ComputorEdge™ Online — 01/15/10

This issue: Tech Tools for a Less Taxing Tax Season

Tax time may be inevitable, but it needn't be taxing and expensive with free and low-cost software and Web tools.

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Worldwide News & Product Reviews by Charles Carr

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Digital Dave

"Digital Dave answers your tech questions." by *Digital Dave*

Is there a way to downgrade to 32-bit XP using a 64-bit computer?; a reader is sick of rogue pop-ups on Web sites he visits; a frisky puppy may have damaged a laptop's keyboard components.

Dear Digital Dave,

I have an HP DV6-1334us laptop with Windows 7 Home Premium 64-bit. Most of my audio-editing software requires the XP 32-bit OS. Is there a way to downgrade to 32-bit XP using a 64-bit computer?

Thank you

Ramon Gracia
Chula Vista, CA

Dear Ramon,

If none of the compatibility settings in Windows 7 work for you (found in Control Panel/Programs/"Run programs made for previous versions of Windows" wizard), rather than downgrading to Windows XP, you should upgrade to the Professional or higher level of Windows 7. Then you will be able to install Windows XP Mode and Windows Virtual PC (both are required) directly from the Microsoft Web site (*www.microsoft.com/windows/virtual-pc/download.aspx*).

In effect you will be adding an XP computer to your Windows 7 computer. Windows Virtual PC will create a virtual machine within your computer in which you will run Windows XP Mode. This solution was designed for exactly your situation. Unfortunately, Microsoft chose not to include it in the Home version of Windows 7.

You could also select another brand of virtual machine, such as VMware, to run on your computer, but then you would still have the hassle of loading Windows XP.

Digital Dave

Dear Digital Dave,

How do you block a Web site from popping up ads on your screen? There are sites that I visit, where aside from the big-screen window, small windows pop up asking for some kind of input. Is there a way to block these pop-up ads and questionnaires? (I'm using Mozilla Firefox.)

Michael A., San Diego, California

Dear Michael,

I too am aggravated by all the little techniques used to impede my forward progress on the Web. There are a number of things that you can do, but some may hurt your normal Web browsing experience. Even with these techniques, you may not be able to stop all of the annoyances.

First, you should make sure that the pop-up blocker in Firefox is turned on. (It is found in the Tools/Options window in the Content section.) Activating "Block pop-up windows" will prevent the type of windows that initiate without any action from you. (It will not stop those that appear when you click a link or simulate a mouse click or mouse over.) This will not stop the actions that produce a window within a window.

To further stop annoying actions that are generated within the confines of the browser window would require disabling features that are often essential to a good Web experience, such as JavaScript and Flash. While this can be done (the JavaScript check box appears in the same Options window), I don't recommend it. There are too many good sites that need these capabilities enabled to allow a few rouges site to dictate our setup.

The best solution is to note which sites annoy you and refuse to return. You might drop a note to the Webmaster about your displeasure, but it may fall on deaf ears.

Digital Dave

Dear Digital Dave,

My puppy ran across my lap and stepped on my laptop keyboard. Now it does not work (type) anymore. The mouse works and volume buttons work, just not the actual keyboard.

It is a Dell Inspiron 1420.

Krissie
Fallbrook, CA

Dear Krissie,

While it is possible that there is a connector somewhere inside that loosened a little, depending on the force of your puppy's paw, there could have been some damage to the circuitry for the keyboard. The fact that everything else is working indicates that there is probably some physical damage.

Your laptop needs to be opened by an experienced person to isolate the problem. First the connections to the keyboard should be checked. If the problem continues, then I'm afraid that something will most likely need to be replaced. It could be a module or the keyboard itself.

The lesson is that a puppy should not be allowed to use the computer until it learns not to bang on the keyboard. The same applies to children.

Digital Dave

Income Tax-Preparation Software

"Some of the best-known applications for doing your taxes." by Michael J. Ross

> A growing number of taxpayers are electing to use software, by themselves, to fill out their taxes, without consulting an attorney or anyone else, yet still enjoying the many advantages of these tax-preparation programs.

For many Americans, filling out federal income tax forms can be almost as painful as seeing how much Uncle Sam has extracted from their net worth—and certainly far more confusing. Each year the federal tax code is made more complex by Congress, and current events suggest that there will be no change in that trend. On top of that, for those people living in the 41 American states that tax personal income, April can be an especially unpleasant and expensive time of year. The paperwork and resultant anguish is even worse for freelancers and other business owners, who are required to estimate their income for the year, from all sources, and pay quarterly estimated tax payments.

Americans can choose to complete all of the forms by hand, using pre-printed instructions and forms distributed by the Internal Revenue Service (IRS) and the state revenue boards, or they can use the electronic equivalents that are downloadable from the Web sites of those organizations. This may be the lowest-cost approach, but only for those people who do not see the hidden costs of losing time, because far too much of it will be consumed trying to decipher the instructions and filling out the forms accurately enough to avoid overpaying your taxes or triggering an audit. In addition, you must either complete the editable PDF files, if such are available, or download forms and print them out, or pick them up at one of the distribution points (which are declining in number). This tedious process must be repeated for any forms that you only later learn are needed, which oftentimes occurs at the last minute, when you are running out of time and are under greater pressure.

Another approach is to enlist the services of a professional tax accountant or other tax preparer, to do all of the required paperwork for you. It is quite tempting to choose someone else to do your taxes, particularly if you are running up against the IRS deadline for submitting paperwork (or at least an extension request, plus payment), or if your tax situation is more complicated than that of the average citizen, such as those contending with the tax implications of small-business ownership or foreign investments. It can be a great relief to simply take that intimidating pile of forms and pay stubs, and drop the bundle of unhappiness onto someone else's desk — especially if that individual is far more knowledgeable about the tax code, and is better prepared to find valid deductions that can minimize your tax burden (oftentimes by more than the cost of their services).

