OS X 10.1
The real deal
World’s best operating system

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Much has been written about Apple’s almost laughably exhaustive and ultimately abortive attempts to update its Mac operating system during the 1990s. After several expensive failures, Apple poured all its efforts into a do-or-die project called Copland. It died, and Apple had to buy a company called NeXT that had something at least approaching a usable and modern operating system.

As you’ll read all over this issue, Apple now has a capable successor to the Mac OS that has been a great friend to us since 1984 – if you count as a friend something that has witnessed more crashes than Murray Walker. There have been numerous updates (System 7, OS 8/9, etc), but no dramatic rewriting of the old code in over 15 years. The first release of Aqua-hued Mac OS X provided that rewrite – but it missed too many features and ran far too slow for most of us to contemplate ditching the aged, but at least familiar, platinum-coloured OS. Mac OS X 10.1 isn’t perfect, but it’s less imperfect for today’s world than even Mac OS 9.2.1.

With Mac OS X 10.1, Apple at last has the holy grail that it bought NeXT for in the first place. Strangely, the news of OS X 10.1 coincides with a rumour that its chief engineer, Avie Tevanian, is to quit Apple. This made me re-read some old interviews that Avie gave just before joining Apple in January, 1997 – just before Apple’s senior vice president of software engineering, reporting directly to CEO Steve Jobs. At the time, he was vice president of engineering at NeXT, reporting directly to its then CEO... Steve Jobs.

Tevanian first came to prominence at Carnegie Mellon University in Pittsburgh, where he was a principal designer and engineer of the Mach operating system, upon which NeXTStep – and therefore Mac OS X – is based. So, Avie’s been with the core of OS X since its very beginning.

Of course, Mac OS X is not just Tevanian’s work. There are scores of PhD-wielding software engineers working on the Unix-based operating system at any one time, but it’s probably true that there’s no engineer more indispensable to its intricate technologies than Avie.

In an interview in January 1997 – just before Apple’s acquisition of NeXT was completed – Tevanian said he expected “a fully functioning system customers can use and deploy” in 12 months time. Taking version X 10.1 as something that customers can “use and deploy”, that 12 months stretched to an incredible 56! You don’t have to be a mathematical genius like Avie to call that “late.”

Avie wished it could be even sooner: “Software projects are very difficult to get done sooner than you project. The challenge is always to not have them take longer. We have a good track record at NeXT at being close to our predictions. I’m confident we can do it.”

It’s not really Avie’s fault. The biggest hurdle was the level of backward compatibility with current Mac OS apps. Many of those lost 44 months must have spent getting the ultra-modern operating system to run Photoshop, XPress and Duke Nukem. We, the users, demanded it – and so must take some of the blame for the long delay between Apple buying NeXT and actually shipping X 10.1. Another massive hurdle for Tevanian’s team was making the Intel-based NeXT technologies run on PowerPC. We didn’t want to ditch our Macs for Pentium PCs, did we?

The delay hurt many of the early (high) hopes for the rejuvenated, modernized Apple. At the time of the NeXT buy, the Mac had a larger market share than Windows NT. “We’re going to go out the door next year with a product that may very well be a higher volume than Windows NT, because we have the Mac market to sell it to,” Tevanian told his interviewers back at the start of ’97.

Asked whether Apple would soon surpass Microsoft, Avie got a little too excited. “Absolutely. We’re already ahead of them. We have a product today. It just becomes execution for us. We’ve got to take all these things, put them into the products, and get them out there for the users.”

Avie wasn’t wrong. Apple would have the superior product. It’s just that the taking, putting, and “getting them out there for users” took one hell of a lot longer than he, or anyone at Apple, expected.

It’s highly unlikely that Apple would have crushed Microsoft even if OS X – with all its powerful and robust Unix plumbing beneath the easy-to-use, attractive Aqua user interface – had shipped within days of the NeXT buy-out. Apple has a long history of possessing the superior product, but nearly as long a history of ending up in second place.

Despite the good news that, after nearly five years of waiting (not including Copland), OS X 10.1 is here, we’re not home yet. All those early adopters who have been working with OS X 10-10.0.4 since March, will have to wait a little longer before they get their hands on the latest version. As posts on Macworld’s online forum suggest, not many people are able to get their hands on the free update CDs from Apple resellers. They have to splash out another £15 (handling and shipping costs, you understand) for a special CD, and that could take a couple of weeks to reach them.

More significantly, the full power of OS X won’t be realized until major Mac software apps are optimized for it. The number of optimized (“Carbonized”) programs is certainly growing, but without an OS X-native Photoshop or XPress, many Mac professionals will defer switching. The wait goes on. Adobe may release a Carbonized Photoshop at January’s Macworld Expo in San Francisco. But the wait will be longer for Quark to pull its finger out, as the first version of XPress 5.0 will be for OS 9 and not OS X.

We’ve waited so long for this new version of the Mac OS that a few more months shouldn’t upset us greatly. It will be a shame if, having succeeded in his quest, Avie Tevanian really is to quit Apple, but his legacy will likely be with us for the next 20 years... and then some after that...
Illustrator 10
Designers will adore the latest version of Adobe’s pro drawing tool, now ready for Mac OS X, and looking great.

Smart Office

Office v. X
Mac OS X has its first killer app, with Microsoft updating its market-leading business software suite. Macworld takes you on an executive tour of the new features and amazing new look.

Mac OS X 10.1
The real deal
World’s best operating system

Macworld

Mac OS X comes off operating table

Mac OS X is clean, mean and ready to use. Macworld reviews the faster, more stable, latest, ready-to-use version of Apple’s next-generation operating system.

Digital cameras
Macworld picks the best high-resolution digital cameras, from 3 to 5 megapixels.

Illustrator 10
Designers will adore the latest version of Adobe’s pro drawing tool, now ready for Mac OS X, and looking great.

Film scanners
We compare seven film scanners to see which is best for your varied needs.

Missing Manual
Expert advice for Dreamweaver users.
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NOVEMBER 2001
Subject: No more freedom
If the US is to be (rightly) castigated over Echelon [much rumoured, multi-government secretive Internet surveillance project], and the European Parliament is recommending the encryption of all email, could we please draw its attention to the UK’s draconian RIP legislation – or am I liable to be charged for drawing attention to its existence?
Ted Treen

Subject: iMac DVD/CD-RW mystery
Well, we didn’t get an LCD iMac, and maybe we won’t for a while. But as your comment on page 75 of September’s Macworld shows us, most people want functionality as well as style from their computers. Maybe extra processing speed is better than a larger monitor, after all.
One huge disappointment is this: where is the combo DVD-ROM/CD-RW drive in the iMac? If it can be fitted into the iBook, why the hell not the iMac? It needn’t mean a huge price increase either; the difference between the DVD combo iBook and the CD-RW model is just £170 (excluding VAT). Above all, it doesn’t require any hardware redesign.
David Shaw

Subject: Glad to be Mac
Whenever I read the national newspapers, I come across the PC problem pages, and feel so sorry for Windows users. They seem to have nothing but problems: can’t get my email; can’t get my scanner to work; numerous viruses; have to reinstall Windows (not easy or quick). Then it dawns on me, I have a Mac. How many times have I phoned my ISP? Once, to find out when it will have 24/7 unlimited Internet access for £15. Did I have to reinstall Mac OS 9? No. Did I phone Apple Technical support? Yep, to see if they could replace the Apple-logo stickers that my daughter lost. Is Apple in financial trouble? No. Is my Mac unreliable? No.
Oh, to be a PC user: it’s all problems, problems, problems…
John Zelenzijak

Subject: Apple of my ire
I am in the process of buying a Power Mac G4 build-to-order computer through a third-party dealer. At the time of placing the order, Apple quoted a build-time of 21-31 days. This seemed excessive – but I went ahead with the order, anyway.
With the 31 days nearly up, I telephoned my dealer to get a progress report. Imagine my anger and surprise when he told me that, on chasing Apple for a firm delivery date for my computer, he was told: “It will take as long as it takes. If you don’t like that, perhaps you’d like to cancel the order.”
Just who the hell does Apple think it is? It has a monopoly on the supply of Macs. Its arrogance seems to know no boundaries!
I have been using Macs for almost ten years, both in work and at home, and I have never come as close as I have today to switching to another platform and another computer manufacturer. Well done, Apple!
John Wilson

Subject: Beastly BT
Tim Smith’s comments in the October issue of Macworld made for interesting reading.
I lost a total of seven days Internet access through BT Internet at the beginning of this year, and, in trying to get the problem sorted out, I discovered that BT gives nothing but aggravation, aggression and lies.
I dumped BT, and now subscribe to Tiscali. Its unmetered evening/weekend tariff is currently £2 cheaper than BT Internet. Even better, however, it does not disconnect subscribers automatically every two hours, so big file downloads are quite possible. Oh, joy!
Nick Kurn

Subject: Disc rage
As a Power Mac G3 and 7600 user, I am tired of being unable to use software provided on the free CD that comes with Macworld. The latest edition has a tank game that I am unable to use because of the absence of ‘gliblibrary’. Your technical people told me to go to the Apple Web site, to download the software, but warned me that it was difficult to find. It is, in fact, impossible to find.
Why put this software on the disc if it is unlikely that many readers will be unable to make use of it? Selling more magazines is obviously your aim, but this is surely misrepresentation.
Pete Hardy

Your Star Letter wins a copy of Tony Hawk’s Pro Skater 2
This month we reward the best reader letters with a copy of Tony Hawk’s Pro Skater 2 courtesy of Softline (01883 745 111). Yes, not just the Star Letter – all published letters win a prize! There are ten copies of Aladdin’s StuffIt! Deluxe up for grabs next month, so write to us with your Mac opinions, and you could win.

Email letters@macworld.co.uk. Or write to: Letters, Macworld, 99 Gray’s Inn Road, London WC1X 8UT
Please provide full name and contact details – or no prize can be given.

Subject: iMacs high max
Thanks for “Rev up your iMac”. It got me going on a problem that, as an owner of a 1999 iMac, I thought was going to be resolved only by purchasing a brand-new Power Mac G4. Apple has always told us that 128MB RAM is tops. Forget it. I am writing this from a 233MHz Rev B machine that boasts 512MB of RAM thanks to Macworld and users on the www.apple.com discussion forum. But neither your feature nor the contributors to the Apple Web site answered all my questions, so the following may be of help:
1. You can upgrade a Rev B to 512MB RAM.
2. SODIMMs purchased from www.crucial.com/uk are low profile, and will fit either upper or lower slots. So, at current low memory prices, go for it!
3. Provided that you take the basic precautions regarding static, the most challenging part of upgrading the lower RAM slot is getting the the cage off the daughter board. Instructions about adding RAM are in Help, and www.theimac.com/ram provides help on accessing the lower slot (ignore the advice about maximum RAM, though).

Go for the upgrade that Apple always told you wasn’t possible!

Rohan Barnett

Subject: iMac DVD/CD-RW mystery
I am tired of being unable to use software provided on the free CD that featured software requires. Many of its readers as possible, MW: Macworld aims to support as many of its readers as possible, and obviously includes mainly new software. Older Macs will need to be updated to run some of this software, and some very old models won’t be able to run some programs at all. Many games, as you point out, are based on the OpenGL 3D-graphics standard, and so require up-to-date system software (hence your need for OpenGLLibrary). Macs running older operating systems do not support OpenGL, and may also require more modern video cards to properly run the latest games. In the CD pages, we point out the minimum specifications that featured software requires. We can’t not include the latest software because some readers use older, non-upgraded Macs— that clearly wouldn’t be fair on the majority of readers who own more modern Macs. But we do strive to include much software that will run on older Macs, and we believe every CD brings a wealth of content to any reader whose Mac has a CD drive. MW
This month's cover CD features demos of two of the hottest games to hit the Mac in ages, 30-day trials of Corel KnockOut and Nisus Writer, plus all the latest demos, shareware and updaters. Over to Vic “Predator” Lennard...

**Corel KnockOut 1.5**

30-day trial

Mask images that were once thought to be impossible to mask successfully. For imagery such as fine wisps of hair, blurred or out-of-focus edges, and other transparent or translucent objects, Corel KnockOut 1.5 produces seamless composite images that preserve the fine details. Use it as a complement to Photoshop and achieve superior masking results.

The fully functional trial includes tutorials, but times out after 30 days.

**Nisus Writer 6.0.2 trial**

A complete multilingual writing solution, offering a unique, creative experience, unmatched by any other word processor. Outstanding features include unparalleled find-&-replace, unlimited undos, non-contiguous selection, customizable keyboard menu equivalents, complete graphics creation and a powerful macro language. Thirty-day trial.

**Aliens vs. Predator demo**

Chase, hide or advance in the most nightmarish, chillingly detailed futuristic environment your mind could ever imagine. Choose to be a Colonial Marine, a Predator or an Alien as you make your way through horrifyingly suspenseful environments. One wrong move turns you from hunter into prey.

The demo allows you to play part of the game and includes the highly atmospheric optional music files.

Requires a minimum of a 233MHz G3 running Mac OS 8.6 with OpenGL and 32MB available RAM.

**Tony Hawk’s Pro Skater 2 demo**

Ollie, grind and skate the way you always knew you could in the ultimate extreme sport experience. Go head-to-head on terrain that would make even a novice skater drool!

The demo allows you to play an unlimited number of two-minute skate sessions. Requires a minimum of a 233MHz G3 running Mac OS 8.6, OpenGL and 32MB available RAM.

**XChange International Corner**

XChange International, which specializes in QuarkXPress XTensions and plug-ins for Photoshop, Acrobat & InDesign, highlights products each month with demonstration versions available for you on the cover CD.

**DreamSuite**, a visual-effects application and plug-in for Photoshop, has just been released and provides useful photo-realistic visual imaging solutions to give design projects extra impact. Also included are three utilities for QuarkXPress. FontXpress enables you to collect all fonts required for output automatically while ImposeR 2 provides a simple-but-effective imposition in 2-up and 4-up configurations from a single QuarkXPress document. Finally, MathMagic brings a fully-featured equation editor to QuarkXPress.

Visit www.xchangeuk.com for more info.
INSIDE MACWORLD

ComicBase 6
Professional inventory system with search feature for comic-book collections. Creates price labels and a wide variety of reports. Demo.

Contacts
Powerful yet simple-to-use contact-management system with mail-merge and output capability for letters, faxes and emails. Demo.

DragThing 4.1
Application dock designed to tidy up the icons littering your desktop. Same version runs in Classic mode or native under Mac OS X. Shareware.

NavBar Builder 1.0
Easy way to create navigation bars for Web sites – just select the style and how many buttons. Classic and Carbon versions. Shareware.

PrintToPDF
Printer driver that creates PDF files from within your applications. Includes a hot link feature for URLs. Shareware.

DreamSuite
Features 18 premium visual effects providing photo-realistic results. Demo.

OS X HEAVEN

OS X Heaven – your monthly one-stop shop for the latest OS X-specific software. Utilities, demos, shareware and games – OS X Heaven features the best Carbonized goodies for the Mac’s new OS.

This month 20 demos and shareware utilities include Iconographer 2.1, the excellent icon editor, now running native under Mac OS X, uCalendar 2.5, a scheduling calendar with reminders, Audiocorder 3.1.0 for sound recording, and Classic Menu that puts the multi-coloured Apple logo back in the top left corner. Nice!

There are also five Carbonized games including Mike’s Marbles, tetris with a difference, Mike’s Cards, with its many variants, and 2EdNought.

Before you start working your way through the software on our CD, go to the System Utilities folder and make sure you install the following:

- Acrobat Reader 5
- StuffIt & RealPlayer
- System tools & ATM Lite
- QuickTime 4.1.2

Serious Software includes

Effects Packs 1-3 trials
Effects Packs 1-3 offer a total of 30 video effects and transitions including video noise, jittery TV, scoreboard, texturizer, invert HSV, strobe, filter factory, fractal images and six Hollywood-style compositing tools. They work with any video-editing application that supports QuickTime video effects on Mac OS 8/9 and Mac OS X, including Movie Player Pro, QuickTime Player Pro, Final Cut and Adobe Premiere.

All three packs are shareware, and are fully functional for 45 days. However, the trial versions lack AltiVec support – without which the effects run much slower on G4-based computers.

T-RackS 24 demo
Built with actual physical models of tube circuitry, T-RackS 24 offers a complete workstation made of four discrete processors: a state-of-the-art six band parametric EQ, a classic stereo tube compressor/leveller, a multiband master stereo limiter, and a soft-clipping output stage. It can vastly enhance mix frequencies for the stage. It can vastly enhance mix frequencies and space of the tube-devices it emulates.

The demo cannot process and adds random white noise to the master. Suggested system: 233MHz or faster PPC604e, G3/G4 PowerPC with 64MB available RAM.
GAMES WORLD

ELM demo

English League Manager (ELM) is a soccer-management game in which the aim is to lead your team to the League Championship and both FA Cup and League Cup victories within the same season. Play takes place in the English football league, with an option being to manage as a player/manager.

You can play this unregistered version for as long as you wish but it allows you to only manage one club (Barnsley) and to play the first 50 days of a season. The full version allows unlimited match play, saving of games, and incorporates a database editor for updating teams and players. Additionally, the full version also allows you to play The Manager’s Game and to load custom games.

ALSO ON THE CD

• If your cover disc is broken and you want a replacement CD, please contact Kelly Crowley, on 020 7831 9252, or email at kelly_crowley@macworld.co.uk.
• If your cover CD doesn’t seem to work as it should, please check you have read all the instructions on the cover disc pages carefully first. If it still doesn’t work, then please email Woody Phillips at woody@macworld.co.uk.

DON’T MISS…

This month, our Top 10 Shareware Games folder has a nice mix of new games and latest versions. For the strategy fiends among you there’s DeadEnd 3D 1.0.1, a sokoban-style pushing game, SillyBalls 1.0, a nice play on the old wooden tilting puzzle, and two minesweeper-style games in Demineur 1.5 and Minez 1.0.

If card games are your poison, there’s A Farewell to Kings 2.0.1, a solitary card game that’ll keep you going for hours.

And for those of you who want the latest versions of your favourites we’ve got Mike’s Cards 1.8a, David’s BackGammon 4.2, Mike’s Marbles 1.1a, Colibricks 1.3.2 and MacSnake 1.7.1.

(Top row) A Farewell to Kings & SillyBalls
(Middle) Colibricks
(Bottom) DeadEnd 3D

SHAREWARE

Shareware is a distribution method, not a type of software. It makes fitting your needs easier, as you can try before you buy. Shareware has the ultimate money-back guarantee — if you don’t use the product, you don’t pay for it. If you try a Shareware program and continue using it, you are expected to register. Support shareware authors so that they can continue to produce high-quality programs for the Mac.

FAULTY COVER CD-ROM?

- If your cover disc is broken and you want a replacement CD, please contact Kelly Crowley, on 020 7831 9252, or email at kelly_crowley@macworld.co.uk.
- If your cover CD doesn’t seem to work as it should, please check you have read all the instructions on the cover disc pages carefully first. If it still doesn’t work, then please email Woody Phillips at woody@macworld.co.uk.
Software Inc.

Find the FULLY WORKING version of LiveSlideShow on this issue’s second CD!

Macworld LiveSlideShow Serial Number: XLSS1-1003772R

LiveSlideShow is the easiest way to take
your digital photos and transform them
into dazzling, powerful presentations.
Simply launch LiveSlideShow and import
your digital images. LiveSlideShow is full
of features that will help make your digital
photographs sparkle. Place your images
in the order you want them to appear,
then bring them to life with preset effects
and transitions or create your own unique
transitions and photo effects.
LiveSlideShow’s built-in voice recorder
will allow you to create voiceovers for
each of your slides. This is perfect for
adding audio descriptions for a business
presentation, or describing your recent
vacation. A photo of your baby’s first steps
can now have his or her own voice attached.
Add buttons that link to other sites on
the Internet. You can even add controller
buttons so your visitors can determine
how your slide show will play back.

Requires: PowerPC, 333MHz or faster, Mac OS 8.6
or later, QuickTime 4.1.2.

As a special bonus on this CD, we feature
the demo version of MacSoft’s Tropico.
You, the newly installed dictator of a Caribbean
island, must create a life of prosperity and
happiness for your people. Build farms to feed
them, tenements to house them, pubs to lift
their spirits and churches to save their souls.
Follow a socialist path of factories, mines, and
fishing, or chase capitalist dollars by building
resorts to lure tourists.
Requires: 233MHz G3 or faster, OS 8.6 or later.

This demo doesn’t flatten movies, and does not
permit saving of LSP projects. It’s totally usable for
small projects, but not practical for larger projects.
Excited Apple unveils OS X upgrade

Apple made all its product announcements at Seybold, after it cancelled its European Expo in Paris following the September 11 terrorist attacks on New York and Washington DC. Escaping the move, Jobs said: “We’re sorry to disappoint our users and developers, but their safety is our primary concern.”

OS X 10.1 is the first major upgrade to Apple’s next-generation, Unix-based operating system. Jobs told Seybold: “This is the mainstream release. We’ve halfway through the transition. OS X 10.1 is incredibly fast, includes a refined Aqua interface, has unrivalled support for more digital devices than any other operating system on the planet, and, best of all, the upgrade is free.”

