

# 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](mailto:rleitao@atpm.com)

Welcome to the September issue of *About This Particular Macintosh!* This month students in the US head back to school and Apple Computer prepares for the holiday quarter. We're confident there will be much to celebrate over the next few months, not the least of which will be new contract wins for Apple in the education market. Although education sales remain soft, Apple did report a year-over-year five-percent increase in education sales in the June quarter.

## What Is It With Schools, Anyway?

Funny, we ask ourselves this question all the time! The education market sparked the beginnings of Apple's success, and for many years Apple Computer was synonymous with computers in schools. Once the undisputed computer champion of the education market, Apple now struggles to maintain or regain the education crown from rival Dell Computer.

A while back Apple made a big strategic mistake. At the beginning of an educational sales season, Apple brought all education sales in-house, disenfranchising educational consultants who had formerly been Apple's agents for sales to schools. This cost Apple significant education market share and alienated many of the people who work directly with schools and districts in making technology decisions.

Apple has again revamped its educational sales effort and has invited select consultants back into the fold. Apple's primary education strategy rests on their "one-to-one" program. The program involves one laptop for each student along with technical and curriculum support from Apple. Providing laptops to middle school students throughout the state of Maine is one example of a high-profile Apple one-to-one initiative.

Apple's iBook has been in the market for a long time without a major refresh or change in design. Following this month's back-to-school promotions, watch for changes to the iBook line in the months ahead. It's the foundation of Apple's education hardware strategy.

## I Can See for Miles

Thanks to Apple's new [iSight](http://www.apple.com/isight/)<sup>1</sup> video camera, the title to a popular 60s rock song is no longer an exaggeration. Designed to work with Apple's [iChat AV](http://www.apple.com/ichat/)<sup>2</sup> software, the iSight provides video capabilities to Mac owners running Mac OS X 10.2.5 or later with broadband service.

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1. <http://www.apple.com/isight/>  
2. <http://www.apple.com/ichat/>

We tested the iSight recently, on a 12-hour video chat between two Mac users 2,000 miles apart. The diminutive camera held up well, providing good audio and satisfactory image quality. The camera auto-focuses to present the clearest picture and it sits unobtrusively on one of the three mounts that come with the camera. At \$150, the iSight provides a means for Mac users to have audio and video conversations over long distances.

Our west coast-based author of this column and midwest Mac user Clayton Spayer will detail their experiences communicating with one another using iSights and iChat AV. Their story will appear in our October issue.

## The G5 (Finally)

The last week of August saw large volume shipments of the new G5 minitowers shipping to customers and Apple resellers. However, the popular dual 2 GHz model has had its ship date moved well into September. Apple's fiscal quarter closes at the end of September, so hopefully all orders for G5s will be filled before the end of the month.

## Apple Gets a New High

We are speaking of course of Apple's share price hitting new 52-week highs as August came to a close. On the final trading day of August, Apple Computer set another 52-week high of \$22.85 in intra-day trading and set a new closing high of \$22.61. Apple began the first trading day of calendar year 2003 at \$14.36. The company ended the month of August with a market cap of about \$8.2 billion.

The ATPM Staff

## Before We Leave on Such a High Note

Please read through our September issue. This month's issue includes:

### The Candy Apple: Keeping in Touch

This month, Ellyn Ritterskamp explores the many ways we can stay connected in this day and age, and how these connections affect the way we travel and vacation.

### The Legacy Corner: Picking the Optimal OS for Your Mac

Chris Lawson returns to the pages of ATPM with a run-down on how to pick the best version of the classic Mac OS for your pre-G3 Macintosh.

## **Networks in Action: Whatever happened to...Threemacs.com?**

Matthew Glidden looks back on the Web site that made him a shining light in the darkness of classic Macintosh networking, and shares a look at the future of Threemacs.com.

## **Quick Tips in Design: The Illusion of Depth**

Andrew Kator continues his series of graphics tutorials looking at depth, perception, shading, and shadow, and how best to use them for maximum effect in 2D images.

## **About This Particular Outliner: Outliner History**

Ted Goranson joins the AT<sup>PM</sup> line-up with an introductory column on outlining programs, their history, and place in the Mac community.

## **The Bottom Line: Laptop vs. Desktop**

Another new addition to the AT<sup>PM</sup> staff, Mary E. Tyler begins her series of articles aimed at SOHO users with the seemingly eternal decision of which system to purchase: laptop or desktop? Mary adds up the desktops, subtracts the laptops, and gives you *The Bottom Line*.

## **Segments: Hello Again**

Angus Wong contributes a piece on spending six years in the PC wilderness, and proves you can come home again.

## **Cartoon: Cortland**

NeoCort battles Agent PC for desktop dominance!

## **Cartoon: iTrolls**

The *iTrolls* have to deal with one of those “Niners,” and they offer some nifty iPod Survival Tips!

## **Desktop Pictures: Sweeping Colors and iTrolls**

*iTrolls* creator Gregory Maddux contributes a desktop based on his cartoon, and Ron Gibbs sends a set of pictures inspired by Andrew Kator’s recent article on colors.

## **Review: CyberShot DSC-P10 Digital Camera**

Johann Campbell dives into the world of digital photography with the Sony CyberShot DSC-P10.

## **Review: naviPod (iPod Wireless Remote Control)**

Looking for a way to wirelessly control your iPod? Chris Lawson reviews the naviPod wireless iPod remote control from TEN Technology & Dr. Bott.

## **Review: SportSuit Convertible**

Speaking of iPods, Eric Blair checks out the latest from Marware in iPod convertible casing.



## Bridging Base Stations

I have two snow AirPort Base Stations and can't find a way to bridge them. Someone told me you can't do it. Any thoughts?  
—*Marc Haug*

No can do, at least using the built-in capabilities of the AirPort Base Station. Bridging is a feature of the AirPort Extreme stations. —*Eric Blair*

## Color

While most of the information in [this article](#)<sup>1</sup> is sound, there's one fatal flaw: red, yellow, and blue do *not* constitute a set of primary colors, in spite of what our grade school art teachers tell us. This is why mixing primary colors to get secondary colors never worked so well in grade school. It's not because of "student grade" materials as the author suggests; it's because we weren't using primary colors in the first place!

The primary colors of light are red, green, and blue. This is why the phosphors in CRT screens are those colors. If you have a white wall in a dark room, you can shine red, green, and blue lights onto the wall at various intensities to produce different colors. Shining all three colors onto the same spot at the same intensity produces a white spot. (You can try this experiment yourself with three flashlights and some colored cellophane.)

The primary colors of pigment are cyan, magenta, and yellow. This is why inkjet printer ink comes in those colors. You can mix these three colors of ink in different proportions onto a white page to produce various printed colors. Mixing all three produces black. Magenta, yellow, and cyan are close enough to red, yellow, and blue that art teachers can convincingly claim the latter to be the primary colors of pigment.

Note that the primary colors of light are the secondary colors of pigment, and vice-versa. So the color wheel for light and the color wheel for pigment are complementary.

—*Karl von Laudermann*

Mr. von Laudermann is correct in his descriptions of color from the viewpoint of color based on scientific principles.

Scientifically, additive color mixing is when red, green, and blue are mixed from light sources to create color. Red, green, and blue (RGB) are the primary colors of light. The secondary colors of light are yellow (green + red), cyan (green + blue), and magenta (red + blue). Subtractive color mixing is the color we see around us on a daily basis, the color reflected off of objects (described as reflective color in the article). The CMYK process, commonly used for printing and print reproduction, uses cyan, magenta, and

yellow as the primary colors. As mentioned in the article and by Mr. von Laudermann, CMYK is the color process used by color printers.

When applied to art and design, color usage is not as objective as the scientific principles. Human reaction to color is subjective and there are multiple methods for applying color principles. The article presents color not from the purely scientific viewpoint, but from the perspective of art foundation theory as has been taught and successfully used for many years. Color theory as applied to the visual arts is more than just how the cones in the human retina react to light. Artists and designers in traditional media have been using the information presented in this article for many generations and with great success and the color principles presented in this article are still taught to art and design students. —*Andrew Kator*

## Why I Unsubscribed

I've been a Macintosh user since 1995, and an Apple IIGS user for eight years previous to that. Loved 'em all.

I changed jobs during the year that Apple went to Mac OS X. (I teach in the public schools.) The new school where I work uses Windows exclusively. I was unable to carry the majority of my work to school and then back home, and still use the same platform in both places.

I was either going to have to buy a new Mac (in order to use OS X), or buy a Windows machine (to match up with the workplace). The latter won out over the former, as it probably does in many cases. Now I have two Macs at home, still in use. One uses Mac OS 8 and the other uses OS 9. I don't feel the need to switch to OS X now. We now also have a Windows machine, purchased for job compatibility, which slowly gains our usage time at the expense of the Macs. Shortly, we'll cut back to one Mac, and I suppose in time, switch altogether to the Windows platform.

I think there are a lot of OS 9 users out there who "got off the train" rather than go to OS X. I'm one of them. But I'm not mad or anything; my usage has just gone in a different direction.

I enjoyed AT<sup>®</sup>M for several years, and recommend it to my Mac-using friends, even now. No hard feelings, just went another direction with my computer use, that's all.

—*Warren Burwell*

Maybe someday you'll be [back](#)<sup>2</sup>. —*Michael Tsai*

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

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

## Xnippets

Thanks for the [article](#)<sup>1</sup>! For the first time ever, an article about “handy tools” identified a real need I have (though I wasn’t fully aware of it), and presented a tool I immediately wanted. MacJournal looked good too, so one or the other will be on my machine tomorrow.

—Chris Oslo

## Wireless Networking<sup>2</sup>

I honestly don’t see the point in wireless LAN/WANs. I mean, why spend \$100/computer and \$120/router for that when one can just buy a zillion foot reel of cabling, some connectors, and a crimper for \$40?

I know that most people these days like using LANs just for broadband sharing, but have any of you tried transferring a sizable multimedia file at 10Base-T or even 100Base-T speeds? I have, and it ain’t pretty. I’ll take my gigabit Ethernet, thanks.

About the only thing even vaguely resembling AirPort that I’d want is a built-in cellular modem—something like Nokia’s Wintel-only Cardphone II (which features two GSM modems in one Type II PCMCIA card for dual-line use). This Bluetooth thing is idiocy.

As for this garbage about “Wi-Fi,” I honestly don’t see why people are wasting time and money building access points for it, since there’s already coaxial TV cable strewn about everywhere.

The problem with cable Internet today has nothing to do with inherent limitations of cable’s bandwidth; TV coax’s bandwidth is well over 20Gbps total. That’s enough for every backbone connection to support 2,000 users at 10,000Kbps each. The only reason cable Internet is so sucky is because the cable companies are too stingy with their backbone connections.

It’s like if you have a 1000Base-T LAN hooked up to a 56K modem supporting 100 users. The network is capable of much more, but you, the administrator, are being a stingy little twerp. That is what the cable companies are doing.

I’d suggest the government strong-arm them into using fatter pipes to the backbone.

—Eric D.V.H.

I do understand what you’re getting at, so don’t take this as a “you idiot” type of message. That’s not my purpose. From my point of view, however, your logic is slightly flawed.

