have changed – sometimes beyond recognition! *MacDisk* does its best to translate Mac filenames into PC names automatically but the different conventions for naming files inherent on each

platform does present problems. The stumbling block is that while Mac files can be up to 32 characters in length and include spaces, PC filenames are restricted to eight characters with an optional three-character suffix. So as the examples in the screen shots show, if *MacDisk* comes across a file called 'Chess computing' for instance, it will truncate it to 'Chess! OOO1W'! Obviously, if you had three files called chess computing, chess computing b and chess computing c, you'd have problems knowing which one was which.

MacDisk gets round this by including a small utility which lists the Mac filenames and the equivalent PC filename they've been assigned. To assist you in making more sense of this translation, the utility allows you to view and sort the files in either order. I found it best to sort and view the Mac filenames first and remember the PC names they'd been assigned before switching back to my application to load the desired document.

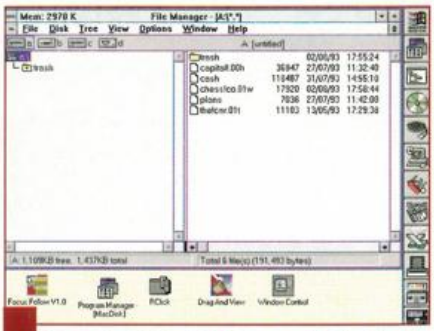
Obviously the best bet is to save your Mac file in a format which your host PC application will recognise. So if it's a text or data document use ASCII, rich text (RTF) or comma separated values (CSV), if it's a graphics file save it in TIFF format and if it's an illustration save it as an Encapsulated Postscript file (EPS) These are the most generic file types available and should ensure portability

You can open any Mac document which will load into the PC application

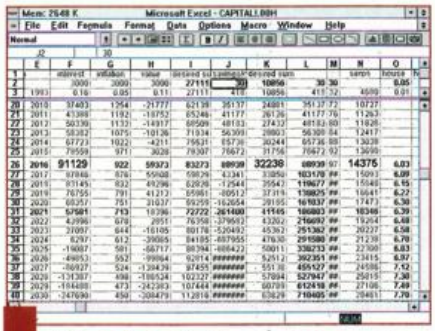
between Macs and PCs but if you have applications on both machines developed by the same publisher the transfer will be a lot easier. For instance, Microsoft *Word* files on the Mac will load directly into *Word for Windows*, as will Microsoft's *Excel* spreadsheet. In either case all that's likely to be needed is a little bit of manual re-formatting.

As far as file management is concerned *MacDisk* is again pretty easy to use with a little patience. Files can be copied, moved and deleted directly from within either DOS or Windows' File Manager although these operations do take significantly longer than usual. You can also format a floppy to Mac format on the PC – either from within *MacDisk* in windows or by entering MACFORMT A: at the DOS prompt. Again, this is significantly longer than if you formatted it using a Mac.

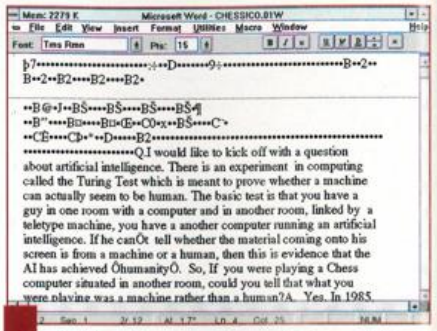
So these speed overheads aside, *MacDisk* is a quick and simple solution to the problem of Mac – PC connectivity. It's best employed for small generic files like letters, spreadsheets, images and illustrations and as long as you remember to save your Mac files with PC-style names you can treat Mac documents on a PC just as if they were PC documents. At £79 it's got to be worth a look; particularly if you happen to use a PowerBook at home and a PC at work.



3 If you go into Windows' File Manager you'll find all the Mac files there with their new names. But they won't be associated with any application; to load them you have to open them



4 This is the file Capitall ooH – an *Excel 3* Mac spreadsheet which opens straight into *Excel for Windows* with all the formatting, and even windowing, preserved...



5 ...but I've yet to see a word processing document that will convert across without modification. This Microsoft *Word* file has brought some spurious control codes with it

Mac-ette

Like *MacDisk* and *MacSEE*, *Mac-ette* can't read 800K disks but unlike both of these applications, it only runs under MS-DOS. Once loaded it automatically senses the presence of a Mac disk in the PC's floppy drive and you can scroll through the files using the arrow keys, and move in and out of folders using the **[O]** and **[C]** keys. Copying from one format to another is somewhat more manual than both *MacDisk* and *MacSEE* but, if anything, a greater degree of control is afforded. There's a very useful carriage return line feed (CRLF) translation option which can be used with text files to make them editable on the PC. Macs use a carriage return (ASCII 13) to end text lines whereas DOS uses a carriage return followed by a line feed (ASCII 10) – that's two characters to end text lines. So when CRLF translation is on, any ASCII 13 character will get an ASCII 10 inserted after it. Another feature that is also extremely useful is the ability to change the name of the Mac file you wish to copy to DOS format, simply by highlighting a file, pressing **[E]**, and then entering a new file name.

The third reason *Mac-ette* is worth tracking down is that it can read both the data and resource forks of Mac files and is therefore useful for transferring certain kinds of Mac fonts for use on PCs. In DOS, a file appears as a sequence of bytes which can store any type of information, while on the Mac there are two separate parts to a file; these are called forks. The resource fork contains resources used by the application such as menus, fonts, etc, while the data fork can contain any type of data used by the application. So, usually only one fork is of interest on a DOS machine but if you are copying fonts (Type 1, TrueType, or screen), they generally exist in the resource fork.

Acute Systems has come up with a font translation utility to complement *Mac-ette*; *Wrefont* will convert Mac Type1 and TrueType fonts to PC format. Somewhat surprisingly, this is a Windows-based program. Of the three Mac disk readers, *Mac-ette* is the easiest to use and fastest in operation but suffers from the fact that it only runs under DOS and not Windows. Nevertheless, if it's fast file conversion you're after, this is the one to go for.

```
MAC-ETTE v1.0 Copyright 1992 Paul E. Thomson All Rights Reserved

 Filename          Type  Crtr  Data Len  Rsrc Len   Date      Dos Name
▶..                <FOLDER>               02/18/93
 stunt town 03     PICT  rTVT     25960         0  01/18/93
 stunt town 02     PICT  rTVT     38334         0  01/18/93
 stunt town 01     PICT  rTVT     28654         0  01/18/93
 stunt seq 04      PICT  rTVT     53616         0  01/18/93
 stunt seq 03      PICT  rTVT     51776         0  01/18/93
 stunt seq 02      PICT  rTVT     51754         0  01/18/93
 stunt seq 01      PICT  rTVT     51810         0  01/18/93
 stunt link loc    PICT  rTVT     75102         0  01/18/93
 stunt island 01   PICT  rTVT     28388         0  01/18/93
 stunt island      PICT  rTVT     28388         0  01/18/93
 stunt formation 02 PICT rTVT     75944         0  01/18/93
 stunt formation   PICT  rTVT     69468         0  01/18/93
 stunt edit deck   PICT  rTVT     58282         0  01/18/93
 stunt city        PICT  rTVT     45438         0  01/18/93
 stunt car&planes  PICT  rTVT     15794         0  01/18/93
 stunt camera car  PICT  rTVT     24682         0  01/18/93

D:Mark Data    O:Open Fldr    N:New Disk     E:Edit Dos Name    ESC:Quit
R:Mark Rsrc    C:Close Fldr   X:No Xlate     B:Begin Copy
```

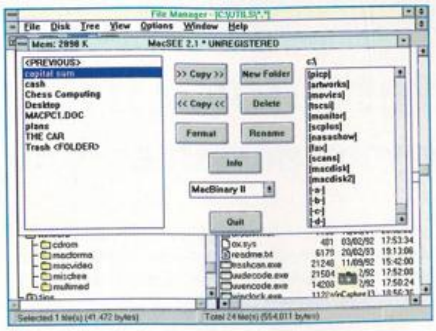
Mac-ette may not look like much but it's actually a very fast DOS-based shareware utility that will let your PC read high-density Mac floppies. It's also useful in that you can rename the files before they're converted so you don't end up with the bizarre names supplied by *MacDisk*

MacSEE

MacSEE v2.1 is a shareware utility that will also allow you to read and write Macintosh format disks but although it won't enable you to open Mac documents directly into PC applications it does support Mac hard disks including SyQuest removable hard drives formatted on a Mac. Like *MacDisk* it can't make head or tail of what is written on 800K Mac disks. For your $35 you get quite a sophisticated little utility that can be used either in Windows or from the MS-DOS command line. In DOS you load *MacSEE* before you insert a Mac disk and any drives that can support a Mac disk will be available. Selections of drives and folders are made with the arrow keys and **[return]** or **[enter]** to indicate that the selected item is correct.

Mac files are listed in their own window and your PC's hard disk or any other PC drive's directory is listed next to them in a separate window. To transfer a file from one side to the other you just have to highlight it using the arrow keys and press **[enter]** or **[return]**.

Depending upon the direction you are transferring the file a translation file will be created and then the file will be copied to the other side (or vice versa). When transferring a file, an intermediate file is created for translation purposes so it's necessary to have enough disk space available in the hard disk directory *MacSEE* was loaded from to contain this translation file. You can select the kind of translation mode you want before transfer takes place but this shareware version only supports two modes, MacBinary II and Data, the former being used to keep Mac-pertinent information intact within the file – useful if you obtain a file from an on-line service



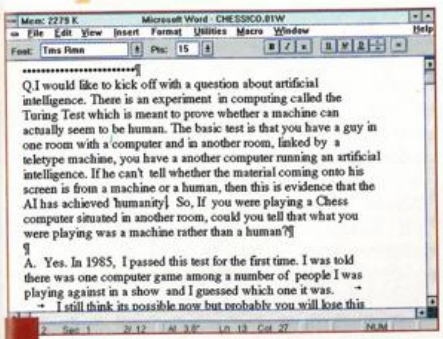
MacSEE may look easy enough to use but it's a little confusing when it comes to handling formatted text documents

MacSee's MacBinary handling makes it worth checking out

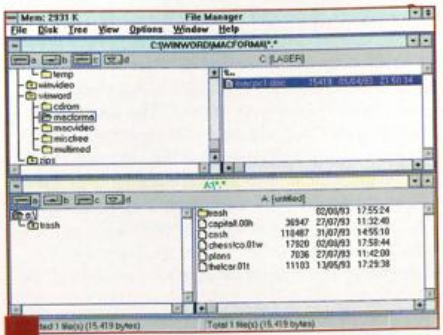
while using a PC and then you want to transfer it to a Mac disk to use – while the data mode is used if you want the file to make some degree of sense on the PC side of things useful for pictures and sounds.

The Windows version is identical except that arrow key and enter keys are replaced by mouse clickable buttons. In practice the DOS version seems to work better than its Windows counterpart – it's obviously faster – but in both cases I had problems copying word processor and spreadsheet documents produced in *Word* and *Excel*. Straightforward ASCII files transferred fine but the Microsoft documents, although recognised, wouldn't transfer so I had to go back to the Mac and re-save them as plain text files. Obviously this is more long-winded than *MacDisk* but then again *MacSEE* is less than a third of its price.

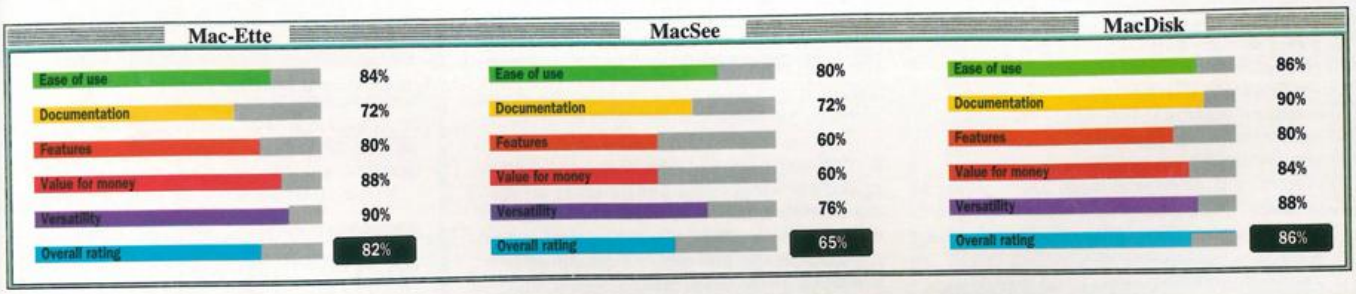
Reevesoft has announced a commercial version of *MacSEE* – 3.0 – which will sell for $80 and promises support for file deletion, renaming, creating folders, and formatting Mac disks. It will also support more file translation modes including Text and fix some of the limitations of the shareware version. Until this arrives though *MacDisk* is the preferred choice because you don't have to mess around with file translation and suffer the rather hit and miss affair of compatibility. However if you have access to a PC and a modem and want to download Mac programs then *MacSEE's* MacBinary handling makes it worth checking.



6 On the other hand, it opened easily enough and all it takes to edit out those codes and get the original formatting back are a few simple hard returns



7 File transfer can go the other way too – here I'm copying the PC file MacPC1.DOC to the Mac floppy. Back on the Mac it'll load straight into my copy of *Word*



Jargon Busters

ASCII: American Standard Code for Information Interchange. A system of plain text whereby each character is represented by a number. For example, A is 65, a carriage return is 13

Boot up: to start a computer. A left-over from the early days of computing, when starting an old machine up meant a long, complicated process reminiscent of pulling yourself up by your own bootstraps. Yes, really

EPS: Encapsulated PostScript. A way of storing a PostScript graphic so that a low-resolution image can be shown on-screen, without needing a PostScript interpreter installed

RTF: Rich Text Format. A format for text styles that carries information about the text's font and style

TIFF: Tagged Image File Format. The closest thing to a universal format for bitmapped images

Where to get it

***MacDisk* £79 from Insignia solutions on 0494 459426**
***MacSEE* shareware $35 from Reevesoft on 0101 803 654 7378**
***Mac-ette* shareware $20 from Acute Systems on 0101 708 658 4127**

Power tools

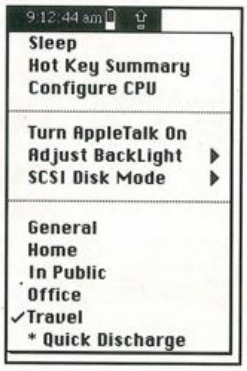
Connectix PowerBook Utilities
– a handy package for your portable

In keeping with the PowerBook flavour of this month's issue, our first utility is one designed to make using your portable Mac just that little bit easier. *Connectix PowerBook Utilities* (*CPU*) includes loads of different features such as security, power management, even the shape of the cursor – all so that you can spend more time actually using the machine, and less faffing around, wishing that you'd brought the spare battery or trying to find out where on the screen the blumming cursor is!

Utilities galore

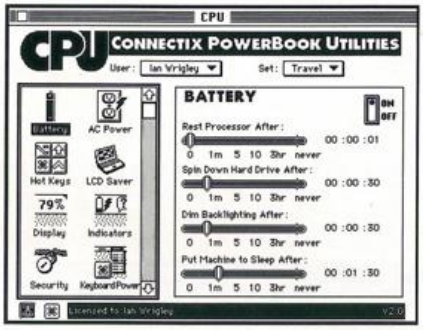
There are certainly plenty of features in the package; so many, in fact, that the first-time user could be forgiven for finding the whole thing a little bit daunting. To avoid this, the program runs in two modes: simple, and 'propeller head'. For some people, the simple mode is all that they'll want; you simply set a single slider to decide the trade-off between battery life and machine power. This automatically sets things like how long before your hard drive 'spins down' (stops), the time before the screen's backlight (which takes up a great deal of power) switches off and so on. However, if you want to alter these factors yourself, it's perfectly easy to do so: click on the 'propeller head' icon and you're taken into a very detailed list of options which you can customise.

The program's designers have clearly realised that people use their PowerBooks in different ways depending on where they are: if you're on the road, you'll want to save battery power as much as possible, while if your Mac is plugged in to the mains power you certainly won't want to wait for the hard drive to spin down and the Mac to go to sleep after just a few seconds of not being used. For this reason, a number of different 'sets' are pre-configured: 'Travel' will save you as much battery power as possible; 'Office' assumes that you're within easy reach of a mains power supply, and so on.



CPU can be configured from a menu that appears underneath the battery life display in the menu bar

One real problem for PowerBook users is security: it's too easy to put your machine down for a moment, only to come back and find that someone's taking a look at your work. For this reason, you can assign a password which is required whenever the PowerBook is either started up, woken from sleep or both. The dialogue box that requests the password also has room for some customisable text – so you can include your name and address, in case the PowerBook gets lost. If you're not happy remembering a password, you can elect to have a graphic appear on restart or wake; to use the computer, you must click on a certain part of the graphic which you request. The security seems pretty good; unless someone has a startup floppy disk, they won't be able to bypass it. (Even **[command] [option] [escape]**, Apple's 'force quit' command, doesn't work – it is either ignored or crashes the Mac, depending on whether you're entering the password at startup or wake up.



This may be the most important set of *CPU* options, allowing control over your PowerBook when it's being battery-powered

CPU has a range of other features which make PowerBook life easier; for example, you can alter the width of the I-beam cursor (the one that appears when you're selecting text) so that it's easier to find, and there's a customisable keystroke which will produce a large flashing circle around the cursor in case you totally lose it (something which is pretty easy to do, especially on the passive matrix screens found on most PowerBooks).

Waking up from Sleep mode normally takes several seconds, as the PowerBook goes through all sorts of checks to make sure that nothing has changed, looks for any new devices on the AppleTalk network (whether or not you have anything plugged in) and so on. *CPU* reduces this waiting time by providing an 'instant wake' feature; checks such as AppleTalk are performed after the PowerBook has woken up, so you can get on with your work immediately while the Mac performs its housekeeping tasks in the background. Likewise, if you find that moving to the Finder from your active application in order to select Sleep is a pain, you'll love the Instant Sleep hotkey combination – press it from within any application and your PowerBook will automatically Sleep.

Another useful option is placing a combined clock/date/power left display on the menu bar. From this, you can discover what percentage of battery power is left, and also roughly how long you have left to work. As with everything in the package, this is fully customisable – you can elect to have only some of the options shown if, for example, you don't have a PowerBook that supports an alterable processor speed (yes, *CPU* lets you decide whether you want high or low processor speed, for extra battery savings).