Jobs went on to praise Apple’s OS development team. “Most programmers go on vacation after a major release,” said Jobs, “but these are<li class="list-element">Apple vice president of worldwide product marketing, Phil Schiller. Schiller said: “Mac developers and customers will no longer have to wait for QuickTime Live! to a less stressful time.”</li><li class="list-element">The event will now be held from February 10-14, 2002 at the same venue.</li><li class="list-element">The Live! Later is Apple watershed</li><li class="list-element">OS X 10.1 costs £99 (Inc VAT). One of those core applications is AppleScript, explained: “Using a number of industry standards, the company extended AppleScript’s simple commands to Internet sites that host Web services. When a user creates an AppleScript command, the operating system then wraps that in XML (Extensible Markup Language) and sends it out on the Internet.” He added: “A Web service takes that request and returns an XML-based response, such as a description of weather conditions. This then appears on the user’s desktop.”</li><li class="list-element">OS X 10.1 is the first major desktop operating system to ship with access to a range of Web services built-in.</li><li class="list-element">Bereznik told Macworld: “This is real. It’s a technology that you can put in the hands of people to create real solutions.”</li><li class="list-element">Apple discussed a brand new, powerful product: AppleScript Studio, that will be available by the end of this year. This combines AppleScript with Apple’s IDE (Integrated Development Environment) Tools Project Builder and Interface Builder. “This makes AppleScript a peer of Java and Objective C,” said Soghoian. “AppleScript has been improved by 10.1, with the introduction of new networking protocols. It will now link up to virtually any network, Apple claims. 10.1 also sees an improved iDisk and more print drivers built in for many inkjet and PostScript printers from manufacturers including HP, Canon, Epson, Lexmark and Xerox. Other performance boosts come from an updated OpenGL and support for Nvidia’s GeForce 3, and ColourSync 4.0.”</li><li class="list-element">Jobs said: “There are already 1,500 applications shipping for OS X, and more of the ones we use every day are going to ship OS-X-native in the next three months.”</li><li class="list-element">One of those core applications is Microsoft Office v.X, which ships in November (see page 25). Jobs told Seybold: “I think Microsoft could end up being the poster boy for what an OS X app should look like.”</li><li class="list-element">“Mac OS X 10.1 was code-named Puma because it’s one fast cat.”</li><li class="list-element">Apple vice president, Phil Schiller</li>“Mac OS X 10.1 was code-named Puma because it’s one fast cat.” Apple vice president, Phil Schiller

Big hitters queue-up for UK show

A deke will exhibit at MacExpo 2001, the independently organized event for the UK’s Mac community. Adobe will show products including InDesign 2.0, Illustrator 10 and Photoshop (see page 20). The company has booked the entire Instalation Theatre, which will be on a one-off event. The company has booked the entire Installation Theatre, which will be on a one-off event. Apple, Epson, HP and Macromedia have booked booths which will be in the largest space. Apple will exhibit its hardware and software solutions, including Mac OS X 10.1. The company plans to bring its Solution Theatre to the event, and to run a reviewers programme. Adobe’s incoming UK and Ireland marketing director, Mark Finlason told Macworld: “It’s great that Apple’s attending the show. They really are the ones for a reason.”

“Adobe is delighted to be exhibiting at MacExpo. We’re looking forward to a strong show.”

With the cancellation of Apple Expo Paris, the show becomes Europe’s only general-interest Mac event. Microsoft will be there to preview Microsoft Office v.X for Mac (see page 49). MacExpo 2001 organizers have released an extra 3,000 free tickets to macworld.co.uk. The MacExpo 2001 show guide will be produced by Macworld. It will appear in the Expo issue, on sale from November 8.
Quark rides XPress train

Quark luminaries, Jurgen Kurz and Brett Mueller, outlined the company’s vision of publishing at Seybold, and walked show-goers through a beta of QuarkXPress 5.0, the update to its industry-standard DTP application.

Breaking with tradition, Quark released a beta version of QuarkXPress 5.0 (for US systems) in the days before the event. International-English betas will be made available “when our engineers judge the software stable enough for beta testing”, a Quark representative told Macworld. The beta is available for download from Quark’s US Web site (www.quark.com).

Kurz, Quark vice president of product management, said: “I’ve talked to people all over the world about the issues facing publishing. The key issue is profitability. Advertising rates are down by up to 70 per cent, publishers are not launching new publications, and are mostly focusing on their primary publications and cash cows. Now is the time to re-use content, and Quark’s strategy is to provide the ability to re-purpose content automatically.”

He stressed the same message when he spoke with Macworld at Total Publishing (September 2001 issue), saying many publications have fewer people and are requiring more from existing staff members.

One of the key goals of QuarkXPress 5.0 is to provide familiar tools to enable designers to create, manage and deliver content across a variety of formats and media.

“XPress 5.0 will gives better tools for print, and familiar tools for Web,” said Kurz.

Mueller, senior product manager for desktop products, confirmed the main targets for XPress 5.0 to be productivity and efficiency.

Independence aim
Mueller said: “The final version will export text and graphics to a Flash file. The goal is media independence. You can move from print to other media without adding staff.”

In a dig at Adobe, Kurz said: “We’re increasing the number of standards supported by XPress, and are not tied to any specific standards. This is our strength over Adobe.”

Quark sources have already confirmed that XPress 5.5 – a Mac OS X-native version – is in development.

Kurz ended the keynote by reminding his Seybold audience that XPress is 20 years old.

“While we’re not public company, we’re extremely healthy, and will be around in another 20 years.”

David Read

Suitcase 10 packs X punch
Extensis is to release a Mac OS X upgrade for Suitcase 10 on November 19.

The update to the font-management application will be free to registered owners of Suitcase 10 from the Extensis Web site.

Extensis general manager Craig Keudell said: “Extensis is committed to being the leading font-management provider for OS X. Suitcase users will benefit from OS X’s direct support for OpenType and TrueType fonts.”

Seybold takes up Paris slack

With the cancellation of Apple Expo Paris, Seybold Seminars San Francisco 2001 became the main Apple-related event for September. Most companies with new or updated products chose to announce these at the same time as Apple Expo would have taken place.

Following its keynote speech, Apple released the AppleWorks 6.2.1 updater for Mac OS X 10.1 users. This adds performance and compatibility enhancements to the application. Installation requires the OS X 10.1 and AppleWorks 6.2 update be installed. (www.apple.com/appleworks)

Roxio released Toast 5 Titanium for Mac OS X Preview 2, the second public-beta version of its industry-standard CD/DVD-authoring solution. This beta requires OS X 10.1, and is available only to registered users of Toast 5 Titanium.

Viacom Europe released Mac OS X 10.1 beta drivers (version 4.70-7) for its graphics tablets. These are available for download. P2L Software announced Mesa 3.0.4, an upgrade to its Mac OS X spreadsheet software that can generate reports, and import Mesa 2 files from the NeXTStep and OpenStep platforms.

Canto’s announcements included Cumulus 5 Enterprise Edition for Mac OS X, and Idee’s Espion Visual Search, which performs searches within Cumulus catalogues.

Palm, meanwhile, revealed that it plans to complete its Palm Desktop application for Mac OS X by the end of the year. Adobe also came in for a great deal of support at Seybold, with many companies announcing plans to release plug-ins for InDesign 2.0 (see page 28).
Which G4 is faster: 867MHz G4 or 800MHz DP?

G4 power points

Apple's dual-processor 800MHz QuickSilver Power Mac G4 is the fastest Adobe Photoshop workstation ever, according to Macworld Lab tests. But the performance tests prove that it is still eclipsed by its single-867MHz chip sibling at non-multiprocessing-optimized tasks.

Several major applications — such as Photoshop and Cinema 4D XL — are optimized to take advantage of Macs bearing more than one processor. The 800MHz DP is up to 66 per cent faster than the 867MHz Power Mac on certain Photoshop and Cinema 4D tasks. Macworld Lab tests also proved that the DP holds an advantage over the single-chip G4 is in encoding MP3s via Apple's own iTunes. In Macworld tests, we found it to be 27 per cent faster than the top-end G4, and nearly 57 per cent faster than the old 733MHz G4 Power Mac.

However, the 867MHz G4 Power Mac is 6 per cent faster overall than the two-processor 800MHz Power Mac, and actually beats the DP model in tasks that are not optimized for multiprocessing. In these cases (for example, Photoshop's RGB-to-CMYK conversion), it's a straight 867MHz vs 800MHz contest. So, is it worth having more than one processor in your Power Mac? If you're a heavy user of Photoshop or optimized applications.

Cinema 4D XL, two is definitely better than one. You can't complain about 70 per cent performance boosts when it most counts.

If you're thinking of switching to Mac OS X within the lifetime of your new Power Mac, you should definitely consider the DP model, as the more modern OS X takes advantage of both processors for faster performance, even on non-optimized applications.

Dual processor: faster for optimized apps only

<table>
<thead>
<tr>
<th>Model</th>
<th>Speedmark 2.1 Overall score</th>
<th>Photoshop 6.0.1 Gaussian Blur 10</th>
<th>Cinema 4D XL 7.1 Render</th>
<th>iTunes MP3 encode</th>
<th>Quake III (1.29f) Normal</th>
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<tr>
<td>Power Mac G4/800 DP</td>
<td>203</td>
<td>3</td>
<td>14</td>
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<td>176</td>
<td>3</td>
<td>25</td>
<td>52</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Speedmark 2.1 scores are relative to those of an iMac 350MHz (1999), which is assigned a score of 100. Photoshop and iTunes scores are in seconds. Cinema 4D XL scores are in minutes:seconds. Quake III scores are in frames per second. We tested the reference systems with 256MB of RAM, a default system-disk cache, and virtual memory enabled except for Photoshop.

Apple has introduced a new Power Mac G4 Server, replacing its previous range of three models with a single 733MHz G4 processor. Apple has also updated Mac OS X Server to version 10.1, bringing all the speed and performance improvements of OS X 10.1 to its server-software product. All previously available servers (including the multiprocessing 533MHz G4) have been withdrawn from Apple Stores in the UK, Europe and US. The 733MHz G4 Server offers 256K of L2 cache, 256MB RAM, 80GB hard drive, CD-RW drive, and NVidia GeForce2 MX graphics card. A SCSI card is also available with the package for an extra £40. The 733MHz G4 Server costs £1,999 (ex. VAT), and also ships with Mac OS X Server software.

Mac OS X Server is the only server platform that lets Mac, Windows, Linux and Unix users share file and printers out of the box. OS X Server features QuickTime Streaming Server and WebObjects 5 deployment software, as well as open services for secure, dynamic pages.

The 10.1 upgrade adds RAID support to Apple’s Unix-based server product. It introduces enhancements to NetBoot and Macintosh Manager 2.1, and integrates new updates to various constituent elements of the package — including Apache, Samba and a new release of QuickTime Streaming Server, version 3.5.2.

The Mac OS X Server v10.1 software upgrade package is available from Apple (0800 039 1010), costing £14.95. Mac OS X Server 10.1 costs £680 for an unlimited number of users. The ten-client version can be updated to support unlimited clients for £340.
Adobe enters OS X fray, with Illustrator and InDesign

Carbon copies make mark

Adobe is bringing Mac OS X compatibility to its product line, with the announcement of Illustrator 10 and InDesign 2.0. Bettina Glennoy, product manager for Adobe’s graphics solutions in Europe, told Macworld: “We have always had a very strong commitment to the Mac market, and our products have a very strong Mac following.”

The two Carbonized updates reinforce Adobe’s vision of network publishing, in which publishers have to create or design content only once — and software does the donkey work of repurposing it for consumption in all formats, including paper, online, handheld devices, and XML-supported devices. Quark and Macromedia are also developing similar publishing solutions.

Illustrator 10 supports OS X natively, meaning designers will enjoy performance boosts and multiprocessing support. It also offers a host of workflow-improving features.

Illustrator 10’s “new factor” is Symbolism. This lets designers clone images and spray them across their design. Designers get to choose how many times the images repeat, and these can be spun, resized, distorted, or changed, and the opacity adjusted. This feature is ideal for situating items such as foliage or clouds.

Illustrator 10 maintains the Web capabilities introduced in version 9. It improves these by adding Web-object slicing technologies that help create graphically rich Web sites, by splitting design into chunks that fit together to achieve the overall effect. A result of this is smaller file sizes, making sites more bandwidth-friendly. Version 10 also includes Symbols, and Layers support, new tools that make lines, arcs, grids, and complex groups of objects easy to draw for Web authors. Illustrator 10 also supports a new technology: dynamic data-driven graphics. This means that when repeated graphics need to be changed only once, because the graphics will be updated automatically across the site.

A new design tool called Live Distortion can bend, stretch and twist fonts, graphics and images in any way imaginable. Adobe claims it offers live enveloping, warping and distortion. These distorted elements remain editable. Adobe admitted that this feature “may” appear in future versions of Photoshop. Additional features in Illustrator 10 include enhanced support for Macromedia Flash, Scalable Vector Graphics (SVG) import and export, the ability to apply special effects — such as drop shadows — to SVG files, a photo-realistic lens-flare tool, the ability to preserve layers and improved asset-management tools.

Illustrator 10 needs a G3 or G4 processor, 128MB RAM, and supports Mac OS 9.1, 9.2.1 and OS X. It ships at the end of the year, and costs £279 (ex VAT). Upgrading from earlier versions costs £110.

InDesign 2.0 — Adobe’s second major release — is a major update to the desktop-publishing application. It supports both Mac OS 9.2 and Mac OS X. Like Illustrator, the product is built to integrate with Adobe’s portfolio of creative products. InDesign 2.0 offers built-in support for a range of publishing mediums, including Web, PDF and ebooks.

Adobe spokesman David Evans told Macworld: “Adobe aims to provide a Swiss Army knife toolkit for DTP.”

Evans claims Adobe has added 800 new features, and that the application now has 17 of the top 20 features most wanted in a DTP application by Quark/Press users. One of these — transparency — applies transparency settings to text, graphics and images in a few steps. InDesign features a variety of blending modes, including capacity to darken, lighten and change the colour saturation of objects, just like Photoshop. The application is also able to import and export transparent Acrobat 5.0 PDF files.

InDesign 2.0 offers a suite of table-building tools that turn tab-delimited text from most sources — including Word and Excel files — into tables. It also supports linked text-frames, for laying out continuous tables over multiple pages. Designers now get column width, row height, and colour-fill controls in a single DTP package.

Version 2.0 offers superior printing controls, with an intuitive user interface that gives feedback about what print settings are enabled. It no longer requires Adobe’s PostScript printer driver, and offers new print-features. These include: the ability to save PostScript files directly from the print dialogue box; improved routes to easy printing of master pages and thumbnails; and the ability to specify bleed separately for each side of a document.

InDesign 2.0 can export Acrobat PDF format. Its XML support has been improved, so enabling the repurposing of legacy documents, and the building of templates. InDesign 2.0 can import XML documents into Structure View, and this content can then be dragged & dropped onto frames to layout as pages. InDesign 2.0 should cost £450 (ex VAT) on its release in the first quarter of 2002.

Jonny Evans

There’s a in-depth preview of Adobe Illustrator 10 on page 70.
Corel Graphics Suite 10 for Mac is now available. The application is Corel’s OS X-compatible collection of creative applications. It contains the long-awaited CorelDraw 10 vector-illustration package, Corel Photo-Paint 10 for image editing and painting, and the new vector-animation title, Corel Rave.

The Suite ships with a cast of supporting utilities: CorelTrace 10, a bitmap-to-vector tracing utility that converts scanned or manually created bitmaps into vector images; a font-management utility, Font Reserve; and Canto Cumulus Desktop LE 5.0 — a media asset-management system.

Three plug-ins are also included: KPT FraxFlame, KPT ShapeShifter, and KPT Smoothie. A library containing 2,000 clip-art images, over 500 photos and 2,000 TrueType and Type 1 fonts comes in the box.

“Continuing our aggressive release schedule for Mac OS X, we are pleased to debut Corel Graphics Suite 10 and bring the full power of our graphics technology to this exciting new OS,” said Ian LeGrow, executive vice-president of creative products at Corel.

Tools sharpened

All the suite’s drawing tools have been made easier to use, Corel claims. There’s more control over textures, fills and outlines, and a new Mirror fill option that creates tiles out of any fill.

Features supported across the Suite include an Aqua user interface, context-sensitive property bars, and support for Photoshop, Illustrator, Painter, FreeHand, PDF, Flash, SVG and EPS files. ICC (International Color Consortium) colour profiles are supported with ColorSync, and QuickTime 5 is also supported. Greg Wood, Corel’s UK PR manager, said: “This is one of five new products for Mac OS X from Corel this year, and is solid proof of our commitment to Macintosh users all over the world.”

Corel’s Graphics Suite offers wide PDF support. Users can add crop marks, file information, and registration marks, as well as any type of file to a PDF. Adobe Acrobat 5.0’s transparency feature is also supported, so transparent objects can be published within a PDF without needing to save these as bitmaps. Fonts can be included within PDF documents, or exported as curves. PDFs built within the Suite support hyperlinks. PDF support also extends to the creation of basic job tickets — CorelDraw10 will create these to contain key information.

The collection also offers a built-in preflighting engine and a real-time print-preview feature, for pre-checking changes.

The suite costs £399 (inc VAT). The upgrade price for users of CorelDraw 6 and CorelDraw 8 for Macintosh is £199 (including VAT).

Jonny Evans

Corel gets Suite on X

Wacom unveils pen TFT-screen

Wacom’s new interactive-pen and TFT display, the Cintiq 15X, was one of the Mac-related highlights at September’s International Broadcasting Convention (IBC) in Amsterdam.

The Cintiq 15X consists of a 15-inch TFT active-matrix LCD screen with a pressure-sensitive pen developed to work directly on the display’s screen.

The pen offers 512 levels of pressure. The Cintiq 15X can be connected to digital DVI graphics cards and analogue VGA graphic adaptors. It features both USB and serial interfaces, and works with Mac OS X. The Cintiq ships at the end of October and costs £1,195.

Procreate spawns Effects

Corel subsidiary Procreate has launched KPT Effects at Seybold in San Francisco. KPT Effects is a collection of nine Photoshop-compatible plug-in effects for digital images. KPT Effects grew from the Kai’s Power Tools Effects series for Photoshop, originally developed by Kai Krause, and sold to Corel by MetaCreations early in 2000. There are nine tools in KPT Effects, including: Pyramid Paint, which separates an image into colour regions; Lightning (right), which creates realistic lightning effects; and Fluid, which liquefies images; and Hyper Tiling, which offers geometric-shape options. The collection runs on Mac OS 8.6 or later, Mac OS X. KPT Effects costs £149 (inc VAT).
The price of LCD (liquid crystal display) monitors continues to tumble. Bob Raikes, senior analyst at monitor-market research specialist JPA Europe, said: “Three months ago we thought prices had stabilized, but they continue to fall.” The price fall is being driven by increased sales, with LCD-monitor shipments more than doubling since last year—reaching 2.9 million units worldwide in the second quarter of 2001.

Other monitor-market experts warn that the market remains complex and volatile. Bryan Norris, senior partner at Bryan Norris Associates, said: “No one knows what’s going to happen. On one hand, some manufacturers are saying that prices will continue to fall, but others warn they may rise, because Samsung says they should.”

Samsung recently announced plans to reduce its production output of LCD screens, and other manufacturers have followed suit in a drive to become profitable. “All five major Taiwanese LCD screen manufacturers are losing more money than they predicted,” Norris confirmed.

Rumors predicting that Apple would announce a flat-panel iMac at Macworld Expo New York proved false. Further prices cuts are likely to spark a fresh round of flat-screen iMac rumors.

More grist for the rumour mill was provided by the massive Computex Expo in Taipei, Taiwan, at which a profusion of all-in-one PCs—integrating 15-inch LCD screens and ViVo -- were on show. Although not so widely known in Europe’s markets, the appearance of such products at the show is held by many as a sign of things to come.

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X: a developers’ dream

Software gurus heap praise on Mac OS X 10.1

On the CD

DragThing 4.1 has been released by TLA Systems. It’s a dock that tidies up desktops by dragging applications and documents into it. It’s Carbonized for Mac OS X, and will run on earlier OSes if CarbonLib is installed. New features include enhanced visuals and the ability to draw textures in the dock’s background. The application supports long filenames and costs $25.

Astrologyk 3.0 is the first-available astrolological solution for Mac OS X. It offers an improved interpretation system, and supports a wider range of astrolological source-data. It costs $29, and $19 to upgrade from previous versions.

RealMac Software has released NavBar Builder 1.0, its navigation-bar creation tool that works with Mac OS X and 9.x. It’s an easy-to-use solution for creating navigation bars for Web sites. The $15 software offers pre-set designs and live previews.

$15 software offers pre-set bars for Web sites. The It’s an easy-to-use solution with Mac OS X 10.0, its navigation-bar released NavBar Builder www.astrologyk.com upgrade from previous It costs $29, and $19 to astrological source-data. It offers an improved solution for Mac OS X.

Wil Shipley, the co-founder of OmniGroup, developer of OmniWeb, said: “It has great support for 3D graphics with an improved implementation of OpenGL, and fast, effective Virtual Memory that works.” He added: “Games will run faster. They won’t lock up the machine if they crash. Sound will be better, and more games will appear faster, because it’s so easy to port. It took us just one man-month to port Giants to OS X.”

Shipley also praised Cocoa: “Once a programmer has used Cocoa, there’s never any question about what the future of programming will be. Cocoa offers a new way of approaching programming. You can create the basic shell of a program in minutes, and start painting in features. It offers programmers the chance to experiment. It’s every programmer’s dream. We find it makes programming ten times faster.

Mac-market bonanza

“A lot of developers are going to be able to survive solely from the Mac market. Macs are now of interest to a whole lot more people. OS X is rock-solid. It’s also more programmable, and can be used as a server. It also has a garden of software available from the Linux community.”

Francois Ganiepy, Toon Boom Internet strategy vice president, sees great potential in OS X: “It’s clean, fast, and easy to use. It could completely corner the creative, media and design markets. Its cutting-edge architecture is probably the best foundation for professional and industrial-class digital media production applications.”

I see a seamlessly integrated suite of digital production-tools interoperate within the OS X environment to deliver incredible performance to users.

Dr Leigh Smith, author of MusicKit, told Macworld: “I think you’ll start to see standard apps adopting more game-like, immersive interfaces.

Streamline promise

“OS X offers a degree of integration and interoperability that can streamline workflow, save development cost, and promote better programming,” said Smith. But he warns: “Apple has a garden of software available from the Linux community.”

He believes Apple’s developer-tools need polishing, pointing to tools featured in OpenStep: “Project Builder needs a class browser, and the Help application needs to support more than one window. Interface Builder needs to be able to pin windows to stay above all others while application windows are being created.

“Apple must drop the ball on the user interface. It must ensure that thread priorities are able to be set for real-time services, so developers can focus on performance in their applications.”

Andrew Stone, designer and publisher of Stone Design Studio, a collection of design applications for OS X, praises Apple’s engineers, who have designed the low-level code in order for developers to focus on applications.

“It’s a rapid prototype development environment in which to build usable software quickly. It means reusable components that work without knowing how they work. It is the developers’ black box.

“If you find a bug, you can fix it – and submit the fix. You get peer review. This differentiates Apple from Microsoft, the queen of proprietary worms.”

MusicKit’s Smith warns Mac OS X users not to expect a tidal wave of software: “No new developers will write for a platform that constitutes five per cent of the market. They will port only Windows applications to Mac OS if enough of a market appears.

Marketing a must

“There isn’t much point trumpeting better technology if through bad marketing and poor positioning, no one uses it.”