First of all, your prices for equipment are completely off tilt. Yes, AirPort cards are \$99, but deals can be found. I got mine for \$49. Also, most PowerBooks come with a wireless card pre-installed anyway, so your cost is perceived as \$0. (Note: I said perceived—not literal.) Plus, the Wi-Fi phenomenon is growing just as strong in the Wintel market as it is for Macs, and wireless cards for PCs can be had for far less than \$100. Wireless routers have been available for well under \$100 for almost a year. I

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

2. <http://www.atpm.com/8.02/networking.shtml>

bought a Netgear MR814 for \$60 after rebate.

As for the physical wire, you can’t overlay your lifestyle on someone else’s. You may not mind running a cable from your den to the living room when you haul out your laptop, but other people do. My brother, for example, was itching to get himself a Wi-Fi router so that his cats would no longer have a bright blue string running down the hallway inviting them to pick it apart. Additionally, you obviously haven’t experienced the immense pleasure of sitting on a back porch enjoying the cool autumn breezes while accessing the Internet without cables stretching across your lap. You have to accept that there are just some scenarios where a wireless connection is a far better solution.

I agree with you about the bandwidth, which is why I’d never recommend Wi-Fi to someone who transfers large files between computers on a regular basis. I keep an Ethernet cable attached to my router that I can temporarily connect to my laptop for this very purpose. But the majority of people who would benefit from Wi-Fi are only using it for Internet functions, and even 802.11b’s bandwidth far exceeds the bandwidth of most broadband connections these days (cable companies throttling available bandwidth notwithstanding).

Sure, Wi-Fi may be largely worthless for you, but your logic can’t be applied to everyone. It’d be like me saying I have no good use for an automobile because they pollute, scads of people die in them in accidents, and I can just walk to work, so they must be worthless to everyone else, too. —Lee Bennett

## Blurry Fonts

I wanted to thank you for your great article: [Mac OS X 10.2—First Impressions](#)<sup>3</sup>. I have been trying to upgrade my PowerBook G3 (8.6) up to a G4 (OS X) and have found that the fonts were too blurry to read. I also noticed the colored artifacts. I explained this to the folks at the Apple retail store—they looked at me like I was crazy! They said they couldn’t see what my problem was, and that the text looked great to them! Your article with text samples at different smoothing levels helped me to feel that I wasn’t insane after all!

I do lots of writing work, and the blurry fonts make my eyes crazy. I am not sure what to do about upgrading—except to upgrade to the G4 and use Mac OS 9.2.

Are your eyes doing OK with 10.2 and the font smoothing turned off? Do you know if Apple is doing anything to correct this in future versions of OS X?

Thanks again for a great article!

—Lynn

Gloucester, Massachusetts

I actually don’t turn off smoothing in OS X. Some applications don’t obey the switch, and I didn’t like the inconsistency. Also, I found that the system font is thin and indistinct against the striped backgrounds. So I let it smooth the system font in menus and controls, and I use applications that let me choose the font and turn off smoothing for larger chunks of text: [Path Finder](#)<sup>4</sup>, [Safari](#)<sup>5</sup>, [BBEdit](#)<sup>6</sup>, [Mailsmith](#)<sup>7</sup>.

3. <http://www.atpm.com/8.09/paradigm.shtml>

4. <http://www.atpm.com/9.06/path-finder.shtml>

5. <http://www.apple.com/safari>

6. <http://www.atpm.com/8.12/bbedit.shtml>

Although OS X has trouble drawing most fonts, it can make Verdana, Monaco, and ProFont crisp and readable, so I use those fonts as much as possible. —*Michael Tsai*

## Satellite Internet

I appreciate all the excellent articles on this Web site. I recently purchased a Dell Windows XP laptop after using Macs. I did so because the only high speed Internet available at my house is Direcway satellite and they cater to Windows machines. The satellite system is on order and now I want to know if I there is some way to use the Internet connection created through this PC (just for e-mail, really) with my G3 laptop which runs OS X 10.1.5 at the moment. I don't have an AirPort card (yet), but the Dell has a wireless card. Any guidance about required software, hardware, etc. would be deeply appreciated. I realize that I may have to say goodbye to my Mac, but want to hang on if possible. I know of these wireless things only by reputation, but am looking forward to sitting outside on my laptop away from the nest of cables.

—*Sam*

OK...you can use a PC to route the satellite connection via wireless to your Mac. That will work. But be forewarned, it is likely to be very, very slow.

Satellites use USB modems that require Windows drivers so you cannot plug them into a Mac, or even a PC running Linux, etc. Also, because they are USB- and not Ethernet-based, you cannot use a hardware router as you can for cable/DSL, etc.

So you must use a PC—you can either use Windows Internet Connection Sharing, or a third party solution. ICS is quick and easy to set up but quite slow. It is also not optimized for satellite use. There are some other third party solutions that are, and will yield better (at least faster) results.

Vicom Internet Gateway and similar solutions do not work because they bypass the Windows TCP stack to improve performance (successfully I might add), but in doing so they cannot talk to proprietary gizmos like the Direcway satellite modem (because the drivers patch into the TCP stack).

But you can use something like [Sat Serv](#)<sup>1</sup>, which I have used. It does a nice job. There *is* a hardware solution. Actually there are two. Assuming you are using DirecWay, you can get this gizmo called the [DW4020](#)<sup>2</sup> from Hughes.

The DW4020 is basically a USB->Ethernet router for the DirecWay system. It provides four client Ethernet ports. You cannot use more than four client PC's on it (there is actually a user limit, not just a port limit). It is the most trouble-free, maintenance-free solution because there is really no software to configure or PC to worry about rebooting, etc. It is also compact and has the same footprint as the DirecWay modem, etc.

However, of course, it's not quite so simple. Very few installers actually know that the DW4020 even exists, and even fewer actually know how to install one if they are aware of its existence. So if you have already ordered service and contracted installation, you are probably not going to be able to go with the DW4020. Call and ask your provider/installer if they can do it. But most major ones cannot...EarthLink, for example, cannot.

[Optistreams](#)<sup>3</sup>, however, can. They are quite pleasant to work

with. In the past I have had good experiences with them. They will find an installer who knows what a DW4020 is and can install it for you. The DW4020 cannot be retrofitted to an existing installation of DirecWay. This is unfortunate, but I have tried doing this in the past and Hughes insists it is simply not possible. It must be installed when your service is first connected.

If you either need to retrofit, or require more than four users, the only industrial strength solution I have discovered also comes from Optistreams and is the [OSR/G](#)<sup>4</sup>. This is basically a headless Windows box that has Optistreams proprietary software installed for routing, caching, and other services. Connect it to the USB modem for the DirecWay system, and connect it to an Ethernet hub/switch, and poof you're in business. It is fast and flexible, and Optistreams has great support.

I am not, in general, a big fan of satellite Internet access. Satellite Internet access should be regarded as an absolute last resort. It is not a good way to go if you have anything other than dialup available. (I might actually encourage ISDN in favor of satellite in certain circumstances.) But if your alternative is dialup, it beats that in most of the ways broadband usually does: always on, faster, doesn't tie up a phone line, etc.

The problem, aside from the above described complexity of sharing the connection, is the major latency problem which makes Web browsing slow. Also upstream speeds are very slow which is problematic because even just sending data upstream to query a Web DNS (i.e. when you type [www.atpm.com](#) and your browser requests the IP translation) can be surprisingly lethargic.

Conversely if you download a large file, speeds can be awesome. You can get 200 KB/s easily. But it's the seat of the pants speed that's missing. Sure you can suck down large files quickly but when you are browsing a Web site or FTP site, the experience is sluggish because of latency and because there is this upstream bottleneck that just puts the brakes on most interactive Internet experiences. Also because of the latency when you browse a Web site, all those little images take a long time to show up. If the entire site were one large image, that would be no problem. The latency issue really screws everything up.

You can resolve a lot of this using a proxy server (Direcway provides their own, and many third party solutions such as the Optistreams server provide a second layer of proxy on top of the Direcway to further speed Web browsing) to help resolve the latency issue. Internal caching, caching of DNS translations, etc. can help to make things somewhat zippier. But this is not cable or DSL. As I mentioned you can enjoy very high download speeds but I'd still take 256kbps DSL over satellite any day of the week.

I don't mean to rain on your parade. I just feel that you should be an informed consumer. Satellite is great if it's your only broadband option. But a lot of people think it's going to be just like cable or DSL and it really isn't. I've installed many satellite systems now for friends, customers, etc., and while things have improved steadily (it used to be that DirecWay was downstream only and you needed to use a modem and a phone line for upstream!) the technology still has a long way to go. —*Evan*

7. <http://db.tidbits.com/getbits.acgi?tbart=07289>

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

2. [http://www.optistreams.com/pg\\_core/prod\\_dw4020.htm](http://www.optistreams.com/pg_core/prod_dw4020.htm)

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# The Candy Apple

by Elynn Ritterskamp, [eritterskamp@atpm.com](mailto:eritterskamp@atpm.com)

## Keeping in Touch

Several vacation trips this summer and fall have gotten me to thinking about the ways in which we are connected. It used to be that a four-day trip was just a matter of calling my folks and telling them where I'd be, and then wading through the catalogs and credit card offers in the mail when I got home. Now it's different. Better, mostly, but different.

First is the way it's gotten so easy to plan and book the trip itself. I never need to deal with a travel agent or even an airline agent. We can do all that stuff on the Web site, either the airline site itself, or one of the many successful travel brokers like Expedia, Travelocity, and Orbitz. These kinds of sites make it easy to find good rates for flights, hotels, and car rentals, if such rates can be had. You have to remember that certain destinations at certain times of year are just not going to be cheap.

Or, you can be like me and go to Las Vegas in August. The daily high temperature is over 100° F. They almost pay *you* to go there. Rooms are really, really cheap, especially midweek.

So, I'm heading to Vegas for four days. What do I do to stay connected? First, I e-mail a few friends the flight numbers and arrival times. I spend some time on the Web site of the hotel where I'm staying to see if it has Internet access (it doesn't, or if it does, the hotel is not shouting about it). The day of the flight, I'll get a boarding pass from my home computer and avoid one of the lines at the airport. I have to tell you, though, that anyone who shows up with a home-printed boarding pass is very likely to be selected for extra inspection at security. That suits me fine—I *want* them to check out people who are well enough equipped to do that.

I'm not yet at the stage of buying a laptop and taking it with me on the plane. I don't fly often enough for that. But if I did, I'd have one quicker than you can say G5. Why be held hostage to the \$5 movie that might be crummy, when you can bring your own and see it up close? I checked to see what DVD I should rent, but then remembered I still have a *Harry Potter* movie to watch, and *Apocalypse Now*, and *Casablanca*. (I went on a DVD buying spree a while back but haven't caught up with myself just yet.) Anyway, that's just a fantasy. Hey, does anybody rent PowerBooks?

So I've made all the travel arrangements and now the plane has landed in Vegas. I'll get settled in my room and then play blackjack all night. The next morning, though, I have an online game scheduled at 9:30 Vegas time. Half a dozen of my message board friends will be there, expecting me to ask

them trivia questions. I've tried for a week to get someone else to host the game, but no one I've asked can do it. So I'll need to find Internet access by 9.

