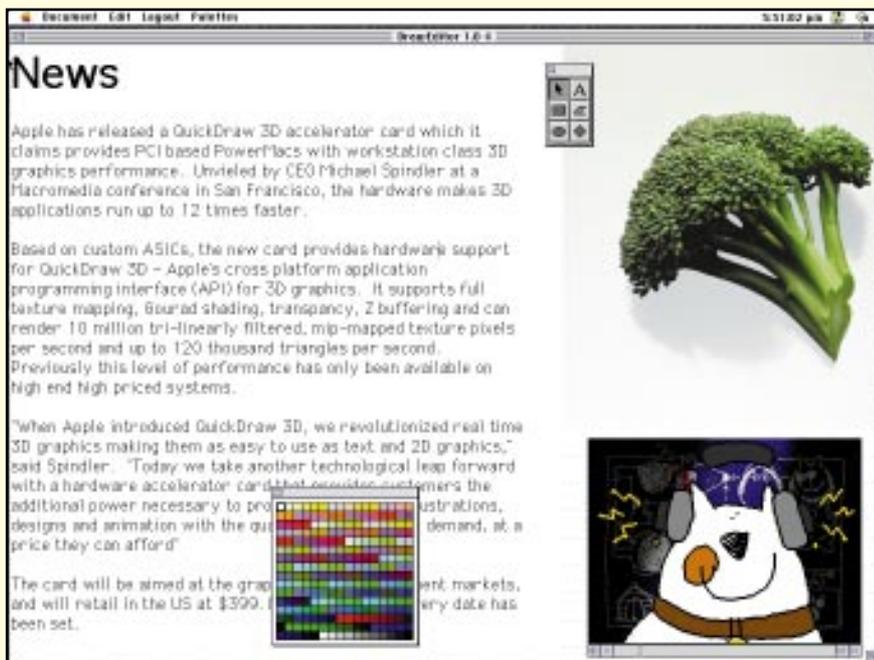# What's up, OpenDoc?

Apple's new component software architecture could be set to reshape the way we work with Macs, PCs and other platforms. Chris Cain brings you an overview of the new system. And, use our handy quick-reference table to sort out current Apple extensions.

This example of an OpenDoc document combines graphics, text and video, each of which can be edited with its own part editor

Apple recently released the first version of its component software architecture, OpenDoc, which plays a major part in the company's future plans. OpenDoc could completely reshape the way in which we work with Macs, PCs and other platforms. In fact, it's my Utility of the Month.

OpenDoc is officially described as a multi-platform, component software architecture that enables developers to evolve applications into component software, or create new component software applications. In more simple terms, it's about breaking down today's monolithic software apps into smaller, more manageable components that can

then be mixed and matched to suit every user's needs.

At the moment, if you wanted to create, say, a newsletter containing text, graphics and spreadsheet data, you would probably edit each piece of data in a separate application and either export it as a file and import it into your main application, or cut and paste info using the clipboard. Either way, you end up loading three or four different packages and using only a subset of the tools on offer. It takes a long time and you can experience problems such as unsupported file formats and lack of memory.

With OpenDoc you have "Part Editors" instead of applications and your work is

based around documents called "Stationery". Part Editors are small sets of tools for doing jobs like editing text, manipulating pictures and so on, and Stationery files are templates for doing certain types of work. Each different type of Stationery contains links to the Part Editors used for that type of job.

To prepare the same newsletter with OpenDoc you would use a piece of stationery that has been set up with links to text editing, drawing and numeric data Editors. You'd then create your data using these and if you wanted to import a file created with something else, you'd just drag it from the desktop onto your document. If you've set up a stationery file without a certain set of tools, you just drag the appropriate Editor onto your document and they appear.

The beauty of working like this is that you use only as much RAM as you need for the job, and all tools are available whenever you want them without loading lots of individual applications. Part Editors should also be much easier to develop and maintain than larger applications, and will give small developers more of a chance to compete with large companies like Microsoft.

There will still be room for big applications in an OpenDoc world, but they will need to support embedded OpenDoc parts.

Apple's OpenDoc 1.0 contains a

Mac software extensions: Part 1

With all these software updates appearing left, right and centre, one of the most common questions I'm asked is: "What's the latest version of this Extension or that Control Panel?" To answer these questions, here's an up-to-date list of shipping Mac system software courtesy of Apple. Due to the sheer size of it, I've had to split it into two sections. Part two will appear next month.

