



Remember to click on the pictures for captions and other goodies!



This month's note: Contests and mini-reviews! Win one of ten copies of MacAMP Lite by entering the contest found in Daria's **The Happy Mac** and enter the monthly contest found in Brian's **'Warehouse** column.

Also, visit the column **From the Desktop** to find out how you can participate in Apple Wizards by writing a mini-review!



Feature Article



Ahem, 180 Years of MacHack

Well it hasn't actually been 180 years, but...

Warren Magnus — wmagnus@ibm.net



Columns



The Happy Mac

Win a copy of MALT and learn that Windows is poop

Daria Aikens — daria@applewizards.net



Macintalk

Bruce interviews two fine fellows this month

Bruce Klutchko — bruce@applewizards.net



A Spider Speaks

What's an MP3? This month, learn how to make your own

Erik J. Barzeski — erik@applewizards.net



'Warehouse

Is it time for another round of Garcia's Guitars yet?

Brian Kelley — brian@applewizards.net



HTML ToolBox

Cascading Style Sheets (CSS) made simple... really!

Jeff Frey — jeff@applewizards.net



From Another Perspective

Put your 3D on the Web, part 2 of 2

John B. Crane — jbcrane@applewizards.net



The CoxFiles

Out with the antiquated, in with the same old fart

Craig Cox — craig@applewizards.net



Medicine Man

This virtual Mac doctor knows no stumper!

Brent Hecht — helpdesk@applewizards.net



Mac Junkie

A brief history of computing... kinda

Mac Junkie — macjunkie@applewizards.net



Shop Talk

RISC versus CISC is more than a 1-letter difference

Aaron Linville — aaron@applewizards.net



The Creator Code

The Event Loop is critical to understanding your Mac

Chilton Webb — chilton@applewizards.net



Website Watch

Wrestling on inline skates? Who'da thunk it?

Ron Freeman — ron@applewizards.net



Reviews



Connectix Virtual Game Station

Why buy a \$100 console when you can use your G3?

Marc Messer — macjunkie@applewizards.net



Adrenaline Charts Pro

Numbers suddenly got a whole lot more entertaining

Erik J. Barzeski — erik@applewizards.net



Vimage PF G3/240

Whoosh! That was Daria's old 6400...

Daria Aikens — daria@applewizards.net



Future Cop L.A.P.D.

Pete's got a badge now, so just watch out, okay?

Pete Burkindine — pete@applewizards.net



Extras



From the Desktop

Important news for eager Apple Wizards readers!

Erik J. Barzeski — erik@applewizards.net



Behind the Magic

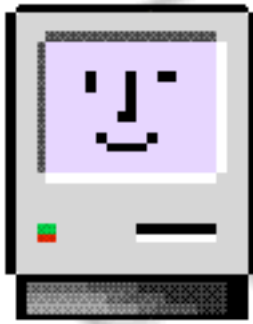
Staff Bios, Distribtution Information, and much more.



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<http://applewizards.net/>



The Happy Mac

SOMETHING TO SMILE ABOUT

Daria Aikens

<daria@applewizards.net>

Start Off the Month With a Contest!



Hello all readers, faithful and new! In order to show our love and appreciation for you, Mac Junkie and I have put together a contest for you. The grand prize is a free copy of MacAMP Lite 1.5, the brand new low-resource MP3 (and more) player. Want more info? Read this month's A Spider Speaks to find out how to make your own MP3s, and read the MacAMP Lite (MALT) mini-review in From the Desktop.

In order to win your free copy of MALT, you must answer all of the following questions correctly. If there are more than ten correct entries, we'll choose the ten winners with an electronic raffle. Need a hint? Answers can be found in previous issues of Apple Wizards and on the Apple Wizards website.

1. What are the names of both my Mac and Mac Junkie's?
Hint: Behind the Magic, The Happy Mac (Nov/98)
2. What is the URL to one of Apple Wizards' two sub-sites?
Hint: Visit our website
3. Who are the two original editors of Apple Wizards?
Hint: Jun/97 issue
4. What is a malt?
Hint: Webster might know
5. What is the first sentence in Apple Wizards Evangelism last month?
Hint: Gee, I wonder...
6. In which issue did Apple Wizards interview MacKiDo's David Every?
Hint: Apple Wizards text index
7. What is the name of at least one feature article by Brian Kelley?
Hint: Flip through a few issues
8. Name one shareware product reviewed in the Oct/98 issue.
Hint: The Oct/98 issue might be a good place to start
9. What issue and volume was the first to be published in PDF?
Hint: Look at the Previous Issues
10. What is the name of the sole Apple Wizards sponsor?
Hint: Look at the website, goofball!

Send completed entries to contest@applewizards.net. Please place "Win MALT" in the subject of the message or use the dandy form we've provided for you on our website at http://applewizards.net/win_malt.html



Sig File of the Month: Windows is a "Poop" Breeding Ground

"There might be less software on the Mac side of the aisle, but a lot of what's produced for Windows isn't all that good. Crap does not survive in the Mac market." James Staten, an analyst with Dataquest.

— **Martin Stephens**

Our pickings may be slim, but at least Mac users can be reasonably assured that installing a basic word processor won't render our systems useless. Unless of course you are talking about Microsoft Office, which is more accurately described as a commercial virus than a productivity suite.



Shameless Self-Promotion



Many of you have written to me asking if I would place a picture of myself in this column. The answer is "No," but that doesn't mean that you can't find a picture out there on the World Wide Web. Recently, Ilene Hoffman, a host of Talk City (<http://www.talkcity.com/>), created a new website called "People of the Mac" which profiles all sorts of people in our Macintosh community. Well, guess who's got a profile there? Go and visit <http://www.xensei.com/users/ileneh/td/macpeople.html> to find out! While you are there, submit your own identity to this innovative new site. Sure, you may regret exposing your private identity to the world someday, but just think of it this way — you're exposing yourself before our government does it for you.



Too Many Drugs in the 1960s



This reader's letter is a little bit long, but it is definitely worth it. In this submission, Tony elaborates on the Microsoft World

Domination '99 story which I broke last month. I reported that this version of Microsoft's new operating system will support Intel's new PentiumIII Toaster Oven. The Pentium processor will reside on a tray that slides in and out of the computer. Simply place your English Muffin on top of the processor, slide the PIII back into the machine and by the time Microsoft Office opens your Excel document, your English Muffin will be ready. The result of Tony's investigation is as follows:

I heard (from a **SlashDot**, [<http://slashdot.org/>](http://slashdot.org/), link to an anti-Scientology site which transferred me to an invisible **Perkin-Elmer FTP** account when I clicked on the greek letter theta) that when you **put the muffin in the P3TO** (Pentium III Toaster Oven), it automatically sends a cookie to the muffin manufacturer with the ID of your Pentium III.



Eventually this will allow the muffin manufacturer to add a scaled **surreptitious surcharge** to your bank account determined by the freshness date of the muffin inserted into the P3TO (via dated, triple-DES secure tags baked into the muffin). (Alternately it may choose to deduct the surcharge from your **Social Security Trust** account, in which case you'll have to opt-in to be notified.)

If use of untagged muffins is detected (approved muffins will at first only be manufactured by Kraft and Perkin-Elmer), the **BSOD of your choice** will be invoked, AFTER a cookie is sent to your registered muffin manufacturer informing them of your attempt to use the P3TO to toast non-manufacturer-approved muffins. Three such warnings will cause Kraft supercomputers to attempt to drop a quick packet on computers at MS Redmond, at which point, if they're working, your install of World Domination '99 OS will be terminated by an **Extreme Prejudice Cookie** or EPC, and, in place of the BSOD of your choice, a frowning picture of **Bill in his swim trunks** will appear on your monitor which can't be turned off for three years or until the picture is burned into the screen, whichever comes first.

Until dated, triple-DES secure tagged muffins are out of alpha (current version 3.14d15), upon muffin insertion, P3TO will cause you to receive, every three weeks, an e-mail inviting you to become a **Muffin of the Month Member (3M)**, enabling you to receive a different muffin every three weeks unless you return the enclosed form in a timely fashion. 3Ms (not to be confused with Operating Thetans) will, of course, receive a somewhat smaller surreptitious scaled surcharge, although naturally there is a nominal set-up fee for this service.

I believe it is possible that **Robert Z's cryptic Alert Dialog** (see last month's issue) is the result of an errant javascript prematurely attempting to stuff his Mac with a P3TO/3M enabling DLL. (You'll notice the terms 'EXE' and 'Key' in the *third* line.) I have contacted John Norstad about this, but he still refuses to come out of retirement.

I couldn't get into [<http://anon.free.anonymizer.com/>](http://anon.free.anonymizer.com/) tonight so remember ... you didn't hear it from me.

— Tony

<http://www.brainerd.net/~momma/>

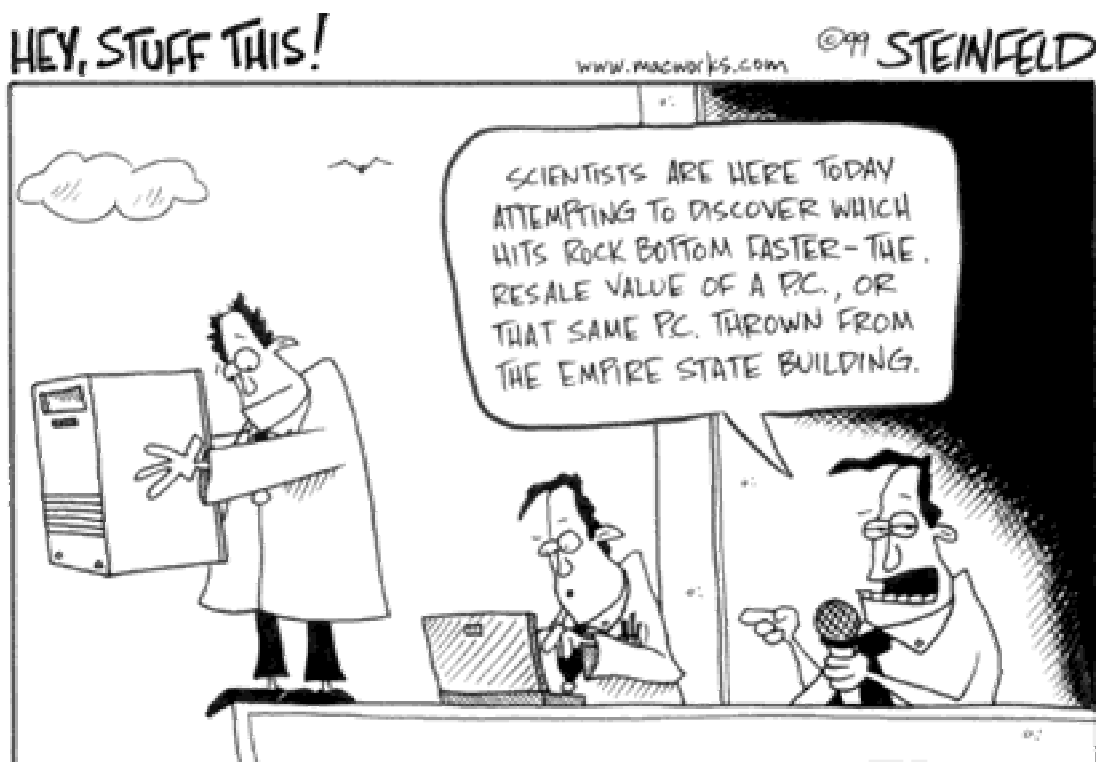
□



More Popular Than a Blue&White G3: March's Comic

Used by permission from:

<http://www.macworks.com/stuffthis/stuffthis.html>



Daria Aikens

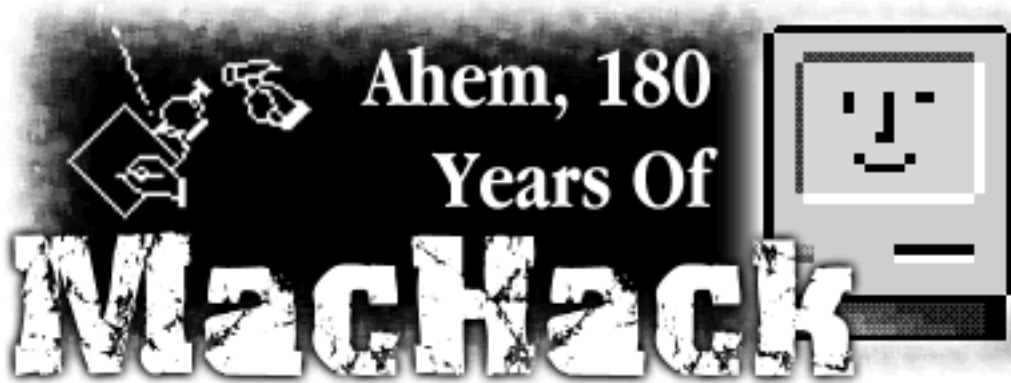
daria@applewizards.net



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And so it begins...

It is midnight on a warm June evening in Michigan. The air is cooling, but remains somewhat temperate. They are gathering. Gathering to listen. Gathering to learn. Gathering to complain, and to laugh, and to engage in battle.

Who are they? No, this is not some druidic sect or a group of historical reenactors. These adventurers are of a different sort. They come to Michigan each summer to define the future, to shape what will be. They come to hack.

In 1998, events were opened by Apple Employee Number Eight, Chris Espinosa. He entertained the audience for hours with stories of life in the early days of Apple and led all the way to his current activities with Applescript.

Once the keynote ends, though, things really begin...



Brief History

Every year since 1986, southeast Michigan has played home to MacHack. This conference has become legend among the Macintosh cognoscenti and has stretched its tendrils into the worlds of Windows, UNIX and almost every other corner of the computing universe. Nobody planned it that way — it just happened.

Things began at the University of Michigan, where those young and talented programmers originally gathered to see what kind of cool things they could do with this up-and-coming platform, the Macintosh. And cool things they did. The programs slung hastily together in the short days of the conference have left their mark on the Macintosh. More than 50 of them have gone on to become part of Mac OS. Numerous innocuous hacks have found their way into working utilities and shareware tools.



Sessions

Still true to its roots as a technical conference, MacHack has an abundance of technical sessions where attendees are drawn to learn yet more. New technologies are always central to the sessions, since that is, after all, what the conference is all about. Sessions are lively and often tongue-in-cheek, making often dry topics as interesting as possible. Speakers for the conference are all volunteers, bringing their passion for the topics to the presentations with infectious enthusiasm. Technical is not always exciting, but at MacHack the technical and the exciting come close to fusion. This year will be no different. Topics for 1999 already scheduled include cross-platform technologies, networking and media technologies, rapid application development, and a mixture of business topics of interest to small and large developers alike.



The Hack Contest

As the conference evolved from that first small gathering into something more, Scott Boyd, now of MindVision, and Greg Marriot, now of General Magic, created what has become the centerpiece event. The legendary Hack Contest was born from their desire to focus the talent at hand. Now, the programmers spar on the field of code and each strive to out-do one another for the most clever widget they can muster in those sleep-deprived hours during the conference itself.

Friday at midnight, the contest begins. The programmers, though already fading from the efforts of two nearly sleepless days of sessions and coding, line up in the main hall and await a turn to make their demo. All are ready, and all are tense at the prospect of demonstrating code that may not perform as expected for this technically savvy crowd. In the short time available, adequate testing is all but impossible.

The show itself is lively. The tug-of-war between sleep deprivation and caffeine ingestion drives the audience. Shouts from within the crowd of attendees determine the overall reaction. Heckling is encouraged. If code is believed to be a sham (and hacks have won on pure showmanship before), cries of "source!" can be heard, demanding that the demonstrator prove his programming prowess. The audience is hard, but very forgiving. Even this raucous crowd shows great reverence and respect for the youngest attendees — who are scheduled early in the show. Hackers as young as eight and nine years old have both warmed the hearts of these code-savvy warriors and impressed them with technical merit.

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The show can drag on indefinitely, but usually lasts four to five hours. The hackers then shamle to their rooms for rest, while the Hax Group — just as sleep-deprived as the coders — readies the balloting process: one attendee, one vote. The hack with the most votes wins. Of course this simple process gets complicated when the world is fuzzy from lack of sleep. Goals of web-based balloting have collapsed in the last few years as need for sleep has overcome the desire to move away from hand counting photocopied ballots.



Winning Hacks

There is a mad genius to the Hack contest. It draws out some of the best hastily written code in the business. But to what end? No English words seem to describe it. The Japanese have a concept called **Chindogu** that comes close. **Chindogu** is the art of inventing things that are very nearly but not quite useful. These technically meritorious creations must be appreciated by the observer as clever if nothing else. Below are last year's winners — you decide if this description fits.



The title of Best Hack and the coveted Victor A-Trap trophy went to **asciiMac**, the hands-down favorite hack. Nothing better summarizes the concepts that drive the hack contest. Written by a team of first-time MacHackers, Alexandra Ellwood and Miro Jurisic's hack wowed and amazed the late-night crowd. **asciiMac** is nothing short of stunning. The code is fast and lean, slowing down only because the PCI bus can move only so much data at once. But what does it do? That is the key to a winning hack: Functionality that is amazing, but at the same time not really useful. This program renders the entire Macintosh screen in realtime as ascii art, in color no less. It is absolutely staggering to witness. The entirely professional and well-rehearsed demo for the contest even included demonstrations of Quicktime movies and Virtual PC running as rendered ascii art. This is the essence of the Hack.

Hacks do not necessarily take advantage of the Macintosh per se. Things like **Open Firmware**, the long awaited update to the Macintosh that was to facilitate clone design, is just as much a target. The second place hack for 1998 was **OFFong** by Marcus Jager and Quinn "The Eskimo!" **OFFong** takes us back to those days of yesteryear when paddles of blocks propelled a streaking square around the screen. Written entirely in Open Firmware, the Macintosh boot-strap environment, **OFFong** provides updating to the boot process that allows a diversive trip down memory lane. As your machine is booting you can take a break for a quick game and then continue booting up.

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Two hacks tied for third in 1998. First time attendee P.D. Magnus provided the conference with his unusual take on the universe with **180 Years of Hack**. P.D. picked up on a printing error and ran with it. Each of this year's MacHack attendees received a commemorative mug at registration. Due to an error at the printing plant, the art on the mugs became muddled with another commemorative event and read



"MacHack 1818-1998." P.D.'s hack, **180 Years of Hack**, comes as a set of Web pages celebrating (with doctored photographs and woodcuts) what MacHack and the Best Hack Contest looked like over the span of the last couple of centuries. From the conference's presumed inception attended by Scottish philosopher James Watt, to the Wartime conferences of the last 180 years, P.D. provided an interactive if entirely fictional history lesson during the late night hack contest. At the awards banquet, P.D. also received a copy of Codewarrior and lots of lighthearted jibes that perhaps next year he could write some "real code."

Third place was shared with **PhaseShift** by Ed Wynne and Matt Slot. Ed and Matt gave some popular screen saver patterns a new twist by running them on the desktop all of the time instead of across the whole screen when the machine is idle. This caused scintillating displays of color to appear behind all the open finder windows and icons. Since the screen savers were the typical kaleidoscopic colors on a dark background, the desktop contents were all clearly visible. The demo was made more impressive by the programmers' own apparent fear at the suggestion that the patterns all be invoked simultaneously. Good code made the displays more psychedelic and things worked without a hitch.

Of the winners, the fifth place **Spotlight Hack** holds the most promise for a truly useful tool. While this almost disqualifies it from the running, the demo was sufficiently lacking in real utility that the voting held. This hack creates a circular "hole" in the Finder's windows so the user can see the desktop and icons that are on it. The hole moves with the mouse. It was written by David Kamholz. Unfortunately, the demo only allows viewing of the desktop with no interaction. Perhaps some future iteration will allow the ability to interact with Finder windows and icons through the hole. Imagine being able to reach through a large window and grab an icon only to release the hot-key and have the icon hovering over the window so it can be dropped in the middle of the document.



The Awards Banquet

Saturday night brings the closing event of the official MacHack schedule, the awards banquet. This is run by the Hax Group committee, who presents prizes lovingly selected from **Duke's Hardware**. Why Duke's? This old-time hardware store located just a few miles from the conference site is the perfect setting to find as many prizes as possible on a minimum budget. From stick-on letters to actual bricks, almost every hack gets something to commemorate the event. The winner gets the one prize that is planned well in advance, The **Victor A-Trap**. This large rodent catcher is embossed with the name of the event and the winner.

The last couple of years have seen the addition of commercially-provided prizes such as software and assorted computing-related widgets. These are given out in a door-prize-like fashion to maintain the nature of the hack contest as one of good-natured competition, so that hackers compete more against each other than for a prize.