I'm fortunate that a Los Angeles friend frequently visits Las Vegas and has thoroughly scoped out the public libraries. He'll point me in the right direction and I'll be able to run my game on schedule. They'll never know I'm not at home, on Eastern Daylight Time. Such places are normally free but have a 30-minute time limit, which is just how long the game lasts.

Then there'll be the matter of wading through all the mail, like I said earlier, only now it's spam in addition to paper mail. At least this way I can weed out most of the spam before I even get home. One trip I think I'll just let it pile up, to see how much actually comes in. I only average about 50 messages a day—that's mostly because this address is accessible to Web crawlers that go around looking for @ symbols. It's kind of fun coming home to all that mess, imagining the sort of person who could use all those products. Their plumbing might be awfully complicated.

So the regular e-mail stuff is taken care of, and the travel arrangements. Now all that's left is to check the e-mail at two work addresses and to put in a little maintenance time on my fantasy baseball teams. One allows only weekly changes, which I'll make before the trip. So all I can do on that one is look to see how well my teams are doing. The other league allows for daily changes, so I need to drop by now and then to make sure none of my lads has been injured and needs replacing.

All this stuff will happen at a local library. This wouldn't have been the case a few years ago. Of course, a few years ago, I wouldn't have been hosting an online game, or had half a dozen e-mail accounts, or have been playing fantasy baseball.

Our world is getting larger, or smaller. Or whatever it is when we stay connected to each other more than we used to. And that is A Good Thing.

Onward.

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## Picking the Optimal OS for Your Mac

I'm often asked what the best OS for a certain Mac is. While there's certainly no universal answer, some general guidelines are useful food for thought. Keep in mind that this is going to deal primarily with Macs in a home or home-office setting; those of you administering computer labs probably have your own guidelines, either handed down from above or based on your own experiences and what you prefer. My general rule of thumb is that faster is better, so my own recommendations are biased in favor of overall speed, sometimes at the (minor) expense of features.

On the earliest Macs, those with a 68000 CPU, there's [little reason to go above System 6](#)<sup>1</sup>. In fact, the 128 and 512 won't even run System 6, because they have too little RAM, so you'll need to track down an earlier OS. The best place for tracking down System 6 or earlier, including many international versions, is Gamba's [Where To Download Mac OS](#)<sup>2</sup> page. The 68020-based LC and Mac II can run System 7 if you choose, but both are noticeably faster if you stick with System 6.

Starting with the 68030-based Macs, System 7.1 becomes a much better balance of features and speed. System 6 will run on many of them, including most of the Mac II series, but is not significantly faster than 7.1 in my experience, and System 7 provides a user experience more akin to that of Mac OS 8 and up, in contrast to the rather stark and seemingly barren System 6. If you're used to OS 8 or higher, go with System 7.

With such add-ons as the Drag Manager, the Thread Manager, and the CFM-68K Runtime Enabler, you can make System 7.1 rival Mac OS 7.6 for features, but with much greater speed. Further information about (and links to) these add-ons, as well as others that will enhance the features of System 7.1, is available from Gamba's [System 7.1 Favorite Add-Ons](#)<sup>3</sup> page. (As a brief aside, I would recommend that anyone working regularly with 68K Macs become intimately familiar with the URL for [Gamba's index page](#)<sup>4</sup>. It's perhaps the most information-dense Mac site on the entire Internet.)

The biggest point of contention with the various "best OS" articles on the Mac Web has traditionally concerned the 68040-based Macs. My stance, after quite some experience, is that 7.1 with the aforementioned add-ons is your best bet. System 7.5 or 7.6 will be significantly slower to boot, use more RAM, and will be somewhat slower once running, but some people find the few additional features included with

later OSes worth the wait. The same applies to Mac OS 8.1, although I find 8.1 to be extremely slow on 68Ks. (Don't even think about running 8.0. Apple recommends all Mac OS 8.0 customers upgrade to 8.1 immediately due to several bugs and speed issues.) The principal use for Mac OS 8.1 is in an application such as a home file server (typically used for MP3s or the like), where reboots and user interaction with the UI are rare, and HFS+ is necessary in order to use multi-gigabyte hard disks efficiently.

There is little or no reason to run anything below Mac OS 8.1 on any PowerPC-based Mac. The fact of the matter is that virtually none of the OS is optimized for the PowerPC CPU in pre-8 OS versions, and despite the marginal increase in RAM usage and the general "creeping feature-itis" of Mac OS 8.5 and up, an optimized installation of even Mac OS 9.1 will be substantially faster than 7.6 or lower on any Power Mac. The first-generation (pre-PCI) Power Macs are best off with 8.1 unless Sherlock or other features of 8.5 and later are absolutely required, in which case Mac OS 9.1 is preferred. (Some users swear 8.6 is faster than any prior version of OS 8 and any version of OS 9, but my experiences have not borne this out.) Most PCI Power Macs will run 9.1 quite acceptably, though those of you unfortunate enough—like myself—to be saddled with a 7200 may wish to experiment with 8.1 as well and see which best fits your needs. Mac OS 8.1 is the fastest OS on the 7200s, though 9.1 is quite tolerable with plenty of RAM. Incidentally, those of you attempting to run post-8.1 versions of the OS in less than 128 MB real RAM will likely find the experience less than satisfactory. Fortunately, RAM is inexpensive and still fairly easy to find for these machines—a 128 MB module can be had for virtually any pre-G3 PCI Mac for about \$30.

The question with a G3- or G4-based Mac, then, becomes, "Do I want to run OS X or OS 9?" And that, dear readers, is another article in itself, and getting distressingly close to what

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1. <http://www.euronet.nl/users/mvdk/why.html>
2. <http://home.earthlink.net/%7Egamba2/syslist.html>
3. <http://home.earthlink.net/%7Egamba2/71more.htm>
4. <http://home.earthlink.net/%7Egamba2/>

I would begin to consider *not* “legacy.” I’d never hear the end of it if I left you hanging, though, so next month I’ll cover the 9 vs. X question.

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## Whatever happened to...Threemacs.com?

### Introduction

In 1995, I heard about computer networks for the first time. Not the flash and shadow of CIA “networks,” but a real Mac in my room talking to the Mac in my brother’s. We suffered and fed an addiction to Bungie’s excellent Marathon series, which drove my network needs and an ongoing battle with sleep deprivation. The first step, connecting our Macs with a printer cable, soon led to drilling holes in my closet wall. Snow and ice couldn’t stop me—I had to get those Ethernet cables through!

Somewhere along the way, I started keeping a diary of my network hackery. My normally stolid nature aside, I feared making a mistake that would render my computer inoperable. (Or even [knock out power grids in nearby states](#)<sup>1</sup>.) The diary held a record of the network setup process, should a “back to step one” disaster occur.

Over five years and multiple incarnations, my network diary became [Threemacs.com](#)<sup>2</sup>, a network guide for various levels of Mac user. Initially hosted at my college and later on my own dime, it’s now under ATPM’s charge. The site persists to this day, outliving Super Bowl luminaries like Pets.com and Kozmo.com.

### But What Does It Mean?

Ah yes. What now? Threemacs.com lies largely fallow, with no substantial updates since it moved to the ATPM servers a couple years ago. In the Threemacs world, Mac OS 9 is still nouveau. In reality, Apple has since churned out Mac OS X and Rendezvous, which feature significantly enhanced network functions. Windows file sharing, FTP access, and printer sharing all went from expensive add-ons to standard features. If you use these features, the \$100 you spent for Jaguar paid for itself twice over.

A primary reason for no updates? Stuff is easier to use than it used to be. Generally speaking, more features haven’t caused more trouble. Mac OS X keeps it all tidy in the

Network and Sharing preferences panes. Back in OS 8 and 9, network functions bounced among control panels and the large number of Mac models made it difficult to troubleshoot problems. As a wise bear once said, “Oh, bother!”

Despite its out-to-pasture nature, Threemacs remains somewhat popular. I haven’t checked visitor stats recently, but last year, a [public poll](#)<sup>3</sup> of top Mac sites placed it in the top 50. The average Mac’s long lifespan surely contributes. I picture veteran Mac users wondering how to get newer Macs to play nice with Mac OS 7 and 8. “Share to the network, printer! I command thee!”

### But What Happens to Your Site Feedback?

Hmm, good question. Threemacs used to receive a couple dozen questions a day, everything from simple clarifications to requests to “please hook up this configuration in your testing lab.” A good-natured chuckle to that one—I’ve never owned more than two computers, but appreciate the implied vote of confidence.

Truthfully, I haven’t answered much feedback since ATPM took over. My fellow staffers are a great resource, following up comments on my columns promptly and in detail. There’s not much day-to-day stuff left to write about. I’ve just my faithful Cube and the corporate-issue Dell laptop; even calling it a network is a stretch.

### One-Trick Pony?

There will be an update to replace old sections of Threemacs with pointers to [newer ATPM columns](#)<sup>4</sup>, but that’s it. So is there more you’d like to see? The short story to this column is that while there’s always something under the sun to write about, the network options seem slim. Disagree? Let me know. Otherwise, I plan to move to other fields of interest, Mac-happy but focused on the present. “For great justice!”

1. <http://www.cnn.com/2003/US/08/19/blackout.investigation.ap/index.html>  
2. <http://www.threemacs.com>

3. <http://www.lowendmac.com/botmw/fall02/botmw.html>  
4. <http://www.atpm.com/Back/networking.shtml>



## Part 3: The Illusion of Depth

One of the difficulties with visual art is representing the three-dimensional world in two dimensions. The flat surfaces we use to communicate ideas, including print, television, the Web, and motion pictures, all present information in two dimensions. This article covers some effective techniques for representing the three-dimensional world using more limited two-dimensional media.

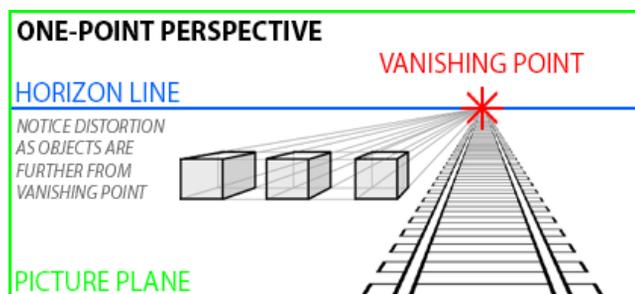
### Perspective

There are two simple rules about representing depth. Size decreases with distance, meaning objects that are further away from the viewer appear to be smaller. Objects also overlap when one is in front of the other, hiding part or all of the farther object(s). These two observations are the basis for perspective.

The easiest way to understand how perspective works is to imagine standing in the middle of train tracks (not recommended for safety reasons) and looking along the tracks into the distance. Visually follow the tracks to the horizon (where the earth meets the sky) and the tracks appear to meet at a point in the distance. This converging point is called the *vanishing point*.

Now imagine that as you look at the train tracks converge into the distance, you are holding a piece of rectangular glass directly in front of you. If you traced what you saw onto the glass with a marker, you would be drawing onto the *picture plane*. Perspective is a method for representing what is seen through the picture plane on another two-dimensional surface.