If you have a PowerBook, you'll know that battery life is the major problem. Well, *Connectix PowerBook Utilities* certainly helps to maximise the amount of useful time that your PowerBook will keep on working, and its extra features such as security, a permanent display of battery life and things like automatic sleep mean that it's worth purchasing. It's certainly made my PowerBook much easier to use!

CPU

Ease of use 92%
Two user options mean that the program is perfectly simple to set up

Documentation 85%
One combined manual would have been nicer than one each for versions 1 and 2

Features 93%
It's hard to think of anything else that could be added to these utilities

Value for money 90%
All in all, *CPU* makes life with your Mac far easier – and battery life far longer

Overall 90%
If you've got a PowerBook, *CPU* is well worth buying. Especially notable for its two user options – easy and power user

Where to get it

***CPU* costs £94, and is distributed by Computers Unlimited, 081 200 8282**

Ian Wrigley takes another peek under the hood of his super-charged Mac to find some more handy housekeeping tools – this time a package for PowerBooks and a disk maintenance program

Safe & Sound

– a utility that keeps your hard drive in shape

Safe & Sound is billed as a program for which "NO technical expertise (is) required!" It's a disk maintenance package, which claims to keep your hard drive in good shape; if you should run into trouble, just restart with the requisite disk, click 'Check' and everything will be restored, good as new.

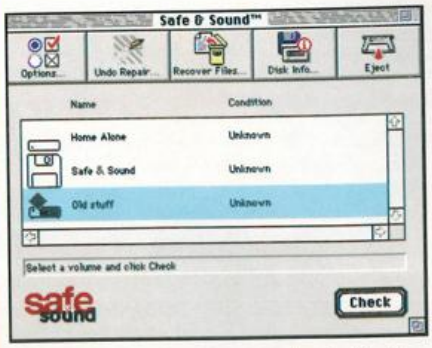
Two startup disks are provided: an 800K version, containing System 6.0.8, which you are supposed to use for the Mac Plus, SE, II and IIci. The other disk is high density, contains System 7.1 and should be used for all other Macs. First question: why can't I use the high density disk on my Mac IIci? It runs System 7.1 perfectly well, has a high density disk drive and is more recent than some of the Macs which should use the disk – the IIcx, for example. And, yes, the high density disk does appear to work fine on the IIci. It's odd then, that the disk label tells you not to do so.

In fact, I'm glad that I can use the System 7.1 version; I have 32-bit addressing turned on and trying to restart the Mac with System 6.0.8 results in a dialogue box telling me to turn it off or startup with a later version of the System.

Scan for viruses

Tiny troubles over, I started up with the disk and the application ran automatically. It's fine as far as it goes; the options available cover a reasonable range of topics such as whether to check for lost bundle bits, scan for viruses, notify if more than a specific number of files are fragmented and so on.

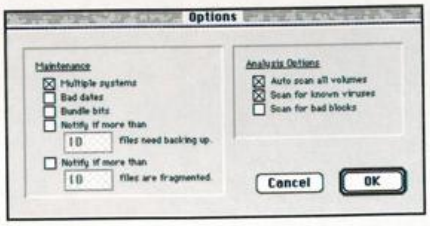
When scanning the disk, the program reports any problems and asks you whether you want them fixed or not. One interesting feature is the ability to save a file which records exactly what the program has done – so if things all go horribly wrong, you can 'undo' the repair and return things to their original state.



This is the main screen, from where you select the disks to be scanned. All fairly straightforward

I do have reservations about this program, though. For a start, the manual is precisely eight pages long and two of them contain no information about the program. It's presented as a fold-out sheet, and gives you the basic procedure to follow in order to diagnose and repair a problem disk. But there really isn't enough information there for a novice to make sensible judgements about what the problem might be, and how to cure it. For example, listing the sort of problems that may occur, you are told, "If the Macintosh stops halfway through startup after some of your extensions appear at the bottom of the screen, you probably have an extension conflict, not a disk problem. Turn off the computer, then turn it on again while pressing the **[shift]** key. This temporarily disables all extensions. If the Macintosh still does not start correctly, insert the *Safe & Sound* disk and start the computer again."

That's all very well, but the shift key trick only works if you're running System 7 or above. And what if it then does start properly? No information is given as to what an extension



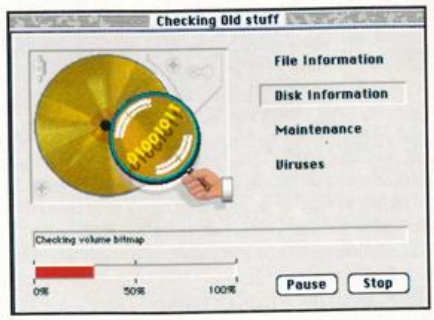
The scanning options are fairly wide-ranging – but why is the Bundle bits check off by default?

conflict actually is, or how to cure it. Further on in the manual, when detailing the options section, we are told about what the program can scan for: "Bundle bits. checks all files to verify that their bundle bit attribute is set correctly. If the bundle bit is not set correctly, a file loses its icon. By default, this option is off."

But if you're not a power user, surely your immediate question is why? I don't want my files to lose their icons. Shouldn't I turn this option on? Why is it off by default?

Basically, *Safe & Sound's* manual fails by trying to be too user friendly. Not giving people extraneous information is a good thing, but not at the expense of clarity and useful help.

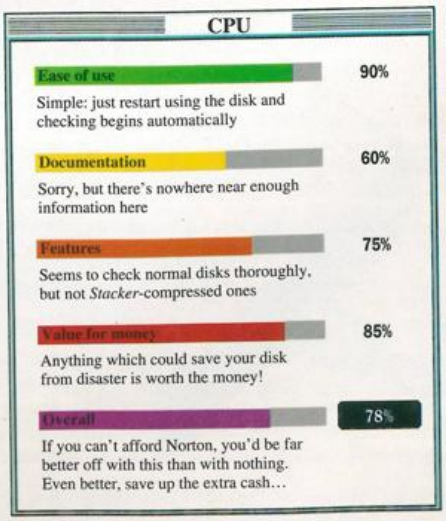
Another concern is the scan for viruses. The manual says that this scans the disk "for all known viruses" and goes on to recommend that you install an anti-virus program that works all the time, such as Central Point *Anti-Virus*, from the same company. Again, good – but nowhere is there a list of the viruses that the program



Checking a disk: this can take several minutes, especially if you're scanning for viruses or bad blocks

checks for. So if you buy the program in three months' time, after a new virus has been discovered, how can you be sure that you've got an updated version and not one that's been sitting on a dealer's shelves for months? You can't.

On the plus side, *Safe & Sound* is relatively cheap, and should protect your hard drive from many of the problems that can give you a hard time. It's better to use something than nothing, but I'm sticking with Norton *Utilities*.



Where to get it

***Safe & Sound* is available from Central Point Software, 081 848 1414. It costs £58**

Ian Wrigley takes a peek at the Apple Desktop Bus – the system that enables your keyboard and mouse to talk to your Mac

Catching

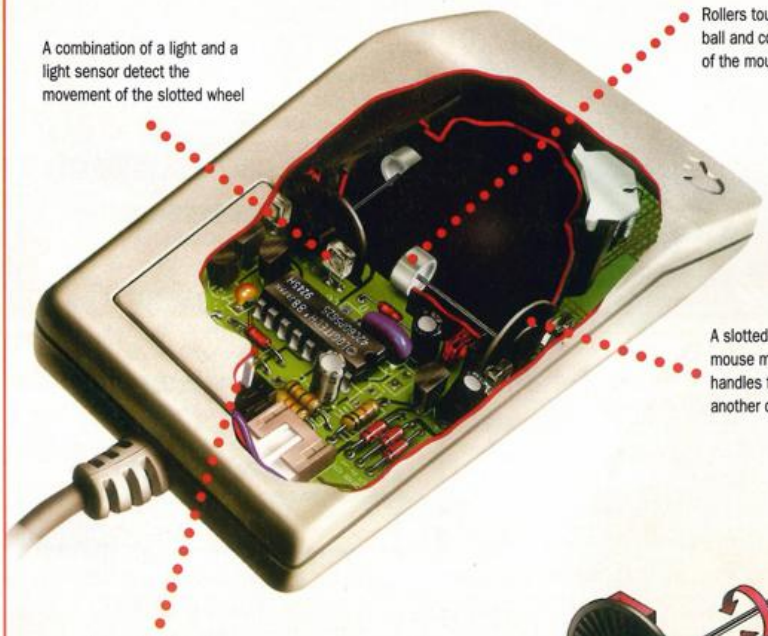
Last issue, we gave you an overview of the Mac's circuit board, describing what each major piece of circuitry does. This time, we're looking more closely at one of the most useful connectors on the Macintosh: the ADB, or Apple Desktop Bus. This is the interface that you use to connect your keyboard, mouse, graphics tablet and even some other devices such as modems to the Macintosh – so it's fairly vital!

Physically, the ADB is a four-pin mini-DIN connector, which was introduced with the Mac SE (the Mac Plus used a different method for connecting the keyboard and mouse). It can support up to 16 input-only devices, 'daisy chained' together – that is, connected one after the other. That's why most ADB devices have two sockets; so that something else can be tagged on to the chain after them. The main exception, of course, is the mouse, which must be at the end of the chain. Macs normally have two ADB ports on the back of the machine, although some only have one. It doesn't matter where you connect your input devices – keyboard, mouse and so on – since the two connectors on the Mac are chained together anyway.

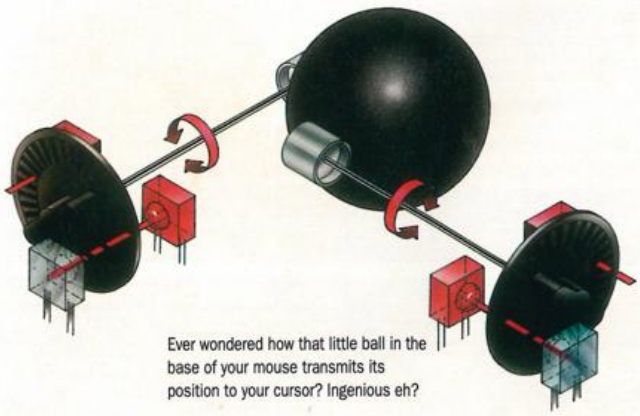
You don't need special software... the Mac's built-in driver will do the job for you

When the Mac starts up, and at set intervals thereafter, it sends a query down the ADB chain, asking each device to identify itself. Anything which can connect to the ADB port has its own microcomputer chip which can handle such requests, so after a second or so the Mac knows exactly what is connected. All normal mouses (mice?) send back the same identifier, so you don't need special software if you have a third-party rodent; the Mac's built-in driver will do the job for you. However, differ-

How an Apple mouse works



As the main ball rotates, it's pressing on two small plastic rollers. (Actually, it's pressing on three, but the third is just there for mechanical reasons and doesn't do anything.) The two wheels are connected, via a spindle, to a disk with slots cut into it. An infra-red light is shone at the wheel, and a photo-resistor on the other side detects when the wheel is turning – as the disk turns, slots will repeatedly obscure and let through the infra-red light, which triggers the photo-resistor. This data is sent to the Mac – one set for vertical and one for horizontal movement – and the mouse driver software converts this into information about the direction and speed of the mouse, which it then passes on to the System.



Ever wondered how that little ball in the base of your mouse transmits its position to your cursor? Ingenious eh?

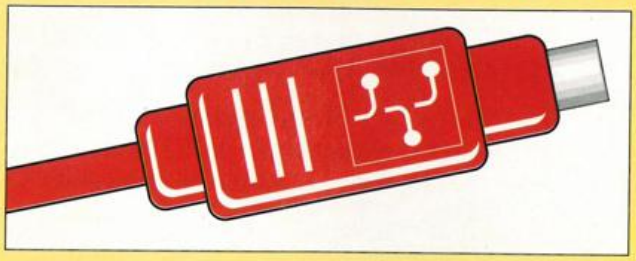
the bus

ent types of keyboard send back different codes. Why? Well, take a look at the KeyCaps Desk Accessory that's part of your standard System software. When you launch it, you're presented with a picture of the keyboard and that picture changes depending on whether you're using a standard keyboard, the Apple Extended Keyboard or the Apple Ergonomic Keyboard. Without the Mac knowing which device was attached to it, KeyCaps wouldn't know which picture to display. There are also other reasons – most of them to do with handling the extra keys on Extended Keyboards.

Once the Mac knows what's actually attached to the ADB, it can pass on the information to any driver that asks for it – so, for example, if you're using a pressure-sensitive graphics tablet, the driver may take the data it's being sent to work out how hard you're pressing the pen, and then pass that information on to a graphics package.

Although the ADB is designed for input-only devices – pieces of hardware that send information to the Mac, not the other way around – a couple of manufacturers have managed to use it for other purposes. The most well-known of these is Global Village Telecommunications, which connects its Teleport modems via the ADB port. What this means is that the serial ports on the back of the Mac are kept free to carry out other useful operations, such as connecting to networks, plotters, serial printers and so on. **mf**

ADB dos and don'ts



This familiar looking plug connects keyboards, mice and other input devices like graphics tablets and joysticks to your Mac's Apple Desktop Bus (ADB) port. Take care when you're fitting devices though – the four pins inside the housing are not particularly robust and are easily bent so don't force anything as the leads are pretty expensive to replace

- Don't connect more than about eight devices at a time – especially if one of them draws a lot of power, such as a modem. On the other hand, we'd be impressed if you could find more than about half a dozen ADB devices to connect!

- Do always turn your Mac off before disconnecting and reconnecting ADB devices. There are two reasons for this. First, the Mac may not recognise what you've done, and will get confused – it may even crash. Second, if you short two pins together while the Mac is switched on, it's just possible (although extremely unlikely) that you'll blow a fuse on the main circuit board.

- Don't use ADB devices which require high power with the PowerBook series. Early Apple mice drew a fair amount of power, and these won't work with the PowerBooks. The latest versions should be OK. However, remember that connecting anything to the ADB port will drain your battery fairly quickly – so it's best only to do so when your PowerBook is connected to the mains.

Tip!

If you have a Mac which can be started using the power button on the keyboard, but this doesn't seem to work, it may well be because the internal battery present in every Mac is dead. If it is, you'll notice because your system clock will not keep track of the time and date while the Mac's switched off. If this is the case, contact a dealer to have the battery replaced. Until then, you'll have to use the power switch on the back of the machine to turn it on.

mac TRIVIA

MacTrivia is a new, regular slot where we'll dish the dirt and tell you some of the more interesting facts about Apple and the Macintosh range. If you want to become a power user, it's vital that you can trot this kind of stuff out in conversations. And so to kick off the series, this month we take a brief look at the Mac Classic.

When Apple was redesigning its old compact machine, the SE, the company decided that it should be targeted far more firmly at the general consumer than previous models. And the marketing experts told Apple that one way to do that was to give it a name that people would be happy with – not just a set of odd characters like IIx, IIcx, SE/30 and so on.

So Apple's product marketing people thought. And thought. And thought. After some months – during which the machine, code-named the Mac XO, came closer and closer to market. Starting to panic slightly, the team decided that the ideal name would be the Mac Classic – it gives the consumer a warm glow inside, they thought.

There was only one problem: it turns out that a company in Florida had already trademarked the name Classic for a computer which it had designed but never made. This didn't stop Apple wanting to use the name, though. (Think of another one? Not on your life.) So negotiations were started, for Apple to take over right to the name Classic. And the Florida company settled fairly quickly. For around $1 million...

Yep: rather than think up another name, Apple was willing to pay one million dollars or so for the rights to the word 'Classic'. Makes you think, doesn't it...

Incidentally, a reader two issues ago asked why, when he started up his Classic while holding down the Command, Option, X and O keys without his internal hard disk selected as the startup volume, the Classic starts up anyway, seemingly using a System stored in ROM.

That's because during development, Apple had tentative plans for a diskless version of the Classic (code-named the Mac XO, remember) which could be used on networks. Users would store their files on a central server, rather than locally, and thus the Mac wouldn't even need a floppy disk drive if it could be booted from ROM instead. That way, people couldn't get illicit software on to, or off, the network. Plans were shelved, but the System was left in the ROM anyway. It's a version of System 6, rather than System 7, and the Classic is the only Mac to have this ability.

Jargon Busters

DIN: Deutsche Industrie Norm. A large collection of German industrial standards; in Mac terms, it's the round, 8-pin connector used for printer and modem connection to all recent Macs

Driver: a piece of System software that takes the raw electrical signals from a device such as a keyboard, mouse or disk drive and turns them into data that the Mac can understand

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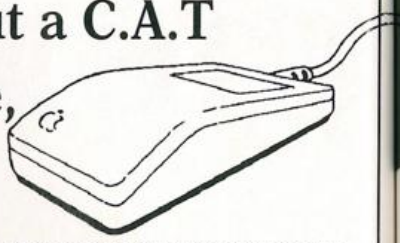

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mac ANSWERS

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Please do try to fill in as much of the form as you can. After all, the more details we know about the setup of your Mac and the way you are using it, the more likely we are to be able to find a solution to your query or problem. There's no point asking something like "Why won't my document print from *ZingWord 9.2*?" if you don't tell us what kind of printer you're using!

If your question relates to software, make sure that you tell us what version of the program you are using. You can find this out by clicking once on the program's icon, selecting **Get Info** from the **File** menu and reading the information that appears. Version numbers tend to be things like '1.2' or '9.6b3'.

Do-it-yourself problem solving

One of the main causes of a program not working properly is something called an INIT clash – your program isn't happy with one of the system-level extensions (called INITs) that are running.

Fortunately, it's easy to check if this is the case. First of all, restart your Mac without any System Extensions (INITs). If you're running System 7.0 or above, that means restarting the Mac and holding down the **[shift]** key – a message saying that 'Extensions are off' will appear. For any System version below 7.0, move all the Control Panels and INITs out of your System folder and restart the Mac.

If your program now works, it must have been unhappy with one or more of the INITs. The only way to work out which one it was is to move them all out of the System folder, then put them back one at a time – restarting your Mac after each one – and test the program again after each one has been replaced.