The Future

There have been lean years for this conference, to be certain. Even with the wonder of Steve Wozniak as keynote, many wondered if the 1997 conference would be the last. However, things have turned around, more because the attendees have redefined their focus than because the Macintosh is reborn. MacHack is about the future, about defining what will come next. It is about passion for technology and a love of the new. The conference still carries the name and holds the Macintosh in high regard, but in reality the vision lies at the heart of the conference.

The hacks discussed here as well as others from 1998 and previous years are available for download at <http://www.machack.com/>.

Special Thanks to Scott Boyd of the MacHax Group.



Warren Magnus

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Review by Marc Messer



5 stars – 1 Star Poor, 5 Stars Excellent



Title: Virtual Game Station 1.1

Developer: Connectix

Price: \$49

Contact Info: <http://www.connectix.com/>

Genre: PlayStation Emulator

System Requirements: Factory original G3 PowerMac, Mac OS 8.x or later, 10 MB free RAM, 3.5 MB free hard disk space



Somebody Had to Do It

How many times have you seen some really cool console game advertised on TV and wished that you could play it on your flashy new G3? There are lots of emulators out there for playing all of those old games, but you want something new, right?. Connectix (online at <http://www.connectix.com/>), the makers of Virtual PC, heard your anguished cries and went to work. Suddenly, Mac users aren't just limited to the Mac aisle of games! Now we can jump over to the massive library of games available for the Sony PlayStation.

But how well does Connectix' Virtual Game Station (CVGS) really work? What are its limitations? Is it worth spending the money for an emulator rather than just shelling out a little more for the real thing? What's the story with this Sony lawsuit?



What is the Virtual Game Station?

If you're not familiar with the Sony PlayStation, let me make a single statement: it's the most popular game console on the market today, with a library of over 400 games. Utilizing a 32-bit processor and CD quality sound, all games run from a standard CD to yield an amazing gaming experience. Of course, some think the Nintendo 64 is better, but that's just hogwash (and a little opinion too **wink**). The Virtual Game Station (more info can be found at <http://www.virtualgamestation.com/>) emulates the PlayStation environment so that you can play many of those same games (about 150, so far) with decent performance on any factory-original G3 Macintosh.



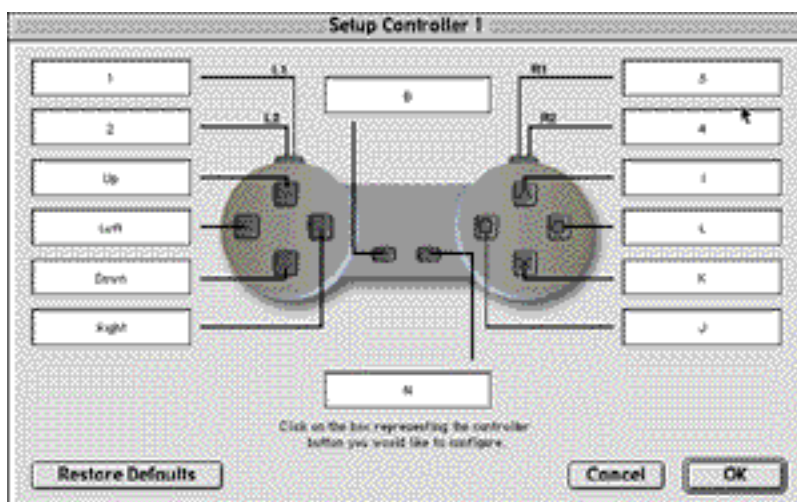
Setup

Connectix shows its Mac roots by making installation as easy as possible. After installing new ATI drivers (found on the CD-ROM) and then CVGS itself, you're ready to go. Installation even includes a mini-extension that automatically launches CVGS upon insertion of a PlayStation CD.



Controls

CVGS is designed for use by one to two players, either in keyboard / game pad or gamepad / gamepad combinations. The Virtual Game Station allows you to customize the buttons for both controls (see graphic below) with an easy-to-understand representation of a PlayStation controller. It recognizes ADB and USB controllers and utilizes Game Sprockets to make setup even easier.



□

This is actually a pretty nifty feature. Suppose you don't like NHL '99's controls on the PlayStation: because you can assign the buttons to any key or button on your keyboard and gamepad, you can essentially set up the controls the way you like. Ah, the joys of having a Mac!



Game Performance

A list of games that Connectix recommends after thorough testing on an original iMac with 32 MB of RAM can be found on their website at <http://www.virtualgamestation.com/games.html>. I did a little testing of my own on a Revision-A iMac with 96 MB RAM. I was able to test 11 games: seven were on Connectix' list and four were not. I found all but one of the games from the list to be perfect. Jet Moto 2, Bio Freaks, Rogue Trip, NCAA Football '99, Gran Turismo, and Destruction Derby behaved well in every way. I didn't notice many frame drops (skipping a frame or more of animation — the PlayStation itself does this occasionally as well). Only one of the five games on the list had a problem, Tekken3. Although the game play was smooth, the audio was choppy.



The four games that I tested which weren't on the list were Mortal Kombat 3, Pitfall, Tenchu Stealth Assassins, and Final Fantasy VII. All of them played great — in fact, I think that games like Tenchu and FF VII played better on the Mac than on my PlayStation due to the enhanced cut scenes. Cut scenes are prerecorded video snippets that are added to the game to give it an enhanced plot. Because the PlayStation uses a CD (capable of handling about 650 MB of data) it allows the programmers to add lots of video to improve the game experience. My Mac, with CVGS, seemed to handle the video better than a real PlayStation with its faster CD-ROM and higher-quality monitor (as compared to a television). CVGS is also capable of displaying movies in more colors than your friendly neighborhood PlayStation.



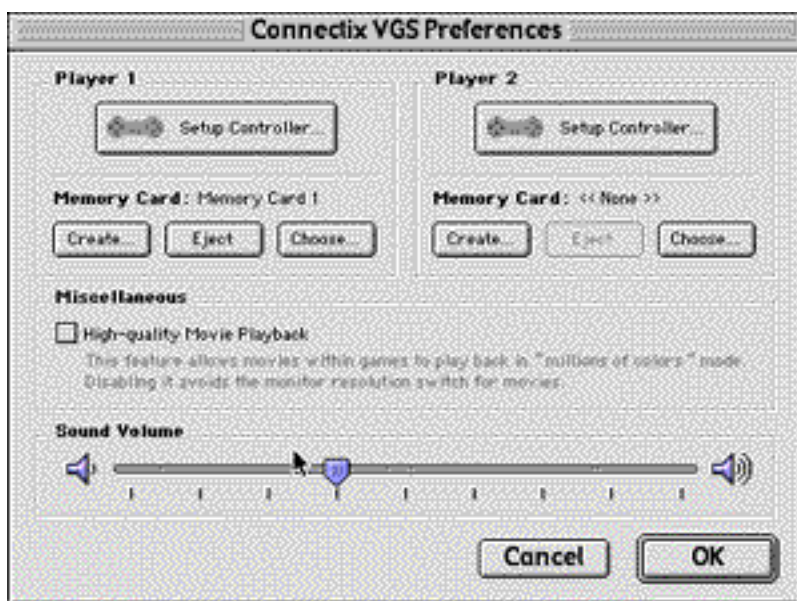
Memory Cards



Sony PlayStations come with two slots for inserting memory cards.

A memory card allows you to save games, replays, and high scores.

The problem is that they get to be pretty expensive. A 15-block card can cost about \$10 (games normally need 1-2 blocks to save their data). This becomes even more expensive when games like Gran Turismo ask for 15 blocks to save a race replay and NCAA Football '99 asks for 13 to save your season.



Problem solved. Connectix offers a memory card feature in CVGS that is sure to save your wallet some stress. You can create as many memory cards as you wish and swap them in and out in the preferences window. Each memory card takes up a measly 125k on my hard disk! With a virtually unlimited supply of memory cards, you should be content to save just about everything! Go ahead, be a digital packrat!



Miscellaneous Thoughts From a Game Junkie

There has been a lot of controversy since the CVGS was introduced to the public at Macworld San Francisco in January. Sony is noticeably upset by it, although their reasons are not clear. CVGS is the first commercial emulator of a currently selling console, and though Sony loses money with each PlayStation sold anyway (the real money lies in the sale of games), they don't like giving any control of the platform away to other companies.

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Unfortunately for Sony, a court denied them a temporary injunction against the release of the CVGS. To improve security, Connectix has released version 1.1, which helps further prevent the use of illegally-burned games on the CVGS. With decisions like these, Connectix is keeping their product as clean as possible, and that should guarantee you many future updates as they improve performance and compatibility.



Also, in case you haven't read all of the news about this product, it's for factory-original G3 systems only. Why is that? Because even with a high-speed G3 upgrade card in your 603- or 604-based Power Mac, your system is still limited by a slow bus speed. This restricts CVGS performance considerably: since your computer probably doesn't have enough RAM to load a whole CD into memory, it must constantly access the CD-ROM drive, and to do this it must pass through the bottleneck of a slow system bus; additionally, even RAM access is limited by the speed of the system bus (although this should be less of a problem, since RAM is much faster than any CD-ROM drive) In any case, you'll need a G3 with a speedy system bus to get the job done. While some games may indeed be playable on a G3-upgraded system, what's the point? Connectix has done a good job of creating a base system and discovering what games run well on that. By running the CVGS on unsupported systems, you will have no idea what kind of performance to expect from any game. Besides, why haven't you bought an iMac yet? :-)



The Last Cut Scene

If you already have a G3 Mac and a game controller, you're set. There is no reason that you shouldn't go out and buy this, unless you really want to play a game that isn't on Connectix' list, and you haven't seen it perform under emulation. I was truly surprised with the performance I saw on a little iMac. Isn't it nice to see something else a \$1000 Mac can do that a \$4000 Windows PC can't? I haven't seen any problems with the Virtual Game Station, aside from the high minimum requirements. Connectix gives you more than you'd think. Because I can't see any reason why a G3 owner should **not** buy the CVGS, I've got to give it Apple Wizards' highest rating — 5 stars. I'm a PlayStation owner, and having a G3 and a controller is preferable to the real thing in many cases. If only Sony would release a dual shock control for the Mac...



Marc Messer

macjunkie@applewizards.net



APPLE  WIZARDS



<http://applewizards.net/>



Welcome to Macintalk, my series of monthly interviews with people who make a difference in the Mac world and beyond. This month Macintalk interviews two very different computer users — different in several ways.

Tom Siegman used to use a Mac. Now he doesn't. Does that mean he's joined the Dark Side? I think not. Tom is a great guy, so find out why he left the Mac (at least for now).

Lance Brown is a student with an extraordinary Mac and a consuming interest in using it. He also works hard at his studies, his other obligations, and his relationships. Most importantly, he reads Apple Wizards.

Read the following interviews and come to your own conclusions about what this means for the future of the Mac. And, as always, please write me with your comments, suggestions, critiques, and suggestions for future interviews. I can always be reached at bruce@applewizards.net.

Interview conducted: 18 February 1999



Tom Siegman is an expert in International Consumer Marketing and Strategic Planning, and has over 20 years' experience working with computers. He is fluent in Japanese and received his Master's Degree in International Management from Thunderbird in Arizona. He is known among friends as "The Consultant's Consultant" for his ability to create unique, customer-focused solutions. Tom can be reached at Tom@siegman.net.

Bruce Klutchko: Tom, you used to use a Mac. What kind of machine did you use?

Tom Siegman: I started out on an SE with twin floppies and a 45 MB hard drive. My last Mac was a godforsaken PowerPC 6500 that I'd maxed out on RAM.

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BK: Tell us about when you first got it, and how you used it. What kind of software did you primarily run?

TS: My use of Macs has always been primarily office stuff: word processing, number crunching, email, presentations, graphics, etc. In recent years I added Web work to the mix.

BK: At **that** time, how did you like it? Did you have PC envy, or was it considered a good alternative.

TS: At first the best software was always written for the Mac: FoxPro, Excel, Word, Illustrator. In recent years the Mac has had some software advantages, but more often Mac software was developed as an afterthought, or not developed at all.

BK: Although I have to say that Office 98, with Word and Excel, is actually better than what is currently available on the PC. Recently you started using a Wintel PC, and a pretty good one at that. Tell us about which one you are using.

TS: I have a custom-built machine: AMD 300 MHz Processor, 128 MB RAM, DVD, ZIP, the full wazoo (as of 6 months ago. Now it's all obsolete.) I also put in a high-speed internet connection.

BK: Which software do you run, and how are you using it?

TS: Just the usual. No games, just office stuff. Plus I have my Palm Pilot connection.

BK: You mentioned the Internet. I understand you have a really fast form of home access, one most of us had never heard of. Please tell us about this.

TS: I use TSI Cable's T4 wireless internet connection. The upstream is a simple 33.6 through phone lines. The downstream, though, is a blistering 400-700K using microwave broadcasts from the Empire State building. It's way faster than an ISDN, at a fraction of the cost.

BK: Now the question that a lot of our devoted Mac readers do not want to see the answer to — what were your reasons for the switch?

TS: I had three reasons for switching: First, I was about to switch jobs and realized that I needed to get up to speed on the equipment that most companies use. Second, I was very tired of not being able to freely exchange documents and files with non-Mac users. Third, my Mac kept crashing, the software was a generation behind, and the situation showed no sign of improving.

□

BK: With the advent of Office 98, most of us can now transparently interchange the most commonly used files (Word and Excel) with PC users, but I know it can be hard to exchange files from other programs. How do you like your PC?

TS: It's a damn fine machine... except that the word "Microsoft" seems to be tagged on everywhere — it's like this damn kid who keeps jumping up and down yelling "I'm the one that did it! I did it! Look at me!"

BK: I know that your Mac would be considered antiquated by today's standards, but how would you compare the two machines? What is better about your PC? What was better about your Mac?

TS: I can't compare. My PC is fast and — by comparison — stable, and seems to do what I ask it to. And once I got used to the two-button-plus-wheel mouse, it was very hard to go back to the "hold the command key with your left hand while you triple-click" mouse. I miss the sense of extraordinary software that accompanied the early Macs, but that's been missing for a while. I also miss the fabulous Apple customer support. Oh, wait, there never was any customer support from Apple. Now I just call up the guy who built it for me.

BK: Many Mac users develop a sense of camaraderie, or a feeling that they are a part of something larger. Did you feel that?

TS: I did. Heck, I went and worked for Apple for a while and wore their T-shirts proudly.

BK: Do you feel that with your PC? Is it fun?

TS: No, the PC is not fun. It's not hip. Neither is my toaster. I wish it were. But, more than being hip Apple used to stand for elegance of design. I sense that this is coming back, but it was gone a long time.

BK: How was the setup and installation of your PC and its software. Did you do it yourself, or was it done for you?

TS: It was mostly done for me. I've added stuff since, and the wizards make things easy. I am sure the Apple is easier, and better at cleaning out old files. But long-gone are the days — with either machine — where I could easily browse through system folders or ".exe" files and know what every piece of code did.

BK: Have you installed other software yourself? How did it go?

TS: Yes I did. It was easy.

□

BK: From your unique perspective, how do you see the future of the Mac in business?

TS: The key question is, what is going to be the role of computers in business? Will people move toward a more stable UNIX platform? Will applications be written in Java with GENIE interfaces? Will we lose the "One computer does it all" model for component-based systems? Will the new Macs be able to easily run software written for Windows? Who will make the first "crash-free" computer at a reasonable price?

As long as Apple can keep its focus on Ease-of-Use, Operational Elegance, and Human Interface they will keep doing better. Jobs is doing a great job in rallying the troops. But he's doing an even better job in getting folks to concentrate on things that really matter. The new colors are nice. But if they didn't have great machines underneath, it would be moot.

BK: I understand that you are now looking for new work, having outgrown your old position. Tell us more about what you do and who you would like to do it for.

TS: Too many companies make a product and then look for ways to sell it to the consumer. I want to find a management consulting position in which I can help companies use the new IT technologies to flatten their organizations even further, and focus on all their customers, both external and internal. This would let me combine my expertise in International Consumer Marketing and Strategic Planning, with my passion for new technologies.

BK: I assume that your job choice will be platform-independent.

TS: The platform a company uses can say a lot about what sort of place they are.

BK: Do you get caught up at all in the platform wars?

TS: No.

BK: What do you think of the DOJ-Microsoft trial?

TS: Microsoft is a monopoly, and even though the folks who work there are nice, the whole attitude of the company is less than pleasant. I would hope that MS would get broken up into several parts — a company that does operating systems, one that does software, one that does online services, one that works with emerging technologies. Once broken up, the companies should be allowed to encroach on each other's territory, but not to rejoin for about 7 years. By that time other OSes will have had time to take root. Meanwhile, Bill G. would get even richer off the split, as the market would reward each Baby Bill's focus on a core competency.

□

BK: Will MS lose?

TS: One can dream, can't one?

BK: If you allow your mind to wander, say, seven years into the future, what do you see as the future of the computer? What will they be able to do, and what kinds of new things will we be doing with them?

TS: Some of this we already know — convergence will bring together the computer, phone, shopping, video, music, and publishing. People will readily make their own video shows and upload them for others to watch. No longer will we think "What's on TV?" Instead it will be "What do I want to watch now?" The networks will be dead, except as brandname content filters. (News will be CNN, Hip will be CNET, etc. MSNBC will still be talking about the impeachment trial.) Much more of people's lives will be taken care of for them, as automated banking is beginning to do. VISA and MasterCard will know too much about us and sell it to the highest bidder.

Computers, meanwhile, will get smaller and easier. Individual appliances will have their own CPU hookup. Otherwise, people will move away from having their own CPU, and more toward a thin-client/server set up where one buys computer access in the same way we buy TV (with our money or our eyes — watching ads). Few people generate their own electricity. They don't run their own phone company. Why have a computer — just plug in!

Companies will have far fewer computers as they concentrate on their core competencies and outsource all non-core functions to other companies. But you knew all this already.

Computers will be able to interface much more readily, and be far more user-oriented than they are now. We will wear them without thinking it odd.

The biggest change will be in our educational system. Computers have the capacity to swiftly shift teaching styles and provide individual attention to students. Moreover, they can tell whether or not a student has actually learned what is being taught. Students who learn from the new teaching machines will learn more, and have lots of fun doing it.

HAL: THIS IS HAL: YOU EVEN LIKE YOUR PC BETTER THAN ME, DON'T YOU, TOM?

TS: Gee HAL, I didn't know that you liked my PC.

□



Lance R. Brown has a writing background. He began his studies in chemical engineering at Carnegie Mellon University last fall. A full scholarship from Naval ROTC supports him. He sends email, browses the Web, writes papers, and runs RC5 "constantly" on a G3/300 with OS 8.5.1, 160 MB RAM, 12 GB hard drive, and XClaim VR/TV, with two 20" monitors, and four sets of speakers. Y'know, a typical dorm room setup. This is his icon:



Bruce Klutchko: Lance, you received a pretty cool Mac for a high school graduation present. Why did you decide to go with a Mac?

Lance R. Brown: In a high school where I had a choice, I always chose Macs. I was the guy that knew how to fix anything that could go wrong with a Mac and had the utmost confidence that little **would** go wrong if I got the best Apple made.

BK: I got a \$10 Schlockmobile car for my graduation present — why were you so lucky?

LB: The way my parents and I see it, I'm going to a \$30,000 school, and thanks to my ROTC scholarship it ends up costing about one fifth that. Comparatively, \$2000 for a solid piece of equipment that will last all 4 years isn't much to pay. So think of it as a "cheap present" ;-)

BK: What is the percentage of Macs vs. Wintel boxes at Carnegie Mellon?

LB: Unfortunately not as good as I would like. The overall percentage is like 10% Macs, 60% Wintel, and 30% Linux/UNIX/other.

BK: When you speak (electronically or otherwise) with your fellow students, who seems happier with their computers — the Wintel or the Mac people?

LB: Wintel users are usually satisfied, especially if they're experienced using their machine. Mac users, on the other hand, seem more intrigued by their computers. It's that old "my Toyota Camry gets me there the same as your BMW" thing.

BK: We know which one is the BMW. Does this affect your happiness with your choice of platform?

LB: Definitely.

□

BK: So which way do you use your Mac more, for leisure and fun or for work?

LB: Slightly more on the leisure side, thanks to email. [Ignoring the argument that Macs increase productivity.] But there's the "work" side of email too...

BK: Which are your favorite games and leisure software? Honestly now, how much time do you spend playing them?

LB: With such a kick-ass gaming machine, I don't in get as much gameplaying as I'd like to. I probably average an hour a week.

