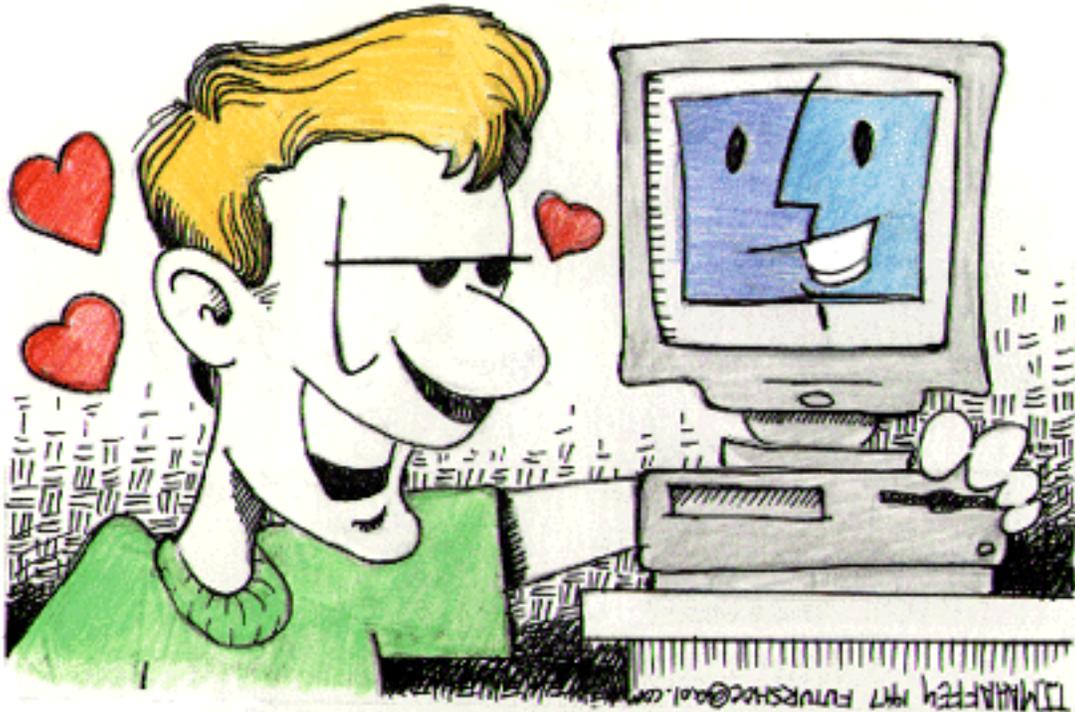


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Thanks for reading *ATPM*.

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Welcome

Welcome to the end-of-summer issue of *ATPM*. Although the days are getting shorter and the nights a little cooler, there's no shortfall of hot rumors about Apple and the Macintosh. No matter the weird media gyrations and spectacular corporate events, the Macintosh faithful have shown a kind "True Grit" the last two years and especially the past few months.

We're so impressed with the Mac faithful that we've dedicated this issue to the men and woman around the world who make Mac computing so much fun. In other words, to the many people who share their time, talents and stories with their fellow Mac users. In honor of these brave souls, this issue of *ATPM* includes a special Segments section. The stories you'll read are true and no names have been changed. It's an unbridled tribute to Mac enthusiasts who, in their own words, tell their personal and heartwarming Macintosh story. You won't be disappointed.

License to Kill

No, it's not James Bond. It's more like Steve Jobs. We won't call him 007, just double 00-2. That appears to be the number of Mac cloners remaining after the change in Apple's policies. While the company has been more forthcoming with answers since the "Power Deal," the negotiations were top secret. The situation has as much intrigue as one of Ian Fleming's better novels. We only hope that Steve Jobs has the golden touch (or, at least a "Goldfinger").

Romancing The Clone

Forgive us if we take a moment and think nostalgically about the early days of Macintosh clones. Way back then the air was filled with optimism about the PPC chip and the alliance of Apple, IBM and Motorola, three computer giants working together to make a better personal computing world. It was a romantic era for personal computer dreamers. What's happened since has been a Greek tragedy, a Roman epic and "Keystone Cops" comedy rolled into one. What do we think? Well, our view is that with Mac OS continually improving and Rhapsody nearing completion Apple's OSes are just getting better and better. It's our hope that things on the hardware side might get chipper a little quicker, and we'd also prefer that we had the chance to CHRP!

An Apple For The Teacher

Will I see youuu in Septemmmberrr or lose youuuu to a Wintel clone? Pardon us, but this updated lyric was on the minds of many teachers and children when the season's school bells first rang. What did they find in the computer labs? The real story. No matter the truth, our counterparts in the paid press keep missing the point - The Macintosh is the preeminent computer is America's public schools (by a blow-out margin). End of story.

Why do so many schools stay with Macintosh? We heard one teacher recently put it this way: "It's our job to prepare kids for what they will be using tomorrow, not what people are using today." Like we said, end of story.

Aladdin's Magic Lamp

You've heard of the crystal ball? Thanks to the proliferation of cable, we also have psychic hot lines. But we'll take our chances with more reliable sources of information, such as the fine folks at Aladdin Systems. With their success in the Macintosh market it's no wonder they have a magic lamp as a logo. Some of their products are so good you'd think they were made by genies!

This month [ATPM](#) is proud to present an interview with Jennifer Lyng, Public Relations Manager at of Aladdin Systems. We were pleasantly surprised by some of the responses to our questions. It's an interesting read and you'll find that nothing about Aladdin Systems should "rub" you the wrong way. If you think Stuffit is cool, just wait until you hear about their latest bits of "magic." Details inside!

One Final Note

The world of Mac computing has seen many changes the past few months. There's little doubt more changes will be forthcoming as Apple Computer continues to redesign itself, its products and its place in today's computer world. Let's take a moment to remember that while the new era of instantaneous communication can be fun, this "brave new world" of e-talk can also lead to sensational, unfounded rumors being distributed around the world in

less time than it takes to read this paragraph.

With all the advancements in technology, one fact has yet to change: behind every Macintosh is a unique human being with special hopes, dreams, talents and aspirations. We use our Macs to communicate, to learn and to earn . There are hundreds of thousands, maybe millions, of people whose livelihood depends on Macintosh and Mac OS. Incomplete information about those markets, no matter how well intended, impact individual and corporate buying decisions, which can change companies' directions overnight. People's lives are disrupted and entire industries can change.

We salute those who seek to find out what's going on behind the scenes and "behind closed doors." We believe they provide the Mac community an important service. However, until news is confirmed by reputable sources, rumors are just that, rumors. The spreading of rumors of incomplete information as if they were fact may sometimes hinder things that a little bit of patience and forbearance might ordinarily help. Enough said.

The reality of personal computing is already "stranger than fiction." We think it'll probably stay that way. We hope to continue being there with you.

Please enjoy our latest issue!

The ATPM Staff





Email

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Upgrading

I read with interest your piece in ATPM about upgrading the logic board on your Mac. I have a Performa 6200 and would love to upgrade to a 6320. Trouble is, I live in Britain and would dearly love not to have to make a phone call to the States as it will cost me a fortune. Do you have a fax or email address for KIWI? It is quite amazing how few upgrades are available over here for Macs like ours. I had previously only heard of one graphics card upgrade which costs around £375 sterling—which simply is too expensive to be viable. Thanks in advance for any help you can give.

Robert Irwin

Oxford, England

r.irwin@zetnet.co.uk

Thanks for writing. My upgrade is working fine. I have since found more information about KIWI Computer for you and the others who have been nice enough to write. Their email address is: [<kiwicomp@aol.com>](mailto:kiwicomp@aol.com) and their fax number is (310) 286-9667. Address all correspondence to Chris and I'm sure you'll be happy with their service. Keep me up-dated on your progress. —EG

...

Hello from Spain!

This is for thank all of your staff for your fabulous *About This Particular Macintosh* ezine. I enjoy very much all its contents, both texts and graphics. ATPM is frequently included in the cover CDs of our Spanish Mac magazines (Macworld, MacFormat, Spanish Ed.).

Here in Spain, with the help of some friends, living in different cities, I also make a DOCMaker mag. It's called "Tarta de Manzana" (Apple Pie, in English). It's a bulletin for Macintosh users. I started one year ago, and, by now, the ezine is distributed via...diskettes (yes, you can believe it!). The starting idea was based on all those Macintosh people (like myself) who still don't have Internet Access, but, obviously, have a floppy drive. It's a "container" ezine, where people send their contributions: Icons, applications, scripts, graphics...absolutely all kind of stuff they've created or want to share with. They send me their stuff, which goes to the magazine, and when it's finished, I give them back the complete number, also via floppies.

The point is that your ATPM really helps me frequently about how a good ezine can be made. In the next future, maybe my modest "Apple Pie" will be on the Web (I've got only an eMail account in a CyberCafe here in Vigo, the city where I live), but of course it'll be very different from the original DOCMaker version...

Nothing more, by now. Just keep the good job...for the rest of us:-)

Alberto

alberto@correo.rianaet.es

...

Longevity Doesn't Sell

One reason why Macs don't do well, in my experience, is because they last too long. Windows machines are replaced constantly. Therefore, people with old Macs, when they want a faster machine, always look to get a Winbox because they think Windows machines are faster. This is a major perceptual problem, especially now that 180 MHz Mac OS speedboxes are available for under \$1,000.

Dr. David Zatz

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We'd love to hear your thoughts about our publication. We always welcome your comments,

criticisms, suggestions, and praise at [<editor@atpm.com>](mailto:editor@atpm.com). Or, if you have an opinion or announcement about the Macintosh platform in general, that's ok too.





Wait and See...

In August, Steve Jobs stepped onto the stage at MacWorld Expo and declared an end to the Apple-Microsoft feud. After signing a few agreements, Apple will be collecting royalty checks from Microsoft for its use of Apple technology. Microsoft's highly publicized stock investment in Apple helped create a burst of enthusiasm for Apple and its products. This coincided with the back-to-school buying season and the release of Mac OS 8.

I'm glad the feud with Microsoft is officially over. For the past several years Apple Computer has been the "incredible shrinking computer company." There has been much debate about why the Macintosh market is shrinking, but I think much of it stems from misinformed reporting about Apple's plight and a general misunderstanding about the Microsoft-Apple OS rivalry. If every story printed about Apple were true, the company would represent the most successful business failure ever (at the time of this writing, the company has more than \$1 billion in cash). In my view, Apple's resources are best used developing new products and technologies, not paying legal bills. The company needs to use its assets to improve products and increase sales. The Microsoft deal will allow to Apple to allocate its resources more effectively and better focus its efforts.

There are millions of Mac advocates. Each of us has personal reasons why we prefer to use a Mac and the Mac OS. I believe the creators of the Mac OS were motivated in part by respect for their fellow human beings and an appreciation for each individual's inherent strengths, weaknesses, talents and skills. The Mac OS has provided a better opportunity for human expression. The Macintosh opened the world of computing to millions of non-computer users. It was a breakthrough product for its time.

In keeping with the tradition of innovation and ease-of-use, Mac OS 8 is a nice progression from System 7.x. I'm looking forward to Allegro, the next major upgrade to the Mac OS. Allegro will further enhance functionality. The more I use Mac OS 8 and read about Allegro, the more enthusiastic I become about the Mac OS and its future.

The official end of the Apple-Microsoft feud will have direct and indirect effects. One is that the licensing payments from Microsoft will improve Apple's financials. This has received far less attention than the \$150 million investment by Microsoft in its former arch-rival. Many press reports have referred to Microsoft's investment as a "bail out,"

which indicates a lack of understanding of Apple's circumstances, its balance sheet, and its product strategy.

Apple doesn't need the \$150 million as much as it need positive press. Microsoft's investment has helped to significantly raise the value of Apple's stock. In my view, this is because the public perception of Apple Computer's financial standing increased dramatically when the deal was announced. Ironically, because of the increase in Apple's share price, Microsoft's investment in Apple has also increased significantly in value.

Another benefit to the official end of the Apple-Microsoft feud is a more realistic discussion of Apple's position in the personal computer industry. Microsoft Windows, in all its variations, is the predominant operation system today. It is unlikely that the Mac OS or a combination of the Mac OS and Apple's Rhapsody will supplant Windows in today's personal computers. It's my view that Apple can dramatically increase its sales and market position but only if a new personal computing paradigm or model is established.

Over the past several weeks, Apple Computer acquired the core assets of clone maker Power Computing and much of the Apple-IBM-Motorola partnership was unraveled. These events will reshape the manner in which Apple approaches the marketplace. Apple has chosen to virtually eliminate the Macintosh clone market (at least temporarily) and the Power Computing deal will help Apple develop a direct sales approach in key markets.

There has been much talk about Apple's plans to produce network computers (NCs). Apple's decision to "unspin-off" its Newton unit has only added to the NC speculation. Last year's acquisition of NeXT and the company's continuing development of the Rhapsody OS fits quite snugly with the development of network computers. Apple may have more than just a dual OS strategy. It may also be developing a dual computer strategy (network and non-network computers). Can you imagine Apple Computer providing products that allow users a choice between computing options based upon their personal computer needs? Better yet, can you imagine Apple Computer providing virtually seamless integration of diverse products (desktop computers, Message Pads and eMate-like units) to allow users access to a myriad of products, services and technologies? The possibilities are endless.

Apple Computer has seen significant change since Steve Jobs' return first as an advisor and now as interim CEO and the company's guiding force. However, the company is less forthcoming about its plans than about its changes. During the next several months, change will continue at Apple Computer and in its approach to the personal computer market. For me, it's a matter of wait and see...

I think the array of new products being developed by Apple will be impressive. I also think there is tremendous opportunity for Apple to design unique solutions to corporate and personal computing needs. Apple may embrace different microprocessors (RISC and non-RISC) for use in its different products. In the end, Apple will remain unique, but perhaps in ways few of us expected.

I'm glad the Apple-Microsoft feud is officially over because I think a new revolution is about to begin. What do you do if you don't like the rules of the game? If you're Steve Jobs and Apple, you change the game. Like I said, "For me, it's a game of wait and see." I hope you wait with me. Things are about to change in ways few of us might have imagined!

"Apples, Kids and Attitude™" is © 1997 Robert Paul Leitao, <rlleitao@atpm.com>.





Hoop Dreams

It was another relaxing Saturday afternoon in Florida. The sun was shining brightly. The Gulf of Mexico's warm waters were beckoning. The newspaper advertised a steel drum band playing at my favorite beachfront bar during their happy hour. Just another day in the paradise that is Florida.

Where was I?

In an gym. Pacing nervously. Assigning numbers to players. Oh, boy. What did I get myself hooked into now?

These past few months have been, well, quite interesting for me. You see, I volunteered to coach a youth basketball team for the city's rec center. My team, the Largo Heat, consists of seven kids, ages 12 through 15. With great fanfare that fateful Saturday afternoon, our team took their positions on court for our first game warmups.

It started one day last April. For reasons unknown to me, I called the local recreation department and asked whether they had a basketball program and if they needed coaches. The person who answered the phone was the director of the basketball program. I learned first-hand "rule number one" about volunteering: If you speak directly with the director of the organization on the phone, it's exponentially more difficult to back out later should you change your mind.

"Yes, Mr. Iovino. We sure do need coaches! Do you want to coach?" asked the director in an entirely too energetic voice.

"Sure," I said, beginning to question my decision to call.

"No problemo! You're in! See ya at the coaches' meeting in August!"

"But..." The director had already hung up. I thought about backing out, but the off season passed more quickly than I expected, try outs and a draft were held, and suddenly... there I was at our team's first game.

The computer world has changed drastically following Steve Jobs' bombshell announcement at the Macworld Expo. Old ideas, such as "us versus them," had to be scrapped for a new approach. Words like "teamwork" began to creep into the vocabulary of those Mac enthusiasts who were once die hard Microsoft haters as the news of this grand partnership settled in.

Attitudes have started to change in Cupertino as well. Symbols of Apple's identity, such as the location of the company's headquarters, are being reevaluated. Steve Jobs is working hard to recapture the magic of the old 1984 Apple. Energetic. Forward thinking. Exciting. Cushy offices at One Infinite Loop are going the way of the dinosaur or the Dodo bird.

With all the recent upheaval, Apple now has a new role to play. The way I see it, Apple Computers has become less of a player in the computing industry and more of a coach. I don't think this means that Apple is not committed to a return to profitability. Far from it. With the bounce in Apple's stock price, it will appear more solvent in the eyes of investors and customers alike.

The Microsoft partnership has breathed new life into a company which had become identified with huge quarterly losses and sagging market share. But Apple should now act like a coach, coordinating the comeback effort, rather than a player, who concentrates on one aspect of the game. Like a coach, Apple needs to make some important decisions in order to chalk up more wins than losses.

I have seven players on my team. Each has his own set of skills, attitude towards playing, and level of experience which makes them unique.

Some kids on the team will easily go on to play varsity high school basketball and have a shot of playing at the college level. Granted, they may not play at schools like Arizona, Kentucky, or North Carolina, but they will gain a birth on a college team.

Other kids bring a solid knowledge of the game and excel at one particular aspect of play. For one, it's defense, for another, rebounding and for a third, passing. These players make up the core of the team, upon whom we rely heavily when the chips are down.

Finally, there are the kids who show up with underdeveloped basketball skills, but an infectious enthusiasm for play. They will play any position required of them, take on any task, and give 100% effort which makes up for any shortcomings in their game.

As a coach, it's my job to identify the strengths and weaknesses of each player and determine the best way to utilize their skills. Some players can handle the ball well, so they are the guards. Others who rebound well end up as forwards. Center, well, let's just say the tallest kid is a good choice.

Apple Computer, under its new management scheme and philosophy, needs to identify the

strengths and weaknesses of its operations sectors. Jobs and whoever the new CEO will be need to sit down and carefully review each aspect of Apples's involvement in the computing industry.

For example, a sticking point with Apple has always been its hardware. For years, Apple was sole manufacturer of Mac OS compatible equipment. Apple played the equivalent of a slow, ball control game with their technology, while other hardware manufacturers ran circles around them. True, this cautious approach did lead to unparalleled hardware compatibility (just try to configure new hardware onto a Windows box), but it also stifled a drive to build better, faster, AND cheaper equipment. I can remember the fanfare when Apple was releasing its 14.4 modem, although by then many other companies had already moved to 28.8 as their standard.

As other hardware clone manufacturers have come off the bench to build Mac OS boxes and peripherals, Apple has given them a lukewarm reception at best. Companies such as Power Computing and Motorola have become better equipped and more savvy in the design of Mac-compatible boxes, even surpassing Apple in speed and "Bang for your buck." Rather than welcome these developments, Apple has fiddled with the idea of clamping further restrictions on clone manufacturers. Only recently has there been a mention of a "thaw" in this "cold war."

Of course, my most important task as coach is to pay attention to the game's ebb and flow and to manage the players accordingly. There are certain combinations of players who can accomplish particular tasks well. For instance, when I need good outside shooters to take three point shots, I put a one group of five on the court. If I need good rebounding, the combination of players changes drastically. After a few weeks practice, I have gotten a better feel of which players work well together and which have trouble.

