

Apple's Newton 2.0 operating system was a winner at the Mobile Insights '96 conference in Phoenix, Ariz., in early March. Mobile Insights Inc.'s Mobility Awards recognize the top products and services in mobile computing and wireless communications.

Newton 2.0, the operating system for Apple's MessagePad personal digital assistant, as well as devices from Newton licensees, won for system software, beating Microsoft Corp.'s Windows 95, General Magic Inc.'s Magic Cap for Windows and Geoworks' Geos.

The Newton 2.0 operating system, which began shipping in December 1995, offers improved handwriting recognition, solutions for organizing and communicating information via fax or electronic mail, and the ability to integrate with Windows and Mac OS-based computers and enterprise environments.

The Newton web page is at: <http://newton.info.apple.com/newton/newton.html>.

Apple has loosened up its electronic software distribution agreements for bulletin board operators.

Starting last month, licensed BBSes were immediately allowed to provide System 7.5 Update 2.0. But Apple has gone further than that. Until recently, the Electronic Software Distribution License (ESDL) specified a limited—and usually out-of-date—suite of software. Now, the ESDL has been modified to include most of Apple's most current software.

In a letter to ESDL licensees dated March 18, Apple has added all Apple software which is currently posted on the <ftp.info.apple.com> or [www.info.apple.com](http://www.info.apple.com) host file servers in the path: `Apple.Support.Area/Apple.Software.Updates/US/Macintosh/`; publicly available at no charge, and, supported by Apple.

Apple Software Licensing can be reached at (512) 919-2120, at the AppleLink address SW.LICENSE and at <http://dev.info.apple.com/swl/swl.html>

Apple has taken steps to improve its bug handling capabilities. According to Andy Bachorski from Apple's Developer Tech Support, the company is making changes to both systems it currently operates.

Apple's bug reporting (to [APPLE.BUGS@applelink.apple.com](mailto:APPLE.BUGS@applelink.apple.com)) has had a reputation as being a "black hole" where reports went in but nothing ever came out. This was largely a perception problem. The company claims that all reports were acted on but that there was no mechanism in place to do follow-up with the reportee.

Apple is currently training an employee to respond to bug reports sent to [APPLE.BUGS](mailto:APPLE.BUGS). The plan is for the reportee to be notified as soon as a resolution to the problem is agreed upon.

The second part of Apple's system is for third party related problems. Apple tests new software with third party products. If a problem is found and is reproducible with older hardware/software, Apple wants to let the developer of the package involved know about the possible problem. A complete history will be sent, including steps to reproduce, configuration information, regression test info, and often in-depth debugging comments from many engineers.

Apple's developer web site is at: <http://dev.info.apple.com>

Apple has announced a royalty-free software developer kit (SDK) for multimedia and internet entertainment applications called Apple Game Sprockets.

Game Sprockets simplifies the development of real-time 3D graphics, 3D sound, Internet support, speech recognition, and input device/monitor control. It includes the final release of QuickDraw 3D RAVE (Rendering Acceleration Virtual Engine), a multi-platform technology that enables game developers to incorporate plug-and-play 3D acceleration hardware (see "QuickDraw 3D all the RAVE," below).

The current Apple Game Sprockets SDK includes:

- NetSprocket—Internet connectivity and multi-player gaming API
- SoundSprocket—3D sound and Sound Manager API
- SpeechSprocket—speech recognition API
- InputSprocket—digital joystick control and input device API
- DrawSprocket—multiple buffering/display control API
- QuickDraw 3D RAVE—fast, multi-platform 3D graphics API

Apple has established a new World Wide Web site to provide developers quick release and updates of these new technologies. The Web site is at: <http://dev.info.apple.com/evangelism/games/games.html>.

red D. Anderson Jr. is Apple Computer's new executive vice president and chief financial officer. He joined the company April 1.

Anderson fills the post vacated under a dark cloud last year by Joseph A. Graziano. As new CFO, he oversees the finance, treasury, investor relations, tax, information systems and corporate development functions of the company.