For many people, there is an effective middle ground between going it completely alone, at one end of the spectrum, versus turning it all over to a tax professional, at the other end of the spectrum: A growing number of taxpayers are electing to use software, by themselves, to fill out their taxes, without consulting an attorney or anyone else, yet still enjoying the many advantages of these tax-preparation programs—specifically, the correctness of the calculations, the up-to-date tax rules applied dispassionately by the computer, the ability to print dozens of completed pages in minutes, and, if needed, later correct any mistakes without having to fill out forms again or use liquid paper to cover up mistakes.

In this article, we will examine some of the best-known applications for doing your U.S. federal and state taxes.

"Revenue Enhancement" on the "Intertubes"

Anyone who has been paying attention to trends in the world of computers cannot help but notice that the number of software manufacturers, as well as retail outlets that sell their wares, appear to be in an unstoppable decline. At the same time, more Web-based services are emerging to replace the functionality once offered by the old shrink-wrapped software. In fact, these online applications are appearing on an almost daily basis, oftentimes directly targeting some venerable software package or single-product vendor. The same pattern is clearly evident in the realm of U. S. tax preparation.

Two examples of online tax-preparation services are TaxBrain (*www.taxbrain.com/*) and TaxSlayer.com (*www.taxslayer.com/*). Both of them allow you to enter in your tax information online, using a secure connection, and then download or print completed tax forms. You can also file electronically with the IRS, at no extra charge. Both of these services offer several different plans, priced according to features included.

TaxBrain offers four plans: EZ ($14.95), Basic ($19.95), Deluxe ($39.95), and Premium ($69.95). EZ, as one would expect, is for people who file 1040EZ forms, and thus are not declaring any dependents and do not have income greater than $100,000. Their Basic plan has no income restrictions, and handles dependents, but not alternative minimum tax (AMT)—and is best for taxpayers filing 1040A. The Deluxe plan is for just about everyone else, especially people earning enough income from investments to trigger the AMT. Small-business owners would want to choose the Premium plan. State taxes are an additional $29.95, which may be worth it if your state income tax situation is complicated; but most people would be better off simply completing the state form themselves. One advantage of TaxBrain is the inclusion of live tax assistance, at no charge.

TaxSlayer.com has changed its offerings from last year, when it had two different plans. Now there is just a single plan, which is free to try, but costs $9.95 for filing your federal taxes, and an additional $4.95 for state taxes. These prices compare quite favorably with competing services. It includes a deduction finder, as well as functionality for handling major life events, investments, rental property and small business.

These services, like their Web-based brethren, avoid the cost and hassle of purchasing, downloading, installing, and configuring software on your laptop or desktop computer. However, there are numerous disadvantages to this approach: You will be uploading sensitive financial information to their computers, and assume that they will handle all of that data securely, now and far into the future. Moreover, unlike doing taxes by hand or even using local software, it is typically much more difficult to try out various scenarios—such as seeing the impact of IRA contributions, or alternatives that you may have in handling business expenses.

Keeping It Local

In view of the downsides mentioned above, a sizable portion of the American population has shown no interest in using Web-based tax services, and instead plans on sticking with their tried-and-true installable tax applications. After all, if this approach is good enough for the professional tax-preparation firms, such as H&R Block, then it may be the best choice for common citizens. Furthermore, these desktop programs generally offer more features than their online competitors, including extensive built-in help, audit-alerting capabilities, and automatic updates over the Internet, to account for any recent modifications to the tax code.

TurboTax, TaxCut and TaxACT are arguably the three most popular such products in use. There are, of course, alternatives that do not enjoy the limelight, but when it comes to managing and transmitting online your personal financial data, it is best to stick with the name brands from the larger vendors, because they receive a lot more scrutiny from consumers and government regulatory agencies. All of these products have Web-based versions (in addition to their downloadable software), which would be more appropriate for any user who, for whatever reason, does not want to install any software or may not even have a computer of his or her own.

TurboTax (*turbotax.intuit.com/*), by Intuit, has continued to hold its position as the leader in the field, with no sign of relinquishing the crown, despite being the most expensive option. In the eyes of the untold number of people who rely upon it year after year, it is the most complete, usable and stable tax product available. TurboTax is offered in a number of different federal editions, all of which can export data to their state-specific editions. Intuit's Free edition is adequate for taxpayers with simple tax situations, and who have no interest in being able to import data from previous years.

TurboTax Basic edition—$14.95 for online, or $24.95 to download the program or receive it on a CD—adds import capabilities, and is able to handle all of the federal forms, but does not perform audit risk assessment, deduction optimization, or calculations required for rental properties and other advanced situations. The Deluxe edition—$29.95 online or $59.95 desktop—adds the audit-checking and deduction-maximizing features. The Premier edition—$49.95 online or $89.95 otherwise—is designed for taxpayers with income from rental properties and investments. Their Home & Business edition—$74.95 or $99.95—includes professional guidance on self-employment income. Major businesses would want to select the Business edition ($105.95),

which is intended for corporations, partnerships and LLCs. All of the TurboTax editions include electronic filing with the IRS at no extra charge. But state income taxes do cost extra, at $25.95 for each state.

TaxCut (*www.taxcut.com/*), by H&R Block, has been for the longest time the main competitor of TurboTax, benefiting from its association with its well-known financial services parent. TaxCut products are generally more affordable than the TurboTax equivalents when taking into account state taxes. The Free edition, available only online, is intended for people without complex tax needs. The Basic edition, costing $19.95, is the downloadable version of the Free edition. For anyone who is a homeowner or investor, and wants guidance on maximizing deductions, assessing audit risks, or handling investment income, the Deluxe edition would be optimal, and costs $29.95 online or $15 more for the local software. Anyone who is self-employed or has rental property should choose the Premium edition, priced at $49.95 online or $10 more for the downloadable version. All of these prices include state tax handling, so if you opt for out-of-state capabilities, there are reduced prices.