Our league also has a strict "Must Play" policy, and I have to be very careful to abide by those rules. Each player must play his mandated time or there are dire consequences — I can get booted from the league! So, I have to decide between playing a structured game, with set offensive plays and a disciplined zone defense, or a less structured game where players "float" and I have to trust their judgment. Hey, nobody ever said that it was easy to coach!

Apple needs to make some serious game decisions as well. Just as the decision to substitute for a player with a hot hand but poor rebounding skills is tough, Apple has to make its own gut check and make the right call.

In my humble opinion, Apple needs to get out of the hardware business. Apple has established the level to which all hardware must comply, but now must relinquish its stranglehold on hardware manufacturing and go totally software. Period.

Apple should focus on what has made Macintosh great — the OS. That's right. This is a call for Apple to become a software company, just like Microsoft. They should funnel all the R&D dollars and staff firepower into beefing up the OS and leave the nuts and bolts to

upstarts like APS and big boys like Motorola.

Rhapsody, delivered on time and with all of its promised bells and whistles will be far more impressive than squeezing another 25 Mhz clock speed on a chip or 10 MHz on a bus. Besides, without a modern, efficient OS, computer boxes are nothing more than expensive paperweights. The OS functions as a point guard on the "Personal Computing" team, calling plays and serving as strategic commander. Games are won and lost on how well the point guard plays, so Apple needs to focus on its point guard, the OS, make it the best it can be, and get back into the game while there is still time to make a difference.

My team had some tough games at first. We lost each of our first two games in the last seconds. Both of these one point defeats were rough for the team to handle. But by reexamining our strategy, shifting a few players around, and redoubling our efforts, our third game was a major victory.

We now look forward to a season of playing together like a well-oiled machine, just as all Mac users look forward to a future with a healthy, smart, and aggressive Apple Computer.

"Apple Cider" is © 1997 by Tom Iovino, <tkiovino@aol.com>.



The Apple Tree

In the Beginning

In the beginning, some believed that there existed a garden of Eden. Within this garden, there was a an Apple tree. This was no ordinary tree however, for this was the wellspring from which all knowledge originated. We all know what happens next.

It is extraordinary that this same story is more important today than ever, and that the players are Apple Computer and humanity. Apple Computer when it was first conceived by Steve Jobs and Wozniak was inspirational. A gift from the gods passed to the common man through two prophets. Because of their teachings and superior intellect, it grew into what we know as the Macintosh computer platform. Apple Computer and the Macintosh have been the bright beacon when there was no light, increased our capacity to grow in technology and even enriched the lives of millions or even billions of people by allowing us to do things that we could not do before. It has inspired an entire generation of children to become more than they were ever expected to be. The question now is can we live without it?

The Macintosh operating system is the core of the technology that is in jeopardy right now. It has, at times, had great potential and could have been the most used operating system today. However, shortsightedness and pride prevented it to grow. As we all know, Apple has long since kept its technology “in-house” and under total control. This brings about both good and bad situations. The good thing is that the products were well thought out, well designed ones that were in many cases 100% compatible from day one. This is a far cry from the “Wintel” world where the term “plug and play” is often times slanted to “plug and pray”. Maybe it is because of this singular dedication to total control that has enabled Apple to consistently develop the best technologies. However, we live in an imperfect world where economics and other factors spin the globe, not wishes and dreams.

The First Apple Clone

Enter MicroSoft Corporation and Bill Gates. When you think of the first Apple clone, you would think that it would be PowerComputing, DayStar, Radius or Motorola. However the first true Apple clone was Windows by Microsoft. We all know the story of Bill Gates

dropping out of Harvard to write DOS (at least some of it) for IBM and eventually growing Microsoft into the huge conglomerate that it is today. Therefore, we can assume that Bill Gates is of a high intellect and makes good, if not great, decisions. Windows was perhaps his best decision to date. Gates saw the potential of the Macintosh OS and knew that it was the way to go. After all, there was only DOS before and he knew about it more than anyone else. What Gates knew was that numbers mattered. If he had the advantage in numbers, then everything else would follow. If he had both numbers and technology on his side, then he would be king. He knew that the Macintosh OS was the technology, but it did not have the numbers. So he cloned the Macintosh OS to the best of his ability, and put it on top of DOS. He was 100% correct to assume that since it was much simpler to use and would have a tie to the past via DOS, that everyone using DOS would eventually switch to it. This was a stroke of genius.

How can you best achieve both technology and numbers in such a complicated world? Apple tried and was not able to succeed to the degree of MicroSoft. The answers lies in fundamental economics. It is simply a matter of supply & demand and the allocation of limited resources. Given a set amount of resources, whether it be monetary or human resources, one must efficiently allocate those resources to achieve gains. Let's say that both companies had about the same amount of resources to start with. Apple chose to not only use those resources to develop the operating system, but also the hardware. In addition, resources had to be used for marketing and the operation of the business. Microsoft on the other hand, did not invest in the hardware. It knew that there was already a thriving market for hardware that could be used with Windows and it was not economically feasible to compete with it. After all, why would you enter a market where you have to fight for an advantage and can be easily beaten by smaller and more efficient companies? There are many casualties from price wars in the "PC" hardware market, why be one of them when you can have someone else fight your war for you? Therefore, Microsoft was already ahead of the game before it was out of the gate by concentrating solely on the operating system. Since the ground work of the operating system was already laid out by Apple, Microsoft had only to make it work on "PC's" and had the best blue print possible to do so. With the reduction in cost, the more efficient allocation of its resources and a thriving and extremely competitive hardware market funded by others, MicroSoft had the inside track.

You Will Be assimilated...Resistance Is Futile

Because we live in a social world and communication is key, the computer has found a special place in our everyday lives. To communicate, there has to be an understanding. There has to be a common ground or reference point. Gates knew this and went to implement it. Through the control of the operating system and the application software that it used, he has in fact united the world as one under Windows. Sure there are pockets of resistance such as Apple, Sun Micro Systems and Silicon Graphics, but none as successful as MicroSoft. Apple should take a page from MicroSoft in turn and see that this was done by software, not hardware. Sometimes you are so close that you miss the point. Apple was

standing on it.

The Rebellion...May the Force Be with You

This brings us back to Apple. In many cases, the best technology does not become the most popular. Take for example Beta versus VHS. Beta was vastly superior at first over VHS, but lost because Sony refused to license it to anyone else. If you are going to fight a war, get help wherever you can. To fight Microsoft and Windows, Apple needed help. It finally realized that it did not have enough resources or management skills to develop the best operating system and hardware at the same time. Therefore, it allowed for the cloning of Macintosh systems. It finally admitted that it needed help. Some of the biggest and brightest companies came forth to stand by Apple's side. Motorola and IBM alone had the weight to tip the scale back to Apple. Spirits were high and the future seemed so bright that we all had to shield our eyes from the light. However, the intent was not implemented correctly and we are now losing the battle.

The main problem was a commitment to the cause. Apple should have taken a lesson from the Vietnam war. If you are not committed to a campaign such as this with full dedication and a well thought out plan, you will lose. Apple chose to stay in the hardware business and "ride the fence". It armed its allies with inferior technology and expected them to win the war for them. This cannot and did not happen. For example, when Radius first started shipping its Mac Clones, it used Apple 8100 series motherboards from Apple. In every instance, a true to Apple specification motherboard could be accelerated by "clock-chipping" by at least 15%. However, the ones given to Radius could not be accelerated at all. Eventually most of the original Radius computers failed or had serious problems. Another example that hit closer to home is the Tanzania motherboard offered to Motorola and PowerTools. The board was designed with only a 40Mhz system bus therefore crippling the potential performance of the processor. This was dramatically illustrated when the new infiniti T2 systems equipped with a 50Mhz systems bus from PowerTools and the 5000 series computers from Motorola were release using a PPC 604e/200Mhz processor which out performed the Apple 9600/233 equipped also with a 50Mhz bus using a PPC 604e/233Mhz processor. Having one hand tied behind our their backs, the clone vendors went off to war.

What should have Apple done? They should have made a total dedication to be a software only company. They should have reduced their operating cost by shutting down some of their hardware manufacturing plants and had a plan in hand to shut down the rest. They should have charged significantly more for the licensing of the software and the hardware technologies. They should have given the best hardware designs to the cloners. Apple would have been profitable. The reason that I can state this is because of Claris. Claris is a wholly owned software subsidiary of Apple and is wildly profitable. The loses that Apple incurred during the forth quarter of 1995 and 1996 were due largely to its mis-identification of market demands. Apple made the wrong guess that the consumer wanted low-end systems when in fact they wanted high performance systems. This lead to over production of

unwanted goods and severe shortages of what was demanded. This is simple economics.

Given all this, Apple is not to blame for its current actions. Even though Apple was not 100% committed to the war, they were heading in the right direction. It is understandable that the total commitment to become a software only company was very frightening for Apple. Therefore, it chose a more reserved route. The main goal was to win back some of the users from Windows. This was the idea from day one, and indeed it seemed for a while that it was working. Yes, Apple lost market share for hardware sales to the cloners, but the overall MacOS sales were up in late 1996. What may have caused Apple to react in the way that they are now may be attributed to the cloners themselves.

Cain and Able...Enter the Cloners

As a child grows, it needs the help of its mother and eventually gains enough strength to walk by itself and hopefully become something great in the future. Apple did try to provide this to the cloners, but one proved to be the bad apple in the bunch. It is expected for a child to compare itself to its parents and even to think that it is better. However, there is and should always be an underlying respect that the child has for its parents. One cloner failed to see this.

All cloners are guilty of displaying performance specifications that are faster and better than Apple. This is good, this means progress. Never before have we seen such a rapid advancement of technology in such a short time. The computational power of the Macintosh computer system recently doubled overnight! This is astounding! In addition, we have a parity in price to the "Wintel" machines that we have never seen before. Given these facts, the cloners have done great things and are now armed and ready to take on the battle. The child can now walk on its own. However, one clone vendor to remain unnamed, grew too fast and became too proud. This cloner was the shining star. It was the leader for all the cloners, but it got too big too fast. It chose to openly attack Apple's image and products in a way that was not only damaging to Apple, but to the entire market. Remember the old saying "never bite the hand that feeds you" or better yet "don't defecate in your own bed" (G-rated, edited form), well that still holds true today. Don't get me wrong, this cloner did more than its fair share of promoting for the MacOS against the "Wintel" world, but half way through it turned on Apple also. It has been said by more than one person at Apple that this cloner had to go not for the loss in market share, which by the way was recently regained in a large part by Apple, but more so because of the "constant slandering of Apple's image and products". Given this situation, can you blame Apple for its decision to possibly buy back the license from this cloner and end the licensing of the MacOS? It seems that Cain may have once again killed his brother.

The Knight in Shinning Armor... Sir William of Microsoft

In recent news, Apple has joined forces with Microsoft. When this was announced at MacWorld Expo Boston, people were shocked. With the live broadcast on the large display looming over the stage, it was reminiscent of the original commercial where Apple portrayed the people staring at a large screen while “big brother” spoke to them. Isn’t it ironic that they knew what was to happen but still could not prevent it? In all fairness, I believe that the assistance from Gates to Apple is a good thing. This is not because Apple needed the money (150 Million usd). Apple is still somewhat cash rich in the bank and is not facing any cash flow problems. It has more to do with the weight that Microsoft can lend to Apple and how in supporting Apple, MicroSoft can change the perception of the MacOS. When MicroSoft openly stated that it will continue to support the MacOS, it showed the other software developers that there may still be profits to be made in this platform. This will help convince those developers that may have had second thought about developing for the MacOS to continue to do so. In a sense MicroSoft legitimized the MacOS platform for Jobs in the eyes of the public. This was a very important strategic move by Jobs and one that Gil Amelio could not pull off. An operating system can only survive if people use it and people will only use it if there is compatible software available for it. Amelio knew this, and tried desperately to make sure that the software developers were committed to the platform. He even made many public pleas to them for support. However, it took Jobs to close the deal. Jobs once again saved the MacOS or rather got a stay of execution for the time being. If we take all emotions away dealing with Gates as being the anti-Christ to some Mac enthusiasts, what he really has done is to save the MacOS. For this we should at least be thankful.

No Pain No Gain

It is wonderful to see Microsoft and Apple as one big family, but for every action there is an equal and opposite reaction. Microsoft has as much, if not more to gain than Apple. Why does Gates want to help Apple? Is he an angel disguised as the devil? No, Gates cannot afford for Apple to go out of business. If Apple was really in serious trouble, Gates would probably write a check out of his own checking account, give it to a stranger and have them buy Apple. The reason is that if Apple goes under, then there would be an even more valid reason for MicroSoft to be considered a monopoly. Right now, he can still say that there is the MacOS to compete with. For this reason alone, the 150 million was very well spent.

But this is not all that he got for the money. He got perhaps the deal of the century. Ever since Windows, Gates had to copy the MacOS. Now, he has direct access to the programmers and the code. He has the best of the best in his control. At times, Gates has even openly expressed that the MacOS is better in some functions than Windows. Now he can have the real thing, not some copy of it and the best thing is that he has it with the blessing of Jobs.

All For One and One For All

So what now? How is this good or bad for you and me? Well, imagine the following: Apple releases a few more MacOS 8.xxx or even 9.xxx and MicroSoft releases Windows 98. No big

deal, they were planning on it any way, but what if they worked together for a universal computer language? It can happen, and it should. The universal OS would be this: MicroSoft support, funding and distribution as the foundation; a UNIX (or NEXT) core technology for the OS; and true MacOS interface with the enduser. This means a solidly supported operating systems with the power of UNIX and the ease of operation found in the MacOS. This operating system can't lose and the odd thing is that Rhapsody or the eventual release of Rhapsody can become this. This may indeed be something in the back of the minds of Jobs and Gates. It makes sense and is the best possible solution for all.

The Long Arm Of The Law

All this is good and well, but what about anti-trust laws. Isn't this going to be a monopoly? In the literal sense it will not, because it can be arranged in a way that both Apple and MicroSoft co-developed and own the operating system. If this does not fly with the government, then it can be a standard and they can license it to everyone else. Either way, the result is the same. Everything in this world and perhaps in the universe is cyclical. This means that things are in an eternal and continual cycle. When all this first started, there were many companies that competed with MicroSoft. However, MicroSoft has proven to be the best. Some may say by using unfair tactics, but remember "all's fair in love and war". We should all think of the good thing that this has brought about along with the bad. MicroSoft has the unique advantage to do something great, to set the standard for different types of technology that will allow the human race to communicate more efficiently and accurately. Remember over 90% of the world now uses DOS or some form of Windows. This kind of cooperation could not even have been achieved by the United Nations. It sometimes takes someone greater than the normal man to make the large strokes on the canvas of life to incur rapid and advancing changes. MicroSoft and Apple now have the chance. As for the anti-trust laws, to hell with them for now. Eventually MicroSoft will get big and slow, and smaller and more efficient companies will cut pieces out of it, and the cycle will start again. This may all seem cruel, and the conquered people of a war are never the happy ones, but think of the advances we gained from the Roman empire. This is just how things are and how they will always be.

One Nation Under God With Liberty and Justice For All

So what if all this happens, what about the MacOS cloners? Where do they fit in? Well, this is a very hot topic right now, but in the long run, it does not matter. Apple is in a paradox at this moment. How can they maintain operations while making the necessary changes. They cannot afford to lose any revenues, even though a particular revenue stream may not be profitable. They need the cash flow to sustain their current operations. In assuming this, Apple cannot lose the revenue from the sale of its hardware division. It has to maintain any advantage there that it can, especially during the last quarter of this year where traditionally the highest sales occur. This may be the reason why it has taken this

strong stance against the cloners that we have seen. If Apple indeed is planing to become a software only company, it cannot just stop selling machines because the cloners will not be able to produce enough machines to supply the demand. This in turn will cause people to turn away from the platform. In addition, Apple could not shut down its factories fast enough and would have to eat into its cash reserves just to stay alive. It seems that Apple is storing away food and supplies for the long winter ahead.

What will the cloners do? They will continue to produce clones under the current contract that allows them the ship MacOS 7.6. They will have to pay a much higher price for MacOS 8.xxx if Apple allows them to, and all this won't matter in about 8 months. I say this because after 8 months Rhapsody will be out and it will run on both PowerPC and "Intel" machines. At that time, Apple may become mostly a software company and will not be able to regulate or "certify" the "Intel" machines. Apple will allow IBM and Motorola to ship CHRP machines so that there will not be any legal issues dealing with Apple not finishing CHRP as promised. However, CHRP will not be anything special. The advantage of the higher system bus speeds already exist on the "Wintel" side and the open design only means that Apple does not have to pay for hardware development anymore. This may make Apple sound like a monster, but it is only trying to change and survive in this crazy world. After all, Apple first started with the idea of bringing computing to the masses in a easy to use package. It is still trying to do so, but got lost along the way. In the end, it may finally succeed in its intent, but arriving from a different path than the one it started from. As for the cloners, they will be there today and in the future. They may not be the same, but they will be there. Not because Apple needs them now, but that Apple will need them in the near future. Since having taken a bite from the Apple of knowledge, there's no going back for any of us now.

"The Apple Tree" is © 1997 by Victor W.T. Wong. Mr. Wong is CEO of PowerTools.



ABOUT THIS PARTICULAR
OPINION



ON A CLEAR DAY, YOU CAN SEE THE HOLLYWOOD SIGN...
BY MIKE SHIELDS

Well, some of you missed the subtlety of last month's column, wherein I blatantly asked for money (yet again). I'd like to put the whole movie budget thing in perspective. For the \$150 million that Mr. Bill gave Apple, I could make my film 250 times. ATPM has approximately 10,000 active subscribers; so if you each send 60 dollars...

Thanks. Not too much Hollywood stuff last month, I hope to remedy that here. First, a quick look at the major happenings in a small Silicon Valley town.

Don't Panic!

I don't have to tell you times are bad. Wait, I used that opening for my April Fool's column, and I don't like to repeat a gag. To review:

Apple drastically changed its cloning strategy.

Steve Jobs is named Interim CEO.

MacWorld and MacUser merged.

Apple announced NC's for '98.

DataQuest has again predicted Apple's downfall.

Apple hired a new PR Firm.

I was trained in Windoze '95™.

Oh, there was this little thing called MacWorld Expo, but we covered that last month. Other stuff happened, but these are the highlights. In no particular order, let me offer my view of what these events mean to you, the home Mac owner. If you're using a Mac at your place o' business, I've got some interesting links for you, too.

The even that affected me the most is, believe it or not, the magazine merger. IDG bought

Ziff/Davis. One result of this purchase was that now they believe they don't need to publish two Mac magazines, so, the MacWorld and MacUser were literally merged. At the time of this writing, I haven't received my November MacWorld. However, I am perusing a copy here at work, and it's told me all I need to know. Andy Ihnatko's column is still there, so, the world at large is safe. I haven't checked out the Help Folder column yet, but I suspect it will have changed. It is, after all, where I go as MacMan to steal the answers to the questions you send in. Have I said too much? Maybe I shouldn't have revealed that.