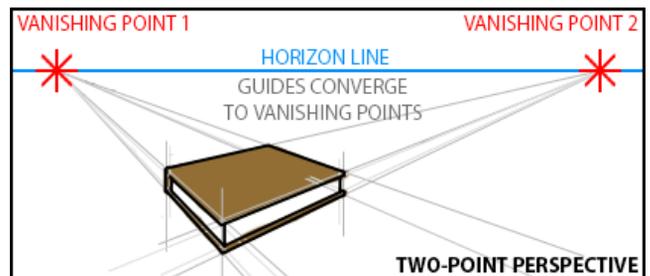
The train tracks are an example of *one-point perspective*, the easiest of the perspective methods. This method is useful when representing landscapes, city streets, and other environments in which things are aligned and converge to one central point.



One-point perspective images have a tendency to draw the viewer along the lines to the vanishing point. This effect can be used to greater advantage by placing the subject of an image in front of or near the vanishing point. The viewers will more naturally focus their attention because most of the lines in the image converge onto that area. This effective technique has been used for centuries and can easily be seen in Leonardo da Vinci's *Last Supper* and works from other artists.

The boxes to the left of the tracks in the one-point perspective example have one face perfectly aligned parallel to the picture plane. This is a limitation of one point perspective. Another problem with this technique is that objects become more distorted the further they are from the vanishing point, as can be seen with the far left box in the example.

The real world is rarely so organized as to align objects facing the viewer, nor are we often standing in the correct position to observe objects so directly. Because we view most objects from an angle, and not directly from the front or sides, *two-point perspective* allows us to represent our world more realistically by orienting two faces of an object obliquely to the picture plane.

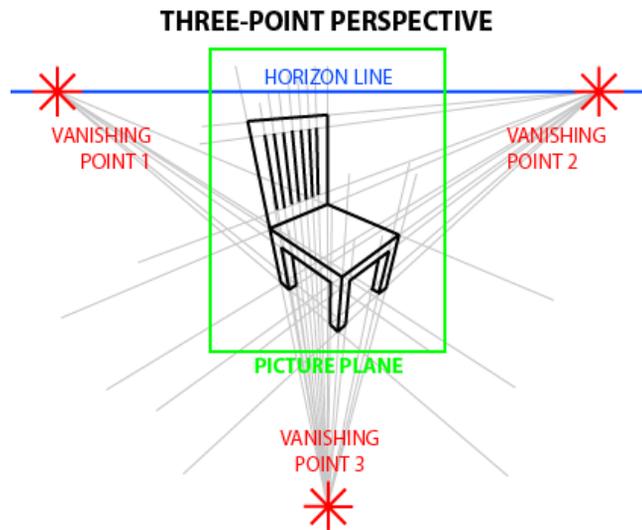


The book illustration shows an example of two-point perspective. Other than the obvious difference in having two vanishing points, it is also important to note that objects drawn using this method have an *edge* closest to the picture plane rather than a *face* as in one-point.

The horizon line in the book image is higher in the two-point example than the horizon in the one-point perspective image. The higher horizon suggests a viewpoint from a higher position, such as looking down upon a book on a table. The position of the horizon line represents the viewer's eye level and affects how the viewer interprets the image. A lower horizon suggests that the scene is either from greater distance or that the viewer is lower to the "ground." A higher horizon could also be used to suggest the viewer was looking

out a window from a tall building. Horizon line placement is similar to using a “bird’s eye view” or a “bug’s eye view” in photography. These extremes are useful for creating more dramatic visual results. Look for this technique in comic books, where horizon placement and exaggerated perspective are used to suggest action and create more visual interest.

One-point and two-point perspective techniques can be used in the same image if needed to represent different objects. Determine if an object’s face (one-point) or edge (two-point) is closest to the viewer and then use the appropriate method. Each object may also have its own vanishing points, since only aligned objects will share them.



If the *corner* of an object is closest to the picture plane, then *three-point perspective* can be used. The third vanishing point is not on the horizon line. The position where the third vanishing point is placed, either above or below the horizon line, indicates whether the viewer is looking up at the object or looking down.

Notice that in the chair illustration the picture plane does not contain the vanishing points. It is not necessary for the vanishing points to be within the picture plane for perspective to work. When creating smaller images using two or three-point perspective, the results will often appear more natural if no more than one vanishing point is in the picture plane at any given time.

### Perspective in a Logo

Logos should easily communicate the identity of the business and its product in a unique and recognizable way. In this example the logo is intended for a custom handmade cabinetmaking shop. The logo needs to work for print, but will also need to be easily transferred to paint stamp and branding irons so that the business can use the image to “sign” their pieces. Fine detail will not show up on stamps or irons, so it should be avoided for this project.

The chair used in the three-point illustration is a good starting point for creating this logo. The acronym “MH” was added to represent the shop’s name and distorted to match the perspective used to create the chair. The clean, even lines make results from different reproduction methods more consistent and help the “readability” of the image.

A potential problem with the lines of the white chair is how they transfer to stencils, stamps and irons. Inverting the chair to black with white lines made the image more suited for the other methods of reproduction.



It is always good to present the client with different variations of the same design so that they can choose the one most suited to their taste. In this example all three variations can be used by the client, the white chair for print (using less ink and toner), and the logos with black chairs for stamps and irons.

Logos should easily communicate identity and brand to the observer. There is no doubt the business has MH in the name and something to do with furniture as well. While this example illustrates applying perspective to a logo, it also demonstrates effective logo design.

### Using Line Thickness to Suggest Depth

Variations in line thickness can be used to suggest depth. In the example for one-point perspective, the lines of the train tracks get thinner as they “fade into the distance.” Bolder lines can be used when illustrating the same object to bring it to the foreground and demand more attention, with thinner lines receding and creating the opposite effect. Using line variation to suggest depth is another useful technique in illustration, and as with exaggerated horizons and perspective is also frequently seen in comic books.

### Shading and Shadow

Shading adds depth to an object by suggesting volume, and shadows place an object in an environment. Both are also used together to indicate light sources in an image and help represent three dimensions in two-dimensional media. Read [Part One: Using Value](#)<sup>1</sup> for more information and examples.

1. <http://www.atpm.com/9.07/design.shtml>

## Atmospheric Perspective

Objects in the distance become obscured by our atmosphere, including humidity and particulate (dust, pollen, smoke, and pollution). This effect is called *atmospheric perspective*. Distant objects viewed through clean air will take on a blue or blue-gray color. Humidity and fog shift the color more to gray. Brown, violet, or orange can be used to mimic pollution and smoke.

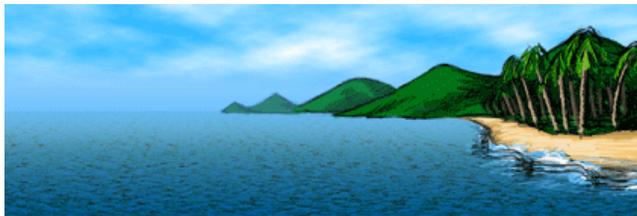


illustration with ATMOSPHERIC PERSPECTIVE effects

This natural interpretation of distant objects is one explanation for why cool colors (closer to blue) recede and are less prominent than other colors. Colors viewed from a distance will also be less saturated. For further explanation of color usage, read [Part Two: Using Color](#)<sup>1</sup>.

Another effect from the atmosphere upon distant objects is a change in contrast. Objects viewed from a distance will have less detail and lower contrast with fewer lights and darks. Shadows, highlights, and reflections are less extreme or not present at all when viewed from a distance. Use more contrast in foreground objects and less in the background to suggest depth and focus attention. More information about contrast can be found in [Part One: Using Value](#)<sup>2</sup>.

Anyone who has played with photography understands that when the camera is focused on a close object, the background may appear blurred. Blurring the background in an image simulates this effect while also decreasing contrast and detail.



*To increase the perception of depth, contrast was increased in the iBook and decreased in the eMac and iMac. The background was scaled down, blurred, and the iBook moved to overlap the background. Colors were tweaked with more orange in the iBook and blue in background. Images are from Apple.*

1. <http://www.atpm.com/9.08/design.shtml>
2. <http://www.atpm.com/9.07/design.shtml>

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Some argue that focus is an atmospheric perspective effect, while others feel that it is a separate technique. Those arguing against suggest that our reaction to blurred images as distant is a development of photography and the abundance of photographic images in our modern world. Our eyes rapidly change focus to whatever we are looking at, so our brains rarely interpret what we see as being “out of focus.” Support for this viewpoint is found in artwork created before the invention of photography where the technique of blurring distant objects is predominantly missing. Whether it is an instinctive environmental interpretation as with the other atmospheric perspective techniques or a learned response to photographic imagery, blurring distant objects in an image can be an effective technique for adding depth.

## Applications

Most of the techniques covered in this article are used by 3D software to create images in perfect perspective with atmospheric perspective effects. With such tools available, why anyone needs to know the information in this article is a question often asked. Knowing how to simulate depth helps to create better images, even using 3D software to do most of the work. It helps to know what to look for in order to make the software do it.

Many images created with 3D software must be combined with photography or illustration to create the finished product. *Star Wars: Attack of the Clones* is a good example. Most visuals in the movie, minus the actors, were created using 3D software. The live footage with people was combined with the computer generated images, but the finished images had to work together to be convincing. If the actors were in different perspective from the setting, it wouldn't matter how great the 3D images were because the two wouldn't match and people wouldn't like the movie.

Knowing how things work is a large part of what is required to make things work. In that respect, art and design are no different from science and invention.

Problems can occur when combining multiple images together, not only with mixing photographs but also when using illustration and clip art. Each image may be perfect by itself, but put together with other images things don't look right. Even if the problem isn't obvious, you can often find inconsistencies by checking perspective, line variation, shading and shadow (direction of light sources), color, contrast, detail, and focus. The problem may be one thing or a combination, but corrections are easier when you know what to look for.

# About This Particular Outliner

by Ted Goranson, [tgoranson@atpm.com](mailto:tgoranson@atpm.com)

## Outliner History

For a while there, I felt deprived. Yes, Mac OS X is the future, but we sure went through a hard patch until the core applications were brought over the fence. Lost in the shuffle were some dearly loved power tools: [Nisus Writer](#)<sup>1</sup>, [OneClick](#)<sup>2</sup>, and [IdeaKeeper](#)<sup>3</sup>. But there's fresh light in the homeland as a new generation of power tools is appearing. Many of us are taking advantage of this shift to improve our way of working. Almost certainly in this shift, outlining is bound to play a role in whatever world you build for yourself in your Mac. This new column will track what's happening in outlining and provide some useful perspectives beyond the average "review."

This month, we give an overview of outlining. In future columns, we'll drill down into different features, use patterns, philosophies, and specific tools.

### Macs and Outlining

The Mac community has always had more innovative software than their Windows counterparts. Perhaps it is the nature of the community. Possibly it is because every Mac user is a niche customer already, and therefore more interested in niche software. This interest in innovation has often involved the outlining paradigm, sometimes as standalone applications but often embedded in other applications.