TaxACT (*www.taxact.com/*) may not as be as well known as the aforementioned heavyweights, but is gaining new fans every year. This is partly because the free edition offers more functionality than many of the competitors, and includes free electronic filing with the IRS, as well as free tax assistance and product support. The Deluxe version costs only $7.95 for the online version, or $12.95 for the downloadable version, and includes importing of previous year's data, tracking non-cash donations, tax calculators and reports, and more. The Ultimate version adds state taxes, for an additional $10 for the online version or $7 for the desktop program. Last but not least, there is a downloadable version for business owners, at $54.95, with business-specific capabilities.

Even though any one of these programs could easily make this tax season far less taxing for you, do not make the mistake of assuming that they are incapable of error. In years past, I have found several bugs in earlier versions of some of these products, so you will want to double-check your work before sending it into the authorities. Nonetheless, any poor soul who has switched from filling out tax forms by hand, to using dedicated software, will tell you that it can save a tremendous amount of time and frustration.

Michael J. Ross is a Web developer (*www.ross.ws*), writer, and freelance editor. He creates Web sites that help entrepreneurs turn their ideas into profitable online businesses.


Doing Your Taxes for Free

"If your taxes are simple, there is no reason why you should pay to calculate your federal taxes." by Jack Dunning

> If you don't need to file a state return and your taxes are not too complicated, you should be able to do your federal taxes free. The federal government and virtually all tax-preparation software companies offer some sort of online service.

It is my opinion that everyone should be able to prepare their taxes free of charge. It is in the interest of the federal government and the states that collect those income taxes to help the payers get their taxes done as efficiently and accurately as possible. Therefore these entities should be providing electronic preparation and filing services to taxpayers at no additional cost—we are already paying enough in taxes. If properly implemented, the system would actually save money for the IRS and the state tax agencies.

Only taxes are inevitable!
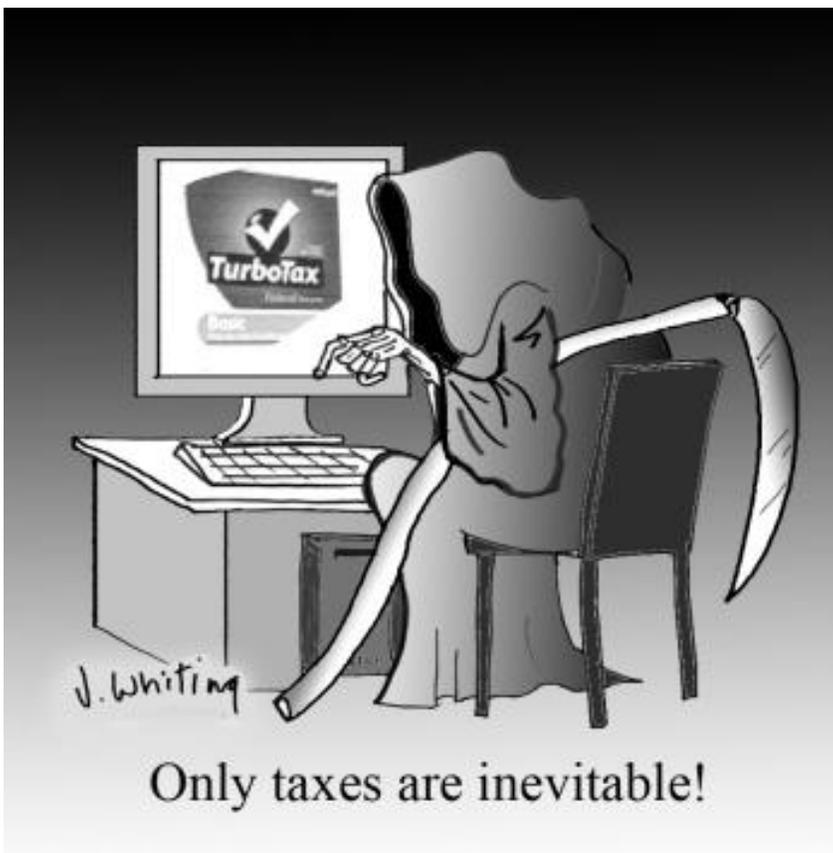
Here's the rub. There is no way that a government agency is ever going to implement any type of system more efficiently than a private company competing for business. If I do my taxes with TurboTax or another reputable tax-preparation program, I have a high degree of confidence that the calculations will be accurate. If the government calculates my return, I have less faith that they will get it right. (I'm sure that even if the government makes an error, it will still be considered my fault—I'll end up paying a penalty.)

It seems that people in the various tax agencies understand this problem, and they avoid offering free services that are too complicated. Most income tax preparation systems from the government are limited by income levels ($56,000 for 2008 federal tax returns) for taxpayers to qualify for free online preparation and filing. The number of schedules that can be completed is also restricted. Only the less complicated returns qualify for free preparation and filing—which fortunately is the vast majority of filers each year.

If your taxes are relatively simple, there is no reason why you should pay to calculate your federal taxes. The tax-preparation software companies understand this. The money is not in the federal returns. There is too much competition offering free tax preparation to make much money off the easiest of federal returns. It's the complicated federal returns, plus state return preparation and state tax eFilings that are the target for increased company earnings.

When filing your taxes with the federal government, there are a couple of free options under the Free File program (*www.irs.gov/efile/article/0,,id=118986,00.html*). (The 2009 information should be available as of this publication date. If not, check the link at a later time.) The first system uses commercial tax-preparation software companies to offer services directly to taxpayers. Last year the gross income limit to qualify was $56,000. I'm not sure what the limit will be for 2009 tax returns, but as of today, the IRS should be releasing the new program rules for Free File.

The second IRS option is to fill out the tax forms right on the Web site and file them directly without tax software. Since only federal taxes are done this way, there is no state eFile option. However, there are no income limitations.

The major players in tax-preparation software all offer some type of free federal tax preparation. TurboTax (*turbotax.intuit.com/personal-taxes/online/free-edition.jsp*) offers free online preparation that includes eFile. However, if you need to file with your state, that will cost you $27.95, plus there is another $19.95 to eFile with the state. This is how they hook you on their product, offering the free federal, and then they hit you up for the state return and eFile (total $47.90).