Anyway, Wired magazine would have you believe that the magazine merger means that the Mac community can't support two different views of their favorite computer. I believe that duplication of effort is a waste. Wired has other problems, but I won't discuss those here.

I've reached a point in my career where occasionally, all the good columns get written, and I have nothing to add. So, for those three or four of you who are still with me, I'll go on.

Admittedly, say what you want about Steve Jobs, but he is the showman that Apple needs. Gil served a valuable function, but it was not enough. He will be missed. Steve said he didn't want the job, yet they gave it to him anyway. I received this announcement on my pager, and the editorial comments from the Wall Street Journal (apparently, the only publisher who would be happy if the Mac simply went away) posited that Steve had already been acting in this capacity since Gil left. Instead of reporting the facts, they chose to give their usual biased slant. I guess people still read it for its timely stock quotes and analysis.

Which brings me to my next point. Apple's share price is still hovering around \$22, where it's been since the announcement about Mr. Bill's lunch money. For our newer readers, I'll reiterate my claim that it'll be up to \$30 by the end of the year. After Dataquest's big announcement, Apple stock actually went up.

The entire WSJ article is based on a false assumption: Apple will continue to grow, in spite of its recent decision to change its licensing strategy (i.e., no strategy). Say what you want about the current clones out there, Apple did nothing to increase the Mac OS user base. The result? Go out and buy a clone before the end of the year. You'll get a really good deal. After that, I'm sure you can still find a way to pay for either an Apple Mac, or a UMAX Mac, as they will still be making them.

What's important here, is the bottom line. I know you've heard it before (probably from me), but it's true. Apple did nothing to increase sales with its clones; that decision ultimately takes business away from itself. If Apple goes down, the Mac OS goes with it. This would be bad. I know. I've seen Windoze '95™.

You Will Be Assimilated

I was afforded the opportunity to go to Windoze '95™ training last week. The instructor went around the room, asked everyone to give their name and to rank their '95 experience

from 0 to 10. When she got to me, I said, "I already know the Mac, how much more do I need to know?" The fact that they aren't giving the PC guys here Mac training is an indication of the blind corporate thinking that's going on around the country right now. Download the following documents: <ftp://www.saracen.com/saracen/MISinfo.pdf> and <ftp://www.saracen.com/saracen/1platfrm.pdf>. I found these at the Mac Jedi <http://www.saracen.com/ajp1.html> site (another gem). The gist of the argument goes something like this: The PC initially costs less. However, after you buy all the additional cards, etc., the cost is about the same. Furthermore, not every user can best be served by going to a single platform (unless it's the Mac platform <G>). Couple this with the recent study showing that it's more expensive on a per year basis to own a PC than a Mac, and you get the concept of company short-sightedness. "What have you done for me lately?" "What are our profits this quarter?" Long term strategies don't seem to be in vogue. All I can hold onto is that Gareth Chang is still on the Apple board. For those who tuned in late, he's a senior VP here at Huge.

What Can We Do?

Well, first, send me \$60. That way, I can make my entire film on a Mac. Check out <http://www.LoveGod.com> (these people have already done this) and come back. I may say something profound yet. Seriously, take pride in your computer o' choice. Until the new marketing strategy kicks in at Apple, we're kinda on our own just like we've been for the thirteen years since the legendary '1984' commercial. If you maintain a website, get the "Made with MacIntosh" logo up there. Make ATPM your home page. Or MacIntouch. Or MacCentral. Even MacAddict. Subscribe to Guy Kawasaki's MacEvangelist. If a friend of yours is thinking of buying his first, second, or even third computer, say the following three words, "Get a Mac." Ask yourself the question, "Would you really buy an NC, if given the opportunity?" Many may answer yes. After all, WebTV is going great guns, and you can't even download things with it. Tell others why you are using the best computer. Explain to them they're living the PC lie.

The end result of all the doomsaying is, would Mr. Bill really be hiring MacIntosh programmers, if he didn't believe in the viability of the platform? After all, before the merger, I renewed my MacUser subscription for three years.

72 and sunny in El Segundo.

e Ya next month.

Disclaimer: Mike gets lonely, so if you hear something radically different pertaining to either the Mac or the Entertainment Industry, or both, he can be reached at Mshields@atpm.com (and he still needs lots o' money to make his film).



ABOUT THIS PARTICULAR
OPINION

SHINE ON BY CHAD G. POLAND, proedge@mindspring.com

The hot topic of internet discussion lately is “spam.” In case you’ve been in a deep dark hole, “spam” is unsolicited, junk email, usually advertisements. The controversy revolves around the fact that since many people pay for their internet time, they are also paying for people to advertise to them.

There are good arguments on both sides of this issue. The ‘spammers’ say they have the right to free speech and they’re doing nothing wrong. Just as junk mail has a right to reach your home mailbox, spam has a right to reach your email box. The “anti-spammers” say advertisers don’t have a right to send us email that wasn’t requested. They especially don’t have that right when we have to pay for our access. As we all can attest, spam is just annoying. We have to wade through it everyday (especially if you post to UseNet).

All of these heated discussions are unnecessary. If the anti-spammers are a large enough group, there won’t be any spam, period.

One of the most important rights we have is Freedom of Speech. I am a staunch supporter of it. I don’t think this issue needs to use the first amendment as a rallying cry. I do believe that bulk mailers have a right to send out what they want. The problem lies not with them, but with us. Let us not blame P.T. Barnum for putting a horn on a goat and calling it a unicorn. Let’s put the blame squarely where it belongs—on our own shoulders.

Let me explain.

The spammers send out advertising for one reason, and one reason alone. They want to make money. If they don’t make money, they stop. If they do make money, they send out more spam. These companies aren’t Satan, they’re companies. They must make a profit or go out of business. You can’t blame them for trying to feed and provide for their families.

When someone joins spamming community, they are intent upon making a living. Whether it’s the Psychic Friends Network or someone just selling trinkets out of their garage, they want to make money. If people weren’t reading those emails and purchasing products, there would be no such thing as spam. Someone out there is giving bulk mailing companies cold hard cash. The offending companies must pay for their internet connections and hardware somehow. This money comes from people that buy their products.

If you don’t like spam or if it costs you money, don’t waste bandwidth sending them a reply saying, “I hate you scumbags!” Instead, don’t buy their product. Don’t hate them, put them

out of business. There would be no controversy if no one was buying their products. Every dollar in your wallet is a vote. The companies you give it to are candidates you are voting into office. If you don't want spam, don't vote for spammers.

If the proportion of people who hate spam is large enough, then the 'spammers' won't be able to turn a profit. If, on the other hand, people continue to purchase their products, we will continue to receive it. Many of the bulk mailers are small companies that work on a thin profit margin. If the bulk email stops providing them an income, they will move on to something else.

I get junk email on a daily basis and it's annoying. I spend time marking it as "unread" and deleting it. After all, it takes up space on my hard drive until deleted. I hate spam as much as the next person, but it's important to protect everyone's first amendment rights. So next time you get a spam, just delete it instead of shooting off a rude commentary. Don't read it, and above all else, don't send them money. If everyone gets together and stops supporting these companies, we will have a spam-free internet.

It's as simple as that.

Chad Poland is a freelance writer who can be reached at <proedge@mindspring.com>. Visit his website at <<http://www.mindspring.com/~proedge>> or say hello to him on EFNet in #duality as "shiner."



Crack For Mac

Fears of technology date all the way back to George Orwell's *1984*. Luckily for us, 1984 wasn't like *1984* and the personal computing revolution had just the opposite effect of what people expected. Instead of computing power being concentrated in the hands of the few, mysterious governmental agents using it to "check up on" every aspect of our personal lives, the personal computer became a source of individual empowerment. With the advent of BBS's, online services, and the Internet the personal computer has become just as important to communication and free speech as Gutenberg's printing press was half a millennium ago.

The question remains, how safe is your data? For years, computer users have been using encryption software to encode their data from prying-eyes. Once a file is encrypted, it can only be decoded with the original encryptor's key. Keys consist of a string of binary bits (1's or 0's); the longer the key, the more time it takes to encode or decode the data, and the more secure from anyone trying to access the data by brute force (trying key after key to find the right one) it is. One of the most popular algorithms for encoding data is DES, Data Encryption Standard. A more recent, strong and flexible algorithm is known as RC5.

RSA Data Security has announced a series of Secret-Key Challenge to find out just how secure encryption is. Take a look at the challenge page at

<http://www.rsa.com/rsalabs/97challenge/>. The challenges consist of one DES challenge, and twelve challenges based on cracking RC5, each with a different length key. To take part in the challenge, you exhaustively test keys until the correct one is found. The first person to find the correct key receives a monetary prize.

Finding the correct key is much easier said than done. It would take many years for a single machine crunching numbers to find the correct key. Of course, as with the classic needle-in-the-haystack problem it's possible, however unlikely, get lucky and stumble across the key early in the game. Still, it's much faster if people work together. Several groups, such as the Infinite Monkeys, Cyberian, and Distributed.Net have done just that. They're organizing people across the Internet to join in a collective search for the key to beat the RC5 Challenge.

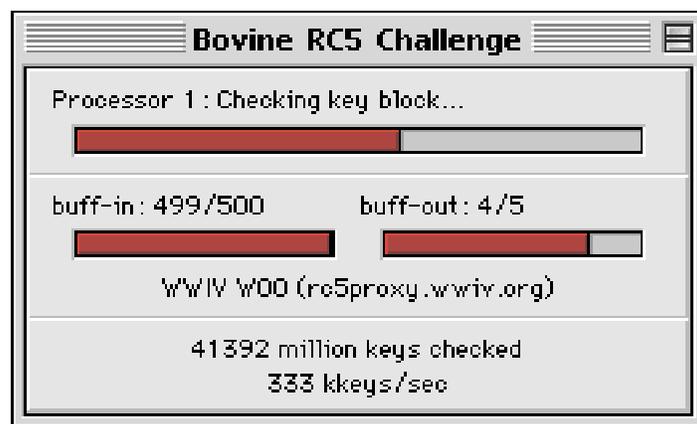
For the past two months, I've been working on Distributed.Net's effort to beat the 56-bit

RC5 challenge. 56 bits means that there are 2^{56} or 72,057,594,037,927,936 keys that need to be checked (in the worst case) in order to find the correct one. That's a lot of keys, but not too many to make cracking the code unrealistic. 56-bit DES has already been cracked. RC5 is tougher to beat, but it is still possible. It's not difficult for people to encrypt their data with even longer keys, say 128-bit ones, which are exponentially more difficult to crack. However, by sheer inertia, much data is still encrypted with 56-bit keys. The goal of the contests is to show that it's insufficient, that people need to be more careful with sensitive data.

Distributed.Net's Bovine cracking effort takes advantage of several factors:

- Most personal computers, especially unattended lab machines, spend a great amount of time idle. If idle seconds, minutes, and hours from machines around the world could be coordinated, the combined processing power would be quite substantial.
- Just about any Internet user will champion the cause of data security by donating his or her computer's idle time.
- As further incentive, a \$1000 prize will be given to the person who finds the winning key. (Of the remaining \$9000 RSA prize money, \$1000 will go to Distributed.Net for coordinating the effort, and \$8000 will go to Project Gutenberg, which converts books into freely-distributable electronic text.)

Distributed, <http://rc5.distributed.net>, has set up a sophisticated network of servers which allow Internet users all over the world to participate in the challenge. Client software that runs on every major operating system (Mac OS, Windows, OS/2, Be OS, various flavors of UNIX, and others) is downloaded to the individual's personal computer. When the client software is launched, one of the Bovine servers gives it a block of 268,435,256 keys to test. The servers keep track of which blocks have already been checked to ensure that no work is duplicated. After the client is done checking the keys, it reports back to the server for another assignment.



This is version 2.004 of the Macintosh client. It has some very nice features which include buffering of incoming and completed keys (so your Mac doesn't have to report to the server after every single block), support for multi-processor machines, logging of the number of keys checked, and an excellent graphical user interface. You can tell the client how much of your Mac's processing power to use when it's in the foreground and background. (The more processing time it uses, less is available to other applications.) You can give the client minimal processor time when it's in the background so it doesn't slow down your other applications. When your Mac's been idle for a user-specified amount of time, it will bring itself to front, where it gets a larger share of the processor's time. In this way, you can leave the client running continuously—it takes only 300k of RAM— putting your Mac's idle time to good use.

The client has a preference where you can enter your email address, so that if you're lucky enough to find the winning key, Distributed will know who to give the prize to. The servers keep track of how many blocks each participant processes and display statistics for the top email addresses at <http://rc5stats.distributed.net/>. In addition, they keep track of the operating systems and processor types of computers that submit blocks. This generated lots of competition between users and turned the competition into one of PowerPC versus Pentium in the eyes of many. Of course, the more competition, the more blocks are checked and the faster the key space is exhausted.

Even more competitive were the operating system statistics. Mac, OS/2, and Linux users used their disproportionately high (compared to market-share) statistics as bragging rights to prove their superiority to Wintel. As a result, the processor and operating system stats are no longer displayed on the Distributed web site.

On the individual level, people compare the speeds of their machines and fine-tune them to get the best performance, i.e. the most kilo-keys per second. Speeds of clients on various operating systems and processors are available at <http://www.alde.com/speed.html>. 68000 Macs like the Plus and SE complete a few kkeys per second. Apple's PowerMac 9600/350 checks a whopping 1012 kkeys per second.

Groups of friends, corporations, universities, and others formed teams to get themselves into the list of the top 100 email addresses (by total blocks checked). Joining a team is as simple as entering the team's email address in place of your own personal one. Combining 10, 100, or 1000 computers into a team gives that team a much higher chance of finding the winning key than an individual's lone computer cracking away. More importantly, teams foster competition which is good for the RC5 effort.

Three of the most popular teams are Team EvangeList, Team Warped (OS/2), and Team Linux. As soon as a message about the RC5 effort was sent out on Guy Kawasaki's EvangeList, thousands of Mac users took the RC5 challenge as an opportunity to show the power of the Mac. Though starting months later than other teams, Team EvangeList quickly

completed more blocks than any other team. It did so at an astounding rate—an order of magnitude higher than any other team. People from other platforms were stunned by the amazing show of unity displayed by <evangelist@apple.com>. Personally, I contributed about 250 billion keys to the effort over a period of about a month. The current Bovine cracking rate is about 5 billion keys per second. The Distributed.Net stats page says that if each key were a drop of water, that would represent 87,100 gallons per second. Nothing like the power of the Internet community to make your own efforts seem insignificant. It made me curious about how such a large amount of computation power could be organized towards a single cause. I found the entire effort intriguing from computing, Mac, and purely human points of view.

Beyond EvangeList there are a number of Mac teams. The headquarters for the Mac RC5 effort is the RC5-Mac web page at <<http://www.distributed-mac.net>>. Thanks to the generosity of RC5-Mac's editor, Jason Novinger, I had the opportunity to have a number of my questions answered. First, I asked him why so many computer users all over the world would join together to help the RC5 effort.

I think there are number of reasons. Initially the effort started with a group of guys who wanted to show that 56-bit encryption was not strong to be the exportation limit. In the planning of this, the idea of distributed computing blossomed. Distributed computing would harness the raw power of thousand of computers on the Internet that would mount a brute-force attack on RC5.

However, with the Mac OS people it really became a way that the individual user could show just what the Mac could do. It became a way that we could show that the Mac wasn't dead.

Particularly what amazed me was the show of force by the Mac teams. I mean, Macs and the PowerPC are powerful, but there are so few of them compared to everything else out there. In particular, Team EvangeList dwarfed every competing team. Novinger said:

They have the infrastructure of Mac users to call on. I read somewhere that the EvangeList has about 45,000 subscribers. If only half of those run the client then, well, you get the idea. As much crap as Mac users take, we seem to need a way to vent our collective steam.

Mac users are definitely taking the challenge more seriously than other computer users.

If you looked at the stats, when the OS stats were available, they repeatedly showed that Macs contributed about twice as many blocks as Win32 operating systems. Recently, there have even been estimates saying that Macs are contributing more than 50% of the work. I think this was an effort that every Mac user could participate in and by doing so help the Mac OS a little bit.

Unfortunately, the glory days described above were destined to come to an end. On September 2, Andrew Meggs, the man who programmed the Macintosh version of the client

in his spare time, withdrew his support for the client and requested that Mac users “turn off their clients.” He was enraged by Apple’s recent decision to acquire Power Computing and decided to mount a protest of their cloning stance in the best way he knew how. Jason Novinger had this to say:

Since, Andrew made his decision I have thoughts lots of things. First, I thought “Oh, shit.” Then it was, “Well, it’s his software, I’ll respect that.” Then the great wall of email hit and I thought “Is this worth it? All over a computer?” Then I came around and said “Hell yes, it’s the Mac.”

Now, I wish that Andrew hadn’t done it, but he did. We need to go on. The Distributed Mac team is trying to pick up the pieces. We are trying to gather a group of Mac developers that are interested in helping to develop an application for distributed computing and the Mac. We plan to help them in any way we can.

I don’t know if Steve Jobs and Apple’s leadership got the message. Probably not, but Mac users all over the world did. Many, like Jason and I, were distressed at first. By now, though, I think most of us have come around to respect Mr. Meggs’ wishes. Many have switched to version 1 of the client, which doesn’t contain his code. Others have switched from EvangeList to different teams. Probably many have stopped altogether. Since the announcement, blocks-per-day for Team EvangeList has fallen to about 50% of its previous level.

[Editor’s Note: At press time, Mr. Meggs released version 2.005 of the Mac client, which he says “everyone at Bovine can run.” Still, I doubt he’s any happier about the clone situation now than he was when he began his protest.]

An outspoken member of the RC5-Mac mailing list, Dan Grassi, formed a team called Clones4Mac, <clones4mac@aol.com>. This team is a group of people who support Macintosh cloning, in protest of Apple’s recent actions. The hope is that diverting a significant chunk of Team EvangeList’s computing power will make a statement to Apple and the world that Mac users want clones. So far, the effort seems to be working. In only about two weeks of existence, the team moved into the top 100 for total keys checked and the top 10 for key rate.

I support Clones4Mac because I care about the future of Macintosh. I believe that cloning was killed at the wrong time for the wrong reasons. I’ve seen lots of numbers, and I don’t believe that clones were cannibalizing Apple. Rather, I believe that without clones there would be fewer Mac users now. Although the decision to kill cloning may have some short-term benefits for Apple’s balance sheet, I don’t think it outweighs the enormous long-term benefit clones provide. Users and developers like the presence of clones. Apple should have adapted to meet their needs. Furthermore, CHRP—which promised to increase performance relative to price, allow more companies to build Mac-compatible systems, and free Apple from having to supply circuit board designs to cloners—was just on the horizon. I sincerely hope it sees the light of day.

Perhaps, though, this Mac-centric perspective is missing the point. The RC5 competition is bigger than the Mac. The client runs on more than twenty platforms. Most participants couldn't care less about which operating system does the work. What matters is that it gets done. What matters is that millions of computer-hours are being concentrated on a single cause. Though the RC5 effort is important, when you get down to the bottom of it, RC5 isn't what matters either. Jason Novinger agrees:

I think that RC5 is an important project because it is a stepping stone to other distributed computing projects. There are already other efforts underway like:

- Mersenne Primes, <<http://www.mersenne.org>>
- Optimal Golomb Rule, <<http://members.aol.com/golomb20>>
- Seti@Home, <<http://www.bigscience.com>>.