Anderson reports to Dr. Gilbert F. Amelio, Apple chairman and chief executive officer, and joins another Amelio appointee—George M. Scalise, the new executive vice president and chief administrative officer.

Anderson, 51, comes to Apple from Automatic Data Processing (ADP), where he was vice-president and chief financial officer.

ust when you finally got the new System 7.5 Update 2.0, a new version of QuickDraw 3D has appeared at the special QuickDraw 3D site—and lineups appear to be long. Version 1.0.4 is now available at: <http://product.info.apple.com/qd3d/QD3D.HTML>.

The two disk set is available as one big download and as individual files. No word in the Read Me file as to what the changes are over version 1.0.3, but the Read Me is dated February 28.

pple Computer Inc. believes that its new 3D program will be the “rave” this year.

Rave, in computer parlance, of course, is the acronym for rendering acceleration virtual engine, and Apple believes that its just-announced QuickDraw 3D RAVE will become an industry standard for 3D development and programming, just as QuickTime is for cross-platform multimedia.

QuickDraw 3D RAVE API allows the transparent access of 3D graphics accelerators for maximum speed and throughput. A bonus for game developers and vendors wanting to set their products apart: RAVE lets them leverage existing rendering technologies.

QuickDraw 3D Rave runs on the Mac OS, Windows 95 and Windows NT platforms. The Mac OS and Windows 95 versions will be available this month. The Windows NT version will be shipped in the second quarter of 1996. RAVE will be available as a Driver Development Kit and a Software Development Kit; Apple will make the API available on all supported platforms with no licensing fees to developers or vendors.

RAVE-enabled software and new 3D graphics boards will result in real-time, workstation quality 3D graphics on both Power Macintosh systems and PCs.

Specifically, RAVE is an optimized hardware abstraction layer which allows developers to code directly to 3D hardware and provides specific, optimized functionality for software rendering and texture mapping. RAVE enables developers to write highly optimized, extremely fast 3D software for all major PC platforms.

Software developers get plug-and-play 3D acceleration whether they use QuickDraw 3D or simply the RAVE API.

RAVE advantages:

- High-resolution texture mapping at up to 4000 x 4000 pixels.
- Z-buffering not required for use in games (accelerates performance with less memory overhead).
- 3D displays of SVGA and higher resolution.
- 4 bit/pixel to 32 bit/pixel textures.

Ben Calica, senior product manager for game technologies at Apple, predicted, "Starting this Christmas, low-cost 3D hardware acceleration from multiple vendors will be all over the place and game developers can use RAVE with these boards to create seriously 'evil' games. RAVE was one of the most requested elements of Apple's soon-to-be announced Game SDK, a set of technologies designed to make Macintosh the best game platform."

Game developers interested in RAVE should contact Mark Gavini at [gavini@apple.com](mailto:gavini@apple.com). Other software or hardware vendors should contact Shawn Hopwood at [s.hopwood@applelink.apple.com](mailto:s.hopwood@applelink.apple.com).

More information on RAVE is available from the Apple QuickDraw 3D site at <http://www.info.apple.com/qd3d/>.

Apple shipped a revised set of Telecom software last month. The new Telecom 2.3.3 is a two disk set for Apple Express Modem and Geoport Telecom Adapter owners. It includes modem and fax software. Telecom 2.3.3 for PC Card Modems is an additional disk for those using PC Card modems in their PowerBook computers.

Apple recommends Telecom 2.3.3 software for use with the new System 7.5.3 and System 7.5 Update 2.0. The following Express Modem installations are covered: PowerBook 160, 165, 165c, 180, 180c, using an internal Apple PowerBook 14.4 Modem Card; PowerBook Duo 210, 230, 250, 270c, 280, 280c, 2300c, using an internal Apple PowerBook Duo 14.4 Modem; PowerBook 520, 520c, 540, 540c (with or without PowerPC processor upgrade), using an internal Apple PowerBook Express Modem II Card; and LC 575, Macintosh Quadra, LC, Performa 630, using an internal Macintosh Express Fax/Modem (for the United States and Japan only).