H&R Block (*www.hrblock.com/taxes/products/201.html*) (formerly TaxCut) also offers free online federal tax preparation and eFiling. The state catch is slightly more expensive at $29.95 for adding the state and $19.95 to eFile the state (total $49.90). For both TurboTax and H&R, it will cost you to download software to do your federal taxes on your own computer. They charge for even their most basic download.

Even though TaxACT is the low-cost tax-preparation software, there has been no reason to question the accuracy of its calculations. TaxACT may not have all the help and hand-holding that comes with TurboTax, but for straightforward returns, it is a much better value. (TaxACT 2008 reviewed very well last year.) There is a free download version (*www.taxact.com/tax-preparation/free-tax-software.asp*) (no need to do your taxes online) for federal taxes that includes free federal eFile. Adding the state return is $14.95 and only $7.95 for a state eFile (total $22.90, less than half the cost of the other two).

There are other companies such as FreeTaxUSA (*www.freetaxusa.com/*) that offer free online tax preparation for the federal return, including free eFile. The rules are the same—it will cost you more if you want to include a state return.

There are a few states, such as California, that allow you to eFile directly with the state, even if you did your federal taxes by hand. To find what your state offers, go directly to their Web site. Another online tax preparation company, eSmart Tax (*www.esmarttax.com/states.asp*), offers a list of all the states. To find out if your state requires tax filings and/or offers preparation services, clicking the state link will open a page that offers a link to the state's tax Web site. You should be able to get information about possible state eFiling at your state's tax site.

There are groups such as I-CAN E-File (*www.icanefile.org*) that help low-income people and seniors to file their taxes free of charge for both federal taxes and a few states. (If you know of other free tax-preparation systems that you think are particularly good, please attach a comment to this column.)

In a nutshell, if you don't need to file a state return and your taxes are not too complicated, you should be able to do your federal taxes free. The federal government and virtually all tax preparation software companies offer some sort of online service. However, if you're uncomfortable with doing your taxes online, you may want to investigate TaxCUT, which offers a downloadable version of the free software. Unless your state offers a free tax-preparation and/or eFile system, then you are most likely going to pay to file a state return. If you want to save the state eFile fee, you can always print your return and mail it in. This will help a state bureaucrat keep his or her job.
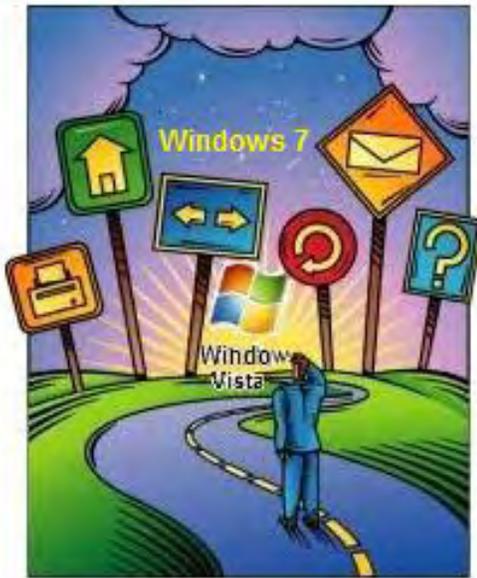

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Windows Tips and Tricks: Looking for Lost Memory in Windows 7

"Why don't I see four gigs of memory when I have four gigs installed?" by Jack Dunning

One of the annoying limitations of Windows is how the 32-bit version handles memory: It can address only a maximum of four gigabytes. Resource Monitor to the rescue!

One of the annoying limitations of Windows is how the 32-bit version handles memory. It is a continual source of confusion for Windows users, causing them to ask the question, "Why don't I see four gigs of memory when I have four gigs installed?" Ultimately these questions will go away as more people move to 64-bit Windows. However, as long as there are 32-bit versions of Windows (including Windows 7) being used, the concern will be voiced again. Fortunately there is a tool in Windows 7 that, while not solving the problem, makes it easier to understand.

Note: If you are using 64-bit Windows, this problem will not exist since that version of Windows is not bound by the four-gigabyte addressing limit.

The basic problem is that 32-bit Windows can address only a maximum of four gigabytes of memory. That includes the RAM for the operating system, applications and memory associated with any other devices, such as video cards. If you install a video card with one gigabyte of memory in a computer that already has the max four gigs, the amount of system memory available for other uses will actually be reduced. Since the one gig of memory on the video card is taking up so much of the address space, the same amount of memory on the system board literally cannot be seen—even though all four gigs of memory appear as installed. How much memory will be available for programs will depend upon how many devices are demanding memory addresses. This explains the discrepancy seen when viewing System Information in Windows 7 or Vista. (In Vista and Win 7, type "system" into the Search field in the Start menu, then select System Information from the list.)

In the System Information window, three types of physical memory will be seen: Installed Physical Memory, Total Physical Memory and Available Physical Memory. Installed Physical Memory is the actual amount of memory that has been installed on the mainboard. If you have four gigs in the slots, it should show it all. Available Physical Memory is the amount of the installed memory that can be addressed by the processor. In a four-gig machine, this may be anywhere between 500 megabytes to one gig less than the actual amount of memory plugged

into the slots on the motherboard. The missing memory is still on the motherboard; you just can't reach it because the addresses have been co-opted by other devices—mostly the video card. Available Physical Memory is what's currently left for running additional programs. Although the first two numbers are fixed based upon installed hardware, available memory will vary as programs are loaded and/or closed.

