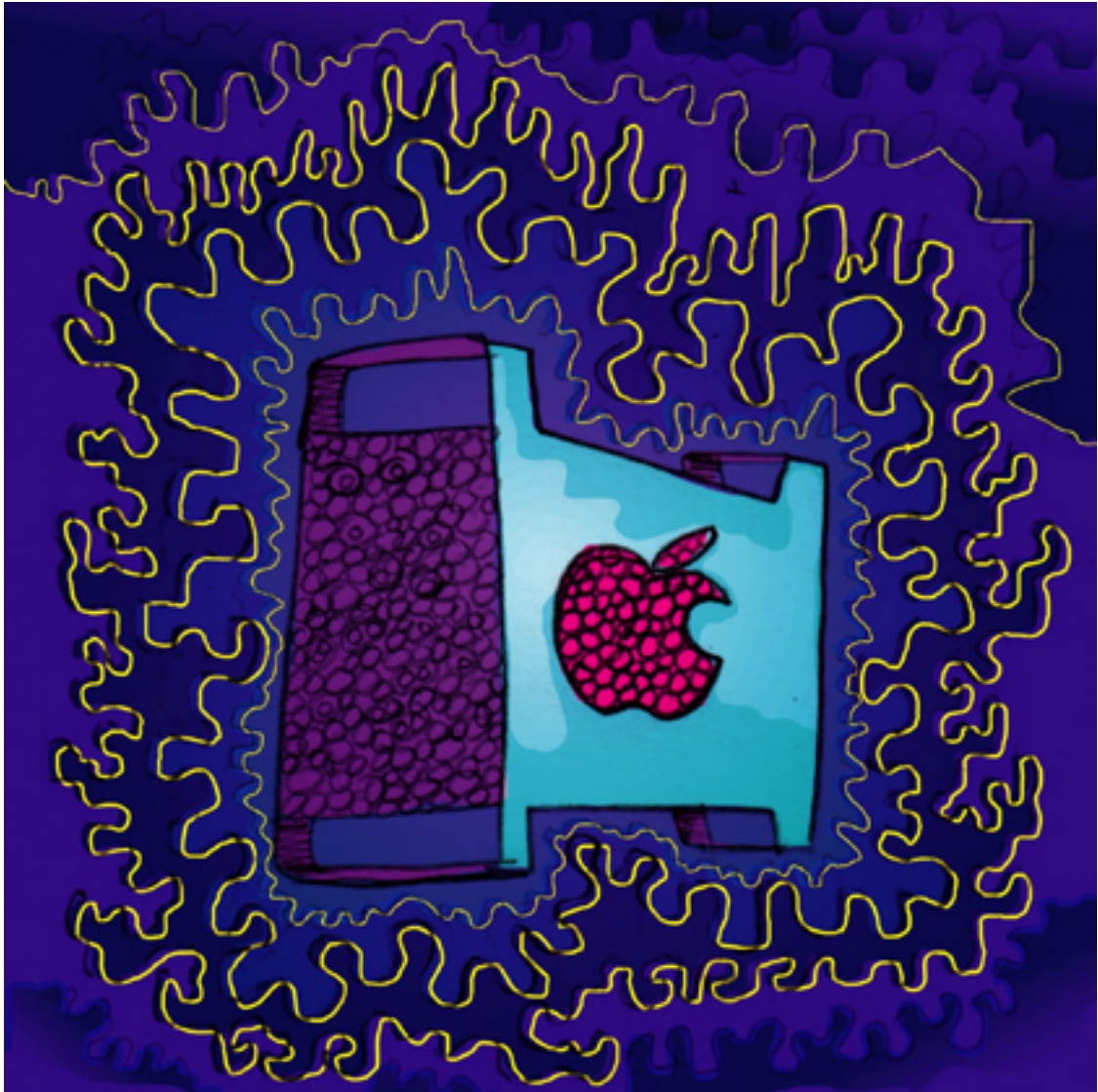


ATPM

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About This Particular Macintosh: About the [personal](#) computing experience™

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Welcome

by Robert Paul Leitao, rleitao@atpm.com

This issue officially begins our 10th calendar year of publication! That's why it's called 10.01. We're still a little distressed that Apple chose to use our issue numbering system as the basis for the name of the company's modern operating system. Apple could have at least sent our staff members iPods as compensation. But the problem with the ubiquitous digital music player is that new ones have recently been in short supply.

Retail reports indicate supplies of iPods in the retail channel were exhausted before Christmas. That is, if buyers was shopping someplace other than Apple's own retail and online stores. We're confident that once the supply issues clear up, we'll receive their free iPods upon formal request. We considered calling this the official AT^{PM} iPod issue, but since the staff haven't received their iPods yet, we are holding out in protest.

Which iPods Should We Choose?

We polled the staff about which iPod to request from Apple. This wasn't an easy process. A few staff members chose from among the much-rumored \$99 iPods, including the one with flash memory for song storage rather than a hard drive. One staff member chose one in stripes, and yet another wanted the one with GPS. We just hope whatever new iPods might be announced, buyers won't need a global positioning system to locate one for sale.

The Expo

It's January, and for Mac fans that means another Macworld Expo in San Francisco. Steve Jobs will keynote this year's rendition of the annual event at the Moscone Center that begins next week. In addition to the rumors about new iPods, the Mac world is expecting a speed bump to the G5 and news about the iTunes Music Store. This leads us to our next topic...

BCS, The Super Bowl, and New iPods

The New Year's Day Rose Bowl by any other name is still the Rose Bowl. No matter that most sports writers, sportscasters, college football head coaches, and just about everybody who follows the sport considered it to be the national championship game. That is, except for a few holdouts in Oklahoma and Louisiana who about a month ago embraced the quirky BCS system as their own. It's too bad the Virginia Tech Hokies dropped so quickly from the national spotlight. The folks who run the BCS could have made use of the school's G5-based supercomputer to try to explain to the public how the BCS ranking system is supposed to work.

But that's beside the point. Even if the Rose Bowl were named the national championship game of the year, it would still be the Rose Bowl. It's kind of like the iPod Bowl scheduled for February 1st. Even though Pepsi will commence its \$100 million iTunes Music Store song giveaway during the game, the event might still be called the Super Bowl by some members of the public.

By press time, the Sugar Bowl will have determined the second best college football team in the US. But for now music buyers are still wondering what service might be crowned the second best digital music store in the States. Not only does Apple hold about a 50% revenue share of the digital music player market with the iPod, but the iTunes Music Store also holds the major revenue share of the legal digital music market.

Roxio, the parent of the new Napster service, insists its service is the undisputed number two legal music download service in the nation. According to company officials, the Napster service is generating revenue at the rate of \$5 million per quarter compared to Apple's more than \$25 million in song sales alone since the service was launched in April.

This brings us back to the iPod. What Roxio executives and many stock analysts have failed to realize is that song sales alone don't produce a profit. Apple makes its money on song sales from the purchase of iPods. At a 30% or higher gross manufacturing margin, the iPod represents not only 7% or so of Apple's gross sales, but on average at least \$100 in profit on each unit sold. Even the folks who concocted the BCS college football ranking system can't argue with Apple's math.

Who Wins the iPod Bowl?

That's a question that won't have to wait until February 1st to be answered. Later this month, Apple will release its quarterly results. Most educated guesstimates put the number of iPods sold during the holiday quarter at well over half a million units. Add to that success the continued consumer interest in the G5 and the premium-priced 20" iMac, and the holiday quarter looks like a winner. The question overhanging Apple's results is when interest rates will begin to rise so that the company can actually make money on its \$4.6 billion in cash.

What's in a Name?

That's a good question. Our e-zine began publication nine calendar years ago as *About This Particular Macintosh*. AT^{PM} is just an abbreviation. In honor of our tenth year we discussed changing the name to AT^{PM} X. That would have made this issue AT^{PM} X, 10.01. We decided not to do that. It

would give the appearance that we were trying to play catch-up to Apple. The company has already released Mac OS X 10.3.2, but we would naturally overtake it in April. By then our complimentary iPods should have arrived.

One of the reasons we chose to maintain our original name is that while the world of Macintosh computing has changed, we believe the quality of our work has remained the same. Inside each issue of *ATPM* you will find the best reviews and the most thought-provoking views in an easy-to-read monthly publication format.

Rumors about Apple and its products come and go on a daily basis. We prefer to take a more circumspect approach to covering the world of Macintosh computing. Whether new iPods come in stripes or striped pajamas makes little difference to our staff. We'll be at this long after Mac OS XX makes its way to market.

The ATPM Staff

Our January issue includes:

The Candy Apple: Changing the World, One Piece at a Time

Steve Jobs and Bill Gates crack a top 50 list. But what does it really mean?

Machine Language: Polishing the Apple Predictions for 2004

Matt Coates breaks down what Apple products possibly will—and those that most likely won't—turn up in 2004.

About This Particular Web Site

In this month's *ATPW*, Paul Fatula shares several site findings you never knew you wanted to visit—until now. The topics are: the South Pole, stereogram puzzles, gourds, early Macintosh history, and a veterinary version of WebMD.

Bloggable: Around the Mac Blogosphere in 32 Links

Wes Meltzer joins *ATPM* with a new column of highlights from the Mac blogosphere because, as great as NetNewsWire is, most of us don't have time to read all the Mac blogs!

Quick Tips in Design: Part 7—Type as Shape

Andrew Kator continues his series of graphics tutorials. This month's installment defines typography and offers a brief history of the earliest forms of written communication through today's modern typefaces.

How To: Burning Up the Network

Sylvester Roque shares his experience in burning CDs and DVDs over a network.

Web Accessibility: Part 1

Imagine your Web site with half its content missing and a bunch of links that don't work. If you're not paying attention to Web accessibility, this may well be what it's like for some people when they visit your Web site. In this series, we'll explore ways to make your Web site more accessible.

Cartoon: Cortland

NeoCort gets the Mac lab back online.

Cartoon: iTrolls

The iTrolls poke fun at Mike Dell, huge iMac displays, and the Star Trek red shirt curse.

Desktop Pictures: Oregon Coast and iTrolls

Reader Allen Watson offers Oregon Coast images and Gregory Maddux offers a new wallpaper based on his iTrolls cartoon.

Review: Blender 2.31a

Andrew Kator is extremely pleased with a 3D development package that doesn't cost thousands or even hundreds of dollars—it's free!

Review: Mac Digital Photography (book)

Gregory Tetrault shares his less-than-impressed thoughts after reading this book for amateur digital photographers.

Review: Nicecast 1.0

Lee Bennett reviews an Internet streaming broadcast server with more features than you might expect from software that's this inexpensive and simple to configure.

Review: Showcase

Eric Blair reviews another iPod case that offers excellent protection while still allowing the vanity of letting people see that you have an iPod.



Best Buy

Frankly I was surprised to read the [comment about Best Buy](#)¹. I don't ever recall seeing Macs in our metro area ads. I confess to being a shopping channel fan. Dell and almost all the major computer manufacturers sell on these programs, which can be like a 30 to 60 minute promotion showcasing what the computer can do. I find these programs extremely informative and often base my purchases on what I've seen demonstrated on these shows. People need to see it in action and not in some cutesy commercial, and this would be a wonderful showcase for Macs.

I recently attended a school technology committee meeting and the school district representative said the Apple representative told him Apple was pulling out of making computers, focusing on software, and would be putting iMovie out for Windows. Our district is sadly phasing out Macs in favor of Dells which schools are now forced to purchase because of supposed compatibility problems with our district management software, as well as network issues. If a representative truly did say that Apple definitely needs to review the management of its sales force.

—Noreen Wegrzyn

[About This Particular Outliner](#)²

I think these columns are the best software reviews I have read.

I would love to see an interview conducted by you with this level of seriousness and understanding with, say, the Omni or Eastgate guys.

—Jack

ATPO will be back next month; there is no column this month due to e-mail trouble and a hard disk crash. —Michael Tsai

...

These articles on outlining are superb! I've been a big advocate of these products and, as a recent switcher, have been spending a lot of time with the Mac products. Something you haven't gone into yet, but I hope you do, is the ability for these products to self-impose organization or bring out emergent qualities such as DEVONthink's auto-categorization and associative capabilities.

Something that would be awesome to see one day is some sort of ability to bring in concepts from Hofstadter's Copycat model or other forms of contextualization.

—Sean

1. <http://www.atpm.com/9.12/e-mail.shtml>
2. <http://www.atpm.com/9.12/atpo.shtml>

...

Thanks so much for writing this series! I am a Windows user, but am very interested in moving to the Mac for at least my personal computing.

One thing that comes to mind is that outlining in the traditional sense (hierarchies, trees, etc.) is really just the beginning—one particular view or way of organizing your information. Linking, tagging, scripts, etc.—each represent additional (often more dynamic) ways of viewing and sorting your information. Having a powerful outliner alone is great, but that only gives me back the information as I entered it. Great for reference, but it's sort of already 'dead' to me.

Three notes from Windows programs:

1. InfoSelect has a great search feature that I've seen nowhere else. As you type in search text, you get real-time feedback on the number of hits. If you type a keyword and get way too many results, just add another keyword (or change the keyword if you get none). You don't have to wait for a static search results page. However, I still haven't decided how useful/important this is in actual use. I no longer use InfoSelect.

2. There are some nice Palm and PocketPC outliners. Integration with a desktop program is a great feature if you own a PDA. You can capture thoughts and bits of info while away from your desktop (or notebook). I use Shadow Outliner for the Palm OS. I believe they have a Mac desktop program in beta right now. It's not as dynamic as these other programs, but someone has written a conduit to export to OmniOutliner.

3. There is another Windows application called [The Brain](#)³. It seems more flash than substance, but it looks like at least a decent basic mind mapper with an automatic "hoist" feature.

—Steve Lang

...

What about the category of users for whom outlining is a pure thinking tool? These users would seem to be most like the long document writers, without the concern for integration with word processing.

—SR Diamond

You are right in pointing out the omission. It would have been useful to have noted that, for some, a coherent, structured assembly is not intended for publication or export. That might have provided an opportunity to mention the relationship between outlining and graphical organization as you noted in your private message to me.

Outlining is a graphical way of ordering text. There are other,

3. <http://www.thebrain.com>

more chart-oriented methods that de-emphasize the text in favor of the underlying concept and structure. Often, outlining provides a bridge between these graphical concept models and a narrative-in-text.

Graphical concept models are a special interest of mine—a rich topic that goes far beyond “mind-mapping.” But an exploration of this would quickly become esoteric, I think, and probably not much of a general interest. —*Ted Goranson*

iTrip¹

What about quality? You didn’t mention a single thing about how it affects the sound quality.

—*anonymous*

You know, I planned to mention sound quality. I thought I mentioned sound quality. It would appear I was wrong.

In general, the sound quality was fine. Due to the fact that there’s something unique about everybody’s setup (geography, FM coverage, antenna strength, etc.), I can’t make a blanket statement about how it’ll sound. I guess the best thing I can say is “it sounds like FM radio.”

From my personal experience, I had the best sound quality when I used the iTrip in my apartment and placed it directly on top of the radio. The performance in the car wasn’t quite as good, likely because the iTrip was further away from the antenna. At times, I could hear static in the songs. Usually, this meant it was time to search for a new channel.

According to the iTrip FAQ, some cars have a metallic film on the windshields that can impair the iTrip’s FM signal, so the sound quality is significantly degraded.

Sadly, the ATPM review budget didn’t allow me to rent a variety of automobiles, so, for the most part, I cannot say how the iTrip will work with a specific model. However, I will say it worked fine with my 2003 Honda Accord. —*Eric Blair*

1. <http://www.atpm.com/9.11/itrip.shtml>

Apple’s Advertising and .Mac²

Many of the changes you mention sound like good ideas, and Apple does need to get more recognition for selling real computers and not “toys.”