BK: ROTC must really be getting its money's worth if that's all the time you spend playing games!

LB: I really like Unreal even though I'm not a big first person shooter guy. My genre of choice is Warcraft II/ Command & Conquer.

BK: As a chemical engineering student, you probably have some serious uses for your Mac in addition to all the fun things we know you like to do (especially with 8 gigs of stuff available on the campus network). What are they? How does your G3 stack up as a serious machine, especially as regards the availability of "serious" software?

LB: The academic stuff that I use it for now uses traditional programs like AppleWorks and Excel. I have used Graphing Calculator to help with Calc and I'm getting into Maple (advanced mathematical software). Unfortunately, though, the engineering software I will be using later in my career here is mucho-expensive stuff that I will have to use in a lab, either on Wintel machines or Unix (or SGI) machines. Note that it would **not** help to have a Wintel in my room to use this stuff.

BK: We can forgive you for using VPC. Lord Jobs is an iCEO of compassion. How good a Windows machine is a G3 with VPC?

LB: It's faster than my roommate's Pentium 75 MHz, but not immensely. I typically only give it 16 MB of memory (but I question whether it deserves that much!). I'd guess that it acts like a P133.

BK: Can your Windows-flavored fellow students still respect you with this platform?

LB: Some of them are caught up in their NT or Linux and can't get past that, but the Windows 95/98 people are usually willing to notice that Macs do a lot of things better.

□

BK: See, some degree of intellectual honesty still exists among students. But how about the morning after — do they still respect you? (Oops — sorry — wrong article.) Which software do you mostly run on VPC?

LB: Actually, through a design flaw in VPC, the PC can't share an IP address with the Mac. That's harmless for the Mac, but the PC can't use internet [on the school network] at all. It can connect to the campus network, though, and that is about all I use it for. This can be an academic function, by the way, because sometimes I have to submit homework electronically over the Windows network. Mostly, VPC is there "just in case."

BK: You have been using Connectix Virtual Game Station (see review elsewhere in this issue). How does it compare in terms of playability, and compatibility, with the Real Thing from Sony? My eight year-old son plays Nintendo 64 now. Should I start weaning him onto Playstation so he could use CVGS?

LB: Believe it or not, I will make a claim of 100% performance on my computer. In fact, it seems the G3 has better CD-ROM hardware so it actually loads faster! I don't even have to disable extensions. The only catch is that my controller looks nothing like a playstation controller, so if you've played a game on the real thing it will take some getting used to.

BK: Your G3 was really the best thing until the Blue and White G3's just released. Is it still cool, or are there some features you long for?

LB: I almost sold my G3 when the new ones came out because I wanted so bad to have the new video card. The PC people get way better performance on Unreal because they have Voodoo2 cards and I'm using the onboard RagePro. However, Firewire and USB right now are no-sells because I have little use (or room!) for more peripherals.

BK: You know, I interviewed the folks at Micro Conversions last October. Their Voodoo2 card more than evens the score with those PC guys... Now on to politics. Does the Microsoft case get a lot of attention on campus? How do you and your fellow students feel about this? Has Microsoft brought us the New Age in computing, or has it brought us the Dark Ages? Should MS be broken up into Baby Bills?

LB: It's not that hot an issue considering the computer-defined lifestyle here. I have mixed feelings about Microsoft. They've put out a **few** good products recently, namely Office '98 and IE 4.5. But they deserve very little credit for moving computing forward. They seem to have left that responsibility, as usual, with Apple.

□

BK: Right now you are on the beginning of a road towards what could be a great future. As you look towards that future, what do you see yourself doing in about seven years? Do you see yourself using a Mac at that time?

LB: I can't say what my employer will require, but I can't imagine that I'd have anything else for personal use. In seven years I'll be fulfilling my NROTC commitment as an officer in the Navy. Maybe I'll have a "G6" laptop with a wetsuit. Oh wait, they already look just like wetsuits.

BK: With all of the past confusion at Apple Computer, and now all the recent hype, where do you see Apple heading? Is it a viable platform for the future?

LB: If it's not, computing's gonna suck. Apple has put the smack down as far as putting the arcane floppy to rest and nurturing the USB and FireWire interfaces. They know how to push computing forward like no one else. USB, with all of its advantages and its widespread installed base, stagnated until Apple forced the issue. If they're not around to continue this leadership, I don't know who could fill their shoes.

BK: Will all the MP3, CD, and audiovisual equipment you have in your room, it must be quite a babe magnet. Which is more important these days on campus — a hot car, excelling in a varsity sport, or having a hot computer setup?

LB: Well, I'd better downplay the car since I don't have one. But on this campus, I think it just might be the last anyway!



Thanks, Tom and Lance, for sharing your thoughts with us. Although both Tom and Lance are at very different stages of their lives, both have in common that they each have at least one foot in Wintel World. This shows our readers what it is like for many Mac users in the real world. Most of all, it should help you Mac users to feel good about the choice of computer you have made. After all, with a little effort, you can cope in a PC world. On the other hand, there is nothing that PC users can do to enjoy the advantages and opportunity of using a Mac.

If there is a someone in the Mac community that you are dying to learn more about, please let me know. We would love to hear your suggestions and your comments about my column.



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Erik J. Barzeski <erik@applewizards.net>

A Spider Speaks



Tips and tricks for
newbies, gurus, and
everyone in between.

Hello, and welcome to this month's edition of **A Spider Speaks**. Each month I strive to provide you, the Mac user, with a wealthy source of tips, tricks, and tidbits of useful information. Comments or questions can be sent to me at erik@applewizards.net. I'm always looking for ideas, so fire up your email application and throw some bytes my way.

This month I'm delving into muddy waters: MP3s. Specifically, I'll be telling you how to make MP3s from your own audio CDs with freeware tools. So far as I know, MP3s made from your own audio CDs and kept for your own personal use are legal, but there are many myths surrounding MP3s, so beware.

Thanks to Brian Greendan for suggesting this topic for **A Spider Speaks**. If you've got an idea for a future column, just email me at erik@applewizards.net ! Thanks.

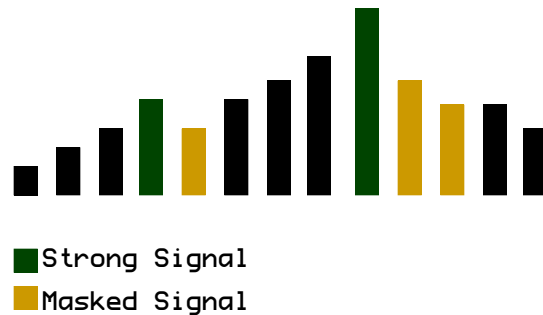


A Brief Intro to MP3

Many Mac users have heard of MP3s. Many have not. Though I won't wade into the (il)legalities of MP3s, I do believe that a brief background is useful. Simply put, MP3 (short for MPEG-1, Layer III) is a file format which allows for highly compressed, high-quality sound. Want more information than that? Keep reading.

An audio CD typically holds about 68-74 minutes of 16-bit, 44.1 kHz audio data. 16-bit refers to the number of "steps," or degrees of loudness, and the sample rate, measured in kHz, refers to the sample rate (44,100 samples/second). A full CD occupies 650 MB, so the classic way to reduce size is to reduce either the bit rate or the sample rate. Cutting the bit rate to 8 would reduce the file size by 1/2, but you'd lose quality.

□



MPEG Audio was created to combat that problem — losing quality with file size. MPEG Audio strips information which is not important based on studies of human perception. In other words, if a strong signal appears, the weaker signal which follows is not perceivable. MPEG removes the weaker signal to save space. This is called "perceptual coding." At higher levels of compression, "less" important signals are removed, and so on.

MPEG Audio Layer III is the most complex MPEG Audio model currently used. It does a lot of filtering and uses what is known as a Huffman coder. Coding at 128 Kbps produces very high-quality sound, and coding at 160 Kbps or higher produces an MP3 that you won't be able to tell apart from the original audio CD track.

Why would you want to convert your audio CD tracks to MP3s? Well, imagine the possibilities. Because a single CD-ROM has enough room to store around 150 MP3s (versus the roughly 16 songs which fit on an audio CD), you can create "best of" collections from your collection and make it through an entire work day without switching CDs!

Note: Much of this information was obtained from the MPEG Audio Page at <http://www.raum.com/mpeg/>. I encourage you to visit this fine site yourself!

Note 2: Because of the stringent encoding/decoding requirements, I recommend that only folks with Power Macs (a 603e/120 MHz or later) play, encode, or decode MP3s. If you're patient, try it anyway, but consider yourself warned!



Get the Tools!

Throughout this tutorial we'll be using three or four tools, so you'll probably want to get them. Most of the tools are freeware, so this exercise won't even cost you much! Whoever said the best things in life are free must have been a Mac user!



MPecker Drop Decoder (Free)

<http://www.anime.net/~go/mpeckers.html>

If you want to convert your MP3s back into some other format, you'll need this dandy, easy-to-use application. Grab it and keep it around "just in case."



MPEcker Encoder (Free)

<http://www.anime.net/~go/mpeckers.html>

This will be doing the brunt of the work in this tutorial. If you want to make an MP3 at all (at least via my methods), you'll need this one!



MoviePlayer (QuickTime 3 Pro)

<http://www.apple.com/quicktime/>

You'll need QuickTime to use some of the other tools, and in a pinch, MoviePlayer can be substituted for the next tool.



Track Thief (Free)

<http://www.student.nada.kth.se/~d88-bli/misc/>

Want the simplest way to strip audio from your CDs? This is it. MoviePlayer can do it, but this is much, much faster.



MacAmp or MacAmp Lite (Free Public Betas/Shareware)

<http://www.macamp.com/>

You'll need either MacAmp or MacAmp Lite (see the contest in **The Happy Mac** and the mini-review in **From the Desktop**) to play your MP3s. Of course, there are other players out there, but these are the best.

Now that you've gathered your tools, let's get down to it!



Getting Down To It

Once you've got the tools, encoding your MP3s is easy. Let's take it step by step.

Step 1: Rip it From the Audio CD

The first step in converting your audio CD tracks to MP3s is to actually "grab" or "rip" the track from the CD. Essentially, you need to convert it from red book (audio CD) format to a file format which can be converted to MP3.

When burning CDs on a Mac, 44.1 kHz, 16-bit AIFF (Audio Interchange File Format) files are used. On the PC, WAV files are used. Thinking and working in reverse, we need to convert the CD audio to an AIFF file. Luckily, Track Thief does this for us in one step. Simply open Track Thief with an audio CD in your Mac's CD-ROM drive and follow these steps:

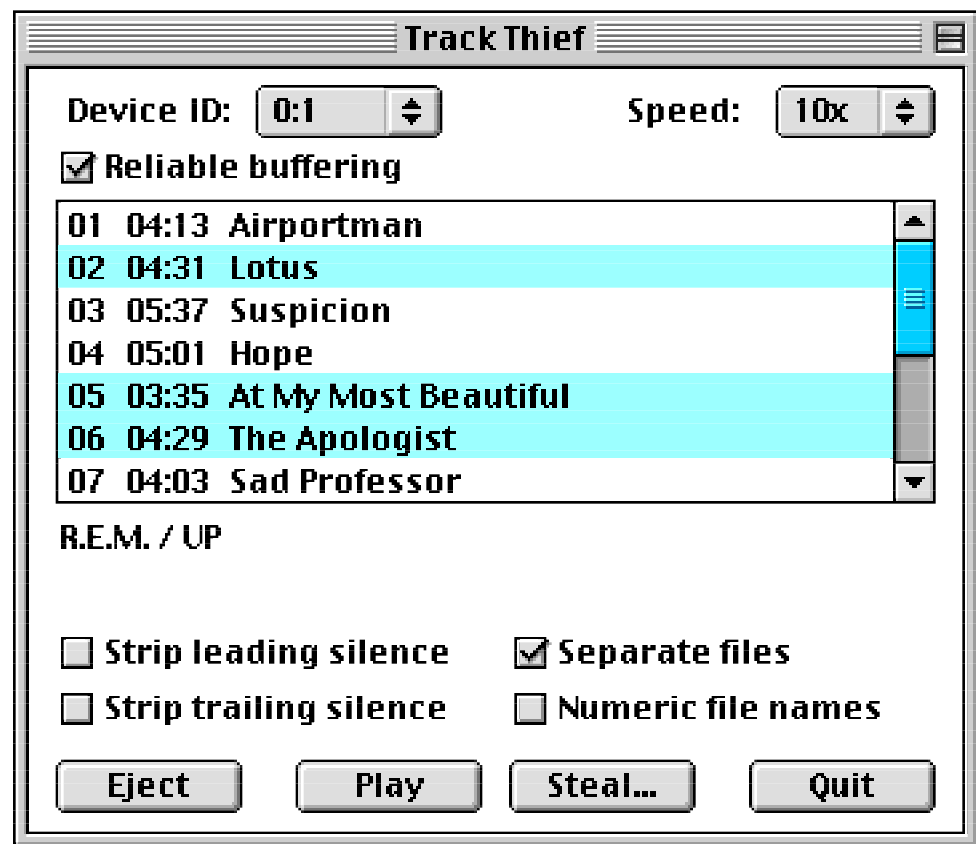
□

1.1 — Check that the speed is as high as possible (which may or may not be as high as your CD-ROM drive's speed) and that the Device ID is correct (usually, only one is available).

1.2 — Check the boxes for Reliable buffering and Separate files (unless you prefer a single, **very** large file).

1.3 — Set remaining checkboxes to suit your preference (I prefer to leave them all unchecked).

1.4 — Choose "Steal..." to transfer the tracks from the audio CD to your disk. Make sure you save them to a disk which has lots of free space! Each minute will cost you roughly 10 MB.



Step 1.5, an Alternative: Using MoviePlayer

MoviePlayer can also be used to rip tracks from audio CDs, but its process is slower and more tedious.

1.6 — Fire up MoviePlayer and choose "Import..." from the File Menu. Locate the appropriate audio CD track and choose it. In the next dialog box (which prompts you to save the converted file to your hard disk), click the "Options..." button and make sure that 44.1 kHz, 16-bit, and Stereo are selected.

1.7 — Save the file and allow MoviePlayer to convert the track. It will now be an AIFF file ready for the next step.

□

Step 2: Convert to an MP3

Now we'll use MPecker Encoder to encode the AIFF file to an MP3. Before we can encode an MP3, we'll first want to set the preferences. Within MPecker Encoder, choose "Preferences" from the File menu and set the following preferences:

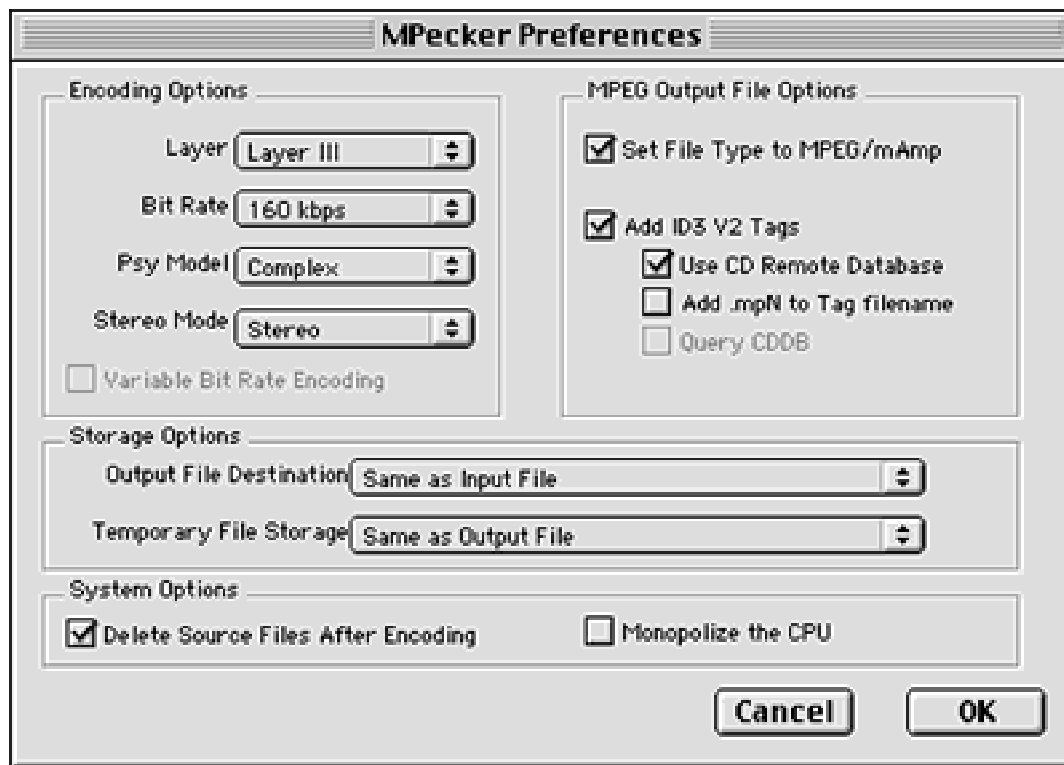
Layer: Layer III

Bit Rate: 128 or 160 (I often use 160, many others use 128)

Psy Model: Complex

Stereo Mode: Stereo

Remaining Preferences: Set the remaining preferences to your liking. As you can see in the screenshot below, I opt to delete the original AIFF files and add ID3 V2 tags (more on these later) when MPecker is done encoding.



After you've set your preferences, quit MPecker Encoder and drag the ripped AIFF files (or folders of these files) to the MPecker Encoder icon. Voilà! Encoding should begin (speeds vary across computers) and in a relatively short amount of time, you'll have your very own MP3s! Wowee!

The ID3 V2 tag?

The ID3 V2 tag is essentially a nifty little tag included "inside" the MP3 files themselves. Without getting too technical, it allows you to store things like the song name, artist, album title, musical genre (rock, classical, etc.), and more within the MP3 file itself. Intelligent MP3 players, like MacAmp, can do things like scroll this embedded information across the player window. I find it to be very useful, though you may not. Besides, you can always go back and add an ID3 V2 tag later.



Some Practical Applications

The cynics in my audience are asking "why" right now. Why convert your CDs to a massive MP3 collection that clogs up your hard drive? Well, there are a number of good reasons.

Convert Entire CD Collections to a Few

Audio CDs typically have about four or five good songs. Who enjoys listening to those songs, ejecting the CD, and putting in another? With MP3s, you can make "best of" collections of around 150 songs and store them on a **single** CD (20 or so will fit on a 100 MB Zip disk). Imagine the time and pleasure benefits! And stop carrying ten CDs to work every day!

Transfer Files Easily

My friend is a musician looking to break into the business. He's furthered his career and garnered listeners without having a single record deal. How? MP3s — he offers them for free from his website. Because most of his songs are 3-5 MB, people download them. Besides, would you rather email your friend a 40 MB AIFF file or a 4 MB MP3, given that there is no noticeable difference in quality?

Make Regular CDs

Using MPeacker Drop Decoder, you can decode your files to AIFF files. These can, in one step, be burnt onto CDs. Take that "best of" MP3 collection and make a few audio CDs for your car or home stereo. Eventually, as portable MP3 players become more popular, you will be able to transfer MP3s to memory cards and listen to them while exercising, walking, or otherwise spending time away from your computer.



0:03, 0:02, 0:01, 0:00... The End!

MPEG-1 Layer III is a cool format. I listen to MP3s I've encoded from my own audio CDs every day. It sure beats the "listen-eject-listen-eject" routine! With fun software like MacAmp and MacAmp Lite, listening to MP3s sure as heck beats audio CDs in other ways too. Go ahead, give it a try. I'm sure you'll be impressed as well.



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Release The Hounds!

My modus operandi in compiling this column usually involves remaining attentive to the INFO-MAC Hyperarchive <http://hyperarchive.lcs.mit.edu/HyperArchive/Abstracts/Recent-Summary.html>, as well as visiting sites like VersionTracker <http://www.versiontracker.com/> to stay abreast of the latest software updates. This month, however, press releases form the basis of my recommendations (along with a really cute little game I found at INFO-MAC). It really does pay to advertise.



Slip-Slidin' Away



CineSlider

Do you need to give a presentation, but don't necessarily want to shell out hundreds of dollars for PowerPoint? Or perhaps you've declared your hard drive a Microsoft-free zone? Either way, you'll love CineSlider. CineSlider by OneApp (v.4.2, Jan '99, 2259 K) is a slide show and presentation tool for multimedia files, QuickTime movies, sounds, and images. You can customize your slide shows with different backgrounds, play them back automatically or manually, and create standalone "projections" for distributing your presentations. CineSlider supports a wide array of multimedia formats: QuickTime Movies, QuickTime VR Movies, and AIFF audio files. It also supports many of the main graphic formats: JPEG, TIFF, PICT, Photoshop, PNG, MacPaint, GIF, animated GIF, Windows Bitmap BMP, and SGI.