I think RC5 will be remembered as the father of public distributed computing.

He's right. The RC5 effort demonstrates the future of distributed computing. To a large extent, this *is* the future of computing. Right now, the RC5 effort is a loosely-organized group of computer enthusiasts trying show that 56-bit encryption is horribly insufficient. At the current rate, the *entire* 56-bit keyspace will be searched before the end of this year.

Remember that in the scheme of all the computers in the world, the number of people participating in the RC5 effort is very small. In the future, I predict that distributed computing projects like RC5 will be common and widespread. Users will have a choice of which worthy cause to donate their idle-time CPU cycles to. With increasingly powerful and more widely networked personal computers, CPU idle-time will become a commodity. First it was the property of AfterDark, then PointCast. Soon, I think, corporations and institutions will want to buy it. Or if you're using their hardware, they'll simply take it, to apply to whatever computing project needs to be done. I like to think of it as a form of recycling. You may think that one computer's idle minutes are insignificant, but every little bit helps.

That's the future, or at least my prediction of it. In the meantime, I request that you visit <<http://www.distributed-mac.net>> to participate in the RC5 effort. There's a code out there that needs cracking. Crack for data-security. Crack for the future of distributed computing. Crack for Mac.

"The Personal Computing Paradigm" is © 1997 by Michael Tsai, <mtsai@atpm.com>. Michael is still searching for the ultimate answer to the ultimate question of life, the universe and everything.



ABOUT THIS PARTICULAR
COMPANY

ATPM INTERVIEWS ALADDIN SYSTEMS, INC.

There are few software companies that have the storied history of Aladdin Systems. The company's flagship product, Stuffit, is used by millions of Mac owners. In addition to the number one file compression software for the Macintosh market, Aladdin Systems has recently introduced two ground breaking applications—Private File and FlashBack.

The ATPM staff recently met up with Jennifer Lyng, Aladdin's Public Relations Manager, and had a chance to learn a bit more about the company, its unique way of doing business and its new products. We'd like to share the conversation with our readers.

ATPM: Aladdin Systems has a long relationship with Apple and the Mac OS. For the benefit of our readers, would you tell us how Aladdin Systems got started in the Macintosh utilities market? To date, what would you say has been Aladdin's "shining moment" in the Macintosh market?

Aladdin: Aladdin Systems, Inc. was founded in 1988 to develop software products for Apple and IBM computers, by four people all of whom are still with the company or on the board today. After moving to the West Coast from New York, the foursome rented a house together in Aptos, CA where they lived upstairs and manufactured, assembled and shipped their products downstairs. As sales grew they added employees until the time came to "leave home," and Aladdin moved to Watsonville, CA where it is currently established.

Shortly after its founding, Aladdin Systems teamed up with 15 year-old Raymond Lau, author of today's world wide compression standard Stuffit, to further develop the state-of-the-art compression, security, and archiving product and to introduce new, innovative software. Aladdin made its debut in the Macintosh marketplace in the summer of 1989 with the introduction of Raymond Lau's Shortcut^a, a system enhancement for the Macintosh that provides file and disk management within every application's Open and Save dialog. Today Raymond is a graduate student at MIT in Massachusetts, and still stays in touch with the company. Aladdin views the shareware/freeware market as a vital and strategic part of its business, and will continue to offer products like Stuffit Expander for free. Today, Aladdin is known for quality utility applications and software developer tools.

Shining Moment

Certainly in retrospect Aladdin's first "shining moment" would have to be the day we signed the contract with Raymond to take over publishing of Stuffit! In a similar—but more

recent—way, Spring Cleaning comes to mind. We discovered a product called LaundroMac by Peter Caylor in its nascent stage at Macworld EXPO in Boston last year. We loved the product and believed it had tremendous potential. In the following months we acquired LaundroMac and worked closely with Peter to take the program to the next level. With some renovations we announced it as Spring Cleaning at the end of October 1996. Spring Cleaning ended up being even more successful than we had anticipated. Today we are looking forward to the much anticipated new 2.0 version, which should ship within the next 90 days.

ATPM: StuffIt, Aladdin's excellent file compression utility, has gone from being a single player in the compression market—up against DiskDoubler, AutoDoubler, and Now Compress—to being the only surviving Macintosh compression product. How did all that happen?

Aladdin: While it would be easy to say that StuffIt succeeded because it was the best product, and there is some truth to that, I think it misses the mark. Looking back there are three elements that combined to make StuffIt the world-wide standard it is today. First, and probably most important, is Aladdin's strong customer orientation. We really do put the customer first, and we'll do just about anything for our customers.

A good example of that is the way we have, not once but twice, given away free upgrades to our products. Spring Cleaning has been hailed by some of our customers as the best utility they've ever purchased, and there's no question it is a good product. Some would say very good. But it is not a great product—at least not by Aladdin's standards. And that is the standard to which we hold ourselves. So, against all financial logic, we decided to make the upgrade from Spring Cleaning 1.0 to Spring Cleaning 2.0 free to all registered users. (And free really means free. There will be a 100% free download patch from the Internet and registered users can call an 800 for a new disk and manual free with a \$9.95 shipping charge.) With over 100,000 units sold you can calculate the lost sales to Aladdin. But that's the way we treat our customers.

Second, Aladdin has always been a tough competitor. Along with high quality products we have usually been the price leader. Superior products and lower prices makes life hard for the competition. Part of that this price and value competitiveness is in our freeware and shareware product line. People forget that Netscape and McAfee were actually following in Aladdin's footsteps in their high profile releases of full featured software and regular product upgrades with no up front charge.

Finally, you do have to give credit to the terrific engineers who kept raising the quality and the capabilities of StuffIt. Whether you look at it from an ease of use point of view, speed of compression and decompression, compression ratio or integration into the Finder and other products, StuffIt Deluxe is a fantastic product.

ATPM: There has been a lot written about the fact that Mac owners haven't needed to upgrade their hardware as often as PC owners. Does the loyalty of Mac owners (including how long they hold onto their computers) factor into your product and marketing plans?

Aladdin: Absolutely! We've done a lot of research about the Mac market specific to our products and have found that Mac enthusiasts not only hold on to their Macs, but often have more than one. Many of our particular users are "early adopters;" they enjoy trying new products that enhance what they've got. We talk to our users a lot. In fact we send out thousands of surveys every month to our customers. Listening to what they want, what they like and dislike, is tremendously important. Our customers are very outspoken and they're quick to point out where we've failed, and we always pay attention!

The flip side of that is that Mac customers are very loyal to companies that deliver on what they promise and address mistakes when they are pointed out. Loyalty is very much a two way street.

ATPM: A lot has been written recently about problems in the Mac OS software market. What would you say is the biggest hurdle for Mac OS software companies today. Is it the Mac OS market share, lack of retail shelf space, etc?

Aladdin: Aladdin has branched out with our product line, especially in the past year. With the success of StuffIt Deluxe in the retail channel we've been able to gain acceptance for our new products, so lack of retail shelf space is not a huge issue for us. But we know we are the exception.

Probably the biggest hurdle for everyone in the Mac market today is the air of uncertainty around the Mac OS itself. Apple's ambivalence over the clones, the unrelentingly negative press and the difficulties Apple is experiencing internally all contribute to this negative climate. But the fact remains that Mac OS computers are more stable, less expensive to support and easier to use than any other platform. In the long run that accounts for a lot of the Mac community's loyalty, and bodes well for its long term viability.

All of us at Aladdin look at the early adoption of OS 8, Microsoft's commitment to Apple, and the fundamental viability of the Macintosh OS, and have great confidence in the Mac OS market. So, we are excited about the future and look forward to continuing to support both the Macintosh and Windows communities with new and innovative products.

ATPM: Aladdin has recently introduced Flashback and Private File. Can you tell us a bit about them and how they fit into Aladdin's utility line-up? What other new products might you have in development?

Aladdin: Aladdin introduced FlashBack and Private File in August of 1997, and we're very excited about the potential of both products.

FlashBack is an entirely new safety utility that falls in between traditional back up software and file recovery utilities. Once you FlashBack a file, you can recover *any* previously saved version (up to 99). It is kind of like adding unlimited undos to any document from any application. Having instant file recovery at your finger tips can be a real life saver.

IS professionals love the auto tracking feature that allows them to have FlashBack protect databases and shared files on an hourly or even minute by minute basis. When there is a crash they can restore the file in seconds, without going back to the tape backups and without losing more than an hour's input!

It is also wonderful for graphic artists who often do dozens of revisions to a layout or an image. With FlashBack they can restore a file to the way it looked a day, a week or a month previously without needing to keep thirty "save as" copies junking up their hard disk. FlashBack tracks all the changes for them automatically, with time and date stamps, every time they hit the save key!

FlashBack functions by tracking the changes made to a file each time the file is saved. Changes are maintained in the FlashBack application for each file and every version is time and date stamped. At any time in the future the user can double click on any previous version and FlashBack instantly re-creates the file as it was at the time and date indicated.

Private File is the easiest way to protect a user's sensitive information for secure transmission over the Internet or for secure retention on a syquest, zip or hard disk. Private File uses powerful 128-bit encryption to encrypt files and folders and is as easy to use as Drag and Drop! To encrypt, drop files and folders onto the PF Encrypt application and enter a password. The items will be encrypted as a compressed single document and ready for transmission. There is also an "encrypt and mail" option through magic menu that make encrypting, compressing, opening your email program, starting a new message and attaching the secure file a single step!

Private File's hybrid CD provides the option of installing Macintosh or Windows 95/NT versions for each license, so it is completely cross-platform. Files created on either system can be sent to Mac and Windows users without modification.

We made our product even more appealing by including a two-user license for the price of one. With an expected street price of only \$49.95 for both users (each box includes two serial numbers and two registration cards) we think a lot of people will make Private File their first choice for file level security.

It is also worth noting that the next release of our freeware Expander (coming out in this year) will be able to decrypt files encrypted by Private File—if you've got the password!

ATPM: Stuffit has been an important product for your company and for Mac users. Do you have any enhancements under development you think our readers would find interesting? Are you planning any significant upgrades to take advantage of OS 8's new features?

Aladdin: Significant enhancements of Stuffit Deluxe 4.5, the next version, expected in the next 90 days, will include fixes to the three Mac OS 8 incompatibilities in 4.0 and at support least five new compression standards including MIME/Base64 support.

ATPM: There's a lot of talk about Apple's new operating system code-named Rhapsody. Is Aladdin planning to develop software specifically for the new OS or are you taking a "wait-and-see" attitude at this time?

Aladdin: Aladdin's product development is occurring all the time, whether it is on new products or improving the current line. Software developers get a sneak peak at Apple developments so that we can be prepared for the launch of a new OS and also develop products that help to enhance the OS. We intend to continue our development concurrent with Apple's development.

ATPM: If there's one thing you'd like ATPM's readers to know about Aladdin Systems and its products, what would it be?

Aladdin: Aladdin strives to provide products that are designed to help users take full advantage of their computers by making life easier. We pride ourselves on listening to our customers (hint: we love feedback) for improvements and new ideas. We've got a great team here and are happy to share our products with the Macintosh community.

ATPM: Jennifer, thank you for your time. We look forward to talking with you again soon.

If you or your company would like to be interviewed here, please drop us a line at <editor@atpm.com>.



SEGMENTS

SLICES FROM THE MACINTOSH LIFE

BY STEVE HUSSEY, shush@harborside.com



We have been Mac users since '84, when we bought a Mac 128K, single floppy drive & ImageWriter to do our technical documentation for a high end Hewlett Packard based software package. Over the years we upgraded our Macs constantly and now have stabilized on PowerBook 3400/240's which are just too cool.

We got into databases with what was then Nashoba's FileMaker database, loved it and stuck with it for many years as Claris took it over and it became FileMaker Pro. About 4 years ago we moved to 4th Dimension. It took a lot of learning but it was well worth the move. Today we use 4D (on Macs, although it is now cross-platform) to do contract developing. Somewhere along the way we realized that we had learned a lot about 4D and started to self-publish a series of guides to the more advanced aspects of 4D. The 4D market is small compared to FileMaker Pro and therefore we couldn't publish our guides conventionally—so we did it all in house.

Using FrameMaker 3, then 4 and now 5 we published our first guide about three years ago as the *4D Advanced Guide*. A second edition followed, and later a third. The guide was written on our Macs, edited, proofed and published. We printed the first few copies on our HP LaserJet 4MV, then created a master from the 4MV and had it photocopied in bulk.

All sales were handled on the Mac, we wrote our own invoicing system in 4D, and even handled credit card authorizations from within 4D using Apple Events and MacAuthorize. Our voicemail is MegaPhone on a Mac, our faxing all handled direct from Mac. We even do all our UPS shipping through our own UPS rate calculation/manifest/shipping system we built in 4D.

Earlier this year we created our first web-site using Adobe PageMill 2.0 and have been generating a steady revenue stream ever since. Claris EMailer 2 handles all our email quickly and easily. We have also linked our 4D database to EMailer via Apple Events—so we can quickly keep our customer base up to date.

As the volume of material on 4D grew and grew we decided to make the fourth edition of our guide a digital version, on CD. Using Frame we created PS files, we then use Adobe Distiller to turn these into PDF files, complete with a hypertext table of contents.

Toast allows us to burn our own CD's in house. On the Mac we can create hybrid CD's which run on MacOS or Windows—something that is nearly impossible on a PC. The price of blank

media has dropped to about US \$3.50 per disk. This makes in-house production viable and cost-effective. By using CD-R's we can produce small batches of CD's, about 10 at a time, keeping stock in hand low. We can also update very quickly.

Today we publish a range of guides and tools for 4D Developers and we owe most of our success to our Macs. We just couldn't be this productive and efficient without them.

Steve Hussey is CEO of Alto Stratus LLC. The Segments section is open to anyone. If you have something interesting to say about life with your Mac, write us at <editor@atpm.com>.





How I Got Started with the Mac

July 27, 1997, 11:38 AM

Those entries of exact time and date were made by my word processing program at the click of a mouse...technology that elicited consternation and awe when Thomas F. Mabry, P.C., obtained its first Macintosh in March of 1994.

The Mac was user-friendly and welcome because this user thought hardware meant hammers and nails and software was a cashmere sweater. Gradually, though, I taught myself the nuances of the machine with several "_____ For Dummies" books and a fair assortment of trials, errors, sweat and tears. I began learning a new language along the way.

My first foray into the world of online research for my real "trials" occurred when the West Publishing rep advised that, yes, they did have software for Macintosh, and, yes, they did have Tennessee law on a CD Rom disk, and yes, it was affordable. Now there was a whole law library at my fingertips and the means by which to create nifty briefs and terrific pleadings. I won a couple of cases with unpublished opinions picked from the disk on the way to Court. The computer was remarkable, but then the hot news became the World Wide Web...

Today, I am wired: not in the sense of an existential reaction to law office tension, but rather in terms of computer literacy and an Internet connection...a welcome to the Brave New World of electronic law office technology.

Hooking up with an Internet Service Provider (ISP) for about \$ 20.00 bucks a month for unlimited access, I used the second telephone line at the office as a part time Internet station, and I could also access law from the Web at home. The Tennessee Bar Association's acclaimed web site (at a real steal for \$25.00 a year) offered access to case and statutory law and through the acclaimed TBA Link my firm had access to the email distribution of electronic slip opinions delivered to "our door" each day.

I soon subscribed to free Internet email discussion lists named TBA Talk, the Techno-Lawyers, and MacAttorneys. From these online sources, I further honed my "cyber-research" skills and from the marvelous Web gained insight into the use of

inexpensive software and research sites which provided—in a “virtual” blink of an eye—case and statutory law from virtually every jurisdiction.

Query: How has this technology affected my little ole law practice? Much like the car affected transportation when it was new to the mass consumer. I found that with some ingenuity the solo lawyer could compete with the big firms on a not so big budget. Valuable time, energy and effort were saved where inundation and exasperation were fast becoming the rule. I took my Apple Powerbook to seminars and depositions (“Is that a computer in there?”) and my Apple Newton hand held computer to Court (“What’s the fancy gizmo, Tom?”). My productivity has increased and now I can actually locate “most” of my notes.

And the cost has not been unduly prohibitive. Really. Neither in terms of money nor time. Not compared to what I understand the large firms are expending for their electronic access to the law and law-related products. Thomas F. Mabry, P.C., through its own inexpensive website and an email address through the ISP, has contact with clients, attorneys, and legal sources throughout the state, country and the world.

“They say” that Macs are much more expensive than the Wintel machines. Well, when one shops at MacMall or MacConnection or MacWarehouse, the prices are inexpensive. And lawyers who use the Mac are invariably friendly and helpful in presenting information on what types of machines and software to buy.

“They say” you can’t find software for the Macintosh law office. This misconception is apparently pervasive and, well, erroneous and distorted. Really. All one has to do is to go to Randy Singer’s site at <http://www.mother.com/~randy/law.html>. Contact Al Barsocchini at lawtech@well.com and he’ll show you where to find some Mac software. I have found everything that I could possibly need electronically and in word processing needs for the Macintosh.

In general, I’d like to point out that in the course of preparing this article one Friday evening, I asked the Techno-Lawyers for input. By Saturday morning, more than ten (10) responses had been generated.

Attorney Alan Arfken of the Chattanooga Bar summed it up:

You’ve already demonstrated the most effective use of electronic communication for the small or solo firm—instant collaboration and other types of communication such as formal and informal publishing, not to mention research options that are no longer \$4.50 per minute.

Harold L. Burstyn, a patent attorney with the Office of the Staff Judge Advocate wrote:

With four lawyers (two military and two civilian), our office is similarly situated to a small firm. I’m on the Internet every day, keeping up with news of intellectual property law, downloading cases (I don’t need star page nos.) and govt. docs., and limited patent searching. I also use Email extensively, both internal and external. Our claims people (one lawyer, one paralegal, both military) use the Internet to locate

people and to download information for, e.g., medical malpractice claims.

Finally, Wendy Leibowitz, Technology Editor of the National Law Journal, opined:

I think solos and small firms are leveraging the hell out of the technology, and it's a delight. They are able to adapt to technology more quickly than the big firms, compete head-on with the big firms for business from tech-savvy clients like Dupont, and sometimes lead and advise their clients on using technology. Three points to cover: serving your clients from your homepage (at the bottom of this post there's a good url of a sole practitioner); efficient time and billing systems (why should a solo or small firm person waste time with accounting matters?) and creating databases of your previous work to avoid reinventing your own wheel. That's my two cents.

These emails were received within thirty (30) minutes of my posting the request on the Techno-Lawyer listserver.

1:31 PM

That's how long this article took to produce: a token of my gratitude to the electronic age, the Macintosh computer and Apple Computer products, and the encouragement that I've had to utilize this technology to its fullest potential in my small firm practice.