Name	Version	Name	Version	Name	Version	Name	Version
32-Bit System Enabler	1.0.3	AppleTalk ImageWriter	7.0.1	DocViewer	1.1.1	LaserWriter GX	1.1.2
8*24 GC (Extension)	7.0.1	Apple Telecom	2.3	DOS Compatibility SW	1.0.0	LaserWriter IISC GX	1.1.1
950 Color Addition	1.0	Apple Video Player	1.3.1	Drive Firmware Update	1.2	LaserWriter Utility	7.7
A/UX	3.0.1	AppleVision Display SW	1.0.1	Drive Setup	1.0.2	LaserWriter Select 300	1.2
A/UX	3.1	Assistant Toolbox	1.2	Duo Battery Patch	1.0	LaserWriter 300	1.2
A/ROSE	1.2.1	At Ease	3.0	Easy Access Ctrl Panel	7.2	LaserWriter 300 GX	1.1.1
ADSP	1.5.1	At Ease for Workgroups	3.0	Energy Saver	1.1	LaserWriter Select 360	1.1
Apple IIe Card SW	2.2.1d1	AudioVision (extension)	1.0.2	EtherTalk	2.5.7	LaserWrtr Select 360 Fax	1.1
Apple Backup	1.4	Auto Power On/Off	1.0	Express Modem	1.5.5	Likewise	1.0.1
Apple Color Printer	1.0	AutoRemounter	1.2	Express Modem Tool	1.5.5	LW Select 310	7.0.1
Apple DocViewer	1.1.1	AV Serial Extension	1.0	Express Modem 14400	1.0	MacApp	3.0.1
Apple Event Manager	1.0.3	AW Server 95	1.1	Express Modem CCL	1.0	MacCheck	1.0.5
Apple File Exchange	7.0	AWS 95 Tune-Up	1.0	Extension Manager	3.0	MacinTalk Pro	1.4
Apple Font Pack	1.0	Basic Color Monitor	1.0	eWorld	1.1	Macintosh Basics	5.0
Apple HD SC Setup	7.3.5	Basic Connectivity Set	1.1.1	eWorld Web Browser	1.0.2	Macintosh Common Lisp	2.0.1
Apple Guide	2.0	Battery DA	7.1.1	Fax Extension	1.5.5	Macintosh Easy Open	1.1.1
Apple Internet Router	3.0.1	Battery Recondition	1.2	Fax Sender	1.5.5	Macintosh Quadra Extra	1.0
Apple LAN Utility	1.0b3	CD-ROM Setup	5.1.2	Fax Terminal	1.5.5	Macintosh Visca Driver	1.2
AppleLink	6.1	Chinese Language Kit	1.1.1	Fax Viewer	1.5.2	MacODA	1.0
Apple Media Tool	1.2	Chooser	7.5	Fax Cover	1.5.2	MacOSI	1.1
Apple Menu Options	1.0.2	CloseView	7.2	Font/DA Mover	4.1	MacsBug	6.5.2
Apple MIDI Manager	2.0.2	Color Picker	2.0.1	GeoPort Extension	2.1	MacSNMP Admin	1.0.2
Apple MIDI Driver	2.0.2	Color SW 2400	2.1.1	GeoPort for Power Mac	2.1	MacSNMP Client	1.0.2
Apple Modem Tool	1.5.3	Color SW 2400 GX	1.0.1	Hardware System Update	2.0.1	MacTCP	2.0.4
Apple Personal Diagnostics	1.1.3	Color SW Pro	1.5	HyperCard	2.3	MacTCP Admin	2.0.4
Apple Phone	1.0.1	ColorSync	1.0.5	HyperCard Player	2.3	MacTCP Developer's Kit	N/A
Apple Photo Access	2.0	CPU Energy Saver	1.0.6	HyperScan	2.0	MacTCP Token Ring Ext.	2.0.4
Apple Printer Utility	2.0	Curare	1.0	ImageWriter	7.0.1	MacTerminal	3.0
Apple Remote Access	2.0.1	DAL Software	N/A	ImageWriter GX	1.1.1	MacX	1.5
AppleScript	1.1	DART	1.5.3	ImageWriter LQ GX	1.1.1	MacX.400	1.0
AppleSearch Client	1.5	Desktop Printer Ext.	1.0.3	Installer	4.0.3	MacX25	1.2
AppleSearch Server	1.5	Desktop PrintMonitor	1.0.3	Inter*Poll	1.0.1	MIDI Manager Extension	2.0.2
AppleShare File Server	4.1	Desktop Printer Spooler	1.0.3	Internal HD Format	1.3	MountImage	1.2
AppleShare Print Server	4.0.2	Disk Copy	4.2	Japanese Language Kit	1.2	Mouse Basics	4.5
Apple Shared Lib. Mgr.	1.1.2	Disk First Aid	7.2.1	LaserWriter	7.2	MoviePlayer	2.1
AppleTalk	v.58.1.5	Display Enabler1	2	LaserWriter 8	8.3.2		

Control Panel for setting up associations between Editors and different types of data, a few sample Stationery files and some very simple Editors to accompany them. I've been putting these through their paces over the past few weeks and have successfully managed to build a document using this method. Although it's difficult at the start, once you get into it everything begins to make sense.