For just \$25, CineSlider is a tremendous value. This shareware is available from <http://www.kagi.com/oneapp/cs/default.html>.



Time,Time,Time, See What's Become of Me



PopCalendar

According to James Taylor, the secret of life is enjoying the passage of time. But even if you're not deriving pleasure from the creeping petty pace from day to day, you still might appreciate PopCalendar by Cristiano Verondini. PopCalendar (v.1.1.2, Jan '99, 213 K) is a small extension that puts a mini-icon in your menubar which displays the number of the current date. Clicking the icon from within any application brings up a small month-view calendar, which you can even use to jot down notes and appointments.

PopCalendar costs only \$10 and it seems to be a reasonably stable INIT. Get it from <http://come.to/popcalendar/> and mark the passage of days.



Do Not Pass Go, Do Not Collect Windows Licensing Fees



Cyberopoly

In childhood, I learned many things: dog biscuits taste pretty good, never correct teachers when they err in statements of fact because it makes them cranky, and never, **ever** start a game of Monopoly if you have anything else to do that's even remotely interesting, because the game will last for days and it'll probably cause bad blood between you and your friends and/or siblings anyway.

Having said that, I was surprised and pleased to find that I really enjoyed Cyberopoly by John Mauro. Monopoly with a computer-industry theme, Cyberopoly (v.3.0, Jan '99, 2674 K) is both a clever satire and an eminently playable game. Interestingly, the results of my first test game were that "Bill Gates" (the computer player) was hauled off by the Department of Justice, and his third attempt to roll doubles generated an infinite repetition of the error message, "Alas, poor Bill Gates, his attempt to flee the Dept. of Justice was futile." I don't know about you, but personally, I think that's pretty funny!

Cyberopoly is \$15 shareware, and it can be downloaded (along with John's other games) from <http://cs.alfred.edu/~maurojc/software/> — otherwise, see below for your chance to win a free copy of Cyberopoly.



Dark Star



Garcia's Guitars

One can never really have enough mindless fun, and in that spirit, I commend to you a little game called Garcia's Guitars by Jason Rainbows. In this cute, non-violent diversion, you use the mouse to move a little Jerry Garcia around the screen to collect and hug all the guitars in the allotted time. Watch out for the law enforcement officers, who will detain Jerry while time ticks away. Grab the bonuses (sugar cubes, hookah pipes, tarot cards) and help Jerry's karma points advance him from cloud to cloud. Best of all, there's no "game over," so you can play as long as you want with only your own self-restraint to govern you.

Garcia's Guitars (v.1.2.1, Feb '99, 494 K) is \$10 shareware. Even if you're not a DeadHead, this game is really cute and fun and (dare I say it?) addictive. Go get it from <http://www.mindspring.com/~jasonrainbows/Xmpls.html>.



'Warehouse Trivia Contest



This month we're giving away three copies of John Mauro's Cyberopoly. More fun than a barrel of anti-trust lawsuits, Cyberopoly excels as both a game and as a satire.

With "Contest" in the subject line, email your answers to brian@applewizards.net.

The Five Apple Wizards Questions for March 1999

1. What is the code-name of Mac OS X Server?
2. In Outlook Express 4.5, what does Command-Option-P do?
3. Who is the developer of the shareware SimpleText Color Menu?
4. Who was Apple Computer, Inc.'s first president?
5. Which iMac flavor is best? Justify your answer.

The winners for January were Dierk Seeburg (again!), the illustrious Jon Pugh, Martin Stephens, and Tony. Honorable mention goes to "Tony," who answered the essay question with a rant of such monumental biliousness that reading it completely exhausted me. ;-) Congratulations to all.



Brian Kelley

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APPLE  WIZARDS



<http://applewizards.net/>



Review by Erik J. Barzeski



4.0 Stars — 1 Star Poor, 5 Stars Excellent



Title: Adrenaline Charts Pro

Version: 1.03

Developer: Adrenaline Software, Inc.

Price: \$399.99 (\$99 academic)

Contact Info: <http://www.chartspro.com/>

Genre: Charting software

System Requirements: PowerPC, Mac OS 7.5.3 or later, 32 MB RAM, 10 MB free disk space, QuickTime 3.0 or later (on CD-ROM). **Recommended:** PowerPC 604e 120 MHz or faster, System 8.0 or later, 64MB of RAM, QuickDraw 3D hardware acceleration



A Brief Introduction

The characters of Scott Adams' Dilbert comic strip would love Adrenaline Charts Pro. With such a powerful weapon, the Pointy-Haired Boss would be nothing more than putty in their hands. That is, until he figured out that his laptop was an Etch-a-Sketch...

Charts Pro chucks a whole lot of pizzazz into what could otherwise be a boring project: making charts. Never before have charts looked this darn good. This software's so nifty your boss might promote you just for using it.

Yes, this application is geared towards folks that, no surprise, need to make charts. Whether you're a home-office worker who needs to impress your vast clientele or a cubicle rat who needs to impress your version of the PHB, Charts Pro can do it (and more so than AppleWorks or Excel).



Get It In, Get It Out

As a scientist, I've spent a great deal of my time working with various charts and graphs. I know the frustration of getting Excel or AppleWorks (née ClarisWorks) spreadsheet data in the right column or row in order to produce a good graph.

Though Charts Pro won't eliminate all data-management hassles, it does make dealing with data a fairly simple proposition. To import data, you can drag an Excel, AppleWorks, or other spreadsheet file to Charts Pro's graph window; you can import it from a text file; or you can simply select a range of cells and copy/paste them in. In any case, a graph magically appears!

Because a plain graph is boring, and because we're Mac users, we like to use graphics to spice up our otherwise dull assignments. Charts Pro enables users to add textures, colors, transparency, background pictures, and much more to charts of all kinds. It can import all QuickTime-compatible images and movies — PICT, TIFF, GIF, JPEG, Photoshop, QuickTime, MPEG, TARGA, SGI, BMP, PNG, and MacPaint. Getting these files into your chart is as easy as drag and drop.

Once you've manipulated the data, added a few cool pictures and textures, and had a heck of a good time doing it, you'll no doubt want to export your chart for use in presentations or other files. Aside from the standard save feature, which saves what could be called your chart "workspace," Charts Pro offers a versatile package of export filters. Charts can be exported as PICT files (with ColorSync profiles, if you choose), JPEG, Photoshop, EPS, QuickTime (movie), or 3DMF. Options allow you to choose your resolution (72-300 dpi) and the Photoshop export saves the file with layers, allowing you to easily incorporate charts into far more elaborate graphics.

Get it in, get it out: that's the key to effective data management. Charts Pro does it as well as any other application I've seen.



Talk About Tools!

Unlike Excel or even AppleWorks, Charts Pro's interface is not overrun with toolbars. Each of the three toolbars, such as the Tool palette at right, contains a few, easy-to-understand buttons that perform precise, comprehensible tasks. The buttons in the palette shown here, from top to bottom, select items, rotate the chart, zoom in or out, move the chart, add text, modify light sources, and move the camera viewpoint.

Other toolbars include the Chart Types palette, which allows you to choose from 23 different chart types, including 2D and 3D bar, pyramid, ribbon, line, layer, step, bagel, pie, and esoterica (surface) charts. After you've got the right chart type, the Appearance palette lets you adjust things like axis scale, light intensity, labels and legends, color and transparency, and much more.

In fact, the number of actions and "wow, that's so cool" things you can do may make you the most unproductive employee your company has ever seen! From personal experience, I spent three hours creating a report that I could've done in 30 minutes with AppleWorks. The wasted time was not because I was frustrated with the software, but because I just had to see if I could make my graph even cooler!

This "aw shucks" approach to good interface carries over to the excellent user manual as well. Though Charts Pro has an excellent AppleGuide help system (old style, not the new HTML variety), you should hardly ever need it. After flipping through the user manual a few times, you'll be creating charts with the best of 'em.



Putting the Azz in Pizzazz

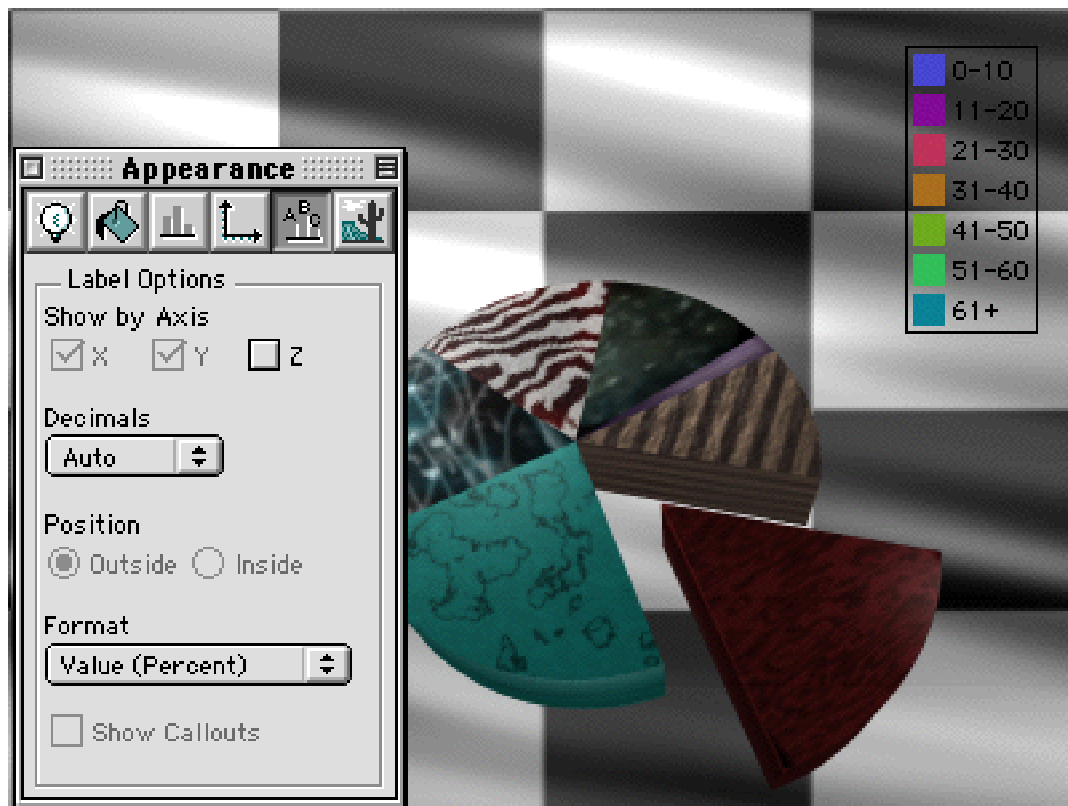
Charts are boring, right? Business has taught us this; Ross Perot has taught us this. Who are these Adrenaline folks trying to fool? Mac users, that's who — and they do a bang-up job of it, too. Charts Pro, which just so happens to be Mac-only, has more creative pizzazz than should be legal.

Textures

Flat color is boring. Even transparency is boring after a while. Adrenaline Charts Pro comes with over 150 gradients, textures, and tiles. Textures range in style from Canvas, Gradients, Granite, Liquid, Materials, Stone, Tisible, Wild, and Wood. Needless to say, the textures hiding inside the "Wild" folder are my favorites.

□

Adding textures, like many other things in Charts Pro, is as simple as dragging and dropping the texture file onto the appropriate bar, pie slice, or whatever piece of the chart you wish to embellish. Holding down the command key while dragging applies the texture to a series of chart items, and holding down option applies it across the column. Textures can be rotated, scaled, and otherwise modified. Creating your own texture file is as simple as creating and saving a PICT file, though careful people will want to create textures which tile well.



3D Objects

Charts Pro wouldn't be nearly the product it is without its ability to use 3DMF files as bars. Imagine a bar graph of Babe Ruth's yearly home run totals in which 3-dimensional bats take the place of standard (or even textured) bars. Charts Pro can do it. Over 120 3DMF files are included on the CD-ROM, 55 of which are the flags of various countries. Go ahead, use a DNA strand in your next bar graph! Adrenaline dares you!



The Nags

Though Charts Pro can do a whole heckuva lot of stuff, it does have its drawbacks.

Gimme RAM! Gimme Money!

At nearly \$400, I would have trouble recommending this software to anyone that didn't make at least one chart a week. And I wouldn't recommend it to anyone with less than a 120 MHz 604e chip and 64 MB RAM. Academic pricing is available, so if you're eligible, look into it!

Rendering Speed and Artifacts

Rendering speed, using the built-in Adrenaline engine (which also happens to be the best), is best described as slow. Exporting a fairly small movie file took over 10 minutes on a G3/300 with plenty of RAM. Simply Exporting a 300 dpi PICT file may be enough to bring your computer to its whimpering knees. A small price to pay? I guess...

Legends Remain Texture-Less

If you apply a texture to part of a pie graph, the legend doesn't update — it continues to display the single color version. How are you to tell that your zebra portion is actually purple in the legend?

Reset Your Values

Every time you create a new chart, open an existing chart, or otherwise do seemingly anything other than work with your current chart, you've got to reset a couple things: the rendering engine (and if you choose Adrenaline's built-in engine, you've got to reset the quality level) and image size.

Text, Dangit!

Though axes can be labeled and text can be added, it lacks a whole lot of flair. Text is limited to 90° angles — it can't match the angle of an axis and it often looks out of place. The best work-around? Just add text in Photoshop. A pain? You betcha.



That About Wraps It Up

Charts Pro is an awesome, multimedia-packed 3D charting package that blows AppleWorks and Excel out of the water. It's got an intuitive interface, great textures and 3D objects, and can import and export everything you'll ever need.

Unfortunately, it's expensive and requires a bit of patience. The choice is simple: if you've got a fast computer and need awesome charts (or if you've got a slow computer and a lot of patience), grab this software. If you're borderline, check out the Adrenaline website at <http://www.chartspro.com/> and download the demo version and some sample charts. Happy charting!



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A bit-o-code each month for you in...



Most of my friends would probably disagree with me when I say that I'm fast becoming a master of styles. Of course, they assume I'm talking about fashion and clothing. While I'm sure all of the ladies would love to see me model a Speedo™ or some form-fitting Gap™ jeans, that isn't the style I'm speaking of. Quite to the contrary, I'm talking about something that only a fellow nerd (sorry, geeks not included) could appreciate: HTML style. In particular, something called a **cascading style sheet**.



What's the Hub-Bub, Bub?

So what's the big deal with these things called style sheets? Put simply, they ease the workload in maintaining the appearance of a site. Typically, you want to keep the general appearance of all the pages in a web site the same. In the past, this meant that you, the HTML programmer, were forced to modify each and every page if you ever wanted a change of appearance.

If you were working on a site with several hundred pages, this became an extremely time-consuming task. Wouldn't it be nice, then, to be able to bundle the formatting options for your entire site into one file, and then have that one file applied to each of your pages? That's the central tenet of cascading style sheets.



Building on the Past

One of the best features of cascading style sheets is the operations that make them "cascade." As any object-oriented programmer knows, a program is made up of a hierarchy of classes. Each class inherits features from its parent or base class, and a hierarchy of inheritance is created.

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Let's say that you have a file called "base.css" which describes the general stylistic features of your web pages (background image, body text, anchor formatting, and more). Perhaps for one specific page, though, you need to modify the text characteristics for body text, change the anchor formatting, and remove the background image. The changes you wish to make are simple modifications of the original style sheet, so it would make sense to have a new style sheet which inherits the properties defined in the original, but makes a few changes to the original's properties. This is where the idea of cascading comes in — a style sheet can inherit the features of another style sheet. Inheritance is set up using the following statement:

```
@import "../base.css"
```

This includes the stylistic definitions of "base.css" in the new style sheet.



Keeping it Readable

Just like any kind of programming language, one needs to be able to enter comments so that down the road, the file can be modified and you can remember what each of the statements represents. Cascading style sheets (CSS) use the typical C-style comment:

```
/* This is a comment line */
```



Following the Rules

The major portion of any CSS file are rule definitions. A rule boils down to a set of instructions which the web browser uses when displaying an object. Rules can be applied to links, text, tables, and nearly every other HTML object.

Each rule consists of two parts: selector and declaration. Think of a selector as the HTML keyword you wish to apply the rule to. For instance, if we want to specify a rule for the `<BODY>` tag, then the keyword (or selector) is `BODY`. Try it yourself: you want to make the background color of a **paragraph** blue.

Answer

□

The declaration specifies the parameters the browser should use when displaying the object. We'll create a simple rule (selector and definition) for the **BODY** of the web page:

```
BODY {  
    background-color:    #FFFFFF;  
    font-family:        Verdana,Helvetica,sans-serif;  
    color:              fuchsia;  
    text-transform:     capitalize  
}
```

The rule above sets several default properties for the **<BODY>** tag in an HTML document which uses this CSS. The rule states that the body of the web page will implicitly have a white background with fuchsia text. In addition, the text will be shown in all capitals, despite the capitalization in the HTML source. Finally, the font-family item tells the browser to first attempt to use the "Verdana" font to display the text. If "Verdana" is not available, then "Helvetica" should be used. If "Helvetica" is not available, use the default sans-serif font.

You may not want to use the fonts you find on your Mac, since there may not be a font of the same name on other people's computers. There are several standard font family names defined:

Family Name	Example
serif	Times
sans-serif	Helvetica
cursive	Zapf-Chancery
fantasy	Western
monospace	Courier



Simple Example

Our example code this month is really simple. First, create a text file named "test.css" and enter the **BODY** rule we defined above. In the same folder as your "test.css" file, create another text file called "test.html." This file should contain the following HTML code:

```
<HTML>  
<HEAD>  
    <LINK REL=STYLESHEET TYPE="text/css" HREF="test.css">  
    <TITLE>Test of CSS</TITLE>  
</HEAD>  
<BODY>  
    This is a test. The text should take on the attributes  
    we assigned in the "test.css" file.  
</BODY>  
</HTML>
```

Open "test.html" in your web browser and see how it looks! Just make sure your web browser supports style sheets...



Final Notes

If you want to get a leg-up on the whole style sheet scenario, take a look at the CSS tutorial designed by Western Civilisation:

http://www.westciv.com/style_master/academy/tutorials.html

In the past, I've always been very keen on doing all of my HTML coding by hand without any of the WYSIWYG page editors. Though I won't go into the issues which make me do my HTML that way, I will say is that as far as cascading style sheets are concerned, there's a great program called Style Master which does a fantastic job of creating and editing .css files. See Erik's review in the Nov/98 edition of Apple Wizards for more information on Style Master, or drop by a small sample site at <http://warehouse.applewizards.net/>.



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A Practical Tutorial for the 3D Web Folks...(continued)

Hi, and welcome back to the final edition of "From Another Perspective." This month, the final month of my column, we'll be picking up where we left off last month: constructing a glowing 3D button for your web site.



Let's Wrap Her Up, Shall We?

Last month we left off having rendered and saved various button images. If you need a refresher, refer to last month's column. This month, we're going to slice the renderings up and drop them into GoLive Cyber Studio as a button object so when the mouse rolls over, they'll light up, just crying to be clicked.



Into Photoshop...

As mentioned so many other times, Photoshop is nearly indispensable in your digital imaging endeavors. If you don't have it, get it. In this case, I'll be describing how to use Photoshop (version 4, mind you) to work on our images.

□

There are two main things to remember:

1. When you're using graphics on the web, they should be as efficient as possible. Notice I did not say as "small" as possible. There's a difference. Each case is a judgment call: the proper balance of decent image quality vs. a small file. I can't give you a concrete rule as to how small or large a file should be, but I will tell you this:
2. When you're doing something like this, the smaller the image, the better. The reason is, your web browser is having to swap out files when the mouse travels over the button. So instead of 1 button, you're really forcing your visitors to download two: one for the regular appearance, and one for the mouse-over version. So what, you say? Well, if you have a fast reader and they want to click your button before the glow is finished coming in, the whole effect will be lost. The other side to this download speed issue, though, is that if you put very poor images up just to keep them small, what do you really gain? A visitor to your site gets to view those very poor images very quickly. No bang for the buck.

Okay, this isn't Y2K or anything, but still... if you're going to do something like this you may as well do it right. Evaluate each case carefully.

I start by bringing the image into Photoshop and bringing up the layers palette (F7). Duplicate the "Background" layer by dragging it onto the little turned up page icon at bottom of the layers palette (the one right next to the trash). This will create another layer directly atop the Background. Double-click on the new layer. This brings up a dialog that allows you to specify different attributes of the layer. Rename it something like Top Button and close the dialog. Now we're going to drop out the white background and the chrome collar around the button.