In Windows 7, there is a tool that graphically displays the situation for your computer. It's called Resource Monitor. (Vista also has Resource Monitor, but the information is not nearly as useful for checking memory status as that of Windows 7.) To open Resource Monitor in Windows 7, type "resource" into the "Search programs and files" field of the Start menu and select it from the list. (This technique will not work in Vista; however, the Resource Monitor in both Vista and Windows 7 can be found by opening the Task Manager—CTRL+SHIFT+ESC—selecting the Performance tab, and then clicking the Resource Monitor button.) See Figure 1.
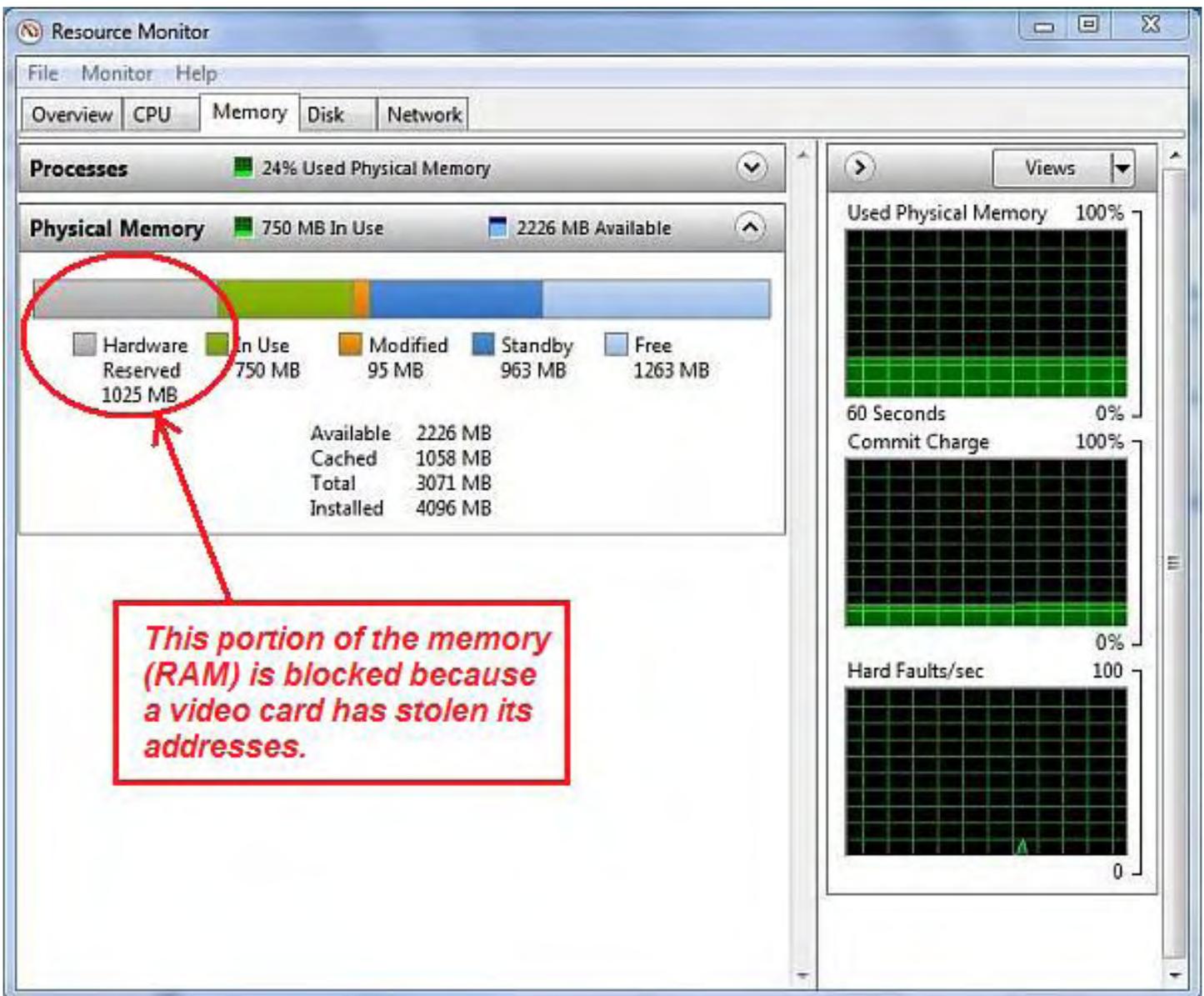
Figure 1. Resource Monitor in Windows 7 with Memory expanded. Windows Vista will not display this graphic information.

Notice that the graphic shows where all the memory has gone. In particular, the gray Hardware

Reserved memory is the lost memory. In this case, the large amount of loss is caused primarily by a one-gigabyte video card installed in this computer. The best solution for this situation could be to install the 64-bit version of Windows 7, as long as there are no driver problems.

Eventually, as most computers become 64-bit systems, this lost-memory issue will go away.

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The End of an Era

"Apple's iSlate is going to change the world as drastically as Alice stepping into Wonderland." by Wally Wang

> The Apple tablet, possibly called the iSlate, is set to destroy the current computer market and leave its rivals struggling to catch up.

The first PC era began with MS-DOS. Back then, Microsoft focused on creating the operating system and let everyone else worry about creating the software needed to make a computer work. This was a time when WordStar, WordPerfect, Lotus 1-2-3, Turbo Pascal, and dBASE III Plus dominated their markets.

These programs would likely have continued dominating their markets to this day if something didn't change the playing field too drastically for them to react and adapt in time. Back then, that drastic paradigm shift was Windows 3.0.

Windows 3.0 proved an enormous step up in ease of use. Rather than force people to memorize cryptic commands (and even worse, type them in without making a single spelling mistake), Windows provided a graphical user interface.

In the past, people forced themselves to learn a particular program and were reluctant to change and relearn the cryptic commands of another program. Once Windows 3.0 eliminated this barrier, WordPerfect lost its stranglehold of fear that kept users stuck using WordPerfect (which is similar to the same stranglehold of fear that keeps people locked into Windows instead of switching to the Macintosh).

Besides leveling the user-interface playing field, Windows 3.0 also demolished the barrier of print drivers. One of the biggest advantages of WordPerfect was its ability to work with a huge variety of printers due to its large printer driver library. With Windows 3.0 giving all programs equal access to the same amount of print drivers, WordPerfect lost its second major advantage over rivals.