The .Mac transition was especially bad, and I’m one of those who refuse to have anything to do with it, but I disagree that my reasons are misguided.

At the time of the transition, I had six Macs (and a Unix server) supporting my company. One of the things I believed when Apple initially said it was that a mac.com e-mail address came just as part of the good deal of buying a Mac.

When they transitioned, the only part of what is now .Mac that I was using were the mac.com e-mail addresses. \$100 a year was too much to pay for the privilege of having an e-mail address that offered Apple free advertising.

I’ve used Macs since 1986 and I’ve lived without .Mac all that time. For me, there is nothing I need that only .Mac offers.

If there were something that .Mac offered me that was worth \$100/year, I would get it, but I have not seen it. Sorry!

—*Tom (Unix user since 1982, Mac user since 1986)*

It’s hard to argue with anything you say—.Mac is great for some people and of no real use to others. But I still think that a lot of Mac users were unrealistic when they figured that iTools was forever free. I would like to see Apple offer an e-mail only account for a reasonable price and also bundled into the purchase of a Mac. I also don’t get your point that a mac.com address is free advertising for Apple. Unless you own your domain, all e-mail is an ad for the provider. But, in any case, to each his own. I certainly don’t think that anyone who doesn’t want .Mac should pay for it. I’m just calling for a little realism in expectations. —*Matt Coates*

2. <http://www.atpm.com/9.11/ml.shtml>

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Changing the World, One Piece at a Time

I was reading *Scientific American* in the airport the other day. It's my favorite magazine for such situations, because it is written for the educated non-specialist. You can either skim an article, or read it in depth if it's in a topic you understand. The magazine covers lots of different fields, so the odds are good that there's something everyone can follow. I finally broke down and subscribed to the magazine, but I will miss the airport SA experience. Now, I guess, the fitness magazines will have to fill the gap.

SA closed the year with its second annual feature on the year's 50 greatest contributions to research, business, and policy making. Included in that group were Steve Jobs and Bill Gates, but for different reasons. Jobs was saluted as innovative in business, as the iPod and iTunes Music Store combo has finally started the move towards legal, consumer-driven digital music purchases. We are actually there, although not as far along as we will be in another six months or so. We have wanted this for a long time; I remain in want, as I have not yet made the switch to OS X, but that's my choice and I won't whine about it. The remaining few record companies will have to board this train pretty soon, as CD sales are slipping while online purchases rise. As long as the music sells, they shouldn't care what format it sells in.

Gates made the list in the "Public Health and Epidemiology" category, as the Bill & Melinda Gates Foundation made substantial contributions to global health care efforts. His company is the bloated, unresponsive,

squish-everybody-else New York Yankees of the computing world, but at least he understands that when you have more money than you know what to do with, you give away a lot of it. Congratulations to Gates for getting this part right.

The selections of Jobs and Gates remind us of the very different ways in which we can make the world a better place. We can choose to buy music in legal ways, and refuse to copy it for profit or other unethical uses. We can do the same with software, movies, and all our stuff. Someone worked hard to make that song or game or movie; why would anyone refuse that artist their due compensation?

The other way we can make the world a little better is by contributing to something larger than ourselves. Many people already do this, with donations to organizations of all kinds, that help people in all sorts of ways. If you don't yet do so, consider looking for a way to help someone else, with either your money or, even better, your time. Money is good. It makes transactions of all sorts possible. Your time is even more valuable than money. Money buys time, but time that is given is worth even more. If you sacrifice an hour to donate blood, or half a day to help clean cages at the animal shelter, those are unique contributions no one could make but you.

We *can* make the world a little bit better, a little bit at a time. We wish we could make it all better right away, but we have limited spheres of influence. We have to start somewhere and what better place to start than in our own neighborhoods.

Onward.



Polishing the Apple Predictions for 2004

The rumor mill is churning, with talk of new G5 desktop Macs, G5 PowerBooks, additions to the iPod family, and even that January perennial, the tablet Mac. Yes, it's time for Macworld Expo and time for Mac fans to issue predictions on new products from Apple. I am among them. Over the past few months, I have quietly scratched out a list of things I expect to be unveiled or at least announced at Macworld and in the coming months.

Of course, if you've dragged your feet in getting around to reading this issue of *ATPM*, Steve has already performed his stand-up routine and those of us who were unable to make the pilgrimage to San Francisco are jamming apple.com and the retail stores trying to get a glimpse at the brand new whatever's. Being a laggard always makes it easier to ridicule and scoff at us bold visionaries.

Actually, people orbiting outside the Mac universe must think we're *all* nuts. Have you ever heard of Gateway fans feverishly waiting for the announcement of a new laptop? Do HP users ever pinch pennies for a year to afford a trip to a Hewlett-Packard confab? Is there a Microsoft cruise (except through the legal system, I mean)? No, this January mania is a Mac thing, and we're darn proud of its many traditions, including the right to guess what's next from Apple.

What's Probably Not Coming Soon

But even bold visionaries have to use at least a little common sense, so I try to keep the pure fantasy items (Apple-brand flying air cars) off my list of Macworld predictions. Likewise, I jettison stuff that would be cool to own but for which there does not appear to be an actual market (a reinvented Newton MessagePad, that tablet Mac, and an Apple cell phone, to name a few of the evergreens on the Apple rumor Web sites). Instead, my Macworld wish list emphasizes what I actually expect to see from Apple at Macworld and in the year that follows.

But before we get to it, a few words about those items that *won't* be on the list. First of all, the Newton or any other PDA device. I owned a Newton and when Apple ditched the product line, I said it was a big mistake. Now, I think Apple was right. The company was ahead of its time in creating the PDA and then ahead of its time in getting rid of it. The most useful PDA features are increasingly handled by sophisticated cell phones and other multi-function devices such as iPods or by dedicated tools such as the Blackberry. Give me a phone that syncs with my Mac, and I'm set. For me, PDA reality is that I don't want a device that lets me enter information with

a tiny stylus or surf the Web at prehistoric speed. I want a device that lets me access the information I entered earlier using a more user-friendly interface. Sure, there are lots of people who have come to rely on their Palm handhelds, but I suspect there are many more who, like me, never quite got into the PDA groove.

On the other hand, there may be room for a modern version of one of Apple's most intriguing failed products: the eMate. The eMate was a nifty clamshelled version of the MessagePad, which included a built-in keyboard. With today's relatively speedy wireless networks and the many joys of OS X software, there might be a market for an updated eMate which would be, in effect, a mini PowerBook. But barring the introduction of a truly useful and powerful new product, forget the Apple PDA. The moment has passed.

Likewise, I don't expect there will ever be an Apple cell phone. Why? Because other companies have figured out how to make good mobile phones and there isn't much Apple could do to improve them except to apply some design and user interface know-how. That's not enough to warrant diving into a new business. (Still, some of the phones would benefit greatly from better design. Who thought putting the dialing buttons in a circle was a good idea?)

And that brings us to the tablet Mac. As Microsoft is finding out, the general consumer market doesn't really have much use for a tablet PC. They're great things if you deliver packages for UPS, do inventory, or collect data door-to-door, but do you really want to answer your e-mail in longhand? And sure, it's neat to hand draw a diagram and have it transformed into a high-quality graphic, but how often does anyone do that? For specific uses with specialized software, a tablet is great, but I don't see them becoming mainstream consumer devices until voice and handwriting recognition is fast and flawless and a high-speed Internet link can be plucked from the ether at will. I wouldn't be surprised if a future PowerBook offered a detachable monitor with built-in tablet features, but I also wouldn't be surprised if it never happens.

What May Be Coming Soon

Enough about what won't happen. Let's get on with the predictions for what will happen in Apple's new year:

I expect there to be a G5 PowerBook very soon. Maybe not by Macworld but within a few months. IBM is reported to be ready with a new version of the G5 chip that will run faster and cooler—just what the PowerBook needs.

Speaking of the G5 chip, watch for it in a new consumer Mac, which will replace the current iMac. The iMac line is running out of steam, and it's time for something new in the consumer price range. I haven't a clue what this new iMac will look like, but I suspect it will be modular; it makes sense to offer users the ability to choose and upgrade monitors as they please without having to buy the professional-level features of the behemoth, brushed-metal Terminator that is the current desktop G5.

Have you seen the Dell commercials with the overgrown nerd who aces the neighborhood kids out of baby-sitting jobs, lawn mowing, and lemonade sales to raise money to buy an "overpriced" portable digital music player which we are all to understand is an iPod? Having no technology advantage to promote, Dell is trying to sell its music player to potential iPod buyers as a cheaper alternative. With iPods flying off the shelves, don't expect any big price cuts of the current models. Instead, watch for Apple to cut the legs out from under Dell and other competitors by releasing a cheaper line of Pods with less hard disk capacity and fewer bells and whistles, but with access to the iTunes Music Store intact.

It's been suggested around ATPM's virtual water cooler and among some Mac watchers on the Web that these "mini-Pods" might feature hot new technology that would let users buy and download music without using a Mac or PC, but I don't think so. Certainly, there are nifty extensions of the iPod interface in the works, but I don't see them debuting in a mini-Pod. The purpose of a mini-Pod would be to establish a basic digital music player product line priced near the "magic number"—the price that's too good to pass up. The iPod is a premium product with a big profit margin for Apple and that's not likely to change. Watch for the current line of iPods to stay with the usual Apple pricing structure: a gradually falling or steady price paired with significant product improvements and enhancements; the price doesn't go down much, but the value steadily improves.

An iBox? Just Plug it Into That Giant Apple Monitor!

At least as likely as mini-Pods, and perhaps an even better bet to join the Apple lineup, is what we might call the maxi-Pod, if the name were not uncomfortably close to that of a wholly unrelated product. But you get the idea—iPod technology in a component of your home entertainment system which is also wirelessly linked to your Mac. Imagine ordering from an

Apple music and movie store via your Mac but downloading your purchase into a TiVo-like iPod component that can also record TV shows and burn CDs and DVDs.

The iPod was Apple's foot in the door; it is now impossible to ignore the company's potential in the broader market of consumer electronics. The iPod's siblings and progeny will likely be just the first wave of an expansion into a market Apple had only dabbled in before the iPod.

It will not be a slam dunk. Already, Dell, HP and Gateway have moved aggressively into the consumer electronics marketplace, although none of them has a product as well-known or as well-regarded as the iPod. Since it's not at all clear whether consumers will seriously entertain the notion of buying electronics from companies better known for computers, the success of the iPod could give Apple a valuable advantage, at least among the newcomers. But don't expect the major players in consumer electronics to twiddle their thumbs as their turf is invaded.

I expect the second wave of Apple's move into electronics will be big flat screen monitors for the living room, a natural extension of the line that shouldn't require much retooling. There have been persistent rumors that Apple plans to offer a 30-inch monitor. If they turn out to be true, don't be surprised if the new monitor comes with a TV tuner and a bunch more jacks on the back.

Whatever consumer electronics Apple comes up with, they must be innovative, stylish, and high performance. In other words, they must be the iPods of their categories—so good that consumers won't hesitate to buy them even at premium prices. Apple has shown it can do very well selling up-market gear to people willing to pay for quality, but the company will be hammered on Wall Street if it leaps into the mass market and stumbles. Apple is held to a higher, often ridiculous, standard by timid market "analysts" who fear innovation and are usually clueless about what motivates Apple users and other seekers of quality. How many analysts predicted success for the iPod and Apple's online music store?

Apple set the bar high with the iPod and its reward, other than fat profits of course, will be the need to repeat that success again and again elsewhere in consumer electronics. Luckily, the iPod's success outside of the orbit of Mac users shows that consumers will flock to quality products even when they come from a company they thought they would never buy from.



About This Particular Web Site

by Paul Fatula, pfatula@atpm.com

[Antarctic Philately](#)¹

“Great God! This is an awful place...” begins the text on this site, warmly inviting you to click for entry. Inside you’ll find everything you could ever hope to learn about the postal history of Antarctica. The site is well-illustrated with letters from antarctic explorers of both historic and modern times. Similar materials relating to the Arctic region are also available, though no mention is made of what happened to that letter I sent to Santa Claus...

[Magic Eye Image of the Week](#)²

I first discovered Magic Eye when I was in high school, but the concept has been around much longer. Stereoscopic cameras, in fact, have been around for over a hundred years. This site offers a little history in its FAQ, but mostly it’s just there to give you a new image every week to try to wrap your eyes around.

[The Gourd Artist’s Guild](#)³

The stated purpose of this Web site is “to encourage, enhance and perpetuate the use of gourds as a medium in the arts.” On this site you can learn about musical gourds, see countless pictures of decorated gourds, and even learn what you missed

1. <http://www.south-pole.com>
2. <http://www.magiceye.com/3dfun/stwkdisp.shtml>
3. <http://www.jkstacydesigns.com/GourdArtistsGuild.html>

at last year’s annual Gourd Artists Gathering. Best of all, you can get your own “Gourds *Must* Predominate!!!” bumper sticker for only a buck and a half.

[Making the Macintosh](#)⁴

Oh fine, I’ll give you *one* Mac-related Web site. This site is a virtual museum of the history of the Macintosh, offering articles, illustrations, and, most interestingly, primary documents on such subjects as the Apple mouse, marketing the macintosh, and user groups. The site is relatively new and welcomes suggestions and corrections from readers.

[Merck Veterinary Manual](#)⁵

Something for the pets in your household: this site claims to be “the single most comprehensive electronic reference for animal care information” and if it’s not, I don’t want to know what is. Indexed and searchable, the site gives you quick access to a wealth of health information for traditional pet animals, domesticated barnyard animals, and “exotic” animals from alpacas to fish. It is, as the name implies, geared towards veterinarians: those with hippopotomonstrosesquippedaliophobia may wish to steer clear.

4. <http://library.stanford.edu/mac>
5. <http://www.merckvetmanual.com/mvm/index.jsp>

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Around the Mac Blogosphere in 32 Links

Everyone has one and no one seems to know quite what it is, or even how to define it. You knew it was big when it could [raise up the unlikely](#)¹ and [strike down the mighty](#)². When everyone had to have one, you knew its time to shine had come.

What am I talking about? The weblog, that humble collection of links transformed into a civic-minded, voyeuristic “new medium” published for all to read online.

But you maybe already knew that. (You might have even [read it in ATPM first](#)³.) What you might not already know is that if you’re a Mac user, you could stand to benefit significantly from the medium—from tips and shortcuts to purchasing advice, accessories to software, and, of course, the grapevine.

Before I get into what this month can offer you in the blogosphere, I’ll offer an anecdote, so you can imagine why this is of any meaning or use to you at all:

I had just switched my weblog, now called [The Idea Salon](#)⁴, from LiveJournal to a Movable Type setup, and I didn’t feel like using the Web entry form to write new entries. That made it really hard to write when I wasn’t connected to the Internet. Well, I went hunting and I found only one free client, [Kung-Log](#)⁵, with which I was not happy.

Well, I happened across a client called EspressoBlog mentioned in an entry on someone’s weblog, written by a guy who is now a friend of mine, and I tried using it. It was OK but not spectacular, and I had a few issues with it. I [posted an entry](#)⁶ to my weblog, I think only half-realizing that my remarks would [reach his](#)⁷. Subsequently I found out that he was writing a new client that would remedy some of the complaints I had about his present product.

Without the Mac blogosphere, I don’t know that I ever would have found EspressoBlog in the first place, much less found out about [Userspace](#)⁸, the client (still in beta) that I now use to write my weblog.