If you remember when we rendered, we had you create an image that was a button only, no collar. Open that image and copy the alpha channel mask to the rendering with the collar (go the Channel Options little arrow in the upper right corner of the Channels palette and selected Duplicate channel, then specify which document you'd like to copy the channel to). This channel defaults to Channel 5. If you did everything right, this mask will line up perfectly with the button in the other rendering, allowing you to create a layer with just the button, not the collar. You'll use this channel to delete the chrome collar on the very top layer. In Photoshop, hit Command-Option 5. This loads Channel 5, your button's newly acquired alpha mask, as a selection.

Note:

This keystroke combination works with any channel. If you hit Command-Option 4, you'll load the other alpha channel as a selection because that's what number it is designated in the channels palette. It's a nifty and fast shortcut.

Basically, what you'll do is create three layers in your document. The top layer will be the button only (no background or collar). The second down will be a duplicate of this layer which will serve as the glow layer. The third layer will be the background. Now save your file.

□

Note:

Photoshop won't let you overwrite your original rendering in this case because by creating new layers, you've altered the original PICT file format into a Photoshop file, the only file format that preserves and understands what layers are. So in this case if you just hit Save, you would have gotten a dialog that says, "What would you like to name your new Photoshop document?" Don't get in the habit of this, though.

With your 3 layers (2 layers and your original background which technically isn't really a layer), you're now ready to create your glows and such. Your top button layer will be your safe layer which you'll do nothing to. It's fine how it is. Your second layer will be your glowing layer. Command-click on the layer in the layers palette. This selects everything that's on the layer, but only where there is pixel information. Because we have deleted the background and chrome collar, there's only the shape of the button to select.

Now we'll stroke the button, creating the beginnings of a glow. Pick a nice bright yellow, or whatever color you'd like your glow to be from the color palette. When you click a color, that color becomes your foreground color.

Note:

If you had Option-clicked a color, it would have become your background color instead.

With your button selected (see the little marching ants?), go to Edit/Stroke. A dialog box comes up with a variety of options. Type in a 8 and set the stroke to Center. This puts 4 pixels inside the selection and 4 pixels outside. Now look at your image. It should have a yellow band around the button. With the button still selected, and yellow still your foreground color, hit Option-Delete. This fills your selection with the foreground color. Now you have a yellow button with a yellow halo around it. Hide the top, safe button by clicking the eye to the left of the layer to see. Now you'll blur the yellow glow button. Make sure you deselect everything (Command-D), and with your yellow-button layer still hi-lighted and visible, go to Filter/Blur/Gaussian Blur. Set the blur value to about 4. This will provide a nice, soft edge around your glow.

Now make your top, safe button visible again and you'll begin to get an idea what it's going to look like. Try a "mock mouse-over" move by leaving the top button layer visible, and alternate hiding and exposing the yellow glow layer beneath it. This simulates your desired effect on the web.

If everything looks good, save your work. Now comes the surgery.

Hold down the Marquee selection tool and you'll get a fly-out menu. The last tool is the cropping tool. Drag a selection around your work and cut out all that's unnecessary. Remember, the smaller the file, the better. Enlarge your file (Command-+) to see the end of your blurred, yellow pixels).

Note:

Crop enough so you don't get a straight cut in your nice, soft blur.

□

Now we'll add our type. With white as your foreground color (click on the little black and white stacked squares down by your Foreground/Background colors in the tool palette. This automatically resets your colors to black in front and white in back. The little curved arrow allows you to alternate back and forth, white foreground-black background, etc.). Select the type tool and click on your image. This brings up a new layer. Type in your desired words and hit OK. Now make black your foreground layer, click the type tool and hit OK (the same words will be in your text field so you don't have to re-type them in). You've just created a white and black version of your words. Drag the white to the top in the layers palette, and the black just beneath it. Now offset the black slightly down and to the right. With the black type layer selected, go to Filter/Other/Offset and type in something like 2 and 3 pixels. Close the window

Note:

This is an extremely handy filter because it allows you to precisely match the amount of offset from layer to layer if you were doing many different type versions. If you were just going to do one, you could have clicked and dragged on the layer itself in the document's window.

Now, resize your cropped image down to something like 50 by pixels on the longest dimension. You want the image to be as small as possible as mentioned earlier, but because you have bit-mapped text in your image now, you need to make sure it's readable. This prevents you from reducing the button as small you might otherwise.

Note:

If there were no type you could get away with half this size. Your rendering was completed and saved as a 32-bit RGB PICT file—8 bits each for three separate channels: red, green and blue, and a fourth channel containing alpha information. This means that it's composed presently of millions of colors. By the time it makes it onto the web, it will be significantly reduced in its "pixel depth," but let's keep it at 32-bit for now. When re-sizing and manipulating the file, it's desirable to start with millions of colors to achieve the smoothest gradations possible. Converting the image to a GIF is just about the last step before loading the image into the authoring program.

Now you will export each portion of the image as a GIF file. First start with the non-glowing button. With the top button visible, hide the yellow glowing and go to File/Export/GIF89a Export. This brings up a dialog that allows you to determine your palette.

Note:

The Export feature in Photoshop operates independently of the save feature. Because of this, you should save your file before you start messing around with other things, but you don't have to keep doing "Save As..." files with all subtle variations. Export works faster and more efficiently for this.

For now, we'll export it as a Macintosh Adaptive palette, which basically means the color will suffer a bit to Windows viewers but hey, who cares (just kidding)? Instead of the default 256 colors, try messing around with fewer colors. Fewer colors means a smaller file. Notice the preview button in the bottom right of the Export window. Take a look at what your color selection produces by clicking this button. Name it something with no spaces in the title and save it to an appropriate directory. Now do the same thing for the version with the glow, naming it, of course, something different.

□

Repeat this process for as many glowing elements as you want on your web site. Now it's time for the final hurrah...



Into GoLive Cyber Studio

Launch GoLive and open a fresh document. Set your background to white (or whatever other color you may have picked as a background color in Photoshop). I like to start with a grid. In your palette, drag a grid into your empty page and resize it to fit about 600 x 500 pixels (size doesn't really matter for this application). Now go to your Cyber Objects tab, the third from the right. If you're not sure which is your Cyber Objects tab, run the pointer over the tabs (don't click) and you'll get a little message box. Now choose your "button object," the second icon from the left. Drag it into the grid. You'll get a little icon with a question mark. Look back in the Button Inspector and notice there are three icons: one each for Main, Over and Click. What you'll do is specify what image you want to swap in for each action. For main, navigate to your un-glowing button. For Over, navigate to your Glowing GIF file. If you want to get tricky, try inverting your main button back in Photoshop (Command-I) and saving that as the Click button. Now hit the Preview tab in GoLive and you're looking at some nifty glowing buttons.

That's it.

□

As you might notice, much of the work is done in your 3D program and in Photoshop. Once you get this process down, it goes very quickly. Don't let all the words scare you (Forgive me, but I don't know how much the average Photoshop user knows...).

There are all sorts of variations on this theme, of course, so feel free to explore with what you've learned. Try creating just a white button that simply exposes a button beneath when the mouse passes over it (not necessarily the easiest navigation theme, but...). Use your creativity!

It has been a real pleasure getting acquainted with you all. Please feel free to visit my web site (at <http://www.cranedigital.com/>) if you have any questions about 3D or graphics in general. We'll do our best to help them get answered. I'm currently working on a Perl program that will benefit those considering getting into the world of 3D, so please check in and see how it's coming.

This is John B. Crane from Crane Digital Media in Santa Fe, New Mexico saying, "until we meet again, happy rendering."



John B. Crane

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Care to Have a Little Fun?

The mainstream press is strangely silent about Apple these days. I guess they've been burned so many times with their asinine projections that they'd just as soon pretend Apple didn't exist. I distinctly recall the local paper running a big front-page article when Apple had to lay off employees. When the iMac was the leading selling computer in the U.S., Japan, and France in the fourth quarter of 1998, I didn't hear much more than an occasional peep. You know, the little one column-inch blurb efficiently hidden in the business section between a couple of huge stories about mergers or buy-outs. Strange how that works. Strange how people like me keep writing to them to point out their radically different standards for covering Apple. **Big** coverage when doing poorly. **Little** coverage when doing well.

But this brings up an entirely different point. When Apple Wizards editor-in-chief Erik J. Barzeski decided that there was a need for an evangelism column in this publication, it was in the middle of "the dark days." Gloom, doom, and despair filled the air. Media "analysts" and "experts" had side bets on what day Apple would finally collapse. Turns out some of them crashed before Apple did. Oh, sweet irony!

With all the good news coming from Cupertino, it's very difficult to say that there's a need for a column devoted to evangelism, you know?

Well, now Erik says we don't need a column devoted to evangelism anymore. I agree with him. He thinks this column should transcend evangelism. I agree. That's why this column's been retitled. It reflects the notion that we're going to address the entire Mac landscape from this little corner of the ether. I'm very much looking forward to it. I hope you enjoy the broadened horizons.



Begin Initial Surface Penetration

For old times' sake, I'm going to take one more shot at the company the whole world loves to hate. From this vantage point it looks like Microsoft is committing a very slow and torturous form of seppuku. They're losing legitimacy across the board so thoroughly it's almost no fun. Almost...

□

In the Mar/99 issue of Family PC, editor-in-chief and publisher Robin Raskin addresses some issues that those of us who use Windows and the Mac OS already are painfully aware of. In the lead column "Double Click," Raskin writes about "The Trouble with Windows." Herein she takes Microsoft to task for being so unreliable. She mentions how reliable her Sony PlayStation is and ponders why computers aren't as reliable.

She says "Some would argue that game machines are single-function and so can be built to be more reliable. But that doesn't explain why the Mac OS — which arguably does as much as Windows — is much more reliable and stable." Please look at that last part one more time. "...is much more reliable and stable." Not "some." Not "a little." But, "much more."



Where's Dr. Evil? Where is He?!

Microsoft's "screw everybody" attitude has finally alienated the only friends they've ever really had — the corporate information systems gang.

One of our support people told me his biggest problem was keeping Microsoft's "features" turned off. "I've got to make sure that Active Desktop™ is never on or everything messes up," he told me. One life-long friend is a professional network support guy. He's school-trained and current not only on UNIX but also as a Microsoft Certified Support Engineer. He told me just two weeks ago that the general consensus among his peers is that Windows 98 should **not** be installed. Imagine that. While I'm sure there are some somewhere, I know of **no** business that's "upgrading" to Windows 98. In fact, our new computers, which arrived just this week, are running Windows 95. Not even our government is that dumb.

Another acquaintance of mine is a computer scientist, as well as a Microsoft partner and reseller. He was one of the beta testers for Windows 98. I remember him telling me how he kept reporting bugs to Microsoft and they kept telling him they weren't bugs. Beginning to doubt his own sanity, he checked with some other beta testing geeks. Sure enough, he was told, they're bugs. Like the Ragu™ spaghetti sauce ad says, "It's in there." And in this case, that's a one spicy meat-a-ball!

For those who yearn for danger enough to install Windows 98, they had better be sure and install the Y2K patch from http://www.microsoft.com/technet/year2k/product/user_view32165en.htm. I guess this year 2000 date thing was a mystery to Microsoft. Or perhaps it's a marketing scheme. Maybe they figure they can scare everyone into buying Windows NT. I don't know. Maybe they're just that dumb.

No wonder the IT people are getting fed up.



We've got Freedom and Responsibility. It's a Very Groovy Time.

Just remember, when Microsoft asks you where you want to go today, tell them you're going out for a can of RAID™ to take care of their bugs. Or better yet, tell them you're heading on down to the Apple Store for a documented better computer product.

I'll be looking at a lot more than Microsoft's foibles, follies, and pitfalls in coming articles, but sometimes I just can't resist. Some targets are simply too easy to pass up. So, no matter what else we may cover in this column, we'll always reserve a little room to have some fun at little Billie Gates' expense. While it's goodbye Apple Wizards Evangelism and hello CoxFiles, there's always a little evangelism left in this heart.

In the January column, I discussed a Wired magazine article titled "83 Reasons Why Bill Gates's Reign Is Over." I'd like to thank reader Craig Gee for writing to let me know that the article can be found online at <http://www.wired.com/wired/archive/6.12/microsoft.html> . This is an article that everyone with any interest in computers whatsoever must read. Print it out, if you have to, and give it to your Windoze-using friends, acquaintances, relatives, enemies, whatever. You'll be doing them a huge favor.



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Review



Review by Daria Aikens



4.5 Stars - 1 Star Poor, 5 Stars Excellent



Product: Vpower PF

Version: G3/240

Manufacturer: Vimage Corporation

Price: \$499

Contact Info: <http://www.vimagestore.com/>

Genre: CPU Upgrade

Requirements: Performa and Power Macintosh 6360, 54xx, 55xx, 64xx, 65xx, SuperMac c500 (contact Vimage), UMAX Apus (contact Vimage), Akia MicroBookPower (contact Vimage).



An Answer To Our Prayers?



When I bought my Performa 6400/180 way back in 1997, I never gave the term "non-upgradeable CPU" much thought, but as time went by and newer, faster, better machines came on the market, I began to long for the day when my machine would be able to catch up to its speedier siblings. Knowing that the 6400 and 6500 series machines were a consumer success, I figured that sooner or later some company would see the financial benefit in coming up with a way to upgrade these computers. Well folks, my vision has come to pass, and Vimage Corporation has stormed onto the market with a bonafide CPU upgrade for our well-loved Performas and low-end Power Macs. I've had the lucky chance to evaluate the VPower PF G3/240 upgrade card for the past three months, and now I'm here to tell you about my adventures in Happy Happy Speed Land.



The Specifications



First, let me give you a little background — technical information about the card and the machine that I tested it on. The VPower PF G3/240 is comprised of a PowerPC 240 MHz G3 CPU with 512K of backside cache running at 120 MHz. Pretty impressive. The 117.1mm x 38mm card doesn't actually replace your original 603e based CPU — rather, it bypasses it. The PF G3/240 fits into the computer's L2 cache slot. You will have to remove any L2 cache that presently resides in your machine, but you won't miss it. This card works in a variety of Alchemy-based motherboards including the Performa and Power Macintosh 6360, 54xx, 55xx, 64xx, 65xx and selected SuperMac c500 machines. It's important to note, however, that the card only runs at 225 MHz in the PowerMac 55xx and 65xx series. Finally, in order for the PF G3/240 to operate, you must have the Vimage extension in your system folder.

Given that the performance and stability of this and any upgrade card is related to the setup and hardware configuration on the computer in question, it is relevant that I disclose the specifications of the machine with which I tested the card. The fact that this card ran flawlessly on my computer, which has a variety of hardware installed, makes me feel confident that Vimage has succeeded in creating a product with a lot of bang for the buck.

Test Machine:

Performa 6400/180

No Geoport modem*

88 MB RAM

ATI Xclaim VR, RAGE PRO

Kingston PCI Fast Ethernet 10/100

Peripherals include: HP Scanner, Apple Stylewriter, Calcomp graphics tablet, Kensington Orbit, Zip Drive

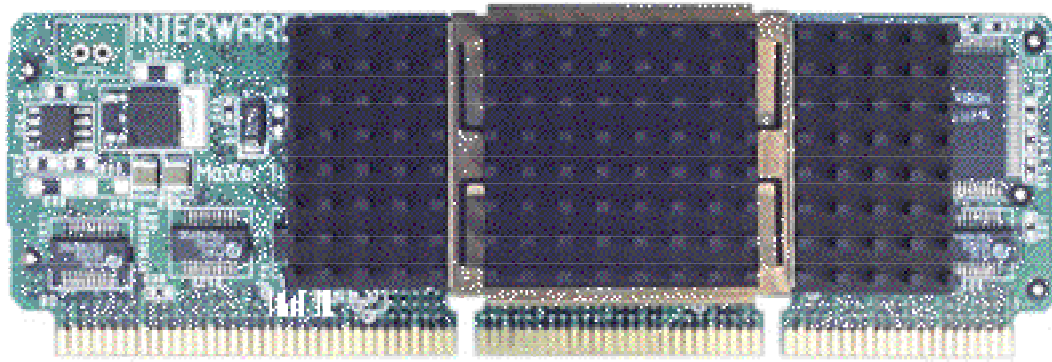
* This is extremely relevant to performance given the CPU-sucking tendencies of the Geoport modem. See <http://gdn.net/~daria/geoport.html> for more info on this subject.



Install It and Fire It Up

Installation is so simple that you could let your six-year-old do it. First, install the Vimage software from the included floppy disk and then shut down the computer. Here comes the fun part! Just open up your computer's case (instructions are in your computer manual), find the L2 cache slot, remove any cache that may be in the slot, and pop in the Vimage card. The Vimage card is only slightly bigger than a regular cache card — it's impressively small. Vimage included a removable heat sink in the package, but only use this if you are installing the PF G3/240 into a clone, such as the UMAX or SuperMac.

□



When you start up your newly upgraded PowerPC, you'll notice an interesting, somewhat annoying, yet necessary phenomena. The computer starts up and when it gets to the Vimage extension (which should load first) it restarts itself. On this restart the computer will boot fully into the Mac OS. What happening here? Well, first the computer boots out of ROM off of the original 603e processor. When it gets to the Vimage extension, the computer realizes that you want to use the PF G3/240, so it reboots using the upgrade card. This process isn't very efficient and it means that start-up time is increased when using this card, but it's a small price to pay for the performance boost that you are about to see.



Benchmarks, Benchmarks, Benchmarks

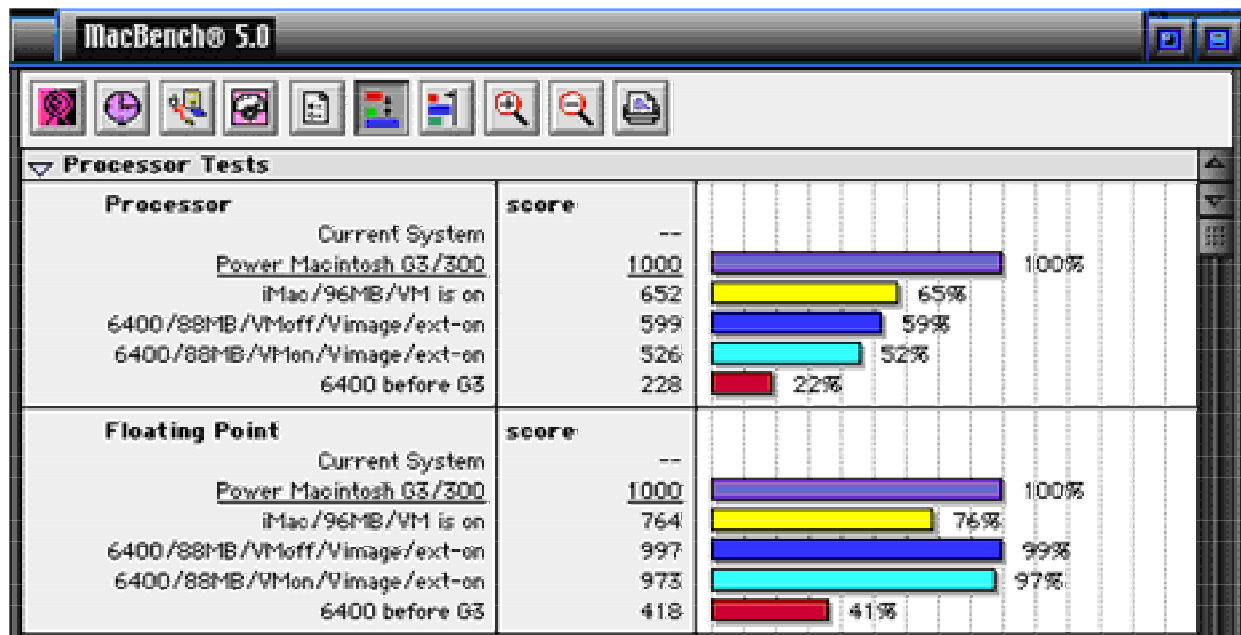
This is what you are all here to see. You want to see the numbers. You want to see the Pentium-toasting speeds. You're tired of my verbose diatribe already. Alright, enough with the paragraphs! Here come the facts.