Additionally, the update supports the following desktop systems with GeoPort Adapters: Centris 660AV, Quadra 660AV and Quadra 840AV; and Power Macintosh 6100 series, 7100 series, 7200 series, 7500/100, 8100 series, 8500/120 and 9500 series.

The Telecom for PC Card Modems 2.3.3 runs on the following machines: PowerBook 500 models equipped with a PCMCIA Expansion Module and a PC Card modem (the software can be used with or without the PowerBook Processor Card Upgrade Kit with PowerPC 603e installed); PowerBook 5300 models using a PC Card modem; and PowerBook 190 models using a PC Card modem.

The Apple Telecom (and Telecom PC Card) software is available from Apple's sites on AppleLink, America Online, CompuServe and the Apple web and ftp software archives. Here is one web location: [http://www.support.apple.com/pub/apple\\_sw\\_updates/US/Macintosh/n\\_c/Apple\\_Telecom/](http://www.support.apple.com/pub/apple_sw_updates/US/Macintosh/n_c/Apple_Telecom/).

In all the hullabaloo over Apple's release of the System 7.5 Update 2.0, some may have overlooked the debut of an interesting new Apple utility.

Apple's new System Profiler 1.0 is an Apple Menu utility that gathers, summarizes and delivers key pieces of system configuration information (for example, processor clock speed, disk cache size, non-Apple installed extensions, etc.) needed to troubleshoot your system.

Apple System Profiler 1.0 supports the following systems running System 7.5.2 and 7.5.3: Power Macintosh 9500, 8500, 7500, 7200, 8100, 7100, and 6100 series; PowerBook 5300, 2300, and 190 series; and Performa 5200, 5300, 6200, and 6300 series

System Profiler 1.0 can be found at the usual Apple software sites, in the Utilities folder.

s promised last year, the venerable Apple SIMM Stack has been replaced with the new Apple Memory Guide 1.0. Apple Memory Guide is in Acrobat .PDF format rather than HyperCard stack format. It covers the basics of RAM capabilities of most Macintosh computers.

Version 1.0 lacks information about the most recent Macs including the 7200, 7500, and 8500 series, the new Workgroup Servers announced last month, and the Performa 6200, 6300, and 5300 models.

A more up-to-date and complete assessment of all Mac capabilities is available in the new Apple Specs 3-96, which was also released this week.

Apple Memory Guide is now available in the Utilities folder of Apple's various software sites on the Internet and online services.

long with the new Memory Guide 1.0, Apple has released a very comprehensive database of all Macintosh products, called Apple Spec 3-96.

Apple Spec 3-96 is a FileMaker Pro 2 database covering all the technical aspects of virtually every Mac that has ever gone into production. It is current right up to the new Mac Servers introduced last month. The database is also available in a runtime version for those who don't own FileMaker Pro.

The Apple Spec database lists specifications including information about memory configurations, power requirements, video capabilities, built-in ports, software, sound capabilities, and logic board components.

Apple Spec 3-96 is available at all of Apple's software sites on the web and online services in the Utilities folder including: AppleLink, America Online (keyword: applecomputer), CompuServe (GO APLSUP), Internet: [gopher.info.apple.com](http://gopher.info.apple.com), Internet: [ftp.info.apple.com](http://ftp.info.apple.com) (formerly [ftp.austin.apple.com](http://ftp.austin.apple.com)), and Internet: [ftp.support.apple.com](http://ftp.support.apple.com).

After being seemingly rejected in the VRML sweepstakes, Apple has come roaring back with

an agreement on 3D graphics for the Internet with Netscape and Silicon Graphics. By agreeing to support the Moving Worlds VRML 2.0 proposal, Apple will be adding a pinch of its own 3D technology to the broth.

Specifically, the three companies plan to develop a new binary file format for Moving Worlds based on Apple's 3D metafile format (3DMF) technology. Moving Worlds is an open, cross platform specification for dynamic 3D environments on the Internet. Apple's contribution of 3DMF technology to the Moving Worlds effort will enable higher compression, file streaming, and faster parsing of 3D objects and virtual worlds across the Internet.