Well, then! Having said that, let’s look at some of the news from December in the blogosphere, in no particular order:

- From [MacNetJournal](#)⁹, major news that Mac OS X 10.3.2 causes 12” PowerBook fans to [run more or less continuously](#)¹⁰ meant a bit of a lag on updates. The [explanation](#)¹¹ is that the update changed the temperature thresholds at which the fan turns on and off. There are [instructions for how to fix this](#)¹² too.
- Thanks to [Jonathan Rentzsch](#)¹³ in October, a hack that allowed [NetNewsWire](#)¹⁴ users to [read RSS feeds in “widescreen” column mode](#)¹⁵ started picking up steam. So [Brent Simmons](#)¹⁶ this month [offered the feature in a beta](#)¹⁷ for the next version of NetNewsWire. (NetNewsWire was [favorably reviewed](#)¹⁸ in ATPM 9.04.)
- After a journalist at PC Magazine, Lance Ulanoff, [gloated about a vulnerability](#)¹⁹ in Mac OS X [discovered by William Carrel](#)²⁰, curmudgeonly [John Gruber](#)²¹, [John C. Welch](#)²², and [Rick Forno](#)²³ all took the challenge: why was it that the vulnerability didn’t make OS X users anywhere near as susceptible as Windows users? Lots and lots of good reading.
- Right before Apple announced an [iPod battery replacement program](#)²⁴, Casey and Van Neistat got disgruntled about the dead battery in Casey’s iPod. So they [made a video](#)²⁵ of the brothers spray-painting

1. <http://www.blogforamerica.com>
2. http://en2.wikipedia.org/wiki/Trent_Lott#Controversy_and_resignation
3. <http://www.atpm.com/7.01/got-blog.shtml>
4. <http://www.magnesium.net/%7Egregsamsa/ideasalon/>
5. <http://www.kung-foo.tv/kunglog.php>
6. <http://www.magnesium.net/%7Egregsamsa/ideasalon/archives/000341.html>
7. <http://www.interalia.org/archives/001880.php>

8. <http://software.philulrich.com/userspace/>
9. <http://www.whiterabbits.com/MacNetJournal/>
10. http://www.whiterabbits.com/macnetjournal/December2003.html#note_2124
11. <http://vowe.net/archives/003939.html>
12. <http://www.deleet.de/ray/pbxfanfix.html>
13. <http://rentzsch.com>
14. <http://www.ranchero.com/netnewswire/>
15. <http://rentzsch.com/notes/widescreenNetNewsWire>
16. <http://ranchero.com>
17. <http://www.ranchero.com/?comments=1&postid=865>
18. <http://www.atpm.com/9.04/netnewswire.shtml>
19. <http://www.pcmag.com/article2/0,4149,1409757,00.asp>
20. <http://www.carrel.org/dhcp-vuln.html>
21. http://daringfireball.net/2003/12/inflammable_means_flammable
22. <http://www.bynkii.com/networking/archives/000099.html>
23. <http://www.infowarrior.org/articles/2003-08.html>
24. http://www.info.apple.com/support/applecare_products/service/ipod_service.html
25. <http://ipoddirtysecret.com>

“IPOD’S UNREPLACEABLE BATTERY LASTS ONLY 18 MONTHS” stencils on Apple’s iPod ads. This raised a collective uproar. John Gruber was [funniest](#)¹, [twice](#)². Best Debunker award goes to [Geek Patrol](#)³ for hitting the airwaves rapidly with a full listing of [just what was wrong](#)⁴ with their claims. Credit is due also to [Rachelle Bowden](#)⁵ for [documenting](#)⁶ the extent of their madness, and also to Dave Schroeder for airing his own [personal correspondence](#)⁷ with the Neistat brothers over his mirror.

-
1. http://daringfireball.net/2003/12/alternative_stencils
 2. http://daringfireball.net/2003/12/graphic_communication
 3. <http://www.geekpatrol.ca>
 4. <http://www.geekpatrol.ca/archives/2003/12/05/neistatsdirtysecret.php>
 5. <http://www.rachelleb.com>
 6. <http://www.rachelleb.com/001328.html>
 7. <http://das.doit.wisc.edu/neistatoriginal.txt>

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So you see, it can pay off to pay attention to Mac bloggers’ buzz. You might find a new piece of software, or a new feature for a piece of software you already use. You never know when you’ll find out about something new, from the iPod battery-replacement program to “features” in the latest OS X update. You’ll never be stuck with something you can’t fix or something you just don’t understand ever again.

Better yet, you can have your cake and eat it too! Each month I will try to introduce you to more slices of the Mac blogosphere, in terms of topics and in terms of bloggers. I’d love your suggestions as to who I should be reading and what I need to focus in on, so we can make this space more useful to everyone.

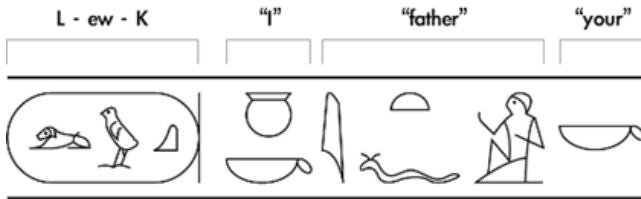
That’s it for this edition of *Bloggable*. Tune in next month for more news in the Mac blogosphere!



Part 7: Type as Shape

Type and written language are abstract shapes, lines and shapes arranged to create images that have symbolic meaning. Typography is the study of type, typefaces, and the evolution of the printed alphabet.

The earliest forms of visual written communication and storytelling were sculptures and pictures that our ancestors created to represent and possibly worship the world around them. Representations of the sun, moon, trees and plants, and especially people and animals were common in these early works of art. These images could communicate, but they were not yet a developed written language. Eventually visual communication developed into pictograms (abstract shapes that are visually recognizable as real objects), ideograms (stylized illustrations that can represent an event or idea), and phonograms (sounds represented by images).

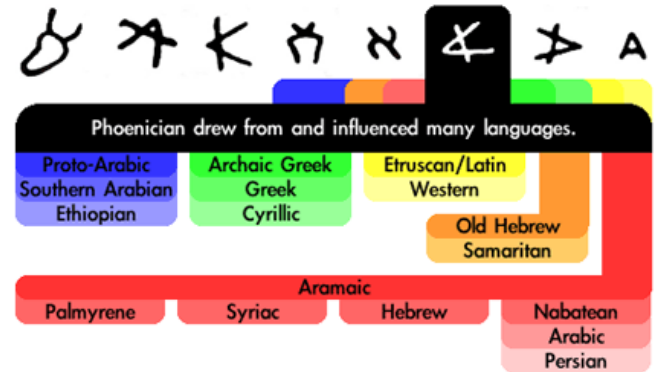


"Luke, I am your father." Egyptian hieroglyphs carried visual meanings, but when used together could be phonograms (L-ew-K) or have more complex abstract meanings.

Through the millennia, the written languages of different cultures blended and mutated with trade, war, and the rise and fall of civilizations. One of the most influential trading cultures was the Phoenicians. Because of their travel they adopted and spread ideas from one society to another, both drawing from and influencing other cultures. Over time they adapted and merged language and writing from other cultures into new forms of Phoenician, which then spread throughout the other societies they came into contact with. Phoenician language heavily influenced the Greeks and Romans, who in turn spread their languages throughout

other societies with trade and warfare. Most modern Western letter forms can be directly related to Roman chiseled writing from around 100 AD.

Thousands of years of abstraction changed an ox head pictogram-based script to the letter 'A' used in Modern Roman Script.



Development of Type

For thousands of years written language was created by hand. Artists, scribes, and carvers used hand tools like the pen, brush, and chisel. These methods of creating written language were extremely time consuming and expensive. There is evidence that many different people in different cultures worked on a solution to the problem.

By the late 14th century, mechanical printing was available in Europe by using carved wood blocks. The entire page would be printed from one block of wood from which the raised, inverted letters had been carved by hand. Most of the printed work using this technology was for the Church and could only made in limited number because of the rapid wear of the wood blocks. A more efficient, durable, and adaptable method was needed.

As early as the 11th century, the Chinese had developed a better solution. Movable type is the process of molding the individual letters and characters used in written language and arranging the type to form a page of text (called a matrix), which is then inked and pressed onto paper. The individual letters of the type can then be removed from the press and reused, arranged into a new matrix to create a different page. The Chinese molded the movable type out of clay, a definite improvement over wood for both detail and durability.

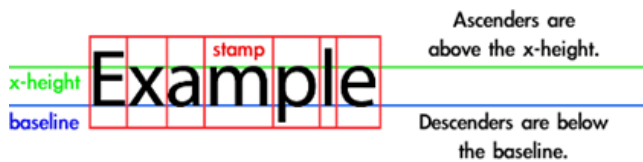
Independently of the Chinese methods (according to common history), in the 15th century Johannes Gutenberg perfected movable type using metal and its use in the printing press. Gutenberg used a steel punch with the inverted shape of a letter to transfer the letter onto a softer metal block. The softer metal type was then used to create the matrix. Within fifty years this printing technology had rapidly spread throughout Europe and was used in hundreds of cities.

The terms “uppercase” and “lowercase” commonly used to describe text are from the practice of printers storing their type. The smaller letters were stored in the lower half of the type case and the capital letters in the upper half.

Type Definitions

A typeface is the full collection of a type design. A font is a specific selection within a typeface. A letterform is the development or design of the shape of a character.

The point system is how type is measured, with 72 points per inch. Point-size is the height of the stamp, the space which contains the individual letters. The baseline is the line on which the letters sit, much like the rules used for handwriting on notebook paper. X-height is the height of the lowercase “x” in the font, generally the height of lowercase letters excluding ascenders and descenders. An ascender is any part of a letter that extends above the body height, usually the strokes that extend above the x-height in lowercase characters. A descender is any part of a letter that extends below the baseline.



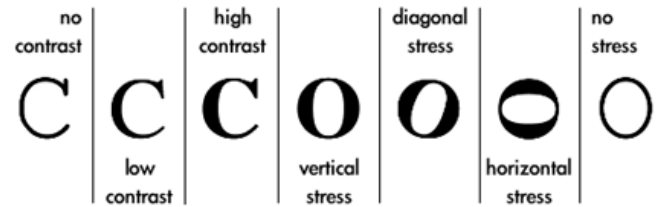
The body is the major lines of a character. Serifs are the strokes (fillips) attached to the ends of a character’s body. Bracketed serifs have rounded joints to the major lines of the letters. Serifs help the reader’s eye follow the baseline and facilitate reading. They can also help define the vertical spaces separating letters in a word.



A stem is the main vertical or oblique stroke in a character, for example the vertical line in L or B. An arm is an extended line that only connects to the character body at one end, such as E, K, or L. A cross bar is a horizontal line or crossing

stroke, as in an A or t, and is also known as a horizontal, bar, or cross-stroke. A leg is the lower right arm in an R or K, and a tail is an oblique stroke that extends below the baseline as with a Q. A leg may also be a tail if it extends below the baseline. A bowl is the enclosed circular space as with O, g, b, and d.

Contrast is the difference in thickness between thick and thin strokes in a font. Stress is the angle at which the strokes in a font change thickness. Vertical stress is when the strokes on the sides of a font are thicker than the top and bottom. Horizontal stress is not as commonly used. Diagonal stress imitates handwriting and script when the pen is held at an angle. If all strokes in a font are the same, with no changes in thickness, there is no contrast or stress.

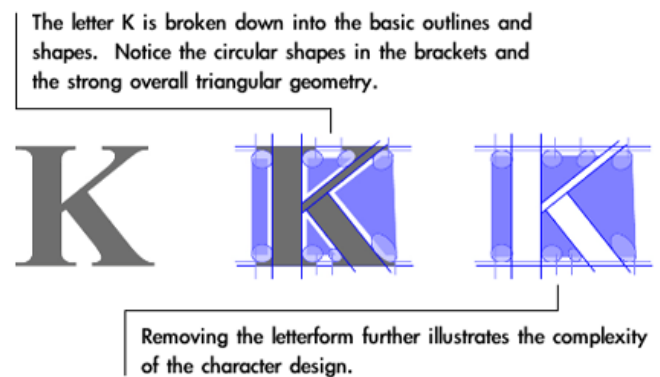


Weight is the comparative thickness of the individual letters, from light to regular to bold. Style is the shape of the individual letters, such as roman, italic, condensed, or extended.

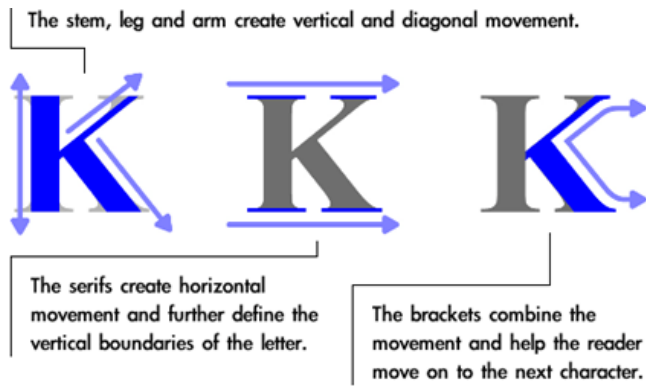
Shape in Type

Because type is used to convey meaning, the average person doesn’t actually look at the visual elements present in the text they read. At larger sizes the shapes present in characters become even more important. When using type in art and design it is necessary to be aware of the impact of the line, shape, and movement created by the characters both separately and as a whole.

The effects of individual letters can be predicted the same way as the effects of complex shapes. The overall similarity of a letter to one or more basic shapes can predict the letter’s visual impact.



Gestalt applies to type and character design the same way that it does with other forms of line and shape. Visual movement created by a letterform helps focus attention, make the character recognizable, and direct the reader's eye.



The shapes present in characters are also important when using type with other graphic imagery. Triangular shapes can be matched with triangular characters, rectangular with rectangular, circular with circular, and all of the variations you can think of. Replacing an O with a circular image (such as a soccer ball or another round object) is a simple but effective method of using character shape in a design. This can also work well with other geometrically simple letters.



Replacing type with geometrically similar imagery works well when the image has a contextual relationship and the image shape interacts smoothly with the other characters.

Typefaces and Classification

Many earlier printers were also typographers, designing the letters, their shapes, and uses. Many of the categories of type that we use today have their basis in the work these men did in the early developing years of printing technology. Claude Garamond was the first typographer that specialized in type instead of combining his work with printing.

Many typefaces were designed for specific needs and for aesthetic tastes of their time, but continue to be used even today. Typeface designs often have a complex history, some designed centuries ago for use in metal type printing and reworked and adapted for different technologies. Several typographers may have contributed to the design of a modern typeface, using some or all of the type design from

their predecessors. Many typefaces are named after the typographer who originally designed or heavily influenced the typeface family.

Blackletter

A a B b C c D d E e F f G g H h I i J j K k L l M m N n
O o P p Q q R r S s T t U u V v W w X x Y y Z z

Blackletter typefaces are the oldest, used by Gutenberg to print his first Bibles. The thick lines, ornate capitals, and large serifs reflect some of the style from the period calligraphy. Blackletter is what many people consider “old English” type. These typefaces were probably easier for past cultures to understand because they were commonly used, but are more difficult for modern readers. This class of type was most commonly used in the 15th century, but there have been many revivals since.

Old Style

A a B b C c D d E e F f G g H h I i J j K k L l M m N n
O o P p Q q R r S s T t U u V v W w X x Y y Z z

As the Renaissance developed, Western culture began to drift away from the use of blackletter type as more of the visual aesthetics and ideals of Greco-Roman culture were rediscovered and adopted. Type adapted to these changes in tastes and led to what is now considered Old Style. Old Style typefaces are generally recognized by rectangular overall shapes, nonlinear shapes of strokes, low contrast, and bracketed serifs.