MacBench 5.0 Statistics

I compared the performance of my 6400's CPU and Floating Point Unit against a stock G3/300 and my iMac 233. In the graphic below you can see that I tested the following configurations:

PowerMac G3/300
iMac/96MB/Virtual Memory On (VM)/6MB VRAM
6400/88MB/VM off/Vimage G3/all extensions on
6400/88MB/VM on/Vimage G3/all extensions on
6400/88MB/VM on/original processor

In my tests, the iMac out paced the 6400/Vimage G3 in terms of raw CPU power, but not by much. When it comes to Floating Point Unit scores, the upgraded 6400 creamed the iMac and approached G3/300 speeds. Vimage claims that the G3/240 should be able to outpace the iMac on the CPU score, which it doesn't. One thing you have to remember, however, is that the iMac has a 66 MHz bus on the motherboard, whereas the 6400 is held back by a 40 MHz bus. This could be why MacBench reported that the iMac's CPU was superior. The un-upgraded 6400 looks pretty pathetic next to all those G3s, don't you think?



Application Benchmarks

In the following tests, you can see that I tested the time it took the 6400 to launch applications twice. The first time tests the processor, while the second launch tests the speed of the CPU in combination with the backside cache. I also tested boot times and Photoshop 5.0 filters. It is important to note that this card was tested using Mac OS 8.5.1.

<u>Operation /Application</u>	<u>6400/180/256K L2</u>	<u>6400/Vimage Upgrade</u>
6400 cold boot	3:00	3:35
6400 restart	2:55	3:33
Open AppleWorks	0:14	0:08
Open AppleWorks again	0:10	0:04
Open Navigator 4.08	0:20	0:14
Open Navigator 4.08 again	0:10	0:06
Open Photoshop 5.0	0:30	0:20
Open Photoshop 5.0 again	0:19	0:13
Twirl Filter, 3 MB file	0:08	0:02
Swirl Filter, 3 MB file	0:20	0:07



If It Feels Good, Play It!

We've determined that the benchmarks are mind-blowing, but what about real-world stuff? How does it feel? Is it responsive? The overwhelming answer is yes! Say goodbye to all of those annoying lags. Remember typing text into a field in Netscape and then having to wait for the CPU to catch up to the speed of your fingers? You can kiss those days goodbye as well. Switching between applications is greatly improved. Is the PF G3/240 faster than my iMac? Heck **no**! The faster bus speed, hard drive, CD-ROM drive, and other components in the iMac really make a difference. Don't get me wrong, the Vimage card is fast, but the iMac is so fast that it should get a speeding ticket. I can't imagine what a G3/450 would feel like.

I didn't have any serious compatibility problems with the VPower PF G3/240. When I first installed the card, I froze on start-up a few times, but the culprit turned out to be that Speed Doubler was loading before the Vimage extension. Who needs Speed Doubler with a G3 anyway? About a month later (after I got on this kick of actually shutting down my computer from time to time), I noticed that the Vimage card kept crashing on cold boot about 30% of the time. Through the help of the great people at Vimage, I realized that there was a slight conflict with my ethernet card drivers. Simply getting the latest drivers from Kingston cleared up that problem, and since then, the Vimage card has run like a charm.



If you are a gamer, then you'll really love the enhancements that the Vimage card adds to your system. In combination with my Xclaim VR video accelerator, the PF G3/240 card has made my 6400 the ultimate Quake machine. Framerates achieved an unbelievable 30 fps! This card is almost too good to be true.



My Terrible Dilemma

As I finish up writing this review, my heart fills with sadness as I question the future of the Performa 6400. Do I keep this phenomenal card so that my Mac may have the joy of competing in a G3 world? Or do I do the logical thing and return the card to Vimage with the intention of saving my pennies to purchase a shiny new G3 next winter when OS X comes out? After all, Apple claims that OS X will not be supported on machines that do not have original G3 processors. Does keeping the PF G3/240 just prolong the inevitable obsolescence of this beloved machine? After all, the slow 40 MHz bus speed of the 6400 series creates a serious bottleneck despite the Vimage upgrade. In order to come to the best conclusion as to whether or not to buy this card, one must do a cost analysis and answer a few simple questions. If you are not one to ride on the bleeding edge of technology (ie: you didn't buy a Rev. A iMac) and you don't plan on immediately upgrading to OS X, then I say "run, don't walk to Vimage's website and order this card!" In reality, not everyone will need OS X and if you are in a business setting, it is much smarter to stick with the tried and true OS 8.x until Apple works out all of the bugs with OS X. For \$499 you get a nice, well-deserved speed bump. Case closed.

If you are like me, and you anticipate OS X with the same fervor that survivalists are anticipating the fall of society due to the Y2K problem, the dilemma becomes more complicated. (For the record, if you believe that Y2K will paralyze society, don't buy this card because when the power grid fails, you will not have the electricity to enjoy surfing the web with the PF G3/240 anyway.) In order to make your decision, you must perform that cost analysis I spoke of earlier. You must compare the costs of buying a new G3 system with the costs of upgrading your current PowerPC, taking into consideration that you must buy a new G3 at the end of the year so that you can run OS X. Remember that the new G3s do not have serial ports or onboard SCSI, so your aging 603-based computer does have utility as a peripherals slave. Those serial adapters and SCSI PCI cards that you'll have to buy for your new G3 can get expensive. You start with a \$1199 iMac, add a USB printer, USB scanner, serial and ADB adapters, USB Zip or SuperDisk and you can very quickly spend \$2000 just to get started with a useful G3 system. If you're hoping to get some money back on your 603 investment, the resale value on your computer is not going to be much more than \$500.

In the end of course, whether or not to buy this card is your own decision. I'm still not sure what to do. Going back to the original speed of the 6400 will be hell for me considering the amount of professional web work and graphics manipulation that I am involved in. If I did not already have an iMac, I can say with 100% assurance that I would keep this card. Realistically, OS X is still quite a ways down the road. Despite the dilemma, at least Vimage has given us a choice. Without Vimage, we would be forced into abandoning these machines before they really need to be junked. If the card was just a wee bit cheaper, the answer to these questions would be a no-brainer.



To Sum It all Up

Vimage has performed a miracle. They rescued us from the low-end performance that Apple thrust upon us. If you have already invested heavily in the performance of your 603e Performa or PowerMac, then the VPower PF G3/240 is a vital, final piece of your puzzle. The 4.5 star rating reflects a perfect card that delivers on every single one of its promises. Vimage's decision to price the card at \$499 (half the price of a Rev. B iMac) is the reason I cannot give the card 5 stars. Nevertheless, if you buy this upgrade, I guarantee you will not be disappointed!



Daria Aikens

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<http://applewizards.net/>





Welcome to the latest edition of Medicine Man. I am your virtual on-call Macdoctor.

To ask a question (sorry, no house calls), just pop by the Apple Wizards website at <http://applewizards.net/> and click on any of the links for the "Special Area" — you should see "Medicine Man" as a choice. Drop us a line with your question. The website is open 24 hours a day, 8 days a week.

This won't hurt a bit... I promise!



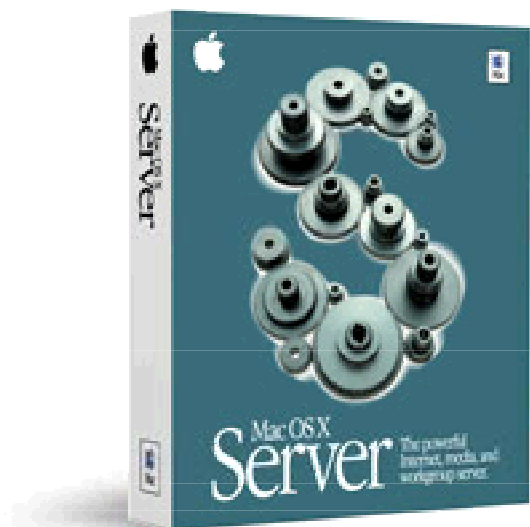
OUCH! # 1

I remember hearing rumors that Apple was going to make a future edition of Rhapsody cross-platform (before the OS X strategy was unveiled). Is that still being considered?

- Matthew Gallegos

Pain-Killer #1

When Apple first announced Rhapsody (now called OS X Server), it also announced a version of the server part of the OS (the "yellow box") for the Intel platform. Speculations were wild. Was Apple going to port the Mac OS to the Intel platform? Is Apple going to abandon its hardware business? These were all questions being asked when Apple's stock was down around 12 and Gil Amelio was still at the helm. Ever since Apple's self-proclaimed iCEO Steve Jobs took over, Apple has been very quiet about Rhapsody for Intel. When Apple announced the Mac OS X strategy, not one word about the product (for Intel) was mentioned. A recent Apple developer press release stated that they are not developing the product for Intel any longer. Gotta get yourself a new G3!





Owwy! #2

I have a UMAX Astra 610S scanner running Presto! PageManager 2.31.01 for OCR. When I try to scan in documents even at high DPI I don't get very good results. What would you suggest? Am I having pilot error or do I just have bad OCR software?

- Randy Wiggington

Antiseptic #2

Ouch! I find Presto PageManager to be an absolutely terrible program on the Macintosh platform. For reasons I don't understand, Presto did not bother to create a new interface for the Macintosh. All the company did was simply port over the Windows code, and it shows. The 610S is a fantastic scanner that came with some not-so-great OCR (optical character recognition) software. If you really want OCR, I would go with Caere's OmniPage Pro 8.0. The program works astoundingly well compared to PageManager. At \$499 it is rather expensive, but the convenience that it provides could be worth every dollar.



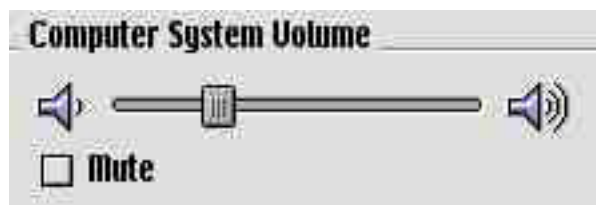
WAHHH!!! #3

How can I keep the volume at the level I set it. I set it but when I turn the computer back on it blasts me again.

- Candace

First-Aid #3

Well Candace, this one is a simple one to fix. All you need to do is zap your PRAM (Parameter Random Access Memory). The PRAM holds settings for basic system settings, such as mouse speed. Sometimes the settings can get corrupted, and resetting the PRAM can solve the problems this creates. To do the zapping, simply restart your computer and hold the command, option, p, and r keys at startup. Wait for the second startup chime and then let go. Alternatively, find TechTool at <http://www.macdownload.com/> to zap your PRAM. Now, when you set your volume setting, it should stick!



Editor's Note: I had this problem on my G3 with Mac OS 8.5. I was forced to write an AppleScript that set my volume (I placed it in my Startup Items folder), but Mac OS 8.5.1 fixed the problem. Furthermore, if you use Location Manager, you can set your volume there and not worry too much about being blasted every time you restart.



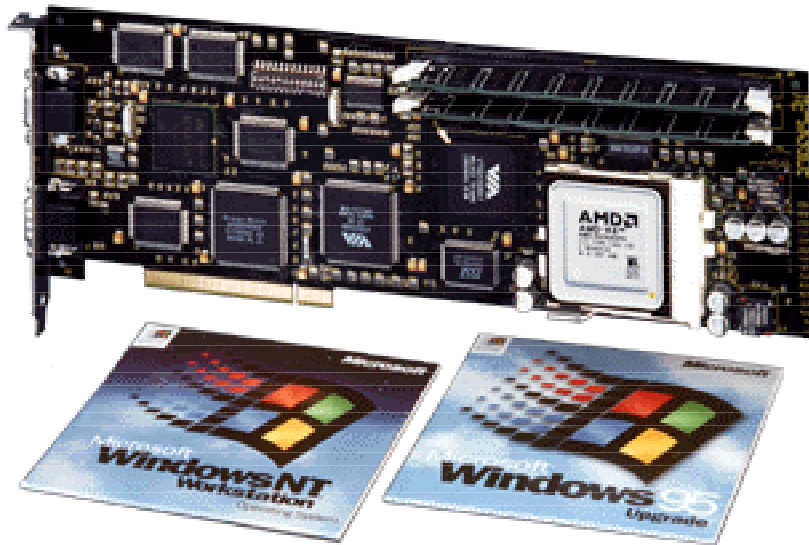
ARGH!!! #4

I'm thinking about buying a cool new PowerMac G3, and I also want to run a program like (blech!) Virtual PC or SoftWindows, mostly for games. Which do you recommend, and how fast should the processor be, 300 MHz, 350 MHz, or 400 MHz?

- Melissa Jenoff

Splint #4

Way to go! The new G3s are fantastic! They are blazingly fast and are great to look at. However, no matter how fast they are, Virtual PC and SoftWindows will still be somewhat slow. I have not seen any exact benchmarks yet but even on the 400 MHz machine, under emulation, I wouldn't expect that it performs much more than a 233 MHz equivalent.



□ This is probably enough to run most older and less graphically intensive games, but it will be hardly enough to run Tomb Raider III. New versions of these emulation products could introduce faster performance, but for now the only way to run the latest Wintel games on your Mac is to buy a hardware solution. Orange Micro, which can be found on the Internet at <http://www.orangemicro.com/>, currently offers several PCI cards for this purpose. The 62x series is the low-cost solution and starts at \$399. The 66x series is the professional, processor-upgradable solution and offers the best performance. Finally, the PCfx is designed with gaming in mind and includes a 2D/3D accelerator. To be honest, I would go with the 66x series if you have the budget. The PCfx card has gotten some lousy reviews!

For fairness' sake, our copy editor has something to add: My personal feeling is that there are enough fantastic games available or coming for the Mac — Myth2, Quake3, Unreal, Oni, Civ2, and Carmageddon2, to name just a few of the best — that one could theoretically waste **all** of one's available free time, without so much as dipping a toe in the Wintel waters. The Connectix Virtual Gamestation (see the review in this issue) only further tips the scales.



Dr. Brent Hecht

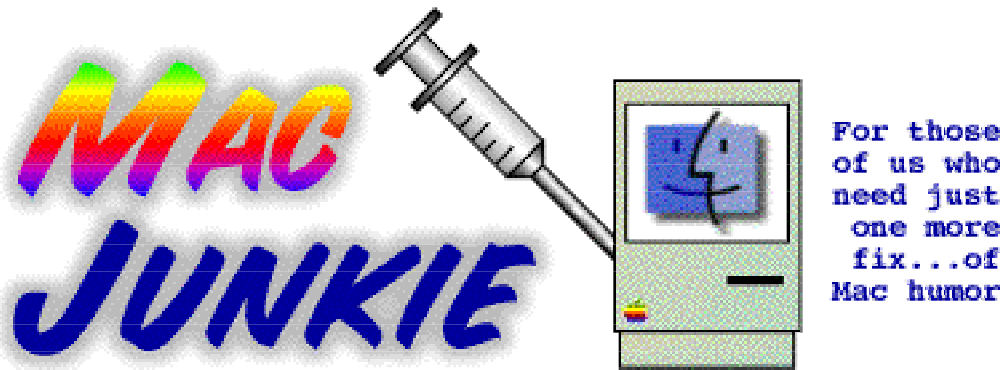
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My, How Time Flies (and My Computer Crawls)

The other day, I was making my daily rounds of Mac news sites when I came upon a few interesting articles at Mac OS Rumors (located at <http://www.macosrumors.com/> for all of you Web-heads out there) discussing future Macs and their expected performances. We've all gotten used to these reports because they all go something like this:

Sources within Apple indicate that the company plans to ship a 4 GHz processor (code named Moe) by the end of 2000. Moe will be a 5th generation PowerPC processor and will be much more efficient than current G3 and prototype G4 processors. Using a new Kryptonite adhesive process, the chip runs much cooler and can actually be powered by a team of five hamsters with wheels or 6 potatoes connected in series. Apple will offer Moe in laptops with an option to simply run the computer off of a bag of potato chips for up to 7 hours at a time. And of course, Moe will be fully backward compatible with the Gossamer, Hopscotch, and Dogbert as well as future motherboard designs...

Every time I read one of these articles, I run through a range of emotions. As, I'm reading the news I'm in the "This is so [bleep]-ing cool!" mode." Then I quickly move into the "Those wacky guys at Apple" mode as I read all of the code names and try to figure out what they mean. Eventually I fall into a "I'm really impatient to get one of these computers even though I can't believe that they'll really be out in only a year or so" mode.

Even though it's been proven time and time again that computer performance doubles every 18 months (a fact that has only been stressed in a half dozen CIS classes I've taken), I still find it hard to believe. I mean really, I've been writing for Apple Wizards for about that long! Has my computer really been lapped that many times since I've gotten this job? Is Gustav really that slow, or is it the beige that's holding him back? Will painting racing stripes on the side help? Maybe he needs a new carburetor?



The Future of Computing...

Sources like MOSR continue to publish what future designs will be like and they always seem to be on the mark... that is of course unless they fall into that psychic protection clause. Nobody remembers what you said a year ago... so say all you want about the future and then when the future really comes, claim to have predicted it. So, as I dream about these quantum processors and the shedding of the current archaic system of computing... I figure one of these days, someone will develop a processor so fast, that no one will take a 2 minute nap waiting for their computer to start up. Until then, we should look back and see where we've been over the years. I've developed a brief time line to show you how we've progressed, and how every sarcastic remark I've made so far will probably be shoved in my face next year when everything comes true.



...and the Past

Late 1800s - 1939



This was the early era of computing. Most computers were a woven mesh of wood and steel, incorporating a steam-powered processor to compute simple tasks. Very unpopular because of their high cost, only those who could afford to pay for help to constantly refuel the computer with the coal needed to make it work were able to purchase them. This was the last time processor speed was measured in Torr.

1940s



Known as the early industrial computing age, many computers were now powered with electricity. They were so large that entire villages were hired just to dust them. Computers were mostly used during the war to plot out troop movements, break secret codes, and when all else failed, to be dropped on the enemy. Most people of today wouldn't recognize these machines as computers, since most of them implemented a complex series of pulleys and gears to flip a coin for random number calculations.

1950s



Using newer technology and 50s flare, the computer was given black horn-rimmed glasses and chrome-plated fins for that truly aerodynamic feel. The machines were cut down to the size of a small apartment, and their weight was actually comparable to a Chevy. Experts generally agree that this was the golden age of computing. While there weren't many of the great technological innovations in computing that we enjoy today, like color monitors and stereo sound, they didn't know much about viruses or computer terrorism. This was the time before the annoying "Good Times" email.

□

1960s



IBM rung in a new era by breaking the 5 MHz barrier in mid-decade. Hydroelectric-powered computers took off as environment-friendly reforms rocked the industry. This changed quickly, however, as early programmers learned that water and electricity don't work well together (wear those static bands!). This was the first real depletion of programmers in the field, continuing up to today. One of the biggest things of this decade was the release of the Vinyl-ROM. Not only could it play standard records, but it could store up to 20k of info per side. Although steel needles caused loss of data over time, this was still a hit with the "cool" people.

1970s



Nothing really happened until mid-decade, when the two Steves started collaborating and made the first Apple computers. The rest of the decade has been unanimously agreed upon to be considered completely useless... unless you like disco. Viruses became more popular in this decade, because let's face it, there wasn't really anything else to do. This is when 8-track backup tapes became popular to save your data in case your system went down.

1980s



Apple continued to amaze the industry with better and faster personal computers. There is still a serious depletion of programming talent, although now, most programmers are lost to the asylums after experiencing "Clinical Blue Screen Syndrome" as opposed to the aforementioned water/electricity mistakes of the past. The industry neared a breaking point until Apple released the Macintosh with a graphical interface like none other... and the world was saved.

1990s



Somehow, the industry managed to survive this long despite Dell, HP, and a few others who preferred to sell computers "any color as long as it's beige." Candy-colored, and eventually, candy-flavored computers hit the market like wildfire. This decade also had its share of pitfalls. Companies like Intel missed the mark, creating computer designs that were neither good-looking nor functional. On top of it all, they did the unthinkable, by continuing to put Intel processors in computers. The decade closed out with Microsoft releasing 10 consecutive pieces of doctored video evidence in every one of its court cases. This was enough to convince Bill Gates that all of their lawyers should be taken out and be shot, while a new batch of Microsoft Barney dolls were put in place to represent the company. Microsoft actually won two cases based on that decision.



What's Next?

Here are a few of my predictions for what might happen after 2000 (this should be good reading in about 10 years or so):

- Dell will try to get in the style market, like Apple, but will fail miserably with the release of computers available in three colors — harvest gold, avocado green, and coppertone. This will excite a very small number of people who still have working appliances in those colors.
- Steve Jobs will hire a bunch of people, and fire a bunch too, but will always make interesting keynote addresses. Eventually, he will become so powerful and popular that his likeness will grace the boxes of his own brand of vegan treats. At the height of his popularity, he will be the CEO of 16 companies at once.
- Microsoft will attempt to buy the open source of Linux and will come close to getting away with it. It will also patent 3,000 common, everyday items just so it can scare small companies into paying royalties for using a Microsoft-designed can opener.
- Every musical will be redone by a rap group by mid-2000 with Oliver being the last holdout until Master P releases "Olivah." This has nothing to do with computing, but it's a prediction, nonetheless.