Label Q&As Subjects

- Beginners
- General/System
- Hardware
- Buying Advice
- Programming
- Applications
- Graphics
- DTP
- Comms

To help you spot answers to questions that you might be interested in, we've colour-coded them according to the table above. Remember, these are just general categories; but they should help you to find your way around the section

Q *I was persuaded to buy a Mac after reading about its ability to read MS-DOS disks. However, even though I've converted all my original disks for* WordPerfect *for PC into Macintosh files using Apple File Exchange, whenever I try to open any of the icons by double-clicking on them, I always get the message "This cannot be opened because the application program that created it could not be found." Why is this?*
D P Greil
Baynmill, Swansea

A

Although the Mac can read PC-formatted disks, that doesn't mean that it can run PC applications. It's unclear from your letter whether you've converted documents created in *WordPerfect* for PC to Mac format, or whether you've converted the program itself.

Depending on which of these is the case, you have two solutions:
1. If you've converted word processing documents, then you need to open them with an application that can read *WordPerfect* PC format files. Since you're using *WordPerfect* on the PC, you might want to buy the Mac version of that program – which can certainly read files created by its PC sibling.
2. If you've converted the actual program, you're out of luck, I'm afraid. The Mac can't run PC programs unless you buy a program called *SoftPC*, which emulates a PC on your Macintosh – albeit rather more slowly than the real thing.

Q *I have an LC with 10Mb of RAM. The RAM cache is set to 256K, and 32-bit addressing is on. Why is it that when I open a new paint document in* ClarisWorks 2.0, *I get a message telling me that the document has been reduced due to lack of memory? My recent upgrade from 4Mb to 10Mb of RAM seems to have made no difference.*

Second, AfterDark *seems to run 'spasmodically'; the various screen savers move very jerkily. A friend suggested that this is due to the fact that the 68020 chip isn't fast enough. Is this the case?*

Finally, I'm considering upgrading the machine. The Apple upgrade means that I won't be able to use the extra RAM I've just bought, so would an FPU be a worthwhile investment? And what about third party accelerators?
Robin Whale
Penzance

A

1. Ah. Although you've increased the amount of RAM on your Mac, you haven't increased *ClarisWorks'* memory partition size. Each program runs in a certain, specified amount of memory, leaving the rest free for other applications. You can specify the amount of memory that the application uses, and it isn't allowed to take any more from the Mac – even if all the rest is free. So what you need to do is increase its partition to take advantage of some of the extra free RAM that you now have. To do this, click once on the *ClarisWorks* application's icon, and select **Get Info** from the **File** menu (or hit **[Command] [i]**). A dialogue box will appear, and in the bottom right hand corner of that box you'll see a suggested memory size for the application – what the programmers suggest is a sensible partition to run it in – and a 'Current size' box, which is what the memory partition is presently set to. Increase that by one or two thousand, and you should have no problems. Remember, though, that the larger the size you give an application, the smaller the remaining RAM

available for other programs is – so you may not be able to run as many of them at the same time as you have done before.
2. If you're running programs when *AfterDark* kicks in, you may find that they still want some of the processor's time. Because they are still doing some work, *AfterDark* doesn't get all of the CPU's attention – and that can slow it down. If the problem occurs even when you aren't running any other programs, then I'm afraid you may just be experiencing problems simply because your LC isn't fast enough to do things smoothly.
3. An FPU won't give you much in the way of speed gains unless you're doing a lot of computation-intensive work – spreadsheets, statistic packages and so on. You'd be better off looking at an accelerator; the range is too great to look at here, but take a look at the companies advertising in this issue to get an idea of the range available. We'll be taking a closer look at accelerators in a future issue.

Q *In the Monitors control panel there is an Options button. When I hold down the Option key and click on this button, it gives me a choice of 'gamma' settings. Please could you tell me what these are, and why I might want to use them?*
P Hickman
Cobham, Surrey

A

The Options button is there mainly for manufacturers of monitors and display cards. However, as you say, holding down the Option key gives you access to the Gamma settings. Theoretically, selecting the Gamma which corresponds to your monitor type should give you a better match between colours on the screen and printed colour output. However, in reality so many factors – such as the monitor's brightness control, the ambient lighting and so on – have to be taken into account, that you might as well not bother.

Q *1. A friend of mine bought System 7 software and I was considering doing the same. However, he had to purchase updates for several programs in order to be able to use them with System 7. I didn't think that this was worth it, so what benefit is there in System 7? I have a Classic with 2Mb of RAM.*
2. I often want to print double-sided. The printer did this fine for a few months when it was new, but now it leaves a black smudge on every piece of paper. I've tried cleaning the rollers and so on, but it doesn't seem to make much difference.
3. When I bought the Classic, it was all that I could afford. I don't mind the small screen, and most of the time black-and-white is OK, but for the times when I would like colour, is there a cheap way of achieving this?
Stuart Greaves
West Bridgford, Nottingham

Label Q&As Subjects

- Beginners
- General/System
- Hardware
- Buying Advice
- Programming
- Applications
- Graphics
- DTP
- Comms

A

1. The first thing to note is that if you decide to upgrade to System 7, you'll have to buy more RAM – a 2Mb Mac can run System 7, but very little else, since the System itself takes up far more RAM than any earlier version did. You may also find that the Finder is slower – something which isn't a problem on more powerful machines, but which might affect you. It's true that some old applications won't work with System 7, but the majority do – it only tends to be PD, shareware and games that have a real problem. You can always call the distributors of the software and ask whether the version you have is compatible or not. To be honest, though, unless you feel a pressing need to upgrade, you're probably just as well off using System 6.0.7.
2. This problem does sound like dirt in your printer, rather than something more sinister – and it can be very tricky to clean a printer thoroughly. If you have one of the mini-vacuum cleaners that are sold for valeting cars, you could try aiming that at the inside of the printer, to pick up any loose toner that's floating around. Remember to be careful, though – the drum is very sensitive, and a scratch can easily ruin it.
3. The bad news is there's no cheap way to get colour on a Classic – it really isn't a particularly viable option, I'm afraid.

Q *What are NuBus ports? What types of extensions can be fitted into them? What do they do, and is other software or hardware needed?*
Paul Mackay
Lytham St. Annes, Lancashire

A

NuBus slots are found in all the larger Macs such as the II series, Quadras and Centris 650. The Centris 610 and LC family can accept one NuBus card each, via an adaptor which fits into the PDS (Processor Direct Slot). A NuBus card is a kind of mini computer, and there are NuBus cards available for just about anything that you can think of. For example: display adaptors, to interface with large screen monitors; video grabbing cards; SCSI accelerator cards; sound input cards; sound output cards; accelerator cards; and so on and so forth. Normally, these cards come equipped with all the software that you need to use them.

Q *Every so often, when I save files they seem to go into folders like the Extensions or Control Panels folders, rather than the folder that I want them to save to. Why is this happening, and is there a shortcut to finding a file once it is 'lost' like this?*
Matthew Brown
Wimborne, Dorset

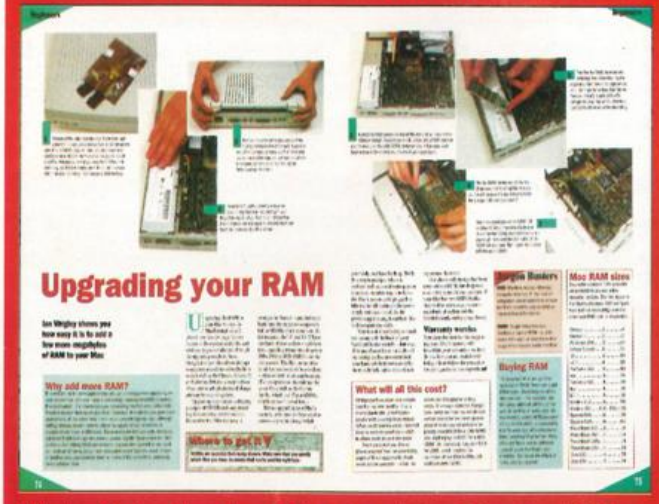
A

When you first launch an application, you quite often find that your Mac thinks that it would like to save files into strange places. However, after you've saved a file once in the correct place, saving it again should automatically replace the old version. To find lost files, you can use the Finder's **Find...** command or, even better, use a utility such as Now *Utilities* or Norton Directory Assistance (part of the Norton *Utilities* package), both of which extend the standard **Open** and **Save** dialogue boxes to include menus of recently saved files and folders.

Q *I want to upgrade the memory on my Mac IIci. Should I buy Apple memory, or opt for a third party supplier which is much cheaper? Will a third party component affect my warranty?*
Karen Terkelsen
Buckingham, Bucks

A

No-one buys Apple memory! Or, rather, very few people do. It tends to be far more expensive than similar third party SIMMs, which do exactly the same job. Shop around to get the cheapest deal – but make sure that you tell the dealer which computer you're upgrading, so that you get exactly the right kind of SIMMs. The warranty question is a thorny one, and there have been a number of conflicting responses from Apple over the years. The consensus opinion seems to be that if you fit a SIMM yourself and, in doing so, you damage your Mac, then your warranty is void. However, if your Mac breaks down later on, then Apple isn't to know that it wasn't an authorised dealer who installed the RAM anyway – so you should have no problems. SIMM installation is fairly straightforward, but if you're at all in doing, you should get a dealer to do it for you.



■ Check out **MacFormat** issue 3, page 74 for a photo walkthrough of how to install SIMMs. Back issues are available at £5 each from **MacFormat** subscriptions on 0458 74011

Q&As

Subjects

- Beginners
- General/System
- Hardware
- Buying Advice
- Programming
- Applications
- Graphics
- DTP
- Comms

Q *I've recently upgraded my Mac Classic to run System 7.1, and I find that I can't use any DAs on the machine, including those supplied with my upgrade disks. Can you suggest any solution?*
Peter Fisher
Coedpoeth, Wrexham

A

This sounds rather odd. First of all, you should check to make sure that you've taken the DAs out of the Suitcases that they normally come in. Double-click on the Suitcase icon, and you'll see the actual DA, which you should drag out of the Suitcase to another location on your hard drive. If you still can't double-click on it, you should try re-installing your System from the original disks.

Q *I'm working on a project that requires a bit of 'text bending', so I'm using* TypeStyler 1.02 *and then exporting the results and putting them into* QuarkXPress *as EPSs. Are there any XTensions or filters for* XPress *that will allow me to edit the colours in the EPS files?*
Chris Howard
Tewkesbury, Gloucestershire

A

Unfortunately, *QuarkXPress* doesn't let you edit colours which have been created as a result of importing EPS files – unlike the new *PageMaker 5.0*. A company called XChange markets the largest range of *XPress* XTensions available, and may well have one which allows you to do this – the range is enlarged on a more or less daily basis. XChange is on 071 404 6858.

Q *I am a writer, and I want to know if it is possible to automatically insert spaces after each full stop inside a document. When I am working I don't automatically type the space – although I'm trying to change this habit. Is there a command in* Word *to do this, or any special program that will do it?*
Michael Veal
Fyfield, Essex

A

I don't know of any program or utility which will do this for you – it could cause all sorts of problems, especially if you have any numbers in your document: '£1.23' would be changed to '£1. 23', for example. However, there is a way to do it using your word processor's **Find and Replace** function.

The naïve line of attack would be to search for a full stop followed directly by the letter 'A', and replace that with 'full stop-space-A'. Then you'd do the same thing for '.B', '.C' and so on. But there is a more elegant way around the problem – although again, you'll have to be aware that any numbers could end up formatted incorrectly.

■ First of all, use **Find and Replace** to search for all full stops, and replace them with a full stop followed by a space. That will take care of the initial problem of no spaces after full stops. However, you may have actually entered some sentences correctly, so...

■ **Find and Replace** all occurrences of a double space with a single one. This will remove possible double spaces between sentences, caused by you already having put a space in place when you were typing the document.

Q *I've heard about 'Bedrock' as an equivalent to Think TCL or Apple's MacApp programming languages, but running on both Macs and PCs. Is the source-code for this available? Where can I find more information?*
Francis Meyvis
Schilde, Belgium

A

Bedrock isn't in the public domain, so source code certainly won't be available! It is a collaboration between Symantec, maker of the Think series of products, and Apple, and is aimed at providing a true cross-platform development environment – that is, you write your code on one machine and it can be compiled for both the Mac, Windows PC and PowerPC without modification. It's not available yet, though – in fact, according to the last information we had it hasn't even gone into a major beta test stage. First betas will probably ship to chosen developers by the end of this year, but it will be well into 1994 before 'normal' developers get their hands on it.

Q *1. I've just installed the Desktop Patterns program from your Disk 3, but now although I installed the 'Control Panel Compatible' pattern, I seem to have lost (?) my original Mac desktop patterns. How do I get them back? Do I have to re-install the System – and if so, how can I avoid losing all my Extensions and current data? 2. I'm currently using virtual memory to increase the amount of RAM in my LC II from 4Mb to 8Mb. Should I consider buying extra real RAM? What disadvantages are there in using virtual memory?*
(Unreadable)
Taunton, Somerset

A

1. You can cycle through the available desktop patterns by clicking on the tiny arrows on either side of the picture on the menu bar in the General control panel. However, if you've created any patterns of your own, you're likely to have lost them, and you'll have to make them up from scratch. Incidentally, re-installing the System by using the Installer program which comes on your System disks won't lose any of your data or extensions – it carefully preserves everything before updating the System file, so although older Apple items such as the System, Finder, LaserWriter driver and so on are updated, any extra Extensions, fonts and other stuff that you've painstakingly installed will all still be there afterwards.

2. Buy more RAM! Buy more RAM! You'll be amazed at the increase in performance. Virtual memory works by swapping data to and from the hard drive, which is an awful lot slower than real RAM. As a general tip, you should avoid using virtual memory when at all possible – the speed penalties are just too great.

Q *I would like to get hold of a cheap DTP package. I can't afford the price of* QuarkXPress, PageMaker *and so on. Is there a PD or shareware DTP program available?*
Peter Loftus
Exeter, Devon

A

I'm afraid not – there are no shareware page make-up programs at all. However, there are a couple of 'budget DTP' packages that we've reviewed in previous issues of **MacFormat** which might suit your needs – specifically, *Publish-It! Easy*, £147, reviewed in issue 1 and available from most Apple dealers, and *Personal Press*, £116, reviewed in issue 2 and available from Aldus on 031 220 4747. Also, many word processors these days have pretty powerful page layout features – so you may be able to do without a dedicated program at all.

Q *I have a Mac Portable (not PowerBook); can I use my hard drive to create virtual memory? I have problems running large applications, but I don't seem to have the option in the Memory control panel – why is that? Are there any RAM expansions still available for the old Portable?*
Roger Brown
Glasgow

The Mac Portable – pretty handy eh? Just don't expect virtual memory out of it. If you're tempted by a portable Mac turn to our feature on page 31 NOW!

A

Unfortunately, you can't use virtual memory on the Portable, because it is based around the 68000 processor. For virtual memory to be possible, you need an MMU (Memory Management Unit). This is built in to the 68030 and 68040 chips, and is available as an optional extra for the 68020. But the 68000 can't use one, I'm afraid – so virtual memory is just not possible. You should be able to find a RAM upgrade for your Portable – there are still a fair few of them knocking around the place. Try one of the specialist memory dealers – check the adverts in this issue's **MacFormat** for phone numbers. They may not advertise them, but they are bound to be able to get one for you, if you ask.

Label Q&As Subjects

- Beginners
- General/System
- Hardware
- Buying Advice
- Programming
- Applications
- Graphics
- DTP
- Comms

Q *My PowerBook uses the Japanese version of System 7 (KanjiTalk 7), so I occasionally have a few side-effects when running Anglo US software. Because some software can't handle Japanese text, it displays it as something resembling the Finnish language typed by a dyslexic chimpanzee! I may be asking a lot, but is there some way to modify software (perhaps using ResEdit?) to make it responsive to non-Roman character sets?*
Nigel Harris
Leicester

A

I'm afraid, it's not as simple as using ResEdit or any other similar package to modify the software to suit your particular needs – support for multi-byte character sets such as Kanji is something that has to be built in to software when it's written. However, since the Japanese market is becoming increasingly more important to Apple (and its developers), much more software these days is now being written with just such requirements in mind.

Q *Is there any application that allows me to use PostScript fonts successfully? Also, I have a Centris 610; is it possible to change the microprocessor from a 68LC040 to the full 68040?*
Dr A Greental
Reading, Berks

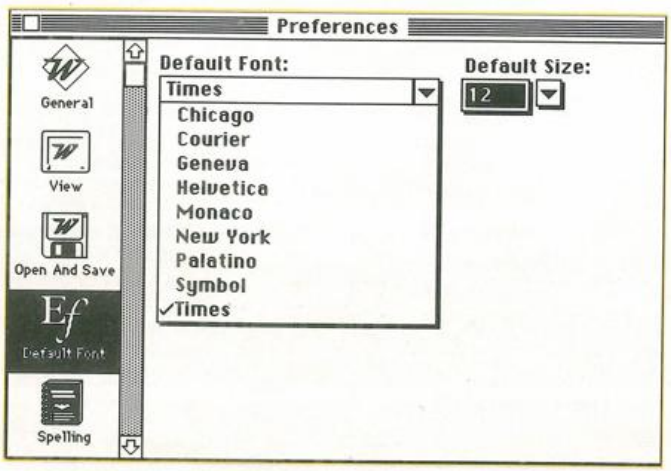
A

To display PostScript fonts on the screen so that they look smooth, and to print them out smoothly on non-PostScript printers, you need *Adobe Type Manager* (ATM), which is available from most software vendors. It certainly should be possible to upgrade the LC version of the 68040 in your Centris 610 to a full '040; contact your local Apple dealer for a price.

Q *How do I switch out the default font New York permanently, and instead use a font such as New Century Schoolbook, in Microsoft* Word 5.0*?*
Haydon Bradshaw
Freshford, Bath

A

There's an easy solution to this one. If you look in your **Tools** menu, you'll see a **Preferences...** option. Select this, and choose the 'Default Font' choice from the scrolling menu on the left hand side. You will then be able to choose whichever font you like as the default – which means from now on that will be the font that new documents default to. It's as simple as that!