But Shipley – who developed for NeXT – sees a bright future for Apple, OS X and its users: “Mac OS X is the beginning of a huge journey for all Mac users. We’re all incredibly excited because we’ve worked for 12 years to make sure this would happen. We always believed that once we got a large audience we could change the face of computing forever.”

“The revolution has finally started,” he proclaimed.

Jonny Evans

Macworld News
Myth III turns back the clock

Myth III: The Wolf Age will be on the shelves this November. Developed by Mumbo Jumbo and published by MacSoft, Myth III features 25 single-player levels and a multiplayer mode.

Andrew Meggs, lead programmer at Mumbo Jumbo, told Macworld: “We’ve got the best OpenGL pipeline I’ve ever seen, and I’ve worked on ports of games using all three Quake engines.”

In the game, Connacht the Wolf has been declared the first Emperor of human lands. The action is set 1,000 years before the Fallen Lords – the original Myth release.

Myth III sees the world on the brink of destruction, with fearsome non-human races having hunted humanity to near extinction. To conquer these enemies, players must cast spells, collect items and build devices. They must also win battles, using strategy to overcome overwhelming odds.

This real-time strategy game puts players in command of small squads of archers and warriors. The task is to make the squads work together to overcome an increasingly demanding series of challenges.

Myth III introduces a selection of new enemies, including black-magic Chol priests. As with previous versions, online and network multiplayer games are supported, and a number of multiplayer game-types are also included. These include: Carnage, Flag and Ball, and Deathmatch. The game features 3D terrain and characters, as well as special effects. These include vegetation that sways in the wind, weather conditions and war-scarred terrain.

Available from Softline (01883 745 111) in mid-November, Myth III costs £39.99 (including VAT). Both Mac and PC versions will be released simultaneously.

Sheep: souped tup for ewe

Feral Interactive’s Sheep for the Mac is available now. The game revolves around sheep that were sent across the galaxy from star system Ovis Aries to study Earth’s habitat.

Sadly, the dim creatures forgot their mission and became domesticated by man. When their ancestors come to bring them home, the sheep must be guided through seven worlds – complete with electric fences, and combine-harvesters. Sheep for the Mac costs £29.99.

Feral Interactive has also revealed that it is not developing Mac-only features for the forthcoming Mac port of hit title, Black & White.

Time to give it 1,000 per cent

Championship Manager 2001-2 – the third version of the football-management sim – is now available.

Players still have to endure the pressure-cooker demands of real-life managers – from selecting the squad, motivating the team, and keeping the board sweet – but 2001-2 does offer new features.

Fresh challenges for the new season include an upgraded Database Editor. Statistics can be modified, so team squads can be updated: you can even add yourself to a team. The Database Editor has to be downloaded from Feral (www.feral.co.uk).

Championship Manager 2001-2 costs £29.
Tech firms show heart

Apple has joined with other major US technology companies to help the victims and families affected by the terrorist attacks of September 11. Apple changed the front page of its Web site, so that it bore a single Red Cross, and the message: "Our thoughts are dedicated to those affected by the tragic events this week." Apple is encouraging visitors to donate to the American Red Cross (www.redcross.org) to help finance the rescue and relief attempts. The company also gave $2 million to the bereaved families of rescue workers, and offered an iBook to each such family with children.

Microsoft offered $5 million to the September 11 Fund (http://september11fund.org), a group established to respond to the immediate and longer-term needs of the victims, their families, and those communities affected by the events. The company offered an additional $5 million in technical services and software. The company’s Web site was changed to deliver a message urging visitors to contribute to the American Liberty Partnership, which had raised around $100 million at the time of writing.

Adobe urged its customers to "support disaster relief efforts", directing customers to Web site www.helping.org, which raised $7.3 million to help. Macromedia and Quark posted similar messages of sympathy and support, and also asked visitors to contribute to relief agencies.

Corel, meanwhile, suggested that its Web-site visitors contribute to the Canadian Red Cross, which also sent staff to the World Trade Center rescue operation.

Online retail giant, Amazon.com is collecting donations from site visitors, amassing $6,801,008 for the American Red Cross in the two weeks after the attack. Most companies with a major online presence posted messages of sympathy and Web links to a variety of relief-aid organizations in response to the tragedy.

Thursby Software gave all profits from online sales between September 12-21 — $30,000 — to the Red Cross appeal, while Aladdin Systems donated a dollar from all online sales over a 30-day period to the same fund. MCF Software is also donating profits generated by online sales of its products.

‘Something positive’

Thursby Software president, William Thursby, said: "I’m glad we were able to do something positive. It is extremely important that the families and rescuers get the resources they need, and we are impressed with the efforts of the Red Cross, both nationally and locally to make that happen’s.

The American Red Cross gave an initial $100 million to help fund rescue and relief work within days of the incident. Four million North Americans gave blood. And global business gave money and time as it expressed its anger at the attacks, which eclipsed economic decline.

Thursby said: "I have been touched by the outpouring of support from our customers, not only in America but around the world. We received letters from several of our international customers thanking us for allowing them to assist America and the American Red Cross in this way. United we stand.”

The International Red Cross also distributes food-aid in Afghanistan.

Jonny Evans

Corel in profits hat-trick

Corel returned a profitable third quarter 2001, its third successive profitable quarter since its corporate restructure earlier this year.

The company has relaunched on graphics and creative products, launching a spin-off brand, called Procreate. Corel has launched a series of new products for the Mac in recent months, including Bryce 5, Painter 7, KnockOut 1.5, Corel Graphics Suite for Mac, and KPT Effects. It’s also working with Microsoft to offer services as part of Microsoft’s .NET strategy.

Revenues for the quarter were $34.2 million, compared to $36.4 million for the same quarter last year. Net income was $500,000, compared to a net loss of $10.7 million in the year-ago quarter. Corel accrued a net income of $2.3 million in its second quarter, and $3.4 million in the year so far.

John Blaine, chief financial officer at Corel, said: “These results indicate our financially disciplined approach is working.”

Derek Burney, president and CEO of Corel Corporation, added: “When we announced our new corporate strategy last January, I stated that we would be profitable again by the third quarter of this fiscal year. We have delivered on that promise.”

Commitment

Burney added: “As we’ve demonstrated over the past three quarters, we’re determined to fulfill our commitments to shareholders and customers. This quarter, we released four new products, introduced a new line of professional creative applications for Mac OS X, and announced our plans to acquire Micrografx and SoftQuad.”
Wacom ships next-gen tablet

Wacom has announced Intuos2, its second generation of professional graphics tablets. There are five sizes of tablet – A6, A5, A4, A4 oversize and A3. Eight different input devices are also available.

The Intuos2 2D mouse has been overhauled. Each A5 and A6 tablet ships with a 2,540dpi cordless, ball-free three-button mouse with a finger wheel for scrolling through pages. A 4D mouse is also available, with more buttons and an optional lens cursor for accuracy. All input devices are customizable, and Wacom’s driver software can be configured to recognize a number of different devices, remembering individual user and application settings for each device. Both mouse speed and acceleration are controllable, and the solution offers absolute positioning. Also new in intuos2 is a split tablet mode – users can employ the main tablet area for detailed work, and navigate the screen via the second, smaller area on the tablet.

A number of other input devices are also available, including an airbrush pen, inking pen and stroke pen. Pricing for these devices has not yet been announced.

The Intuos2 A3 graphics tablet costs £600, and ships with the top-of-the-range mouse and pen, and Corel Painter Classic. The oversized-A4 option costs £485, and ships with Painter and the 4D Mouse and Grip Pen. The regular-sized A4 option ships with Painter, mouse and pen, and costs £365. The A5 tablet includes Painter, a mouse and pen, and costs £255.

The smallest tablet in the range, the A6, ships with the same and costs £140. CAD versions of the larger tablets are also available; the A3 costs £540 and the A4 oversize costs £405 – these ship with a lens cursor, but not Corel Painter Classic.

Contacts targets marketers

Cross Control has launched its Contacts management system. The software stores customized contact information; it sends letters and faxes, streamlines telephone messages, and can run real-time reports. Contacts costs £149 per user, and ships with FileMaker Pro 5.5. Cross Control, 01923 842 295

USB 2.0 drive ships

Master has launched the first USB 2.0 external hard drive, the Master Personal Storage 3000LE. The 40GB unit costs £169, and operates at 5,400rpm. 40GB will hold up to 40 hours of uncompressed digital-video. The Intuos2 range, and the tablets’ colour has been changed to deep purple. The input devices are accessible to within 256mic; and can detect up to 1,024 levels of pressure. The Intuos2 Grip Pen has a wider grip. Its weight has also been adjusted for “comfort and increased control”. It hosts a programmable double-sided switch and a pressure-sensitive tip and eraser.

Epson’s perfect Match

Epson’s PhotoPC 2100Z 2.3-megapixel digital camera features Epson’s Print Image Matching Technology, which the company claims offers improved imaging, colour balance. It’s a USB-connectable unit, and supports CompactFlash for data storage. Pricing has not yet been announced. Epson, 0800 220 448

Point to PDF

PrintToPDF is a Macintosh printer driver that creates PDF files. It can convert PDF to HTML, and HTML to PDF. It is available from www.printtopdf.com.

Flash USB Drive price cut

USB Innovations has cut prices across its Flash USB Drive range. Prices for the data-storage device start at £22 for the 1GB, down from £38; the 2GB drive now costs £47, reduced from £98; the 4GB version has been reduced by £44 to £94; the 8GB drive costs £172, down £267; the 16GB drive costs £291, down £550; and the 32GB unit costs £468, down 57%.

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Network mono boon

By John Leake

Formac in 22-inch move

Formac has launched a 22-inch CRT monitor – the Atlantis 22E – which has a 20-inch diagonal area – the Productline 20E of 2000.

The flat-screen CRT monitor integrates Diamondtronic technology, and offers an active five 0.26mm spot-pitch CRT with a horizontal frequency of 31.5kHz. The display is integrated with a personal USB hub with three free and one optimum port, and hosts an associated control system housing USB-based internal control panels. It also has front-panel button controls. The monitor costs £650 and ships with a three-year on-site warranty. Contact: 020 8533 4040.

Epson’s scanner reaches Perfection

Epson is shipping the Perfection 2650 Photo scanner, which offers a resolution of 2,800 x 4,800dpi with a colour depth of 48bit. It integrates a multifunctional smart panel, that can be configured with images straight to Epson’s Photo Sharing Web site. Other controls include a programmable QuickStart button and intelligent Smart Panel interface for one-touch scanning.

The scanner integrates a technology called “On-Chip Micronisation” that improves image quality by enhancing light. The scanner is equipped with USB 2.0 and FireWire ports. A 4.9 x 9-inch transparency adapter is built-in. The scanner ships with Adobe Photoshop Elements software. No price is available yet. Contact: Epson, 0800 220 546.

LaCie drives OWNED

LaCie has announced its DVD-RAM drive with FireWire interface. The drive combines DVD-R and DVD-RAM capabilities into a single unit with a data transfer rate of up to 22.1Mbps. The transfer speed is also influenced by the type of medium used – it transfers data at up to 11.5Mbps when using 4.7GB DVD-R, and 22.1Mbps with 4.7GB DVD-RAM. LaCie’s DVD-RAM drive reads discs accepted by most CD formats, including CDI, CD-ROM, and audio CDs. It offers dual-speed times for DVD-RAM of 70s and 60s for DVD-R, DVD-ROM or CD on medium available now, the €270 drive automatically detects the system interface and chooses the connection, as it mounts as soon as it is plugged in to a FireWire port.

Apple updates

Apple has released CarbonTalk 1.1, a software library that improves backwards compatibility for Carbon-based applications on Mac OS 9.0.5, all OS X releases and Mac OS X. This is also included within the Mac OS 9.2.1 update. It improves backwards compatibility for Carbon-based applications running in the Classic environment of OS X, as well as under earlier operating systems. See also page 80 for OS X 10.1. Visit www.apple.com específica for more information.

Third-party updates

APN Powerusers 6.4.4. This upgrade to the APN drive management utility adds a number of issues, including connecting operation under Mac OS X. It also adds a number of cosmetic fixes. Contact: APN Powerusers 6.4.4.

Formac, 020 8533 4040, a three-year on-site warranty. Contact: Formac, 020 8533 4040.

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What a CAD

AutoCAD software Pythagoras is a modern CAD program especially designed for graphical applications, such as 3D designing, road surveying and interior design. Pythagoras provides tools for these tasks, with the manufacturers calling it a “user-friendly solution”. Pythagoras 10 Basic System costs £1,595. AutoCAD 2000 series, www.pythagoras.com.

Iiyama’s Vision

A monitor has been launched in the 17-inch DiamondView Monitor Master Pro 415 at a price of £115. Adjustable brightness (Iyama Picture Quality) settings help the monitor deliver better-quality playback of DVD movies. The monitor has a 22.5-pin pitch, with a maximum resolution of 1,600 x 1,200 pixels, 0.28mm dot pitch and contrast of 600:1. Features include a 3x digital zoom, enhanced video input and supports three-on-site warranty. See page 46.
Digital pics ready to go

Minolta has released the Dimage Scan Multi Pro scanner and the Scan Dimage F201 digital camera. The Dimage Scan Multi Pro offers a scanning resolution of 4,800dpi; it can scan a variety of film, from 35mm to medium-format negatives and transparencies. It produces both A2 and A3 outputs with resolutions of 600dpi and 400dpi respectively.

The Dimage Scan Multi Pro's driver software supports Digital ICE technology combining three digital enhancement tools. Digital ICE (Image Correlation & Enhancement) minimizes surface defects and restores colour. Digital ROC (Reconstruction of Colour) reconstructs the colour of faded or badly exposed film, while Digital GEM (Grain Equalisation and Management) enhances pictures from high-speed film. The £1,997 Dimage Scan Multi Pro scanner features advanced colour matching to ensure colours in scanned images replicate the original film.

Minolta has also launched the Dimage F201 digital camera measuring 101.5-x-61.5-x-35mm. It offers 3x optical and 2x digital zooms. It supports a 2-megapixel resolution, with a focal length ranging from 5.4mm to 16.2mm. Images are recorded on a compact SD (Secure Digital) Memory Card, and transferred via USB.

A built-in 38mm 120,000 pixel, TFT colour monitor allows viewing, editing, sketching or locking of images. The camera can capture 15 seconds of digital video recorded at resolutions of either 520-x-240 or 160-x-120 pixels. The £340 Dimage E201 ships with ArcSoft PhotoImpression 5.0 image-editing software.

Minolta, 01308 200 400

LaCie RAIDs drive array

LaCie is shipping the Flexible Ultra 160 RAID Tower for the Mac. The device offers a choice of RAID (Redundant Array of Independent Disks) levels, including 0, 1, 0+1, 3 and 5. It hosts a 160MBs SCSI connection, and can hold 12 drives, with a total capacity of 12TB.

Used with LaCie's 7,200rpm 180GB hard-drives, the TX1200 can achieve data-transfer rates of up to 75MBs with a 2ms average data-access time. Two RAID towers can be daisy-chained together to create the theoretical maximum of 24 drives in the array. LaCie's controller supports up to eight concurrent RAID sets, each with its own unique RAID level, so the unit can be set up for fast data retrieval.

High-speed processing is best handled by the RAID 0 configuration, which is often employed by video producers and data warehouses. Other configurations, such as 1, 0+1, 3 and 5, are better at recovering data lost by a failed drive. In these configurations, a RAID array can automatically rebuild data from the failed drive onto a spare drive.

Administration and set-up is managed via an LCD display on the back of the device. The company offers free 24-hour technical support for these. It costs £6,149.

LaCie, 020 7872 8000

New projector is bright idea

Infocus has unveiled the LP530 projector, which has a brightness of 2,000 ANSI lumens and weighs 5.7 pounds. It has an XGA (Extended Graphics Array) resolution of 1,024-x-768 pixels. It hosts a built-in 3W integrated-audio system and has digital-keystone correction up to plus or minus 20-degrees. The projector is upgradable, and costs £3,395 with a two-year replacement warranty.

Infocus, 0800 020 6470

Light the way

The £15,000 laser beam variable brightness setting – users can choose between 2,000 and 1,600 ANSI lumens

For the information as it happens visit Macworld Online Daily News (www.macworld.co.uk)
Motorola is reading super-fast G5 chips, but will the future for Macs be that different?

Gigs beckon

It seems like only yesterday that Apple announced the Power Mac G4 – the desktop super-computer. In fact, it was two years ago and, in that time, it’s gone through some notable changes since its first incarnation. However, the heart of these machines – the actual PowerPC G4 processor has not changed drastically in this time (apart from a series of speed-bumps that have seen it go from 350MHz to 867MHz).

In the same time, Pentium processors have also tripled in speed, topping out at today’s 2GHz. These GHz Wintel machines sound faster, but are in fact slower – a fact Apple has been highlighting by beating the “megahertz myth” drum. However, if the rumour mill is right, Apple won’t have to bother doing this much longer. This is because the next generation of PowerPC processors from Motorola – the PowerPC 8500, or G5 processor – will mean significant speed increases for Apple, and, therefore, for all of us.

Speed-road insight

The Motorola road-map offers some insight into what we can expect. Initial G5 speeds will start at 800MHz, though some sources say that these will be used in embedded computing systems rather than Macs. The upper limits of the G5 will surpass 2GHz, which should give Intel something to consider. Currently, speeds of 1.6GHz are being achieved in Motorola’s labs.

So how is Motorola getting this big speed increase? Well, one thing that’s helping is the 0.13-micron technology being used. This means that the chips microscopic wires are thinner than ever before, making the chip cooler, and therefore allowing for faster speeds.

Another difference is the number of pipeline stages used – up from seven to ten. As Jon Rubinstein demonstrated at the New York Macworld Expo, the more pipeline stages you have, the slower the speed – even though it means you can chalk-up more MHz. So, while we’ll be seeing more MHz with the G5, the benchmark results may not be as impressive as the numbers.

Even with the new 0.13-micron process, the additional MHz will generate more heat than previous chips. Motorola will deal with this by using SOI (Silicon-on-Insulator) technology. SOI adds a thin layer of glass between the chip transistors and the underlying silicon. This insulation reduces any electrical leakage that can degrade performance.

Curiously, while Motorola gets ready to break the gigahertz barrier, Intel is heading the other way. The latest workstation processor, the Itanium, weighs in at an unimpressive 800MHz – less megahertz than the top Macs. The reason for the low megahertz is that Intel has reduced the number of pipelines used in the processor from 20 in the Pentium 4, down to 10 in the Itanium.

So, by the beginning of next year Apple could well be readying computers based on the G5 processor. The speeds should be in excess of 1GHz, maybe even as much as 1.6GHz, while Intel’s fancy Itanium chips would still be languishing in the sub-gigahertz woods.

Of course, Mac people know MHz is an unreliable measure of speed – but many PC users won’t. However, when they’re told that their 2.2GHz Pentium 4 is slower than an 800Mhz Itanium the word should soon spread.

So, Apple’s G5 range will be boast new chip technology, but how will the company innovate with regards to the machines’ guts and appearance?

I’d like to see AirPort become a standard feature fully built-in to all Macs, even desktop models. While USB 2 is unlikely to ever eclipse FireWire for video connectivity, it may have its uses for other hardware. More to the point, I don’t want to listen to any more PC weenies banging on about how great it is.

In a similar vein, BlueTooth is another wireless technology that PC folk have been harping on about recently. This allows you to connect at high speeds to other BlueTooth devices at relatively short range. This may be handy for digital-camera downloads, but I don’t see it being an essential for some time yet. However, if Apple wants to be at the centre of the digital hub, then it will have to factor-in BlueTooth eventually.

RAM raiding

Currently, the most RAM you can cram into a G4 is 1.5GB, which amazingly costs under £200 (visit www.crucial.com/uk). It’s likely that the next generation of Macs could handle up to 16GB of RAM, which should be more than enough for most. And, if hard-disk capacity continues to increase at the current rate, it doesn’t seem unreasonable to expect to see 100GB drives being the standard entry-level capacity before long.

So there you have it – everything will be faster, just like it was last year, the year before, and the year before that. Just as unsurprising is that people who like Macs will continue to like Macs, while PC weenies will still love their PCs. The only difference is, the Mac community will no longer have to continue explaining why their “slower” processors are faster. The G5 – and, ironically, Intel’s Itanium – will do that for us.

‘The upper limits of the G5 will reach 2GHz and above, which should give Intel something to consider.’
In the Web age, the Macintosh community ignores viruses at its peril.

Immune system?

There's a small blue plate on my back door that says: “Anyone caught here at night will be found here in the morning.” It was put there by a biker friend years ago as a sort of angelic joke, and I've never seen any reason to remove it. Living, as I do — too far up a mile-and-a-half unwound track in the wilds of Sussex, surrounded by atavistic technology — nobody without a four-wheel drive comes anywhere near this place unless they're lost, or invited. And with the front door effectively barricaded with guitars and PA speakers, security has never been anything to be nervous about.

But security, like most things in life, is relative. And while I never really got on with my relatives, like most people round the world, security, personal and otherwise, has suddenly become something we all might need to start taking a bit more seriously. Even for a generation bred on guitars and PA speakers, security has never been anything to be nervous about.

Red menace

Exactly a week after the attacks on New York and Washington DC, a new virus-like attack struck large companies, and its rapid spread threatened to slow the Internet to a crawl. US Attorney General John Ashcroft warned that the computer outbreak could become worse than the “Code Red” worm that appeared last summer. Although Ashcroft said there is no evidence linking the worm to the terrorist attacks, this malicious software program, known as W32: Nimda, is complex and designed to spread to people who open infected email or visit infected Web sites. The worm apparently generates excessive traffic on the Web, creating a treacle effect, and users end up thinking the Internet has simply gone down.

The worm can spread in many different ways, although it tends to infect Web sites running Microsoft's Internet Information Services software, just as the recent “Code Red” worm did. Once a Web site is infected, any Web user accessing it can get the worm. Once one computer on a company network is infected, it can also travel across the network to attack others. Together, this can cause an entire corporate network to be infected if even a single worker visits an infected site. More worrying is the fact that it can send itself through an email attachment. The sender address is faked, and may be a well-known address. Researchers have said they aren’t sure how the address is generated but the attachment may be named “README.EXE.”

In addition to the maelstrom of junk messages slowing down Internet access, it can also overwrite critical Microsoft Windows system files. Due to the many different ways it can spread, all Windows users can be infected with the worm. Nimda changes the Web content to attack Microsoft Internet Explorer browsers visiting the site. Once successful, it will start a second life as an email-based worm, spreading to address-book contacts. It then also seriously compromises the security of the client machine.