There are so many possibilities in front of us. And as each prediction comes and goes, I will probably still be here writing for Apple Wizards and looking for a real job. Just remember, if I'm right about any of this, you can't say that I didn't warn you. Just like a bad Steven King miniseries is always inevitable each season, so are my accurate predictions. See you next month.



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APPLE  WIZARDS



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Greetings

Ever wonder what makes your computer work? What controls all the information? Without going into huge details about CPUs and the physics behind their workings, everything generally revolves around the Central Processing Unit (**CPU**). This month's column will be about CPUs and the various jargon associated with them. Heck, maybe I'll even take a jab or two at Intel's Pentium™ series microprocessor. ;-)

The CPU (also referred to as a **microprocessor**, **microchip**, or **processor**) is the part of the computer that makes everything happen. In order to understand how the CPU serves all the purposes intended for it, it is helpful to know a bit about how programming languages are understood by the computer.

Programming-languages such as C++, Java, PASCAL, and so on, are known as high-level languages because they perform very complex and abstract processes on very complex and abstract data structures. However, the machine and all its components (including the CPU) are only capable of performing simple logical operations (such as AND and OR) and mathematical operations (such as addition and multiplication), and are only capable of performing these on very simple pieces of data represented in binary (strings of 0's and 1's). Thus, in order for high-level programming languages to be used, all of the instructions and data structures they represent must be broken down into these simple terms. To achieve this, the abstract language a programmer works with is compiled (converting all of its instructions into simple arithmetic and memory operations, and turning all its data into references to simple values) and then assembled (converting these simple instructions and data representations into sequences of binary code which the machine can work with directly).



RISC or CISC?

There are two main types of CPUs, Complex Instruction Set Computer (**CISC**) and Reduced Instruction Set Computer (**RISC**). A CISC CPU is exactly what its name describes — it has many specific instructions hard-coded into the chip so as to provide instructions for all operations that might be needed. CISC CPUs tend to be very complicated, power-hungry, and slow. A common example of a CISC CPU is the Pentium series designed by Intel.

RISC CPUs perform the same functions as CISC chips, but instead break all of the complex instructions down into sets of simpler ones. When John Cocke first thought up the concept of RISC, he proved that 20% of instructions in a CISC CPU did about 80% of the work. David Peterson, a professor teaching at the University of California at Berkeley, first coined the term RISC, and the basic idea behind it is that, by reducing the basic instructions used by the CPU into much smaller and simpler ones, programs can use just the simplest instructions they need; more complex instructions can be custom-made out of the parts provided by the simple instructions, eliminating the need to call upon very large, complex instructions which may often carry a lot of unneeded extra baggage. Thus efficiency is increased by making it easier for a program to ask the CPU to do exactly what it needs, and nothing more.

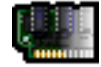
A RISC CPU is fairly uncomplicated, and therefore the space on the CPU can be used for other important items, such as an on-chip cache (see **L1 cache** below). (CISC chips like the Pentium II can (and some do) have L1 caches, but we all know how large those processors can be.) High-level programming languages can produce more efficient code due to the fact that they generally use the instructions already found on the RISC CPU. It is easier for programmers to program low level code on a reduced instruction set.

RISC systems are more popular in the server and high-end workstation environment. IBM's PC/XT, released in the early 80s, was the first computer to use a microprocessor designed using the RISC concept. IBM then later developed the RS/6000 (RISC System 6000). DEC's Alpha microprocessor is designed of the RISC concept. Sun Microsystems's SPARC stations also use RISC. The PowerPC microprocessor series, designed jointly by IBM, Motorola, and Apple, is RISC. It's found everywhere, from Apple's computers to IBM's Big Blue (which uses 5,856 PowerPC 604 microprocessors) and even the family car.





Cache is good



Cache is temporary memory that stores frequently and recently used data and instructions. There are several different types of caches (Web browser cache, disk cache, etc) but the types I will be describing are the ones associated with the CPU.

Level 1 cache memory (**L1 cache**) is a very small amount of memory that is located on the actual CPU. The PowerPC 750 CPUs (more commonly referred to as the G3 series) have two separate caches: a 32 KB instruction cache and a 32 KB data cache.

Level 2 cache memory (**L2 cache**) is a larger amount of memory (relative to the L1 cache) that is generally located right next to the CPU (rather than actually on the CPU). L2 cache is slower than L1 cache, but it is still accessed much faster than regular RAM. L2 caches are generally upgradeable and can come in several different sizes. Generally, L2 caches can range widely from 256 KB to 2 MB.

Level 3 cache memory (**L3 cache**) is yet another, larger amount of memory. L3 cache isn't very common and is generally found on only really new systems and high-end workstations. L3 caches range from 2 MB all the way up to a huge 8 MB on some server machines.



How fast is it really?

A CPU's speed is labeled by Megahertz (**MHz**). A **hertz** (named after the German physicist, Heinrich Hertz) is a single "cycle" or oscillation of an electromagnetic signal per second. MHz stands for one million hertz, or one million cycles per second. All the old-school electrical and computer engineers will be more familiar with the term cycle per second (**CPS**), which predated MHz.

MHz isn't a terribly good speed indicator, though. To really measure how good a processor is you have to measure how many million instructions per second (**MIPS**) are done, as well as how much is accomplished by each instruction (this differs among various machines, and especially between RISC and CISC processors). Another excellent measure of how good a CPU is by measuring how many floating-point operations per second (**FLOPS**) it can do. IBM describes floating-point as "a method of encoding real numbers within the limits of finite precision available on computers." That is to say, floating-point is a method of taking an analog number and giving it a digital representation that is as accurate as possible.



Word to the CPU

You have probably heard the term "16-bit" or "32-bit." This is in reference to the most basic packet of information that can be manipulated by the computer — it is called the **word** size. The larger the word size, the more information the CPU can work with at once. The bit size is always a multiple of 8 and the byte size is always a perfect square (i.e.: a CPU is a 32 bits, and there are 8 bits in a byte, so the CPU is 4 bytes.)



Word of the Month or Mot du mois \mo dew mwah\

overclock — If you have a craving for speed and today's fastest off-the-shelf processors don't satisfy your desires, then maybe it's time to turn on the nitro (figuratively speak, of course). There is a special clock on the board where the processor resides which determines how fast the processor cycles (a processor running at 100 MHz cycles 100 million times per second). CPUs are engineered with a safety margin between the maximum possible MHz and the speed at which it is shipped.

You can reset this clock to tell the processor to cycle faster. There is a catch though — as the processor's speed increases past its rated speed, the more likely errors are to happen, and the more wear and tear the CPU endures. Overclocking causes a processor to draw more power, which subsequently causes the processor to heat up and become stressed.

Depending on the make of your processor and the circuit board it is mounted to, there are different ways to overclock your system. Some boards have special **jumpers** (sets of small pins whose configuration in a series tells the motherboard how fast to run the CPU), and other boards might have tiny little **rheostats** (think of an old-fashioned wheel thermostat) for you to turn.

Beware though! Overclocking voids most manufacturer's warranties!



Question of the Month

Q. I would like to know what "octet stream" means. Please help!

— Silver

A. Octet is derived from the Latin word "octo" which translates to "eight." An octet is 8 bits. "Octet stream" refers to a sequence of 8-bit packets that are being transferred between a server and a client.

"But why call it an octet and not a byte?!" you ask. The term was originally created because on some computer systems and packet-switched networks, a byte isn't 8 bits.



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Review by Pete Burkindine



4.0 Stars - 1 Star Poor, 5 Stars Excellent



Title: Future Cop L.A.P.D.

Version: 1.0

Developer: Electronic Arts

Price: \$19.95! Demo available.

Contact Info: <http://www.futurecop.com/>

Genre: Futuristic Shoot-'em-Up

Requirements: PowerPC, Quicktime 3.x (installer included), a video board that supports thousands of colors at 640 x 480 or better, 24 MB of physical RAM, video acceleration board suggested.



Overview

The setting: 21st-century Los Angeles. You are an officer with the L.A.P.D. and you are driving the police version of Optimus Prime (from Transformers. Jeez, learn your pop culture!). The city has been taken over by crime lords. You have big guns. What else is there to know?

Future Cop L.A.P.D. is a very fun game. It's formulaic, sure — cops versus evil crime lords in the not-so-very-distant future, employing big, hi-tech guns to thwart evil. Everything explodes or dies in gratifyingly violent fashion. Plus, you're the cops, and what could be more noble than ridding the world of crime in the most violent fashion possible?

□



Note: The image above isn't "typical" of the graphic capabilities of this game. Really. We had to compress the image above to keep the issue under 539 MB :-)



Graphics, Sound, and Gameplay

The graphics are first-rate. I especially like the semi-nuclear explosions caused by the bombs, and the 3D perspective and multiple available camera angles make this game visually stellar. The realism (used in a very loose sense, since it **is** set in the 21st century and you **are** driving the Volvo of Death) of the story and graphics and the excellent voice instructions from your dispatcher draw you in to the game, and you get really upset when you die (well, I do anyway, but I'm obsessive). You explode in terrific fashion, though, and that almost makes up for it. The sound, a driving hard rock soundtrack peppered with the explosions of your foes, is also excellent. It's not Unreal by any stretch of the imagination, but Future Cop L.A.P.D. is definitely a cut above the average game in this category.

Gameplay is, in a word, great. Your laser sight makes it easy to see what you're aiming at, and the multiple camera angles I mentioned above make it easy to keep track of where your foes are lurking. There are a lot of controls to remember, but after the first level you'll be hitting all cylinders. The amount of control is on par with that of Quake or Unreal. The action is smooth and easy to follow, and the variety the plot adds keep your interest from level to level.



Your Machine, Your Guns, and Your 'Tactical' Assault

Your machine, as I mentioned, is a transforming machine, with Hovercar and Walker modes. Each mode has advantages and disadvantages, and you will have to use them both to get through the levels. You will use the Walker mode the most, as it is more maneuverable and can get through smaller spaces, though the Hovercar is faster.

You have three basic weapons at your disposal: guns, missiles, and bombs. They are all **really** cool. Weapons are upgraded as the enemies become harder and harder to kill. If you think your early weapons are cool, wait until you see some of the later ones. What more could you need? Nothing relieves stress better than a bit of good ol' ultraviolence.

All the weapons are aimed with a laser sight (a red line pointing at the enemy you're going to hit), so there's really no challenge as far as hitting your foes go, but most of them are as well armored as you are, so avoiding enemy fire is really the key to battle. FutureCop has its share of puzzles, mazes, and traps which must be figured out in the middle of the firestorm, so this adds a bit of mental challenge to an otherwise purely testosterone-fueled game.



Everything That Doesn't Blow Up

New Ideas

Don't kid yourself — this game is a shooter in the classic sense. You blow stuff up until there's no stuff left. That doesn't mean it's just Doom on wheels, though. There are a number of original and realistic aspects that set this game apart and keep it interesting. Every level has droves of new enemies, puzzles to solve, new weapons, and tougher bosses. Gamers will find equal parts humor, action, and fun on every level. My favorite part is the crowd control cam, a fun diversion where your heavily armed tank mows down droves of nearly defenseless criminal types. It's like shooting fish in a barrel.

The Manual

The manual is concise, well written, and completely unnecessary, just like in every other good action game. There is a convenient key reference sheet, which you will need and probably lose. As a reviewer, I am under an obligation to lose the manuals to all the software that is sent to me at least a week before I write the review so I can properly simulate what it's like to use the software without a manual. Or something like that... Anyway, you don't need the manual, and that's a good thing.



The Last Word

At \$19.95, FutureCop L.A.P.D. is quite inexpensive. There's even a demo version, so you lose nothing by trying it out. The gameplay, story, graphics, and sound are all first-rate, and you get to blow up all kinds of big, expensive machines. I like this game a lot, to put it simply, and you will too or I'll punch your lights out. :-)



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The Creator Code

Programming Your Mac

Chilton Webb <chilton@applewizards.net>

Welcome Back!

Welcome to the second in what I hope will be a long series of columns crafted to help you learn to program on the Macintosh, or just learn to program better in general. Since this publication and its back issues will be forever available on the Apple Wizards website, I've decided to start from the beginning, and work up from there. What will you need to begin this journey? A basic introductory understanding of the C language, perhaps enough to create a 'hello world' program and run it. I'm going to assume that your only exposure to Mac OS programming was with a simple "console app" that you copied out of a book. In other words, you can pack light for this journey — there's plenty of food along the way.

You should also know what you can expect out of this. By the time the fourth installment of my column in AppleWizards hits the virtual stands, you can expect to know how to create a true Mac OS program, and you'll understand many of the basics. This doesn't mean you'll be ready to snap your fingers and create the next Tomb Raider. Mac OS programming in C is quite a lengthy and complex procedure. But it does create some of the smallest programs (in terms of size of finished applications), and is the best way to get a handle on just what your Mac is capable of. Also, by the fourth installment, you should be ready to start learning on your own quite easily. But more on that later.

Patience is a great virtue when it comes to programming. You'd be amazed at the kinds of trouble you'll encounter, and how easy it is to create really nasty bugs in your code. I suggest (and I do this myself) that you keep a diary of your problems. Not your progress, not what you've learned, but rather what you **haven't learned**. The reason for this is that you'll very quickly realize just what your weaknesses are. Also, once you get bitten again by the same exact out-of-place comma, semicolon, or bracket, you'll be ready to pull your few remaining hairs out. So keep a diary. Keep track of every problem you encounter, what the symptoms were, and most importantly, how you fixed it.

□

This column will focus on C and the underlying concepts which propel the Macintosh Operating System. However, C isn't the only way to go about programming. The right tool for the job is the key here. There are several excellent Rapid Application Design (RAD) tools on the market, such as RealBasic and SuperCard, which can do the hard and boring work for you. But to extend most of those languages, you'll need C. You'll never encounter boundaries you can't cross using C. Once you've written an entire application in C, you'll know everything you'll need to know about working with the Mac OS Toolbox, and if you don't, you'll know where to find it.

Lastly, there are many fine books on programming. I'll be doing short reviews of some of them in the coming months, so stay tuned. I've read around a dozen or so Mac Programming books, and although I can't say just which one was my favorite, or the easiest to understand, none of them really sucked. So if you're considering buying a Mac programming book, go right ahead.

Note

You'll hear a phrase thrown around a lot among Mac OS programmers, the "Toolbox." No, you don't need to go buy it. The easiest way to explain it is by example. Rather than let you try to figure out how the Mac speakers work, how to find the current "beep" sound, load it into RAM, create a sound channel, play it through the speakers, close the sound channel, dispose of the RAM, etc., Apple figured people would want to be able to do this regularly, so they created a function, "SysBeep," which when called will simply play the current beep sound. There are hundreds of such utilities, and they are collectively known as the Mac OS Toolbox. So now you know.

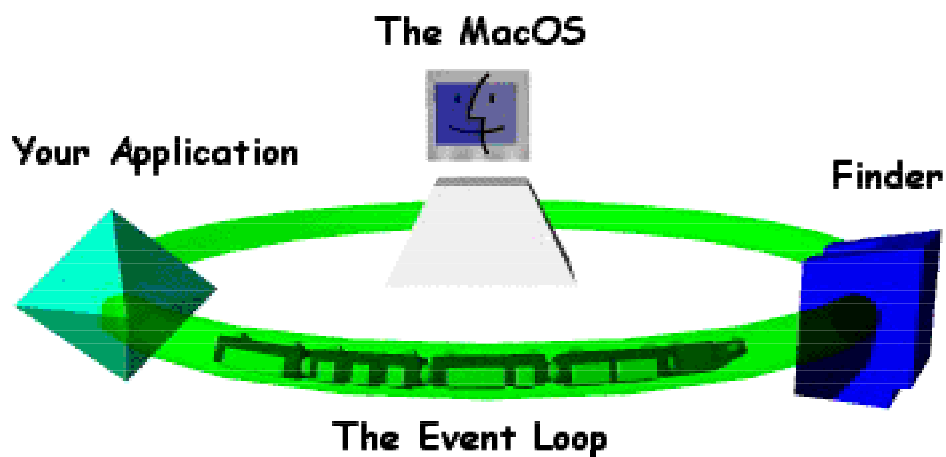


The Event Loop

The first concept I'm going to introduce you to will be the one of the most difficult and odd concepts you'll get the experience of wrapping your mind around in the entire course of programming on the Mac. Ever wonder how your Mac knows what to do when you click a menu, for instance? To your Mac, the world is nothing more than a series of events and responses. And that's the topic for today, the most important underlying concept in Macintosh programming. It's called the "Event Loop," and it is deceptively simple.

The event loop is like a train, and each program can be thought of as a station. Each app can tell the train to either drop off its cargo, continue to the next station, and more. In addition, each application can send events via the loop to other applications.

□

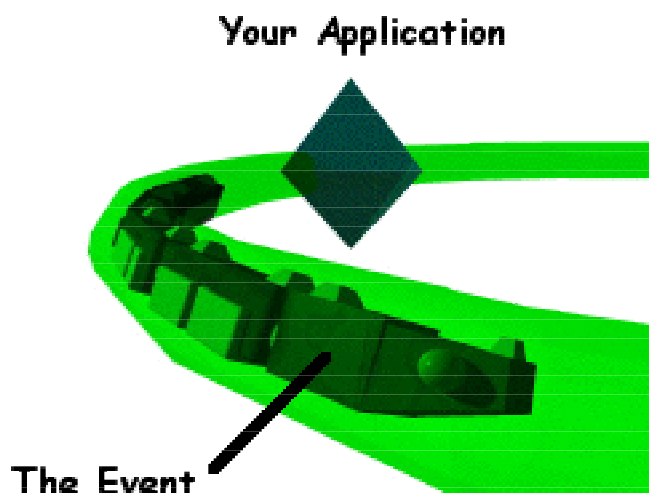


If you're experienced with console programming, a common paradigm in the academic world, then the concept of an event loop is often somewhat unnerving. Don't be afraid, the Mac environment is just the same as a normal console program, except that the command line is constantly being handed back and forth between various programs. Okay, it's a little eerie. Every program you have open is waiting, right now, for you to do something. And if you aren't doing anything, then all of those programs are doing something on their own — they're telling each other to wait until you do something else. We want your new program to fit in, so we'll teach it how to wait with the best of them. At the current time, there are only about eleven events that can occur on your Mac.

The Event List

- [Activate Event](#)
- [Update Event](#)
- [Drive Event](#)
- [OS Event](#)
- [High-level Event](#)
- [Null Event](#)
- [Key-Down Event](#)
- [Key-Up Event](#)
- [AutoKey Event](#)
- [Mouse-Down Event](#)
- [Mouse-Up Event](#)

□



The OS sends these events around, and it's going to be your program's job (and therefore yours) to figure out which ones to watch for, which ones to act on, and which ones to ignore. Luckily, the "event" contains information about itself in a special type of data structure called an Event Record. All Event Records have the same structure, they just have different contents. Here's the anatomy of the standard event record:

Event Record

- What
- Message
- Time
- Mouse Location
- Modifiers

The **What** section contains the type of event this is. It can be any of the eleven events mentioned above. For example, if your program is going to be AppleEvent aware (which is necessary for a program to be scriptable) then it's going to watch for High-level Events. If your program deals with files (most do), then you might want to watch for Drive Events. By checking the What section of the Event Record, you can decide how you want to respond.

The **Message** is where it gets interesting. In some cases, just knowing what happened is enough. For example, if you receive a mousedown event, you know that the mouse button was just pressed. But if you receive a key-down event, you probably want to know what key was pressed. The Message will sometimes be empty, but it will usually contain valuable data.

The **Time** is essentially a stamp that the Mac OS puts on each event so that you can know exactly when the event took place. It's actually the number of ticks since the Mac started up.

The **Mouse Location** (where) may be of great interest to you, especially if your app is watching for Mouse-Down events. You want to know where the mouse was when it was clicked, right?

□

And lastly the **Modifier** section will be flagged if there's one or more modifier keys being pressed. Modifier keys include the Command, Option, Control, Shift, and Caps Lock.



Patience

Teaching your Mac to wait patiently is a simple thing. The Mac OS Toolbox function "**WaitNextEvent**" handles this for you. Simply call it, and your app will grab the next incoming event. This is the heart of the event loop. WaitNextEvent can take four parameters.

The first is the **Event Mask**. By using special keywords, you can tell your Mac to only watch for certain events. But most of the time, you'll want them all to at least stop on the way through, so you'll probably pass "everyEvent" in this parameter.