I am as lazy as the next guy, and generally don't revert to basic philosophy in evaluating applications. The trigger for my most recent self-examination was the appearance of Circus Ponies [NoteBook](#)<sup>4</sup> and its sibling AquaMinds [NoteTaker](#)<sup>5</sup>.

These are quintessential Mac applications: very attractive, powerful—but easy to begin using immediately. They exploit a familiar metaphor, the spiral notebook, and both have a whimsical presentation as companies. The first question for someone like me is whether to adopt it—a heavy commitment for a user, quite independent of cost. A large part of each person's creative self inhabits the artificial world they create in their Macs. The whole idea of "thinking different"—at least in Ted's mind—is to understand what sort of a world you'd like that to be, where you'd be simpatico

with the "physics" of an application and where you want it to get out of your way to let you fly. So I ended up looking at outliner basics.

No one element of the desktop experience is more central to this sort of examination than outlining. Even if you do not think of yourself as an outliner now, stick with us. We will explore the various ways of working with structure, and even if you don't adopt any of these products, you'll be more knowledgeable, comfortable, and self-aware in your Mac environment.

Outlining is bred in the blood of Mac users. The Finder has an outliner. Nearly every mail client employs an outliner, as do many word processors and Web development tools. Outlining is a way of adding value; it provides structure—structure that can be used for finding, navigating, relating, and presenting information. Other than gaming, the use of computers involves:

1. getting stuff (either from your mind or from others'),
2. adding value to it somehow, and
3. presenting it, often to others.

This is pretty much true whether we are talking about e-mail, iTunes, to-do lists, or reports. We'll focus mostly on number 2, which is why most of us have and use computers.

### A Very Brief History of Outlining

Like most techniques in desktop computing, outlining has a precomputing, document-oriented heritage. Hard as it may be to believe for many today, outlining was taught in public schools as fundamental to writing, which in those days—because of the outlining task—was called "composition." Outlining in that sense meant collecting thoughts on 3 by 5 inch note cards and then arranging the cards in a manner that composed a coherent thread.

The first Presidential Science Advisor, president of MIT, and creator of the National Science Foundation, Vannevar Bush, gave a series of talks in the late 40s on the future of information. He suggested a vision called [Memex](#)<sup>6</sup> (1945), which still today is remarkable, anticipating the Web but going well beyond its current simple functionality. Memex was heavily based on the card (or note) metaphor, and was in a way a global outliner according to the school definition.

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1. <http://www.nisus.com/NisusWriter/>  
2. <http://www.westcodesoft.com>  
3. <http://www.plumisland.com/ideakeeper/index.html>  
4. <http://www.circusponies.com>  
5. <http://www.aquaminds.com>

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6. <http://www.theatlantic.com/unbound/flashbks/computer/bushf.htm>

Later at MIT, new generations of programming languages were being developed, most notably Lisp (which is still with us). Text editing with computers was in those days a matter of program coding, and the community by 1970 had developed Lisp editors that collapsed and indented “child” headers.

(You can see and use the descendants of these features in the Emacs editor built into your Mac OS X system. In a Terminal window, type “emacs”, then <return>, then Esc, then “x”, then “outline-mode”, and then <return>. Then type something like shown in Figure 1 with several headers you denote with asterisks and some paragraph text—which Emacs calls “leaves.” Now type Control-C then Control-L to collapse leaves. Control-C and Control-A expands again. A friendly introduction and help comes from typing Control-H and then “T.” Congratulations! You have just used the outliner of the most feature-rich editor ever created on any platform. We’ll explore this in a future column because there are versions of Emacs that are mouse-, window-, and menu-friendly, have several outlining extensions—and are free.)

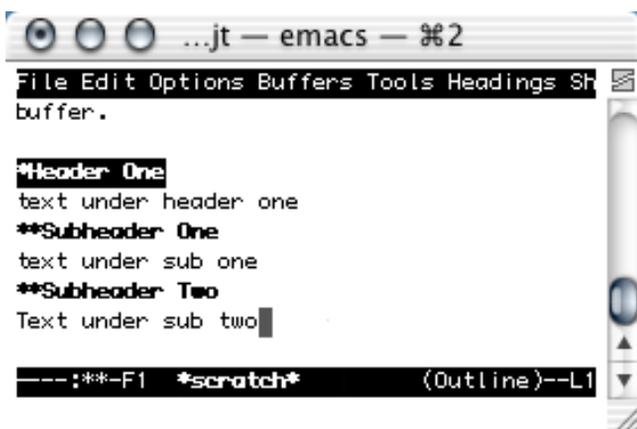


Figure 1: Emacs

In parallel, and also at MIT around this time, Ted Nelson extended Bush’s vision, coining the term “hypertext,” and more or less leading a revolution in thinking about electronic documents around a project called [Xanadu](http://www.xanadu.net/xuhistory.html)<sup>1</sup> (1967).

A fairly robust community of researchers gathered around this notion, developing different ideas of unstructured versus tree-structured links. From the 60s to the 80s, the famous Doug Englebart of Xerox PARC (the lab behind much of what is now the computer desktop) wrote about a system called [Augment](http://www.bootstrap.org/augdocs/friedewald030402/augmentinghumanintellect/ahi62index.html) (1962)<sup>2</sup>, reflecting ideas that had been circulating for a decade. Out of this rich pool came both the Web and the desktop outliner. (The note-card metaphor as an idea unto itself became bonded to the Mac early in the game with the introduction of HyperCard.)

The desktop outliner was [first productized](http://daveviner.userland.com/outlinersProgramming)<sup>3</sup> by Dave Winer on the Apple II and then the Mac. He was followed closely by David Dunham—also on the Mac. Their respective products ([MORE](http://www.outliners.com/more31)<sup>4</sup> and [Acta](http://a-sharp.com/acta/)<sup>5</sup>) are available today for free and still (amazingly) run under Classic. These were “straight” outliners, intended for ideas, notes, and lists to be primarily entered by typing and then rearranged and managed. MORE has a rudimentary presentation mode. Both of these products were abandoned as supported commercial products when the outlining paradigm was incorporated into other products, notably word processors, presentation applications, and personal information managers.

The modern outliner—at least in this context—generally maintains the notion of many “notes” whose titles are arranged in an indented tree structure. Although the Mac is a miniscule percentage of the market, it is still the place to be for outliner development. That may be because of the touted superiority of the development environments. It could be a matter of a sticky legacy. But it is more likely—as we already mentioned—that it is the superior character of the user base; they are more likely to be people who chose their computers, use them at home, and use them in creative and experimental ways.

## Types of Structure

Outliners take advantage of what may be the most primitive of relationships, probably the first one you learned as an infant: *in*. Things can be in or contained by other things; alternatively, things can be superior to other things in a pecking order. Whatever the cognitive mechanics, trees/hierarchies are a preferred way of structuring things. But it is not the only way. Computer users also encounter: links, relationships, attributes, spatial/tabular arrangements, and metaphoric content.

- *Links* are what we know from the Web, but they can be so much more. The simplest ones are a sort of ad hoc spaghetti connecting pieces of text to text containers (like Web pages), but we will see many interesting kinds that have names, programs attached, and even work two-way.
- *Relationships* are what databases do, most easily imagined as “is-a” statements which are simple types of rules: Ted is a supervisor, supervisors are employees, all employees have employee numbers.
- *Attributes* are adjectives or tags that help characterize or locate things. Finder labels and playlists are good examples of these. Spatial/tabular arrangements are obvious: the very existence of the personal computer sprang from the power of the spreadsheet.

1. <http://www.xanadu.net/xuhistory.html>

2. <http://www.bootstrap.org/augdocs/friedewald030402/augmentinghumanintellect/ahi62index.html>

3. <http://daveviner.userland.com/outlinersProgramming>

4. <http://www.outliners.com/more31>

5. <http://a-sharp.com/acta/>

- *Metaphors* are a complex and powerful technique of inheriting structure from something familiar. The Mac desktop is a good example. Photoshop is another, where all the common tools had a darkroom tool or technique as their predecessor.

You could almost think of these as parts of a larger language: roughly verbs, nouns, and adjectives for the first three. Poetry for the last.

Two complications make all this interesting. First, nearly every application uses some mix of these techniques. The Finder, for instance, has hierarchies but can display them spatially in columns while using metaphors and (soon) attributes as labels. The other complication is that the organizational techniques I described aren't distinct. Hierarchies and links are a kind of relation; attributes can be seen as a type of hierarchy (just like songs can be "in" playlists, even though the implementation is a sort on a list)

or a relation. All of these, in fact, can be coded using the same mathematical formalisms. What matters is how they differ when encountering each user's cognitive peculiarities and workflow needs.

All of the applications we are going to review in the future play roles in bringing order to information. Every user—well, every Mac user—will have their own way of working: some create information, some collect it; some start with a structure while others evolve one; and where some revel in complexity others will seek clarity. Time frames, mouse preferences, size of the information chunks, and means of delivery or display will all affect your application preferences. And that's even before we get to the actual workflow. That's why a simple comparative review would be meaningless.

•••

Next month, I'll list all the different features found in outliners, and which programs support them.

*Copyright © 2003 Ted Goranson, [tgoranson@atpm.com](mailto:tgoranson@atpm.com). Ted Goranson has been thirty years in the visualization and model abstraction field, and has had careers in defense and intelligence spooky labs. He is now beginning a [new user interface project](#)<sup>1</sup>.*



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1. <http://www.Sirius-Beta.com/ALICE/>

# The Bottom Line

by Mary E. Tyler, [mt Tyler@atpm.com](mailto:mt Tyler@atpm.com)

## Laptop vs. Desktop

As a small business owner, if you don't watch the bottom line, you can end up at the bottom of the barrel. The challenge is to find news, reviews, and even commentary that has the small business perspective in mind and its interests at heart. According to the government, a company with 250 employees is small. If you ask me, 250 employees and millions in revenue is pretty @\$#% big!

Far too often we've seen that big business and small business do not have the same interests. The truth is, neither do small businesses and tiny businesses. Sole practitioners and offices with two, three, even ten employees don't have in-house IT personnel. Often they support, maintain, upgrade, and even repair their own equipment.

I know. I've been in business out of my home office (in one way or another) for about a decade. From shareware developer to Web design and development and on into technical journalism, I know what it's like to fly solo. So if you own or are considering a home-based business, or if you have a tiny office with only a few computers, I'm talking to you.

When I first set up my office, it wasn't SOHO, it was TOHO—tiny office, home office. I didn't even have a room of my own, just a desk about two feet from my bed. There wasn't much choice in affordable computer equipment then. The Mac I bought in college was as good as it got. These days the choices and configurations are nearly endless. I'll assume that you've already resisted the temptation of a cheap Windows PC and are looking for a trusty Mac.

It used to be that laptops were financially out of reach for most tiny businesses, but with the advent of the iBook, that's changed. You can get a very capable laptop for about \$1000. For another grand, you can get a top-of-the-line computer, or what would have been considered a supercomputer a decade ago. The fact that laptops are affordable just makes the decision all the more difficult.