The final nail in WordPerfect's coffin came when the world adapted Windows and wanted to use a Windows-based word processor. Without a Windows version of WordPerfect available, WordPerfect users simply switched to other Windows-based word processors. Since the only comparable choice was Microsoft Word, that's how Microsoft Word became the leader by default.

Repeat this cycle for Lotus 1-2-3 and dBASE III Plus, and you can see why Microsoft Word, Excel and Access stole the market away from WordPerfect, Lotus 1-2-3 and dBASE III Plus. By introducing Windows 3.0, Microsoft dramatically changed the computer market and made sure they were prepared, but their rivals were caught flat-footed. By the time their rivals could catch up, it was already too late.

Guess what? Apple is dropping a similar nuclear bomb on the computer industry at the end of January. While everybody focuses on turning slate computers into e-book readers, they're missing the real purpose of slate computers, and that's to work as fully functioning portable computers as well.

The Apple tablet, possibly called the iSlate, is set to destroy the current computer market and leave its rivals struggling to catch up. The answer has been in plain sight of the entire computer market, but they've been too blind to see.

In 1998, a company called FingerWorks developed a unique touchpad that allowed you to control a computer through finger gestures. In 2005, Apple quietly purchased this company. Do a quick search on Amazon for old FingerWorks products (*www.amazon.com/Fingerworks-IGESTURENUMPAD-iGesture-Pad/dp/B00013MVT4*), and you'll see what these touchpads used to look like.

Figure 1. The FingerWorks iGesture Pad that was once sold on Amazon.com.

Search for "Fingerworks user guide" on Google, and you'll find a bunch of links leading to the now-defunct FingerWorks Web site. However, peek into the cache and you can see all the old information that was once stored on that site.
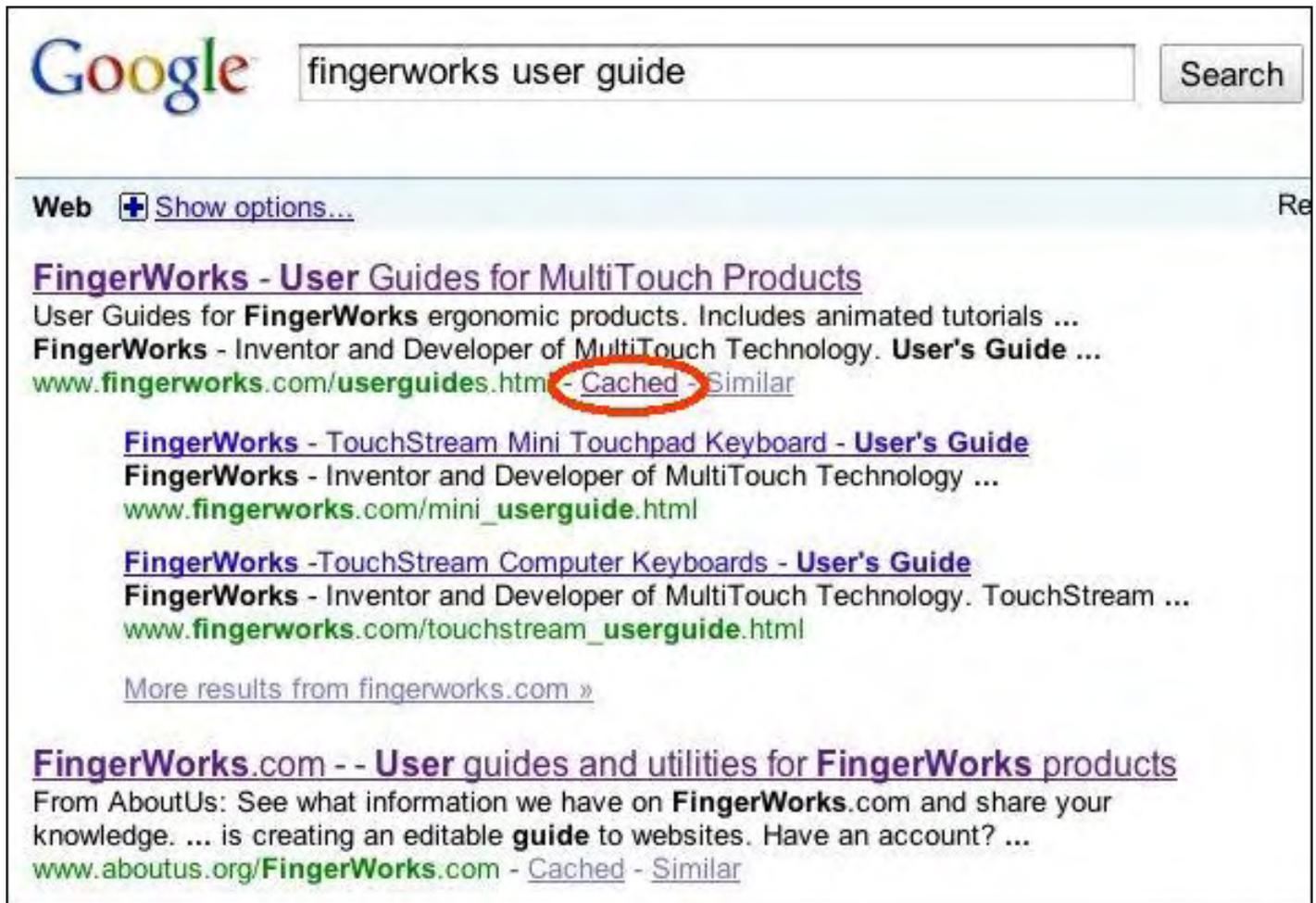
Figure 2. Peeking into Google's cache lets you see what information the FingerWorks site used to display.

Part of that information lists the type of commands you could use with your fingers to control a computer, which includes finger commands for opening and closing applications, manipulating a cursor, and even special gestures for playing games.