By the way, I have also been encouraged to spend the remainder of this Sunday afternoon with my wife... another obvious advantage of learning without consultants how to practice law with the Macintosh <g>. I'm heading for the mountains!

Postscript (August 1, 1997)

This revolution in my lawyer life began and ended with the Mac. I have yet to use a consultant. I obtain all my information on how to network my computers and operate the intricacies of the Macs from sites like Macfixit <<http://www.macfixit.com>>; I keep up with all the latest software updates from Version Tracker <<http://www.versiontracker.com>> and from the MacAttorneys mailing list <macattorney@law.uoregon.edu>. I have received much valuable assistance in every area of operating my Macs.

By the way, the new Mac Operating System, the OS 8, is outstanding.

The Segments section is open to anyone. If you have something interesting to say about life with your Mac, write us at <editor@atpm.com>.





Maccessible: A Home-made Remedy to Make Macs More Accessible to the Disabled (1991)

In 1981, an automobile accident left my brother Alan a quadriplegic, paralyzed from the shoulders down. Although he can still move his arms, he has no hand or finger dexterity and no sensation below the shoulders.

At the time of his accident Alan was attending CSU Chico. While in the rehabilitation hospital he found out about the Disabled Students Program at UC Berkeley. In the fall of '83 Alan needed to get a computer to help him with his courses at UCB so he asked me what kind of computer to get. I didn't have a clue, so I started to look around. I attempted to conquer the IBM where I worked, but after 2 months of trying to memorize the endless commands I was ready to give up.

The LISA caught my eye, but you know the story... the right idea but not much software & too much money. Then, when that gorgeous woman in Apple's first commercial threw the sledge-hammer at Big Brother, we started checking out the Mac. After being able to word process in half an hour with no manual I knew this was it! One problem Al said, "I can't grab & click the mouse." We tried a bunch of different ways for him to hold the mouse but nothing worked well enough. To get an idea of the problem, imagine trying to operate a mouse with boxing gloves on. Alan was ready to throw in the towel and get an IBM. After much heated discussion, Alan finally touched on the idea of separating the move & click functions so that he might move the mouse with one arm and click with the other.

I called Apple and got in touch with Clive Twyman (my spell checker wanted to substitute the word 'ptomaine' for his last name!) who referred me to John Turnbach, Technical Supervisor of the Mac Division.

As we approached Apple's parking lot in Cupertino, a white Porsche 911 flashed in front of us. Its license plate read 'CLIVE'! (Wonder if he still has it after the last 100 Apple administrative reorganizations?) John came out to meet us in the parking lot, explaining that we couldn't go in because there was some secret stuff going on inside. (Like, uh... what could someone do with only 128K?) In his hands he had two mice. One was the normal rodent we've all come to know & love, the second was disemboweled except for the micro-switch under the button. The leads from the switch tapped onto two of the mouse wires via a small male-to-female adaptor that plugged into the mouse port.

We took these mice home and modified the second mouse by removing the micro-switch and attaching it to a spring loaded switch-pad which sat in Alan's lap and was operated with his right arm. With adhesive Velcro®, we attached a 2"x 5" strip of Orthoplast. (Great stuff!—It's like plastic that softens in boiling water, then you cut out the pattern you need, form it into the shape you want and let it cool & harden!) We made this into a cuff that Alan could rest his left wrist into. Since he couldn't feel the mouse, this way he could move it with his arm and not have to constantly watch it in order to keep his hand from sliding off. He needed to be able to look at the screen while he worked, just like "the rest of us."

It worked! — We bought a Mac — (Beige. 128K. One internal 400K disk drive. MacWrite. MacPaint. Only \$1350)!

Three years post-injury Alan said "Mark, I thought I'd never draw again." (The drawing below of Wyoming's Grand Tetons was one of Alan's first efforts with MacPaint. Now converted to PICT format.)



Now we do MacConsulting & DTP with a IICI & 5mb of RAM, 13" color screen, 130Mb hard disk, LaserWriter II NTX, 300 dpi flatbed scanner, 44MB removable cartridges for backup, a Fax/Modem and the complete set of BMUG Newsletters. (Indispensable!)

So, one might ask...How has all this advanced technology and raw power changed our lives? Well, for one thing, our productivity has become phenomenal! For example, this article took only a mere seven years to complete.

Semi-Tech Stuff for those who want to do it too:

The Mac Plus & earlier Macs used the DB-9 connector for their mice. The numbers shown are for male connectors (female connectors are reversed, left to right). Pins #5 & #8 (male) or #1 & #7 (female) were tapped for the switch-pad. Shorting these two leads will give you a mouse-down.

DB-9

1 2 3 4 5
6 7 8 9

For the Mac SE and II series, ADB (Apple Desktop Bus) mice are used. Unfortunately, you can't just plug two mice into the ADB because a simple click-hold-drag wouldn't be possible, one mouse would cancel the functions of the other. I went crazy trying to get help from the "technical" people at Apple... too bad they don't run the company in a "Macintosh Way" any more (Check out Guy Kawasaki's book by the same name). Finally, I spoke to Chuck Meyer of CJS Systems in Berkeley. He suggested tapping directly onto two of the three pins of the micro-switch inside the mouse. Make sure to turn off the Mac before unplugging and/or opening up the ADB mouse! (I've been told that you can fry your Mac this way if you don't). I used a couple of alligator clips to determine which two leads would give me a mouse-down when they were shorted. Then, I soldered the switch-pad leads directly onto the circuit board under the micro switch and carved a hole in the mouse housing for the wires. Works perfect! Thanks again Chuck!

...

Well, I hope that this info can help someone. If it does, please let me know.

Unfortunately, Alan died from Leukemia in 1993. He was the most life-loving, funny, cool person I have ever known. Life is a much more empty place without him.

Since then, I was very lucky to have landed a fantastic job with Connectix (makers of RAM Doubler, QuickCam and Virtual PC) about two years ago and I'm in Mac-Hog-Heaven! This has got to be one of the most COOL companies to work for! I owe it all to Alan...I just wish I could share it with him.

*Mark Hayden is the Macintosh Lead for Connectix Technical Support.
The Segments section is open to anyone. If you have something interesting
to say about life with your Mac, write us at <editor@atpm.com>.*



SEGMENTS

SLICES FROM THE MACINTOSH LIFE

BY LEE WALLS, JR.



For background, I'm a graphics and pre-press systems manager for a group of newspapers and that means, obviously, Macintosh. In turn, we have a couple of Macs at home, one being mine and the other belongs to my wife and daughters.

My oldest daughter, then six, came home from school one day and seemed a bit down. At dinner I asked her if everything was okay and she said that she had not had a great day. (I kind of grinned wondering exactly how bad of a day a six-year-old could have in kindergarten.) She reminded me that they have Apple computers in each of the classrooms and then explained that today was their first day to go the actual computer lab. I told her that that sounded exciting and asked how it went. She looked down for several seconds and when she raised her head to look at me I saw that tears were welling up. She explained, as she started to cry, that it wasn't fun at all and she couldn't find a single computer that had a little Apple on it.

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Setting up a Macintosh Web Server

I have owned a Mac since the 512K and before that I had an Apple IIc. I currently own five working Macintoshes and one that needs a new motherboard. I have cannibalized the dead one to make my working boxes work faster, better, harder. I beta test for Claris, not one or two products, but everything they make, I am an official Claris ETS (External Test Site). I have a dedicated phone line for my internet activities (it used to be a fax line but who needs that when the Mac does my voice mail and my faxes on one line). I am waiting for a cable to hook up my apartment with X-10 devices so that my Main computer can control the lights, coffee maker, TV, etc. I set up my own web server and will be putting it on line in the next couple of days. I have two different PowerBooks, a PowerMac 7500, a Performa 600 (my soon to be web server), an SE/30, and a Newton 120. I keep spare Mac parts on a shelf in my office in case I ever come across a poor wayward Mac in need of a loving home. I correspond regularly with the jokers at Bungie software who make the best games in the world, and usually only for the Mac. My main disappointment in life to this point, the one thing that has made me question the basic goodness of human character has been the dominance of Windows as an operating system.

Seriously though, I am a visual artist, I maintain my own web server, FTP server, home page, and mail server. I use the mac for nearly every facet of my life. I can use almost every piece of shareware out there. I love to tinker and push things to their logical limit and sometimes beyond that. So, that is my offer of help. On another topic, I thought I would share a quick story about setting up a web server on a Mac.

I have been a mac enthusiast since I bought my first 512K (don't ask how long ago that was, I'm starting to feel old). I have always felt that it was dramatically superior to the PC which is why I gave my PC to my brother at the time (we were having a fight).

Anyway, I have had my own web page for some time now to promote my photography but I wanted it to do more than just act as an on line portfolio. I was talking to my friend who owns my ISP (convenient, no?) and lamenting the 5Mb space restriction and he said "You know, we have this old Performa 600 lying around that I was just going to get rid of. If you want to set it up as a web server, I would be happy to let you hook it up to the ethernet and give you an IP address." Figuring I had nothing to lose and knowing that my girlfriend would be away in Chicago for a week, I said "Great! I have plenty of free time on the horizon, that'll give me something to do." Well, I grabbed the box and an extra keyboard,

took it home plugged it in, initialized the hard drive and installed the system software from the built in 2x (this is important) CD ROM drive. About two years ago I had bought Web Master Macintosh by Bob Levitus and Jeff Evans and I whipped out the CD ROM and popped that into the drive once I had rebooted the machine. I then installed Machttp.

Now was the time I was dreading, I had heard nightmare stories from my brother (an MIS for a large private bank) about the difficulties of archaic web server set up, UNIX commands, configuration files, ports, etc., etc., ad nauseum and he's trained to do this stuff. I had girded my loins for a week of nose to the grindstone, brain-frying geekspeak, I even went so far as to buy a new office chair. Pot of hot coffee by my side and furrowed brow I opened the inch thick book and skimmed through the introduction to the internet and the stuff about setting up an internet account to page 52 where it got into the specifics of configuring the Mac. I set the IP address like it said and then I found out that I was done. I remember feeling a distinct feeling of being slightly deflated. I went to my Powermac on the same network and fired up my browser and sure enough, there it was, my web page in all its glory. "How can this be? What are the other 295 pages of this book for? Can it be that easy?" Evidently it was. What would I do now?

Well, I figured if I'm going to have a web server, I don't want to be trekking down to the ISP every time I want to update my page. I had better go find me an FTP server and hook that puppy up. Surely that would occupy the next week or so. So I went to the MacUpdates web site and downloaded NetPresenz. After drinking one cup of coffee, it was downloaded and I was ready to roll up my sleeves and dig in. I read the read me file and followed the four or five simple steps for setting up my file sharing on the folder for my web page and I was done.

The girding of my loins was beginning to seem unnecessary. I was beginning to feel a bit cocky and I thought I needed to be taken down a notch so I pointed my browser at MacUpdates again and set my sights on Eudora Internet Mail Server Lite. This would surely keep my brain working at breakneck speed what with the Rubic's cube of SMTP and POP and APOP. So I downloaded it and went to take care of the effects of the coffee. When I came back I was ready for acronym hell. I sat down and cracked my knuckles. I entered the IP address of my computer and I set up two new accounts Webmaster and Peter and then I was ready to configure something. The only problem was, I was done again.

So, now I have a full fledged web server with the web page loaded and ready to run, an FTP server, and an email server. Here are the stats:

Total time from raw box to fully-loaded internet demon: 1 hour (with 28.8 modem!)

Total amount of coffee left over: 1 pot - 1 cup

Total time left over from time budgeted: 167 hours

Total Sleepless nights: 0

Total actual nightmares: 1 (before the process started)

The only thing I did not actually get accomplished was getting a FileMaker Pro database running so that I could have on line estimating. I figured that would take at least a week. I

went to sleep secure in the knowledge that this Herculean task would keep me busy.

That was yesterday. Today I woke up and read on Pointcast that Claris FileMaker Pro is going to have web support built in with the next release.

I have come to the conclusion that I can no longer rely on Apple technology to provide me with the kind of inane time burning work I was hoping to get from it. This will force me to focus on more difficult tasks like cleaning out my refrigerator, doing laundry, washing the car,..., but then, maybe that's what Apple Script is for.

Peter Howson is a professional photographer. The Segments section is open to anyone. If you have something interesting to say about life with your Mac, write us at <editor@atpm.com>.





BY JAMAL GHANDOUR, jghandour@atpm.com

Tips • Tricks PhotoShop *Power* Bonanza!

Since we are reviewing Photoshop 4.0 this issue, the ATPM team decided to make a Photoshop bonanza tips article. Enjoy Photoshopping and don't miss the last tip!

Zoom

Press Command-Spacebar to temporarily access the zoom tool. To zoom out, press Option-Spacebar. Or, you can permanently select the zoom tool by pressing the Z key.

Resetting settings

To reset the settings inside many of Photoshop's dialog boxes, press the Option key to change the Cancel button to Reset, then click on the Reset button to bring back the original values. You can also press Option-Escape, or Command-Option-period.

Layers

In Photoshop 4, the layering shortcuts have been reassigned. Command-] moves the selected layer to the top of the stack. Command-[moves the layer to the bottom of the stack, just above the background layer. Command-Shift-] and Command-Shift-[nudge the layer up or down one level.

Web Graphics

When you save an image in the JPEG format, Photoshop offers you basic quality settings. It is generally accepted that the best quality setting for web graphics is Medium, because it packs a fair amount of image quality into a very small file size. The problem with the Medium setting, however, is that it makes your images impossible to edit. If you open a Medium JPEG image, make some changes, and save it again, it looks like garbage. So always keep a backup of the image in another format. Do all your editing in that file and save it to JPEG only when you're ready to upload it to your site.

Groups

Photoshop 4 offers a way to combine layers into clipping groups. You can group the active layer with the one directly below it by pressing Command-G. If the active layer is linked to other layers, you can group all of them together by pressing Command-G. To break up a group, press Command-Shift-G.

Print

If you see an exclamation point in the Color Picker dialog box, Photoshop is telling you that the color falls outside the CMYK gamut. To bring the color back inside the printable range, click on the little swatch below or to the right of the exclamation point.

Guide

To turn off the snap of your guides without hiding them from view, press Command-Shift-semicolon. To both hide and deactivate the guides, press Command-semicolon. To move a guide when any tool besides the move tool is active, Command-drag the guide. Finally, to lock the guides, press Command-Option-semicolon.

Units

You can alter the rulers and the unit of measure used in Photoshop by double-clicking on a ruler in the image window.

Info

To quickly view the dimensions and resolution of an image, Option-click on the preview box in the lower left corner of the image window (to the right of the zoom display in Photoshop 4).

Numeric Transform

To numerically move, scale, rotate, or skew a selection, press Command-Shift-T to display the Numeric Transformation dialog box. As with the color-correction dialog boxes, you can press the Option key while choosing the Numeric Transformation command to reinstate the last settings you applied. Also try Command-T.

Cursors

If a cursor intrudes on your ability to see the image, press the Caps Lock key. This key switches to the so-called precise cursors, which typically appear as tiny crosses.

Brushes

To edit a brush in the Brushes palette, double-click on it. To create a new brush, click in the empty area below the brush icons. To delete a brush, Command-click on it.

Tracing

Few folks realize this, but Photoshop is good at automatically tracing paths. To convert the selection to vector-based paths, switch to the Paths palette and click on the dotted circle icon.

Hiding Palettes

You can hide and show all palettes by pressing Tab.

To hide or show all the palettes except the toolbox, press Shift-Tab.

Hiding Selections

To hide selections simply press Command-H.

Easter Egg

Try the following:

- 1) Press Command as you choose “About Photoshop...” in the Apple menu.
- 2) Press Command-Option as you choose “Palette options...” in the layers palette sub-menu.

Copyright © 1997 Jamal Ghandour, <jghandour@atpm.com>. Jamal Ghandour, is a "Senior Graphic Designer" and "Computer Section Manager" at CSS & GREY(Kuwait). He also works as "Creative Art Director" at Swiftel international communications.



BlockBuster 1.0

Product Information

Published By: John Truby Studios

List Price: \$295

I was ready to give this software my lowest rating ever. It turns out that Greg Landweber's Kaleidoscope, and its precursor, Aaron, don't allow BlockBuster to size the screen properly, rendering the software unusable. The programmer said he has no intention of fixing this, although I explained to him the error of his ways. Furthermore, I almost had to retype this review from scratch, because the program locked up my Mac once, and a keyboard restart was my only option.

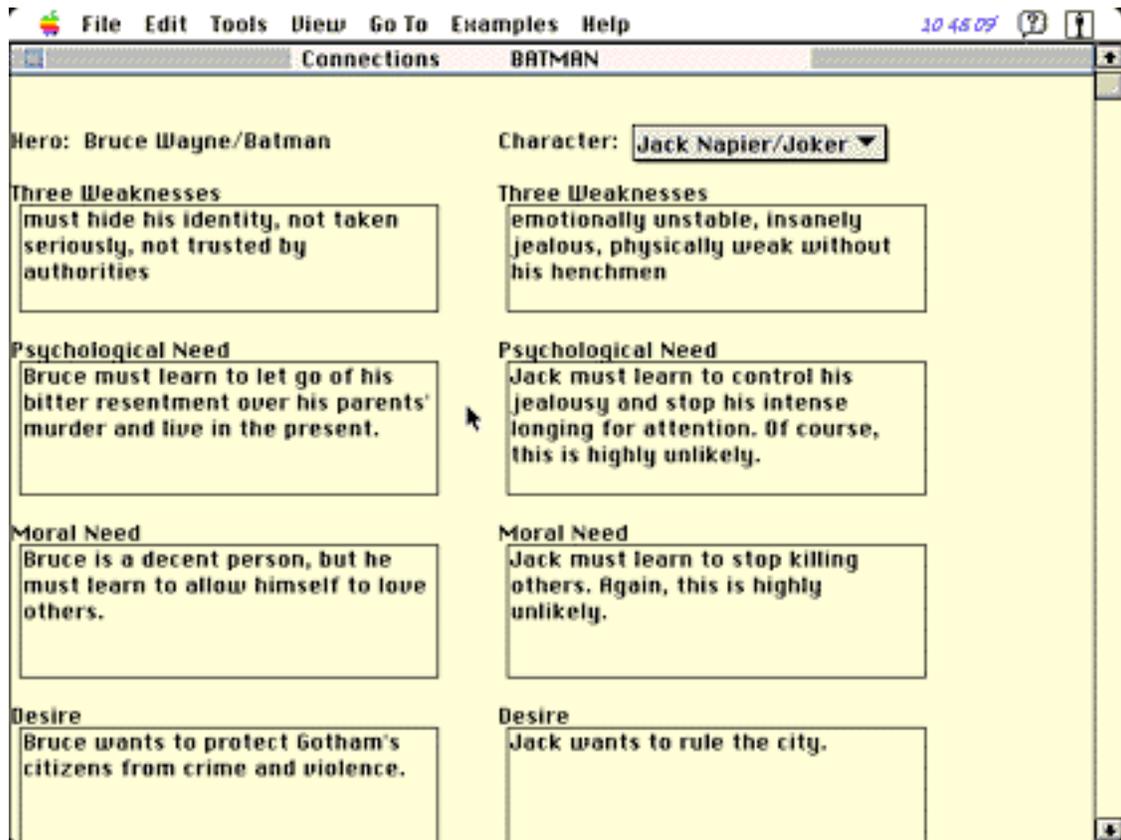
The program, as it stands, performs adequately. Installation was not as easy as I'd hoped. To allow the installer to run properly, I needed to restart with extensions off. Since I'm running System 7.1 on my lowly Quadra 605 here at home, I needed to take the additional step of installing the Apple Shared Library Manager. Some problems may have cropped up because I was installing to a Zip drive, but this is unconfirmed. In any case, the manual states that BlockBuster must reside at the top level on whichever drive you install it.