Spreading infection

Scanning activity thus far indicates that this could be heavier than the July activity of Code Red, and Computer Associates has said that 10 to 20 large multinational-companies are infected, though the total infection level is unclear. By now, infected computers could be in the tens of thousands. At its peak, Code Red infected several hundred thousand computers.

It would seem that the new worm could take the same number of computers infected by Code Red and do far more damage. Despite the worm's threat, it still spreads through known security holes — particularly in Microsoft systems — and relies on computer administrators who have been lax in updating their systems. Reports suggest that the worm tries to wriggle in through 16 known vulnerabilities in Microsoft's IIS, including the security hole left in some computers by the “Code Red II” worm, which followed Code Red in August.

The FBI's National Infrastructure Protection Centre warned that a hacker group called the “Dispatchers” said it would attack “communications and finance infrastructures”. Strangely enough, the Dispatchers have also recently defaced Middle Eastern Web sites in an apparent retaliation for the terrorist attacks, so its difficult to figure out precisely where they're coming from. As usual, the Macintosh community has been relatively unaffected, apart from occasional difficulties getting onto sites operationally locked into the Microsoft monopoly.

As Macintosh users, we're a pretty secure lot. We've got the coolest kit in the world. We've got processors that run rings round anything Intel can cobble together. Very few viruses ever attack Mac systems. We can even run nearly all of that disease-ridden Microsoft software currently polluting the market... if we really want to. But out there in the really wired world, security remains relative and we're just a small feature of a much larger and significant picture.

Smugness has gone out of fashion, and if things turn ugly, nothing will guarantee immunity forever.’
Maya 3.5 for Mac OS X

Publisher: Aliaswavefront
0800 412 5125
www.aliaswavefront.com

Price: Impressively high.

Macworld Rating

High end

Outro

In summary, Maya's Dynamic is a powerful tool for animation, particularly for the creation of complex characters and rigid body dynamics. Its interface is user-friendly, allowing for efficient and intuitive control over the animation process. The software's advanced rendering capabilities and integration with other applications make it a versatile tool for professionals in the animation industry. With continued development and improvements, Maya's Dynamic is likely to continue evolving, providing users with even more powerful tools for creating compelling and realistic animations.
Using Artisan, you can paint soft body
weights to control their effect. A cap can
be made into a soft body so that it blows
in the wind, to prevent it simply flying off,
you paint zero weight where it attaches to
a character's neck. The cap then flies away
while maintaining its attachment location.

Robust and easy-to-use printers, IK
and deformers for animating characters,
duster animation for animating surface
points, and Blend Shapes add to Maya's animator power. Blend Shapes
are essentially morph targets, making
them ideal for facial animation.

Using a file-based interface, you
are enabled many different targets to produce
varied facial expressions.

One let-down was Paint Effects. Maya's
unique system for creating dense, dynamic
effects such as grass, foliage, electric
sparks, and such. We've seen it on PC
systems, and it's very impression – but on
our Mac it was extremely slow. Simple Paint

Effects work is possible, but trying to create
the rich, complex renders we have seen
this technology produce bogged down the
machine to the point of being unusable.

Macworld's buying advice

Despite a few interface glitches, Maya
remains a breathtakingly powerful 3D
system – and the RPR will be all the better
for it. The only major concern is the £6,188
price tag. You'll also have to pay a regular
support fee, to entitle you to upgrades that
Alias produces every six to eight months.
The bottom line, though, is that Maya
will not be the ideal solution for everyone,
but its appearance on OS X should help to
boost the Mac's popularity in 3D graphics.

For those who desire the utmost power and
texture to control the Robok's best

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Commotion began life as a proprietary compositing and rotoscoping tool used in-house at ILM (a famous effects facility on the West coast of America owned by George Lucas). It was created by digital-effects guru and programmer Scott Squires. Commotion eventually became a commercial Mac product produced by Puffin Designs. A few versions ago it was bought by the big video-solutions company Pinnacle Systems, and it’s now available for both Mac and Windows PCs. It comes in two versions, Standard and Pro; and it’s the latter we have on test here.

Commotion Pro is a complete effects and retouching tool for anyone working with moving images, and version 4.0 adds some decent – though not world-shattering – new features. The most interesting aspect of Commotion, though, is its steady migration into the territory of digital effects and multilayered compositing, a stronghold of Adobe After Effects. Commotion has a solid toolset for creating mattes and compositing footage, and it can also perform some sophisticated video-painting that After Effects cannot. It has a comprehensive set of natural-media brushes for just such a purpose, and a friendly, intuitive interface. Until version 3.0, it didn’t have layers – so it was not really a threat to Adobe’s big effects package. Since then, Commotion has become more and more like After Effects; it even looks like it with its Project window and layered timeline.

New to version 4.0 is the ability to import layered Photoshop files. These files retain layer-blending modes, masks and transparency. You begin with a Photoshop image file, then bring it into Commotion to add animated effects. Adjustment layers don’t come in, since Commotion doesn’t have them, but layer masks can be problematic too. Any of the other Photoshop 6.0 layer features such as Folders, Layer Styles will also be discarded or imported as blank layers, but live text will at least come in as a rendered text-layer. A problem we found is that, with a Photoshop file imported into Commotion, you can’t save changes to it back in Photoshop. You have to close all the layers relating to the file in Commotion (or save them as new footage files), and resave and re-import – which is a real pain, and limits the claimed integration between the two programs.

Layering it on

However, Commotion has its own layer grouping system that allows you to create nested compositions just like you can in After Effects. It uses folders to group layers, so you can more easily manage a multi-layered composite, and you can add a single matte, effects or colour adjustments to a group folder. You can also export a layer or a group of layers as a separate file that can be re-imported and used again in different projects. This also allows you to create libraries of animations or effects settings by exporting single layers – a handy feature.

Time remapping is another new feature. It allows you to stretch a clip so that a 100-frame sequence can span 200 frames, or, conversely, shrink it to 50 frames. To prevent stuttery clips, new frames are created by blending existing ones. Clips can be stretched to any value, not just double or half the original length.

When viewing your clips – stretched or otherwise – Commotion uses RAM to play them back in real time. To maximize speed, you should try to load only as many frames as will fit in available RAM. You can access frames beyond your RAM capacity, but Commotion will start spooling frames to and from the hard disk, slowing things down. When working with multiple layers, things get even more complicated, since Commotion must render the composite and load frames to RAM to maintain real-time playback. With many layers and effects, it can get very slow.

Where Commotion excels, though, is in cleaning, retouching and stabilizing footage. It includes tools for removing wires from effects shots, creating composites, and has some advanced chromakeying. Its matte tools are exemplary, and for blue (green/red, etc) screen work there’s little that can touch it. The Pro version includes the world-class Primatte Keyer for extracting a subject from any colour background, and Composite Wizard filters – for refining mattes and suppressing colour spill – result in perfect mattes, even from less than perfect footage.

Commotion has some excellent features for effects work, such as the Image Lounge plug-ins. These include the True Camera Blur filter that can accurately recreate the iris artefacts of a camera-lens system, and Real Shadow that can create a realistic graduated shadow at any angle – essential for compositing green/blue screen elements onto backgrounds. The Average Frames command that can create a high-quality still image from video or film footage (as long as there is no movement in the shot).

Commotion has become ever more reliant on fast hardware. You need bucket loads of RAM, and if you try to use it on anything but the fastest, most capacious Mac it can become leaden. This is not so much of a problem these days with memory being dirt cheap, and G4 towers capable of containing 1.5GB of the stuff.

Macworld’s buying advice

Creating sophisticated and seamless composites and retouching is Commotion’s primary purpose, and it does so brilliantly. If you tend towards the effects and 3D side, then After Effects or Discreet’s Effect* may be a better option – but for dealing with real footage, there’s little to beat it.

Simon Danaher
While rummaging through your System Folder, you have undoubtedly discovered that your hard drive is crammed with what appear to be unnecessary files. Wouldn’t it be wonderful if there were a utility that could help you cull those dispensable documents and applications? Two utilities – Casady & Greene’s Chaos Master 1.2.1 and Aladdin Systems’ Spring Cleaning 4.0 – provide a measure of help, though they lack the means to make intelligent choices about which files should go and which should stay.

Something in common
Both Chaos Master and Spring Cleaning scour your Mac’s hard drive for duplicate files, unattached aliases, empty folders, orphaned preferences, and Internet cache files. In addition, each allows you to uninstall applications and their associated files, and to slim extraneous code from “fat” applications – those that include both PowerPC and 680x0 code. The two programs aren’t identical, however. Aside from being the only one that runs natively in Mac OS X, Spring Cleaning has two features Chaos Master doesn’t: a MailCleaner module that lets you remove attachments from Eudora, Outlook Express, and Entourage email archives; and iClean, a useful utility (also sold separately) that lets you selectively remove Web cookies and Internet history files. But only Chaos Master can check the version number of your applications and control panels and provide links to online updates — see “Bring out your dead”, above.

Spring ahead
Spring Cleaning is the more thorough of the two programs. In our tests, Chaos Master was unable to find a duplicate copy of SimpleText that Spring Cleaning had no trouble locating. Spring Cleaning also unearthed a greater variety of Internet cache files. And it offers far more options for dealing with files once you’ve found them – you can launch them, trash them, or move or duplicate them to a folder or a StuffIt archive, and you can undo some of these actions with Spring Cleaning’s Restore command. With Chaos Master, you can only launch, trash, or move files, and the program lacks a Restore command.

But Spring Cleaning can be too thorough. When looking for duplicates, for instance, it lists not only real duplicates but also files that simply have the same name. Star Rating: ★★★★

Price: £59.99 including VAT. Star Rating: ★★★★

Distributor: Softline
Pros: Finds duplicate and extraneous files; helpful iClean utility; multiple options.
Cons: Can’t distinguish between necessary and unnecessary files; poor filtering; limited options.
Min specs: PowerPC; Mac OS 8.1 or higher.
ISBN: 0-201-70900-7
Publisher: Peachpit Press
Title: Mac OS X: Visual Quickstart Guide
Cover CD
Try Chaos Master for yourself – the demo is on this month’s Macworld CD.

Chaos Master
Publisher: Casady & Greene
Distributor: Softline
Pros: Finds duplicate and extraneous files; helpful iClean utility; multiple options.
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Guessing game
Care to take a stab at which of these Mac OS X files are disposable?

Spring Cleaning
Publisher: Aladdin Systems
Distributor: Softline
Pros: Finds duplicate and extraneous files; helpful iClean utility; multiple options.
Cons: Can’t distinguish between necessary and unnecessary files; poor filtering.
Min specs: PowerPC; Mac OS 8.1 or higher.
Price: £49.99 including VAT.
ISBN: 0-201-70900-7
Title: Mac OS X: Visual Quickstart Guide

Like Mac OS X for Dummies (reviewed, August 2001), Maria Langer’s Mac OS X: Visual Quickstart Guide is a great help for experienced Mac users and novices alike. Both books cover much the same ground, but Langer’s has many more screenshots, and is less chatty. The 250-page Visual Quickstart book takes a step-by-step approach, using screenshots to guide your every mouse roll and keyboard tap. Areas covered include: OS X setup; Finder basics; file management; Finder techniques, applications; printing; Internet; Sherlock; and System Preferences.

There are quick tips all along the journey to enlightenment, as well as a decent section on Apple’s iTunes. Nowhere near enough space is given to Apple’s excellent iTools — although the Dummies book is equally brief on this important part of Macintosh computing.

Macworld’s buying advice
If you’re fearful of making the move to OS X, get both books. Where Dummies goes into more general details — it talks you through plugging in a printer before explaining OS X’s Print Center, for example — and makes a few jokes along the way, the Visual Quickstart Guide calmly shows you exactly what each stage of the OS X process looks like, and explains your options concisely. With both at your side, you’ll quickly get to grips with Apple’s new operating system — and more easily jump into a safer, more modern world of personal computing.

Simon Jury

Read our sample chapter of Mac OS X: Visual Quickstart Guide, included as a free booklet with this issue of Macworld. A 25% discount is available to Macworld readers; go to www.it-minds.com/goto/vqpguides for full details. Apologies for the incorrect URL on the back of the booklet.
**Macworld's buying advice**

It's difficult to pick a clear winner from this very capable bunch, but we declare the Nikon Super Coolscan 4000ED the all-around champ — it's fast, produces excellent results from positives and negatives from the very capable bunch, but we declare the Nikon Super Coolscan 4000ED the all-around champ — it's fast, produces excellent results from positives and negatives.

**Macworld's Film Scanners**

Macworld reviews

Fifteen scanners do a great job on prints and other paper-based art, and a decent job on medium- or large-format film. But if you want to scan 35mm or APS film (and wind-up with a print that's bigger than a postage stamp), you need a film scanner. The good news is that film scanners have never been more affordable.

Macworld Lab reckoned on screen 35mm film scanners, all priced below £1,500 (excluding VAT), and put them through their paces. Although we were impressed by the scanners' quality, we found significant differences in cost, resolution, dynamic range, speed, and the usability of their accompanying software.

The scanners fell into two classes: those for the Canon Canoscan F5000US, the Microtek ArtixScan 4000ED, and the Polanoid SPIF 4000 all offer 4,000 pixels per inch (ppi) resolution, the others — the 2,438-ppi Minolta Dimage Scan Dual F-2900, the 2,820-ppi Minolta Dimage Scan Elite F-2900, and the 3,900-ppi Nikon Coolscan IV ED — capture fewer pixels. All the high-resolution scanners have SCSI interfaces, except the Supercan, which is Firewire-only, the Canoscan has both SCSI and USB. Among the lower-resolution scanners, the Dimage Scan Elite has a SCSI interface; the Dimage Scan Dual and the Canoscan can use USB only.

Just two of the scanners we tested were compatible with Mac OS X. The Minolta Dimage Scan Dual did fine in OS X’s Classic mode, so did the Canoscan when we selected its USB port.

The sharper image

We found that the 4,000-ppi scanners captured more detail than the lower-resolution models, simply by sampling a larger file, but we also found that they were merciless regarding flaws in the original images — chromatic aberrations in lenses and softness due to camera shake are much more obvious at high resolutions.

The Super Coolscan produced sharper images than the ArtixScan and Supercan, and the Canoscan was the best sharp (though the differences were slight).

We found surprisingly little difference in the amount of detail rendered by the 2,438-ppi Dimage Scan Dual and the 2,820-ppi Canoscan. The Microtek ArtixScan Elite produced scans that were slightly sharper than those from the other lower-resolution scanners, but we had to fight very hard to find the differences here, too.

Sidder claims almost dramatic surge — the scanner has a scanner can capture, from light to dark — can be hard to judge, because of the very low-accustomed method of measurement.

Most specifications give a maximum speed for 1,280 (Max), but their contrast is not quantified, the amount of noise present.

We found that the Super Coolscan, for which Nikon claims a 200x4 at f:4, did a proper job of pulling detail out of shadow areas than the more conservatively rated scanners when used in simple-mode mode. The only way we could get the Super Coolscan to live up to its claim was to enable the film-matching option (which averages 16 separate scans, and hence takes 15 times longer than a single scan) to turn on both interframe exposure and colour management.

The ArtixScan pulled the most detail from the shadows, but it also introduced a bit of noise. The Supercan produced the best detail with the least noise, and both Minolta scanners yielded decent shadow detail, despite their more conservative ratings. The Canoscan and the ArtixScan both had the fastest detail in the dark areas, rendering them as almost solid black.

**Film scans compared**

<table>
<thead>
<tr>
<th>Company</th>
<th>Product Name</th>
<th>Star Rating</th>
<th>Price (exc. VAT)</th>
<th>Contact</th>
<th>Reference</th>
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<th>Review</th>
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<td>Canon</td>
<td>Canoscan F5000US</td>
<td>★★★★★</td>
<td>£699</td>
<td>01782 753 300</td>
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<td>£215</td>
<td>01908 200 400</td>
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<td>£215</td>
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<tr>
<td>Microtek</td>
<td>ArtixScan 4000ED</td>
<td>★★★★</td>
<td>£849</td>
<td>020 8541 4440</td>
<td><a href="http://www.microtek-europe.com">www.microtek-europe.com</a></td>
<td>£849</td>
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<td>★★★★</td>
<td>£659</td>
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<td>2,900</td>
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<tr>
<td>Polaroid</td>
<td>Super Coolscan 4000ED</td>
<td>★★★★</td>
<td>£849</td>
<td>01908 200 400</td>
<td><a href="http://www.polaroidwork.com">www.polaroidwork.com</a></td>
<td>£849</td>
<td>2,820</td>
</tr>
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**Macworld's software solutions**

Macworld's Film Scanners review compares five scanners side-by-side, and shows which is best at scanning negatives, positives, and negatives. negatives.

It's not just a mouse either; the pen works very well for creative graphics applications and games — handy services will benefit from its precision control, though I tend to use the mouse more frequently.
The EXS24 sampler delivers everything you would expect from a hardware sampler — at much less cost if you already own a suitable computer and audio card. Your computer’s CPU provides the number-crunching, and your audio card handles the audio input and output.

A major advantage is the seamless way in which the sampler integrates into your sequencing software. Instead of editing on the tiny displays found on hardware samplers, you have the advantage of on-screen editing plus waveform editing. The EXS24 can be opened in up to 16 Audio Instrument objects in Logic Audio — if you have enough RAM. I allocated 128MB to Logic Audio, for example. Each instance of the EXS24 offers up to 64 mono or stereo voices. How many you can actually play at once depends on the CPU speed and availability.

The EXS24 also provides high-quality digital playback at up to 24-bit and 96KHz. The audio quality you achieve in practice will depend on the quality of your D/A converters when playing back, and your A/D converters when recording new samples. The user-interface is clear and straightforward — in contrast to many hardware samplers that are far more 'fiddly' to use.

The supplied sample library is fine, but does not compete with the many libraries available from third-parties in various formats. Fortunately, the EXS24 can read and convert Akai-format samples using the Akai Convert feature in the Instrument Editor. Support for other formats is promised soon. You can load in samples using the EXS24 Instrument Editor. Here you arrange your samples into Zones (keygroups), and combine these into Groups so you can velocity-switch or layer sounds.

To achieve the best results with the EXS24 you not only need the fastest dual-processor CPU, but also lots — and I mean lots — of RAM. To get the maximum number of voices to play, for example, you need to load samples in 32-bit floating format into RAM — and 24-bit 96KHz samples (if you use these) are going to use up even more memory.

Macworld’s buying advice

Compared with the cost of buying a hardware sampler with similar capabilities, the EXS24 looks like a bargain. However, don’t forget the cost of the computer, audio card and converters that you need to run the software. You could easily spend £4,000, or more, for the highest-quality kit.

Mike Collins

Macworld reviews

Emagic Xtreme Sampler EXS24

Publisher: Emagic  www.macworld.co.uk
Distributor: Sound Technology 01462 480 000
Pros: Allows you to play music- and sound-effects samples digitally at the highest quality from your computer using Emagic software.
Cons: You need lots of RAM and a fast – ideally dual-processor – computer for best results.
Min specs: Emagic Logic Audio/MicroLogic AV 4.0 or higher; PowerPC 604; Mac OS 8.6 or later (USB requires Mac OS 9.0.4); 128MB RAM.
Price: £259 including VAT.
Star Rating: ★★★★★/8.2

Unity DS-1 v.2.1

Publisher: BitHeadz  www.bitheadz.com
Distributor: Unity Audio 01440 785 843
Pros: Very useable sample library provided; excellent support for other sample library formats.
Cons: Can be fiddly to set up; uses a lot of windows.
Min specs: PowerPC 604; Mac OS 8.1; 300MB free space on hard disk.
Price: £305 excluding VAT.
Star Rating: ★★★★/6.6

Music plugging

The plug-in window available for each instance of the EXS24 gives access to all of the EXS24’s synthesizer parameters. Here you can alter filter settings and envelopes, offset pitches of samples, set up portamento effects, and so forth. You can change this window to a Controls view using a flip menu in the upper window area. This view lists all the parameters, and lets you adjust them using sliders or by typing numbers — or, in some cases, using pop-up menus.

Macworld’s buying advice

The Unity DS-1 Editor lets you modify the factory sounds, or create sounds using two oscillators and two filters. Apply EQ, delay, chorus and distortion effects using insert effects, and two global effects you let you add overall reverbs and delays. The Unity DS-1 has up to 256 stereo voice polyphony. The Engine supports up to 96KHz sample rate, with 32-bit internal processing. Save as 8, 16, or 24-bit files.

Mike Collins

Unity at one

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Mike Collins

Macworld’s buying advice

The Unity DS-1 offers integration with a wider range of software than most of its competitors, such as the E-Magic EXS24 (see review above), and has comprehensive editing, processing and mixing features. On the downside, the sheer number of windows, and the way the software is split into several separate applications, makes installation something of a pain, and operation somewhat less than instant. Technically, it performs well and sounds good, and the price is fair.

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Mike Collins
DocuSlim 2.1.4
Publisher: Gluon www.gluon.com
Distributor: XChange 020 7588 5588
Price: Optimizes images, hugely reducing their file sizes, easy to use.
Cost: A few quirks.
Min specs: QuarkXPress 4.04 or later, Adobe Photoshop 5.0 or later.
Star Rating: ★★★★/8.7

DocuSlim is the panacea for all production departments. It checks a QuarkXPress document and automatically processes its images in Photoshop via the dedicated Image Robot plug-in and action set. Excess areas are cropped, images are resized and replaced at 100 per cent, and turned or skewed to be re-imported at zero rotation. It can even convert RGB images to CMYK, flip LZW compression for TIFFs, and resample to a set resolution.

The main processing dialog now offers control over each individual process, including colour-space change to greyscale, the ability to ignore master-page items, and whether to process the current page, spread or full document. Files in a particular folder can be ignored; as can images whose resolutions fall outside a range. Pasteboard items can be deleted automatically.

DocuSlim never overwrites existing files, renaming the optimized images and resulting XPress document. It used to be awkward to pick out optimized versions in a folder full of images, but v2 lets you save all new images to a specific folder. The settings can be saved as a preset.

The Enhanced version of DocuSlim takes the process a stage further. The file format for all images can be set to TIFF or EPS, though care has to be taken when working with colourised greyscale TIFFs. These lose their colouring when converted to EPS, and yet still appear to be coloured in QuarkXPress.