Animated Gesture Tutorials For

- Point, Click, Drag, and Scroll
- Web Browsing
- Editing Commands
- Text Cursor Manipulation
  - TouchStreams (left-hand)
  - iGesture (one-hand)
- File Ops Hand Gestures
- Application Exit & Switching
- Fine Scrolling and Resting

Static Hand Gesture Guides

- Game Gestures
- Right Hand Gesture/Hotkey Map
- Text Formatting and Alignment (TouchStreams Only)
- Emacs & Programmers' Gestures (TouchStreams Only)
- PhotoShop & Maya Zoom and Pan (TouchStreams Only)
- Modifier Chords (TouchStreams & Mini Only)

Tips for Gesturing & Typing

- Typing on TouchStreams
- Typing on the Mini
- Hand Gesture Don'ts
- Do as We Do
- Top 10 Tips
- Relaxing with Gestures
- Hand Resting
- RSI Links

User and Installation Guides for

- iGesture Pad
- iGesture NumPad
- TouchStream Mini Keyboard
- TouchStream ST/LP

Editing Gestures and Keys

- The MyGesture Editor

Tech Support

- System Requirements
- FAQs
- Third Party Drivers and Utilities
- Need Help
- Troubleshooting

Figure 3. The old FingerWorks site hints on the versatility of finger gestures.

FingerWorks' technology is more than 10 years old, but its arrival as a touch surface for the

iPhone made the iPhone look like a revolutionary device from the future, especially when compared to the Rube Goldberg contraptions of sliding keyboards, tiny screens and clumsy stylus input interfaces of older mobile phones that tried to pass themselves off as "modern technology."

In less than a few years, the iPhone has gone from zero market share to a major competitor in every mobile phone market in the world. Windows Mobile had a huge head start against the iPhone, but Microsoft sat on its butt too long and let Windows Mobile fall behind.

Notice how every new smartphone tends to look like the iPhone? It's because nobody has the imagination to think in the long-term future, so the Palm Pre, Nexus One and Blackberry Storm are copycats.

The genius behind FingerWorks' technology is that it replaced multiple physical devices (keyboard, keypad, screen, etc.) with a virtual surface that could mimic anything at a larger size with full touch-gesture control to boot.

The gesture technology of FingerWorks made its debut with the iPhone, but its technology has filtered down to the multitouch trackpad of the latest MacBook Pro laptop computers and the Magic Mouse.

What's next? Obviously, FingerWorks' technology is going to power the iSlate. The iSlate isn't just going to be a larger iPod touch or another e-book reader. It's going to be a fully functional portable computer that uses a virtual screen that can mimic a keyboard, trackpad and screen on a single surface.

The genius of creating a keyboard virtually on a flat surface is that you can redesign the keyboard to your comfort level. For example, a physical keyboard takes up space and forces you to adapt to its key placement. Don't like the size of the cursor keys or the location of the Backspace key? With a physical keyboard, you're out of luck. With the virtual keyboard on the iSlate, you can rearrange the keys to place them where you want them to appear. Make the keys bigger or smaller, wider or taller.

To see what a flat-virtual keyboard can look like, check out this YouTube video of a FingerWorks touch pad (*www.youtube.com/watch?v=FDW5zyjhCbc*), or check out the comments from happy users (*www.amazon.com/Fingerworks-TOUCHSTREAMLP-TouchStream-LP-QWERTY/dp/ B0001597YO*) on Amazon.com.

Figure 4. A virtual keyboard can place keys in more natural positions for your hands.

Here's another problem with physical keyboards. Manufacturers need to create one keyboard for the United States market, a second keyboard for the Mexican market, and a third keyboard for the French-Canadian market. A virtual keyboard eliminates all that.

Just reprogram your virtual keyboard on your iSlate and you can have a Spanish, Russian, Greek, or French keyboard at your fingertips. Rearrange the keys to adjust to your hand placement and you also minimize the risk of repetitive stress injury, which can occur when you hold your hands in a fixed position on a physical keyboard or mouse for too long.

One barrier to using a keyboard on a slate is that the keys will appear flat on a two-dimensional surface and provide little tactile feedback. It won't take long to get used to this, but to train people to see keyboards as two-dimensional surfaces with low tactile feedback, Apple has already introduced its odd, flat, two-dimensional keyboards for their laptop computers along with their desktop computers.

Figure 5. The nearly flat surfaces of Apple keyboards is training people to get used to typing on an iSlate.

If you already use a recent Macintosh, you're practically already trained to see, use and accept a two-dimensional keyboard. When the iSlate arrives, Macintosh users will not only be the first to buy it, but they'll be the first to adapt to it with few training problems.

To further reduce physical stress when typing, you'll be able to switch between the traditional QWERTY keyboard layout to the more efficient Dvorak keyboard layout. There's a good chance others will design even more optimum keyboard layouts that you can choose, and your iSlate will switch to it virtually as easily as displaying a new Web page. Any computer that still uses a physical keyboard will look as antiquated as a manual typewriter next to a word processor.

Want to play a game? Switch to a special game-playing keyboard. Need to write a letter? Switch to a regular keyboard. Need to crunch numbers. Switch to a larger numeric keypad. Instead of forcing yourself to work within the confines of a physical keyboard, you'll now be free to choose the most efficient keyboard layout for what you want to do at the time.

Dump your mouse and forget about a trackpad since your virtual keyboard surface will double as a gesture-tracking device to detect whether you're typing something or moving the pointer. Rather than clutter the iSlate with a separate trackpad and keyboard, you'll just have a screen that performs the multiple functions of everything.

Eventually FingerWorks' technology is going to filter to the Macintosh as well. Imagine your current MacBook laptop with a virtual keyboard in place of its current physical keyboard and trackpad. Think of replacing your ordinary mouse and keyboard with a single virtual slate to control your iMac. This virtual keyboard will make every Macintosh look like a futuristic computer, while every Windows-based PC will look like a quaint museum piece in comparison.

Of course, you need software to take full advantage of these touch gestures, and once again Apple has been preparing us for this historical moment since the introduction of iWork. While Dell, Microsoft, Hewlett-Packard, along with a host of other companies introduced slate PC designs, none of them offer any type of input control like FingerWorks' technology and nobody has software specially designed to take advantage of the slate's form factor.