If you want to see for yourself what OpenDoc is all about, you can download it from Apple's World Wide Web support sites.
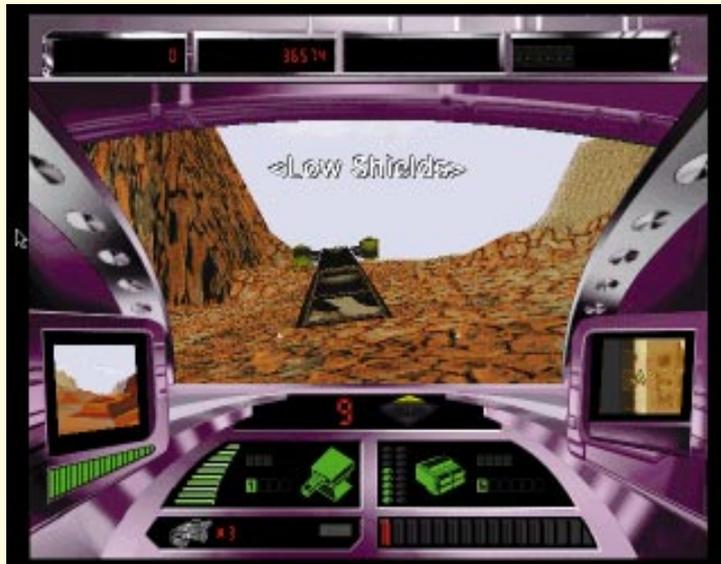
Tree surgery

There's good and bad news regarding software updates for anyone using Speed

Surprise Surprise

Apple engineers are renowned for hiding messages and other goodies in their hardware and software, and waiting to see who discovers them. I have found a particularly nice one hidden inside the new PCI Macs. To access it you first need to load Apple's Notepad program, then type in the words Secret About Box. Once you've done this, select the words with the cursor and drag them onto the desktop. The result is an impressive, and marginally interactive, graphical flag combined with a scrolling list of the System 7.5.2 programmers. Dragging with the "p" key held down produces a different result — see for yourself.

Havoc uses QuickDraw 3D to create realistic landscapes. The action is smooth on a PowerMac and the graphics can be further improved with Apple's 3D acceleration board

Doubler from Connectix. Currently at version 1.0.2, this popular program is due for another tweak soon, following reports that the Speed Access extension, which improves hard disk performance, can cause problems.

It appears that under certain conditions Speed Access can cause errors, known as b-tree errors, to appear in the hard disk directory structure. Apparently this only happens after a rare set of system calls have been used, but enough people have complained about it to warrant an update.

Version 1.1, which fixes these errors, should be available by the time you read this and an updater for old master disks can be obtained from the Connectix software support site on the Internet.

Connectix strongly recommends that all users upgrade, even if they haven't experienced any problems, and new floppies will be sent out to all registered users. The company additionally suggests running a disk utility, such as Apple's Disk First Aid or Norton Disk Doctor, to clear any b-tree problems before installing the new version.

Other items included in Speed Doubler 1.1 are improved compatibility with Microsoft Excel 4.0, Apple PowerPC upgrade cards and future versions of System software. It will also now work with Premise 2.1 (from West Publishing) too, and provides high speed serial transfers using Speed Emulator.

Dogfights cat

I have been spoiled for choice this month when it comes to new entertainment software, with the arrival of several good titles including a demo of the first to use QuickDraw 3D.

First into my CD-ROM drive was the Mac conversion of the best-selling PC title,

Wing Commander III — Heart of the Tiger. This space age adventure continues the story of man's battle for survival against the Kilrathi, a cat-like warrior race. It features 3D graphic dogfights and uses real actors to play the parts of the characters in the game. As hero, your alter ego is played by Mark Hamill (perhaps best known in his role as Luke Skywalker). Other actors helping to save the galaxy include Ginger Lynn Allen and Malcolm McDowell. Wing Commander III has a good mix of non-interactive video footage and realtime blasting, and the musical score is pretty good, too.

For those who want even more hands-on gaming, Havoc and Shockwave look like the answer. Both are hardcore 3D shoot-'em-ups and Havoc uses QuickDraw 3D to generate fully texture-mapped, smooth-scrolling landscapes. Demos of these titles are downloadable from various Web sites, but be warned: they come in at around 7Mb each. ◼

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Apple Computers **0181 569 1199**
Apple's OpenDoc Website is at **http://www.opendoc.apple.com**
Speed Doubler information and updates can be downloaded from the Connectix support site at **http://www.pcworld.com/connectix/techsupp.html**
Games demos are downloadable from **http://rampages.onramp.net/~stevent/games.html**