Italics

A a B b C c D d E e F f G g H h I i J j K k L l M m N n
O o P p Q q R r S s T t U u V v W w X x Y y Z z

Italics developed to reproduce forms of cursive script, and for centuries were used as separate typefaces from their upright cousins. Typically the entire document was printed in the same italic type, and italic and upright type was not combined in the same way we do today. Many early italics had very little slant.

In contemporary use most italic type is a subset of a Roman (upright) typeface, but there are still typefaces which are entirely italic. Italics are specially designed variations from the Roman versions of a typeface and are most common in serif typefaces.

Transitional

A a B b C c D d E e F f G g H h I i J j K k L l M m N n O o
P p Q q R r S s T t U u V v W w X x Y y Z z

Transitional typefaces began to appear at the end of 17th century and were used throughout most of the 18th century. These typefaces developed from Old Style, and have slightly higher contrast with vertical stress and horizontal serifs. In later transitional type the contrast is higher and the bracketed serifs are more flattened. Transitional typefaces are named from their position, historically and aesthetically, between the development and use of old style and modern type. These typefaces are abundantly used today and appear almost generic to modern audiences.

Modern

A a B b C c D d E e F f G g H h I i J j K k L l M m N n
O o P p Q q R r S s T t U u V v W w X x Y y Z z

Modern type began to appear in the late 18th century and was used for most of the 19th century. Modern typefaces have more strong vertical stress and strong contrast with thin serifs and horizontals. These developments were related to the continued interest in Roman culture that began during the Renaissance, and resemble classical Roman text carved in stone. Modern typefaces are “modern” in name only, and because their popularity ended in the early 20th century they are often considered obsolete. Their defined period of common use means Modern typefaces can be used to create an “old-fashioned” or “obsolete” look.

Sans Serif

A a B b C c D d E e F f G g H h I i J j K k L l M m N n
O o P p Q q R r S s T t U u V v W w X x Y y Z z

Sans serif (without serif) typefaces generally have lower (if any) contrast and a more geometric appearance. The lack of serifs generally makes these typefaces harder for readers to follow at smaller sizes, but their geometric simplicity makes them popular for use with complex imagery and graphic design. Most sans serif typefaces use obliques instead of italics. A sans serif oblique is simply the same upright type that has been slanted, rather than a specially designed italic.

The legibility problems from the even geometry and stroke in sans serif typefaces have led to the development of Humanist sans serif type. The Humanist typefaces use more contrast, uneven width of stroke, and non-perpendicular cuts (the end of a stroke) to create variations in the geometry. This can make the geometric characters easier for the reader to follow.

Slab serif type has rectangular serifs that are often the same weight as the body strokes. Many Slab serif typefaces appear as though they are sans serif with blocky rectangular serifs added. Like sans serif, slab serif typefaces are generally lower contrast and more geometric with more uniform stroke weight.

Decorative And Display Type

Display type is the text that grabs the attention of the observer. Titles, headlines, headers, and subheaders are all examples of display type. Because display type is usually larger than the body text it can be more specialized and may often be decorative.

Fat Face and Wood Type were both used throughout the 19th century for advertising and display. Fat Face developed from Modern typefaces, with high contrast slab verticals and added emphasis on vertical serifs. Wood Type has strong contrast and a lack of fine lines and is often distorted horizontally or vertically. Both of these typefaces are often associated with the American western expansion.

Script typefaces are based on handwriting or calligraphy and can have low or high contrast to hint at the type of pen used. There are many other “handwritten” typefaces, including Comic and Brush. These typefaces are often italic with diagonal stress.



Art Nouveau was developed and used during the late Victorian era, when aesthetics were ornamental with stylized organic and asymmetrical shapes. In what may have been an aesthetic backlash to Art Nouveau, Art Deco is geometrically simpler and lacks serifs.

Type Selection

Using simple and common typefaces allows for other content to come through instead of focusing on or being distracted by the type. Additionally, typefaces that are too different often do not work well together. Many designers recommend staying away from mixing serif and sans serif type unless the contrast between the letterforms has a specific intent or message.

Many 20th century typefaces are not easily classified because they merge different styles. Times New Roman has elements from old style, traditional, and modern typefaces. Blended typefaces have become even more common in the computer age.

Changing weight is easier with sans serif typefaces where a wide range of stroke thickness, from extra light to extra bold, can be obtained because of the geometric simplicity of the typeface. Heavier weight doesn’t work as well with serif fonts because the contrast and stress already present in the type doesn’t convey well with the heavier thickness.

Decorative typefaces are generally unsuited for smaller sizes or for longer sections of text. Highly decorative typefaces are difficult to use for all text on a page because of their they are often illegible when reduced in size. If a decorative ornate typeface is used for a heading or logo, try to choose simpler typefaces elsewhere.

Optical scaling is the process of visually changing type at different sizes to create better readability while still maintaining the design of the type. If very thin strokes are proportionally scaled down as type becomes smaller, they may become so thin the characters are unreadable. The

thickest strokes retain the same thickness at all sizes, but the thinner strokes are thicker for small type and thinner for large type. Most professionally designed typefaces use optical scaling, but it may be necessary to apply it manually when letterforms have been distorted or scaled beyond normal use.

Type and typeface design influence the reader the same way as other visual elements. Thinking about shape and type complexities, and how type reacts to other shapes, often helps to create a more unified aesthetic in your layouts, designs, and art.

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Burning Up the Network

Our regular readers will remember that I recently installed a DVD burner into a Mac system that my wife has not-so-affectionately dubbed [FrankenMac](#)¹. Now, in order to justify the additional cost of buying a DVD burner rather than a replacement CD-ROM or CD-RW, I told myself that there were several projects that the new drive could be used for that just were not practical without the ability to burn DVDs. After all, we have quite a few old photos that needed to be archived and I really wanted to experiment with some video editing.

Truthfully, there is absolutely no chance that I will become the next Steven Spielberg. So, in the end, the project that really convinced me to buy that burner was much more practical. We had lots of data cluttering up our hard drives. Since we don't need to access the data very often, a reliable archive would be a viable option. We already had some data on CD-Rs, but the growing collection of discs was proving that we needed a better alternative. Now how's that for justification for a new drive? Besides, since FrankenMac was on our home network, maybe we could use it to archive some of the data from our Windows machine. It didn't seem to play well with our current 4x USB CD-RW drive.

I know some of our more adventurous readers may have tried burning CDs and DVDs over a network before without much success. Others may have been told by their favorite computer guru that [burning over a network cannot be done](#)², but I can assure you that it can be done successfully. Let's step into the mad scientist's lab, gather all the parts and tools, and get to work.

Introduction to Network-Based Disc Burning

Since I always seem to be on a tight budget I am often looking for ways to share the same peripheral among several computers. Since our current systems pre-date the time when burners were included as stock items on computers, one of the first things I tried to share was a burner. I have successfully shared an external burner by disconnecting it from one computer and connecting it to another one, but this process is annoying and I don't like being annoyed.

Once we set up a home network, the next logical step was to attempt to share the burner using the network. Until recently I could not get this process to work properly. Initially I attributed this to the overhead associated with software that

let our Macs and PCs "talk" to each other but then I discovered that burning discs from one Mac to another did not work either. In either case the process usually came to a halt with the burning software informing me that data could not be sent fast enough. The only solution was to copy the necessary data to the machine that housed the burner and complete the burn. This was annoying and, like I said, I do not like being annoyed. Why wasn't this brilliant idea working?

Successful burning of a disc requires that the computer continuously send data to the burner. If no data are ready to be written when the burner is ready to write, the burn will fail. Since modern computers are often capable of sending data faster than a burner can write it, drive manufacturers include memory that can be used as a data buffer to hold information until it is ready to be written.

The inclusion of a data buffer reduces the data flow problems, but there are still times when no data are directly available for writing and the drive's data buffer is empty. This condition is known as a [buffer underrun](#)³ and results in nice shiny coasters rather than readable discs. Many modern drives include a variety of technologies designed to prevent buffer underrun. For our purposes, it is sufficient to know that these technologies pause the burner until there are sufficient data are available for the burn to continue. This is what makes burning over a network possible. That's enough of a history lesson; let's get to work.

The Tools

In order to make this process work you will need a few tools. Don't panic. You probably already have everything that you need. Check out this tool list:

You must have a working network. For our purposes you will also need to have file sharing operational. If you have never set up a network, [Threemac](#)⁴ is good place to look for tips. I have completed this project using a hub and Ethernet cables. I have also tested this project using Macs connected directly to each other with no hub. When connecting two Macs without using a hub or router be aware that [some Macs](#)⁵ can be connected to each other via a standard Ethernet cable and [others](#)⁶ require a "crossover" cable. Crossover cables are readily available from most computer or electronics shops.

1. <http://www.atpm.com/9.08/howto.shtml>

2. http://www.Webopedia.com/TERM/B/buffer_underrun.html

3. http://www.Webopedia.com/TERM/B/buffer_underrun.html

4. <http://www.atpm.com/network/setup/index.html>

5. <http://docs.info.apple.com/article.html?artnum=42717>

6. <http://docs.info.apple.com/article.html?artnum=42717>

A reliable burner is a must. I have successfully completed this project using both an external CD burner and an internal DVD burner, so choose the media type that meets your needs and budget. The critical issue does not seem to be the type of media, but whether or not buffer underrun protection is available. Both the DVD burner and the CD-RW drive performed flawlessly as long as this feature was active. Turning off this option resulted in numerous coasters.

You will need reliable burning software. I used [Toast Titanium 5.2](#)¹, but other programs should work as well. Do yourself a favor and choose a program that seems stable on your system. If the process does go wrong then it's nice to know that the culprit is not likely your software.

Setup and Preparation

Before we tackle the process of burning discs over a network, let's perform a few basic tests to make sure that all the equipment is functioning properly. We are going to test the network and burner separately to assure that each one is functioning well. If either of these tests cannot be completed successfully, stop and troubleshoot the problem. A failure of either test means that a network burn would likely be unsuccessful.

For purposes of this discussion, let's assume that you already know both machines are stable and have set up the network. We shall also assume that you know how to transfer files over your network. This process will vary slightly depending upon the operating systems being used and how you have your network configured. Throughout this discussion I shall use the term "sender" to refer to the machine sending data and "receiver" to refer to the machine that will be burning data.

Boot both computers and test the network. Although you could ping the machines involved to find out if they can see each other, it's better to try sending a few files. That's much more representative of what we will be doing later. Use the receiver to establish a connection with the sender. Once you have completed that step, use the receiver to move some files from the hard drive on the sending machine to the hard drive on the receiving machine. There is no need to move gigabytes of data during this test. A few megabytes should be enough to assure you that the network is functioning well.

Once the files have been transferred open a few of the copies that are on the receiving machine to see if they function correctly. Don't delete the files just yet because we're going to use them in the next step. You probably won't need to perform this test every time you burn data, but it is a good idea to attempt this test if you are planning to burn data but have been having network difficulties.

Now that the network is operational it's time to test the burner. Take the files that you just transferred to the receiver's hard drive and burn them to a disc. Notice that in this step

1. <http://www.atpm.com/7.07/toast.shtml>

the network is not involved at all. This is simply a burn to see if the receiving computer is communicating properly with the burner and its software. If your burner supports buffer underrun prevention, this is the time to turn it on. Users of Toast can find out this information by launching Toast with the burner connected and pressing Option-R. Toast users can activate buffer underrun prevention by checking the appropriate box on the same screen where you choose "Write Disc".

I chose to perform this test using a CD-R because I didn't want to waste a good DVD. Some software also gives you the option of performing a simulated burn. Having created quite a few coasters over the years in an effort to make this process work, it didn't seem like such a big deal anymore. Having completed this test successfully, I chose to attempt burning a CD over the network first rather than wasting a DVD. That choice is up to you. In either case let's move on to the project.

Feel the Burn

If you have gotten this far, not only are you ready for the burn, but you have a pretty good idea how to complete the project. Just for kicks and grins let's walk through this together step-by-step.

Boot both computers. If either of them is a portable, you might want to make sure that it is connected to an electrical outlet rather than running on battery power.

Make sure that your computer will be awake long enough to complete the burn. It's fine if the display dims during the recording process, but we don't want the rest of the system to go to sleep. Make any adjustments necessary to prevent that from happening.

While sitting at the receiving computer, launch your disc burning software. While you are here make sure to set up the type of disc that you want to burn. You can insert blank media now, but I usually wait until the last minute for that. This keeps me from accidentally hitting the record button before I am ready.

Use the receiving computer to make a connection with the sender. Once you have done this, find the volume with the data and mount it on the desktop of the receiving computer.

Open the hard drive that you just mounted on the desktop and move the files to be archived into your burning program just as you would for any other burn. In Toast I can either drag files into the window or use the + symbol at the bottom of the window.

As you drag files from the sending computer to your burning software, be sure not to exceed the capacity of the media you are going to use. Also remember that the display may take quite some time to update and there may be quite a bit of network traffic as the burning program performs the same setup that would be performed otherwise.

Now that you have the burn set up, we are almost ready to start burning. Be sure to give the disc a descriptive name and make any changes that you need to make. Once that's done it's

time to turn on buffer underrun prevention and start the burn. In Toast, you can simply choose Record. Buffer underrun prevention can be turned on at on the next screen just before choosing "Write Disc". If the buffer underrun prevention box is checked the option is already enabled.

Now all that's left to do is sit back and wait for the burn to complete. In the setup phase, Toast can take quite some time to calculate the number of files on a disc and how much space is available; there isn't such a lag during the actual burn. On my systems, the actual burning occurred almost as quickly over the network as a normal burn does. By the way, before you delete those valuable data, test some of the archived files to be sure that they work.

ToastAnywhere

The procedure that I have described thus far should work with most burning software. Users of Toast 6 have the option of using a new feature called ToastAnywhere to share a burner with other Toast 6 users over a network or the Internet. I recently purchased Toast 6 but have not had an opportunity to install the software on both machines to test this claim.

The Toast 6 Help system has a straightforward description of how to activate and use Toast Anywhere. Under most circumstances there will be no need to modify any network settings. The following overview is based upon the Toast 6 Help file.

1. Launch Toast 6 and choose Preferences from the Toast Titanium Menu.

2. When the dialog appears click, the Sharing tab and choose Start. At this point you can also set a password if you don't want to allow unlimited access to your burner. You have now completed all the steps necessary to share your burner.

Now that you have shared your burner, what does the user have to do to use it? Launch Toast 6 on the system that wants to use the burner and set up the disc as you would for any other burn. Now complete the following steps:

1. Before clicking Record, choose the green Recorder Options button at the bottom of the main window. Shared recorders on the same network should appear by name. If you are connecting to a burner being shared over the Internet, you must choose Other Shared Recorder and enter the IP address in the dialog that follows.

2. It's now safe to click the Record button. The user whose machine is connected to the shared burner will be prompted to insert a disc. The burn can now proceed normally.

Although I have not used the ToastAnywhere feature, at this point there are some things to keep in mind when using it to burn to a shared burner. First, the ToastAnywhere feature requires that both the "sender" and "receiver" have Toast 6 installed. This limits the feature to Macs which have at least Jaguar. Second, it does not appear that ToastAnywhere is a viable option for sharing a burner with Windows users.