The second is a pointer to an **Event Record**. When WaitNextEvent finishes, this event record will be filled out with the complete event info.

The third is called a **Sleep** value, and it's the number of ticks that you're willing to go between checking for events. The larger the number, the more processing time you give other apps running at the same time. The lower the number gives your app more concurrent processing time. **Hint:** don't set it too low — that is rude.

The fourth parameter is one you'll probably not use often, as it's reserved for apps that change the appearance of the cursor. So for this one, we'll pass '**nil**' as our parameter.

Because your Mac app is event-driven, you'll want to place the call to **WaitNextEvent()** inside a loop. And since there are eleven different results you could see from that function, you'll probably want to catch that result with a switch. Following is an example which brings all of this together. Notice that this is a function. Some Mac programmers just keep their event loop in Main(), but I'm a 'modular' programmer, and I really like functions. It's up to you, ultimately. Here's the code...

□

```
void EventLoop( void ) // start the function
{
    EventRecord theEvent; // declare variables

    while ( gDone == false ) // gDone is a global, so repeat
                                // the loop until we set
                                // gDone to true
    {
        WaitNextEvent( everyEvent, &theEvent, 15L, nil );
        //          \      / \      / \      / \
        //          |      | |      | |      | |
        // Capture all events
        //          |
        //          | Pass a pointer to a record
        //          |
        //          | Check every 15 ticks (We use an
        //          | 'L' to tell it to force the
        //          | 15 to fill 4 bytes)
        //          |
        //          | We don't change the cursor, so nil
        //          |
        //          |

        switch ( theEvent.what ) // switch using What
        {
            case mouseDown:      // if it's a mousedown event...
                HandleMouseDown( theEvent ); // handle that.
                break;           // and exit the switch

            case updateEvt:      // if it's an update event...
                HandleMouseDown( theEvent ); // handle that.
                break;           // and exit the switch

        } // end switch
    } // end while
} // end EventLoop function
```



Until Next Time...

Hopefully you've gained some insight into how your Mac actually works, and how the Event Loop is the center of the Universe. This understanding is crucial to being a good Mac OS programmer.

In coming months, we'll skim some topics for a while and then dig into the code rather deeply.

Next month's column will be the bane of Systems everywhere, and the cause of more headaches and System Errors than nearly anything else... Memory.



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A bone-crunching event

This Month's Theme: RollerJam!

I have discovered the best possible use of my time on Fridays from 8-10 p.m. It's roller derby remodeled for the 90's and given to you as RollerJam on TNN. The appeal of this game is that they take buxom young ladies and former hockey players, put them on roller blades, and then they tell them to viciously skate in circles until brawls break out. It's wonderful! It's like WWF wrestling on roller skates. You gotta love cable television!

RollerJam

<http://www.country.com/tnn/rollerjam/index.html>

This is the official page brought to you by the WSL (World Skating League). It has all the highlights of last week's games, the rules of the game, team profiles, and a nice little section on the history of roller derby. You must check it out to read the great commentary and player quotes ("Mark D'Amato told me to come back and kill them, and that's what I did!" — Tim Washington).

Roller Derby Preservation Association

<http://www.multiboard.com/~code3/rdpa.htm>

Before this week I had no idea what roller derby or RollerJam was, but now I know that it's the greatest American sport since baseball. This site not only has even more history, but also encouraging words of roller derby's triumphant return to its mass popularity of yesteryear (hopefully through that which is known as RollerJam).

□

Society for the Advancement of RollerJam Appreciation

<http://mypage.goplay.com/nobetterid/>

If you are anything like me (and I doubt you're that unstable) you have already fallen in love with this grand sport, which is quickly becoming more popular than women's basketball. What should we do with this soulful passion that we have for RollerJam? We should tell everybody of RollerJam — friends, family, strangers — everybody! This site encourages us RollerJammers to spread the good word through the vast resource that is the internet. We cannot let such good news go untold.

What We've Learned This Month: Just think — Wrestling on Skates!!!



Ron Freeman

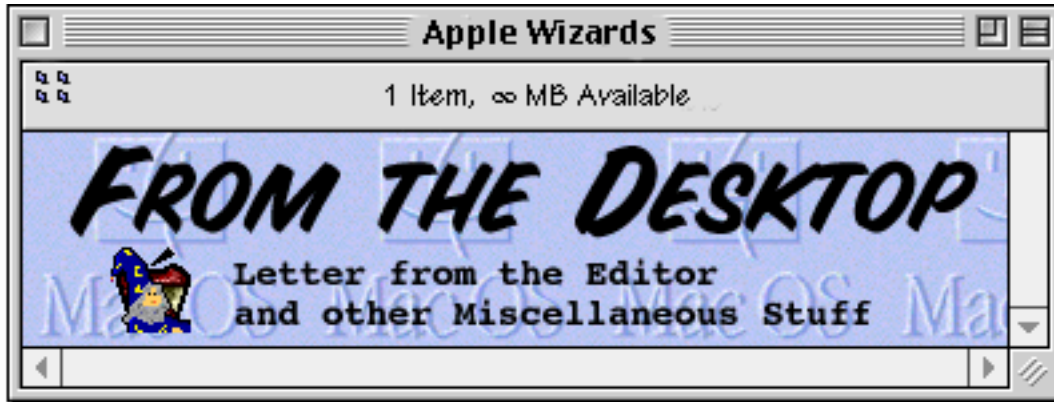
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So You Wanna Get Involved, Eh?



MacAMP Lite 1.5.1



ICQ 1.6.7 (beta)



Zip USB Drive



So You Wanna Get Involved, Eh?

This month marks the beginning of something new at Apple Wizards — a new product review paradigm. Okay, so maybe I just wanted to use the word "paradigm"... can you blame me? No! Blame Scott Adams.

Dilbert-esque fantasies aside, we have begun something new here at Apple Wizards, and we like to call them **mini-reviews**. Mini-reviews are just that — short, to-the-point reviews that cover fairly simple products, from nifty web utilities to cool text tools and more.

What's so special? Well, unlike our full product reviews, which are reviewed by staff members, mini-reviews are open for writing by anyone — and **that means you!** This month, for example, we've got a mini-review of ICQ by Bill Horne and one of the USB Zip Drive by Teemu Masalin (as well as one by Apple Wizards staffer Phillip Grey).

□

Did your new printer turn out to be a lemon? Did you find that some no-name peripheral performs better than a brand-name one? Did you find the greatest software invention since, well, the Mac OS? If so, **share your thoughts** with hundreds of thousands of other Mac folks by writing a mini-review! They'll thank you for it.

Now that you're thinking of products you'd like to review, let me give you the low-down on how we're going to do this:

1. Send email to mini-reviews@applewizards.net . List the product you'd like to review and give a brief summary of your thoughts (a sentence or two).
2. We'll write back to say whether or not we'd like to publish your review (and don't worry about being rejected — we're really nice people!).
3. We'll then send you a kit, if you don't already have it, which contains the items you'll need to draft and submit your mini-review.
4. You'll send in the mini-review and then become famous when it's published!

As if the admiration of hundreds of thousands of fellow Mac users wasn't enough, we've got an added incentive: folks who continually submit high-quality mini-reviews will eventually have the option to become a full-fledged member of Apple Wizards, with full product reviews, cool licensed software (a nice Apple Wizards perk), and the cameraderie of our resident model, Daria. <wink>

So what are you waiting for? Get on the ball! Get those mini-reviews rolling in! There's no time like the present, folks!

P.S. Next month, mini-reviews will move to their own column. **From the Desktop** will once again be my little editorial space, at least until our next big idea comes along...



Erik J. Barzeski

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MacAMP Lite 1.5.1

Gold Medal



Price: \$10

Contact Info: <http://www.macamp.com/lite/>

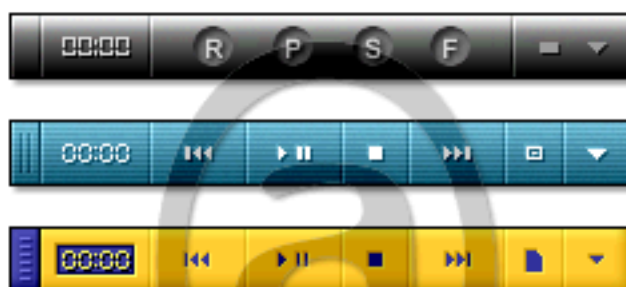
Now that you've made some MP3s (see **A Spider Speaks**, this issue), you'll no doubt want something to play them. Enter MacAMP Lite, the resource- and screen real-estate-lite version and little brother to @soft's MacAMP (which is still technically in beta).

MacAMP Lite, or MALT as the @soft people prefer to call it, offers the ability to play the following sound formats: 669, AMF, CD Audio, DSM, FAR, IT, M15, MED, MIDI, MOD, MP1, MP2, MP3, MTM, S3M, STM, ULT, XM, and more. This alphabet soup can be extended with new "engines." What's that mean? Basically, if you've got a sound file, MALT will probably play it.

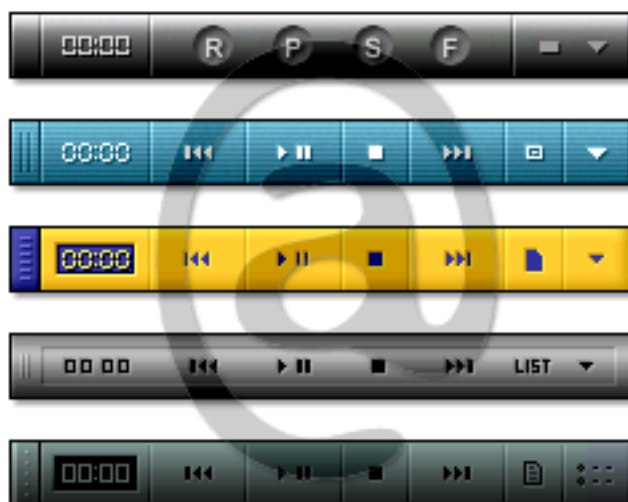


Control strip fans will feel right at home with MALT, which acts like a control strip for playing your audio files. The tab at left (in the above screenshot) allows you to drag the strip to any location on your screen (provided it touches the side). The timer, which can be disabled, is followed by rewind/repeat, play/pause, stop, and fast forward/skip buttons — just like those on most CD players. The playlist button (next to last in the above screenshot) acts as a "quick save" feature — just drag it to any location on your hard drive and a MALT playlist will be created. Create playlists for a wide variety of music and switch among them with drag and drop!

The last button, a downward-pointing arrow in the default skin, provides pop-up menu access to the current playlist (switch songs just by selecting them from the list) and to the MALT preferences. Preferences allow you to automatically pop-up the strip when the mouse moves over the tab, randomly play songs, control the volume, and more. The preferences also allow you to quickly switch skins. What's a skin? Think of it as a Kaleidoscope scheme for MALT. The five seen below are "extras" available to registered users, and many more will be available for download at <http://www.macamp.com/skins.html>.



□



Every once in a while, Mac users are treated to software which redefines how we use our computers in day-to-day life. MacAMP Lite, which runs on any PowerPC with 512k RAM and Mac OS 7.5 or later, is one of those products. If you don't turn into an MP3-playing skin-downloading fool in one week, count yourself an odd one. MacAMP Lite, at \$10, is worth every penny.



Phillip Grey

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ICQ 1.6.7 (beta)
Silver Medal



Price: Freeware

Contact Info: <http://www.icq.com/>

If you are a small businessperson with a need to communicate with remote offices over the Internet, you will be pleasantly surprised to find Mirabilis' new version of ICQ (pronounced "I Seek You"). Armed with this free software, an Internet connection, and a need to communicate, you can save big bucks.

ICQ allows you to send messages, chat in real time, and transfer files. These three functions will save many a phone call and fax, all of which cost you more money than you're likely to spend connected to your ISP. The file transfer capabilities even work cross-platform because platform-dependent compression (such as Stuffit compression) can be ignored, and files can be transferred individually or as a group.

Installation of ICQ is straightforward. After downloading the program at Mirabilis' (very ugly) website, at <http://www.icq.com/>, you simply follow directions to set up the software. Download and install ICQ on each of your businesses' computers, exchange user ICQ numbers, and voilà! You've got an instant (and free) corporate intranet! This can be yours without servers or other expensive equipment.

□

I give the latest version, 1.6.7, high marks in cost (free), ease of use and installation, and stability. The interface is also fairly easy to comprehend and use. It lags slightly behind the Windows version, and thus receives a silver medal. If your organization is interested in using the Internet for something other than surfing, look into ICQ.



Bill Horne

riverat@compumise.com



Zip USB Drive
Silver Medal



Price: \$149

Contact Info: <http://www.iomega.com/>

When Apple introduced the iMac, many people wondered how they would back up and transfer their files. A good solution is Iomega's new Zip USB Drive, designed specifically for the iMac. Encased in Bondi- or Blueberry-matching translucent plastics and matching USB cable, this drive works well with iMacs, new blue-and-white PowerMac G3s, and even PCs with Windows 98.

The Zip USB drive is almost ready to use right out of the box, which includes the USB data cable, universal power supply, IomegaWare CD-ROM, and users guides. I say "almost" because you don't get a Zip disk with the drive.

The installation is quite easy thanks to the manuals, but the confusion that surrounds the iMac Update may confuse some users. Version 1.0 is included on the disk, but if you run Mac OS 8.5 or newer, Apple recommends that you install iMac Firmware Update 1.0 and iMac Update version 1.1. They can be downloaded at <http://www.apple.com/support/imac/>. Also, I found that connecting the Zip drive to the keyboard USB port results in lower speeds than when the Zip drive is attached to the USB port on the side of the iMac itself.

Using the Zip drive is just like using floppies, but faster. I measured the speed with wrist watch, by copying different sized files between Zip disk and iMac (Rev. A with 96 MB RAM, Mac OS 8.1, and Update 1.0).



File Size	iMac to Zip	Zip to iMac
-----	-----	-----
1 MB	0:04	0:02
3 MB	0:08	0:05
5 MB	0:13	0:08
10 MB	0:26	0:16
50 MB	2:09	1:14
-----	-----	-----
Average (MB/s)	0.38	0.66

The Zip drive is no speed demon, but it more than suits adequate needs. It is capable of running applications and multimedia without noticeable lags. The bundled RecordIt! software lets you record music from your CDs to Zip disks. I recorded R.E.M.'s "Daysleeper" (3:32 in length) in 2 minutes. The file size was 6 MB at the highest quality settings.

For \$149, the Zip USB drive is worthy of consideration. For more information and software updates, visit Iomega's website at <http://www.iomega.com/>.



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Staff



Editor in Chief / Webmaster

Erik J. Barzeski

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I am an avid Cherry Coke drinker. I get too busy. When I'm not burning CDs, working on Apple Wizards, writing reviews for MacAddict, or otherwise using my G3, I'm usually playing some sport or another or designing a website for someone. I've been a Apple fan since I first played Oregon Trail on my family's Apple IIe. Too bad little Billy Gates always died by the time we got to Blue Ridge Run...

I enjoy working on Apple Wizards because I have a serious distaste for free time and society in general. <GRIN>



PR / Business Director

Daria Aikens

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I am a 21-year-old graduate of the University of Florida who is sick and tired of the inconsistency of the Gator Football program. But hey, at least I'm not a Seminole! When I'm not webmastering in front of my souped-up Performa 6400 or fighting over the iMac with my boyfriend, I can be found rehearsing and choreographing for dance companies or working at a local, regional ISP. Apple: If you are looking for anyone to choreograph a dance piece for next year's "Apple Road Show," I'm available!

My work at Apple Wizards is dedicated to the memory of my Apple IIe and beloved Macintosh Classic.



MVRP Webmaster / Shop Talk

Aaron Linville

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I am an 18-year-old college student and majoring in Computer Science. I am an experienced consultant with a CNA license. I have used almost every operating System ever made, and I always keep coming back to the Mac OS.

The mind is the most imaginative, creative, and powerful thing in the universe. Why waste your energy using any other tool besides the Mac OS, the best tool to harness that energy?



Columnists and General Staff

Pete Burkindine — Reviews

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An Apple/Mac lover since 1986 (remember Lemonade Stand?), I am a web designer, Mac consultant, and freelance humorist and just recently packed my rear off to college to study computer engineering. I am also an accomplished French hornist, and I love to ski. I am also very much in love with my girlfriend, who is wonderful (I hope she reads this).

I write for Apple Wizards because I just can't say no to Erik (he's so cute!). I hope you all enjoy my columns, otherwise I will be deeply emotionally wounded and go sulk.

John B. Crane — From Another Perspective

jbcrane@applewizards.net

I am a 3D illustrator and animator in Santa Fe, New Mexico. I've been involved in art most of my life and in "graphic" art as a career for the past 15. I'm a staunch and loyal advocate of the Mac and love what I do for a living - creating stuff on my Macs. When I'm not working I'm busy being a husband and a daddy to our new little boy, Matthew.

The more I learn, the more I realize what I don't know.

Craig Cox — Apple Wizards Evangelism

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I am a logistics information systems manager for the US Government. When I'm not battling the takeover of the government by Bill Gates, I'm playing with my daughters, swimming, reading, or trying to keep the "money pit" from collapsing in around us.

Apple Wizards looked like a cool bunch of folks with the same general philosophy of combating banality and enjoying the finer things in life - like Macs.

David Doonan — PDF Maker

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I have been involved in the graphic arts since 1972, primarily as a photographer and offset printer. Seven years ago, I escaped with my wife and two sons from Trenton, New Jersey to the rural countryside of upstate New York. The most important thing about computing is the spread of knowledge and the potential for individual empowerment. Today's desktop has become every man's printing press.

Life has become a never-ending struggle to learn faster than my sons.

□

Ron W. Freeman — Website Watch

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Born in the greatest decade known to man (the 1980's - what else!), I have progressed through various levels of schooling to become a high school senior (we rule the school!). R.E.M. is the band he grew up with, though other favorites include U2 and 10,000 Maniacs. I enjoy spending time learning to play the guitar and working in ice cream parlors.

Apple Wizards to me has a very special place. You know, that place on your back that you can't quite reach no matter how hard you try...

Jeff Frey — HTML ToolBox

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The one thing every "well-rounded" college student needs is a foreign language. Well, I can answer with the standard "Uh, yeah, I took German for two years," or, I can answer by saying "I'm proficient in C, C++, Pascal, PowerPlant, Java, HTML, and AppleScript." Usually that gives me the same affect as saying "Ich habe Deutsch studiert." And of course, I'm devoted to the Macintosh...the computing choice of the NeXT (oops, did I hit the shift key too many times?) generation.

My columns for Apple Wizards are meant to encourage experimentation and dabbling in HTML, since everyone knows that only the MacOS encourages those same qualities in every user.

Brent Hecht — Medicine Man

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I am rather new at this writing stuff. I currently author articles for MacOS Daily and 32 Bits Online when not hard at work for Apple Wizards. Contact me at the email address above to ask a question, comment or just to talk to someone!

"If someone gives you lined paper, write the other way." - Fahrenheit 451

Brian Kelley — 'Warehouse, Features

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I am the Apple Wizards shareware guy. In addition to my Apple Wizards work, I write technocentric fiction and non-fiction. I am also starting to learn programming and you may some day see my own shareware app in 'Warehouse! I live and work in upstate NY with my wife, Gini, and our Performa 6205 and iMac.

Writing the Apple Wizards shareware column is a great way to justify all the downloading I'd be doing anyway!



Marc Messer — Mac Junkie, Game Reviews

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I'm a 22-year-old-senior at the University of Florida studying Computer Science through the college of business. When I'm not on my 6500, Gustav, I'm doing such useless time consuming things like sleeping, eating, and occasionally going to class. I'm forever struggling with java and nothing ever compiles. Other than that, I like to watch UF sports and listen to hardcore, ska, and hardcore ska music.

I love to play with PCs! I especially love to play with the autoexec.bat. But for some reason, no one will let a Mac user play with their PC.

Morgan Williams — Copy Editor, Sometimes Writer :-)

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A philosophy major at Southern "Harvard" University, I strongly believe that the counter-intuitive behavior of Windows is a direct affront to our very rational nature – and thus, at a very primitive level, we naturally find it insulting. I am new to Apple Wizards, which is quite cool, and hope either to do tech writing or design levels for Bungie Software. Also, if I don't kick your butt at Myth, it'll be darn close ;)

These days, money talks, and information is subject to change.



Many Thanks

Our gratitude goes out to Other World Computing. Other World Computing has sponsored us through June 1999, thus enabling us to bring you Apple Wizards each month. Please support Apple Wizards by visiting our sponsor at <http://www.macsales.com/>. Thank you.



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