The first thing I noticed is the overall look of the program. Yellow and its relatives are not my favorite colors. Also, when I scrolled through some windows, the bar at the top scrolls off the top of the screen. Annoying? Yes. Especially when I wanted to close the window.

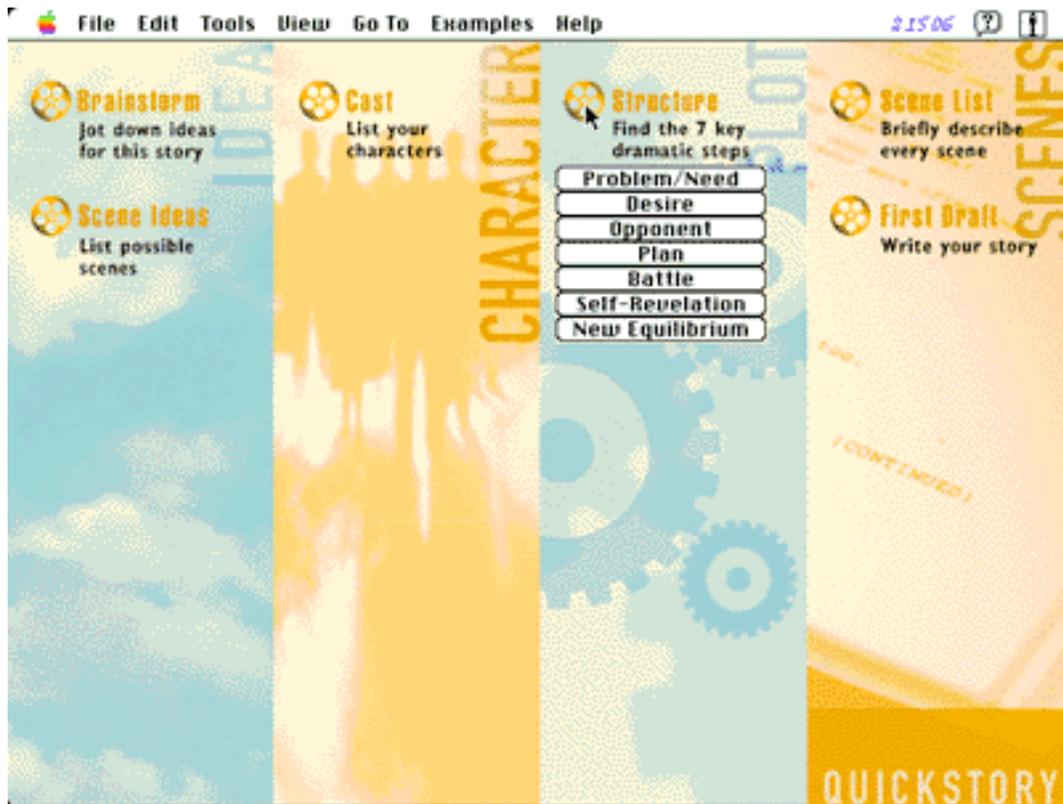
Three skill levels are available: Quick Story; Advanced; and Professional. Given my extensive background in the "Entertainment Industry," I felt confident that I could speed through the professional level. However, this was not the case. As I'll explain later, the manual was almost no help, so I stepped through the online Quick Story lessons.

I soon discovered that performing each step in order is required. This is not a natural style for me. I prefer to write using the stream of consciousness style, so I found myself jumping around a lot, but the software doesn't really allow that.

To begin a Quick Story, I first had to have one. A story, that is. To me, a story is what happens to characters you care about. However, I hadn't created any characters yet, so I was stuck. I jumped ahead, created my main characters, and came back.



I came up with a story about a guy who, through no fault of his own, ends up in a small town in Kansas. Next on the agenda was to find the structure o' the piece, or what BlockBuster calls the "seven key dramatic steps," not to be confused with the "22 Steps™" that form the cornerstone of the Truby writing philosophy. From there, I was supposed to be able to create a full-blown scene list, and then attempt my first draft. BlockBuster provides a rudimentary formatting template to get you started, however, the program recommends a separate script formatting package. I agree. Checkout my review of Final Draft in a previous issue.



Screenwriting is an amazing craft. All the script gurus, doctors, whatever you want to call them, have a film or two that fits their paradigm. This program is no exception. The problem is that it tends to encourage formula writing. Another problem is that it's possible to fill in the blanks incorrectly. There's a very good tutorial online. However, I would have preferred the tutorial as a separate book.

The manual is sparse, to say the least. The Table of Contents has an annoying habit of referring you to the wrong pages. This ceased to be amusing the third time it happened. However, as with all good Macintosh software, you shouldn't require the manual to use it.

Unfortunately, this software doesn't fit in that category.

Conclusions

While this is an adequate attempt to create a software version of John Truby's excellent screenwriting class, I would recommend that you wait until his seminar comes to your area and spend your money on the seminar registration instead.



is open to anyone. If you're interested, write to us at <reviews@atpm.com>.





Bomber III: Flak Alley

Product Information

Published by: DEADLY/GAMES©
PO Box 676, Bridgehampton, NY 119320676
Web: <<http://www.deadlygames.com>>
Street Price: \$39.95

System Requirements

PowerMac
8 MB RAM
Color Monitor
This game was reviewed on a Macintosh Performa 6400/180 with 24MB RAM.

DEADLY/GAMES© ("A Chaos Tech Company") has a long track record of producing games that challenge the intellect rather than the itchy trigger finger. **Bomber III: Flak Alley** is the most recent in their series of "games" which will challenge your patience and administrative skills. Accordingly, this game will give you none of the flavour of Gregory Peck's starring role in the 1949 movie "Twelve O'Clock High," nor will it entice the computer gamer who is attracted to graphic "shoot-em-ups" offered by flight simulators such as **Graphic Simulations Corporation F/A-18 Hornet 3.0**.

The game is set during World War II. The famous American B-17 Flying Fortress has been given the task of destroying critical military industrial targets in Nazi Germany. Right up front, the company stresses that the goal is to use "Executive Skills" to manage the "Assets" necessary to complete a mission. However, there are moments when immediate, action-oriented decisions are called for. To an extent, I feel that this type of game is merely a sophisticated variation on the game of chess. As the promotional literature for this product states:

Avoiding flak, driving off enemy fighters, finding and bombing the target will test your motor skills, but this is no first person-shooter; planning the mission, choosing fuels and armament ratios...are executive skills. Asset management is really what this game is all about.

Upon installation, it is quickly evident that Deadly Games has not altered their use of the aging HyperCard application. A folder of approximately 3 MB resides on your hard drive, and play requires that the CD-ROM be in its drive as well. The application is adequate, but shows its age through the tediously-extended response times to mouse clicks and keyboard commands. Despite its dated interface, this is a PowerMac only game! You really need a powerful machine to appreciate and operate this product. This is another indication that the "68K" machines are being abandoned by developers.

Upon starting the game, you are presented with a "Pilot's Log" listing names and job descriptions of your crew members. To personalize your adventure of 25 missions over Europe, you may change the default names at this stage. Once you have decided on your "mates" you can choose from six B-17 aircraft to fly the assigned mission(s). One caveat—if you lose an aircraft, it is lost for the duration of the game, which decreases your chances of completing the 25 required missions. You can continue your tour with each of the other aircraft until they have been destroyed. Treat your crew and craft with extreme care!

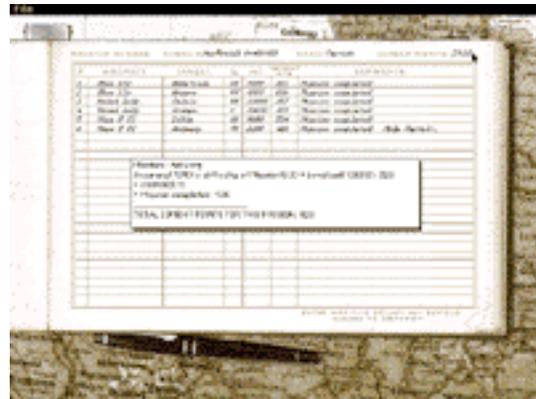
A "Briefing" of the mission destination is presented on a map screen. Other pertinent facts, such as the amount of fuel necessary to reach the destination and altitude statistics to fly in formation with the rest of the squadron are also available. Initial asset management comes into play at this state as you attempt to balance your fuel requirement against the total bomb load you can carry. You have to think about how much extra fuel you might need if a fight or flak attack diverts you from the perfect flight path. Flying in formation is strongly recommended - flak and enemy fighters will enjoy picking away at any "loner."

Takeoff is not as easy as you might expect. You will spend a fair bit of time conversing with your Navigator in order to maintain contact with your flying group. To me, this seemed as though I was constantly careening across the map, trailing the formation by two or three miles and who knows how many degrees off course. The game's progress may seem extremely slow to most users. The only way to speed up the flight is to call up the "Nav" map, which expedites the activities of your plane and the larger formation. Most consumer complaints about the entire line of Deadly Games products have concerned how long it takes before *any* activity takes place. Bomber, like other Deadly Games products is a "thinking person's" game.

Once the action in **Bomber III: Flak Alley** occurs, look for the opportunity to participate in fighter defense, flak avoidance, and most importantly the, "sliding maintenance" of your aircraft as its "integrity" is depleted by the various attacks with their consequent effects on engines, landing gear, oxygen supply, heating comfort and so forth. Flying the aircraft is relatively simple. A mouse click and drag on the cockpit wheel will alter your course. Throttle, speed and height adjustment are made by easy mouse commands or keyboard indicators in appropriate areas on the "HyperCard" screen.



With respect to the action aspects of the game, the final approach to the target area, which takes you to the Bombardier position, is the most interesting and challenging. As Bombardier, you take total control of the direction of the B-17 and must “intuitively” compute the time to release the bomb load. A “bit-o-luck” and some experience gives you an leg up on this critical aspect of your mission and your tour.



Game players will quickly see the difference between shooting games like “Doom” and the shooting aspects of Bomber. I found that whenever I manned a gun position, the action was unpredictable and finished before I had a chance to figure out “line of sight” angle. Maybe practice makes perfect! The response to enemy fighter attacks is handled by automatically by the computer, or by the player if he or she choses to select a gun position from the menu bar. The attacks are quick and I found that my responses to the oncoming aircraft were intuitive and without feedback. This is one of the least satisfying aspects of the game’s action sequences. But then, one must keep in mind that this game was not intended to be a mindless, violent shooting event.

All missions are preplanned until you achieve the rank of Major by succeeding at the assigned campaigns. As Major, you begin to dictate how various missions proceed.

Accumulated missions and cumulative scores determine your promotions and the awarding of medals. Be aware that the company has used their time-tested method of copyright protection. You can complete your assigned missions only by using the "Pilot's Manual" which contains mission-specific aerial photographs critical to the success of the Bombardier. As the missions move toward the heartland of Germany, other aspects of management become important. Do you bailout if your craft sustains too much damage? Do weather conditions cause you to return to base, attempt another run at a different altitude, or just gamble that the clouds will clear in time for a single successful run?

As is true in the real world, you can expect to lose air crew, aircraft and complete your mission with varying degrees of success. This is definitely a game for a person who enjoys a good game of chess. Those who like fast action with immediate gratification may wish to steer clear. If you are familiar with Deadly Games and its products, you might also know that Bomber has gone through several incarnations. I remember playing the original Bomber game when it was in black and white! I enjoyed it then and I enjoy the coloured and enhanced version now.

Copyright ©1997 Robert Madill, <rmadill@atpm.com>. Mr. Madill is a Professor of Art and Architectural History on the faculty of Architecture at the University of Manitoba in Winnipeg, Manitoba.





Calc+

Product Information

Published By: Abbott Systems Inc.

62 Mountain Rd.

Pleasantville, NY 10570

Phone: (800) 552-9157

Fax: (914) 747-9115

Email: info@abbottsys.com

Web: [<http://www.abbottsys.com>](http://www.abbottsys.com)

Street Price: \$29

Calc+ is from Abbott Systems. It is a desk accessory calculator. True, all the Mac OS versions I can remember come with a calculator already installed in the Apple Menu. Calc+ provides a bit more functionality compared even Apple's standard. First, the interface looks nicer, and can be sized. Second, you can print, copy, or save the "tapes." Third, you can minimize the window without quitting the application. Fourth, you can write comments to individual entries on the tape.

I was a bit surprised when I "got info" for the application. Calc+ is fairly old. The copyright date of version 2.0 (the latest) is 1992! Suffice it to say that Calc+ was not designed for use with Mac OS 8, but so far, it's functioned on my machine fairly well. However, I have noticed that when you toggle through open applications, the Calc+ icon gets substituted with other application's icons. Oddly enough, the commonly substituted icon is Microsoft Word's. Hmmmm... a Bill Gates ghost perhaps? Nah! The feud is over, right?





Operation of the calculator is fairly straightforward. You can type numbers and operators in from the keyboard, or you can point and click on the desired numbers/functions on the Calc+ window. Two options for calculations are available: the standard “Decimal Calculator” and a “DTP calculator.” The decimal version allows simple arithmetic functions to be performed in “memory.” The DTP version permits calculations in inches (In), centimeters (Cm), picas (Pi) and ciceros (Ci). Please, if anyone knows what a cicero is, tell me, because I have no clue! The DTP option is convenient for conversions. If you want to know how many picas are in 2.5 inches, just type 2.5 onto a line in Inch mode, then click “Pi” to convert to picas.

Copy and Paste work as standard Mac functions. If you need the current total copied to the keyboard, simply key in “Command-C” or choose “Copy” from the Edit menu. There is also an option to copy the entire tape.

If you need a total from a previous calculation, simply click on any of the numbers from that calculation, “Copy,” and “Paste” from within your document. The total will be inserted at the cursor. This last feature is not very intuitive. I tried several times to choose the total I wanted (denoted by a red circle), but it could not be selected with the cursor. I found this previous total feature completely by accident. A quick peek at the manual suggested that maybe Abbott doesn’t know about it either, because it’s not there.

There are a couple of minor bugs and petty annoyances. The first is the toolbar. Along with the title, there are four small buttons. I would have preferred more informative (larger?) icons and a smaller title.

Third, “Help” opened via the Calc+ menu describes how to operate version 1.0. Hey people! I have Calc+ version 2.0 installed! It also gives serious space to installation instructions. Odd... if I’m accessing the Help via the Calc+ application itself, isn’t installation a moot point? Maybe I’m just being persnickity this evening.

One simple little calculation that stumped me for a moment was:

$$35 + 46 =$$

Guess what the answer was.... I'll give you a hint.... it was NOT 81! Admittedly, I hadn't had my coffee yet, so I wasn't 100% sure about my ability to add two two-digit numbers in my head. However, I did expect to get an answer that was a whole number. The tape looked like this:

```
35.0000 +  
46.0000 %  
51.1000 •
```

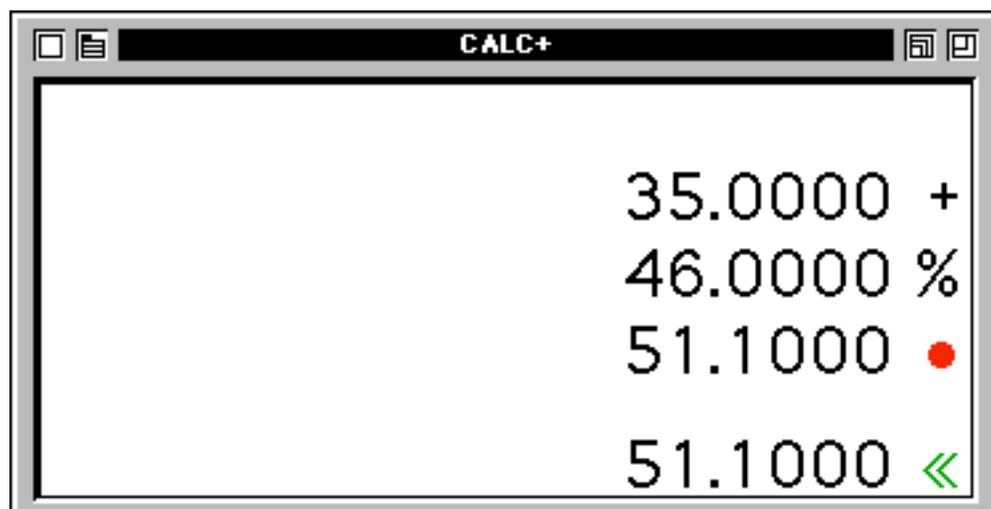
"OK," I thought, "Calc+ did something with percents, but what?" 51.1 is NOT 46% of 35, that answer would be something close to 17. Ahhhh.... but $35 + 17$ is 52... getting warmer.

I opened the manual. After a brief read, I found my answer. Totals are calculated by pressing the "Return" or "Enter" keys. The "=" sign does not yield a total (nor does it cause "Smart Quotes" to be entered correctly in Microsoft Word!). Instead, it converted the last number entered to a percent. In other words, the key combination I entered calculated the result of adding 46% to 35, yielding the answer "51.1."

Now, for simple calculations, this may not be a problem, but I have a laptop with no separate numeric keypad. It's distracting to switch between the row of number keys to hit the "Return". It's also counter-intuitive to use a common symbol for "Total" to convert a decimal number to a percentage, particularly when a "%" key is available.

At this point, I'm thinking that the pros and cons between the installed Calculator and Calc+ are perfectly balanced.

Two features make Calc+ an improvement over the installed calculator. First and foremost is the ability to display numbers in a larger font. Here's how the standard window looks using Geneva 24:





Font and Size are not defined through the standard menu bar. To select a new font, you need to pull down Calc+'s menu by clicking on the second small button from the left on the Calc+ window itself (looks like a miniature striped manila tab folder).

The button on the far left is the standard "Close Window" box and the button on the far right will minimize and maximize the window as in standard Mac application windows. Unlike applications that are compatible with OS 8, in Calc+, there is no button to shrink the window to show only the title bar.

The button that is second from the left (looks like a nested set of squares aligned to their lower left corners) will perform a "Windows-like" minimize of the window. When chosen, Calc+ shrinks to a large button on the desktop. This allows you to leave Calc+ without losing your tape.

The last feature is the ability to add comments to the left of numbers on your tape. Below is a screen shot which shows how comments look in the edit mode. My one complaint about the comment editor is that it does not allow you to select text by click and drag. The only way to correct comments is to backspace from the end of the line back to the error and retype.