Final Thoughts

With this process, I was able to burn from a PC running Windows XP to the DVD burner in FrankenMac. FrankenMac has a 500 MHz G4 processor card installed. The file sharing was accomplished via Samba, and everything worked well. I have not tested Mac-to-PC burning at this point under OS 9 because I am currently having some problems with my OS 9 installation. I have also burned files between to Macs using this process. The sending system was a 233 MHz Wall Street PowerBook, and the receiving system was a 467 MHz iBook SE. In all test cases, there was no other network traffic while the burn was being completed. As time permits, I'll refine this process and keep you posted on the results.



Part 1

If you're making a dollar or two as a Web designer, sooner or later somebody's going to ask you about Web accessibility. They might ask you to make a site for them that complies with the appropriate laws in your region. They might be doing it because they know it's dumb business sense to ignore the needs of [around 20% of the population](#)¹. They may be doing this because they heard about it from somebody important-sounding, or they might even think it's just the right thing to do.

Here at ATPM, [we've discussed Web accessibility in a previous issue](#)²—briefly covering the general areas of various assistive technologies that some people use, some of the people who use them, and some of the techniques you can use to make your Web site that much better. This time, we'll be going a little further in-depth with a series of articles that addresses why Web accessibility matters, and some practical tips you can apply to your Web sites right now.

First, however, we're going to discuss why this is so important, debunk a few myths, and explore some of the barriers to access that people experience every day on the Web.

Who Exactly Are We Talking About Here?

If you're like me, you're in pretty decent health, with good eyesight and good hearing. You don't have any cognitive or learning issues, you have the full range of motor skills, and you're fluent in the local tongue. You're reasonably well educated, and you're pretty good at using the computer. Most of the people you meet every day are more or less like you, and nothing much gets in your way.

If that sounds like you, it can be easy to forget that there are a lot of people in the community who aren't like this—and some of these people are those who have trouble using your Web site. And sure, if you think about it, you can name a few groups of people who come to mind almost instantly. We covered some of those groups in [our earlier article](#)³, so let's quickly recap what we learned there:

- People with a visual impairment have difficulties with text and graphic elements. They can use assistive technologies such as screen magnifiers, screen readers, and text-to-speech, or simply change a few settings in their operating system, such as their screen

resolution. Some—not many, but some—can use a refreshable Braille panel, using an array of raised pins to turn text into characters.

- People with a learning or cognitive disability have difficulties with text, language, concentration, or spatial reasoning. They might also use screen readers or different color schemes to make things a little easier for them to understand. Some people with these kinds of disabilities may simply need to spend a little more time reading your text, or rely more on explanatory images.
- People who are deaf or hard-of-hearing find problems when there's no visual information to augment or substitute audio and video content. They can get a lot of benefit from captioned media content, or a text or visual alternative. Since the Web is largely such a visual and textual medium, their issues in that regard are a lot less restricting than the visually impaired's—but this won't always be the case, as the use of multimedia is growing steadily.
- People with a motor disability have difficulties with using a regular mouse or keyboard, and can't always rely on skills that require dexterity or speed. Sometimes the tools they use are as simple as an extra-large trackball or keyboard; some use more specialized hardware or software.

These are, more or less, the broadly defined groups of people whose disability can cause problems with accessing your Web site.

For the disabled, the Web can offer unprecedented opportunities. For the visually impaired, technology that changes text into speech right now is a vast improvement over having to wait for an audio tape or a family member to read that text aloud. Being able to browse through a favorite magazine or catalog online, without the trouble of handling or reading books and print, can be exceptionally useful for the motor impaired. It's a waste of a great medium when so many barriers are in place, and even worse when the barriers are there through a simple lack of planning or consideration.

It's estimated by various sources that between ten and twenty percent of the population have a disability that impairs their use of a computer. Of course, not all of that twenty percent are using the Web to begin with, and not all of those who *do* use the Web need to do anything particularly different or unusual.

1. <http://www.w3.org/WAI/bcase/benefits#marketshare>

2. <http://www.atpm.com/8.11/accessibility.shtml>

3. <http://www.atpm.com/8.11/accessibility.shtml>

What's often overlooked, however, is that there are plenty of people whose circumstances aren't so obvious, and they have various requirements that can be helped by some careful attention to Web accessibility.

- There are still Web newbies. While everyone's heard of this Web thing, and maybe given it a spin at a friend or family member's house, there are still people whose first experience with the Web is happening right now. Some of the vagaries of the online world can be confusing; things like jargon and technical questions escape them. Why isn't my Back button working? What's a plug-in? Where did my buttons go? Should I click this icon?
- Not everyone who accesses your Web site speaks your language with the same fluency as you do—and not everyone is as well-educated, either. Reading complex language can be just as much a barrier to these people as it is to newbies or the learning-disabled.
- Plenty of people are using the Web with older, slower, or generally less fabulous technology. It's not uncommon to find schools using slow old machines with Windows 95, or people in rural areas who only have the choice of dialup or ISDN connections. They really don't have the time to download your delightful 6 MB Flash presentation, and your fancy JavaScript navigation menus might make their old browser crash down hard. They may well be surfing with images off to save bandwidth.
- On the flip side, of course, are people fortunate enough to have access to all the latest technology, happy to surf the Web using their mobile telephones, Pocket PCs, Palm handhelds, or other mobile devices. They may be using their cell phone as a modem, or piggybacking on the WiFi hotspot down the street. While it's unlikely that this is their only means of Internet access, alternative devices are becoming more and more prevalent.

While these people aren't disabled, their situation or their technological constraints mean that accessibility features are a big help to them. Combine these people with the disabled portion of your readership, and all of a sudden there's a pretty big wedge of the pie that you ought to start thinking about.

What Do I Get From Accessibility?

There are a number of reasons why accessibility ought to matter to you. The first one I'll mention shouldn't need to be pointed out, but I'll go right ahead and do it anyway: it's the right thing to do. There is no acceptable reason why you should actively exclude anyone with a disability from your Web site, in much the same way as there's no good reason why you should exclude women, Jews, or senior citizens.

In many places, it's also illegal to exclude the disabled online as well as in a place of business. In most cases that means you need to be providing access right now, not waiting until somebody asks or complains. The anti-discrimination laws in several countries are fairly clear on this matter: unless there's a really good reason (referred to as an undue "hardship" or "burden"), it is not OK to exclude anyone on the basis of their disability.

You've probably heard about a few high-profile cases where companies or organizations have already found that the law doesn't tolerate online discrimination, such as the [2000 Sydney Olympics Web site](#)¹, or [AOL](#)². In both cases, the organizations had to make significant changes to their product, and in the Olympic case damages had to be paid.

If an appeal to your social sensibilities or the threat of a lawsuit still doesn't sway you, consider this: it's good for you, too. You'll be adding useful skills to your Web technique by learning how this can be done, which is a good thing to sell to clients, especially government agencies or organizations that have an accessibility requirement.

You're adding value to your Web site, making it a richer experience all round—your sites will be all the more robust and feature-packed for it, especially when you remember that there are plenty of non-disabled people who get benefit from some attention to accessibility. If nothing else, you get to bask in the glow of knowing that *you're* doing it properly, unlike all those talentless hacks you're competing against.

Myths Debunked

You might be thinking that since the number of disabled people online is so small, it isn't worth it to you. You might also think that they're not part of your target market. Right? Well, wrong. If your Web site were a physical place of business, would you randomly prevent one in a hundred people from coming in your front door, for no good reason at all? Would you refuse their business? If you did, you'd be crazy. And if you know for sure that disabled people aren't part of your Web site's market at all, you might want to think about why this is so. Could it be that you're turning them away?

There really is no good reason why you should be preventing access to your Web site, because it really isn't that hard to be a little more inclusive. It's true that there are few people online who have a disability that seriously impairs their use of your Web site, but it helps to think about it in a less abstract term than 'one percent' or 'five percent.' Translate those figures into solid numbers: if your Web site gets 75,000 unique visitors a month, and if we operate on the conservative assumption that the applicable figures are only about 1%, that's around 750 people who might not be getting

1. <http://www.contenu.nu/socog.html>

2. <http://www.wired.com/news/business/0,1367,37845,00.html>

your message. Add the folks we mentioned earlier who are using older machines or aren't so technically savvy, and now the number gets even bigger.

If you're still happy to let them go, well, that's your loss. They'll probably come across your competitor's site and use that instead.

Oh, wait—you *don't* want them to move on to your competitor's site? Then it looks like now's the time to change your tune, sparky.

You may believe that it's time-consuming and costly to build accessibility features into your site—not so. While it's true that adding accessibility after the fact can be an expensive affair, doing it properly from the outset adds only a small amount to the initial cost of your site. Most of the time, you won't have to do anything significantly different; it's just a matter of adding features.

To use the [Olympic example](#)¹, the Sydney Olympic Committee claimed that refitting their huge, expensive site would cost \$AUD 2.2 million. Several expert witnesses called foul on that one, suggesting it might be closer to \$AUD 30,000 or so, and also asserted that the cost of building an accessible site in the first place would have increased their budget by no more than 2%. The lesson we learn from this is easy: get it right the first time around, and it won't come back to bite you in the butt later. The benefit of spending a little extra money is that you'll be able to gain and retain the business of those 750 people we mentioned earlier.

If you're concerned about having to fix up an existing site, don't panic. Nobody is suggesting that you have to rush out now and unveil an accessible site by this time next week—it's perfectly OK to make changes in little steps. If you're planning a redesign soon, maybe you should think about including it into that project. If you're using a content management system, aim to fix up a template every couple of weeks. Before you know it, it'll all be done.

You might think that creating accessible content is hard to do, and you can't be bothered learning. Bzzt, wrong answer! Unless you're a Web developer in a big design house with lots of little interns and minions to do your bidding, you shouldn't rely on the luxury of having someone else do it for you. Building basic accessibility into your site is simple. HTML has plenty of methods for accessibility and redundancy, allowing for text equivalents to images and so on—you're probably using some of them already. Many common authoring tools and content management systems make the process incredibly easy, while various online services such as [Cynthia Says](#)² can automatically check it for compliance with various accessibility standards.

You may believe that using accessibility features means that the aesthetic of your site needs to suffer, or that you can't use the fun stuff like Flash or QuickTime—not so, despite what

some people like to advocate. The point is not really to create 'equal' access in the sense that everyone must have exactly the same experience with your Web site, because frankly that just isn't possible. The point is simply to include as many people as you can by providing friendly alternatives and showing a little consideration.

There's no need to throw away all your rich-media stuff and replace it with boring old text. The trick is to make sure that your site doesn't *rely* on the fancy stuff to get your message across. For example, you can keep your Flash navigation menu and provide an accessible alternative by having a text menu someplace. You can provide as many video or audio interviews as you like, but provide a transcript as well.

Put simply, it's not generally a hardship to turn your Web site into an accessible, inclusive medium, and if you're a Web developer you already have most of the skills you need to get started now. What are you waiting for?

What Now?

Now that you've heard a few reasons why it's time to get started with accessibility, as well as who you'll be accommodating, you've just accomplished one of the biggest steps towards creating a more accessible Web—and that's actually knowing a little about it in the first place. This is by no means a comprehensive or all-encompassing article, however, and the links at the end of this article are a good start to learning more about accessibility and the people who'll benefit from your efforts.

Next month, we'll start discussing some actual techniques you can use on your Web site to make it more accessible. If you can't wait until then, you'll find great starting points by visiting the following sites.

Links

The World Wide Web Consortium's [Web Accessibility Initiative](#)³ provides guidelines and information on creating more accessible Web sites. Their [Web Content Accessibility Guidelines](#)⁴ are often used as a benchmark for companies and organizations wishing to achieve a particular level of accessibility, and are specifically referenced in some legal discussions on the matter. If you're new to this topic, the [Getting Started](#)⁵ section is a great place to begin.

[Section508.gov](#)⁶ provides information with a focus on United States law surrounding accessibility and technology. They also provide guidelines and [standards](#)⁷ for compliance with s.508, and provide [training](#)⁸ for aspects of s.508 compliance.

1. <http://www.contenu.nu/socog.html>
2. <http://www.cynthiasays.com>

3. <http://www.w3.org/WAI/>
4. <http://www.w3.org/TR/WCAG10/>
5. <http://www.w3.org/WAI/gettingstarted/Overview.html>
6. <http://section508.gov>
7. <http://section508.gov/index.cfm?FuseAction=Content&ID=11>
8. <http://section508.gov/index.cfm?FuseAction=Content&ID=5>

The Australian [Disability Discrimination Act Advisory Notes](#)¹ and JILT's [discussion of the United Kingdom's Disability Discrimination Act](#)² provide useful information on the legal requirements in those respective countries.

Mark Pilgrim's series [Dive Into Accessibility](#)³ approaches accessibility from the perspective of a weblog author, and provides some interesting case studies that reflect the way disabled people actually use the Web.

Joe Clark's book [Building Accessible Web sites](#)⁴ was recently serialized on the Web. It contains just about everything you'll find in the [printed book](#)⁵, with links to referenced articles.

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1. http://www.hreoc.gov.au/disability_rights/standards/www_3/www_3.html
 2. <http://elj.warwick.ac.uk/jilt/01-2/sloan.html>
 3. <http://diveintoaccessibility.org>
 4. <http://www.joeclark.org/book/sashay/serialization/>
 5. <http://www.amazon.com/exec/obidos/ASIN/073571150X/aboutthisparticu>

[WebAIM](#)⁶ is frequently updated with timely and informative articles for those interested in accessibility. It also hosts a busy [e-mail discussion list](#)⁷, where you can talk about accessibility issues with other Web developers.

Don't forget AT^{PM}'s previous article on this topic, [Putting Curb Cuts and Wider Doors on the Internet: Toward Web Site Accessibility](#)⁸. It's a great introduction to some of the techniques you'll be using to make your Web site more accessible, and it's packed with even more useful links to accessibility information.