Another useful Enhanced facility is that of processing each instance of an image. A magazine might use a large version of an image in a feature and a thumbnail of it on the contents pages. Each is handled as though it was a different image, labelling the optimized versions differently.

And with the direct connection into Photoshop, DocuSlim can also make use of other action sets. Call up a Photoshop plug-in and use an effect on all selected images. There’s even a facility to create low-resolution versions of images for use with OPI software or Gluon’s own ArtSwapper application.

Macworld’s buying advice
DocuSlim is a lifesaver. Projects that would usually have to be burnt to CD and posted can be reduced in size and sent by ISDN or even as an emailed attachment. I’ve seen a 120MB A2 poster reduced to 12MB!

DocuSlim now recognizes non-Photoshop images, and visually shows which file is currently being optimized. It has a few quirks; the estimated disk-image size after optimization is sometimes way out, and it occasionally messes up text runarounds, but all-in-all it’s a superb utility and thoroughly recommended.

Vic Lennard

FaxExpress Network 6.0.1
Publisher: Glenwarne 01628 667 702 www.glenwarne.co.uk
Price: Easy to set up and use, small memory requirement; very reliable; useful new features.
Cost: Bitmapted printouts unless all fonts are accessible by the server.
Min specs: System 7.1 to Mac OS 9.2.
Star Rating: ★★★★/8.5

FaxExpress is the only device-independent networked fax software for the Mac, requiring just a Class 2 fax modem. It offers the kind of features expected from standard fax software, including being able to fax pictures as pseudo-greyscales rather than black blocks, the flexibility to create a fax from almost any application and send it to a group of people if needed, and decent quality printouts.

Basic installation is simple enough.

The server hosts the main FaxExpress Server application and FaxViewer (which controls all received and sent faxes). Each client has a Fax Chooser item plus three applications: FaxViewer, FaxStatus and FastFax. The latter is used to send a quick fax from the desktop – essentially a cover sheet without an attachment – while FaxStatus is similar to the Mac’s PrintMonitor, allowing you to control the fax queue. Communication between server and clients is through FaxMessenger, a Startup Items application.

Once installed, the initial set-up is equally straightforward. Each client connects to the server via the Chooser and shares the various cover-page designs and phonebooks. Sending a fax is then as easy as holding down a hot key set via the Quick Fax Selector Control Panel and using the normal print commands from an application’s menu bar.

Version 6 retains the basic functionality, concentrating on improving the user-friendliness of the system. The main fax dialogues have been redesigned for ease-of-use and include a small status-box detailing the number of pages and when the fax will be sent. The phonebook has some new facilities, including multiple destinations, and there’s a stand-alone phonebook editor that allows entries to be created without having to access them via FaxExpress dialogues. Cover pages, previously rather rough-and-ready, can now be multi-page and can include graphics, a scanned signature, different typefaces, and the ability to recall the last message. Aside from the last facility, these have also been extended to the FastFax application.

FaxViewer has been substantially enhanced. Text and ‘stickies’ can be added to received faxes with additional highlighting tools and a new archiving system. On the server side, the Log File now records both incoming and outgoing faxes, and the first page of a sent fax can be printed with the date and time overprinted.

Other new features include de-installers for FaxSTF and FaxExpress, and the ability to open faxes from Global Village and FaxSTF programs.

Macworld’s buying advice
FaxExpress is easy to use and almost bomb-proof. Being QuickDraw-based, it relies on having each document’s fonts accessible by the server (and at least AT&Light installed for font smoothing), resulting in impressive print quality at the receiving end. If you want a reliable networked fax-system, look no further. FaxExpress delivers.

Vic Lennard
Not long after the release of arch rival Macromedia’s FreeHand 10 (Macworld, January 2001) comes an update to Adobe’s existing drawing package Illustrator 10. Both are conversant in PostScript-clean transparency, and this time around Max OS X. We took a closer look at a late beta of the new version of Illustrator, to see whether Adobe’s first-ever commercial OS X application really ciphers the DJips. We discovered a deliciously detailed new set of tools, improved Web-related functions, and an excellent implementation of envelopes, symbols and other features that the program had lacked for way too long.

Illustrator 10 introduces a number of new features.

**Flash export options**

We discovered a delicious clutch of new features. Adobe has given Illustrator 10 a reason to catch up with other vector-art packages, except perhaps CorelDraw or FreeHand, which champion for the past few years. Not content with letting you drag-&-drop artwork to a package like LiveMotion or Flash, Adobe has championed for the past few years.

**SVG objects**

Adobe has launched a new feature in Illustrator 10 that turns out to be an unexpectedly versatile package: support for Scalable Vector Graphics (SVG). If you’re not familiar with SVG, it is a language for describing two-dimensional graphics for the Web, based on symbols and their association with the rich-media SVG format. It has championed for the past few years. You can open native SVG graphics back into Illustrator for re-editing and re-importing.

**Symbolism**

Some third-party plug-in envelopes. But with Illustrator 10, a proper set of envelope tools are a list of smaller improvements.

**Shorts of life**

As well as tracing up SVG slices online, Illustrator can manage places on an object basis, automatically re-mapping the boundaries as you edit artwork. This keeps artwork compact in terms of file size, since each instance of the graphic is just a virtual placeholder to the original symbol. It also lets you edit or entirely replace that original in order to update all linked instances throughout your artwork automatically.

**Symbolic tools**

In addition to the Symbols palette, Illustrator packs into the upgrade eight new symbol-related tools that no one else has thought of. Not content with letting you drop-in shapes into artwork, or even using symbols into artwork for loading the graphic paintbrush, Adobe takes the placed symbol concept and turns it into (would you believe) something fun.

First off is a Spatter tool for pouring multiple of your selected symbols onto the page as a randomised group. You can then drag with the Shifter to nudge them around, the Scissors to pull them closer together, the Sizer to grow and shrink them, and the Spinner to rotate them. These tools work like brushstrokes, dabbing only the symbols within the group that you actually drag over. Then you can start playing with the Spatter to re-colour them, the Spinner to apply transparency, and the amusing Spatter to gradually apply a different appearance to the symbolism based on selections in the Style panel. All these tools are process-sensitive if you have a Wacom tablet, although we were able to test this only on Max OS X. We can’t say it’s long-awaited Max OS X drives hadn’t been released at the time of writing (see page, 24).

Symbolic tools are a list of smaller improvements.
**Tropico**

**Publisher:** Feral Interactive

**Distributor:** Softline 01883 745 111

**Pros:** Lots of detail to keep armchair dictators happy; tons of replay value, due to built-in and custom scenarios.

**Cons:** Big and complicated maps slow it down; crashes sometimes.

**Min specs:** Mac OS 8.6 or later, including OS X.

**Price:** £39.99 including VAT.

**Star Rating:** ★★★★★/8.6

I’ve no wonder so-called god games are so very popular — they let you control entire worlds and huge populations of people (or creatures) according to your every whim. I admit, some of my darkest hours as the reigning dictator of the game Tropico were dominated by dreams of total control. As El Presidente of a small Caribbean nation, I found the illusion of omnipotence going to my head.

Tropico is the latest title from PopTop Software (makers of Railroad Tycoon II), and it’s published by MacSoft. It’s a real-time strategy game with a 3D isometric view (or three-quarters perspective).

**Banana republic**

Tropico puts an interesting twist on the god-game genre. Rather than having you act as a deity or an industrial tycoon, you’re the dictator of a banana republic. No, not the chain of clothing stores, silly — this banana republic is an island in the Caribbean. As Tropico emerges from colonial obscurity after World War II, your puppet regime must stay in power through means — democratic or fascistic — you choose.

What makes Tropico different from so many other simulation games is that, in addition to influencing economics and planning infrastructure, you must manage the political process of your country. Getting your country running is only one problem you’ll face as El Presidente — keeping it running is another issue entirely.

In Tropico, you can either use a series of preset scenarios with specific goals (guaranteeing fair elections while maintaining power, or undercutting Cuba’s cigar-export business) or create a custom island of your own — determining its altitude, waterline, distribution of vegetation and minerals, and population. You can also customize your personality as a ruler, assigning yourself positive traits (hardworking, a man of the people) and negative traits (alcoholic, frivolent). These traits will affect everything from how the average José on the street sees you to how adept you are at foreign policy. As in the case of flatulence, say, a trait can even affect how much your palace guards are paid to protect you.

Despite such omnipotence over your environment, you’re no Svengali — you don’t directly control what your Tropicans think and do. But you can certainly influence them through your actions (or inaction, as the case may be). Fail to build housing, schools, or clinics for your populace, for example, and you risk the wrath of socialist factions. Place too heavy an emphasis on industrial or commercial development without taking steps to beautify Tropico and reduce pollution, and you’ll incite environmentalists to rally against you. Fail to build and maintain a strong military presence, and you may be ousted by a junta. Meanwhile, you must try to balance effective relationships with the outside world, keeping both los yanquis and los comunistas at bay.

Of course as El Presidente, you don’t necessarily have to play by the rules. Heck, you can make the rules. If the people demand an election, do you have to listen to them? Not at least, not for a while. And even when you do grant one, you can hire a team of “specialists” to make sure sure the election results are in your favour. Having trouble with a particular insurgent who threatens the stability of your regime? You can make the insurgent disappear, but you’ll have to pay for it (and the respect you lose will be damaging).

If you’re serious about making Tropico a better place to live, invest extensively in improvements to the tiny country’s infrastructure. You’ll need to plant crops that can be sold or turned into lucrative export goods, such as rum and cigars. Exploit local resources, such as mines. As Tropico’s citizens grow more sophisticated, they’ll expect more from you. They’ll want better pay. They’ll want to live in houses and apartment buildings rather than squallid shacks. You’ll need to build them schools, universities, power plants, and better sources of entertainment. You may even want to consider underwriting the development of hotels, spas, and resort locations to bring in tourist dollars.

Of course, you don’t have to go the humanitarian route, and for some, this is what makes Tropico so appealing. You can exploit almost every element of Tropico for your personal interest. You can divert money to a private Swiss bank account. You can keep the population under your thumb by imposing martial law and issuing draconian edicts that make it dangerous for the average ciudadano de Tropico to step out of line. In Tropico, it’s all up to you.

As complex as Tropico can be intimidating for first-time players. The many tasks to perform and factors to observe can overwhelm. PopTop strongly recommends that first-time players utilize the built-in tutorial, and I heartily agree. You can play the tutorial for free with the 200MB demo’s that’s on this month’s second CD.

Tropico also comes with a well-written manual that thoroughly explains the game’s major elements, and provides helpful tables explaining how it works.

Another suggestion for first-time Tropico dictators is to play your first games in Sandbox mode. You create a custom scenario by lowering the political difficulty and reducing the difficulty of the game. You can familiarize yourself with the mechanics of the game and learn what works and what doesn’t. If not for Tropico’s Sandbox mode, you might not have been able to control a banana republic without a god complex.

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Alternatively, register your interest at MacExpo (22-24 November, at the Business Design Centre, Islington, London N1). Visit Macworld at Stand 170 to get full information on a variety of great subscription offers, and immediate membership to the Club.
It's a world where good and evil sometimes merge to grey. It's the world of Baldur's Gate II, successor to its eponymous prequel. Built to integrate the rules of the hugely successful Advanced Dungeons and Dragons (AD&D) role-playing game universe, the action extends over four CDs – each packed with challenges set in beautifully rendered landscapes.

Baldur's Gate I was a five-CD sword-and-sorcery marathon that took more hours to play than it takes to read Lord of the Rings. Gamers explored every rich nook and cranny of the super-evolved gaming universe, digesting every aspect of the compelling storyline that cast them, with a chosen group of NPCs (Non-Player Characters), as the heroes out to save the good folk of the Sword Coast.

You choose your hero's race – human, elf, half-elf, dwarf, gnome, etc. You also get to choose your character's profession – magician, thief or cleric, thief or ranger, paladin, druid or, for non-human races, a combination of all three. You choose whether you're a good, evil, chaotic, neutral or law-abiding soul? Then the game begins. It's the smooth game-play, compelling story line and real sense of identification with the characters that made the original Baldur's Gate one of the most successful games around.

The central proposition of Baldur's Gate II is that evil lurks within – players decide whether to indulge themselves in it, or, by abnegation of the dark side, transform themselves into the heroes of this far-flung outpost of fantastic imagination.

It's a world of intrigue. Gate II lets you import characters created in the first title, so players can use familiar characters to explore the action. Players awake caged in a dark, filthy, unfamiliar place. With a little help, they escape their cage, meet old friends and new, and begin the long, bloody and dangerous escape their cage, meet old friends and new, and begin the long, bloody and dangerous

The interactions between non-player characters are relatively amusing – though it can take one to turn a profit. I'd never have found out how lucrative a rum distillery can be or how long it takes to become adequately on my Mac/500 running Mac OS X 10.0.4. Tropico supports hardware-based graphics acceleration, so if you have an OpenGL-compatible video card, you’ll get smoother graphics and richer colours. But if you don’t have a video card that can run Tropico in hardware mode, game play isn’t diminished with the software renderer. Tropico has no online-play component, but that’s a minor shortcoming. The game is fully absorbing, and it’s a lot of fun – even without death matches.

¡Viva Tropico!

Every so often, I find a game that I fear I’ll have to delete from my hard drive, lest I suffer a major productivity hit. I last hours playing, oblivious to the outside world as I tended carefully to mi pais, mi Tropico. If you’re a fan of sim games, you should definitely plan a vacation to Tropico.

Peter Cohen

Top Ten UK Games

1. Escape from Monkey Island
2. Tomb Raider: The Trilogy
3. The Sims House Party
4. Tropico
5. Tony Hawk's Pro Skater 2
6. American McGee's Alice
7. Summonger
8. Tomb Raider Chronicles
9. Baldur's Gate Tales of the Sword Coast
10. Diablo II Lord of Destruction

List supplied by Softline
The Mac community has been buzzing about Mac OS X for years. But even Apple admits that all of Mac OS X’s incarnations – from last year’s Public Beta to this spring’s first “final” release – were fit only for those wishing to explore and exploit the new features of its Unix-based operating system. For these early adopters, OS X was a glimpse into the future. The rest of us sat back and waited for that future to arrive.

With Apple’s newly released Mac OS X 10.1, the future is finally here. Armed with improved reliability, dramatic speed boosts, several interface improvements, and a clutch of native software, this new release is the first version of Mac OS X that’s truly ready for general use.

OS X comes off operating table

Mac OS X 10.1 is clean, mean – and on the scene. By Jason Snell
The reality is, the first release of Mac OS X was really a beta, not a fully cooked (see “Are You Ready for OS X?” June 2001 Macworld). It was slow, lacked software and hardware compatibilities, and omitted countless features that users of Mac OS 9 had taken for granted. Mac OS X 10.1 gives a long way toward addressing all of those problems. And while this version still isn’t a feature-for-feature match for Mac OS 9, it’s no longer a step back. Instead, it combines much of Mac OS 9’s functionality with improvements that make upgrading to Mac OS X a serious possibility for even the most dyed-in-the-wool Classic Mac OS enthusiast.

**Speed boost**

Apple says Mac OS X is “four times faster” than Mac OS 9, and the Finder was especially sluggish. Anyone who tried to resize a Finder window in OS 9.2.x — only to watch as the OS struggled (and usually failed) to keep up with the speed of your mouse — will know what we mean.

But Apple says version 10.1 is “all about performance” — and it shows. The Finder is now quick to respond to clicks, double-clicks, and drags — in many cases, faster than OS 9. Menus drop from the menu bar with a speed far greater than they did in version 10.2. And anyone a moderately-sized folder opening, in a blink of an eye.

Launching applications is also much faster. With a couple of applications running, a new app launches in a single “bounce” of the program’s title at the Dock. The more programs running, the longer it takes to launch a new one. But application launching is no longer the trial it was in the initial release of Mac OS X.

Drawing 3D graphics on the screen gets a big boost in version 10.1. Apple says that the speed of graphics, where OpenGL has improved by 20 percent in this release. In addition, OS X 10.1 offers faster support of the GeForce2 MX and MX500 cards.

According to Apple, every dimension of the OS X has been modified to improve performance: its graphics components, improved the OS’s virtual memory system, file system, graphics subsystems, and made many small speed improvements. The result is a system that feels eminently usable — a big change from the hate-tearing experience that was using version 10.0 on a G3 system.

**Interface modifications**

Giving Mac OS X a speed boost may have been Apple’s primary focus, but Mac OS X 10.1 also features a host of interface changes. Some are productivity-boosting new additions, while others are tweaks to some poorly-thought-out features from OS X’s first release.

**Quick access**

In the original release of Mac OS X, many common-system preferences were hidden in the recesses of the System Preferences application. In 10.1, Apple has brought control over many of these preferences to the forefront, by adding them to a series of icon menus in the right corner of the Mac OS menu bar.

This new method lets you view a portable Mac’s battery status, set your system volume, monitor AirPort signal strength and choose AirPort servers, and modify display and networking settings — options that could be controlled with similar ease from Mac OS 9’s Control Strip.

Even the clock in the top-right corner is now a drop-down menu — if you pull it down, you can see today’s full date, day, and time, and have quick access to clock settings and the Date & Time preference panel.

In Mac OS 9 and earlier, third-party software developers could add similar icons to the Mac menu bar, but in Mac OS X, these bar items are limited to those provided by Apple for controlling system preferences. The developers of Customized versions of OS 9 software that modified the menu bar — Palm Desktop and Tumbulkru Pio, for example — will be forced to find other ways of providing quick access to their software’s features.

While Apple hasn’t let those developers have access to the menu bar, they can use a quick-access alternative: the Dock. Developers can create items that sit in the Dock and provide users with a set of commands when they click on that item’s icon. For instance, a Mac OS X-savvy version of Palm Desktop could have an icon in the Dock that, when control-clicked, would reveal the current day’s appointments and to-dos, as well as shortcuts to launching the full Palm Desktop application or making a quick appointment — just as in the Mac OS 9 menu bar.

**Dock twists**

The biggest change to the Mac interface in OS X was the addition of the Dock, a strip of icons that displays running applications and minimized windows while also being a launcher for commonly-used items. The OS X 10.1 Dock offers a few twists: You can now move the Dock from its standard position at the bottom of the screen to either the left or the right.

Apple now offers two options for the “minimize” effect used when you move a window into the Dock or remove it from there. In addition to the over-acclaimed Genie Effect, there’s now the much fatter and less gaudy Scale Effect, which shrinks down the window (without any processor-intensive warping effect) in a box to the Dock.

Another tweak to the Dock actually alters an interface quirk that’s been with the Mac since it was first introduced: namely, the mixed metaphor that is the Trash. Logically, when you toss a document into the Trash you expect to throw it away. But does it really make sense, especially for novice users, that a disk can be ejected by dragging it to the trash? Many of us can report stories of terrified new users who were convinced that any disk they dragged to the trash would be erased.

In OS X 10.1, the Trash icon transforms itself based on context. If you drag a document into the Trash, it remains the trash. But does it really make sense, especially for novice users, that a disk can be ejected by dragging it to the trash? Many of us can report stories of terrified new users who were convinced that any disk they dragged to the trash would be erased.

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The ability to either in a sequence of modding keys as a key combination.

from the Apple Mac, you can enable a feature that lets users use the numbers on the keyboard to control the mouse. You can or eliminate the capability for a mouse dialogue box by using the Keyboard preferences panel.

Even the clock in the top-right corner now displays arrows or single arrows at the top and bottom. From the Mouse tab, you can adjust size the system should begin automatic anti-aliasing text. Options control panel. You can also choose at which point the Apple menu – a feature from Mac OS 9’s Apple Menu.

Apple’s support for digital cameras is better than ever. 10.1’s Image Capture application – an emerging standard for communicating between camera and computer. It’s a camera, and pictures will be automatically transferred to a destination of your choice.

Major update to Apple’s next-generation operating system

Mac OS X 10.1

Author: Apple

Date: 10/11/01

Version: 85

Mac OS X 10.1

OS X gets connected

OS X was designed to make it easier for the operating system to be a good cross-platform partner for Windows PCs. From file names to networking, Mac OS X has been designed to work with non-Apple laser printers.

A method of sharing files that’s growing in popularity, especially among Web designers, is WebDAV which uses Web-server technology to create file-sharing connections with less overhead than traditional networking protocols. It’s been implemented for some such Adobe Creative Suite applications, but wasn’t supported for shared Macs in Mac OS 9.0.1. Until now.

File names have changed in the first release of Mac OS X was support for DVD video playback. But 10.1 includes the DVD Player 3.0 application, and the result is a DVD viewing experience that’s as good, if not better than, that of the old Mac. In addition, OS X 10.1 is much more savvy about using filename extensions – needed for Macs to recognize files with extremely long names.

Additionally, OS X 10.1 is much more about using filename extensions than the Classic Mac. OS X 10.1 supports long file names – OS 9 has, but OS X lacked – and can take advantage of the SDAP (Simple Object Access Protocol) to easily access data stored on remote XMI-based database servers.

A better digital haul

In January, Steve Jobs first talked of his vision of the Mac as a “digital hub”, as the nerve centre of a collection of digital devices, from cameras to TVs, that can communicate with consumer audio and video devices. Not surprisingly, Mac OS X 10.1.0’s Imaging extensions have been improved and streamlined features in line with the Apple CDS strategy.

DVD arises

One of the glaring omissions in the first release of Mac OS X was support for DVD video playback. But 10.1 includes the DVD Player 3.0 application, and the result is a DVD viewing experience that’s as good, if not better than, that of the old Mac. In addition, OS X 10.1 is much more savvy about using filename extensions – needed for Macs to recognize files with extremely long names.

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DVD Player can also do much more than just view DVD video, and can work with 1080i video, H.264 video, and stereo audio.

Data burning

Although OS X 10.0 didn’t support the burning of CD media, it allowed users to burn audio CDs, and insert CD-RW discs. Now, with OS X 10.1, you can burn data CDs and CD-RW discs (as well as 8cm MiniDiscs). You can even modify files on the disc – OS X actually changes the data on the disc to accommodate a temporary file that contains the contents of your disc, and allows for limitless changes until you’re ready to burn. When choosing “Burn” from the Finder toolbar, or dragging the disc to the Trash – which can be very useful, and the Undo command works. In addition, the disc in the temporary directory is burned to the disc. Voila! You’ve burned a disc from the Finder.