In summary, I think Calc+ is a good idea in theory, but in practice, I'm not sure it's worth even a modest purchase price. Furthermore, the lack of version updates since 1992 indicates a lack of company support for the software. There may be some users who will find the ability to resize the window, choose custom fonts, and add comments attractive enough to put up with Calc+'s user interface anomalies. At 92K of disk space (which admittedly, may be an exaggerated file size due to the fact that my 3 Gb hard drive has yet to be partitioned) and 85K of RAM, Calc+ is not large enough to be a nuisance. Maybe the fine folks at Abbott will incorporate some of my suggestions if they decide to update Calc+ for OS 8. Let's watch and see...

For comparison purposes, I'll review the shareware CalcWorks in a future issue of *ATPM*.

Copyright © 1997 Belinda Wagner, bwagner@atpm.com. Belinda J. Wagner, Ph.D. is a molecular biologist and a faculty member of Bowman Gray School of Medicine in North Carolina. She studies how cells respond to their environment during wound healing.



Conflict Catcher 4

Product Information

Published by: Casady & Greene

Phone: (800) 359-4920

Email: [<sales@casadyg.com>](mailto:sales@casadyg.com)

Web: [<http://www.casadyg.com>](http://www.casadyg.com)

List Price: \$100

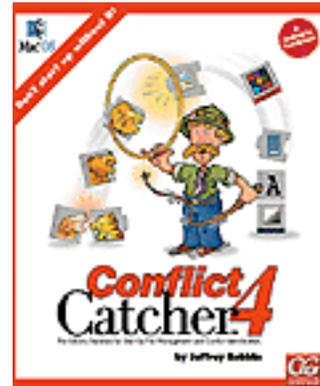
Street Price: \$70

Upgrade: \$40

Requirements

Mac Plus or greater

System 7.0 or later



We hate to admit it, but Macs just aren't as stable as we'd like them to be. That doesn't mean stability is a big problem on the Mac. Mac OS 8 has proved to be at least as crash-resistant as any operating system I've ever used—aside from UNIX. This is no small feat considering that my normal System Folder contains 45 control panels and 160 extensions which patch into a mix of 13 year-old and 1997 technology. While Apple's engineers undoubtedly had a lot to do with making my system stable, I know that tweaking it with **Conflict Catcher** has made it just a little bit better.

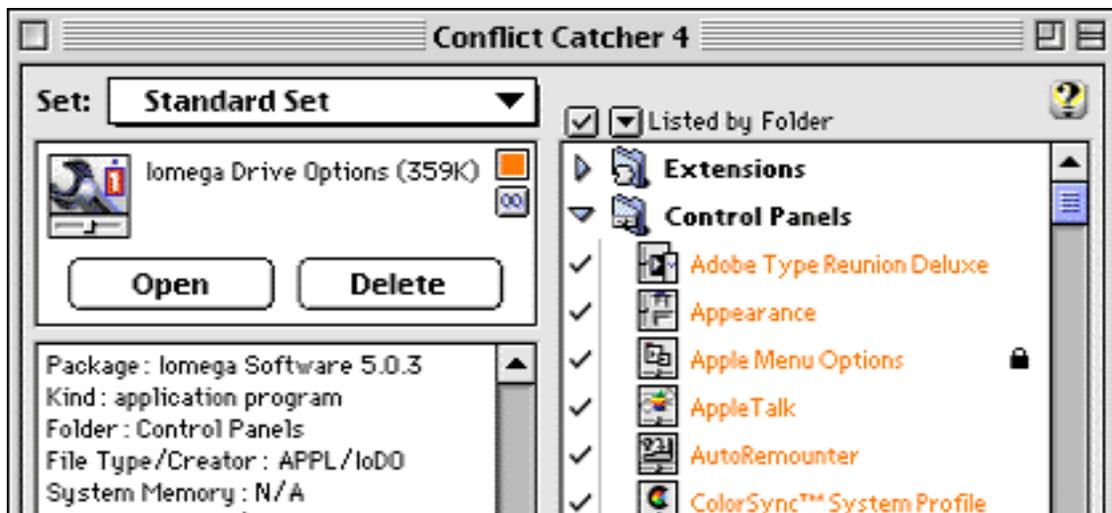
Crashes during startup, and even some that occur after startup can be traced to conflicts between extensions. You can manually move these files out of your system folder in hopes of eliminating the conflict or even use Apple's Extensions Manager to help you. But what if you have over a hundred items in your system folder? Some are part of a group—for instance, OpenTransport has over half a dozen components—which should be enabled or disabled together. Some have cryptic names, such as `jpgdw.ppc` or `npacrx_ppc.Lib`, that say little about what they do. You don't know about any hidden dependencies between files, so how are you to know if disabling some of them will cause more problems than it solves? Plus, if you knew which components were part of the standard Mac OS install you wouldn't have to waste time testing to see if they were the culprits.

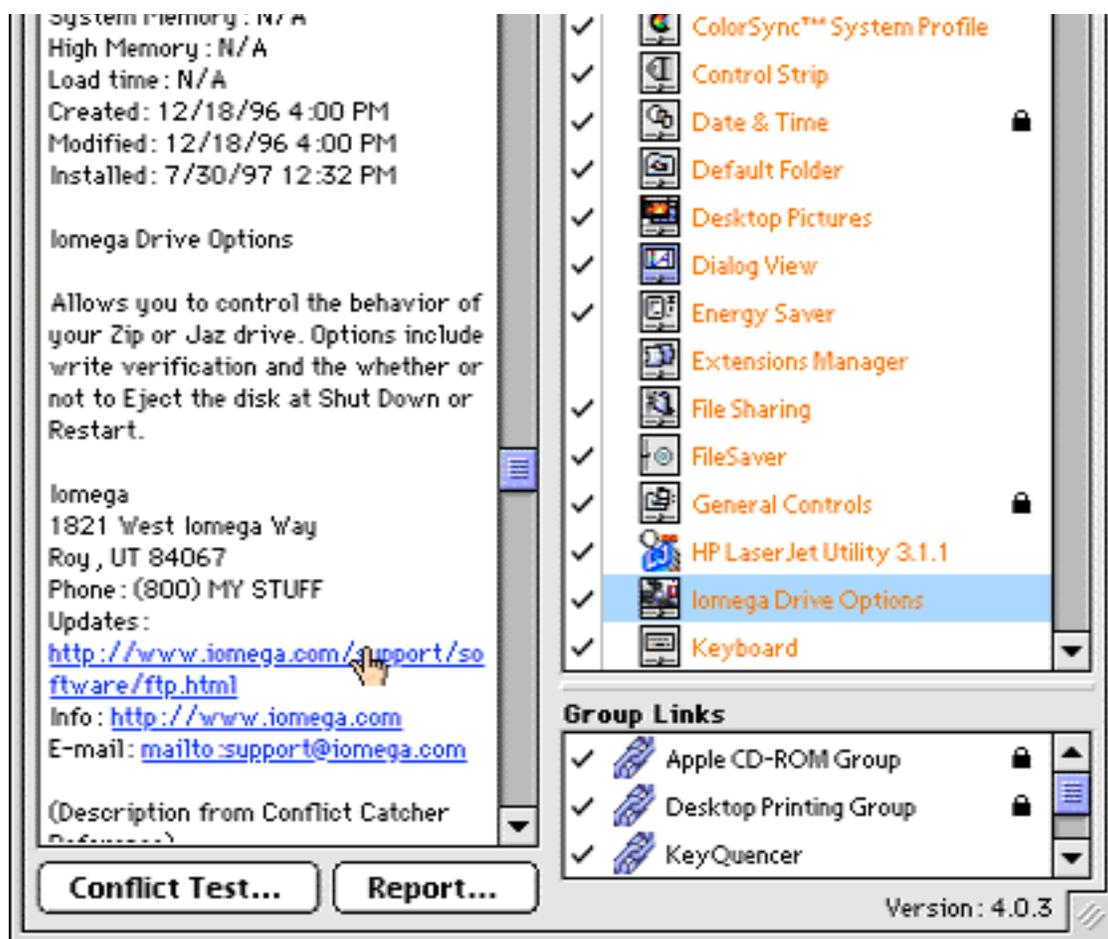
Conflict Catcher comes to the rescue, though probably not to the Mac consultants who make a good part of their livings conflict testing for people and explaining what everything does. Conflict Catcher automates the conflict testing process, explains what most of the stuff in your System Folder does, and makes working with your system a more enjoyable and hassle-free process. The newest version even adds some features to manage extensions of other applications such as Photoshop and Netscape.

The Basics

Conflict Catcher can be opened several ways: through the Control panel, with the menu that Conflict Catcher adds to your menubar, or during startup. If you hold down the space bar or the “caps lock” key while your Mac starts up, Conflict Catcher will summon itself. Using caps lock is especially nice since it doesn’t require you to sit at the keyboard holding down a key while your Mac initializes its RAM, loads early extensions like RAM Doubler and MacsBug, and performs its other basic startup routines.

After opening Conflict Catcher, the first thing you see is the main window. On the right is a list of extensions, control panels, and other startup items that are in the System Folder. Checked items will load normally; unchecked ones are disabled. Enabling or disabling an item is as simple as clicking to add or remove a check mark. The list of startup items can be sorted pretty much any way you like. It can be viewed by the folder containing the startup item, by the kind of file, by load order, by name, by memory usage, by whether its enabled or not, and others. My favorites are **by package**, and **by date installed**. **By package** groups items that are part of the same software product into a folder that can be expanded or collapsed with a disclosure triangle as in Finder list views. This makes it easy to see which files are part of Open Transport, Mac OS 8, and Microsoft Internet Explorer, to name a few. **By date installed** is useful because the most recently installed components are the ones most likely to be causing conflicts. It’s also useful for examining which files the latest installer added to your System Folder.





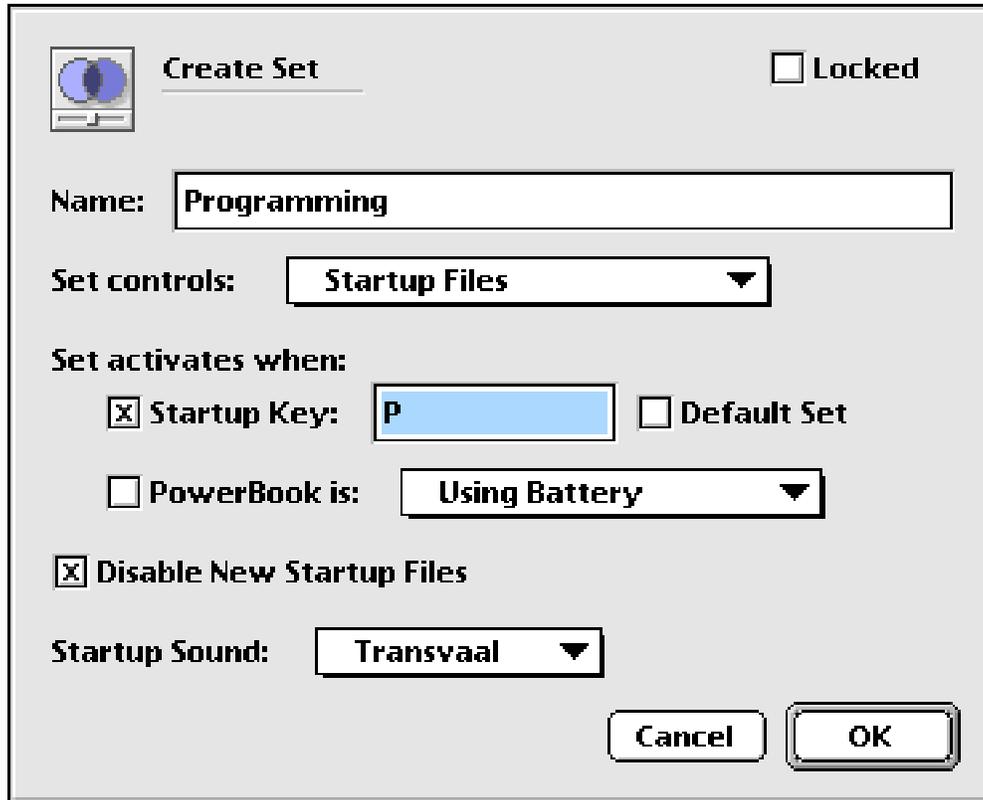
By clicking to the right of an item's name, you can **lock** or **unlock** it. Locked items aren't disabled by conflict tests or when you change sets, so it's useful to lock items that you always want on. I always lock the on the drivers for my CD-ROM, my Wacom tablet, and my printer because those are things I always want to be able to use.

If you widen Conflict Catcher's window, you can view an additional column of information about your extensions. If you want even more information about a particular startup item, all you have to do is click on it. This brings up an information panel at the left of the window which gives just about all the information you could ever want to know. From this panel, you can open a control panel to adjust its settings or delete a System Folder item that you no longer need. Usually, the panel will tell you what the file is used for and give contact information for the company who created it. Some extensions have this information built into them. For most of them though, Conflict Catcher relies on its own database of extension information. As new products are released, updating the database is as simple as selecting "Update CC Reference Library" from Conflict Catcher's Web menu.

Links, Sets and Plug-ins (Oh my!)

One of the best features of Conflict Catcher is the ability to link extensions together to form a group. Using groups, you can enable or disable a set of related extensions with one click, as though they were a single file. You might make a group including all your CD-ROM extensions and another for your network software. Groups for QuickTime, Speech, and others come pre-configured. You can also create links that indicate an incompatibility between startup items, in which case both items will not be allowed to load. It is also possible to force a pair, or group of extensions to load in a specific order.

Conflict Catcher also allows you to save preferences about which extensions and plug-ins load as sets. Using sets, you can switch quickly between multiple working environments. It's often useful to start up with different sets of extensions for different jobs. For instance, if you do programming or play processor-intensive games, you'll want a bare minimum of extensions. If you're working on graphics and publishing, you'll want all your color-calibration software and scanner software loaded, as well as Adobe Type Manager and Type Reunion. Later in the day, if you want to capture some video, you'd want to disable everything but QuickTime to free up RAM for your recording software.



Picking the right extensions for the right job not only reduces the RAM requirements of your system, leaving more memory for Photoshop, Marathon, or whatever; but it also reduces the likelihood of system crashes. It's extremely easy to switch between sets of extensions. You can select a set from the Conflict Catcher menu, from Conflict Catcher's main window, during startup after holding down the spacebar or caps lock. Amazingly, you can also specify an extension set without opening the Conflict Catcher application. That's right! Simply hold down a user-specified key during startup. If you're using a PowerBook, you can have Conflict Catcher automatically switch sets based on whether you're using a battery or running off AC power. It's always easy to tell which set is loading during startup because Conflict Catcher displays a little box with the set's name at the top-center of your screen. Finally, a great **compare** feature allows you to examine two different sets for differences. Names of files that differ between sets are displayed in slightly lighter lettering.

Besides providing startup-file management, Conflict Catcher can manage fonts and plug-ins. All you have to do is tell Conflict Catcher which folder you want to manage. Then you can enable or disable Photoshop, Netscape, BBEdit and other plug-ins. Your plug-in settings are saved with your startup set information. This is great for creating custom working environments, each with exactly the tools you need. Plus, you can manage everything from one central place—a place that happens to have an easy-to-use and

powerful interface.

Conflict Testing

As Conflict Catcher's name implies, it's more than a tool to help you manage your extensions. It's distinguishing feature is the ability to pin-point conflicts almost entirely by itself. If your Mac crashes during startup, Conflict Catcher will ask if you want to begin a conflict test. You can also invoke one manually from the control panel. A Conflict Test systematically disables items in your System Folder to determine which one is causing the problem you're observing. When you start a Conflict Test, Conflict Catcher walks you through a checklist of things to do.

First, it prompts you to describe the problem you're testing and keeps your description for future reference. It scans your system software for corruption. Next, it lets you use your **intuition** to tell Conflict Catcher which files you think might be causing the problem. You don't have to use intuition, but if you do, your selected files are tested first, potentially saving you some time. Finally, it gives you a chance to lock-on files that are necessary for your system, or that you know aren't causing the problem.

The actual Conflict Test consists of a series of restarts. After each one, Conflict Catcher asks if you're still experiencing the problem. Your "Yes" or "No" answer determines which files are tested next. After the test has found the conflicting extension, Conflict Catcher can continue testing to see if the problem is caused by an interaction between multiple startup files. It's easy, fast, and painless. I can't imagine how I used to conflict test by moving files around in the Finder, keeping track of which ones were "suspects." Then, my system folder was a single-digit number of megabytes. Ahh, those were the days.

Conclusion

Conflict Catcher is an excellent product. Some of its best features don't really fit into any category. It can create system **reports** detailing your installed hardware and software. These are useful in case you have to tell real live computer technicians about your system. You can also use it to change your **startup disk**. Yes, Mac OS includes a control panel for doing this already, but can you access that control panel during startup? With Conflict Catcher, you can. The newest version of Conflict Catcher includes a Web menu that lists some useful Mac web sites. Of course, you can find these links and more on the ATPM Page o' Links at <http://www.atpm.com/links>, but it's nice to have a collection of trouble-shooting and web references available from within Conflict Catcher. The rub is that to use these references, your Mac must be working well enough to run a web browser and (if you don't have a direct connection) dialup software.

Compared to previous versions of Conflict Catcher, version 4 has more user-customizable features. I think the Reference Library, where explanations about each extension reside, is the best new feature. Some other additions are less valuable. I question the merit of

displaying icons in the list view, as the display is slowed considerably. Luckily, they're threaded, so they load as you work (and you can turn them off from the Preferences window). Unfortunately, the spacing of the "list view" never gets tighter than that seen in small icon view, even if you've elected not to show the icons. This reflects an increasing need for more screen "real estate," an overall change from Conflict Catcher 3. I felt comfortable using version 3 on any Mac screen, even a 9" Classic screen. Version 4 seems more spread-out. Features formerly available from within the main window have been moved to menus, making their availability less obvious. Despite the numerous improvements, I prefer version 3, as I think it has a much smoother, faster, and intuitive user interface. I worry that Conflict Catcher is beginning to get a case of "feature-itis." This is not a harsh criticism of Conflict Catcher 4, which remains an easy-to-use and powerful tool. I highly recommend Conflict Catcher to all Mac users. It's the best startup file management available. A free demo version is available at:
<[ftp://ftp.casadyg.com/pub/C&G_Tools/Demos\(BinHex\)/](ftp://ftp.casadyg.com/pub/C&G_Tools/Demos(BinHex)/)>.