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6. <http://www.Webaim.org>
 7. <http://www.Webaim.org/gettinghelp/>
 8. <http://www.atpm.com/8.11/accessibility.shtml>

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Cartoon: Cortland

by Matt Johnson, mjohnson@atpm.com

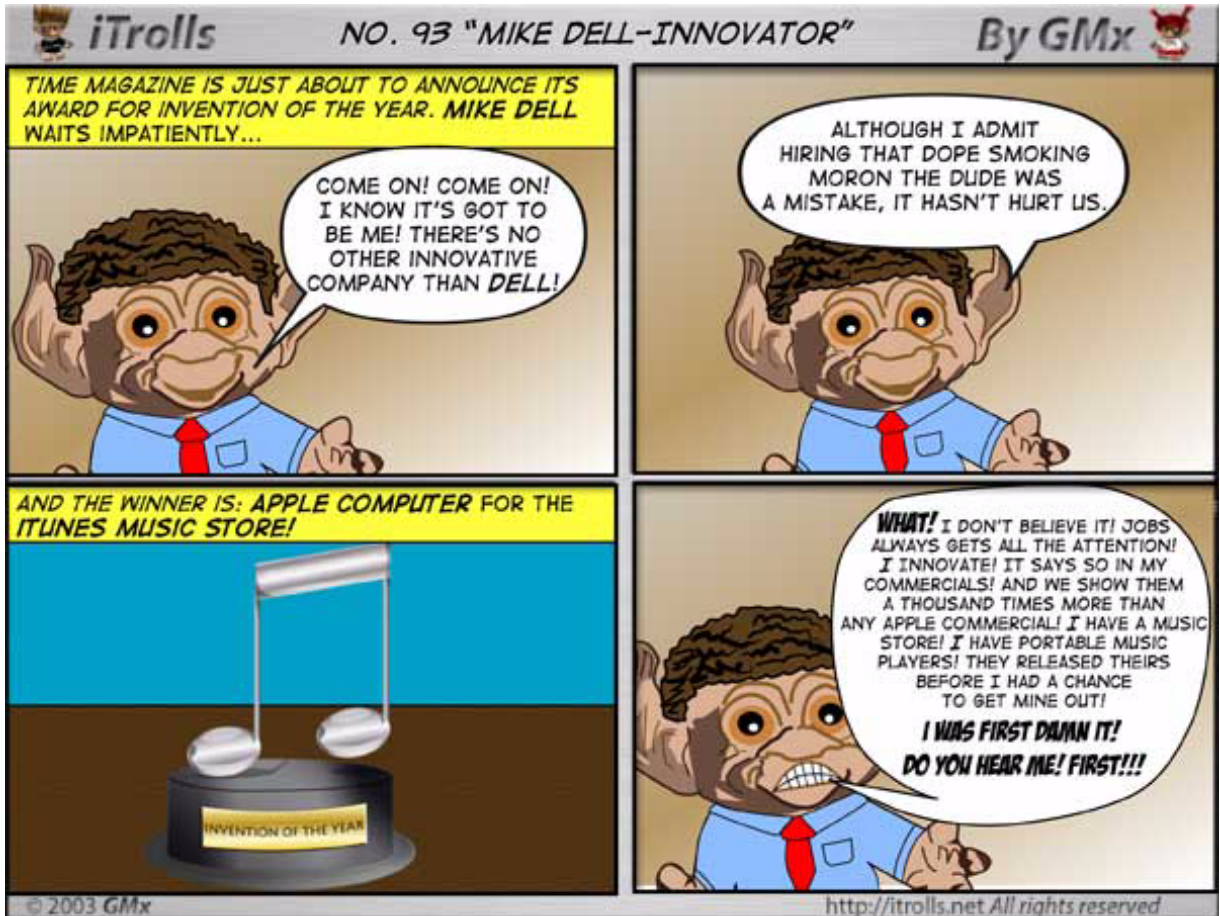


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Cartoon: iTrolls

by GMx, <http://homepage.mac.com/gregmx>





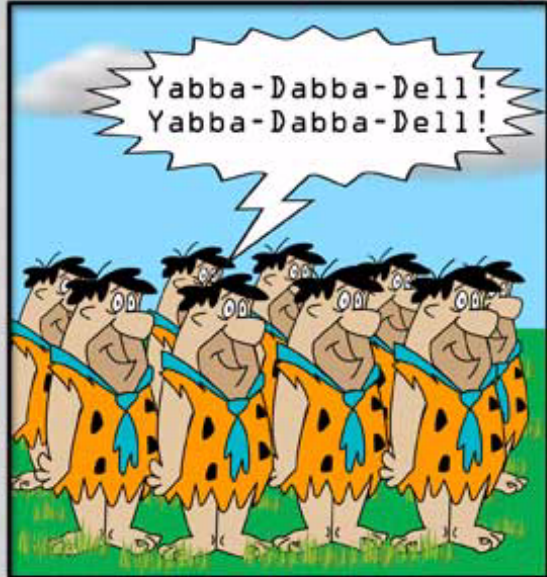
iTrolls NO. 94 "MIKE DELL, SUPERGENIUS" By GMx



DEEP WITHIN THE BOWELS OF THE EARTH, MIKE DELL PLOTS THE TAKEOVER OF ALL HUMANITY. HERE WE WITNESS HIS LATEST ATTEMPT IN ANOTHER EXCITING EPISODE OF... **MIKE DELL SUPERGENIUS!**



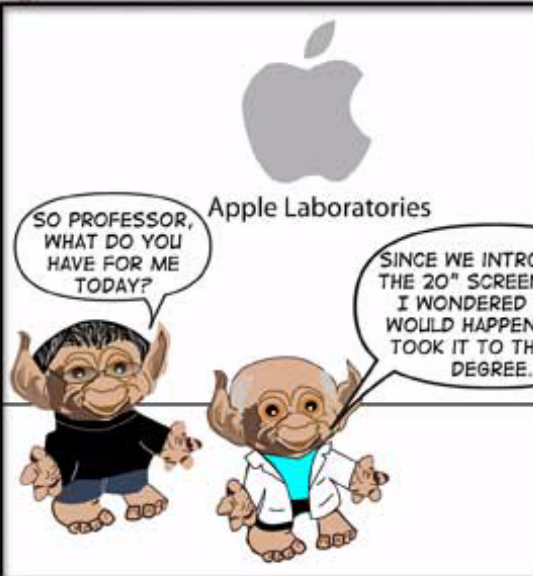
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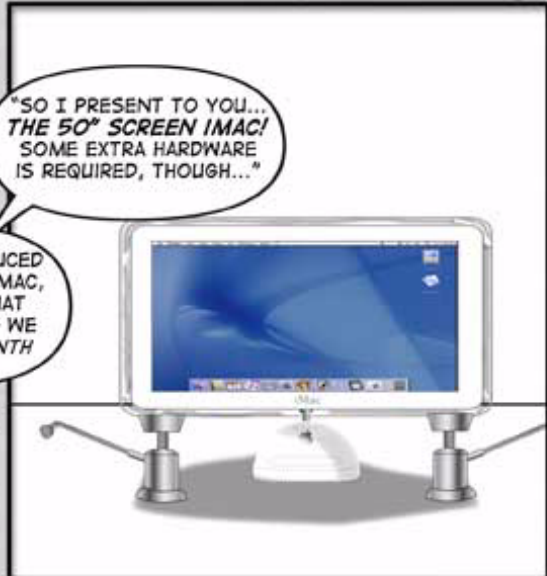
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iTrolls NO. 95 "BIG SCREEN FIEND" By GMx



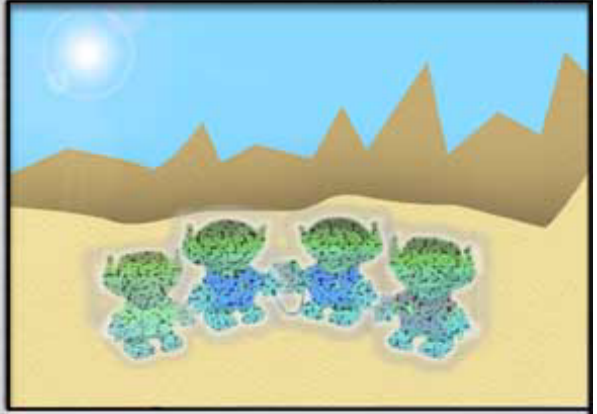
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CAPTAIN'S LOG STARDATE 3972.4—WE HAVE BEEN SENT TO INVESTIGATE AN ALIEN PRESENCE IN THE DENON SYSTEM. THE ALIENS HAVE DESTROYED FREIGHTERS THAT HAVE BEEN IN THE AREA. BEAMING DOWN WITH ME ARE MR.SPOCK, DR. MCCOY AND OUR NEWEST MEMBER OF THE CREW, ENSIGN SMITH.



ENSIGN SMITH, RECONNOITER THE AREA AND REPORT ANYTHING UNUSAL THAT YOU FIND.

AYE, SIR.



MISTER SMITH! WHAT ARE YOU DOING? YOU'RE OUT OF UNIFORM! PUT YOUR SHIRT BACK ON!

BUT CAPTAIN, I DON'T WANT TO DIE!

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Oregon Coast

Oregon Coast

[These photos](#)¹ were taken by ATPM reader [Allen Watson](#)² during a three-day stay at the Oregon Coast in the early spring of 2003, at Gearhard-by-the-Sea and Ecola State Park, which is just north of Cannon Beach. Most of them were taken in the late morning of a day that started out foggy, giving the nice drifting mist that is visible in many of the shots. Allen used a brand-new digital camera, a Sony DSC-P10. The quality of the pictures speaks well for the quality of the camera, since he and his wife are very much amateur photographers.

iTrolls³

[iTrolls](#)⁴ cartoonist [Gregory Maddux](#)⁵ submitted this desktop picture based on his cartoon.

Previous Months' Desktop Pictures

Pictures from previous months are listed in the [desktop pictures archives](#)⁶.

Downloading all the Pictures at Once

iCab and Interarchy (formerly Anarchie) can download an entire set of desktop pictures at once. In iCab, use the Download command to download "Get all files in same path." In Interarchy, use HTTP Mirror feature.

Contributing Your Own Desktop Pictures

If you have a picture, whether a small series or just one fabulous or funny shot, feel free to send it to editor@atpm.com and we'll consider publishing it in next month's issue. Have a regular print but no scanner? Don't worry. E-mail us, and we tell you where to send it so we can scan it for you. Note that we cannot return the original print, so send us a copy.

Placing Desktop Pictures

Mac OS X 10.3.x

Choose "System Preferences..." from the Apple menu, click the Desktop & Screen Saver button, then choose the Desktop tab. In the left-side menu, select the desktop pictures folder you want to use.

You can also use the pictures with Mac OS X's built-in screen saver. Select the Screen Saver tab which is also in the Desktop & Screen Saver System Preferences pane. If you put the ATPM pictures in your Pictures folder, click on the Pictures Folder in the list of screen savers. Otherwise, click Choose Folder to tell the screen saver which pictures to use.

Mac OS X 10.1.x and 10.2.x

Choose "System Preferences..." from the Apple menu and click the Desktop button. With the popup menu, select the desktop pictures folder you want to use.

You can also use the pictures with Mac OS X's built-in screen saver. Choose "System Preferences..." from the Apple menu. Click the Screen Saver (10.1.x) or Screen Effects (10.2.x) button. Then click on Custom Slide Show in the list of screen savers. If you put the ATPM pictures in your Pictures folder, you're all set. Otherwise, click Configure to tell the screen saver which pictures to use.

Mac OS X 10.0.x

Switch to the Finder. Choose "Preferences..." from the "Finder" menu. Click on the "Select Picture..." button on the right. In the Open Panel, select the desktop picture you want to use. The panel defaults to your "~/Library/Desktop Pictures" folder. Close the "Finder Preferences" window when you are done.

Mac OS 8.5-9.x

Go to the Appearance control panel. Click on the "Desktop" tab at the top of the window. Press the "Place Picture..." button in the bottom right corner, then select the desired image. By default, it will show you the images in the "Desktop Pictures" subfolder of your "Appearance" folder in the System Folder, however you can select images from anywhere on your hard disk.

1. <http://www.atpm.com/10.01/oregon-coast/>

2. http://homepage.mac.com/allen_a_watson

3. <http://www.atpm.com/10.01/itrolls/>

4. <http://www.atpm.com/Back/cartoons.shtml>

5. <http://homepage.mac.com/gregmx/>

6. <http://www.atpm.com/Back/desktop-pictures.shtml>

After you select the desired image file and press “Choose,” a preview will appear in the Appearance window. The “Position Automatically” selection is usually fine. You can play with the settings to see if you like the others better. You will see the result in the little preview screen.

Once you are satisfied with the selection, click on “Set Desktop” in the lower right corner of the window. That’s it! Should you ever want to get rid of it, just go to the desktop settings again and press “Remove Picture.”

Mac OS 8.0 and 8.1

Go to the “Desktop Patterns” control panel. Click on “Desktop Pictures” in the list on the left of the window, and follow steps similar to the ones above.

Random Desktop Pictures

If you drag a folder of pictures onto the miniature desktop in the Appearance or Desktop Pictures control panel, your Mac will choose one from the folder at random when it starts up.

DeskPicture

An alternative to Mac OS’s Appearance control panel is Pierce Software’s DeskPicture, [reviewed](#)¹ in issue 5.10 and available for [download](#)².



1. <http://www.atpm.com/5.10/roundup.shtml>
2. <http://www.peircsw.com/DeskPicture.html>

Review: Blender 2.31a

by Andrew Kator, akator@atpm.com

Developer: [The Blender Foundation](http://www.blender.org)¹

Price: free

Requirements: Mac OS X, 8 MB of VRAM.



What would you say to a free, open-source 3D program that had almost everything you could find in those expensive professional applications that cost hundreds, even thousands of dollars? It may sound too good to be true, but Blender 3D delivers amazing power at an unbeatable price.

Blender combines 3D modeling, rendering, animation, video sequencing, and game development in one application. It is also available on every major platform, meaning Mac, Windows, and Linux users can all work and play together with exactly the same tools.

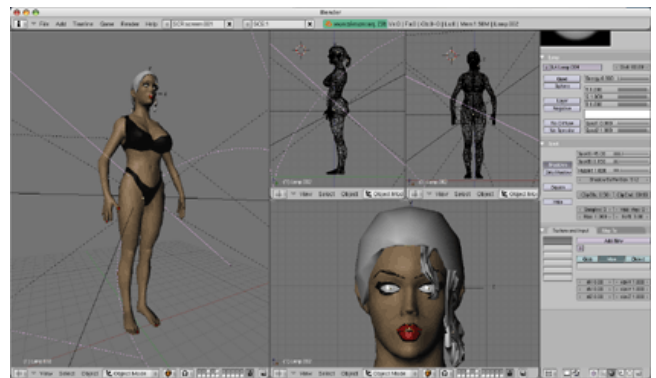
Blender may be open-source, but it is incredibly rich with features. As with professional commercial products like Final Cut Pro, Photoshop, and Dreamweaver, there is a learning curve with such powerful software. A new user should not expect to be creating his first feature-length animation without spending significant time developing skills. Fortunately for everyone, Blender has an active user community that creates tutorials and helps everyone with answers and troubleshooting. [eYsiun](http://www.elysiun.com)² and [BlenderWars](http://www.blenderwars.com)³ are two sites with active user forums, useful tutorials, and links to other practical information.

So why isn't everyone using Blender for their 3D solutions? The most significant reason Mac users have been slow to adopt the program is the interface. The Blender interface is more reminiscent of PC-based CAD applications than either the old or new Mac interface standards. As with many CAD packages, Blender also relies heavily upon keyboard commands. Combined with the interface's visual feel, at first glance Blender is something most Mac users run from like a disease. We do, after all, want our software to look and work like a Mac.

The Blender interface issue has a major drawback for traditional Mac users: to use Blender as easily and efficiently as possible, you need a three-button mouse. The programmers have made it possible to use the standard one-button Mac mouse, emulating three buttons requires the use of modifier keys (Control-Option-Shift while clicking for the middle button, Command while clicking for the right

button). Using these modifier keys, the mouse, and Blender's copious keyboard commands is a difficult task to get used to. It took about three days for me to get the hang of things until I realized that I could just use the three-button mouse that came with my Wacom tablet. Once I started using the three-button mouse, my abilities grew much more rapidly along with my speed at tasks.

With the recent (November 2003) release of the Blender 2.3x series, the interface has been made significantly more user-friendly. New menus offer many of the same tools that were previously only available as keyboard commands, which makes learning and using Blender much easier (the keyboard commands are still there as well). These recent developments also add interface customizing so button windows can be arranged more to the user's liking. These are just a few of the changes that make Blender a more friendly application. But even with these improvements, a three-button mouse is highly recommended.



The improved interface in recent versions is easier to learn and use with added menus and greater customizing options.

Another reason Mac users may be slow to adopt is that Blender does not have an Aqua interface. There is actually a decent reason for not going Aqua. If the application were to change drastically in appearance and use between different platforms, even to take better advantage of the Mac interface, it would then no longer work the same for all users. If the interface works exactly the same, regardless of the computers

2. <http://www.elysiun.com>
3. <http://www.blenderwars.com>

1. <http://www.blender3d.org>

used, then the user focus can be on productivity instead of adapting to differences between platforms. This is the same strategy used by Avid and other cross-platform software developers of professional applications. Even so, I have to admit that I would love it if Blender were more like my pretty OS X Aqua interface. Fortunately, the interface's somewhat plain, gray appearance is only skin deep.