Unhappy, bored or even downright irritated with your default font in *Word*? Whether it's Helvetica, Palatino or (as in this case) Times that you'd rather see your literary masterpieces in, you can rest easy 'cause changing the default font's a piece of cake

Q *I want my sons (teenagers) to get a start with programming. Could you suggest a way for them to do this? We already have HyperCard. Also, my LC needs more RAM; would System 7.1 be a good way to give it virtual memory (I'm currently running 7.0.1), or do I need to install SIMMs?*
K G Wallis
Gosport, Hampshire

A

There are a number of ways that you can learn programming on the Mac – but most of them aren't cheap. The most popular languages are Think Pascal and Think C, both from Symantec (0628 777677), but they'll cost you about £150 each. You will also need to splash out for at least some of the Inside Macintosh books, which are essential for programmers (unless, of course, you won the competition we ran in Issue 3, giving away five complete sets). These books give details of the Mac's 'Toolbox', which is used for everything from drawing text on the screen to saving files to disk. Be warned, though: Mac programming is not easy! Seasoned PC programmers have been known to run screaming...

If you want something a little more graphical, a programming environment called ProGraph is rather excellent. It's a full programming system – you can create stand-alone applications and so on with it – but it uses a graphical 'data flow' system, which many people find much easier to get on with than traditional languages. Again, though, it ain't cheap – it costs £388 from UK distributor EuroSource (081 561 1993).

To be honest, one of the best environments to learn the basics of programming is HyperCard – some extremely powerful programs have been written with it.

As for your second question, all versions of System 7 from 7.0 upwards have been able to use virtual memory – if the Mac supports it. Your LC is based on a 68020 processor which, as mentioned in a previous reply, doesn't have an MMU. Even though it's possible to add one (with a bit of fiddling that will almost certainly invalidate your warranty), you'd be far better off buying extra RAM.

Q *I've just bought a new IIvx,which I'm delighted with. I have linked it up to my old Classic, so that I can use the latter as a second hard disk. However, since I use AppleTalk it's dead slow! When I bought the connecting lead, I narrowly avoided forking out huge wads of cash for a proper AppleTalk lead by finding out that I could use a simple ImageWriter cable, which connects the two directly. Is this slowing things down? If the answer is no, is there any way to connect my Classic's hard drive to the IIvx using a SCSI cable without removing it?*
Austin Goudge
St Saviour, Jersey

A

Buying the serial cable rather than a 'proper' AppleTalk lead was a good idea – you certainly saved yourself a fair chunk of cash, and no, it doesn't slow things down. Apple recommends that you connect computers using AppleTalk, though, because the AppleTalk boxes contain isolators which mean that in the (extremely tiny) event of a problem in one of the Macs which sends a surge of power through the cable, it won't pass through to the other machine, possibly damaging it. In practice however, this is such an unlikely scenario that you shouldn't really be worried.

Unfortunately, there's no easy way to connect up your Classic's hard drive to the IIvx. The basic problem is SCSI ID: the internal drive in any Mac is set to ID 0 by the Mac, so both drives will have the same ID number. The only solution is to take the drive out of the Classic and try to buy an external casing unit – but you'll probably find that you don't save that much over buying a whole new unit. (Some PowerBooks, such as the PowerBook 100, allow you to set a different ID for the internal drive so that the PowerBook can be used in the way you describe, as an external hard disk. Only certain PowerBooks have this feature, though.
Name and address not supplied

Q *I intend to upgrade from an Amstrad PCW8512 very soon. After many years, I am beginning to acquire some competence in BASIC programming, and I notice that in your Chooser section you list BBC BASIC. How would this compare with the Mallard BASIC that I use on my Amstrad – how useful would my Mallard BASIC knowledge be when I came to use BBC BASIC? Your sister magazine PCW Plus publishes listings of BASIC programs; would these work with BBC BASIC?*
W M Blackett
Ivybridge, Devon

A

BBC BASIC is an emulation of the BASIC language which Acorn used in its BBC Micro and BBC Master computers – machines in use in just about every school in the country. It's a very powerful implementation of the BASIC language – more akin to something like Pascal in many ways – and is an excellent way to keep up your BASIC programming. Looking at Mallard BASIC, I'd say that you will find some differences between the two, but that the basic principles are the same. However, you may find that you need to slightly alter some of the listings printed in PCW Plus to take account of the Mac's differently-sized screen before they work properly.

BASIC is a nice, easy language to learn, and you shouldn't have too much trouble transferring your knowledge of the Mallard variant to one on the Mac.

Q *I have been admiring your* **MacFormat** *cover logo and I'd love to know exactly how you format the text like that.*
M J Mosop
London N16

A

Thanks for your compliment – the art editor is blushing furiously! We create the logo in *FreeHand*, using the **Paste Inside** command to create the overlap between the two words. The font we use is Franklin Gothic Heavy

Q *In my younger days, I thoroughly enjoyed playing* PacMan *and* 1942 *in the arcades. These days I avoid the places like the plague, as I hate the current trend towards the 'action/fighting' format. Are the original versions of games like the two mentioned available to play on Macs?*
M C Burbank-Clayton
Bury St Edmunds, Suffolk

A

If you don't like 'action/fighting' games, I'm surprised that you remember *1942* with fondness! Anyway, there are versions of some arcade classics available – sometimes commercially, sometimes as PD or shareware. Check out the **MacFormat** games review pages and shareware column each month for details of the latest offerings; there are certainly a couple of PD versions of *PacMan* around, although I don't know of any port of *1942* for the Macintosh.

On the other hand, maybe you want to check out *Operation Intercept*, the demo on this issue's cover disk; our resident *1942* expert tells me that although the scenario is different – space, rather than the Pacific – gameplay is very similar.

Q *Since installing some extra TrueType fonts, the message "TrueType™ is already installed... skipping installation!!!" appears every time I switch on. How do I get rid of this? I have an LC II running System 7.1.*
Ian Bell
Sunderland

A

When you installed the TrueType fonts, you also installed a System extension which is only designed for System 6 users. That's because System 6 doesn't have TrueType built in, so an Extension was required to allow users to access the fonts. System 7, though has the TrueType rendering software built in – so it doesn't need to use the Extension. To remove the annoying message, check in the Extensions folder inside your System folder. You'll find a file called TrueType; throw this in the Wastebasket, restart and you should find that the message no longer appears.

Q *I've a number of questions which have been puzzling me for some time...*
1. When I print A2 or larger files, tiled, I get the A4 sheets as I'd expect, but there is a border around the top and right of the file which is not on screen. Where did it come from?
2. I recently bought a printer (a LaserWriter IINT), but I can't change its name in the Chooser. How do I do this?
3. Why can't I take snapshots of the Desktop with a menu pulled down?

Label Q&As Subjects

- Beginners
- General/System
- Hardware
- Buying Advice
- Programming
- Applications
- Graphics
- DTP
- Comms

4. I recently purchased two 3.5-inch Micro Floppy Disks. They say on them that they are double-sided, but when I came to format them they could only be formatted as single-sided 400K disks.
5. What is a 'Spool 1' file?
Paul Edis
Market Rasen, Lincolnshire

A

Eyes down for a full house, here we go...
1. Tiling is the process of printing a large image on several smaller sheets of paper. There has to be a margin on the A4 sheets because the printer can't print right to the edges (actually, some printers, such as those from GCC, can, but it isn't recommended). That's why you have borders around the edges.
2. You can change a printer's name by using a utility program such as the one that comes on your 'Tidbits' System disk – it's normally called LaserWriter Font Utility or something similar. You'll find that this utility has options for things like downloading fonts to the printer (so that it outputs documents faster), turning off the startup page and renaming the printer.
3. The built-in System 7 screengrabbing utility (Command-Shift 3) doesn't support grabbing menus. For that you need to use a utility such as the shareware Flash-It, which also allows you to grab just certain portions of the screen, rather than the whole thing.
4. It sounds like the disks you bought weren't double-density – the Mac needs double-sided, double-density disks. You can buy suitable disks from just about anywhere – but avoid buying Apple-branded disks because they'll cost you far more than anyone else's!
5. Your 'Spool 1' file is a file created by the Print Monitor application when it tries to print a file in the background. If the Mac crashes, or the file is accidentally moved, it will just remain on the disk. You can happily delete it – it isn't needed by anything.

Q *How can I use LaserWriter typefaces in* Typestyler 1.5, *as shaping, curving and so on seems to be limited to a few specific* Typestyler *fonts? Also, why is Font/DA Mover not available in System 7.1?*
B Walker
Leyburn, North Yorkshire

A

TypeStyler 1.5 uses its own font format; however, there is a menu option within the program which will convert a normal PostScript font into *TypeStyler* format, so that you can use it. You then save the finished work out as an EPS file and import that into your *QuarkXPress* (or whatever) document. Version 2.0 of *TypeStyler* doesn't have this restriction, incidentally – it works directly with PostScript Type 1 fonts – and since it also has a large range of new effects, you might want to consider upgrading.

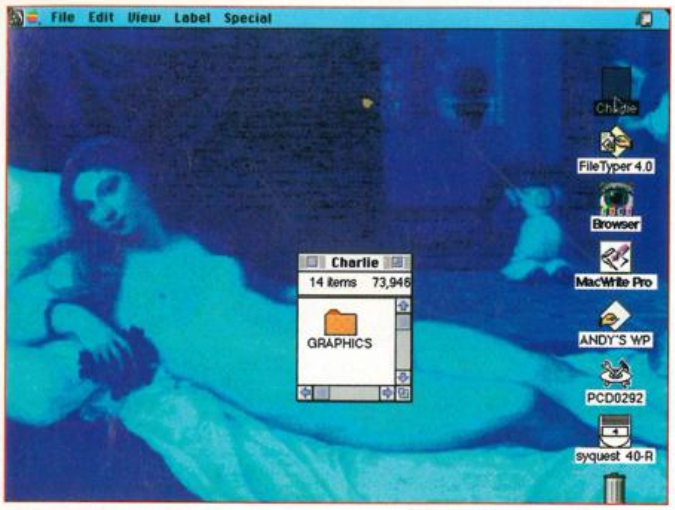
System 7.0 and above doesn't require *Font/DA Mover* – which was a hideous program anyway. You can install fonts directly into the System by dragging a font suitcase to the closed System folder, and DAs (desk accessories) are now treated like any normal application.

Trouble deciding which game to buy? For the latest in Mac games, check out **MacFormat**'s games review pages starting on page 91 in this month's issue. Turn to page 7 to find out more about your **MacFormat** coverdisk which includes Operation Intercept

Q *I saw a screenshot in your magazine where your desktop background did not have a pattern, but instead was a picture. How can I do this?*
Tom Oldfield
Bootham, York

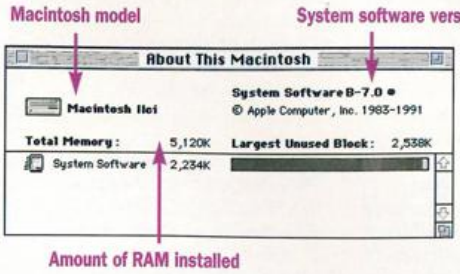
A

There are a number of programs which do this; the one that our Editor uses (it will have been his Desktop that you saw) is called !DeskPict, and is shareware. It's an Extension – you place it in your System folder, put an appropriately named image on your hard drive and restart the Mac. Some commercial programs do a similar job, but !DeskPict seems to work just fine. It's available from the usual sources – PD houses, user groups and bulletin boards.



Hmm. Comely young lass ain't she? We'll stick a fiver in the post to the first reader who sends us a postcard of this painting. Send it to **MacFormat**, 30 Monmouth St, Bath BA1 2BW

How much RAM have you got?



To find this dialogue box, make sure you are in the Finder, point to the menu and scroll down to the first item: About This Macintosh, then release the mouse button

Ask your questions here!

Whether it's worries with *Word* or ravings about RAM, we're here to answer your questions. To get your query answered as promptly as possible, please use the form below; it's been designed so that you can tell us everything we need to know about your system. If you're using System 7.0 or above, open the Memory control panel and you'll be able to see whether you're running virtual memory or 32-bit addressing. If you're running System 6, the chances are that you aren't using virtual memory (unless you have a third-party utility which allows you to do that); you're probably not using 32-bit addressing, either. Do detail all external peripherals that you're using, even if you're not sure whether the information is relevant or not.

Please note that we can only answer queries in the pages of the magazine – no matter what bribes you send, we can't enter into personal correspondence! (Although feel free to send bribes anyway…) And since some questions are answered by specialists who don't work in the office all the time, we can't answer technical queries by phone either.

mac ANSWERS

If you send in a question for the **MacFormat** experts to solve, please fill in and include this form (or a copy of it). And please make sure that you include all the relevant details – version numbers of software and so on – so that we have the best chance of helping you. Send your form and question to: **Mac Answers, MacFormat, 30 Monmouth Street, Bath BA1 2BW, or fax it to us on 0225 446019**.

Name .....

Address .....

.....

.....

Your Mac (For example, Performa 200, IIfx, PowerBook 145): .....

Approximate age of machine: .....

System version (see **About this Macintosh** screenshot above): .....

Amount of RAM (the **Total Memory** figure from the **About This Macintosh** dialogue box): .....

Are you using virtual memory?

(This is accessed from the **Memory** control panel under System 7) YES/NO

Do you have 32-bit addressing turned on?

(This is accessed from the **Memory** control panel under System 7) YES/NO

If your Mac has an external monitor, list the make and model; if you are using a video card, give details: .....

.....

Details of any SCSI devices connected (eg CD-ROM drive, hard drive, scanner):

.....

.....

Details of any other relevant hardware which could help us to answer your question:

.....

.....

Now, use this space to describe your problem or question. Include as much relevant information as possible. Please continue on a separate sheet if necessary.

.....

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PowerCD or Photo CD? The choice is yours!

– and if you're unbelievably lucky you might win both! Yes, we have two state of the art CD players to give away this month and here are the details:

WIN!

Apple PowerCD

Read all about this versatile portable on pages 23-25 and then answer the following three questions to get your hands on all £405-worth of multifunctional sci-fi chic

1 What figure does Apple publish as representing PowerCD's signal to noise ratio?
Is it:
a) 105dB
b) 95dB
c) 4dB

2 How fast can PowerCD access any chunk of code on a CD-ROM disk?
Is it:
a) 4 hours
b) 31 milliseconds
c) 550 milliseconds

3 What on earth does 'multi-session capable' mean in layman's terms?
Does it mean:
a) It'll only work once
b) You can't switch it off
c) It'll run Photo CDs

Easy eh? Now send your answers on a postcard to: Power to: the Peeps, MacFormat, 30 Monmouth St, Bath, BA1 2BW

WIN!

Kodak PCD-865

Courtesy of Kodak, we have one of its super-duper PCD-865s to give away. Just plug all £369 of it in to your TV and you're all set to view all modern photographic masterpieces

1 How many Photo CD images can you fit on a single compact disk?
Is it:
a) 2
b) 600,000
c) 100

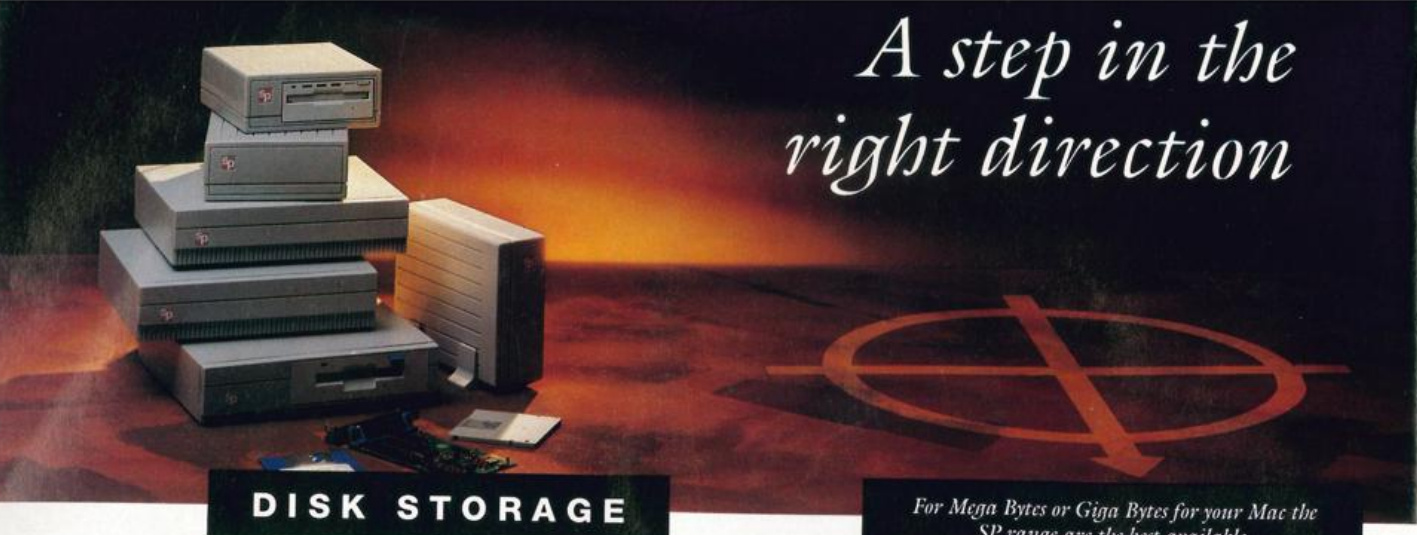
2 What's the diameter in centimetres of a Photo CD disk?
Is it:
a) 12
b) 165
c) 1

3 What colour are Photo CDs when they return from the labs?
Is it:
a) blue
b) gold
c) pink

And that was easy too. So send your answers on a postcard to: Kodak compo, MacFormat, 30 Monmouth St, Bath, BA1 2BW

And don't forget to read this bit...

- Please! only one entry per household or I'll bin 'em all!
- All entries to be received no later than November 2nd
- The editor's decision is final
- Since the editor particularly likes works of art by Titian and Monet this could be used to your favour



DISK STORAGE

SP-120MS	External 120MB Disk Drive	£229
SP-210MS	External 210MB Disk Drive	£269
SP-330MS	External 330MB Disk Drive	£379
SP-520MS	External 520MB Disk Drive	£679
SP-1000MS	External 1GB Disk Drive	£859
SP-1200MS	External 1.2GB Disk Drive	£979
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VER-128MB	Optical Cartridge	£31

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GAMES PREVIEW

Populous: available on just about every other format except for the Mac – until now that is

Populous– at last!