In addition, OS X 10.1 supports digital-for-digital conversion. The system has a better-than-CD quality for compact discs, even when burning in the Mac’s SuperDrive models, 4.7GB DVD-R discs. When you insert a disc, the system will automatically detect it as a DVD and adjust its performance accordingly. On a 500MHz iBook, that didn’t work – but in 10.1, it does. On a 700MHz PowerBook, DVD playback is smooth.

Video editing was a hiccups or hesitation in either the DVD player or the Mac’s SuperDrive. On a 500MHz iBook, that didn’t work – but in 10.1, it does. On a 700MHz PowerBook, DVD playback is smooth.

WebDAV

Although OS X 10.1 doesn’t support FileVault, it does include a web-based setting that can be used to enable or disable FileVault. With this feature enabled, the system will automatically detect the media type and adjust its performance accordingly. On a 500MHz iBook, that didn’t work – but in 10.1, it does. On a 700MHz PowerBook, DVD playback is smooth.

FileVault

Apple has changed the way the Mac handles security issues. Now, the OS is much more savvy about how Windows-style file-name extensions (like “.doc”) are handled, and can even hide those extensions from the Finder (see “File sharing, and other dangers.”)

In addition to those changes, OS X 10.1 can now handle long file names that can be found in Windows since the advent of Windows 95. In version 10.0, files could have names as long as 255 characters, but the Finder couldn’t display them. With 10.1, the Finder can display file names on two lines when in icon mode, making it easier to recognize files with extremely long names.

Network 802.11b

OS X 10.1 has got a much better in a network when it comes to dealing with Windows files sharing. In addition to the fact that OS X 10.1.2 is an SMB (Server Message Block) client, meaning that Macs can now connect to PC servers without the help of an add-on such as the Apple Remote. A method of sharing files that’s growing in popularity, especially among Web designers, is WebDAV which uses Web-server technology to create file-sharing connections with less overhead than traditional networking protocols. It’s been implemented for some such Adobe Creative Suite applications, but wasn’t supported for shared Macs in Mac OS 9.0.1. Until now.

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Except for a few risk-takers, most of us don’t welcome major change. We need convincing evidence that we’ll benefit by leaving our comfortable ruts. This is especially true when the change involves something we use everyday, something that our livelihoods depend on—such as our operating systems and software programs. With its release of Office v.X, Microsoft may have given Mac users a reason to leave the rut of OS 9. Thousands of us rely on Word, Excel, Entourage or PowerPoint, and now those applications run natively on Mac OS X. In fact, you can’t get the new versions any other way. Unlike some programs that work in both Mac OS 9 and OS X, this new version of Office runs only in the latest version, OS X 10.1 (see page 80). In a very real sense, the arrival of Office v.X legitimizes OS X.

Smart Office

With Microsoft Office v.X, Mac OS X has its first killer app.
By Tom Negrino
Two beta Xs In preparing this first look, we used a beta copy of Office X on a pre-release version of Mac OS X 10.1. Entourage X and PowerPoint X were clearly shoehorned into Outlook Express' aged user interface—its enhanced address book, calendar, tasks, and notes—was clearly shoehorned into Outlook Express' aged user interface. The enhanced address book, calendar, tasks, and notes were clearly shoehorned into Outlook Express' aged user interface.

PRIME POINTS

• Macintosh Business Unit. Much of that struggle went into more than a year— for more on Microsoft's busy Macintosh Business Unit, where the group manages the design usability and user interface projects. Besides Entourage events, Office X and PowerPoint X comparatively short shrivel in this revision.

Entourage X From a user interface standpoint, Entourage 2001, Office X's big addition, wasn't much more than a buffed-up Outlook Express 5. Personal information manager features—the enhanced address book, calendar, tasks, and notes—were clearly shoehorned into Outlook Express'. aged interface. No longer, Microsoft went back to its interface mechanics for an extensive overhaul (see "Entourage X's new look").

Easier to switch Besides the Aqua look, you'll find big buttons that switch between Email, Address Book, Calendar, Notes, and Tasks, plus the vastly improved Custom Views (more on that later). For the keyboard oriented, each task area has a keyboard shortcut for quick switching.

All-over aquafication All of the programs have been revised to follow the Aqua visual guidelines, which adds a beautiful new look, but may cause experienced users some confusion and re-adjustment. For example, Word's Replace command has always been in H, but Aqua reserves that keystroke for finding the current application. So Word X now uses Ctrl+Shift+H for Replace.

A change of sheets Office X now uses Aqua's 'sheets' for saving files, sheets are special dialog boxes that slide down from the title bar of a document window (see "Tilesheet"). With sheets, you never lose track of which window a dialog applies to. And because sheets are attached to the document, rather than the application, you're freed from an annoying Mac OS 9 trait: being stuck in an application by a dialog box that must be dismissed before you can continue. If you're in PowerPoint when your Entourage calendar demands your attention, for example, you can take care of it right away.

Quartz transparency Taking advantage of yet-more new Mac OS X technology Office X's graphics layer for its drawing tools, allowing aliased and transparent graphic objects (see "Transparently obvious"). Transparency may not sound like much, but it can make a big difference in your documents. For instance, transparent elements in PowerPoint, Word, and Excel charts can help you present your data more clearly.

Even though Quartz-driven transparency is a Mac OS X only feature for Office, documents with transparent objects are still readable in older Mac and Windows versions of Office. These applications display the transparent parts of the graphics as different patterns, and you can't edit the transparency level.

Easy on the eyes A large part of updating Office's interface required creating 700 new icons and changing 800 dialog boxes. Toolbars and their icons are bigger, more colourful and more detailed, making them easier to understand—and Nice to look at, too.

Scroll and click Thanks to the built-in support in Mac OS X 10.1, Office X's applications are used to see some features in third-party mice and keyboards. Mice with scroll wheels and two buttons work, clicking the right button is the same as Control-clicking, giving you easy access to context menus.

Entourage X's new look Entourage X's personal information manager features have a way to go before they can go head-to-head with Microsoft's Outlook. Personal information features have a way to go before they can go head-to-head with Microsoft's Outlook. Entourage X's personal information manager features have a way to go before they can go head-to-head with Microsoft's Outlook.

Tell me about it Calendar evolution. Colour-coded days indicate when tasks come due, not just whether they're in your Address Book, and the most often used names are prioritized, migrating to the top of the list. If you accumulate too many names, you can clear the list, or even turn it off altogether.

Entourage's new look Entourage now displays a new toolbar that lets you switch between the program's major and Mail functions.

Calendar evolution Entourage X has undergone more than the Calendar view. Besides the central calendar pane, which can switch between Daily, Weekly, or Monthly panes, the Tasks pane and the Themed panels have been reorganized for better usability.

Calendar views Entourage's new toolbar allows you to switch between Daily, Weekly, or Monthly views. The Tasks pane and the Themed panels have been reorganized for better usability.
Word X

The most useful new feature in Word is noncontiguous text selection, which allows you to select one or more separate blocks of text in one operation. Select the first block of text, hold down the Command key, then select the next block or blocks and get as many different business units as you need when next operation to all of the selected text. Let’s say you’re formatting a report with headings at the start of each section. You can select the heading at each heading as you go, then apply a style with one click.

Noncontiguous selection also allows you to pick and choose parts of your document for tasks such as spell checking: you can spell check the body of a report without stopping; laboriously typing through a table of names and addresses in the middle of the report.

Clear the decks One long-overdue new feature is the ability to delete a formatting of a selection, which resets the selection to the default style for that paragraph.

Excel X

Although there aren’t a lot of new features in Excel, the program feels surprisingly fresh, again thanks to Quartz and Aqua. Text and numbers in cells seem crisp and easier to read, and improved shading in the row and column bars make it more obvious which cell is selected. When you edit a cell, it appears to lift a bit above the rest of the worksheet – a drop shadow that makes it abundantly clear which cell you’re working on. (See “Excel gets obvious.”)

Custom shortcuts For hardcore users, the most useful add-on to Excel X will be customizable keyboard shortcuts. Just as in Word, you can add, reassign, or remove keyboard shortcuts. If you’re using Excel in multiple versions, this will be especially useful to owners of Office 2001 who re-mapped many long-standing shortcuts, such as [Shift]+[F2] to take you to a cell’s contents. Excel X’s new keyboard customization allows long-time users to restore those old, familiar key shortcuts.

Transparent charts Excel uses Aqua graphics to improve how it shows you which cell is active, with better row and column bar shading, and by appearing slightly raised when active, allowing you to see which cell is active, with better row and column bar shading, and by appearing slightly raised when active, allowing you to see which cell you’re working on. (See “Excel gets obvious.”)

PowerPoint X

Like the rest of Office, PowerPoint lets you set the transparency of drawing objects or pictures, and it uses Quartz’s anti-aliasing and layout abilities to anti-alias text on your slides, making for clearer presentations.

Quartz’s text manipulation and layout abilities to anti-aliasing, jagged chart lines are a thing of the past. Because of Quartz anti-aliasing, jagged chart lines are a thing of the past.

Data recovery Excel now has an AutoRecover feature that automatically saves a copy of your work, with a one-minute interval. If Excel crashes and you haven’t saved your work, you will still have a copy of your work on your hard drive. It’s not fancy, but it’s a bit of a relief.

OS 9 support The Office 2001 package will remain available for users of OS 9 and earlier, but it has been placed into “maintenance mode.” Updates, if any, will be bug fixes and adds to the feature set of the program. What is new is that native Office on OS 9 applications (see page 80).

Inside Microsoft’s Macintosh Business Unit

Microsoft: It’s a word that you can say to 20 different Mac users and get as many different business units. There was a time when Microsoft would have a technology that I couldn’t even hope to offer my Mac customers. Now, I look at the Mac as a business as having a mission to look at everything differently. I’ve worked hard to make sure that we understand what the Mac customer wants, what they need, and then be able to provide those to them.

The release of Office v.X will give Mac OS X validation in the business market. The MacBU is going to support all of Mac X’s needs to sell the Mac as a business product.

Apple versus Microsoft

Apple’s relationship with Microsoft has been more open given as the past year, as the MacBU found itself more confident in its products. The message in May of this year that Microsoft considered the company a rival to Apple, was very simple – get over it. At Macworld Expo this year, Kevin Brown, the group’s general manager, announced the MacBU as having a mission to look at everything that Microsoft is doing internally to the MacBU as having a mission to look at everything that Microsoft is doing internally.

The MacBU has become more outspoken over the past year, as the MacBU developed a new focus on the Mac’s products market, and brought Internet Explorer and Outlook Express to the Mac. The MacBU has been more outspoken over the past year, as the MacBU developed a new focus on the Mac’s products market, and brought Internet Explorer and Outlook Express to the Mac.

The people at the MacBU share the feelings of many Mac users who say this was not a good product.

Lens flair
High-resolution digital cameras tested and rated.
By David Fanning

If quality images suitable for Web use is what you want from your digital camera, then a good 1-megapixel model will suffice. However, if you wish to use your camera in conjunction with a photo-quality printer to create A4-size images striking enough to hang above the fireplace, then the camera you need should be in the 3-megapixel bracket. (Megapixel means a million pixels. The more pixels, the larger it can be at high quality.)

There exists a bewildering range of cameras, offering a profusion of diverse technologies and resolutions – making it difficult for novices to negotiate both the cameras’ specifications and the performance claims of manufacturers. Here, we strive to strip matters down to the key issues and features.

Technologies
One camera on test – the Canon EOS D30 – employs a new way to capture images. This D30 uses a CMOS chip (Complimentary Metal-Oxide-Semiconductor) rather than a CCD (Charge Coupled Device).

On the plus side, CMOS offers low power usage, yet high-level signal-processing capabilities – thanks to the size of the chip. Unlike tiny CCDs, the CMOS chip in the EOS D30 is a chunky 23.5-x-15.5mm. This means pixels are bigger, so better at collecting light. The more light collected, the better images will be. Also, because the area collecting data is bigger, the image can be focused on a larger area. This means that CMOS-based models can use SLR lenses; you can interchange lenses designed for the Canon range of film cameras with the EOS-D30. CCD models, though, rely on specially...
**Product scores**

Bar-chart quality scores run from 0–10, and reflect specific aspects of performance. Star Rating is an overall score, encapsulating these individual scores, plus any other factors relevant to your choice of purchase.

**Resolution**

The most quoted digital-camera specification is resolution – the number of pixels in an image is in mega pixels. This is the number of pixels actually used by the camera. There’s also a difference between the stated resolution of image-capturing chips and the number of pixels actually used by the camera. This is because pixels around the edges of the chip serve no useful purpose. Of course, this doesn’t stop camera manufacturers from quoting chip resolution rather than maximum output-resolution. Hence models like the Olympus 7 has a 2.2 megapixel resolution, but in fact is a 4.95 megapixel model. This is the equivalent of a 2.1-inch monitor having a 20-inch viewable image. In the specifications quoted in this feature, we state both actual and claimed resolutions, allowing you to compare them.

**Storage**

The cameras on test all have high-resolution models, and, as such, require hefty storage solutions. There are three main types of product:

- **Compact disk**
- **CompactFlash**
- **Digital Video Sysmcard**

**A question of power**

The downside to digital cameras is that they’re hungry for power. None of the solutions to this is perfect, but some are better than others. The least palatable solution is disposable batteries. A better solution is rechargeable batteries, but extra sets are often needed because of limited power-up time. One of the most popular solutions is the hybrid solution. This is a rechargeable single battery that holds a bigger charge than AA batteries. Many of these can be charged in the camera, precluding the need for charger packs.

Olympus has taken a different tack, by using non-rechargeable lithium ion cells. Its Camedia 4040 Zoom uses two of these cells – which have a remarkably long life of months, rather than hours. Such battery longevity is a real convenience, but the downside is that they are £10 each – adding to the long-term cost of the model. The best solution is to use rechargeable batteries. This way, you’ll always have power, but without the expense of non-rechargeable batteries.
### Ricoh RDC-i700

The Ricoh stands out from the other cameras on test because it's also a personal-information manager and a mini-laptop. It has built-in memo pads and slots for Compact Flash and a PC Card. This means it offers a high storage capability plus the ability to take a modem card. Armed with these, you can take a picture, edit it with the built-in software, plug the camera into a phone socket, and then email it around these, you can take a picture, edit it with the built-in software, plug the camera into a phone socket, and then email it around.

The i700 is compact, but heavy. Its 3.5-inch touch-sensitive LCD screen is massive by comparison with that offered by the other cameras, and it also lets the user draw and navigate using a bundled stylus pen.

### Sony DSC-S75

The DSC-S75 is a progression from last year's DSC-S70, but retains a relatively simple camera that sits between the consumer and professional markets. It offers high-end features such as shutter and aperture priority, as well as a quality Viewfinder highs. This means that, with a little knowledge, anybody will be able to achieve great images from this camera.

It also caters for the gadget-conscious consumer, with its voice and video capabilities. It even warns the user if the lens cap has been left on. Because this is a Sony camera, it uses the Memory Stick for storage. It also allows for file transfer using USB.

### Toshiba PDR-M65

Compared to most of the other cameras tested, the Toshiba is childishly simple. It is a digital version of a point & click camera. It lacks some of the advanced features that the other cameras boast, but it requires less commitment from the user, however, variable ISO sensitivity of 100, 200, or 400 – and macro focusing – does give it some versatility. You should be able to get by with only passing references to the manual. The supplied BMB SmartMedia card is too small for a camera that’s capable of producing high-resolution images, so you’ll have to buy a bigger card. And disappointingly, unlike Toshiba’s other cameras, it has no LCD-panel illumination.

### Table of Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Ricoh RDC-i700</th>
<th>Sony DSC-S75</th>
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### Zoom with a view

Digital cameras can have two types of zoom – optical and digital. Optical is the traditional type, and uses moving lenses. Digital enlarges pixels, in the same way that scanners interpolate images to give the appearance of higher resolutions, but without adding any information to image. If you want a zoom facility, look for the model’s optical-zoom capability as a true guide of its capability.

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Storage for digital cameras: CompactFlash, Smart Media and Memory Stick (MS). MS is exclusive to Sony, while CompactFlash is the most widely used of the formats, and offers the most flexibility. There are two types of CompactFlash cards: One and Two. Type One cards are more common. However, type Two cards – such as the IBM MicroDrive – have mass capacities of up to 1GB.

Because storage cards add to the price of cameras, manufacturers tend to skim on them. The largest bundled card is a measly 16MB. Fortunately, card prices are coming down, so it’s worth investing in extra capacity. Expect to pay around £1 per MB.

Size

Camera bulk can be a key purchasing-factor for amateurs, most of whom prefer their cameras to be pocket-sized. Just like heavy laptops, weighty cameras tend to get left in drawers. If you’re likely to get most use out of a compact, lightweight model, then buy one.

Video

Most of the cameras on test can capture short-span video clips. This is a consumer feature that looks good. But, in truth, its usefulness and practicality is limited. If you want digital video, buy a digital camcorder.

continue page 98
Macworld’s buying advice

If you’re a professional photographer, the Canon EOS-D30 is your only real choice from those on test. If you’re already using a Canon SLR film camera, there’s a good chance you’ll be able to use some of the lenses and flash equipment. It’s a Digital SLR that makes it possible to use lenses designed for film cameras. This camera should appeal to professional photographers looking to take a first step into digital photography. For people already using Canon EOS film cameras, the controls will be familiar. For novices, having so much control may be daunting – but the same applies to equivalent film cameras.

HP Photosmart 715

The HP Photosmart 715 is the company’s very latest digital-camera offering. This is its first 3-megapixel model, and it boasts HP’s no-nonsense, straightforward approach that it takes to most of its products. Like Epson, HP has a special advantage in making digital cameras; they are designed to compliment the inkjet printers that are HP’s mainstay. The 715’s control interface is simple and friendly, meaning most users could quite easily use it without needing to resort to a manual.

Even more striking than the 715’s elegant interface is its price: at only £349, it’s the most affordable 3-megapixel camera on test. This represents remarkable value for money, being half the price of the equivalent Sony model. It may have a few less bells and whistles, but it does a fine job of taking pictures.

Minolta Dimage 7

Of all models on test, the Dimage 7 offers the highest resolution, clocking up 5.2 megapixels. Its output, though, managed to top figures of only 4.55 megapixels. It has a 7x manual optical zoom, rather than the motorized zooms seen in the other models. This gives a traditional feel, despite its high-tech nature. It comes with a 16MB CompactFlash card, which is a tad stingy, considering that a single uncompressed image at maximum resolution can take up to 13MB of this. If you plan to use this camera for high-resolution images – which is its point, after all – you’ll need to buy at least a 64MB card, preferably larger.

The Dimage is compact camera, and you’ll need to read the manual to get the best out of it. One feature I liked was a special sensor that is triggered when you look through the eyepiece, and which shuts down the LCD display – thus conserving power.

Canon EOS-D30

The EOS-D30 is unlike the other cameras featured here. It’s a Digital SLR that comes with all the features needed for a professional photographer. The price doesn’t include a lens, although Canon SLR-owning photographers may well be able to use a compatible one. The D30 is compatible with a range of lenses from Canon. Check with Canon first.

One of the D30’s main features is its jumbo-sized CCD. The bigger pixels allow more light to be recorded and, therefore, produce better images. It’s the larger CCD that makes it possible to use lenses designed for film cameras. For people already using Canon EOS film cameras, the controls will be familiar. For novices, having so much control may be daunting – but the same applies to equivalent film cameras.

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Be a layer player

Use Dreamweaver to animate layers and bring life to Web sites. By David Sawyer McFarland

The latest crop of Web browsers lets you move layers around the screen to produce exciting animated designs. This kind of dynamic behaviour generally requires a deep knowledge of JavaScript and Cascading Style Sheets, as well as the experience and patience to deal with the differences between the various browser brands.

Fortunately, all of the required programming skill and Web development experience is built into Dreamweaver. With Dreamweaver’s Timeline tools, you can create elaborate animations, and even time-based actions like automated slide shows. Programming animation requires that you specify two things: movement and time. Imagine a ball moving across the screen; it takes the ball two seconds to travel from the left side to the right. A Web browser creates animation by drawing the ball in several different positions over several fractions of a second, so that you see the effect of smooth motion across the screen. Each of these drawings occurs in a moment of time, referred to as a frame.

Playing around

A Dreamweaver timeline can play back either when the page first loads, or when your visitor does something that you specify. For instance, you can add a button to a page that, when clicked, plays an animation on the screen. To create an animation, you’ll place a graphic into a layer, and then direct that layer to move around the Web page. Animating a layer involves some very sophisticated JavaScript programming code. In fact, the code required to animate a layer can take up more lines than the actual HTML of the page. Trying to create such a program yourself could take weeks. But Dreamweaver can do it in seconds by recording the movement of your mouse as you drag a layer around the window.

To draw an animation on the screen, select a layer to animate. Now choose Modify-Timeline-Record Path of Layer; the Timelines panel appears, and Dreamweaver is ready to record your animation.

Grab the layer by its selection handle or border and drag around the page. A trail of grey dots follows the cursor, indicating the path the animation will follow. Dreamweaver doesn’t record the timing of your drag, just the path. You’ll specify the speed of the animation later, as described in “Animation’s no drag”. When you release the mouse, a dialog box appears. It tells you that you can animate the following layer properties: Left, Top, Width, Height, Z-index, and Visibility. In addition, you’re told that Netscape Navigator 4 can’t animate the width and heights of layers. Click OK. A grey line appears across the document window.

Animation’s no drag

The easiest method of creating an animation simply requires you to drag a layer along the route you want the animation to take. Dreamweaver can record this path and save it as an animation.

TIP

Because looping immediately jumps from the end of the animation to the beginning, make sure whatever you’re animating starts and ends at roughly the same place on the page. Otherwise, it will look as if the layer suddenly disappeared from one area of the page and then reappeared somewhere else.
winding its way along the path you just created; and a line with a series of hollow dots appears in the now open Timelines panel, as shown in “Animatoin’s no drag.” If you turn on the Autoplay check box, the animation will play as soon as the page loads.

This is a common choice, since it plays your breathing animation immediately upon your visitor’s arrival. You can, however, start the animation by other means using the Play behavior in the Timeline behavior panel.

In addition, if you want to repeat your animation over and over again, turn on the loop box. At this point, you can press F12 to preview your animation in a browser. You can also preview it right in the document window using the Timelines panel (see “Finding frames,” below). Click the Rewind button, and then click and hold the forward arrow button. Dreamweaver plays each frame of the animation.

Moving properties

Once you’ve added an animation to the timeline, you can edit many of the animation’s properties, such as its speed or movement.