The main Blender window can be divided into smaller frames of any configuration the user desires. Each frame can then be used for:

- 3D View (to view, edit, pose, and animate the model)
- File and Image Browsing
- Buttons (palettes with textures, object, and rendering options)
- OOPS Schematic (interesting, but haven't found much use)
- User Preferences
- Text Editor (programming)
- Audio Timeline
- Video Sequencer
- UV/Image Editor (vertex color and texture)
- NLA (non-linear action) Editor
- Action (linear) Editor
- IPO (non-linear keyframe sequences) Curve Editor

For those used to Unix and open-source software, many interface conventions used by Blender are fairly standard and even above average compared to some other packages. Mac users who have not previously explored the world of open-source may have a few things to get used to.

Other than Quit and Minimize, there are no useful menu commands in the standard application menus at the top of the screen. Blender's menus are located in a separate header bar in each window frame. The File Browsing features are functional, but unquestionably Unix-like and do not use standard Mac dialog conventions. There is no ability to create folders, and moving in and out of folders uses the special “.” and “..” Unix directory names. But nice features include a “recent locations” button, which gives a list of any folders used within the current session, and colored labels placed next to files that Blender recognizes as being in native or other readable formats.

Image Browsing, a variation of the File Browsing feature, is pleasant—especially for an open-source application. Large previews of all images within the current folder appear next to the file list, making it easy to find what you are looking for. This feature can also be turned off for those who find it unnecessary.

The 3D windows use OpenGL (hardware-based graphics acceleration) for viewing the model with bounded-box, wireframe, shaded, textured, and lighted options. This part of the interface offers the essentials that can be found in other 3D applications, so experienced users of other 3D products

shouldn't feel a feature loss. Mesh, Curves, NURBs, Metas, and Text objects can all be easily created, edited, and transformed within the 3D window. The OpenGL rendering in the modeling windows makes for seamless view changes for even more complex models. Twenty individual layers can be used for modeling and rendering, and lights can be assigned to affect only the objects in a layer. The layers can be turned on or off in any combination.

Because of video hardware acceleration, Blender requires a minimum of 8 MB of VRAM, so some older original iBooks and iMacs are left out. For systems with 16 MB VRAM, Quartz Extreme and Blender compete for video hardware resources, and the monitor must be set for Thousands instead of Millions for things to run smoothly. This is only an issue on systems with 16 MB VRAM. The Blender Foundation is aware of these issues.

One major flaw is the lack of Undo features. There are multiple Undo options when editing meshes, along with a useful history accessible from a menu, but this doesn't extend to general object changes. The mesh editing undo features are new in the 2.3x series, so it is reasonable to expect the developers are in the process of adding more in later versions. The lack of a consistent method for reversing changes means that you should save changed versions of your model often, as different versions to go back to a given point in your modeling history.

Blender's texture abilities are fairly standard and comparable to many other 3D applications. Material options range from simple color, alpha, and specular settings to application of image maps to procedural texturing. Image maps and procedural textures can be applied to object color, mesh surface geometry, bumping, specular, mirror color, reflectivity, hardness, alpha, and light emission. The standard procedural textures include clouds, stucci, noise, magic (“woven” sinusoidal), marble, wood, and blend (gradient). Environmental settings, including mist (fog, atmospheric perspective) and stars, are easily applied. As with many other 3D packages, Blender's material abilities can be extended with plug-ins.

Blender uses Python (an open-source programming language) as one of multiple methods for adding new features. Blender users have enthusiastically welcomed this ability, and many excellent Python scripts can be found in the user community. Some extend Blender's modeling abilities with features like anamorphic human figure modeling ([Make Human](http://www.dedalo-3d.com/makehuman.html)¹); grass, hair, and fiber creation ([Fiber](http://oregonstate.edu/~dennisa/Blender/Fiber2)²); and cityscape and matrix creation ([City Block](http://www.elysium.com/forum/viewtopic.php?t=16217&postdays=0&postorder=asc&start=0)³). Other Python scripts can export Blender models and animation for use with other rendering software like POV, MacMegaPOV, and Renderman, as well as scripts for translating data to and from

1. <http://www.dedalo-3d.com/makehuman.html>
2. <http://oregonstate.edu/~dennisa/Blender/Fiber2>
3. <http://www.elysium.com/forum/viewtopic.php?t=16217&postdays=0&postorder=asc&start=0>

other 3D applications. Every week, the user community creates something unexpected that elevates Blender to new levels, making Python scripting one of Blender's most powerful features.

The Achilles heel found with using Python and Blender on Macs is (for the moment) that the two only work reliably together if 1) Python is installed using [Fink](http://fink.sourceforge.net)¹ and Fink commander or 2) Blender is compiled on *your machine* by *you*. The first solution is by far the easiest for the average Mac user, and for those interested there are [instructions available](http://www.widomaker.com/~katorlegaz/blendertips/python.html)². For those of us who are not fluent enough with compiling to get anything useful from the source code, some more competent members of the user community have been kind enough to share their Panther-compiled versions of the software. Doing a search at one of the Blender community forums may turn up a recent binary optimized for your version of OS X that has full operability. None of these solutions is necessary to run Blender on Macs, just to run Blender with Python on Macs.

Blender's built-in renderer uses scan-line rendering and generally produces excellent to acceptable results. Anti-aliasing is available in various levels, as well as automatic gamma adjustments. Images and animations can be rendered in any size with presets for NTSC, PAL, and even interlaced formats. The layers features used for modeling carry over to rendering, so layers can be used as needed or rendered separately for compositioning in Blender's sequencer or other software.

Two incredible features for graphic artists and animators are Toon Shading and Edge Rendering. The combination of materials settings with object outlining can be used to create more traditional "hand-illustrated" effects when using Blender's built-in renderer. Combined with layers, artists can render color cels and outlines together at the same time or separately. Users have been able to achieve a wide range varying from Disney-esque to animé-style results, and many have written useful tips and tutorials for using their techniques.

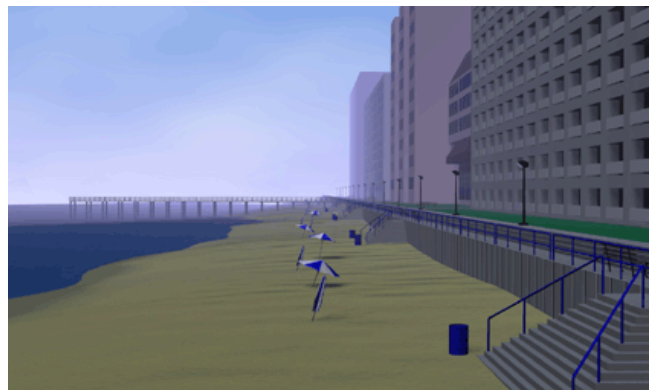


Blender's edge rendering and Toon shading features are a blessing for artists looking for a more traditional feel to their animations.

As it stands in version 2.31a, there are only two major weaknesses that I have found—both a result from Blender's rendering engine. The first problem comes from the methods for casting shadows. While Blender has four types of lamps for lighting models, only spotlights can cast shadows in

renderings. This creates problems for large, more complicated models (especially outdoor settings) where alternate methods with dozens of spotlights must be used for shadow casting. This lighting complexity decreases the otherwise speedy scan-line rendering to a snail's pace. Tweaking these more complex lighting models to create decent results can be frustrating and time-consuming, perhaps more so because other 3D software packages have had easier-to-use and more predictable methods for years. The problem isn't that great results can't be achieved, but instead that it often takes a lot more work than expected to achieve them. Similar problems with reflection and refraction meant several steps were necessary that other software can achieve with the click of a button.

The second major rendering weakness is the lack of a true focal blur for camera settings. While many users may have no desire to use focal blur (and it is often overused by those who do use it), the current method involves attaching a camera to an ellipse, making the camera track (always aim at) the subject, moving the camera around the ellipse once per frame, and using motion blur to make objects further away from the subject "out of focus." The method can duplicate some focal blur techniques, but not all field-of-depth requirements. Like the shadow issues, this focal blur solution is also tricky and time-consuming.



The built-in scanline renderer can create pleasing results.

Neither of these rendering problems is insurmountable, but they detract from the application's overall high quality. Amazingly, the shadow and reflection issues are literally being fixed and tested now, and should be available as a public release sometime in the upcoming weeks. The solution uses ray-tracing for shadows and reflections, combined with the speed of the scan-line renderer to create a hybrid rendering solution. Preliminary tests of the new software features by the user community show the shadow and reflection issues to be resolved.

1. <http://fink.sourceforge.net>

2. <http://www.widomaker.com/~katorlegaz/blendertips/python.html>

Another rendering development expected later in the year is the integration of [YafRay](http://www.yafRay.org)¹ (open-source ray-tracing software) into Blender, giving users a full ray-tracing solution alongside the existing features.

Blender excels at animating models. Practically anything created can be animated, including geometry, cameras, materials, textures, and Particle Effects. Particle Effects allow users to create procedural effects in their models without the need for additional complex modeling changes. A wave effect can be applied to a flag or a body of water without having to manually create and animate geometric waves in the object. Fireworks, smoke, explosions, hair, or a school of fish are just some of the possibilities.

Models can be animated with multiple methods. Keyframes are easily created for model changes, and editable curve time line views are available to create and modify keys. Relative Vertex Keys allow for “instanced” mesh animations that can be used individually or together with others. For example, a model of a face can be keyframed for a smile, frown, and speech. By using the smile and speech keys together, the face smiles while speaking. Relative Vertex Keys can be used in many combinations and reused as necessary, meaning that repeated actions can be animated more efficiently.

Armatures are another welcome tool for creating realistic animations. A human figure can be animated by posing the armature, much the same way a skeleton moves within an object. Poses can be saved for repeated use.

Blender’s sequencer can be used to merge imported and rendered layers and apply basic compositioning effects. While it currently does not have the power of After Effects or Final Cut Pro, the sequencer does offer layering and composition features that are unavailable in iMovie. The sequencer can be used with imported stills and animations created in other software, so a 3D rendered aircraft can land in a scene with real photographic footage, or a character can “beam down” to a setting of your choice.

Blender has the ability to create multi-platform 3D games and interactive 3D applications. The complexities and possibilities of the game engine are too numerous for this review, but [working examples](#)² can be found on sites around the Web. The game engine is currently not available in Blender versions later than 2.25. Models can still be created in the later versions (using interface improvements and newer features), but 2.25 must be used for the game programming. As with the new rendering features, the game engine is expected to be reintroduced into upcoming versions.

Blender has surprisingly few bugs for such a complex application, even fewer than some commercial products. The Blender Foundation pays attention to user forums and welcomes the development help of any who are interested. This open-source model responds rapidly to bug reports and overall development, evident by the release of three incremental versions in two months (2.30, 2.31, and 2.31a). For those interested in tinkering, helping out, or doing their own compiles [Blender’s source code](#)³ is available. Ton Roosendaal, the chairman of the Blender Foundation, encourages any who are interested to help. “We are still looking for more people developing on OS X to help maintain the Blender code—especially when it comes to low-level OS X stuff, like the VRAM issue and dual-screen support. Spread the word!”

How is all of this possible in a free application? Blender development is currently supported by donations and user purchases of the [Official Blender Guide](#)⁴ which is extremely useful for learning and reference. The book comes with a CD that includes tutorial files and useful Python scripts. Purchasing the Guide directly from the Blender Foundation will not only cost less than from a retail bookstore, but will ensure that the people responsible for this project can eat and continue development.

Other than helping support product development, the Official Blender Guide is better-than-average documentation with excellent tutorials and strongly recommended for even more experienced users. Using the documentation helps ease the learning associated with any new 3D application, but the Blender Guide is one of the best I have encountered.

As with all open-source software, please be kind when reporting bugs and making feature requests. Much of the development of open-source software, Blender included, is done by volunteers. A light touch in your correspondence will get you much further than a heavy hand.

Even if it cost several hundred dollars, as with many entry-level 3D packages, Blender offers a powerful and competitive solution with features that surpass many commercial products. Blender is not a perfect application—and after using 3D software for over a decade I have yet to find 3D utopia—but it is in the short list of applications that are close. Its powerful features, improved interface, strong continued development, and helpful and open user community make Blender an amazing tool for illustration, design, effects, and animation. And it’s free.

1. <http://www.yafRay.org>

2. <http://www.blender3d.org/About/?sub=GalleryStandalones>

3. <http://www.blender3d.org/Download/?sub=Source>

4. <http://www.blender3d.org/e-shop>



Review: Mac Digital Photography (book)

by Gregory Tetrault, gtetrault@atpm.com

Publisher: SYBEX, Inc.¹

Author: Dennis Cohen and Erica Sadun

Price: \$21

Trial: [Sample Chapter](#)²



Overview

This book is designed for amateur photographers who wish to learn more about taking, editing, and using digital photographs. The book emphasizes the creative use of photographs. It shows how to use “consumer level” software such as iPhoto and Photoshop Elements. Most of the applications described in the book are compatible with Mac OS X but not Mac OS 9.

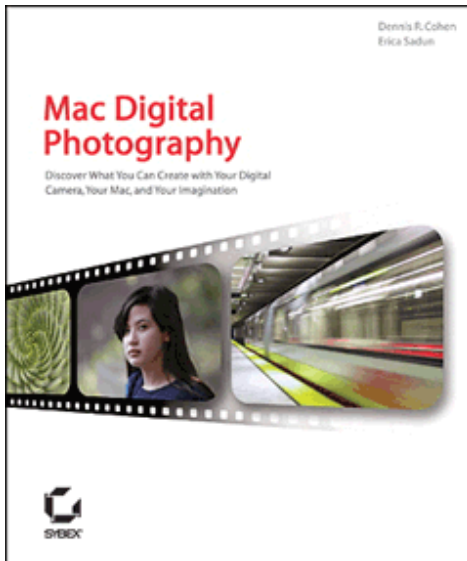


Photo Courtesy of SYBEX, Inc.

Layout and Organization

The soft-cover book measures 7.5" by 9" and has 288 pages. A companion CD-ROM disk is included at the back of the book. The book has twelve chapters, an appendix, a glossary, and an index. You can view the [Table of Contents](#)³, [Chapter 2](#)⁴, the [Index](#)⁵, and other information as online samples.

3. <http://www.sybex.com/sybexbooks.nsf/AdditionalContent/4272TOC?OpenDocument>

4. <http://www.sybex.com/sybexbooks.nsf/AdditionalContent/4272Sample?OpenDocument>

1. <http://www.sybex.com/sybexbooks.nsf/booklist/4272>

2. <http://www.sybex.com/sybexbooks.nsf/AdditionalContent/4272Sample?OpenDocument>

The CD-ROM disk contains a 30-day trial version of Adobe's Photoshop Elements 2. The book focuses heavily on the use of Photoshop Elements. The CD contains other demonstration or time-limited trial versions of commercial software and some shareware related to graphics. A listing of the included applications follows:

- DVDPictureShow* (15-day trial version of OS X DVD slide show creator from Ulead Systems)
- GenuineFractalsPrintPro (a trial version of a plug-in for enlarging digital images from LizardTech)
- GIFfun* (30-day trial version of OS X Web animation software from Stone Design)
- GraphicConverter (feature-limited shareware OS 9 and OS X graphics application from Lemke Software)
- ImageSurfer* (trial version of OS X slide show and photo-to-QuickTime movie application from LQ Graphics)
- iVCD (trial version of OS X video CD making application from Mireth Technology)
- LiveSlideShow (5-photo limit demo version of OS 9 and OS X application for making presentations from photos from Totally Hip Software)
- MacFlipAlbum (trial version of OS X software for making 3D-looking digital photo albums from E-Book Systems)
- PhototoMovie* (trial version of OS X photo-to-QuickTime movie application from LQ Graphics)
- PhotoToWeb* (30-day trial version of OS X Web photo album creation software from Stone Design)
- Photoshop Elements 2 (30-day trial version of OS 9 and OS X digital photo editing application from Adobe)
- REALVIZ Stitcher* (a feature-limited version of OS 9 and OS X application for piecing photos into panoramas)
- Sample Images

5. <http://www.sybex.com/sybexbooks.nsf/AdditionalContent/4272Index?OpenDocument>

* These applications are not mentioned in the book.