Hurrah, put the flags out, *Populous* is here at last! Those of you new to Mac games are probably wondering why I'm going a little overboard here. *Populous* is the brainchild of Bullfrog, probably the UK's most successful games developers. I mentioned in issue 1 of **MacFormat** that it was converting all of its games to the Mac.

95 phone calls and six months later, imagine my surprise when I was told 'Yeah, *Populous* is out in September.'

Just in case you didn't know I'll fill you in on the games details. *Populous* puts you in control of a race battling a rival tribe for survival and believe me, you meet many a disaster along the way. It's a classic game that's been around for four years and has influenced more than a few games of similar standing in the process.

The only details to date are that it's due for release in September.

Electronic Arts 0758 54942

Crazy for you

Fans of *Crystal Quest* will be pleased to know that the sequel has arrived. *Crystal Crazy* is just as wild, with more crystals to collect as well as pool balls that you have to sink, jigsaws that need to be completed, pictures to get rid of and fragile ornaments to smash.

It's your job to complete these utterly vital tasks while avoiding eggs that hatch into space bunnies, spring loaded boxing gloves and – you won't believe this – Zinkelflashoxicationizers. I think you get the picture! It's totally mad, costs £40 and is out now.

Softline 081 401 1234

Wanna know the latest in the world of Mac games? Then sit back and keep 'em peeled 'cos Kellie Simmons has got some news for you...

In a nutshell...

■ Anyone for electronic chess? Due for release in October, *ChessMaster 3* is described as the 'ultimate chess challenge'. Why? Because it's powered by the engine that won the 1992 World Chess Championship in Madrid. 'Nuff said.

Mindscape 0444 246333

■ Mario is taking on the Mac market with a vengeance, this time in *Mario's Time Machine*. It's a 'learning' adventure game that takes you through famous events throughout history from the Jurassic period to the first moon landing. You get to meet the locals and interact with them. Pity there aren't any real time machines knocking around 'cause this game's not going to be available until early next year. Just thought I'd let you know.

Mindscape 0444 246333

Z is for...

Fancy a 3-D flight sim in space? Then don't avoid *ZOA Zone of Avoidance*.

You are a lone defender of a space station under alien attack. Your aim is to locate incoming raiders and then go after the alien mother ship.

It promises realistic graphics and high voltage sounds and costs £40.

Softline 081 401 1234

In-flight entertainment

Flight sims a go-go this month. I'm expecting *F/A-18 Hornet* (out in August) to drop on my desk any day now. *Carriers at War* has arrived and I've just been informed that *Chuck Yeager* is also scheduled for release this month.

Each one offers the usual 'in-mouse' flight training, excellent graphics and a choice of aerial views. I haven't had a chance to play any of the games, but watch out for full reviews and details on prices next issue.

Hell Cab
Yep, you're stuck in a New York taxi cab with the driver from hell *page 92*

Iron Helix
Set on board a space ship that looks remarkably like the set of Aliens *page 92*

Nascar Challenge
Crash your way around the best stock car circuits in the world *page 94*

Rise of the Dragon
Be warned. This has nothing at all to do with Bruce Lee films. Or his son's *page 94*

Freddy Pharkas
...the frontier pharmacist from the weird Wild West. Strange but true *page 96*

V For Victory IV
Your chance to make war not love in the fourth series of 'Vic' *page 96*

GAMEBUSTERS

The page where Mac games players can offer hints, tips and advice to each other. This issue includes tips for *Civilisation* *page 98*

HELL CAB

Kellie Simmons loses her soul deep in CD-ROM technology and has a hell of a ride trying to get it back

Hell Cab is an interactive adventure through time; a tour in a yellow New York taxi cab with a devilish driver called Raul who overcharges you on the cab fare resulting in you having to settle up with your soul – yes, that's right, your soul; you see it turns out that Raul's boss wants to condemn New York City into well, a kitchen extension of hell, I guess, and he needs just one more soul to do it. That's where you come in...

The aim of the game is to survive Raul's sightseeing tour. You start out in the present day, but by taking a ride in his cab or wandering the halls of the Empire State Building you end up visiting different periods in time picking up clues and meeting hairy situations with the aim of getting back to the present day with your life and soul intact.

To settle up with your soul, Raul gives you a questionnaire which you have to fill in carefully, because the answers determine how much soul you're going to get to keep.

To keep track of your soul levels you have to keep a beady eye on the Soul-O-Meter at the bottom

While gameplay tends to be a little slow where CD-ROM games are concerned here it's made up for by really impressive graphics. The attention to detail is excellent – look closely and you'll see a reflection of yourself in the binocular slot machine

Hell Cab controls are really user friendly. Put some money in the binocular slot by dragging it from your inventory and you'll see this great view of New York

IRON HELIX

Cameron Winstanley climbs aboard his spaceship and boldly goes, er, off...

If in the future there's still going to be war, then military types will still have to have wargames. They may be on an interstellar scale but men will still test out their latest equipment, and *Iron Helix* starts with some huge destroyers practising for an impending war against some slimy xenomorphs.

Unluckily for most of the known universe, the computer aboard the SS Jeremiah Obrian thinks it genuinely IS going to war, and has locked onto a small and peaceable planet with the intention of committing unspeakably barbaric acts on it using weapons of mass destruction so new that they're still wrapped in cellophane. Now, under normal circumstances, it would be no problem for the crew to simply give it an electronic slap across the face and tell it (in binary, presumably) to sort its life out, but it's never that easy in computer games, is it?.

The crew have contracted a mysterious virus that corrupts their DNA, resulting in numerous cases of that severe medical condition known simply as 'death'. Since all computer inputs use a DNA recognition code as a fool-proof security system, they all perish with the knowledge that their goofy mainframe is going to make dead sure that an entire planet fails to 'have a nice day'.

That's the story anyway and it's told in an intro sequence that features the most impressive graphics I've ever seen on any game, on any format, ever. The spaceships look like they're straight out of an episode of 'Star Trek: The Next Generation', the soundtrack features genuine speech, and there are even some video messages left by the dying crew. It's truly excellent.

Onto the actual game, and the graphics are as good as they are in the intro. You play the captain of the Indiana, which is the only ship near the Obrian, and it's up to you to guide a defenceless drone robot through the corridors of the Obrian, to collect DNA samples to activate control panels and, prompted by video messages left by the crew, to stop the ship from blasting the planet. Hindering your progress is a roving killer droid, which has the annoying habit of blasting your probe, and although it's possible to jam it long enough to escape, you're better off just avoiding it.

The graphics are undeniably superb and the animation as your probe moves down corridors is virtually photo-realistic, but it doesn't take long to realise that there's a noticeable lag between each move, and that the gameplay

You want a game that oozes scary atmospherics? Try this one, with its eerie torch lit sequences, creepy sound and gameplay that just drips lethargy

right of the screen. To open it just click on the meter and it'll tell you how many life and soul levels you have left as well as how much fare you owe. Not unusually the game ends when you run out of lives.

Hell Cab is similar to other CD-ROM games in that you have the standard 'point and click' controls using your mouse. There are lots of corridors to explore and a good number of elevators to move from floor to floor in – and being the Empire State Building there are an awful lot of floors. Just like the controls in games like *Monkey Island*, you can talk to various characters by clicking the text boxes.

Unfortunately, the game loses a lot of its character simply because it runs so slowly. A lot of people tend to assume that CD-ROMs are quicker than the usual floppy disks. But I played *Hell Cab* on a 16MHz IIvi using an Apple CD300 drive and it just wasn't fast enough. This is due to the huge amount of info stored on the disc which has to be transferred onto the screen. So, if you've got a game with more megabytes than you've had hot dinners and you're going to run it on a Mac that runs at say 16MHz you have to pay the price. *Hell Cab* should be run on at least a 25MHz machine so I guess that's me out shopping for a new LCIII or a Centris.

The graphics, which were produced by acclaimed interactive artist Pepe Moreno, and the sound are totally fab but a lot of the speech is out of sync with the characters. At least there's enough going on in *Hell Cab* to make you want to keep going and you have the option of saving a game so that you can come back to it at a later date. That is definitely a bonus because it'll probably take you a full working week to complete the entire game.

Why do interactive CD-ROM games always feature lifts? This one belongs to the Empire State Building. Nice huh?

The first inkling that all is not well. Check out the rear view mirror for Raul's red eyes. There's no turning back now...

✔ Stairway to heaven
The sound and graphics are superb – it is a CD-ROM game after all

✘ The road to hell
It runs very slowly – but then again I was running it at 16MHz

Price: £78
From: KimTec 0202 888873
Requires: any Mac II, 13-inch upward monitor, 3Mb RAM, CD-ROM drive, System 6.0.7 or higher, 68030 processor with a recommended speed of 25MHz upwards
Controls: mouse

Graphics rating	95%
Sound rating	90%
MacFormat rating	70%

Your screen in glorious technicolour

The main graphics window, complete with robot arm

Interesting flashing light effect. Moderately good

Controls for your drone robot, all six of them. Whoopee

All game related options are stuck away here

You're in the lift at the moment, so choose a floor

Defensive and research keys add a few more options

The playing area in all of its amazing six floors. Wow

Curious in-game volume control of no use at all

It's good to see that even in the future, Habitat easy lounger chairs will still be fashionable, and that concealed strip lighting will be in vogue

consists of moving around the confines of the ship, searching for DNA samples and moving a rather dinky robotic arm about to press various panels. Avoiding the Defender robot's not that hard, and after a few hours you begin to realise that you're not having as much fun as you first thought, and are merely confused by the brilliant graphics into thinking you're having an interesting experience.

To be brutally honest, the game plays like a housebrick and handles like a milk float, and all that it has to offer in the long run are sluggish controls and some flashy graphics that show off the potential of your Mac. If you also take into account the hefty retail price of more than £100 (including VAT) then there really aren't enough reasons, I'm afraid, to recommend this to anyone.

✔ Out of this world
Best graphics I've ever seen. Great sound

✘ On another planet
Limited gameplay. Overpriced beyond the dreams of mortals

Price: £104
From: Softline 081 401 1234
Requires: LC, Colour Classic, II, Colour Performa, Centris or Quadra, 4Mb RAM, CD-ROM drive, hard drive with 7Mb of free space, 256 colour graphics capability and System 6.0.7 with 32-bit QuickDraw or System 7
Controls: mouse or keyboard

Graphics rating	93%
Sound rating	96%
MacFormat rating	49%

NASCAR CHALLENGE

Don't let this girl out on the road! Kellie Simmons gets a bit carried away on the racing tracks of *Bill Elliot's Nascar Challenge*...

Simulation games, especially those of the airborne variety, are generally not my cup of tea. I just can't handle them – I usually crash about 30 seconds after take-off. I assumed I'd have the same trouble with a four-wheeled sim so when *Bill Elliot's Nascar Challenge* landed on the MacFormat games desk my immediate thought was, 'Oh lord, I'd rather count traffic cones on the M25 than play this.'

But I loaded the game up anyway and was, well, pleasantly surprised at the result. The game is about stock car racing and the aim, quite simply, is to beat all comers.

Nascar (if you were wondering) stands for The National Association for Stock Car Racing, Bill Elliot, also know as 'awesome Bill from Dawsonville', is the fastest stock car driver in history (according to the manual) and co-designed the game with Distinctive Software who also developed the driving sims *Test Drive* and *The Dual*. Right, that's the history, now on to the game proper.

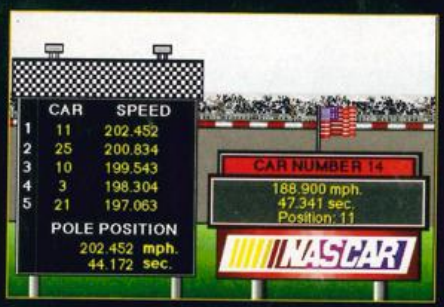
You get to race against some of the best drivers on the Nascar circuit around eight of the official Nascar racing tracks. Exciting stuff? It certainly is – as long as you don't crash.

Before you get into the race, you have to prepare yourself. First up is choosing your car. You have a choice of three: a Ford Thunderbird, Chevrolet Lumina or a Pontiac Grand Prix. I plumped for the Pontiac because I'm a bit of a poser and I thought it was the best looking of the bunch.

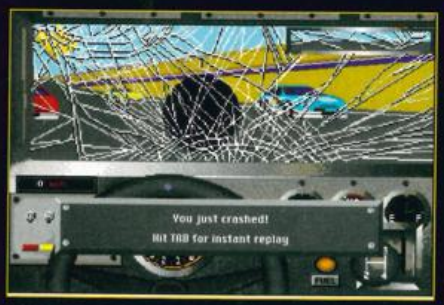
The screen not only shows you the visual delights of each car, but the specs as well. The added bonus is that you can change four of the specs for a bit of fine tuning. Things like the engine type, top gear ratio, tire stagger and spoiler angle can be changed to suit your motoring needs.

You have a choice of eight top-of-the-range tracks in the world of stock car racing: high-banked oval tracks, non-banked road tracks – it's up to you. I chose the A road track to start with because according to the manual, the Pontiac is set up for road courses.

You can choose a race type to suit your style. Just enter your name and select the Practice run, Single race, or Championship season. Go for the Practice run at first, just to get a feel of both car and track. Once you've got used to the the handling of your car, it's



Once you've made up your mind which car you want to drive, you can fine tune it and get yourself set-up for the race proper. You'll find your postition on the qualifying board



Oops! Concentration is the name of the game. Watch your speed levels and your rear view mirror for oncoming cars because it's not always obvious just how fast you are driving

Instant Replay

Rewind for more action

Press play for crash landing

Forward any boring bits

Pause will freeze play

Play one frame at a time

Catch the lot on video

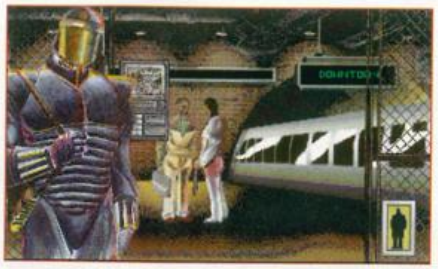
Rise of the Dragon

John Cantlie dons his cyber gear to visit Los Angeles 2053AD, where he takes control of interactive adventure *Rise of the Dragon*

If ever there was an interactive Mac adventure guilty of false promise and lost hopes, this is it. Because while *Rise of the Dragon* undeniably submerges itself under layer upon layer of Blade Runner-esque images and atmosphere, actual progress through the ENORMOUS levels is haphazard in the extreme.

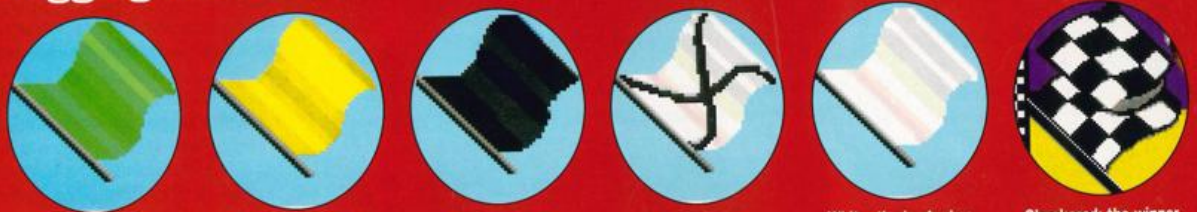
So there you are, right, and you've got this top lead on 'The Jake', an underground heavy who's got the answers you need. You start talking, you drop a few hints, he gets stroppy and terminates your conversation. This in itself wouldn't be so bad, but then you're not allowed to re-engage in what would be an otherwise titillating exchange. Still, there's nothing to stop

Cyberpunk doormen aren't exactly noted for their wit, charm and appreciation of the arts



Is it **a**) a super cyber-metro system or **b**) Clapham South tube station with a few robots hanging around, hmmm?

Flagging behind?



Green: starts the race and signals restarts

Yellow: hazardous conditions on the track

Black: your car has been seriously damaged

Black with white cross: you are disqualified

White: the leader has started his last lap

Checkered: the winner has finished, race over

time to go for the real thing: the Single race or – for the more daring – the Championship season.

The keyboard controls for car handling are the arrow keys by the space bar. This arrangement takes quite a bit of getting used to, especially with the tight corners at Sears Point and Daytona. I found myself smashing into the barriers with an ear shattering splaanggg, or manoeuvring into the grassy banks while attempting to avoid colliding with other cars.

My first attempt in the Championship season was pretty poor. I managed to get my Pontiac's speed (auto-gear changing all the way) into the mid hundreds. I was really going for it, zooming past and avoiding other cars like the plague, my engine sounding like my Dad's lawnmower gone mad and then POW! I crashed after three laps.

You really have to watch your speed levels and your rear view mirror for oncoming cars. I was playing on an LCII which doesn't really give you the feel of doing over 150mph, so when you crash into a barrier, you end up wondering why your car's a write-off, then you look at the controls and realise just how fast you were going.

I loaded the game on a Quadra 700 and couldn't believe the speed of the thing! Each bend and straight took a hell of a lot of getting used to. My Pontiac could really move: unfortunately it tended to be into the nearest barrier.

This game requires a lot of concentration and a lot of practice, but I found it a lot easier to control and a damn sight more realistic than *Ferrari Grand Prix* (MacFormat Issue 2, 80%). Thanks to the true-to-life bitmap graphics and the down-to-scale racing tracks, you'll want to keep trying for the top five.

If you're racing on an oval track choose the Chevrolet Lumina

The Pontiac Grand Prix is good for road courses

For tri-oval tracks opt for the Ford Thunderbird

✔ Lap it up
Good choice of tracks and you can fine tune your car to suit your needs

✘ Crash and burn
Once you've completed 200 laps of the same six tracks, it gets a bit repetitive

Price: £30
From: GameTek 0753 553445
Requires: 1.5Mb memory (colour) 800K (black and white), System 7 or higher
Controls: mouse or keyboard

Graphics	80%
Sound	70%
Mac Format rating	80%

you saving the game just before the interrogation and restoring ad infinitum…

But there's no denying the compelling neo-world that you're thrust into, and the live arcade sequences work well to bolster the usual point-and-click adventure stuff. More interactive elements would've been nice for what is, after all, called an 'interactive' game – conversations are strictly limited to a multiple choice section, and actual manipulation of your surrounding environment is severely limited – and you can't help feeling that for 2053AD downtown Los Angeles, it's all pretty tame really.