"Apple is very excited to offer its 3DMF technology as part of Silicon Graphics' Moving Worlds proposal," said Dr. David Nagel, Apple's senior vice president of worldwide research and development. "This initiative represents the first opportunity for users to experience ubiquitous, animated 3D on the Web. Working with Netscape and Silicon Graphics is a classic example of technology leaders working together to create common industry standards, for the benefit of customers and developers worldwide."

Moving Worlds is a leading proposal for VRML 2.0 (Virtual Reality Modeling Language). The Moving Worlds architecture allows 3D data sets to be scalable for viewing on a variety of computer systems, ranging from Internet PCs to powerful 3D graphics workstations. The development of Moving Worlds has been an open and collaborative process led by Silicon Graphics and endorsed by over 50 companies. The proposal has recently been submitted to the VRML Architecture Group.

The Netscape Live3D framework enables industry-standard VRML graphics to be easily integrated into the Netscape software platform. Live3D enables Netscape Navigator to deliver distributed, interactive 3D spaces rich with text, images, animation, sound, music, and video. In addition to providing a high-performance VRML 2.0 viewer, Live3D extends Netscape's Java, JavaScript, and plug-in interfaces to make it easy to develop distributed 3D applications on the Netscape Navigator platform. Live3D implements the proposed Moving Worlds VRML 2.0 specification.

The QuickDraw 3D metafile format (3DMF) is a cross-platform file format which supports Macintosh, UNIX and PC systems. 3DMF technology will be used as an object-oriented, binary 'wrapper' in the Moving Worlds VRML proposal. 3DMF technology will bring increased performance through faster parsing and faster downloads via smaller file sizes, as well as making it possible to stream Moving Worlds content. More information on 3DMF and its integration into Moving Worlds may be found on the Apple home page at <http://www.info.apple.com/qd3d>.

Apple Computer Inc. has released beta-level Apple Macintosh tools for creating QuickTime VR objects and panoramas.

Features and delivery dates for the next release of QuickTime VR are expected to be announced during the Apple World Wide Developer Conference, May 13-17, 1996, in San Jose, Calif.

With Make QTVR Object and Make QTVR Panorama, Web site creators, photographers and

others can more easily create QuickTime VR virtual reality content for their web sites, CD-ROM titles and other delivery vehicles. The tools are available on the QuickTime VR Web site at <http://qtvr.quicktime.apple.com/>.

Information to help developers incorporate QuickTime VR functionality in computer graphics and multimedia authoring applications is available from the Apple developer Web site at <http://dev.info.apple.com/>.

Software and content developers will continue to use the QuickTime VR Authoring Tools Suite 1.0 for creating photographic panoramas from multiple photographs ("stitching"), for adding clickable hot spots, and for creating complete virtual reality experiences. The QuickTime VR Authoring Tools Suite 1.0 is available from the Apple Catalog at (800) 282-2732.

Make QTVR Object is used to create a QuickTime VR object movie from photographs or computer-generated images of an object such as a car. It converts a QuickTime movie with frames consisting of images of the object into a single QuickTime VR object which can be rotated by the user to see all sides.

Make QTVR Panorama is used to create a QuickTime VR panorama from a photograph or a computer-generated image of a scene. The user can pan and zoom within the resulting QuickTime VR panorama.

Content created by both tools can be used with the QuickTime VR Authoring Tools Suite or authoring programs such as Apple Media Tool, Macromedia Director, or mFactory from mTropolis.

Developers who have signed a non-disclosure agreement with Apple can also receive the QuickTime VR 1.1 API specification for the upcoming release of QuickTime VR 1.1.

For more information, registered Apple developers can contact Developer Seeding at [dss.software@applelink.apple.com](mailto:dss.software@applelink.apple.com). To become a registered Apple developer, call the Apple Developer Hotline at (408) 974-4897.