So let's talk money first, since most TOHOs are on a budget tighter than Scarlett O'Hara's corset laces. Desktops win in two out of three price ranges. On the low end, you're going to get a lot more bang for your buck with a desktop. The \$1299 iBook can't hold a candle to the 15" iMac, also \$1299. And for five hundred bucks less, you can have a competitive eMac. You can also have a great eMac for \$1299. If you really want it, and have money to burn, the dual G5 clobbers the tricked out 17" PowerBook, and for several hundred less. But do remember you have to buy or otherwise own a monitor for use with the G5. If you're like me, you're in the \$1800 range. The 12" PowerBook and the 17" iMac are closely comparable,

both at \$1799. The iMac has more screen and a few more megahertz. The PowerBook weighs about four and a half pounds and can be toted hither and yon.

If you often travel to Hither or Yon (get your super-saver flight on MAC Airlines), you'll want something portable. The iMac and eMac are luggable if you're going on a road trip to Rhode Island for a couple weeks. G5s are not portable, even with a big trunk. Last time I took a tower on vacation, I blew a PCI slot and my vacation got \$3000 more expensive. To take back and forth to client meetings, vacations, business trips, or just to your second office (mine is at McDonald's Playland), you can't beat a laptop with a crowbar and two goodfellas.

Now while the good news is that laptops travel well, the bad news is that if you want a full sized keyboard, mouse, and screen, you have to carry them too. And of course, Apple makes a snazzy-looking power supply, but they never make it compact and easy to carry. Neither cord retracts and your toddlers will tread on it if you try to mix your authoring (CD/DVD) with your *Arnold* (daily on Nickelodeon). If you're not careful, you can pull it out of the wall or out of the machine, potentially breaking the connector.

In a laptop's integrated keyboard, a Coke will cause a lot more damage than if you just dumped it in your desktop's keyboard. This brings up the whole topic of parts and repair. Laptops generally have to be sent away for repair, if they can be repaired at all. If your desktop monitor breaks, worse comes to worse, you can replace it. If your laptop monitor breaks and it's not under warranty or AppleCare, fuhgeddaboutit. Laptop parts and upgrades are more expensive, even on eBay. While you can get away with not having AppleCare on your desktop, it is an absolute necessity for a laptop. Laptops are more delicate, more prone to being damaged, and, due to their wandering ways, are more likely to have mishaps. Laptops walk—that is they're easier to steal than the Honda Accord, Toyota Camry, and Ford Taurus put together.

Thankfully, laptops are also easier to hide. That's because (duh) desktop machines and their various peripherals take up more space than the final frontier. A large monitor can completely obscure your desk, not to mention the laser printer in the corner, an inkjet for color, and the tower underneath. Add a cable modem and router and forget about actually working at your desk. You could end up needing to buy one of those unsightly office desks just so you can work.

A laptop, by definition fits on your lap, even the 17" PowerBook. Instead of being at arm's length, you can have a warm relationship with your faithful companion.

Unfortunately, with some of the new G4 PowerBooks, it can be a *very* warm relationship indeed. Depending on the processor, a laptop may put out a significant amount of heat. Certainly enough to be uncomfortable, but probably not enough to burn. You want your technology hot, but not that hot!

Once you have a laptop, like all hot technology, it cools fast. What was young and frisky this year is ancient and pokey next year. With a desktop, you can swap your mostly useless DVD-RAM (some Sawtooth G4's) for a SuperDrive off eBay. Try replacing the pathetic 6 GB drive in your clamshell design iBook SE; it takes something like 22 steps and about four hours of delicate tinkering.

Now whether that's a pleasant afternoon or not depends on who you are. The biggest factor in what to choose is what you want to do with the machine now and maybe in the future. People who need high-powered computation, graphics, and video and don't need to go anywhere should have a G5 on

their desk. If you're doing Nisus Writer Express, Excel, Keynote, Eudora, and Safari and you want to use the computer in your recliner while your kids watch the *Wild Thornberrys Movie*, then that 12" PowerBook with an AirPort base station looks awfully attractive. If you're a graphics professional, you'll be more concerned with color quality than mobility and should get a CRT rather than an LCD screen. You have to choose the computer that fits your needs and only you can assess those needs.

All in all, it really sounds like the laptop got the worst of it in this shoot out. But that's not the case at all, because while there are drawbacks, for people who have laptops, portability trumps them all. What's really most clear is that the people who choose a desktop love the extra screen real estate and processor power. They love the desktop. People who buy a laptop love the flexibility and portability. They'd never trade their laptop and don't regret buying it. When it came down to making my choice, I thought, "Since I'm borrowing anyway, what's an extra two grand?"

I bought both.

*Copyright © 2003 Mary E. Tyler, [mt Tyler@atpm.com](mailto:mt Tyler@atpm.com). Mary's primary machine is a beat up iBook SE. She uses a similarly geriatric G4 450 with a dying DVD-RAM for graphics, design, and development. She doesn't regret buying both for a millisecond. You can read her work in MacAddict and TidBITS, and at Skatefic.com.*



# Segments: Slices from the Macintosh Life

by Angus Wong, [anguswong@softhome.net](mailto:anguswong@softhome.net)

## Hello Again

I realized today I had left the Macintosh community for six whole years.

My first Mac was a Mac SE, purchased at a student discount in university. It had 1 MB of RAM and came with a 20 MB hard disk. I still remember wondering how it would ever be possible to fill that monster up. Even if I loaded it with my entire collection of 800K floppies, there would still be heaps of space.

That SE cost me an arm and a leg, but as things turned out, it eventually paid for itself. By fooling around with a Macintosh in the late 80s, I eventually landed myself a part-time gig doing (you guessed it) “desktop publishing.” I got to play with a LaserWriter (“Prints just like a book!”), something called Digital Darkroom, and its eventual competitor Photoshop. Of course, there was PageMaker, and Aldus FreeHand was my favorite drawing application, along with the company’s Persuasion product, which let people produce slideshows via a computer. We also frequently sent stuff to another company which had really expensive Linotronic machines that made high-resolution glossy printouts that were even sharper than what the laser printer produced (if you can believe that!).

Eventually, with the help of a program called Quicken to track my expenses, I saved enough to upgrade my SE to an 020 chip via an add-in board called the Hypercharger 020, which was about the only thing I remember that ever made use of the SE’s System Expansion slot. I also bought a ton of games. And to think I almost forked over my savings for an IBM PC with Zero Wait State. Life was good. I had made the best decision in my computing life by going with the Mac.

But not everything was happy in those early days. I remember reading about the death of Duane Blehm, the kid who wrote the games Cairo Shootout and Stuntcopter, when I was surfing one of the local BBS systems (via the terminal program Red Ryder and my blazing-fast 2400 bps modem). I can’t help but think how Duane would have been amazed at the development of the Mac over the years.

Around that time, however, there was another kid by the name of Ray Lau who had thrown his StuffIt program into the gauntlet of compression applications, against rivals PackIt and Compact Pro (he later sold his rights to Aladdin Systems).

Nearing graduation, I got myself a IIsi, having salivated over a color Macintosh when I had the good fortune of using the then-recently-released Macintosh II at the DTP job (color guide markers and highlighted text!). Although severely

constrained, the IIsi nevertheless let me experience the Mac in full color. Of particular interest was the full GUI-driven First Class BBS system, which completely blew away all of the text-based BBS systems.

Entering the workforce proper, I finally started earning a real salary, and with the boost in spending power grabbed a PowerBook 180c. But I was soon over the joy of having a portable Macintosh (and with color!) and ended up buying a Newton 110. And for the first time, I realized not all of Apple’s products were necessarily good despite being consistently expensive.

During this critical moment of personal history, a larger revolution was going on elsewhere in the world, and I kept busy fiddling with SLIP and MacTCP settings so that I could work the handful of neat-o Internet applications I had FTPed. Anarchie was a favorite, as was an early Eudora. I also ran the Mosaic browser, although there wasn’t a whole lot to surf with it aside from university documents and Yahoo.

Two years and a higher income bracket later, I put a Power Macintosh 6100 AV onto my credit card, proudly showing off homemade digital videos to my friends, and doing my best to convert at least twenty of them to the Mac platform.

Then, around the mid-90s, I had to eat my own words, for I began to work in a company which not only used IBM PC-compatibles, but actually made critical parts for them.

So began my foray into the wilderness, starting with a no-name Pentium 133 tower and a serial mouse.

That machine was later supplanted by a Pentium 166 MMX Thinkpad, a Pentium II 300 Latitude, and finally a Pentium III 1 GHz Inspiron. Macintosh had become a distant memory, my neurons only barely recalling a huge marketing campaign around the number 7.

Flash forward to 2002.

My Inspiron was aging. It ran at 1 GHz but what I really wanted was a 2 GHz laptop. Especially one with at least 64 MB of VRAM on the 3D card (for graphics applications). But the economy was in shambles, and I really should have been saving rather than spending money. So instead of getting a brand new machine, I surfed around the auction Web sites for deals on second-hand laptops.

On one particular auction page, by either pure random chance or some act of destiny, I came across a 500 MHz G3 iBook (Dual USB). Now, it was entirely not what I was looking for. I wanted a new laptop for games, ah, graphics-

intensive tasks, but there was something about the iBook that really caught my eye. And before I realized what I was doing, I had already bid for and won it.

The next day I met with the seller, and gladly exchanged my wad of cash for the near-mint crystal white Macintosh. I simply could not believe my eyes. The iBook was the most perfectly designed piece of computing I had ever seen. And I now owned it!

I hurried back home with my newly-adopted baby. But there was nobody for me to talk to about the purchase. I had alienated almost all my old Macintosh buddies (or worse, somehow had converted them to the Wintel platform!). So, I did the next best thing. I dug through my dusty library of old computer books and fished out *The Mac Bathroom Reader*.

I then connected the iBook to my broadband connection, and within minutes I was flying through the Internet like a man reborn. The machine came with OS X, but I found it disorienting, so for the first few months I stuck with the more familiar Classic OS. There were many impressive improvements to the Mac OS. I had skipped Mac OS 8 completely, and was enthralled by the advances incorporated into Mac OS 9.

I surfed Apple's Web site and watched several of the most recent Steve Jobs keynotes. I checked out whatever Mac-related Web sites and mailing lists I could still remember. I dug out my legacy Mac CDs on which I had archived all manner of personal data and classic programs such as Claris EMailer and Acclaim InControl. There was even a floppy disk for eWorld. Go figure.

So here we are now, in the middle of 2003, and I am surfing my favorite Mac sites, running Software Update just to make sure I have the absolute latest and greatest stuff on my hard disk (I do). But what's really on my mind is when the heck am I going to be able to get my hands on either a 1 GHz 12" PowerBook, or maybe figure out a way I can buy a 900 MHz iBook but somehow swap its ugly opaque casing for the one on my 500 MHz.

As for my Inspiron, it's sitting on the shelf doing what it's supposed to do. It's running Linux and acts as a firewall for my home LAN. I use its free disk space as a kind of Network Attached Storage, and the 3D card is completely useless. Strangely enough, I really don't give a moof! How can I? It's just a lousy PC.

They say you can't go home again. You know, I think they're wrong.