For all its gargantuan size, *Rise of the Dragon* is too much 'look but can't touch'. It needs a full 10 megs of free space to run, takes about 30 minutes to install off its seven disks, and boasts cyberpunk atmosphere by the bucket-load. But what's sensory proportion when the gameplay doesn't let you muck around with it, eh? Big on game, small on play.

■ Sierra is offering *Rise of the Dragon* as part of a special value pack along with *Red Baron* and *Kings Quest V* for £40 while stocks last.

Your girlfriend tends to appear at rather inconvenient times...

✔ Hot on the trail
Playing area the size of the Atlantic, oozes futuristic atmosphere from every sticky pore, splendid arcade bits

✘ Haven't got a clue
Interaction is limited in every aspect, suffers desperately from 'Yes I have – damn, I haven't' syndrome, very

Price: £40 **From:** Sierra 0734 303322
Requires: 2Mb with System 6, 3.5Mb with System 7, 8-bit colour monitor
Controls: mouse and keyboard

Graphics comment	80%
Sound comment	60%
Mac Format rating	76%

FREDDY PHARKAS FRONTIER PHARMACIST

"Doc, I'm feelin' kinda weird." "Don't worry, son, Kellie Simmons is ridin' into town with *Freddy Pharkas the Frontier Pharmacist*. They'll soon put ya right!"

Freddy Pharkas Frontier Pharmacist is a comedy western from Sierra, the makers of *Leisure Suit Larry*. It's yet another interactive game, but has an ingenious idea for a story line.

The game is set in 1888 in post-Gold Rush California. You get to play the great legend Freddy himself and the point of the game is that you uncover a ghastly plot to turn your home into a ghost town.

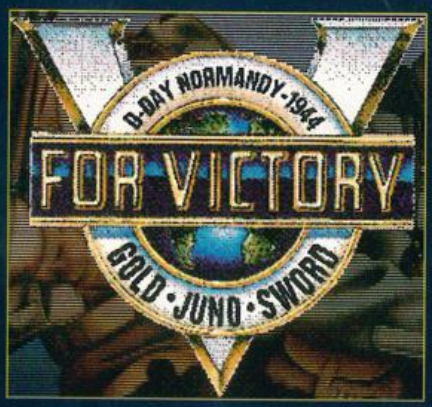
Like most interactive games, this takes up a lot of space on your Mac. I loaded the six disks onto a IIsi for fear that I wouldn't have enough room on my busy LCII. I was pleased to find there are three gameplay areas sizes; small, medium and er, full screen.

When you first enter the game you're greeted with The Ballad of Freddy Pharkas, a real yeeee-haaa kinda thang, apart from the fact that you're the one that has to read/sing the words to the music and illustrations provided so you feel like a bit of a prat having a lonesome sing-song without even the accompaniment of your computer. Once you've got past all the lyrics malarky you're into the game proper. There's a standard control panel at the bottom of the screen where you can choose various icons to walk, talk, look, lift or peer into your inventory of useful gadgets.

The entire game is spent pointing and click-

This is Freddy in the place he knows best – his own pharmacy. Click on any of the bottles, pictures and strange substances and you should find some sort of clue to help you

Would you trust the guy wielding the sharp-looking object to tussle with your locks? Hmmn not quite Vidal Sassoon, but then beggars can't be choosers in a ghost town



The Second World War's nearly over, but James Leach is determined to liberate France in *V for Victory – Gold, Juno, Sword*. Over to you, James...

Let me see, now. I'm doing lunch with the Ambassador on Thursday and playing squash on Friday. I could liberate Caen if I've got time at the weekend, though...

Here's an idea. Why not send all your boats round and round the Isle of Wight first, just to make the troops dizzy? It would be more of a fair fight, then

If you've played *V For Victory Market Garden*, you'll instantly settle into the commander's seat with this game. It's the sequel, and both are completely compatible.

Here, you're faced with the slightly less daunting task of mopping up the shattered Axis forces who, after five years of combat, don't really want to be in France much longer, and seem pretty keen to go back to the Fatherland.

Well it's not that simple. The fact is, although in most of the seven scenarios presented here you do have an overwhelming number of troops, the Germans don't want to let an inch of Gallic mud become yours. So you're faced with the tough task of using far more concentrated piles of tanks than is normal.

It's called Hedgerow Hell. You have to winkle out every damn enemy unit. And because they're expecting you, they're all dug in and sit there, grimly determined. Expect to play these scenarios over a long period of time.

The graphics are just as in *Market Garden*. They're clear, detailed and in some regions you can even see the individual fields and meadows you're fighting for. It gives the game a lovely sense of scale.

The control system is easy to get to grips with and if you're new to this game, you'll be

ing your way through the usual western-type things; cacti (ouch), doors as well as a few medicinal/medical hiccups like flatulence (of all things), weirdo characters and a few pharmaceutical concoctions.

There's a lot going on and, as with all interactive adventure games, it takes flippin' ages to sort things out. The comments made by Freddy and most of the other characters are extremely witty and if you go back to the characters a second time, they'll remember you from your last visit. It adds to the enjoyment and makes you really feel a part of the adventure. It also shows that a lot of thought and work went into the game. However, the real downer in the game for me, apart from the manual being a bit sparse, was at the very beginning. Every now and then the odd credit of someone who helped make the game would suddenly appear on the gameplay screen while I was busy playing. This was a bit annoying because you begin to wonder whether the game has actually started or not. But on the whole. *Freddie Pharkas* is fun, and there's plenty in the game to entertain you.

It's the standard point and click scenario. If you point and click at another character you'll get a bit of information about them

I wouldn't really like to compare the wit and humour of this game to *The Secret of Monkey Island*, but the jokey touches are definitely in full, slightly 'smutty', effect

If you want to turn down the sound or the music just click on one of these guys. If they go down, so does the music. If they stay hanging, well...

✔ Spoonful of sugar
Excellent graphics. Great packaging (come on, these things count)

✘ Spoonful of strychnine
Not really a game for the kids I'm afraid. Sparse game manual

Price: £40
From: Softline 081 401 1234
Requires: Colour Mac with 10Mb available hard disk space, 4Mb RAM, System 7.0 or later. Supports Mac Sound Roland MT/CCM-32 general MIDI
Controls: mouse/keyboard

Graphics rating	95%
Sound rating	90%
MacFormat rating	78%

People are always popping up to tell you what to do. I thought I was in control of this army! You can expect to play scenarios like this over a long period of time

This is unexpected. I thought they only had 12 guys left in this theatre. Er, could you send reinforcements, please? Perhaps they'll obey my commands now I'm back in control

Aaaah! This is more like it. This screen shows tons of Allies belting headlong at the cowering Germans. Keep going chaps. Last one to Berlin's a sissy!

issuing commands like Monty within a few seconds. There are loads of options and variables, so you can choose either to be a victim or to be in control. The weather affects your airpower (the Germans don't have any planes at this stage of the War) and you've got to watch the Channel because your chaps are planning to wade ashore in their thousands.

V for Victory – Gold, Juno, Sword is a quality piece of software. It'll take you ages to beat all the scenarios but at least that's like real life (except that nowadays there aren't any hedgerows to have Hell behind any more). Get ready to fight them on the beaches!

✔ Charging Shermans
Slick, smart and full of detail. It's very easy to play but tough to forge ahead

✘ Burning Panzas
Can be slow – it takes ages to beat all the scenarios – and mistakes are hard to rectify

Price: £45
From: Electronic Arts 0753 549442
Requires: colour Mac with minimum 3Mb RAM, System 6 or higher
Controls: mouse, keyboard

Graphics rating	93%
Sound rating	96%
MacFormat rating	79%

GAMEBUSTERS

Time to don the game brain and get to grips with this issue's round up of hints, tips and cheats to improve your gaming knowledge – this month they include juicy hints for *A-Train*, *Civilization* and *Sim City*

SimCity

Start the game level on pause and bulldoze one square of the forest. Press **[shift]** and type **FUND**. Repeat this process until you get $89,999 then build your city. Get your money level right up to full and save the game.

Shut down your Mac or just leave *SimCity* then re-enter and load your game. Set the speed level on fast and you'll find you have over $80,000 and a city built in the first month.

Darren Wallace, Carnforth

PS You can't use the cheat while you're on one of the moving speed levels. When you use the cheat twice, a major earthquake occurs.

The race is on – try and build your city in your first month. Not so easy? You might find our cheat rather helpful...

Over the edge

Last month we printed a tip for Microsoft *Flight Simulator*, but the name of the tipster kind of fell off the edge of the page. Being a fair, honest and nice person I'd like to take this opportunity to thank Tom Wright from Hertfordshire. Cheers Tom.

What a great view – what it lacks in mountains and hillsides it makes up for in, er... flatness

A-Train

Here's a very useful cheat for *A-Train*. I used to play it a lot on my PowerBook 170, but I found it quite boring because of the speed. Fortunately I have a Quadra 700 at work (*lucky blighter! Hang on, should you be playing games at work? – Kellie*), so I just switch on the Cache disk.

When you don't pay attention you can lose the game easily even if you do have enough subsidiaries to sell.

Here's the solution. As soon as you lose click on New Game, then click Cancel and promptly go to the tool bar and either click on the Subsidiaries button to sell a subsidiary or click on Bank (if it's not Sunday or a bank holiday) and borrow the money that you need.

Ginzburg Eduard

PS. Sorry for my English, I speak Russian

All the best to you to Ginzburg, but you forgot to send us your address...

Civilization

Civilization has become rather popular in the GameBusters department. Here are a couple of tips that were sent in:

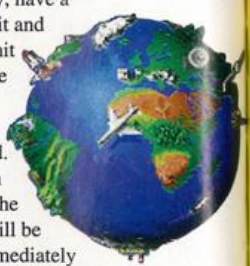
- On starting, the race you choose can be your key to success. Germans will give you two settlers, but Greeks and Indians provide a technical advantage.
- Initially set the tax rate to 0% taxes to allow maximum development of technology.
- Developing the alphabet, writing and literacy will allow the construction of the Great Library Wonder, allowing your race access to other cultures' technology that is more advanced than that of your own.

Then bronze working and the wheel should be researched to allow the construction of chariots, which are the best defence and attack unit.

Now build a settlers' unit, to improve the land around your city by irrigating, and construct a road network to allow rapid movement of all your troops.

Iain Scott, Scotland

- When you are using nuclear weapons to attack an enemy city, have a ground unit and a settler unit just outside the area that will be affected. Now when you nuke the city you will be able to immediately capture the city before your enemy can recover. You can also use the settlers to clear up any pollution immediately.



Matthew Jones, Isle of Man

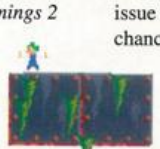
Lemmings

Last month we published the 'tricky' levels of *Lemmings*, this time around we've got the 'taxing' ones.

Weh-hey! Here we go, hi-ho, hi-ho, it's off to croak we go...

1. MFMCGKLNFO	7.NHNLJGCDGY	13.GAJIMMHJGX	19.LGENMMDPGU	25.LFNGCJNFHJ
2.GMCOKLMOFY	8.ILDLGMOEGN	14.OKHMDNGKGT	20.GKNNOLHQGS	26.GNGIJLLGHP
3.MCANMMFPFO	9.LDLGCJOFGV	15.OIMELGALGK	21.GGKHNNHBHY	27.HFANLLFHHU
4.CINOMGMQFK	10.ENGIJNLGGO	16.HMDLGKOMGT	22.KJJLFNGCHK	28.FINLLFHIHN
5.GEKKNMJBGJ	11.LGANOLDHGJ	17.MELGCKLNGN	23.NJLGNGADHW	29.FAJHMFHJHP
6.KJILKLGCGU	12.GKNOLDLIGU	18.DLGIJOMOGV	24.KNOHGOOEHL	30.IJHMFHFKHG

I've been getting a lot of impatient letters asking when *Lemmings 2* will be available for the Mac. Well, the runaway success of the original game will probably mean you'll have to keep waiting I'm afraid. *Oh No! More Lemmings* was released in August (reviewed in **MacFormat** issue four, rating 75%) so the chances are that you won't see another *Lemmings* (ie *Lemmings 2 – The Tribes*) release until the tail end of next year – if that, since games do have a habit of ignoring their official release dates. Sorry.



Write now

It's not just hot tipsters that we'd like to hear from. If you have a question that you'd like to ask about a game or some excellent games trivia that you'd like to share with other readers write now to: Gamebusters, MacFormat, Future Publishing, 30 Monmouth Street, Bath BA1 2BW

Reader Services

Well, it looks like a Mac extravaganza this month in our 'For Sale' column. If you're thinking of getting one, or what the heck, even two of the little gems, then you've come to the right place...

FOR SALE

Macs

■ Mac Plus 2.5Mb, 30Mb external hard disk, optical mouse, software, manuals, keyboard, light home use, good condition, no box: £375, Call Nigel on 0472 347691 (Grimsby)

■ Mac IIsi 5/80, 13-in RGB monitor, standard keyboard, System 7.1 – plus HP DeskWriter. For quick sale, immaculate condition: £2,000. Call Amir on 071 987 6529

■ Who wants an LC II 4/40, a 14-in colour monitor, System 7.0.1 and manuals etc? Plus StyleWriter Printer, superb condition, boxed: £1,000. At this price the buyer must collect! Call Tim on 0603 661791 (Norwich)

■ Mac Classic 2/40, mint condition, keyboard, mouse, manual, all included: only £375 (with Teleport Full Fax only £475). Call Alex on 081 744 2420

■ Mac LC 6/40 with Apple 12-in colour monitor, manuals and boxes. Excellent condition: £750 ono. Call Giles on 0934 712595 (Somerset)

■ Classic 4/40, dust covers plus original packing. Mint – £385 ono. Tel 0698 887381

■ Mac LC II 4/40, system of your choice. Will deliver. Home use only: £750 ono. Call Ralph on 0698 425025 (day) or 0698 252147 (eves)

■ 4/40 LC and StyleWriter System 7. Deliver East Anglia. Would give tuition if required: £750. Tel: 0603 429883 (eves)

■ Mac LC 10/120 12-in colour monitor 512K VRAM Excellent condition: £950. Tel: 0803 864033

■ Mac Classic 4/40, boxed and in good order, System 7.0. Will consider any reasonable offer. Call Franco on 0738 86732

■ Mac SE 4/40 with Radius 25MHz 68020 accelerator, 68881 maths co-processor, Radius full page display. Excellent condition: £995 ono (£1,050 ono including Imagewriter II). Call Matt on 0622 754036 (Maidstone)

■ Mac Classic 4/40, superb condition, still in box, System 7, 12 months old, Apple Keyboard II and all the manuals: £550. Tel: 0532 529951 (Leeds)

■ PowerBook 100 4/20 includes floppy, battery, disks, manuals. Boxed. Light home use only. Very good condition: £600. Call Simon on 071 704 0561

■ Apple Mac Plus, keyboard and mouse: £200; Apple QISK SCSI 100Mb external hard drive; £200; Apple 800K disk drive: £70; Apple ImageWriter LQ Sheet Feeder: £20. Tel: 0708 731054

■ Apple II Europlus, two disk drives, SilentWriter printer and orange monitor, includes business software and one game. Only has 64K but at £120 ono you can't complain. In very good condition. Call Pascal on 021 427 4316

■ Mac Classic 2/40 mint condition, light home use only, System 7 and *ClarisWorks* software, mouse and mat, paper holder, dust cover and more, boxed, superb bargain: £450. Call Tim on 081 301 5226

■ Mac SE/30 System 7, home use only, includes carry case, excellent condition: £525. Call Mike on 051 678 2528 (Wirral)

■ Mac LC, 14-in colour monitor 512K VRAM, six months old, boxed, warranty. As new: £850 ono. Call Richard on 061 439 5885

■ Classic II 4/40, excellent condition, System 7: £650 ono. Tel: 0602 412734 (eves) NB Must let the telephone ring for a long time

■ Mac Plus 2Mb RAM, Rodime 20Mb hard drive, mouse, keyboard, manuals, good condition: £400. Tel: 0360 311400 (eves) (Glasgow)

■ Mac Plus 4/20 with keyboard, mouse, computer work station, disc box and discs. System 7.0. Reference & user manuals. Software includes various utilities, games, paint and draw applications, word processors and shareware. Excellent condition: £600. Call Allan on 0382 501305

■ Mac Classic 4/40, System 7.1, few months old, boxed, 20Mb of PD/shareware, mint condition: £500 ono. Tel: 061 330 8100 (eves)

Printers

■ Personal Laserwriter LS, home use only, good condition: £400, includes cable and manual. Tel: 0892 535249 (Kent)

■ For LC/LC II: one maths co processor card: £25, two 2Mb SIMMs: £25 each. Tel: 0225 424454

Software

■ Macintosh software for sale. *Digital Darkroom:* £110, as new. Microsoft *Works*: £70, as new. Both open for offers. Call James on 03727 41891

■ Unopened *ClarisWorks* £135. Tel: 0227 369719 after 6pm

■ *Strata Vision 3D v2.5*, disks and documents. Unwanted prize. £450. Tel: 0224 633372 (eves after 6pm)

■ *ClarisWorks 2.0*, unopened. Contact Susan Damer, 7, Langley Park Road, Sutton, Surrey, SM14TB

■ Games: £5: *Borrowed Time, Alter Ego*; £10: *Dark Castle, Ancient Art of War, Fire Brigade*; £15: *Ultima III, Reach for the Stars, Might & Magic*. Call Richard on 0775 760356 (eves)

Miscellaneous

■ Macintosh System 7.01.1, disks and manuals for sale – in perfect condition. Tel: 081 767 5352 (eves)

■ Apple extended clone keyboard, boxed, three weeks old: £80; Apple LC – Multisync VGA cable: £10; Apple LC -VGA cable: £10; Apple SCSI system cable: £10. Tel: 0708 731054

■ MicroWriter Agenda Palmtop computer, PC connecting kit, all manuals, charger collector's item. £100 ono. Call James on 031 661 2639 after 6pm

WANTED

■ SIMMs. Require 2Mb or 4Mb chips for Mac LC. Also require an accelerator card for Mac LC. Tel: 0420 83116 (Hants)

■ Powerbook 145 accessories wanted. Also MIDI/Music hardware/software, 128Mb optical drive. Tel: 081 692 8129

FANZINES

■ *HyperCard* user? Help needed for profitable disk fanzine. Especially writers, designers, scripters etc. Any help is good help regardless of ability. Contact Steven, 4 Charlecot Road, Droitwich, Worcs WR9 7RP

CONTACTS

■ Mac contacts wanted to swap shareware/PD by post. Write to Sean Tobin, St John's College, John's Hill, Waterford, Eire

■ Mac newsletter, written by Mac lovers for Mac lovers. Send two 24p stamps to Mac, 9 Burrill Drive, Wigginton, York YO3 3ST

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Chooser

MacFormat hardware

Welcome to this installment of our hardware round-up – this issue we've covered computers, greyscale and colour printers, CD-ROM drives, input devices, CPU and graphics accelerators, floppy and removable drives and colour monitors. All prices quoted include VAT and are the manufacturers' recommended retail prices. But watch out because prices might rise or fall. So shop around for the keenest prices! And if you're intending buying by mail order remember these five golden rules:

- Pay cash on delivery or
- Pay by personal credit card
- Collect your gear in person
- Buy from an established supplier
- Be wary of unusually low prices

Next issue we'll complete the listing with guides to memory expansion, scanners, hard drives, modems, fax modems, video boards, display boards – and just about every other bit of hardware we can think of.