Observations and Opinions

The opening chapter, “Composition, Lighting, and Posing: Some Tried-and-True Advice,” provides extremely elementary advice about photography. It is not specific for digital photography, and the advice is what one would expect from a 30-page primer on photography.

Chapter 2, “Digital Photography Equipment,” gives a brief but useful overview of digital cameras, batteries, memory devices and readers, and optical accessories (lenses and filters).

Chapter 3 introduces two applications: iPhoto from Apple and Photoshop Elements 2 from Adobe. For some strange reason, the chapter focuses on iPhoto’s limited editing capabilities rather than its primary uses (organizing photos, setting up albums and slide shows, and sending digital photos to be commercially printed). This chapter’s coverage of Photoshop Elements is very superficial. The approach is illogical and poorly organized. The use of black-and-white reproductions of color photo examples makes it hard to see selection marquees and “red” masks. The Quick Fix and Manual Adjust subsections are too brief (half a page each) to be of help.

Chapter 4 covers digital photo editing with Photoshop Elements. It includes sections on auto correction, red eye fixes (again, impossible to appreciate with black and white photos), altering a photo’s background (a rather weird topic choice with very amateurish effects and examples), fixing blemishes, and sharpening out-of-focus photos (a nearly hopeless task that a book with space limitations should have avoided).

Chapter 5 discusses “postprocessing” of photos: creating panoramas, 3D images, and enlargements. I think this is a strange chapter, especially the section on creating 3D images and homemade stereo viewers.

Chapter 6 has a brief discussion of digital photo printing. It covers printing on your own equipment or sending images to commercial photo finishers. It discusses different types of printers and papers. Amazingly for a Macintosh-oriented photography book, it omits all reference to Apple’s ColorSync technology for ensuring accurate color among camera, monitor, and printer.

Chapter 7 briefly describes how to put photos onto CDs and DVDs using Mac FlipAlbum, LiveSlideShow, Toast 5 Titanium, and iDVD. Each application gets a page or two, which is only enough space for bare bones instructions.

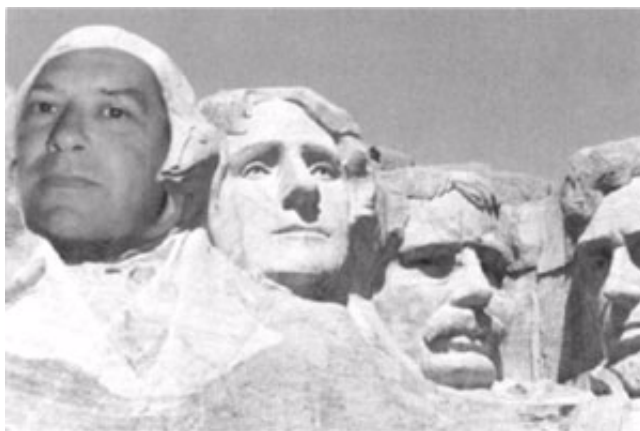
Chapter 8, “Share Your Pictures,” explains how to create a video tape of still images from a digital camera, how to display Macintosh-stored images on a TV, how to create a narrated slide show using iMovie, and how to use Ceiva frames (a standalone device for displaying digital images).

Chapter 9 describes other uses for digital cameras such as storing map images and navigational landmarks, communicating nonverbally, giving slide presentations, taking pictures of text that can be extracted by optical character recognition software, documenting inventory or damages for insurance purposes, etc.

Chapter 10, “Digital Camera Crafts,” covers the use of photos on clothing, objects, greeting cards, self-published “coffee table books,” jigsaw puzzles, and a few less obvious crafts.

Chapter 11 discusses how to combine elements from different images, how to create a coloring book from photos, and how to animate images with Photoshop Elements and GIFfun, and how to use iMovie’s “Ken Burns” effect to “pan” across a still image.

Chapter 12 is about photo transformations and collages. This chapter uses amateurish examples of swapping heads and adding clown noses. It does not discuss digital distortions (such as changing someone’s image from tall and thin to short and stout).



Example Image from Chapter 12

Strengths

- Decent overview of general photography advice.
- Good discussion of camera-related hardware.
- Presents some interesting creative ideas.

Weaknesses

- A broad but shallow look at digital photography.
- Black-and-white prints poorly convey color editing.
- Complete omission of color theories and non-automated color correction techniques.
- No discussion of the need to balance brightness and contrast adjustments.
- Poor examples of auto focus, contrast, and light level adjustments.
- Some topics get much less space than necessary, others (such as Ceiva frames) get too much.

- Amateurish examples in some of the project-oriented chapters.

Alternatives

A search of digital photography books on Amazon.com shows two recently published books that received excellent ratings: [Rick Sammon's Complete Guide to Digital Photography: 107 Lessons on Taking, Making, Editing, Storing, Printing, and Sharing Better Digital Images](#)¹ (W. W. Norton & Company, list price \$45, Amazon price \$31.50) and

1. <http://www.wwnorton.com/catalog/fall03/032551.htm>

[Digital Photography All-in-One Desk Reference for Dummies](#)² by David Busch (For Dummies, list price \$29, Amazon price \$20.99).

Summary

Although Mac Digital Photography has some useful information, I did not like it. The book tries to cover too many topics with too few pages. Some readers may like that approach, but I prefer a book with more depth.

2. <http://www.dummies.com/WileyCDA/DummiesTitle/productCd-0764518003.html>

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Review: Nicecast 1.0

by Lee Bennett, lbennett@atpm.com

Developer: [Rogue Amoeba](http://www.rogueamoeba.com)¹

Price: \$40

Requirements: Mac OS X 10.2 and an Internet or Intranet connection.

Trial: Static is overlaid on all broadcast audio after 20 minutes.



If you ever thought running your own Internet radio station would be too complicated and too expensive, you thought wrong. Fresh out of the gate with a version 1.0 release, Nicecast will have you broadcasting online with practically a single mouse click. If that weren't enough, Nicecast also offers an assortment of effect plug-ins and the ability to DJ your broadcast with voice-overs and save archives of your broadcasts.

To get started, you choose the source of your broadcast. In my case, I would be using iTunes, which was already chosen for me by default. Next, you'll want to provide a little bit of information to go along with your stream—especially if you plan on listing to your broadcast on Stream Tracker, which Nicecast can automatically do. There's space to fill in the name of your broadcast, a genre, an AIM screen name, and a Web address. Artist and title information is automatically generated. Finally, choose how good you want your broadcast to sound. Quick-access presets range from a stream that a dial-up modem should be able to handle, all the way up to Intranet/LAN bandwidth.



Audio stream quality settings: you can choose specific settings or use the slider to balance between CPU usage and audio quality.

If the computer that will be serving your broadcast is behind a firewall, be sure to open a service port (the default is 8000) if you want to be heard outside of your LAN. Once these basic settings are in place, all you have left to do is click the Start Broadcast button and make sure iTunes (or your chosen source) is playing. You can either play individual songs manually or create a playlist. Set it for random and repeat, and you'll have a 24-hour music-only Internet radio station.

Many Nicecast users will probably be perfectly content with the built-in server. Those who are more experienced will appreciate that Nicecast can also utilize an external server. Just provide the remote server's address, port number, password, and server type.



Among Rogue Amoeba's own plug-ins included with Nicecast are 10-band Equalizer, Mono Enhancer, and Reverb, as well as plug-ins to add live voice-overs, display VU meters, and enable a simple Karaoke filter.

To listen to a broadcast, you can simply use a copy of iTunes to connect to the stream. The address to use is provided to you in the Share window of the Nicecast

1. <http://www.rogueamoeba.com/nicecast/>

interface. This window also allows you to save a .PLS playlist file and choose whether to list your broadcast in Stream Tracker. Additionally, Nicecast plays nice (no pun intended) with Windows. Programs such as Winamp can also tune in to your broadcast.

A healthy collection of plug-ins are included to enhance your broadcast, and you can add more. Nicecast supports Rogue Amoeba's own SW4FX plug-ins as well as [AudioUnit](#)¹ and [VST](#)² plug-ins.

If you plan to broadcast a routine show on a regular basis and would like to have those shows available to listeners at a later time, Nicecast has got you covered. Once again, with just a click of the mouse, you can enable archive recording of your broadcast. The files can either be saved as MP3s in whatever quality setting you wish, or as uncompressed AIFF files.

Even at a version 1.0 release, I found very little to complain about. What little I *did* complain about really isn't even the fault of Nicecast.

First, don't plan on using the Crossfade Effect in iTunes 4. According to the manual, Apple modified the way crossfades are handled in iTunes 4. In fact, crossfades aren't even generated by iTunes. Consequently, you'll hear silence during the crossfade, and the next track will cut in a couple of seconds after the start of the song.

Initially upon starting the Nicecast server, I experienced frequent rebuffering on the computer that was playing the stream—even though both computers were on my LAN. I asked someone outside my LAN to connect and iTunes rebuffered my stream several times for him, too.

I should point out that I am running Nicecast on a G4/450 using Mac OS X 10.3 and 512 MB of RAM. This computer serves a Web-based digital photo album to the world and also a personal file sharing server. It's also running an application that shows me updates to the photo album's Web logs in real time. I first thought serving a 128Kbps, 44Khz stereo stream was taxing my upstream bandwidth, but that wouldn't matter

on a LAN and this quality of a stream shouldn't require anywhere near the bandwidth most broadband services provide.

Regardless, I chose to leave the quality set for 96Kbps. My ears really can't tell that this setting is any worse than 128Kbps.

Thus, I can only assume my CPU and/or RAM was to blame. I turned off the real-time log viewer and stopped exploring various windows within Nicecast. Even the simple act of opening System Preferences caused the receiving end of my broadcast to go silent, requiring me to stop and restart playback on the remote machine. Once the CPU settled down, things seemed very smooth. If you've got a newer CPU and more RAM than I do, I predict you'll have no trouble.

Finally, I understand some people aren't very fond of haxies and modules for Unsanity's Application Enhancer. The Nicecast installer includes the Audio Hijack Server application enhancer—sort of a bare-bones version of Rogue Amoeba's Audio Hijack utility. Personally, I have no issues with this. If Audio Hijack Server helps me accomplish what I want to do, I'm pleased to let it live on my computer.

In closing, I'd like to share the reason I'm using Nicecast, since I'm not planning to operate a streaming radio station. As many people are aware, Apple nixed the ability to share your iTunes playlist outside of your LAN. Some people restored this ability with utilities such as Rendezvous Beacon (later renamed as Network Beacon), but it seems newer versions of iTunes and/or Mac OS X won't allow these methods to work any more, either.

Well, dagnabbit, I want to hear my music at work! My solution: Nicecast. Before you chime in to say that I don't have control to play a specific track or playlist at any time, I've got that covered, too. I simply run a VNC server (Remote Desktop would also work) through which I can control iTunes on my home machine via a VNC client at work.

So, when you get your own Internet radio station going, be sure to let other AT[®]M readers sample your tunes and/or punditry. Feel free to share your broadcast's address by [posting a comment](#)³ on this page.

1. <http://www.audio-units.com>
2. <http://www.greenoak.com/vst.html>

3. <http://www.atpm.com/10.01/nicecast.shtml#comments>



Review: Showcase

by Eric Blair, eblair@atpm.com

Developer: [Contour Design](#)¹

Price: \$40

Requirements: Third-Generation iPod

Trial: None.



I love my iPod, but it definitely presents a conundrum. On the one hand, I want to protect it against scratches and blemishes. On the other hand, I want to show it off to people! I think the iPod is a remarkable combination of form and function and it seems a shame to cover it in a protective, but concealing, case.

The Contour Showcase attempts to address both of these concerns. While not offering as many features as the [Marware SportSuit Convertible](#)² I reviewed several months ago, the combination of the Showcase and the iPod just oozes style that most other cases cannot even dream of matching.

certain—it could just be the way the light is playing off the edge of the plastic on the Showcase and the iPod. In any case, the openings weren't small enough to cause me any problems.

Based on my admittedly rough estimates, the clear plastic on the back looks like it's positioned to allow any engraving to show through. The plastic extends far enough down the back to expose the Apple logo and the size of the iPod.



The front of the Showcase allows easy access to the iPod's controls.



Even from the back, everybody will know you have an iPod.

The Case

The Showcase's shell consists of rigid white rubber with clear plastic covering the iPod's face and back. The clear plastic has four cutouts for the iPod's control buttons and a larger cutout for the scroll wheel. I think the cutouts are a hair smaller than the controls that they cover, but I'm not completely

2. <http://www.atpm.com/9.09/sportsuit.shtml>

1. <http://www.contourshowcase.com>

The rubber casing has four openings on it—one at the top, one at the bottom, and two on the back. The top opening lets you access the headphone jack, the remote control port, and the hold switch. You can attach a cable or cover to the Dock connector via the bottom opening. The bottom opening is easily large enough to remove the Dock connector cover without any trouble. The two openings on the back are for connecting the included belt clip.

The back of the Showcase has two raised rubber ridges, so you can place it on flat surfaces with minimal concern of scratching the clear plastic.

The Showcase features a clamshell design that is hinged along the left side of the iPod and has a slim clip along the right. There are six rubber pads on both the front and back of the inside of the case that stabilize the iPod.



Getting your iPod in and out of the Showcase is simple with its clamshell design.

Since the iPod comes in two different physical sizes, it can be somewhat difficult to design a rigid case that works with all the third-generation models. Contour solves this problem by including a foam rubber pad that fits in the back of the Showcase and makes up the difference in width

between the thicker and thinner iPods. Of course, if you're using the rubber pad, you won't see your iPod through the clear plastic in the back.

Belt Clip

The Showcase's removable belt clip attaches so the Showcase can be worn horizontally. Having worn other iPod and cell phone cases, I find this more comfortable than vertical cases.

The design of the clip makes it possible to wear the Showcase in a few different manners. Most people will probably wear the Showcase on the left or right side of their belt. The belt clip can be attached so that either the top or the bottom of the iPod is facing forward on either side of your body. It's really a matter of personal preference.

The belt clip separates easily from Showcase using a spring-mounted latch that can be operated one-handed. Re-attaching the case to the belt clip is a touch more difficult, but it's not a serious impediment. I usually find myself resorting to two hands for this operation, especially if the clip is still attached to my belt.

Conclusion

The Showcase costs the same \$40 as the SportSuit Convertible I looked at in September. At the time, I stated that the Marware case was more expensive than a number of other iPod cases, but you definitely got what you paid for. While it's true that a number of cases cost less than \$40, there are also cases that cost a good deal more. While I haven't actually handled any of these high-priced cases, it looks as though you are often paying for style over protection and function. With the Showcase, though, I really feel like you get everything you could want in an iPod case—the rubber and plastic shell protects your iPod from falls and scratches, the various openings allow access to all of the iPod's functions, and its understated styling accents the iPod almost perfectly. Although there are other cases that may be more eye-catching, the Showcase has rapidly become my favorite way to encase my iPod.

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FAQ: Frequently Asked Questions

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1. editor@atpm.com
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What If My Question Isn't Answered Above?

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.



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