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# Cartoon: Cortland

by Matt Johnson, [mjohnson@atpm.com](mailto:mjohnson@atpm.com)

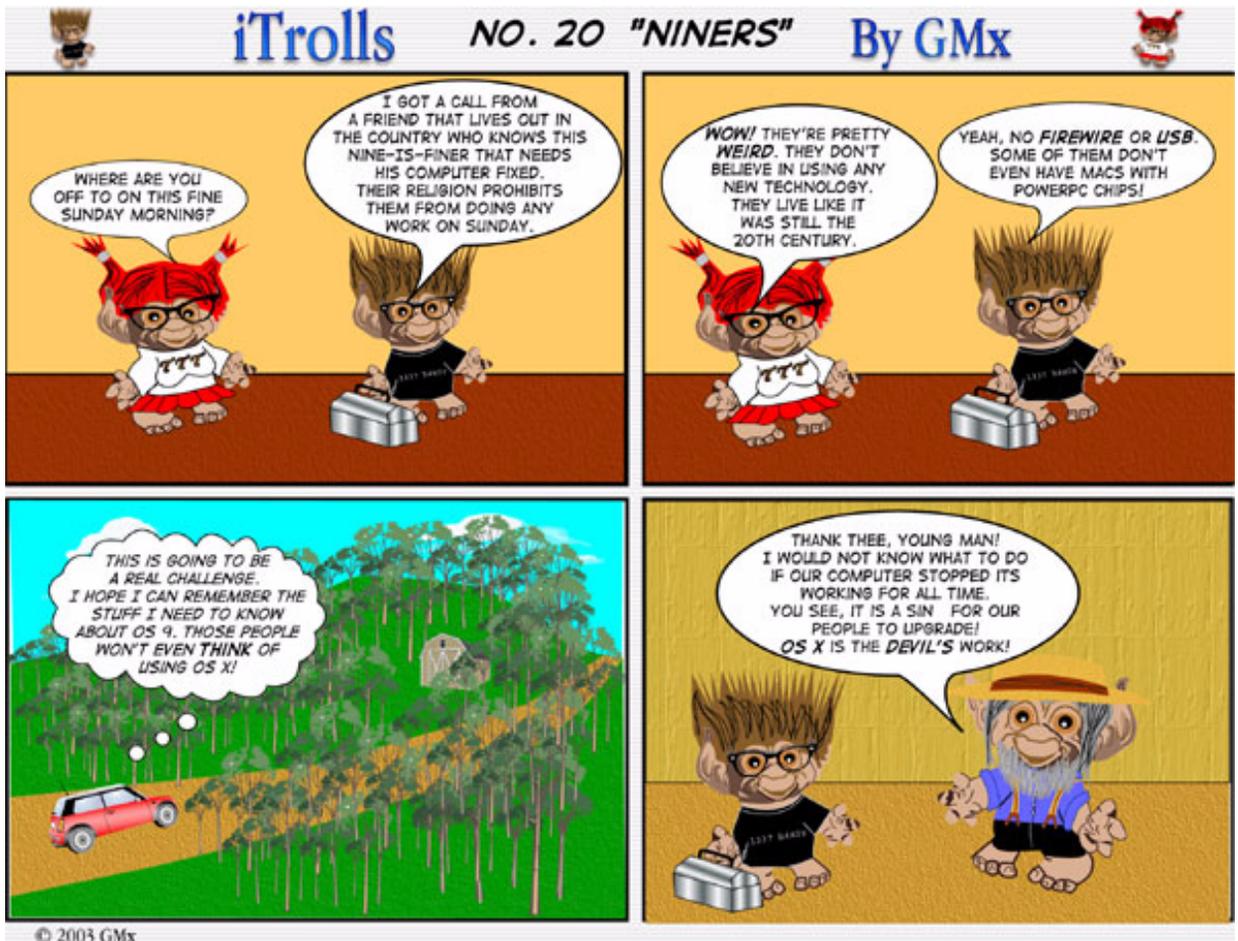






# Cartoon: iTrolls

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





**iPod Survival Tips No. 1-** If lost in the forest, you can use the back of your iPod as a reflector to signal rescuers.



© 2003 GMx



**iPod Survival Tip 2:** You can use the backlight of your iPod to make your way through the dark. **Use Caution!** The backlight seriously drains battery power.



© 2003 GMx



**iPod Survival Tip No. 3-**With external speakers and an external power supply, you can save yourself from a Bigfoot attack because it is known that the Bigfoot likes to dance.



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## Sweeping Color and iTrolls

### [Sweeping Color](#)<sup>1</sup>

These desktop pictures were submitted by ATPM reader [Ron Gibbs](#)<sup>2</sup>:

I just recently found your online magazine and it's pretty nice. Will follow now on a regular basis. I really like the [article](#)<sup>3</sup> (series) on color. I am submitting a set of 10 desktop pictures for possible use in your appropriately named section.

I do a good deal of work in close-up and microphotography. My [Web site](#)<sup>4</sup> has been on the Internet since 1994–95 and specializes in minerals, gemstones, and some photo information. Over the years I have used some of my photos as desktop pictures, with and without modification. For me, the straight pictures tend to be too busy, so I usually use them to create pattern backgrounds that have sweeping color but less direct subject content. I have sent along five originals and five of the modifications.

### [iTrolls Desktop Picture](#)<sup>5</sup>

[iTrolls](#)<sup>6</sup> cartoonist [Gregory Maddux](#)<sup>7</sup> submitted this desktop picture based on his cartoon.

### Previous Months' Desktop Pictures

Pictures from previous months are listed in the [desktop pictures archives](#)<sup>8</sup>.

### 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](mailto: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 10.1.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.

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."

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1. <http://www.atpm.com/9.09/sweeping/>
2. <mailto:theimage1@aol.com>
3. <http://www.atpm.com/9.08/design.shtml>
4. <http://www.theimage.com>
5. <http://www.atpm.com/9.09/itrolls/>
6. <http://atpm.com/Back/cartoons.shtml>
7. <http://homepage.mac.com/gregmx/>
8. <http://www.atpm.com/Back/desktop-pictures.shtml>

### 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](#)<sup>1</sup> in issue 5.10 and available for [download](#)<sup>2</sup>.



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

# Review: CyberShot DSC-P10 Digital Camera

by Johann Campbell, [jcampbell@atpm.com](mailto:jcampbell@atpm.com)

Developer: [Sony](#)<sup>1</sup>

Price: \$600 (list); \$450 (street)

Requirements: Mac OS 8.6 or Mac OS X, USB

Recommended: Mac OS 9 or later. The manual offers specific compatibility advice.

Trial: None.



Since I have had the use of my own digital camera for approximately two months now, and I have thought long and hard about an answer to the question, I face writing a review on it without knowing exactly who to recommend this camera to. This is because when you first pick up Sony's flagship compact digital camera for 2003, the CyberShot DSC-P10, and start to play around with it, you will find it incredibly hard to put down.



The first thing about this camera that makes an impression is its size. Measuring just 4.25" in length and just over 2" in height, the P10 is smaller than Sony's previous efforts—no mean feat given the boost in specification compared to larger siblings such as the DSC-P72. Any pre-conceptions that the P10's size makes it vulnerable to damage vanish once it is picked up; although it weighs a mere seven and a half ounces, the camera feels reasonably solid and durable, enough to withstand the odd accidental knock, not that you would ever forgive yourself if you dropped it.

Looking around the camera's enclosure, a few features immediately catch the eye. The core lens sports a 3x optical zoom and an additional 4x digital zoom function, and automatically adds about an inch to the camera's depth when it is switched on. A standard tripod mount is offered on the bottom of the camera, and the side features an easy-open panel for access to the rechargeable InfoLithium® battery and

media slot. The back features a 1.5" full-color LCD screen, most of the camera control buttons, and the necessary I/O ports, while the top of the camera is reserved for the shutter release and power buttons.

## Modes

Once switched on, the P10 will always be in one of six modes, each represented and accessed by a dial surrounding the shutter release button. Three of these are used for picture taking, the one feature that one expects every camera to support out of the box. Most pictures will only require the auto-adjustment mode, in which the focus, exposure, and white balance values are automatically adjusted to suit the environment. Those who prefer having complete control over their camera's settings will appreciate the programmed mode, in which all options are configured through an extremely easy-to-use menu system. A scene selection mode is also available, for pictures which fit one of six predefined profiles.

## Resolution

In any of the three picture-taking modes, the P10 lets you choose the desired image resolution of your next photo from a choice of five, ranging from VGA (640x480) to an astonishing 5.0 effective megapixels, which I am reliably informed equates to 2592x1944 pixels. The additional capture modes when taking still images make this camera all the more desirable: the camera can take three pictures in rapid succession (optionally with the exposure value slightly shifted in each image), can record an attached audio file of up to 40 seconds, or it can simultaneously store a lower resolution (320x240) "thumbnail" of the normal-sized image for e-mail purposes. After taking your picture you have the option of instantly reviewing the shot without switching to playback mode, and quickly deciding whether you want to keep or delete what you just shot.

1. [http://www.sonystyle.com/is-bin/INTERSHOP.enfinity/eCS/Store/-/-/SY\\_DisplayProductInformation-Start?ProductSKU=DSCP10KITIS&CategoryName=dcc\\_DIDigitalCameras\\_Cyber-shotDigitalCameras](http://www.sonystyle.com/is-bin/INTERSHOP.enfinity/eCS/Store/-/-/SY_DisplayProductInformation-Start?ProductSKU=DSCP10KITIS&CategoryName=dcc_DIDigitalCameras_Cyber-shotDigitalCameras)

## Viewscreen

Additional features worthy of mention at this point are those offered by the viewscreen. The built-in viewscreen offers four display modes, from displaying basic information on top of the current image, to full information, to full information plus a live histogram. Personally, I cannot see the appeal of a live histogram graphic other than to perhaps judge brightness balance, but a few people might find this more useful than I would. The viewscreen is fine for judging the position of the camera when taking a picture, but there may be times when the sun is too bright to see what's on the viewscreen, or it otherwise detracts from picture-taking. In these situations, not only does the camera's standard viewfinder come in handy, but the viewscreen can also be turned off to save battery power and keep distractions to a minimum.

## Quality

Picture quality, as you would expect, is excellent. The camera's support for taking macro shots of fauna especially gives highly impressive results, with a great attention to detail and accurate color reproduction. The one limitation the camera does suffer from here is the forced JPEG image mode; while images are generally captured at the finest quality, the lack of support for a lossless file format such as TIFF is slightly disappointing.

## Movies

A nice feature of the camera meanwhile is its ability to record true motion pictures, in MPEG-VX format. In this "movie mode," an additional two kinds of "movies" are supported: Clip Motion creates an animated GIF image of up to ten separately-shot frames, and Multi Burst shoots sixteen frames in customizably quick succession and stores these frames as a single image. If you prefer your movies with sound, there are two MPEG movie resolutions to choose from, 160x120 and 640x480. Both average about eight frames per second, and both record sound. The larger resolution naturally consumes available space like nothing else, and the smaller resolution seems too small graphically despite the obvious space savings. I would have liked to see and use a compromising 320x240 resolution for general purpose movies, but otherwise I am happy with the available choices.

## Playback

While capturing your media may be the first thing you would want to do with a digital camera, the fun comes when you decide what to do with it. With this in mind, the Playback mode of the P10 is truly impressive, and offers features almost too numerous to list here.