The Timelines panel is the control center for your Dreamweaver animations (see “Finding frames”). Choose Window→Timelines to open it, or press Shift-F9.

The bottom half of the panel displays numbered rows called channels, which denote individual layer animations. For example, in “Key movement,” a single animation sits in channel 1; it’s the solid colour bar with a line winding its way along the path you just created, confident that Dreamweaver will fill in the blank frames with the same position in both key frames; in other words, it doesn’t go anywhere when the animation plays.

By adding occulting key frames, you can tell Dreamweaver where you want a layer to wind up at certain points in its motion, the program automatically calculates the layer’s position in all of the intermediate frames, saving you endless button and grief.

For example, on a brand-new animation with only two key frames (beginning and ending positions), click the second key frame, which selects the corresponding layer in the document window. Drag the layer to the spot on the page where you wish the animation to end and let go. Now when you play the animation from the layer’s starting position to the new ending location. Similarly, you can change the beginning position of the layer by selecting the first key frame and dragging the layer.

Of course, you won’t get far in life just making your layers fly from point A to point B. If you add more key frames between the starting and ending ones, you can create new spots for your layer-in-motion to hit at certain times. (In fact, when you create an animation by dragging a layer around the screen, Dreamweaver generates dozens of key frames, or animation’s no drag.)

To manually add a new key frame, click a frame in the Timelines panel animation bar (one that’s not already a key frame). When you click, the playback head (the red box that appears among the frame numbers) moves to the frame.

Now choose Modify→Timeline→Add Keyframe. A hollow circle appears in the Timelines panel animation bar at the frame you selected. You can also press F6 to add a new key frame at the selected point in the animation bar.

Having created a new key frame, you’re ready to specify the layer’s new position at this point. Confident that Dreamweaver will automatically reorganize your layer during the animation, select the corresponding layer in the document window. Drag the layer to the spot you wish it to appear.

Location is key

Once you’ve selected your new key frame, the corresponding layer is selected in the document window; you can then drag it to a new location. When you release the mouse, Dreamweaver redraws the grey path line to indicate this new position. After all, animation isn’t just about making things go from A to B; it’s about changing the dimensions of a layer at a key frame by changing the W and H fields in the Property inspector.

You can conserve a few precious calories by clicking and dragging the stacking frame you wish to turn into a key frame. The cursor turns into a tiny hollow circle and instantly creates a new key frame.

Each of those animations would appear in its own channel in the Timelines panel. While the number of frames in a channel determines the number of times the Web browser will move the layer, it doesn’t directly dictate the speed of the animation. The speed is determined by the frame rate shown in the fps (frames per second) box. By default, the frame rate is 15fps. The sample 40-frame animation in “Finding frames” would thus take about 3 seconds to play back. If you increased the speed to 8fps, the same animation would take longer to play (around 5 seconds). The lower the frame rate, the more the animation stuttered; the higher the frame rate, the smoother the animation. While compared to a feature film, which runs at 24fps, the default frame rate Dreamweaver supplies may appear less. However, it’s wise to stick with the supplied 15fps; re-drawing layers is a complex process that requires a lot of power from the Web browser (and the computer’s running, you can specify a higher frame rate, but a Web browser may not be able to obey in order to draw each frame, it may need to slow the animation down.

Dreamweaver automatically creates a timeline when you animate a layer by redrawing its path. But you can also add a timeline manually by choosing Modify→Timeline→Add Timeline to the Timelines panel. A new timeline appears, to which you can add layers and create animations.

Easy animation

There’s an Easy Way to animate a layer—just by dragging it. Unfortunately, at this point, you’ll find the Easy Way to be less than accurate; dragging with a mouse is like using a bar of soap to paint the Sistine Chapel.

Fortunately, there’s also a more precise way to select a layer (or several) and choosing Modify→Timeline→Add Object to Timeline. When you add a layer, a new animation bar appears in a channel of the Timelines panel. The animation bar starts out as a solid blue span of 25 frames (one second) that contains the layer’s name and begins and ends with a white dot. To extend the animation’s length, drag a new white dot in frame 15 to the right. For example, if you wanted to make a 20-second-long animation, you’d drag the dot out to frame 150.

You can also move the entire animation bar by dragging the bar along the Time line—a useful tactic when you want to add a slight delay to an animation, or stagger different animations in the same timeline. For example, imagine you wanted to make two snowflakes (this time each with an image of a snowflake) appear at the top of the browser window and float down the page; but you also want the second snowflake to enter the scene about one second after the other. Drag the animation bar with the second snowflake animation so it begins on frame 15, one second after the first snowflake fails.

The white dots in the animation bar, called key frames, are your main tool for controlling an animation. In fact, when you add a layer to the timeline by using Modify→Timeline→Add Object to Timeline command (or by dragging the layer onto a channel), key frames are the only way to give the frame a movement path.

Each animation begins life with two key frames, one each for the animation’s beginning and ending positions. So far, the layer is in the same position in both key frames; in other words, it doesn’t go anywhere when the animation plays.

By adding occulting key frames, you can tell Dreamweaver where you want a layer to wind up at certain points in its motion; the program automatically calculates the layer’s position in all of the intermediate frames, saving you endless button and grief.

For example, on a brand-new animation with only two key frames (beginning and ending positions), click the second key frame, which selects the corresponding layer in the document window. Drag the layer to the spot on the page where you wish the animation to end and let go. Now when you play the animation from the layer’s starting position to the new ending location. Similarly, you can change the beginning position of the layer by selecting the first key frame and dragging the layer.

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Having created a new key frame, you’re ready to specify the layer’s new position at this point. Confident that Dreamweaver will automatically reorganize your layer during the animation, select the corresponding layer in the document window. Drag the layer to the spot you wish it to appear.

Location is key

Once you’ve selected your new key frame, the corresponding layer is selected in the document window; you can then drag it to a new location. When you release the mouse, Dreamweaver redraws the grey path line to indicate this new position. After all, animation isn’t just about making things go from A to B; it’s about changing the dimensions of a layer at a key frame by changing the W and H fields in the Property inspector.

You can conserve a few precious calories by clicking and dragging the stacking frame you wish to turn into a key frame. The cursor turns into a tiny hollow circle and instantly creates a new key frame.

Key movement

You can move any key frame by dragging it in the timeline. To make an animation run longer, drag the last key frame to the right. This increases the total number of frames in the animation. It also spreads out any key frames within the animation bar, making the overall animation slower. To move only the last key frame, and prevent Dreamweaver from redistributing other key frames, press option while dragging the end frame.

You’ll therefore make the layer disappear (or reappear) on cue. Unfortunately there is no way to fade the layer out gradually, it’s either visible or hidden.

To make a layer disappear and reappear later in the animation, click a key frame and set Visibility to hidden; option click consecutive frames to create a series of hidden key frames.

Change the last key frame to visible. Option click the first key frame in order to give the frame a movement path. Click the key frame and use either the Property inspector or layer panel to set the layer’s Z-index.

Imagine a moon, for instance, flying around a planet. It moves from behind the planet at first, orbits around the front of the planet, and then eventually disappears back behind it. In this example, the planet would be in one layer, the moon in another.

At first, the Z-index of the planet would be greater than that of the moon. After the moon moves from behind the planet, you would add a key frame, and increase the moon’s Z-index so that it’s larger than the planet’s, putting the moon layer in front of the planet.

After the moon crosses the face of the planet, you would add another key frame, and set its Z-index back to its original setting — lower than, and behind, the planet.

Width and height

You can also change other properties at each spot, like this Visibility. Use the Property inspector to set the visibility of a layer at a particular key frame.
**Good behaviour**

The Behaviors channel lets you add time-based behaviours to your page. Change the text in a layer every 10 seconds, for example, or write a new message to the Web browser's status bar when an animation reaches its last frame.


**Next month: more from Dreamweaver 4: The Missing Manual.**

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**TIP**

Timelines, frames, key frames, and other terms associated with Dreamweaver’s animation tools are not a part of HTML, JavaScript, or CSS. There’s no tag called key frame and no JavaScript command called play. Dreamweaver’s Timelines panel and animation capabilities are the result of sophisticated programming on the part of the program’s engineers, and as such, are specific to Dreamweaver.

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Only does the layer change size when it reaches that key frame, but it automatically and gradually changes size in each frame in between. (Fortunately, this feature doesn’t work in Netscape Navigator 4 or any version of Opera.)

Once you create a key frame, you can move it in the timeline by dragging it (see “Key movement”). This is how you control the pace of movement between key frames.

The more frames between key frames, the slower the movement; fewer frames means faster movement.

For example, in “Key movement,” a 25-frame animation of a leaf moving along a path has three key frames. The second key frame is selected, showing that the leaf is only about halfway along the path (the grey line). As you can see in the timeline, there are 29 frames from the first key frame to the midpoint.

**Leaf through**

There are only three frames, however, from the second key frame until the final one. In other words, it takes about 20 frames (a little over one second) for the leaf to travel halfway along the path. The last half goes much faster — only about four frames, or less than 1/4 second.

In this example, the leaf will travel leisurely along the screen, until it reaches the midway mark in its path, and will then speed up. If you drag the middle key frame to the centre of the animation bar, the leaf would travel at the same speed throughout the animation.

Directly above the frame numbers that appear in the Timelines panel, you’ll find another row of frames labelled 8. It’s the Behaviors channel. You can use this channel to trigger a Dreamweaver Behavior at a particular frame in the timeline. In fact, you may have already used the 8 channel without even knowing it. When you turn on the Loop box in the Timelines panel, Dreamweaver inserts a Go To Timeline Frame behaviour into the Behaviors channel in the last frame of your animation (see “Good behaviour”, left). This behaviour causes the animation to return to the first frame in the timeline and play again.

Suppose you want an alert box with the word “Boom!” to appear at the instant when one animated layer touches another. All you’d have to do is select the frame where the two layers meet, and then add a Pop-up Message action to the Behaviors channel.

To add a behaviour to the timeline, just click the relevant frame in the Behaviors channel of the Timelines panel — for example, the frame where layers collide. (Click key frames in the animation bars below to see where the action is in any given frame, and then click in the Behaviors channel. The Behaviors channel doesn’t have key frames.) The frame in the Behaviors channel turns black to show it’s selected.

Now open the Behaviors panel (Windows Behaviors), click the + button, and choose a behaviour from the menu. For example, you could make a new browser window pop up by selecting the Open Browser Window behaviour.

After you’ve added a behaviour to the channel, a dash appears in the frame, and the Behaviors panel lists the event (it should look something like this: onclick). Unlike a regular behaviour, you can’t select an event yourself. The frame itself acts as the event, the action is triggered when the timeline reaches the specified frame.

You can move your newly created Frame behaviour by dragging it left or right in the Behaviors channel, or remove it altogether by clicking its frame, clicking its name in the Behaviors panel, and then clicking the “(minus)” button in the Behaviors panel.

You can create several different animations on one page, each on its own timeline and control them. For example, you might want to have a layer fly onto the page when your visitor’s mouse moves over a navigational button, and off screen when the mouse moves off the button. The fly-on, fly-off layer might supply information about where the button leads, or even contain a submenu of additional buttons.

To add an additional timeline, open the Timelines panel (Shift-F9); then choose Modify-Timeline-Add Timeline. A timeline appears in the Timelines field in the upper left of the panel.

Dreamweaver proposes generic names like Timeline1 and Timeline2, and so on; to provide a more recognizable name — for example, for a frame that opens a new window — add a name like “Open New Window.” Select the name of the timeline from the menu in the Timelines panel. Choose Modify-Timeline-Rename Timeline. A dialog box appears, type the new name and click OK.

It’s best to name a timeline immediately after creating it. You can change its name after applying behaviors that control the timeline, they won’t work. You’ll then need to edit each Behavior to give it the timeline’s new name.

If you decide you don’t want a timeline any longer, you can delete it, select a timeline from the Timelines panel, and choose Modify-Timeline-Remove Timeline. (Doing so removes all animations and actions in that timeline.)
As far as the classic Mac OS is concerned, a user is a user is a user. But the Unix core of Mac OS X introduces different user levels. At the top of the heap in every Unix system is a single, all-powerful superuser – also named root (after the topmost directory of the Unix file system). If you have root access, you have ultimate power: you can alter or delete any file or folder in that system.

First, let's back up for a minute. A user who is designated as an administrator can adjust system preferences (such as the network address), update the OS, and roam almost unhindered throughout that system. But sometimes, almost doesn't cut it. For Unix omnipotence, you want to act as root. For example, you may want to adjust some settings that Apple put out of the reach of administrators – such as some system-configuration files or the built-in Apache Web server (see Mac OS X Secrets, September 2001). Or perhaps you want to install some Unix software before Aqua-friendly installers become available. Or maybe you just can't stand not having absolute control over your operating system.

Whatever your reasons, root access is only a few short commands away. Apple doesn't tell you how to enable your root account in OS X – for good reason. As root, you can delete your entire file system in fewer than ten keystrokes. And, logging in to your root account opens up your system to the security vulnerability inherent in any Unix system. If someone cracks your root password, for example, your machine can be taken over remotely. If your root account is not enabled in the first place – as in the default Mac OS X installation – there's a much smaller chance of that happening.

Root of attack
Some Mac users may think they need to enable their Mac OS X machine's root account to do anything serious, but that's just not true. We will show you an alternative that allows you to act as root while keeping your root account disabled, thus protecting against typical network-based attacks.

But root access – even if you don't enable the root account – is risky. To see where you can do the most damage when you gain root access, enter this command in Terminal: ls /.

The root of the matter
By typing ls / at the command-line prompt, you can see a list of the folders at your machine's root level (you can't see them via the Finder), and change permissions using sudo.

The Unix directive needed to execute commands as root is sudo (pronounced soo-doo), which stands for “superuser do.” (Type man sudo in the command line to read more information about sudo.) To use sudo, you must be logged in as an administrator of the system.

To execute a command as the superuser, insert sudo and a space in the command line, before the Unix command that you want to issue. For example, you can use this command to make user jsmith the owner of the file test.html:
Locked trash

Under the Classic Mac OS, you can trash locked files in the Trash by holding down the Option key and selecting Empty Trash from the Special menu. This trick won’t work under OS X. To trash locked files under the new Mac OS, you must open the Trash, click the item you’d like to trash, press ⌘-I (Get Info), and uncheck the Locked option. Once you’ve done so you can discard the file.

QuickTime clash

If you have a Mac that supports Theater Mode – a software enhancement that increases brightness and colour saturation in supported applications – and attempt to use Theater Mode in OS X’s Classic environment, you may run into problems. Applications such as QuickTime Player 4.1.2 that support Theater Mode may cause other Classic applications to behave oddly when Theater Mode is enabled.

Therefore, Apple suggests that you use QuickTime Player 5 when running OS X, which is included with OS X. If you use applications other than QuickTime Player that employ Theater Mode, Apple says you should open the Extensions Manager in the Classic environment, disable the Theater Mode extension, and restart Classic.

A folder by another name

If you rename OS X’s Utilities folder, you alter the path name to that folder and therefore interrupt any processes that require that path name. For example, with this folder name changed, you can’t print because OS X expects Print Center to be inside a folder called “Utilities”, and when it finds it isn’t, the process gives up and refunds to print.

Inside source

Those running OS X who want to know exactly what the Mac OS is doing while it boots can press ⌘-V just after pressing the Power key. Doing so launches the Mac into “verbose” mode – a mode that trails scads of commands that only a developer could love across your screen as the Mac boots up.

‘If you have root access, you have ultimate power: you can alter or delete any file or folder in that system.’

sudo chown jsmith test.html
When you invoke sudo, you’ll be asked for a password. Enter the password for your administrator account. Even though you’re already logged in as that user, you need to enter your password again (for security reasons). Once you’ve done so, you have a short time (five minutes by default) during which you can issue other commands using sudo without having to re-enter a password.

When issuing a series of commands as root, you might get tired of repeatedly entering sudo. Or perhaps you want to run a shell script – a file that, when executed by root, issues a series of Unix commands. You can get root access for as long as you like by invoking sudo -s. To end a superuser session before the power goes to your head, type exit.

Example: Run CGI sample scripts
Now you’ll want to try out your superuser status. Let’s say you want to run the two CGI scripts, printenv and test-cgi, that Apple includes with OS X for use with Apache. However, as installed, they don’t work because the file permissions are set incorrectly.

To briefly explain, Apache is configured to run CGI scripts that are stored in the folder /Library/WebServer/CGI-Executables, as long as the script files are marked as executable (the demo script files aren’t). To reset these permissions, issue the following consecutive commands in Terminal:

```bash
cd /Library/WebServer/CGI-Executables
sudo chmod a+x printenv test-cgi
```

Assuming that you’ve turned Web sharing on via the Sharing panel of System Preferences, you can now run the two sample CGI scripts by entering these URLs in your Web browser:

- http://localhost/cgi-bin/printenv
- http://localhost/cgi-bin/test-cgi

Example: Edit message of the day
You may also need to assume the mantle of superuser to edit files in the usr, bin, etc, and other hidden directories, but you alter them at your own risk. When you’re ready to try it out, one file you can edit with some degree of abandon is the message of the day file in /etc/motd, which is accessible via the command line. The message of the day appears when a remote user logs in to your system from a terminal interface. By default, the Mac OS X message of the day is “Welcome to Darwin!”

To make that message a little more exciting, you can edit /etc/motd with a Unix editor such as pico or vi. The command vi/etc/motd or pico /etc/motd will let you open the file only as read-only. However, if you “sudo” the editing command, you’ll be able to save a more informative message, such as “Welcome to Dave’s Mac OS X. The system will be down tomorrow for maintenance.”

To edit the message of the day or other Unix preferences files via TextEdit instead of pico or vi, drag the TextEdit icon on top of the icon for the shareware application Pseudo ($15; personalpages.tds.net/~brian_hill/pseudo.html).

Example: Install Unix software
Finally, here’s a more complex situation: installing Unix software for which a complete, user-friendly Aqua installer has not yet been created. Perhaps you want to install the free MySQL database to go along with your Apache Web server. There isn’t a Mac OS X-compiled version available for download from the MySQL Web site, but a Web search turns up (among other choices) Marc Liyanage’s Web page (www.entropy.ch/software/macosx), where you can download MySQL compiled for Mac OS X.

Without root access, it is impossible to install this piece of software. An Aqua installer handles most of the dirty work, but the instructions do call for a handful of commands to be run with sudo. (The commands are listed on Liyanage’s Web page.)

There is rarely a need, or a good reason, for OS X users – even those who have above-average skills – to enable the root account. In fact, there are excellent reasons not to enable it – especially since the sudo command allows you to wield the power of root access throughout your system. As our examples demonstrate, sudo gives you the ability to configure (or confound) Mac OS X at its most fundamental level.
Print professionals rely on ColorSync for accurate colour, but that doesn’t mean we like its complexity. Colour-management menus crammed with head-scratching options such as Generic P22 1.8 Gamma Monitor aren’t user friendly. Although colour management may never be easy, you can weed out unnecessary profiles.

ColorSync is the part of the Mac’s system software that addresses the problem of colour mismatches between different monitors, scanners, digital cameras, and printers. For example, when you send the same set of RGB values to several monitors, each one displays somewhat different colours. To compensate for differences between devices, you have to send the appropriate RGB or CMYK values to each device. That’s what ColorSync does – it changes the numbers in a file as it goes from one device to another.

Painting by numbers
Profiles are data files that tell ColorSync what numbers each device needs to reproduce a given colour. One good rule of thumb is that you don’t need profiles describing devices you don’t own or use.

To begin the clean-up, go to your System Folder, open the ColorSync Profiles folder, and set it to List view. If your setup is typical, you could have more than 100 unnecessary profiles in the folder. Start by deleting recognizably named profiles that you don’t need.

Don’t own an Apple Color StyleWriter? Then you can safely drag to the Trash not only Apple Color SW Pro and Apple Color SW Pro SN, but also files such as Color SW 1500 Pattern, Color SW 1500 Scatter, Color SW 2000 Series Pattern, and so on – all the way up to Color SW 2500 Scatter Best 2. Repeat the process with all other profiles for devices you don’t own or use.

Don’t forget to look inside the Display Profiles folder nested in the ColorSync Profiles folder. If you don’t own a PowerBook 540C, for example, you can get rid of PowerBook 540C Standard. Ditto for all the profiles for monitors you don’t use, with a couple of exceptions. Don’t delete Default Display Profile or Display Profile 256 – ColorSync needs these.

If you haven’t calibrated your monitor using ColorSync, these profiles won’t exist. And if you find an alias in the Display Profiles folder, don’t delete it, either – the Monitors control panel uses these aliases.

If you’re not sure whether you’ll need a certain profile in the future, make a folder called Unused Profiles, which you can put anywhere outside the ColorSync Profiles folder. It’s not always easy to tell which profiles you need. One complicating factor is that profiles have two names. The external names, or file names, are the ones you see in the Finder when you open the ColorSync Profiles folder. The internal names, or descriptions, are the ones that appear in the ColorSync control panel and in the menus of applications such as Adobe Photoshop.

Apple-supplied profiles, such as Apple 13” RGB Standard or Apple Multiple Scan 20 - D50, use the same name in both cases, but many profiles from other sources do not, and sometimes the external and internal names are different. For example, it’s not obvious that the profile that appears on menus as Epson Stylus Photo 1270 Premium Glossy Photo Paper is the profile that shows up in the ColorSync Profiles folder as SP1270 RC. ColorSync 3.x provides an easy way to discover which external profile corresponds to which menu entry.

A little-known feature of ColorSync 3.x

Central ColorSync
The ColorSync control panel tells you the file name of a profile when it differs from the internal, descriptive name; this helps you identify unnecessary profiles that clutter your system.
Application profiles
Many of the CMYK profiles that come with Adobe Photoshop and Illustrator aren’t needed – for instance, the JapanStandard profile.

Control panel is its ability to reveal the file name of a profile when it differs from the internal name. To see this in action, open the ColorSync control panel, click on the Profiles tab, and choose Default Profiles For Documents from the top menu in the dialog box. Four menus appear: Default RGB, CMYK Default, Grayscale Default, and Lab Profile.

**RGB profiles** Click on the Default RGB menu to view RGB profiles on your system. When holding the cursor over a profile whose file name differs from its internal name, a help balloon appears that reads, "Note: The file name of this profile is..." This reveals, for example, that the profile that creates the Kodak XLS 8300 Printer menu entry actually xls830a7.pf. If you don’t own or use these devices, you can find xls830a7.pf and ebug18a7.pf, and then discard them.