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Photoshop 4

Product Information

Published By: Adobe Systems

Phone: (800) 492-3623

Web: <<http://www.adobe.com>>

Street Price: \$560

Upgrade: \$180

System Requirements

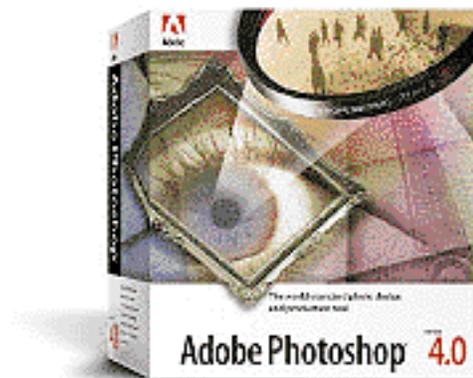
Macintosh with 68030 or greater

8-bit (or greater) color display

System 7.1 or later

16 MB RAM (32 MB recommended)

25 MB hard-disk space



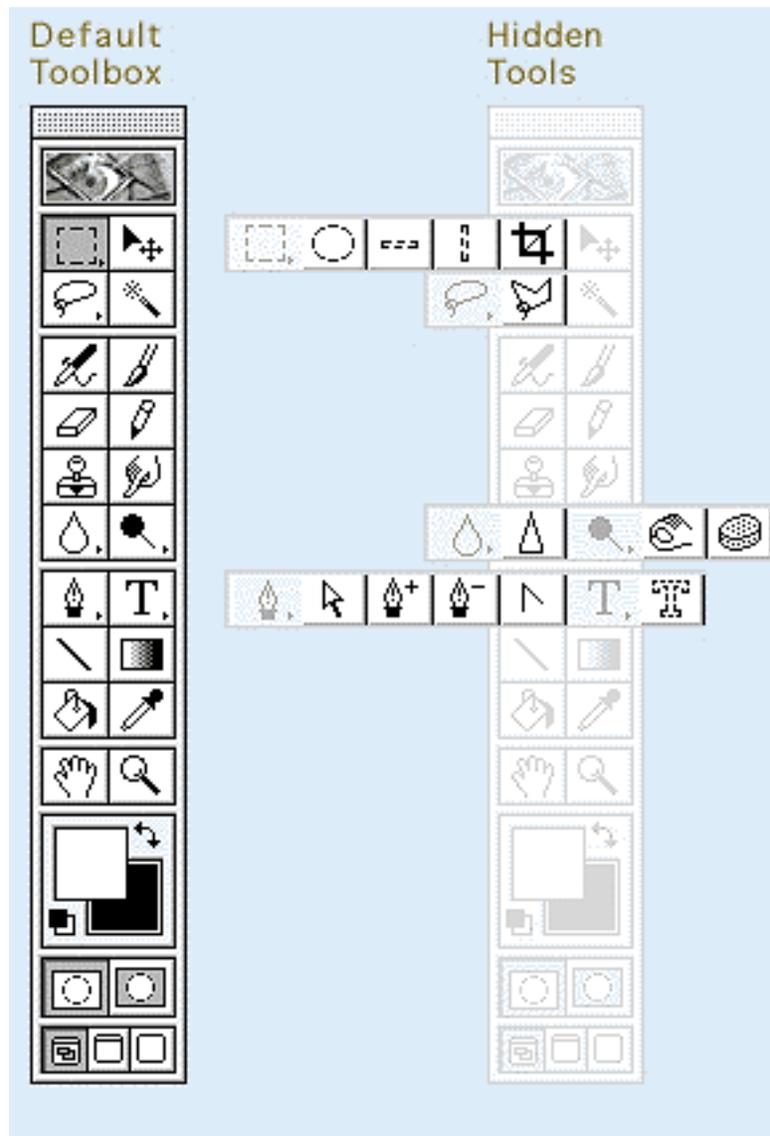
Adobe Photoshop is the world leader in photo-retouching and manipulation. Since its first release, it has been the preferred program for many designers worldwide. Now, in its fourth release, does it keep up with its own reputation?

Preeminent programs can sometimes suffer from their own dominance. Companies occasionally use the monopoly of their market share as an excuse to launch lower quality products. An example of this is Macromedia's Freehand 7.0, which is big and sluggish compared to version 5.5. However, this is not the case with Adobe Photoshop 4.0, a product definitely in its best form.

I have been an avid Photoshop user since its first release. I must admit that I found version 3.0 so good that I was reluctant to upgrade. It was enough for my requirements, or at least that's what I thought until I used version 4.0. I know I sound a bit overboard with all this. However driving Photoshop 4.0 is like driving a car; once you try it, you can never look at walking in the same way.

Photoshop customers are one of two types: those who can't afford it and those who are looking into upgrading. Potential buyers are rare, because anyone who is serious about their design will already own Photoshop. Taking that into consideration, I will discuss

whether Photoshop 4.0 is a worth the cost to upgrade from a previous version.



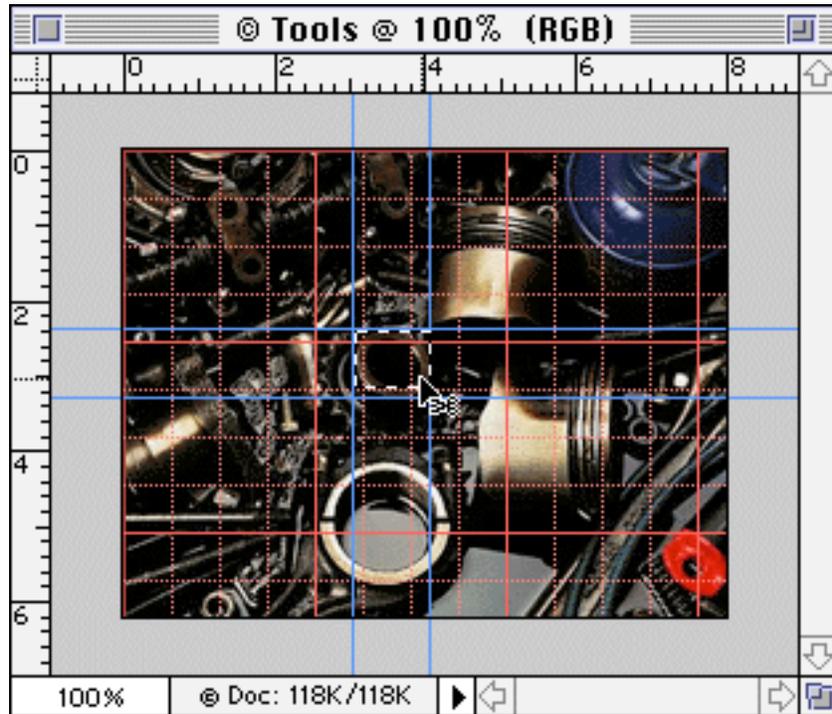
The All-new Gadgets

Photoshop 4.0 has been radically upgraded inside-out. Many code portions have been rewritten, and while they do not affect appearance, they do affect speed. Thus, I will try to be as detailed as possible about the improvements.

Support for 16 bits / Channel images: This won't affect every user, but it means that images can be 32 bit (i.e. billions of colors instead of the millions).

Image caching has been recoded for better performance and new controls have been added to let you adjust the trade-off between speed and memory usage.

Appending File Extensions: OK, this is not the most creative new feature of the bunch, but having the 3-character extension of the file type automatically appended will be appreciated by anyone who does a lot of cross-platforming.



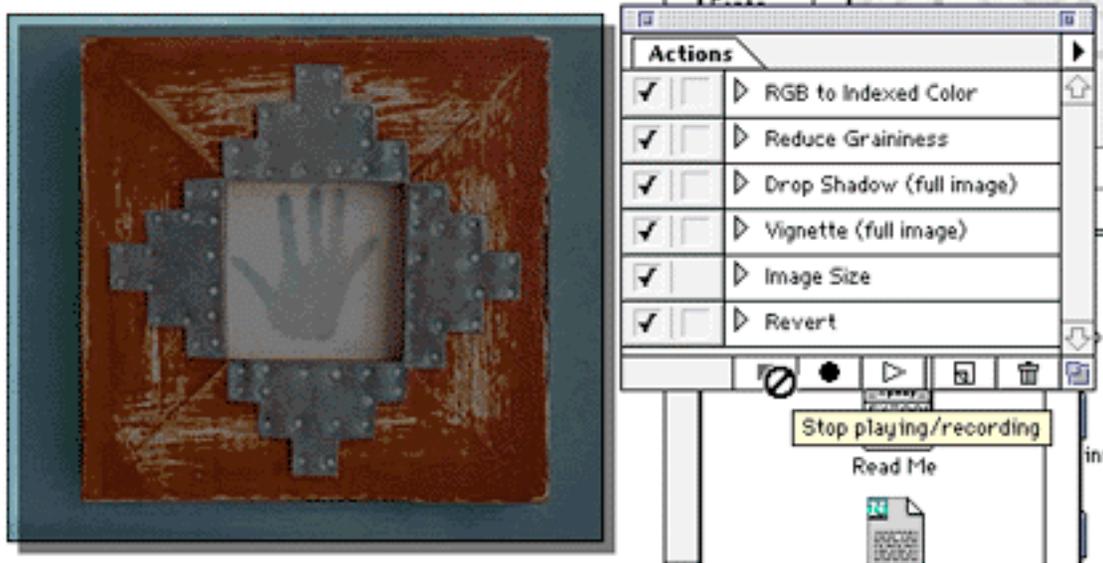
Guides have finally been implemented in Photoshop. Goodbye to using Illustrator and exporting paths for guides!

Multiple Transforms: This is definitely the best new feature of version 4.0. Remember how we used to rotate and scale an object? We used to rotate, apply, scale and apply again. Now we can do all our transformations, then hit "apply" to implement everything in one step. This procedure saves time and gives better quality (because interpolation happens just once).

Selecting: You can now drag selections without dragging the image inside because the algorithm for manipulating images has been modified slightly.

Tip: In version 3.0, you do can accomplish this by Command-Option-dragging.

Tool Tips: This option gives you a brief description of each tool simply by moving the mouse over a tool button. Very helpful for beginners.



Actions: This feature is still in its infancy. Think of Actions as “Macros for Photoshop.” For example, as a designer, I can make a collection of actions, each action applying a different effect (soft shadow, chroming....etc.). Then I can save them to a diskette. Afterwards, any “newbie” with minimal Photoshop skills can open a picture and simply run any saved Actions. Imagine Kai converting his chops (channel operations) into Actions...

Gradients: Photoshop’s native gradient tool is improved to handle multiple colors. Although it does not even come close to the gradient designer it Kai’s Power Tools, it is a significant improvement over previous versions.

Adjustment layers: Remember how once you applied several curves to an image, you couldn’t undo? Well, with these new types of layers, all the adjustment and color information about an image can be stored separately. It can achieve very impressive results.

New Filters: These are not an improvements per se, nonetheless they represent a very bold move. All the 33 plug-ins previously known as “Adobe Gallery Effects” are incorporated within Photoshop itself, giving the application a more “painty” feel. Furthermore, a slew of new plug-ins and formats were added.

If these are not reasons enough to convince you to upgrade (purchase) Photoshop 4.0, how do the Navigator palette, Multi-processor support, Polygon tool and Interface enhancements sound?

Cons

Power hungry: Photoshop 4.0 uses approximately 60 MB of hard-disk space and a minimum 16 MB of RAM. However, for best results, assign as much RAM and hard-disk space as possible. (I have 256 MB RAM and 2 GB hard drive and still find them confining—get my point?)

Awkward at first: In 4.0, Adobe changed some short-cuts and concepts underlying the working interface. Lots of actions, such as cut & paste and the Type tool, create new layers instead of acting on the existing layer. It feels awfully strange at first, even for seasoned Photoshop users. Nevertheless, once you get the hang of it, you will love it!



Layer Previews: When you have multiple layers containing white elements, you cannot recognize where each object is using the layer thumbnail previews.

Plug-in manager: With the huge range of plug-ins available, it is time for Adobe to incorporate a plug-in manager. This will definitely improve Photoshop's performance. In the interim, you can use Conflict Catcher to manage Photoshop's plug-ins. Check out the review in this issue of ATPM.

Rounding It Up

Photoshop 4.0 is to designers what System 8.0 is to the Mac OS. Many tools need some fine-tuning, but on the whole, the product looks better than ever. If you've read this far, my only suggestion is to stop reading and upgrade now!

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Guidelines

The Official *ATPM* Guidelines

The Official *ATPM* Guidelines page is the place to go when you have a question about our publication. We can't imagine that you simply wandered in here. That's because the information on this page is very dry and mostly unentertaining (which is why it's on this page and not included in another part of our publication). We guess you could call this the "Relatively Boring But Occasionally Important Page of Information." OK, enough already with the extraneous syntax, now onto the stuff.

What Is *ATPM*

About This Particular Macintosh (ATPM) is, among other things, a monthly Internet magazine or "e-zine." It's published by Michael Tsai and Robert Paul Leitao (who are still looking for a cool logo for themselves that depicts their joint effort). *ATPM* was created to celebrate the personal computing experience. For us this means the most personal of all personal computers—the Apple Macintosh. *About This Particular Macintosh* is intended to be about your Macintosh, our Macintoshes, and the creative, personal ideas and experiences of everyone who uses a Mac. We hope that we will continue to be faithful to our mission.

We'd Like Our Readers To Be Involved

Here, at *ATPM* worldwide headquarters, we're interested in hearing from you, our loyal readers. We're especially interested in stories about you and Life With Your Particular Macintosh. We guess we could have called this publication LWYPM but it just didn't sound quite right. So we called it *ATPM* and decided to ask for your stories and anecdotes about our most personal of personal computers. *ATPM* is also looking for people interested in joining our editorial staff. We currently need a **Shareware Reviews Editor**. Please contact us at [<editor@atpm.com>](mailto:editor@atpm.com) if you're interested.

Cover Art: We enjoy the opportunity to display new, original cover art every month. We're also very proud of the people who have come forward to offer us cover art for each issue. If you're a Macintosh artist and interested in preparing a cover for *ATPM*, please e-mail us. The way the process works is pretty simple. As soon as we have a topic or theme for the upcoming issue we let you know about it. Then, it's up to you. We do not pay for cover art but we are an international publication with a broad readership and we give appropriate credit alongside your work. There's space for an e-mail address and a Web page URL, too. Write to <editor@atpm.com> for more information.

We Want To Hear From You

E-Mail: Got a comment about an article that you read in *ATPM*? Is there something you'd like us to write about in a future issue? We'd love to hear from you. Send your e-mail to <editor@atpm.com>. We often publish the e-mail that comes our way.

MacMan: Got a technical question? Mike Shields offers technical help in his column. While the opinions expressed in his column are his own, and the advise he gives is also his own (not to be confused with any 'official' or 'semi-official' or 'not official at all but might seem official' advice or comments from *ATPM*), he does think that he provides quality answers to your e-mail questions. Check it out for yourself! Send your inquiries to: <macman@atpm.com>.

Segments — Slices from the Macintosh Life: This is one of our most successful spaces and one of our favorite places. We think of it as kind of the *ATPM* "guest room." This is where we will publish that sentimental Macintosh story that you promised yourself you would one day write. It's that special place in *ATPM* that's specifically designated for your stories. We'd really like to hear from you. Several Segments contributors have gone on to become *ATPM* **columnists**. Send your stuff to <editor@atpm.com>.

Let Us Know That You Know What You Know

Hardware and Software Reviews: *ATPM* publishes hardware and software reviews. However, we do things in a rather unique way. Techno-jargon can be useful to engineers but is not always a help to most Mac users. We like reviews that inform our readers about how a particular piece of hardware or software will help their Macintosh lives. We want them to know what works, how it may help them in their work, and how enthusiastic they are about recommending it to others. If you have a new piece of hardware or software that you'd like to review, contact our reviews editor at: <reviews@atpm.com> for more information.

Shareware Reviews: Most of us have been there; we find that special piece of shareware that significantly improves the quality of our Macintosh life and we wonder why the entire world hasn't heard about it. Now here's the chance to tell them! Simply let us know by writing up a short review for our shareware section. Send your reviews to <reviews@atpm.com>.

Wishful Thinking

Wishful Thinking: Is the space for Mac enthusiasts who know *exactly* (if you do say so yourself) what Apple should do with its advertising campaigns and product introductions. Have you come up with a great advertising tag line? What about that Mac campaign that has been stewing in the back of your mind? Send your big ideas (or your art) to <editor@atpm.com>.

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That's It

We hope by now that you've found what you're looking for (We can't imagine there's something else about *ATPM* that you'd like to know.). But just in case you've read this far (We appreciate your tenacity.) and still haven't found that little piece of information about *ATPM* that you came here to find, please feel free to e-mail us at (You guessed it.) [<editor@atpm.com>](mailto:editor@atpm.com).





This is the second in a series of Trivia Challenges in *ATPM*. If you have any comments, ideas, suggestions, or, if you dispute an answer, please email me, and I will take them into consideration. Please do not email me just to get an answer. The answers to this month's Trivia Challenge will be found in *ATPM* 3.10.

#2 - "Star Trek-Deep Space Nine"

1. How many Ferengi "Rules Of Acquisition" are there?
A. 312
B. 162
C. 285
D. 187
2. Bajoran Doctor Mora Pohl is sometimes considered to be whose "father"?
A. Odo
B. Quark
C. Dax
D. Kira
3. DS9 has been referred to as "that bicycle wheel in space". How many spokes does it have?
A. 6
B. 5
C. 4
D. 3
4. When Worf became uncomfortable living on DS9, he moved into:
A. The Enterprise
B. Cargo Bay 4
C. The Defiant
D. The Habitat Ring
5. The leader of the Bajoran Religion is called:
A. Kai
B. Vedek
C. Opaka
D. Dia
6. Who allied themselves with the Klingons to defend DS9 against the Dominion threat?
A. The Narn
B. The Breen
C. The Romulans
D. The Hudak

7. Captain Benjamin Sisco's favorite baseball player of all time is:
A. Willie Mays
B. Zaphod Beeblebrox
C. Mickey Mantle
D. Buck Bokai
8. Jake Sisco discontinued his Starfleet training to become:
A. A Writer
B. A Chemist
C. A Jombot Player
D. A Shuttle Pilot
9. Dr. Julian Bashir's favorite Holodeck program is based on what fictional character?
A. Maxwell Smart
B. Rambo
C. Kojak
D. James Bond
10. If you were cursing someone in Klingon, you might call them a:
A. Ch'ar'duc
B. A P'tach
C. A Par'mach
D. A Bat'leth

The Rules

There is only *one* correct answer for each question. You may get any help needed. (Anyone who knows all of these answers is as sick as I am!). The answers are stored in a hermetically sealed envelope and guarded by a fierce Lhasa Apso named "Hammerli" that lives in our house.

Last Month's Answers

1. In The Who's seminal rock opera "Tommy," what is Tommy's last name?
C. Walker
2. In which town will you find radio station W.O.L.D.?
B. Boise, ID
3. Visitors to *The Hotel California* haven't had "that spirit" since:
D. 1969
4. We have heard Neil Young ("Old Neil") put this state down:
A. Alabama
5. Two questions you might ask of the rock group Chicago:
D. 67 & 68

6. You could be a Dental Floss Tycoon in this state:
C. Montana
7. Someone left this to ruin, out in the rain:
A. The Cake
8. Jeremiah was one of these:
C. A Bullfrog
9. Which of the following was NOT a Buckingham's Top-40 hit:
B. "I'm Lonely Tonight"
10. John Mayall's "Blues Breakers" debuted this guitar icon:
B. Eric Clapton

Next Month's Trivia Subject

Babylon 5 (Renewed for a 5th season—Hooray!)

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