Most of these options focus on still images, and a lot can be done to previously captured photos without the need of a photo editing program. Viewing a still image on the built-in viewscreen can be slightly tricky if you want to check on

some of the details, so the P10 conveniently lets you zoom in on an image with up to 5x magnification, and navigate around the image using the arrow keys. If a photo was accidentally taken at the wrong resolution, this can be changed at a later stage, although changing the resolution upwards of the original will, naturally, not automatically add detail that wasn't there before. Individual images can be rotated on-screen (for viewing purposes only), protected against accidental deletion, or marked for printing at a shop or on a DPOF-compatible printer. Finally, media can be stored in separate folders on the removable media. Unfortunately, it seems that once media is captured it cannot be moved from one folder to another by using the camera alone, although this can be done by computer.

When dealing with previously recorded movies, the camera lets you adjust the volume during playback, pause at any point, and even rewind and fast-forward through the movie. Even more interesting is the rudimentary movie editing functions on offer, which allow for cutting up the movie into segments, as well as the reordering and deleting of segments as necessary. Image sequences can be split in much the same way.

In the event that you become tired of constantly pressing the back/forward buttons to navigate through all of your images, press the "zoom out" button. This lands you in multi-view mode, which displays thumbnails of nine pieces of media at a time. The cursor keys let you move around this view, and a scroll bar on the left hand side indicates how far down you are in the list of images for that folder. Zoom out further and you enter another view, which displays a thumbnail of an image alongside a detailed list of its properties.

## Configuration

The sixth and final mode deals with general camera configuration options, and neatly leads me into discussing various hardware features of this camera. As you would expect, this is where you set the date and time, language, and LCD features; this is also where you set various options relating to the media, along with the option of formatting it entirely and starting afresh. A number of more interesting settings include the option to turn off audio feedback, which I can see many people using once they become irritated by the constant beep-booping and imitation shutter sounds, and the choice between NTSC and PAL formats when mirroring what the camera sees on a television, using the supplied AV cable.

## Storage

As this camera is a Sony product, it happily supports Sony's proprietary Memory Stick technology. Despite various complaints about its incompatibility with the more popular formats, the Memory Stick format is quickly coming into its own as a multi-purpose storage tool, with ports appearing in

everything from electronic photo frames to Sony's VAIO range of computers. Not that this matters when you connect the P10 to your Mac with the supplied USB cable; if you are running Mac OS X, this camera is supported without the need for any additional configuration. Once it's plugged in the camera goes into USB mode, the Stick automatically mounts as just another external drive (albeit with a nice Memory Stick icon) and can immediately be used within the Finder, iPhoto, and even GraphicConverter. Classic Mac OS users will require a quick driver installation, but all is otherwise well.

## Ports

The three I/O ports—AC power, A/V, and USB—are located side-by-side on the back of the camera, behind a protective cover. While this cover makes perfect sense, it seems ever-so-slightly flimsy when it is unhinged and swung out the way. That there is nowhere for the hinged cover to go, added to the fact that it cannot be detached from the camera itself, leads to worries that too much stress on the hinge could lead to the cover snapping off entirely.

## Documentation

Documentation, happily, is ample, and covers everything you would want to know about using the camera. The 100-plus-page manual not only covers the camera's various functions

and menu system, but also offers a comprehensive troubleshooting guide as well as a step-by-step instruction guide on how to use the camera with both Windows and the Mac OS. The manual even goes as far as including charts on how long a battery charge will last depending on how you use the camera (the average is about an hour and a half), how many pictures you can take depending on the image resolution and the size of the Memory Stick used, which image resolutions are suitable for which purpose, and so on. All in all, an essential reference.

## Conclusion

So, who is this camera geared towards? Although this is my first digital camera, there is the slight possibility that a first-timer might become overwhelmed by the sheer number of features offered by this camera, a few of which I only discovered today while writing this review. It's certainly not for professional photographers: while the 5MP resolution delivers stunning results, professionals already carry larger, bulkier cameras offering resolutions of up to 13MP. No, it would appear that the DSC-P10 would appeal most to hobbyists or people otherwise reasonably serious about photography, who want a lot of features packed into a compact case and are prepared to pay for the privilege. It is an excellent all-rounder, which despite a few trivial drawbacks delivers brilliant results.

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# Review: naviPod (iPod Wireless Remote Control)

by Chris Lawson, [clawson@atpm.com](mailto:clawson@atpm.com)

Developer: [TEN Technology](http://www.tentechnology.com/products_navipod_gen2.php)<sup>1</sup>/[Dr. Bott](http://www.drbott.com)<sup>2</sup>

Price: \$50

Requirements: iPod (there are different versions of the naviPod for different iPods)

Trial: None



I'm a gadget geek. There, I said it. Some gadgets make it worth being saddled with this label, though, and the naviPod is one of them. I don't *need* a remote control for my iPod, because it's rarely out of arm's reach, but having one is a convenience I'm certainly not complaining about. Those of you who use your iPods as part of a home stereo system, or who use them heavily in the car and don't want to deal with reaching for the iPod to change tracks, will greatly appreciate this device.



The naviPod is a three-piece unit, consisting of a wireless IR remote control about 25% larger than a silver dollar, an IR receiver about the size of a container of dental floss that snaps onto the top of the iPod and occupies the FireWire and audio-out ports, and a chrome-plated metal stand that snaps into the back of the IR receiver. The whole apparatus is quite attractive, with the two electronics modules matching the

iPod's plastics and the stand matching the iPod's chrome casing. Assembly is very intuitive, in the spirit of the Macintosh experience, requiring only the joining of the IR receiver and the iPod and the receiver with its metal stand. The only assembly issue I had was with the alignment of the FireWire and audio plugs on the IR receiver, which are designed to be somewhat adjustable, since the spacing between FireWire and audio-out ports on the various iPods differs slightly. A quick adjustment to the FireWire plug achieved perfect alignment and no further issues were had.

Remote performance is on par with a typical IR remote control for your television or VCR. I had no problems operating the unit at a distance of up to 30 feet, with a clear line of sight to the receiver. It remains to be seen how long the included CR2032 lithium button-cell battery will last, but I anticipate it to be similar to other IR remotes (i.e., a few years). Battery life on the iPod is shortened slightly, but probably not enough to be an issue, since the purpose of the naviPod is to be used in a semi-permanent setting where AC power is likely to be readily available.

The remote, like the wired remotes included with Apple's second-generation iPods (and available separately for first-generation models with manual scroll wheels), controls audio functions only, including volume, play/pause, and skipping forward or backward track-by-track. The skip buttons function just as they would on the iPod, acting as fast forward or rewind buttons if held down. The iPod's remote protocol makes no provision for accessing the menus, and thus the naviPod can't either.

The biggest drawback to the naviPod is that its included stand renders it unusable with many iPod cases, including Dr. Bott's own [LeatherPod](http://www.atpm.com/8.09/leatherpod.shtml)<sup>3</sup> (which itself cannot function effectively as a stand). With the stand removed from the IR receiver, the case can be left in place without much fuss. The manual notes that although the pass-through FireWire jack on the naviPod allows for recharging of the iPod via the power adapter (or via computer), it does *not* allow for data

3. <http://www.atpm.com/8.09/leatherpod.shtml>

1. [http://www.tentechnology.com/products\\_navipod\\_gen2.php](http://www.tentechnology.com/products_navipod_gen2.php)  
2. <http://www.drbott.com>

transfer to or from the iPod, so the naviPod must be removed in order to synchronize your iPod with your Mac. Attempting to synchronize the iPod with a Mac through the naviPod will not damage anything, but it simply doesn't work.

My only other complaint—albeit a minor one—is with the remote, which, while very attractive, seems to have been designed with a “function-follows-form” attitude in mind. The rounded bottom makes it nearly impossible to set on an

angled surface without sliding. TEN should have taken a tip from Bose's Wave Radio remote and made the naviPod remote rectangular and flat.

I've also been told that devices such as Griffin's iTrip will refuse to work in conjunction with the naviPod; I hope to address some of these potential problems in future reviews. For now, I suggest anyone wishing to use two devices such as these at the same time contact both manufacturers and do some investigating, and please post your findings as feedback below.

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# Review: SportSuit Convertible

by Eric Blair, [eblair@atpm.com](mailto:eblair@atpm.com)

Developer: [Marware, Inc.](#)<sup>1</sup>

Requirements: Third-generation iPod

Price: \$40

Trial: None



On the grand scale of [iPod](#)<sup>2</sup> cases, it is fair to say that Apple's bundled case is fairly basic. Marware's 3G SportSuit Convertible, though, definitely qualifies as fairly complex.

The SportSuit Convertible consists of four parts—a neoprene, rubber, and plastic iPod case; a neoprene and leather lid; a belt clip; and an arm band.

## The Case

The front of the case is dominated by a clear plastic protective sheet. The plastic sheet has four circular cut-outs for the iPod's buttons as well as a cutout for the scroll-wheel. The plastic is surrounded by neoprene and there are rubber grips on the case's side.



On the bottom of the case, there is a rubber grommet that gives you easy access to the iPod's Dock connector. While you obviously cannot connect your iPod to the Dock while it is in the SportSuit, you can sync and charge using the Dock cable while your iPod is protected from scratches.



When the iPod is inserted into the case, it is held in place very snugly. Once you slide the iPod into place and get the cutouts lined up with the iPod's buttons, the iPod does not move.

The one thing that somewhat irks me is that the Dock connector on my 30 GB iPod sits very close to the front of the grommet. I'm not thrilled about the possibility of placing extra pressure of one side of the Dock cable while it's connected to the iPod. I have a feeling this is due to the case being designed for both the 30 GB iPod and the somewhat slimmer 10 and 15 GB iPods.

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2. <http://www.atpm.com/9.08/ipod.shtml>

1. <http://www.marware.com/convertible3G.html>

## The Cover

The removable cover attaches to the case via two pieces of the Velcro—one at the top of the case, one at the bottom. When the cover is attached, it acts as though it is hinged at the top. As a result, you can flip the cover over the back of the iPod and use it as a makeshift stand.



The main function of the cover, though, is its pocket. The front of the cover bulges out and creates enough room to hold your headphones and remote control. As somebody who has removed an iPod from a backpack and found the headphone cord wrapped around just about everything, this was one of the biggest features I was looking for in an iPod case.

## Belt Clip and Armband

Another of the SportSuit's big features is what Marware calls the Multidapt system. Basically, the Multidapt system lets you connect a variety of clips to the SportSuit. The included belt clip is a Multidapt clip.

The armband is not a Multidapt clip—it slides through a pair of fabric straps on the back of the case.

I've been running with my iPod a few times and find the armband extremely convenient. There's no extra weight added to the waistband of my shorts, and the case cover keeps the headphone cord from getting tangled.

## Conclusion

At \$39.95, the SportSuit Convertible is more expensive than many other cases. In fact, it is the most expensive case Marware makes. However, you certainly get what you pay for. I was not able to find any other case that provides the same features as the SportSuit.

If you are looking for an iPod case that does it all, you owe it to your self to check out the SportSuit Convertible.

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