**CMYK profiles** Repeat the help-balloon process for the CMYK menu. Here you may want to be slightly less ruthless: I recommend holding on to profiles for industry-standard proofing systems such as Imation Matchprint or Fuji ColorArt, because even if you don’t own them, you may wind up delivering a job to a repro house that does. But unless you have, say, a QMS ColorScript 100 Model 30I, there’s no point in keeping qms1030i.pf. Even if your repro house uses one for proofing, it will almost certainly have tweaked the profile to its own standards. (Don’t bother deleting Generic CMYK, Generic RGB, Generic Lab, or Generic XYZ – they’ll reappear when you restart.)

**Greyscale and Lab profiles** You probably won’t have unmanageable numbers of these profiles, but may well have duplicates, so take time and weed them out. When you’re done, you’ll have much shorter and more-relevant profile menus.

Adobe Photoshop 6 and Illustrator 9 offer another trick for simplifying colour management. You can set which profiles appear in the programs’ Color Settings dialog boxes when the Advanced option is not selected.

To limit these profiles, go to System Folder-Application Support-Adobe-Color-Profiles-Recommended. Inside the Recommended folder, you’ll see a list of eleven profiles. If you’re a typical print publisher in the UK, you probably have little use for Apple RGB (it’s based on the Apple 13-inch monitor), or for the JapanStandard CMYK profile. Put them in an Unused Profiles folder so you’ll still have them if you ever need them.

If you want to use custom profiles with Photoshop or Illustrator, you can move those into the Recommended folder so they will always show up in Color Settings. Although these profiles are located in a folder for Adobe applications, other applications can access them as well. (The Photoshop and Illustrator installers automatically put an alias of the Recommended folder inside the ColorSync Profiles folder, making the profiles available to any application that uses ColorSync.)

The many differences between applications still present plenty of opportunities for colour-management confusion. And as applications migrate to Mac OS X, there will likely be new colour-management wrinkles to smooth. But in the meantime, if you rid yourself of the raft of useless profiles that come with applications and OS upgrades, you’ll simplify colour management.

Colour spaces: the low-down

A colour space is a model of up to four dimensions that represents colour in intensity values. They also specify how colour information is represented.

The largest colour space is that of the human eye. About half the size of this colour space is the RGB space. Any colour expressed in RGB is a mixture of three primary colours: red, green, and blue. All digital workflows make use of this colour space. For example, scanners read the amounts of red, green, and blue light reflected from an image’s surface. Understanding the RGB colour space is important to printing, because it is the digital colour-space used to represent on-screen documents that will end up in print. RGB colours are also known as luminous, or additive, colours. This is because black is displayed on a TV or computer screen by removing all three sources of colour, while white is displayed by adding maximum amounts of all three colours.

But because the range of RGB colours is vast, many of them are not achievable in print as process colours – this is where the CMYK colour space comes in.

The CMYK colour space consists of Cyan, Magenta and Yellow, as primary colours and red, green, and blue as secondary colours. In theory, the black shouldn’t be needed, as an equal mix of C, M and Y gives black. However, when printed, the result is closer to dark brown.

The CMYK colour space is subtractive – if you start with white and subtract all colours equally, you get black.
Few Web sites come with a built-in collection of visitors. One way to attract people to your site and keep them coming back is to create your own online watering hole – a bulletin board. The technical barrier for visitors is low, and a lot of the Web’s best community spaces centre on bulletin boards. Here’s how to host your own. For starters, think about whether you should host one.

Before you succumb to the lure of opening your site to lively community dialogue, ask yourself whether a bulletin board will add to your site or overwhelm it.

If you’re running a Web site with frequent or time-sensitive updates, it’s helpful to offer a forum where your readers can comment and query. For example, a Web site about XML implementation has content that changes often and focuses on resources; the topic lends itself to extended discussion. However, if you don’t update your site frequently – or don’t have content appropriate for ongoing discussions – you may have difficulty nurturing a forum.

Big personality
Some online communities are famous for raucous personalities, others for supportive or cerebral discussions. Before you put up a space where people can post comments, think about what kinds of discussions you want, and how they will complement the rest of your site. For example, in Mighty Big TV’s forums (www.mightybigtv.com; motto: “Television without pity”), the moderators keep the discussions whip-smart and focused, with well-placed quips. This conversational style matches the site’s editorial voice.

A bulletin board is like a cocktail party, and the moderator plays the role of the gracious host. It’s his or her job to circulate, making sure that everyone’s engaged in an interesting conversation and nobody’s trapped next to the crab dip listening to an insulting boor or a tiresome bore.

Some parties run themselves, especially if all the attendees know one other or have a common interest. Other parties need a few nudges, especially at the beginning when everyone’s standing around staring at strangers. The worst cases require an arbitrator – or even a bouncer.

Hosting a good bulletin board requires a clear sense of the tone you’d like to promote. You should have plans in place for setting up and encouraging community standards – such as good spelling and grammar, and the exclusion of profanity.

Keeping on track
Before you install your bulletin board, make sure you’ll have time to keep track of it. To do it right, you’ll need to check in on conversational threads regularly, including at night and on weekends. You’ll also need a little help from your friends – find someone you can trust to keep the forums running smoothly when you’re on vacation. For details on what to expect in your new role as moderator, ask forum hosts whose boards you admire how they’ve handled worst-case scenarios and how much time they spend moderating.

One forum duty that took me by surprise was dealing with frequent new posters who would barge in on a board I was moderating, ignore the plentiful open discussions, and post a deluge of questions other people had already answered. I developed a deep reserve of patience, and tried to teach other posting members by example. I politely thanked users for their enthusiasm, redirected them to the forum thread that would answer their questions, and then closed the redundant thread.

Another forum duty every moderator has to face is restoring order when your visitors argue viciously. In flame wars, bulletin-board moderators often get strafed when they try to intervene. Do you want to take the high road by engaging the poster off list, or invoke your rank as the host and drop-kick him or her into the great beyond?

Anticipating difficult situations and being prepared to spend time resolving them – sometimes at inconvenient moments – is part of a moderator’s role.

Once you’ve settled on a strategy for

continuous page 148
nurturing your online community, it’s time to begin implementing the bulletin board. Your first step is to select a software package that will support the goals you just articulated. This is where form marries function; you want a bulletin-board format that’s appropriate for your content. For example, if you run a news Web site and want to encourage instant input from users as they read and respond to articles, then you need bulletin-board software that appends a threaded discussion to each article. On the other hand, if your goal is to use your Web site as a hub for online discussions, pick software that lets you sort forum threads on pages separate from your other Web-site content, such as Infopop’s Ultimate Bulletin Board and Antone Roundy’s Threads. This type of program fosters a well-designed community space.

Before you commit to any package, ask yourself how much time you’re willing to spend troubleshooting or programming your tool. You may be tempted to pick up a free forum script and install it on your site, but if you’re not fond of debugging and troubleshooting, you’re better off investing in software that doesn’t require you to be both forum moderator and system operator.

Once you’ve set up the bulletin-board software and everything’s in place, you need to make sure that your Web site visitors are aware of your forum.

You may need to modify the site’s design or content to take advantage of your new bulletin board. This often entails adding a teaser to your site’s pages – an element such as a provocative, prominently placed quotation that entices people to click on it and visit the forum. It’s hard to lure people to a bulletin board if they don’t know it exists. Include links to the board in site-navigation tools, and add hyperlinks in other appropriate places – such as the top, middle, or bottom of articles, the index pages, or a “What’s New” section. You can also use a juicy quote or question from the forum to show that its topics fit in with the rest of the site. This will help visitors make the shift from reading your site to participating in its forums.

Once you’ve arranged the furniture and determined the topic of conversation in your virtual salon, you’re ready to throw open its doors to the public. You’ll learn what the people who use your site really think about its content, and you’ll be party to some amusing and informative conversations.

<table>
<thead>
<tr>
<th>PRODUCT</th>
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<th>PRICE</th>
<th>PROS</th>
<th>CONS</th>
<th>ADVICE</th>
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<tbody>
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<td>DiscussionApp 3.0</td>
<td>Server.com</td>
<td>Free if you display Server.com ads</td>
<td>Threaded interface lets you display several conversations simultaneously</td>
<td>Offers limited options for customizing and administering the forum.</td>
<td>Good choice if you want to be able to readily display your forum’s interface without venturing into server or software administration.</td>
</tr>
<tr>
<td>Lusenet</td>
<td>Phil Greenspun</td>
<td>Free</td>
<td>Greenspun site hosts the bulletin board, so you don’t have to perform complex setup and administrative tasks. You must have the time and expertise it takes to configure and administer a Web server on your Mac.</td>
<td>You need to do the installations and troubleshooting.</td>
<td>A good combination of interface for those who want to have the option of viewing other threaded discussions or full comments.</td>
</tr>
<tr>
<td>Ultimate Bulletin Board</td>
<td>Infopop</td>
<td>Starts at $99 per month</td>
<td>Customizable software offers threaded discussions and individual threads is easy.</td>
<td>It’s hard to lure people to a bulletin board if they don’t know it exists. Include links to the board in site-navigation tools, and add hyperlinks in other appropriate places – such as the top, middle, or bottom of articles, the index pages, or a “What’s New” section. You can also use a juicy quote or question from the forum to show that its topics fit in with the rest of the site. This will help visitors make the shift from reading your site to participating in its forums. Once you’ve arranged the furniture and determined the topic of conversation in your virtual salon, you’re ready to throw open its doors to the public. You’ll learn what the people who use your site really think about its content, and you’ll be party to some amusing and informative conversations.</td>
<td></td>
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As fancy-pantsy as I find Mac OS X, there’s one Classic Mac OS feature I desperately miss: the ability to turn off the Trash warning – you know, the message that indicates the number of items in the Trash and asks if you’re sure you want to empty it. OK, so maybe I like to live dangerously, but this warning annoys me. Although I can’t turn off this warning for good, I’m not completely without options. I can skirt it – as I did in other versions of the Mac OS – by holding down the option key while selecting the Empty Trash command from the Finder menu.

External boot

Q
I have an iMac DV with a broken CD-ROM drive. But that’s not the problem – I’ve added an external USB CD-RW drive. The difficulty is that my Mac won’t boot from the hard drive, and with no internal CD-ROM, I can’t boot from the iMac’s Restore CD. What can I do?

Harold Landreth

A
The secret to unraveling this mystery can be found on the right side of your iMac — it’s the FireWire port. You’ll also need a second Mac to get the job done.

For some time it’s been possible to mount a PowerBook’s internal drive from another Mac via SCSI using a protocol called Target Disk Mode (TDM, formerly termed SCSI Disk Mode). TDM is now supported via FireWire as well, which allows you to mount the hard drive of a “target” computer (your iMac) on another FireWire-capable “host” Mac. The target Mac must have shipped with a FireWire port (TDM doesn’t support add-on FireWire cards for the target computer – just for the host Mac).

To make this FireWire brand of TDM work, the Macs involved must meet a few additional requirements. The host Mac must be running Mac OS 8.6 or later and FireWire 2.3.3 or later, and your Target Mac must have Firmware 2.4 or later. Here’s how to set it up:

1. Remove any FireWire devices from both computers before you start. With the target computer off (the host Mac can be turned on), string a six-pin-to-six-pin FireWire cable (available from any good Mac mail-order house) between the target and the host Macs. Switch on the target Mac, then press and hold the T key until you see a FireWire icon on the target Mac’s screen. The icon for the target Mac’s internal hard-drive should appear on the host Mac’s desktop. Once you’ve done this, repair the drive with a troubleshooting utility or insert the Mac’s Software Install CD in the host Mac’s CD-ROM drive and install a whole new system on the iMac’s drive.

2. To exit TDM, drag the target Mac’s hard-disk icon to the Trash and press the target Mac’s power button.

Sherlock indexing

Q
I recently purchased an iMac, and shortly thereafter installed the drive with Sherlock. Since then I’ve installed two games, yet when I ask Sherlock to update the index, it tells me the process will take 12 hours. What can I do to speed things up?

Travis Rollman

A
I’d begin by not panicking. Clever as Sherlock may be, it’s not terribly good at deducing how long it takes to index a drive when it first begins the process. If you were to sit with stopwatch in hand while Sherlock chugs through your drive, you’d find that its initial estimate is shockingly inaccurate.

That’s not to suggest, however, that indexing a drive is a brisk procedure. It isn’t, and because of this, it’s best to begin the operation when you’ll be away from your Mac for a while – overnight, for example.

You can automate the process by creating a schedule. To do so, select Index from Sherlock’s Find menu and click on the Schedule button in the resulting dialog box. Select a convenient day and time for indexing to begin, and leave your Mac on during the appointed hour.

Bear in mind that you needn’t index your entire drive.

Language barrier

To speed up indexing in Sherlock, simply switch off the languages you don’t plan to use.

Your tip of the month wins an hp deskjet 990cm
We award the tip of the month with an hp deskjet 990cm, worth £279. This graphite colour-printer offers amazing image quality and speed, and is built with gallery and cool extras.

• FireWire boot • Keyboard shutdown • Missing drivers

Q&A/tips

Readers’ questions answered, and handy tips. By Christopher Breen
Tip of the month: Keyboard shutdown

**TIP**

On this month’s Knebby Computing page, we’ll be looking at a few operating system issues. The Macbook has been quite a hit amongst professionals recently, and we’ll be looking at some of the issues that this might cause.

Drive. You can index a single File for File by controlling-click on that item in the Finder and choosing Indexing Options from the contextual menu. You can also select Preferences from Sherlock’s Edit menu and select to index items by label – only those documents with an orange label, for example. In the same Preferences window, click on the Languages button and switch off all languages except English to further speed Sherlock’s indexing.

Express export

**TIP**

Outlook Express doesn’t run on my Mac any longer, but I need the email in certain applications. Is there any way to retrieve my messages?

**Answer:**

A great start would be trying to get Outlook Express up and running again by re-installing it. However, if it still refuses to work even after the re-install and you need your email right now, try this: go to www.exdirs.com and download the latest version of Outlook Express. When you first launch the program, it offers you the opportunity to import mail from other email clients. Choose Outlook Express from the pop-up menu in the Import Mail dialog box, then click on OK.

If Outlook Express already installed, you can import your email by selecting the Import E-mail command from Eudora’s File menu.

You can configure Eudora in three ways: Sensitive mode, where you get the full version of the program for free, but have no look at certain features such as unreadable advertisements, Paid mode, a full version without ads, and Light mode, a free limited version without ads but offering fewer features. Eudora is also available in a Mac OS X native form.

Dozy PowerBooks

**TIP**

Recently, whenever I try to use my PowerBook to sleep, it refuses to wake up. What can I do?

**Answer:**

It’s a common problem, particularly when one of the devices attached to your PowerBook is causing it to refuse to go to sleep. If it’s a USB device, try disconnecting it and see if the PowerBook will then go to sleep normally. If it still refuses to sleep, check to see if there are any software updates available for the device causing the problem. You may also need to disable the feature in software that requires the device to be on at all times.

Holmes

**TIP**

I teach a variety of computer skills in an iMac-based lab. Although I’ve muted the iMacs’ speakers, changing the screen resolution, picking up the user account you just configured, and can’t do anything he or she wants on the iMac. Log out users control panel and assign Limited privileges to the user account you just created. Open the Sound control panel and click on the Mute button – this silences the iMac. But there are still two other ways to make it lose. Let’s silence them as well.

Open the Keyboard control panel, click on the Function Keys button in the resulting window, and deselect the F1 Through F12 As Hot Function Keys option. You’ve now disabled the Volume, Volume Down, and Mute buttons on your iMac’s keyboard. Open the Control Strip control panel and select the Hide Control Strip option. This prevents your students from using the Control Strip to jack up the iMac’s volume.

When you’ve finished using a particular iBook, log out that user account (by selecting Logout from the Finder’s Special menu), and then log back in the same session. To use the MultiUser control panel and assign Limited privileges to the user account you just configured, and can’t do anything he or she wants on the iMac. As you can probably see, this kind of churn can be very appealing because it can do a lot more than you expect.

Noisy kids

**TIP**

When schedules are available they will be published at the ‘Download’ section at www.macworld.co.uk/support/download/os_x_notices.htm.

App back-up

**TIP**

Apple recently released Power Macs – the “QuickSilver” models – don’t include individual discs containing Mac and OS X. This way to reinstall these applications is to use the Apple Software Restore disc. Regrettably, Apple Software Restore doesn’t allow you to pick and choose which components you’d like to install. However, it’s not entirely worthless. It might some you well to buy backup copies of the Mac OS X discs (available at 40% discount with their support files). That way, should you lose them, you can restore just those applications.

Portable sound

**TIP**

If you make the sound on your PowerBook G4, PowerBook G3 Series, PowerBook (Firewire), Power Mac G4 Cube, or iMac (Summer 2000) while running Mac OS X 10.1, 0.99, and 0.8.4, you can then turn that sound up. If it still refuses to work, then you’ve lost the setup. But if the problem persists, I’d recommend trying to resolve it by resetting the preferences.

Missed drivers

**TIP**

They have File Sharing enabled and attempt to save a Word 2001 document more than 60 times in a single session, you’ll receive a Disk Full error and won’t be able to save your document to a local disk. If File Sharing is disabled, you can save this user on your printer’s download page, not for many of its older

Explore Sherlock

**TIP**

You can add a Sherlock button to your Internet Explorer 5 tab bar (www.custbx.com) under Mac OS X 11. To make a new one, you must re-install the Sherlock v 2.1 alias in the Applications folder with the actual Sherlock 2 application found inside the Applications folder at the root level of your hard disk. Internet Explorer Help suggests, noting that the Sherlock equals application is placed in the Apple Menu Home folder by default. Time Sav...

Macworld’s chief sub-editor Wendy Phillips and contributing editor Chris Bevan answer readers’ questions and select reader submitted tips for this column. Send your questions (with names and phone numbers when possible) to DBA, Macworld, 99 Drury’s Inn Road, London WC1 8JQ. (You can also send an email, marked DBA on the subject line, to qanda@macworld.co.uk. If you wish to publish here, we cannot make any personal replies; please do not include a stamped addressed envelope.)

Congratulations to James Relph, who won this month’s competition. If you think you have a tip of the month, send it to qanda@macworld.co.uk

Macworld

Mike Crump

Carrie Nichols

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Speech impediment

If I live to be 100, I'll never stop telling people that all Randy Newman songs sound like toilet-paper jingles. Similarly, when it comes to Mac OS X's Aqua interface, I will never tire of asserting that the colours of a traffic signal do not make a user think of closing, minimizing, and maximizing. Closing a window does not stop anything, and maximizing one doesn't make anything go — and what's so cautious about putting a window into the Dock?

I do like Aqua. It prettified the Mac — all that on-screen shadowing, highlighting, melting, and throbbing make for an interface that's easier to navigate. It's a great face-lift. But what if Apple went for more than a face-lift?

Let me tell you about an idea I recently had. Like most of my ideas, it came to me while I was napping on my sofa and avoiding work. While I napped and evaded, my G4 Cube called out, telling me I had new mail.

Big deal. It happens all the time, now that my Internet connection is on 24/7. This time, though — possibly owing to the Newton OS was able to my having had three sodas in the space of 40 minutes — my eyes were open: Wait, this just might be incredibly cool. I had access to the G4 without physical proximity or any sort of device or accessory. I got information from it without having to turn my head, even.

Why don't we normally think of speech as a user interface? Because it involves no pointing devices or bouncing icons? Is that any excuse? That's what's wrong with this.

I came home with six omnidirectional microphones, a line-level amp, and a cheap mixer. Three or four missed deadlines later, I had wired my entire office for sound. Through discreetly placed microphones, my G4 could receive voice input from anywhere in my big office-cum-den.

Now when my computer says: "You have new mail," I can reply, "Is it important?" And unless Mailsmith sees a message from someone I've designated Important, the G4 advises me that I needn't stir from my sofa.

I enjoyed that so much that I expanded the system in both coverage and capability. I have another six mikes scattered across the house — in the kitchen, near my front door, and in the TV room — and a couple dozen new scripts that do things way more interesting than fool with my mail.

None of this is rocket science. It all exploits standard features of Mac OS 9. In fact, the lack of sophistication is my sole disappointment with this system. My Mac doesn't actually parse these sentences. When I awaken and groggily ask the PowerBook on my nightstand to "get me the morning news", I'm really firing up an AppleScript with that exact title, which opens all of the URLs within a Morning News folder.

Speech is the most obvious unexploited resource in the user-interface world. IBM and MacSpeech have made great leaps with their speech products, but these products are still not much more than keyboard replacements. I've got a keyboard. What I want is a utility that can take a sentence like: "Convert that big manuscript I worked on last night to HTML, and email it to Jason," and turn it into the command: "Look for a Word file larger than 20K, last modified yesterday after 5 p.m. If there's only one, convert it to HTML, and if there's only one Jason in the address book, email it to him; otherwise, ask me which Jason I mean." And this is doable.

The success with which iListen and ViaVoice can turn voice into text and the ease with which the Newton OS was able to parse complex commands prove it.

Since 1984, the capabilities of personal computers have increased exponentially. But the interface itself hasn't taken any significant steps forward — it still consists of an on-screen pointer that acts on a collection of menus, windows, and icons. Aqua is a highly valuable and experience-enriching face-lift — but it's just a face-lift. After 17 years of experience as users and developers, have we all agreed that we got it perfect the first time? Or have we simply grown cautious about putting a window into the Dock?

The scariest notion is that little by little, Windows and even Linux are starting to catch up to the Mac, at least in terms of the interface. I installed a beta of Windows XP the other day, and my jaw dropped: at last, the GUI doesn't look like someone designed it on an Etch A Sketch. Thank heavens Microsoft stopped putting the year of release into the name. We currently go around spraying "Windows 98 = Mac OS '90" on highway overpasses, but "Windows 2001 = Mac OS Early '99" wouldn't really have the same punch.

But for all its advances, even Windows XP boils down to click, double-click, drag. As Macintosh users, we expect more. We want to speak, acknowledge, walk away because the Mac can take it from there. Or we want our screens to resemble the flattened front of a virtual sphere that we can spin to reveal new views of the Internet, the file system, or the user experience. Changing the interface for change's sake is dippy. We see the result every time users running Mac OS X want to close a window but hesitate, momentarily unsure if they're choosing "Stop using this window" or "I'm done, this window may now go."

But it's also true that the only difference between a rut and a grave is their depth.