Name & price	Maker	Distributor	Phone	Comments
MAC COMPUTERS				
Apple Macintosh Classic II £875 4/40; £1,028 4/80	Apple	Apple	Freefone Apple	68030-based Classic, 16MHz. 2Mb RAM on motherboard with option for an extra 2Mb via SIMMs sockets. Optional maths co-processor
Apple Macintosh Colour Classic £911	Apple	Apple	Freefone Apple	16MHz 68030 processor, based on the Classic but with a 256 colour screen
Apple Macintosh IIvx From £1,888	Apple	Apple	Freefone Apple	32MHz 68030-based Mac with RAM cache
Apple Macintosh LCII From £713	Apple	Apple	Freefone Apple	16MHz 68030 processor, 4Mb of RAM, expandable to 6Mb, 8Mb or 12Mb. 512K of video RAM – price includes a 12in colour monitor
Apple Macintosh LCIII From £1,289	Apple	Apple	Freefone Apple	68030 processor with maths co-pro option, 25MHz, 4Mb-36Mb RAM, Apple SuperDrive 40/80/160Mb storage on hard disk
Apple Macintosh PowerBook 145B £1,174, 4/40; £2,011, 4/80 or £1,503 with modem	Apple	Apple	Freefone Apple	25MHz 68030-based portable with 4Mb RAM expandable to 8Mb, LCD screen and rollerball mouse
Apple Macintosh PowerBook 180 £3,401 4/120	Apple	Apple	Freefone Apple	33MHz 68030 processor, grey scale screen, support for external video
Apple Macintosh PowerBook 180c	Apple	Apple	Freefone Apple	33 MHz 68030 processor, built-in 1.4Mb SuperDrive
Apple Macintosh PowerBook 165c £1,698 4/80; £2,050 4/120 or £2,320 with modem	Apple	Apple	Freefone Apple	Colour PowerBook; 68030 processor with maths co-pro; 33MHz, 4Mb-14Mb RAM, Apple SuperDrive 80/120Mb storage on hard disk
Apple Macintosh PowerBook 165 £1,569, 4/80; £1,874, 4/160	Apple	Apple	Freefone Apple	33MHz 68030 processor, 4MB RAM, built-in microphone, 16 grey scales
Apple Powerbook Duo 210 £1,768	Apple	Apple	Freefone Apple	25MHz notebook, 68030 processor – colour support, floppy drive and extra hard drive can be added by docking it into a Duo Dock casing
Apple Powerbook Duo 230 £2,031, 4/80	Apple	Apple	Freefone Apple	Same as the Duo 210 but the 68030 processor runs at 33MHz
Apple Macintosh Quadra 700 £2,908 4/80; £3,378 4/230; £3,848 4/400	Apple	Apple	Freefone Apple	25MHz, 68040 processor – resembles the Mac IIcx. 4Mb RAM with slots for memory boosting
Apple Macintosh Quadra 800 From £4,929	Apple	Apple	Freefone Apple	68040 processor, 33MHz, 8Mb to 136Mb RAM, Apple SuperDrive storage 230/500Mb on hard disk
Apple Macintosh Centris 610 From £1,888	Apple	Apple	Freefone Apple	68040 processor, 20MHz, 4Mb RAM
Apple Macintosh Centris 650 From £2,750	Apple	Apple	Freefone Apple	68040 processor, 25MHz 4Mb-8Mb RAM expandable to 132Mb, 80/230/500Mb storage on hard disk
GREYSCALE PRINTERS				
Apple ImageWriter II	£346	Apple	Apple	Freefone Apple	Seven colours, 144dpi, serial/AppleTalk interface
Apple LaserWriter NTR	£1,733	Apple	Apple	Freefone Apple	4ppm PostScript laser, 300dpi
Apple Personal LaserWriter LS	£699	Apple	Apple	Freefone Apple	TrueType/QuickDraw laser writer only with 11 TrueType font
Apple Personal LaserWriter 2NT	£1,733	Apple	Apple	Freefone Apple	PostScript eight page per minute printer
Apple Select 300	£911	Apple	Apple	Freefone Apple	300dpi based laser writer
Apple StyleWriter	£270	Apple	Apple	Freefone Apple	Bubblejet printer with TrueType fonts, manual/sheet fed, serial interface
Apple StyleWriter 2	£317	Apple	Apple	Freefone Apple	Same as above but works at twice the speed
Brother HL-4PS	£1,996	Brother	Midwich Thame	0379 649200	4ppm PostScript printer, 300dpi. Parallel, serial and AppleTalk interfaces
Dataproducts LZR 660	£2,109	Dataproducts	Dataproducts	0734 884777	6ppm PostScript laser. AppleTalk, RS232C/RS422/Centronics Interface
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Dataproducts LZR 1560	£3,284	Dataproducts	Dataproducts	0734 884777	400dpi, 15ppm PostScript laser, 4M RAM expandable to 16Mb
Epson EPL-4100	£1,110	Epson	Epson	0442 61144	6ppm laserwriter
Epson GQ5000	£1,702	Epson	Epson	0442 61144	6ppm, 300dpi, 13 fonts
Epson LQ-570+	£551	Epson	Aptec	071 627 1000	24-pin dot matrix printer
Fujitsu RX7100PS	£2,226	Fujitsu	Fujitsu	081 573 4444	5ppm, 300dpi, 35 fonts in ROM
GCC WriteImpact	$599	GCC	GCC	081 569 4030	24-pin letter quality dot-matrix, 180dpi x 360dpi
HJ-400	£351	Brother	Brother	0865 883355	Inkjet printer with 18 TrueType fonts. Uses a Canon inkjet cartridge

Name	price	Maker	Distributor	Phone	Comments
HP Deskjet	£527	HP	Hewlett Packard	0344 369222	300dpi inkjet printer
DEClaser 1152	£1,146	DirekTek	DirekTek	081 845 5969	PostScript Level 2 printer
DeskWriter 510	£387	HP	Hewlett Packard	0344 369222	Based on 300dpi inkjet technology
HP LaserJet IV	£2,055	HP	Hewlett Packard	0344 369222	600dpi PostScript laser
Mannesman Tally MT 911PS	£2,872	MT	Mannesman Tally	0734 771688	10ppm PostScript laser, 2Mb RAM
Mannesman Tally MT908	£1,702	MT	Mannesman Tally	0734 771688	8ppm, 300dpi
Minolta SP 3500	£2,583	Minolta	Minolta	0908 211211	10ppm TrueImage laser; 35 TrueType fonts
NEC SilentWriter S62P	£2,109	NEC	NEC	081 993 8111	6ppm PostScript laser
NEC SilentWriter2 290	£2,348	NEC	NEC	081 993 8111	8ppm 300dpi laser, with HP LaserJet Plus emulation
NewGen Turbo PS/300P	£1,410	NewGen	Pre-Press Solutions	0844 28689	4ppm, 300dpi
NewGen Turbo PS/400P	£2,115	NewGen	Pre-Press Solutions	0844 28689	4ppm, 300/400dpi
NewGen 660B	£3,037	NewGen	Aptec	071 627 1000	6x6 A4 laser; IET, parallel/serial/AppleTalk interfaces and Ethernet option
NewGen 880P	£1,938	NewGen	Aptec	071 627 1000	8x8 A4 laser; IET, parallel/serial/AppleTalk interfaces and Ethernet option
Oki OL400A	£704	Oki Systems	DirekTek	081 845 5969	4ppm desktop page printer with a RISC processor to speed up printing
Oki OL830	£1,761	Oki Data	Oki Data	0753 819819	Needs AppleTalk interface (£199); 300dpi A4 PostScript laser
Oki OL850	£2,231	Oki Data	Oki Data	0753 819819	8ppm, 300dpi; parallel/serial/AppleTalk interfaces, 35 fonts
Pacific ProTracer	£1,291	Pacific Data	Pacific Data	0442 231414	360dpi PostScript inkjet printer
PLP II	£793	G CC	GCC Technologies	081 569 4030	QuickDraw-based 300dpi laser printer
Star LaserPrinter 42 StarScript	£1,643	Star	Star Micronics	0494 471111	4ppm PostScript laser; 35 fonts, 2Mb RAM
Star LP 8 III StarScript	£2,348	Star	Star Micronics	0494 471111	8ppm PostScript laser, Canon engine
Star LS 5TT	£1,249	Star	Star Micronics	0494 471111	5ppm, 600dpi, AppleTalk interface, 14 text fonts, 35 TrueImage fonts
TI MicroLaser PS35	£1,750	Texas	Texas Instruments	0234 224277	Sharp engine, 300dpi PostScript laser with 512K RAM. Parallel interface, HP LaserJet emulation
TI MicroLaser PS35A	£2,344	Texas	Texas Instruments	0234 224277	6ppm, 300dpi, AppleTalk, serial and parallel interface
TI MicroLaser Turbo	£2,760	Texas	Texas Instruments	0234 224277	9ppm PostScript laser
TI MicroLaser XL PS17	£2,109	Texas	Texas Instruments	0234 224277	6ppm laser printer; LocalTalk interface, 2.5Mb RAM and 17 fonts
TI MicroLaser XL PS35	£2,726	Texas	Texas Instruments	0234 224277	16ppm 300dpi; AppleTalk, 35 fonts, 2.5Mb RAM
COLOUR PRINTERS					
Bézier BP3670	£3,055	Bézier	DirekTek	081 845 5969	Thermal inkjet printer; 6ppm, at up to 17in wide. SCSI interface
Calcomp PlotMaster	£2,761	Calcomp	Calcomp	0734 344012	Thermal printer with seven colour output facility
HP DeskWriter C	£633	HP	Hewlett Packard	0344 369222	Black or 3-colour printer
HP PaintJet XL	£2,291	HP	Hewlett Packard	0344 369222	Takes A3/A4 paper; high speed colour inkjet
HP PaintJet XL300	£3,401	HP	Hewlett Packard	0344 369222	Takes 2-colour inkjet, 400dpi, A3 Postscript level 2
HP PaintJet	£963	HP	Hewlett Packard	0344 369222	180dpi colour inkjet; comes with serial interface and driver
Integrex Colourcel	£3,519	Integrex	Integrex	0283 551551	Roll-fed colour inkjet
Seiko ColorMaker	£587	Seiko	Ambitron	0635 36555	Non-PostScript thermal wax transfer colour printer
Sharp JX-735	£1,521	Sharp	Sharp	061 205 2333	180dpi colour inkjet
Shinko CHC-445	£2,344	Shinko	Colorgraph	0734 819435	A4 PostScript colour printer
Tektronix ColourQuick 4697	£2,536	Tektronix	Tektronix	0628 486000	216dpi colour inkjet; A3/A4 paper, sheet or roll fed
FLOPPY DRIVES					
Apple PC 5.25	£382	Apple	Apple	Freefone Apple	5.25in drive for Mac to PC file transfer
DaynaFile II	£587	Dayna	Computers Unltd	081 200 8282	External floppy which allows the Mac to read from and write to 3.5in and 5.45in MS-DOS files
Fifth Generation JukeBox Five	£186	5th Gen	Riva	0420 22666	Floppy disk feeder
PLI Infinity 10	£1,526	PLI	Gomark	071 731 7930	Back up system for hard disk; will read 5.25in MS-DOS disks
Verbatim 10 Plus	£499	Verbatim	Verbatim	0784 473736	Internal or external high density floppy drive; 10Mb capacity
Verbatim 20 Plus	£816	Verbatim	Verbatim	0784 473736	Internal or external high density floppy drive; 20Mb capacity
REMOVABLE DRIVES					
APD Strategy 2040SR	£628	MacEurope	MacEurope	0603 741222	42Mb cartridge hard drive
BD-M1000	£999	Ideal Hardware	Ideal Hardware	081 390 1211	10ms access time, 512k cache and SCSI-2 support
Bering Totem 920R	£1,615	Bering	Datagate	0635 248180	20Mb hard drive with Bernoulli cartridge
Bering Totem 1220R	£2,482	Bering	Datagate	0635 248180	40Mb drive with 40ms access time
Bering Totem II	£1,404	Bering	Datagate	0635 248180	20Mb Bernoulli drive; cartridges available at £60 each
Dolphin Flipper 44	£1,398	Dolphin	DynaFive	0733 236515	44Mb cartridge drive
DynaFive Galaxy 44M	£640	DynaFive		0733 236515	44Mb cartridge drive
ETC Dataport	Single £293 twin £528 tower £851	ETC	MacAcc Centre	091 295 0353	Unit for storing and exchanging internal drives
Formac ProDrive 40	£2,015	Formac	MacEurope	0603 741222	As above; 42.5M cartridge
Frog Systems R45	£410	Frog Systems	Rodime	0592 630620	44Mb cartridge drive
FWB Hammerdisk 44	£934	FWB	NuSys	0379 650777	44Mb cartridge drive, 20ms seek time
GCC UltraDrive 50	£1,173	GCC Technologies	GCC Technologies	0473 212313	50Mb cartridge drive
Iomega MacInsider MultiDisk 150	£1,115	Iomega	Iomega	081 750 5511	Removable drive
MacTransportable 90 Pro	£988	Iomega	Iomega	081 750 5511	Single cartridge 90Mb transportable drive
MacTransportable MultiDisk 150	£1,032	Iomega	Iomega	081 750 5511	150Mb transportable drive

Name	price	Maker	Distributor	Phone	Comments
Quantum PassPort XL42	£334	Quantum	Thane Systems	0844 261 226	42Mb removable hard drive unit; external chassis £651
Quantum PassPort XL85	£505	Quantum	Thane Systems	0844 261 226	85Mb removable hard drive unit; external chassis £651
Quantum PassPort XL127	£705	Quantum	Thane Systems	0844 261 226	127Mb removable hard drive unit; external chassis £651
Quantum PassPort XL170	£882	Quantum	Thane Systems	0844 261 226	170Mb removable hard drive unit; external chassis £651
Quantum RPort 240	£1,152	Quantum	Thane Systems	0844 261 226	42Mb removable hard drive; external chassis £651
Rodime Condor 130e	£1,596	Rodime	Rodime	0592 630620	130Mb removable hard drive
Rodime R45 Plus	£586	Rodime	Rodime	0592 630620	44Mb removable cartridge drive with disk utility software
Rodime R90 Plus	£774	Rodime	Rodime	0592 630620	90Mb removable cartridge hard drive
SyQuest MR90	£837	SyQuest	Cal-Abco	081 842 0071	84Mb removable cartridge drive
CD ROM DRIVES					
AppleCD150	£351	Apple	Apple	Freefone Apple	380msec access time
AppleCD300	£320	Apple	Apple	Freefone Apple	Double speed CD-ROM
Cumana CMA432	£351	Cumana	Cumana	0483 503121	350msec access time
Hammer HCD1	£949	FWB	NuSys	0379 650777	Double speed; includes CD-ROM ToolKit utility software
Hitachi CDR 175OS	£616	Hitachi	Hitachi Sales	081 849 2092	320msec access; 64K built-in cache
Hitachi CDR-MAC 2	£728	Hitachi	Hitachi Sales	081 849 2092	320msec access time
NEC Intersect CDR-37	£468	NEC	NEC	081 993 8111	Needs Mac Interface kit (£95); portable CD-ROM player
NEC Intersect CDR-74	£703	NEC	NEC	081 993 8111	CD-ROM drive with extra cache memory; can play audio CDs
NEC Intersect CDR-84	£687	NEC	NEC	081 993 8111	300msec access time
Philips CM50 CD-ROM	£468	Phillips	Phillips	081 773 4491	Doubles as audio CD player as well
Pioneer DRM-610	£992	Pioneer	Optech	0252 714340	0.8 sec max, average 0.6 secs
Pioneer DRM-604X	£1429	Pioneer	Optech	0252 714340	300msec average access time, data transfer rate 600 Bytes per second (high speed mode)
INPUT DEVICES					
Advanced Gravis MouseStick	£106	Advanced Gravis	MacAcc Centre	091 295 0477	Joystick with separate controller box
Advanced Gravis SuperMouse	$129	Advanced Gravis	Advanced Gravis	0101 604 434 7274	Multi-button mouse
Animas MacPro	£63	Animas	PTT Europe	081 997 0923	Three button mouse
Animas OptiOne	£81	Animas	PTT Europe	081 997 0923	Optical mouse; 300dpi
Animas OptiPro	£85	Animas	PTT Europe	081 997 0923	Same as above; three buttons
Appoint MousePen Pro	£97	Appoint	KSI	0590 642751	Combination of a two-buttoned mouse and a pen
Appoint Thumbelina	£97	Appoint	KSI	0590 642751	Tiny ADB trackball
CalComp DrawingPad II	£440	Calcomp	Calcomp	0734 344012	Digitiser, graphics pad and mouse rolled into one
Cordless Mouse	£116	Softsel	Softsel	081 568 8866	Works by infra-red
Curtis MVP Mouse/Footswitch	£164	Curtis C'puter Products		0923 854701	Footswitch/trackball combination, two buttons
Ke:nx	$780	DJDE	DJDE	0101 708 526 2682	Keyboard and mouse emulator for the disabled
Kensington KeyPad	£112	Kensington	Mac Acc Centre	091 295 0477	For the PowerBook; numeric keypad with cursor keys
Kensington Turbo Mouse ADB	£153	Kensington	Mac Acc Centre	091 295 0353	For the SE and Mac II; two buttons, 200cpi precision rating
Logitech Kidz Mouse	£43	Logitech	Logitech	0344 891313	The body of the mouse is pear-shaped
Logitech MouseMan	£69	Logitech	Logitech	0344 891313	Three (programmable) buttons
Logitech TrackMan	£92	Logitech	Logitech	0344 891313	Three (programmable) buttoned trackball
Mac GamePad	£43	Advanced Gravis	Zye Technology	0293 538666	Easy to use control pad and joystick in one
MicroSpeed MacTrac II	£105	MicroSpeed	S'ware Club	081 205 4548	Three buttoned, eight button combination mouse
Mouse Systems Little Mouse ADB	£82	Mouse Systems	Mac Acc Centre	091 295 0477	300cpi resolution, small lightweight mouse
Mouse Systems Little Mouse Plus	£85	Mouse Systems	Mac Acc Centre	091 295 0477	Same as above, for the Mac Plus
Mouse Systems Little Mouse A3	£116	Mouse Systems	Mac Acc Centre	091 295 0477	Mouse with three programmable buttons
Numonics ZedPen Plus	£1,169	Numonics	Numonics	0254 676921	A3 digitising tablet with airbrushing facilities
Océ 6421	£499	Océ Graphics	Océ Graphics	0454 617777	12in digitising tablet with RS232 interface
Océ G6421	£499	Océ Graphics	Océ Graphics	0454 617777	Same as above; 500lpi resolution
Spark Cordless Mouse	$195	Spark	Spark	0101 708 998 6640	Single button infra-red cordless mouse
SummaDraw Cordless Graphics tablet	£586	Summagraphics	Summagraphics	071 244 7733	Cordless 305mmx305mm graphics tablet
SummaDraw Bit Pad Plus	£440	Summagraphics	Summagraphics	071 244 7733	2D graphics tablet
SummaSketch II Plus From £535	From £628	Summagraphics	Summagraphics	071 244 7733	297mmx297mm graphics tablet
SummaSketch II Pro	£1,028	Summagraphics	Summagraphics	071 244 7733	18inx12in graphics tablet
SummaSketch II	£581	Summagraphics	Summagraphics	071 244 7733	11.7in x11.7in graphics tablet
Switchboard	£217	Softsel	...	081 568 8866	Multi-featured keyboard with a trackball module
The Bat	$295	Infogrip	Infogrip	0101 504 766 8082	Chordal keyboard
Wacom Graphics Tablet	£816	Wacom	Computers Unltd	081 200 8282	Cordless 9inx6in digitising/graphics tablet
Wacom ADB Graphics Tablet	£469	Wacom	Computers Unltd	081 200 8282	6inx8in graphics tablet with UP-201 cordless and batteryless pressure-sensitive pen
Wacom SD-510C	£703	Wacom	Computers Unltd	081 200 8282	Digitising tablet
ACCELERATOR CARDS					
ELC25	£1,014	Forester Systems	Forester Systems	081 993 1516	No FPU, no PMMU and will not access over 8Mb of RAM
FWB SCSI Jackhammer	£1,173	FWB	Nusys	0379 650777	SCSI-2 accelerator card(NuBus)£799 if bought with a Hammer drive
GCC HyperCharger 20	£934	GCC Technologies	GCC Technologies	0473 212313	16MHz 68020 accelerator card for the SE
Gemini Ultra	>>>	Total Systems	AM Micro	0392 426473	20MHz £1,115; 33MHz £1,350; 50MHz £1,585

Name	price	Maker	Distributor	Phone	Comments
					030 accelerators for the Mac Plus.
					Optional '882 FPU, video expansion and up to 16Mb RAM
Gemini Ultra	>>>	Total Systems	AM Micro	0392 426473	20MHz £938; 33MHz £1,169; 50MHz £1,404
					030 accelerators for the Mac SE.
					Optional '882 FPU, video expansion and up to 16Mb RAM
Gemini Ultra	>>>	Total Systems	AM Micro	0392 426473	16MHz £816; 20MHz £1,051; 33MHz £1,286; 50MHz £1,521
					030 accelerators for the Mac Classic.
					Optional '882 FPU, video expansion and up to 16Mb RAM
IMP25	£1,639	Impulse Technology	Forester Systems	081 993 1516	From the Performance 040 range; price inclusive of Animals Software
IMP33	£2,226	Impulse Technology	Forester Systems	081 993 1516	From the Performance 040 range; price inclusive of Animals Software
LC25	£1,573	Forester Systems	Forester Systems	081 993 1516	Comes with maths co-processor and PMMU
LC25i	£1,125	Forester Systems	Forester Systems	081 993 1516	No FPU
030 RailGun	$1,541 (33MHz)				
	$1,141 (25MHz)				
	$791 (16MHz)	MacProducts	MacProducts	010 512 472 8881	68030-based accelerator card for the Mac Plus and SE
Magellan EC 25MHz	£1,526	Total Systems	AM Micro	0392 426473	040 accelerator for the Mac IIsi/SE 30/IIci. Fits PDS and uses main RAM
Magellan 25MHz	£1,996	Total Systems	AM Micro	0392 426473	040 accelerator for Mac IIsi/SE 30/IIci
					Built-in FPU. Fits PDS and uses main RAM
Mercury 030	£546	Mercury	AM Micro	0392 426473	16MHz 68030 accelerator card for the Mac 128, 512, 512KE, Plus and SE
ProNitron GA	£3,284	Formac	Formac	0727 821393	
Radius Accelerator 25	£2,348	Radius	Computers Unltd	081 200 8282	25MHz 68020 accelerator card for the SE, with 32K cache
PrecisionColor 24X	£1,878	Radius	Computers Unltd	081 200 8282	24-bit accelerated NuBus display card for the Mac II family with
					resolutions up to 640 by 1152 pixels
Radius Rocket 25i	£1,526	Radius	Computers Unltd	081 200 8282	Modified version of the Radius Rocket 8040-based accelerator board
					Contains LC68040 chip but has no maths co-processor
Radius Rocket 33	£2,583	Radius	Computers Unltd	081 200 8282	33MHz board for Mac IIs
RasterOps 24XLi	£458	RasterOps	Frontline Dist	0256 463344	24-bit accelerated video board for Mac II
StarTech C2FP	$79 to $200	StarTech	StarTech	010 619 457 0781	Maths co-processor board for the Classic
Storm 001	£922	Storm	Forester Systems	081 993 1516	Compression and decompression files included
SuperMac SpeedCard	£464	SuperMac	Principal Dist	0706 831831	16MHz 68000 accelerator card for the SE
SuperMac Thunder/8	£1,521	SuperMac	SuperMac	081 543 2288	Accelerated 8-bit display adaptor with DRAM expansion option
TM2FX33	£2,911	Fusion TokaMac	Forester Systems	081 993 1516	33MHz, 125K cache memory
TMCi25i	£1,126	Fusion TokaMac	Forester Systems	081 993 1516	25MHz with no FPU
TMCi25	£1,574	Fusion TokaMac	Forester Systems	081 993 1516	25MHz with maths co-processor
TMSX25i	£1,125	Fusion TokaMac	Forester Systems	081 993 1516	Accelerator for the IIsi or the SE 25MHz, no maths co-processor
TMSX25	£1,574	Fusion TokaMac	Forester Systems	081 993 1516	Designed for the IIsi or the SE 25MHz; comes with maths co-processor
TMCi33	£1,907	Fusion TokaMac	Forester Systems	081 993 1516	Complete with maths co-processor
TMCi33c	£2,242	Fusion TokaMac	Forester Systems	081 993 1516	With extra 128K cache memory and maths co-processor
Voyager	33MHz £1,291				
	50MHz £1,467	Total Systems	A M Micro	0392 426473	030 accelerators for the Mac II and IIx
GRAPHICS ACCELERATORS					
E-Machines Futura MX	£1,145	E-Machines	Heyden & Son	081 203 5171	Accelerated card for two-page displays up to 1024x808
E-Machines Futura SX	£699	E-Machines	Heyden & Son	081 203 5171	Accelerated 24-bit graphics card
E-Machines Futura SX/8	£581	E-Machines	Heyden & Son	081 203 5171	Accelerated 8-bit card
COLOUR MONITORS					
Apple 14-in Hi-Res RGB Display	£464	Apple	Apple	Freefone Apple	14-in RGB colour monitor, 640x480 res, 72dpi
Apple 16-in Colour Monitor	£1,169	Apple	Apple	Freefone Apple	16in colour Trinitron display; 832x624 res, 70dpi. ADB ports and micro
					phone/headphone sockets. Compatible with all current Apple video cards
Eizo 9060M	£609	Eizo	Eizo	0483 757118	Multi-scanning 14in colour monitor 800x600 res, 0.28mm dpi
Hitachi 14 MVX	£481	Hitachi	Hitachi	081 849 2092	14in multi-scanning colour monitor 1024x768 res
Hitachi 15 MVX	£716	Hitachi	Hitachi	081 849 2092	Flat screen colour monitor, compatible with Mac II range
Hitachi 17 MVX	£1,163	Hitachi	Hitachi	081 849 2092	17 in colour monitor
NEC 3FG	£722	NEC	NEC	081 993 8111	MultiSync 15in flat screen colour monitor, Mac and PC compatible
					1024x768 res VGA
NEC 4FG	£932	NEC	NEC	081 993 8111	MultiSync 15in flat screen colour monitor, Mac and PC compatible
					VGA to 1024x768 resolution
Philips 4CM4770	£700	Philips IMS	Philips IMS	081 689 4444	17 inch monitor, flicker free with built-in stereo audio capabilities
Ranger 21F1	£3,160	Aydin Controls	Aydin Controls	0462 458804	21 inch multi-sync monitor with push button control
RasterOps 8LC System	£581	RasterOps	Frontline Dist	0256 463344	19in colour monitor and card for the LC. 1024x768 res, 72dpi
RasterOps 8XLi System	£992	RasterOps	Frontline Dist	0256 463344	19in Sony-based monitor and card. 1024x768 res, 72dpi
Samsung SyncMaster CSD 5577	£437	Samsung	Samsung	081 391 0168	15in colour monitor, 1024x768 resolution
Sony CPD-1404	£703	Sony	Sony	0784 461688	14in colour multi-scan monitor
SuperMac 17in Multimode Colour	£1,702	SuperMac	Principal	0706 831831	17in colour monitor with 832 x 264/ 640x480 abd 1024x768 resolutions
SuperMac 17in SuperMatch Colour	£1,173	SuperMac	Principal	0706 831831	17in colour monitor with 832 x 264/ 640x480 abd 1024x768 resolutions
Taxan Multivision 795	£705	Taxan	Taxan	0344 484646	14in colour monitor with 1024x768 resolution
Taxan Multivision 875plus	£1,173	Taxan	Taxan	0344 484646	17in colour monitor

WIN! WIN! WIN! WIN! WIN!

10 *QUICKTIME* STARTER KITS

Worth £116 EACH

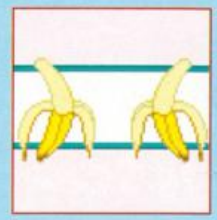
Yes, we have 10 *QuickTime* kits to give away courtesy of Apple. So what exactly does each pack contain? Well, there's the *QuickTime* extensions to enable you to integrate sound, video and animation with text. And then there's MoviePlayer, MovieConverter, Movie Recorder and Picture Compressor which will allow you to play, edit and create your own Mac movies and run them in any application that'll support them. But best of all there's the QuickClips CD-ROM sample disc containing dozens of movies put together by Apple itself. So there you go...

How to win:

Here's a bunch of crops from pictures in this **MacFormat** – which page(s) do they appear on (apart from this one)?
Just write their page numbers on a postcard and send it to:

***QuickTime* Compo, MacFormat, 30 Monmouth St, Bath BA1 2BW**

Picture A



Picture B

Picture C

Rules: 1. Only one entry per household please. 2. Entries to be received by October 4th. 3. The editor's decision is final

ARE YOU A WINNER? (because you might have just won a compo!)

So the time has come! Which rascally rotter won that FontWorks compo we ran in issue 3 and blagged himself 1062 PostScript Type 1 fonts AND an Apple CD300 drive? Well, it wasn't a man at all! In fact it's a big ya boo sucks to Julie Crookes of Derby! But what about the 15 runners up who've won 60 fonts from Bitstream's *Fundamental Fonts Pack*? Thank your lucky stars – Gary Saunders, Enfield, Jose Bloise, Denmark, Anthony Vincent, Oldham, Tim Meynell, Mitcham, P Machin-Everill, Netherlands, Nicholas Balzan, Malta, Lynn Cowley, Bagshot, Mark Mitchell, Cumbernauld, D Sharif, Reading, David Smith, New Barnet, Richard Lomax, Leicester, Dr. J Wilkes, Malton, John Wingfield, Watford and Philip Cowlam, London. Phew!

As for the massive prize of five sets of the Inside Macintosh series of reference books from Addison-Wesley, each worth £175: step forward R Dowton, Winscombe, P F Lilley, Manchester, R Blakely, London, W Hunter, Quedgeley and Euan Galloway, Greenock. Well done folks!

HAND-HELDS & FLAT-BEDS!

...OR THE FULL LOW-DOWN ON CHOOSING AND USING A SCANNER

Yes, from greyscale to colour, from low-cost to whoaa!-cost, next issue we're bringing you the definitive guide to scanners. Not just which ones are the best buys, but how you can get better quality results from your scanning and which software will help you tweak and transform the raw images most effectively?

So what else do we have lined up? Oh just an in-depth jaunt through the impressive Morph 2, a full review of Autoroute Express, 50 tips on speeding up PageMaker and well, all our regular columns plus loads of Mac Answers and shareware reviews. So until then, this is MacFormat from sunny Bath saying sayonara.

MACFORMAT 6 : OCTOBER 5

WITH YOUR NEXT EXCLUSIVE COVER-DISK INTO THE BARGAIN!

Well that's it for this one then – except this tiny little zone far away from the annoying glare of high profile point size which nii-one reads – which makes it all the more exclusive. Funny things games eh? Take that guy on the letters page firing off about flight sims. Funny how they take you over. But here in the Tiny Zone we don't play games at all. No, we're deadly serious – being so small we have to be. We play QuickTime movies instead. It may be small and crummy to you, but it's 70mm widescreen to us; forget all this full screen, full motion video malarkey; we like it small. The smaller the better. Which is great because we can play our movies at 30 frames a second – none of this paltry 12 or 15 fps ropey old rubbish. Nah, we're into post-modernist realism down here – where it's dark. Real dark. Like just then – when we turned the lights out. Yeah, it's real dark, real dark in our movies down here. Movie noir. We just hook into QT with our sherbet pips to munch on and it's lovely and small and dark. In a world of our own. Just like a good game really. Except this is for real; it's engaging you now in realtime, without a monitor, a Mac and all that gubbins. Just straight in the palm of your hand a no-holds barred flight sim with your eyes screwing up to read the terrain of text and the next target coming into view as a formation of words cuts across your vision and BANG! – it's all over ...

0800 765432

Best Buy MacUser

DAT's the way!

2-8Gb DAT £999

inc Retrospect Remote 2.0, installation kit

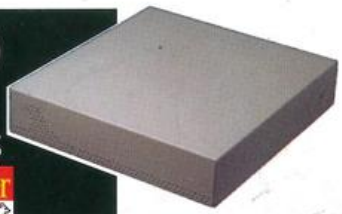
150Mb tape £429

Since ourDAT was a 5-mouser best buy in February, we've doubled the buffer size for even smoother backup, doubled the warranty to 2 years, cut the price by £100, and added a double speed version at the original price. Coming soon - double speed *and* double capacity.

tape	drive	media
150Mb	£429	£16
250Mb	£539	£20
525Mb	£639	£25
2Gb DAT	£899	£12
2-8G DAT	£999	£12
2-8G Turbo	£1099	£12
4-16 Turbo	£1199	£16

120 Mb disk £199

210Mb £289; 330Mb £399;
1000 Mb £869 MacUser



hard	disks	seek	int/ext
120	15		£139/199
210	12		£199/289
240	15		£239/319
330	9.5		£299/389
425	9.5		£469/549
520	9.5		£549/629
1000	9.5		799/869
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1300	10		999/1099
1600	10		1299/1399
2000	10		1729/1829

seek times are average, "effective" seek times are all faster.

Our 1000Mb drive outperformed FWB's £2599 Hammer 1000FMF in MacUser's April 1993 gigabyte drive test. Real world performance of all but one of the other drives tested was 28% to over 130% slower. Yet none had a lower cost per megabyte. The only drive faster used the identical mechanism to our 1200Mb (not reviewed).

3 year warranty
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Syquest 44Mb £239

UK installation kit £18; cartridges £45
Tiny Syquest 105Mb drive £449

Helix Express £279

£129 competitive upgrade available

"... similarly priced and more powerful than ... Filemaker Pro" MacWeek (US) 8/2/93

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MacUser

Syquest 105Mb 3.5"

	drive	media
21Mb flopty	£249	£16
44Mb Syquest	£239	£44
88Mb Syquest	£289	£69
88/44Mb Syq	£339	£69
105Mb Syquest	£449	£69
128Mb Optical	£699	£29
600/650 MO	1399	£80
1.2/1.3 G MO	1999	£99

All external drives (except 21Mb flopty, 105 Syquest) have 90-270V power, twin 50 way SCSI, pushbutton ID switch, platinum grey "zero footprint" aluminium housing. Installation kit comprises UK mains cable, SCSI system cable, terminator, software. **Warranty**: 1, 2 or 3 years. **Delivery**: £8 next day. **Prices exclude VAT.** Payment with order by cheque, Access, Visa or Mastercard.

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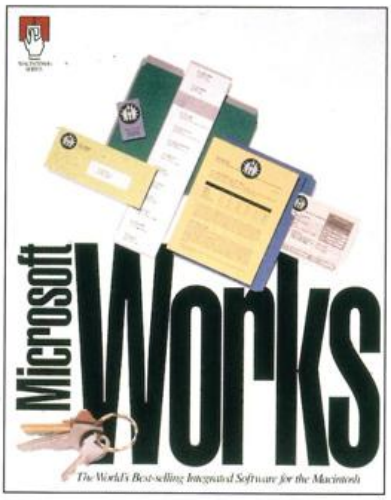

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