With the iSlate, you'll get a multi-touch version of the entire iWork suite. Now you'll be able to write letters through Pages, crunch numbers with Numbers, and create and give presentations through Keynote all through the iSlate. What other programs are going to be capable of running on the iSlate and be touch-gesture controlled from day one? Not Microsoft Office. It's going to be iWork.

The touch surface and gesture-controls of the iSlate are simply going to blow every other company's pitiful tablet wannabees into the dustbins of failure. For twice the price of a typical netbook, you'll get a million times more functionality with the iSlate.

By the way, the iSlate can also function as an e-book reader, which is what everyone's been focused on for all this time anyway. By thinking the iSlate will be a fancy e-book reader, all these tablet PC rivals were aiming at the wrong target for years, and now they have no hope of ever catching up. It's like Apple has a two hour head start in a bicycle race, while Microsoft and everyone else is still at the starting line trying to ride a plastic Big Wheel tricycle.

Here's who's going to be hurt the most. First, Microsoft is going to get killed with the iSlate since they won't have anything comparable for the next few years, and by then it will be too late. (That can be the motto for Windows 8. "Windows 8 is three years too late.")

Anyone depending on Microsoft Windows to run their desktop, laptop, netbook, or slate PCs is going to get killed as well. Within two or three years, Dell Computer's stock should be trading in the single digits and on its way into total irrelevance. Hewlett-Packard will survive a little longer with its printer business, but its computer business is as good as gone.

Microsoft will try to cobble together a response, but remember, Steve Jobs has reportedly already killed the Apple iSlate two or three times already. That means technically, the new iSlate is probably a third-generation model that's going to be working near perfectly, while anything Microsoft hurriedly slaps together will be a beta, 1.0 release that won't work as well, won't feel as elegant, and won't have the supporting software to back it up for another few years. Plus, Microsoft has to hope that its multiple hardware partners can slap something together that might actually run Microsoft's software halfway decently without looking like an obvious copycat and cheap imitation in the process.

Microsoft will likely start promoting Windows 7 with touch-gesture technology and promise full touch gesture support in Windows 8, but will anyone want to wait for a half-baked solution when a more elegant one will be available from Apple right now?

Kiss Microsoft good-bye. Windows simply can't compete against the iSlate operating system and with every iSlate user using iWork, that spells the end for Microsoft Office as well. Apple's iSlate has the potential of pulling the rug out from under Microsoft's two cash cows (Windows and Microsoft Office), which means all of Microsoft's other projects, like Bing and the XBox, will have to actually learn to support themselves without relying on cash infusions from Microsoft's other divisions.

Windows 3.0 killed every major MS-DOS heavyweight, and the touch-surface technology of the iSlate and FingerWorks has the potential to do the same to the current Windows heavyweights.

Microsoft can't compete by cramming Windows 7 into everything from a netbook and a slate PC to a full-blown desktop and laptop computer, and Dell can't do anything more than package pre-assembled parts.

The only thriving market for the PC industry is the netbook market, but given a choice between a cheap, throwaway netbook or an elegant iSlate, the netbook market is going to nosedive straight

into the ground and take companies like Asus, Acer, Dell and MSI with them.

After the PC makers go belly-up, next will be the interface manufacturers like Logitech and (here we go again) Microsoft, because physical keyboards, trackballs and mice are going to be obsolete compared to the touch surface of a virtual keyboard.

The software market will start everyone off on a level playing field again, except iWork will gobble up the office suite market. Can Adobe adapt fast enough and provide a touch-gesture version of Photoshop? If not, a new company that nobody has ever heard of before could jump into the gap and help kill Adobe.

The iSlate will likely use the same software distribution model as the iPhone's app store, which makes finding software easy and helps prevent malicious software like viruses, Trojan horses and spyware from infecting a computer. With the threat of viruses, worms and Trojan horses minimized for the iSlate, what will security companies like Symantec and McAfee do besides cater to their ever-shrinking customer base still firmly wedded to the ancient technology of Windows?

Intuit still can't get a Macintosh version of Quicken out, so a new company has a chance to capture the money-management market for the iSlate. Any company that gets most of their revenue from the Windows market is going to be in trouble, so that might mean kissing Intuit good-bye.

If you're still doubtful that entire groups of companies can get wiped out by a single technological change, perhaps you'd like to consider the fate of Mustang Software, which was once the leader of BBS software before the Internet demolished the entire BBS software market.

The PC era is over. Apple's iSlate is going to change the world as drastically as Alice stepping into Wonderland. If you don't want to get run over by technological change, here's what you need to do right now.

First, get a Macintosh and start using Apple's flat keyboards to get used to typing on a two-dimensional surface. If you get an iMac, make sure you get the Magic Mouse so you can get comfortable using touch gestures to scroll. If you're using a MacBook, use the models that come with the touchpad that recognizes three and four finger swipes.

Second, start using iWork as your office suite software. Once everyone starts using the mobile version of iWork on the iSlate, it will only be natural to use iWork on your ordinary Macintosh computer, so get used to the menu commands and features now.

Third, if you're a computer programmer, start studying Objective-C, which is the programming language for all of Apple's products. If you're using something like C#, you're already locked into the Windows world so get out now and learn Objective-C.

Of course, there will always be work for people who know C#, but there will also be plenty of work for anyone who knows COBOL too. If you want to deal with legacy systems, stick with COBOL and C# (another Microsoft product). Otherwise, Objective-C is the future.

The impact of Apple's iSlate tablet device isn't the form factor, but the finger-controlled touch

surface. With more than 10 years of experience through the acquisition of FingerWorks and plenty of patents to protect its designs, Apple has defined a whole new computing paradigm that nobody else will be able to mimic successfully. Windows PCs represent the old era. The iSlate and touch-screen gestures represent the new era.

Which era do you want to be a part of? Starting today, the PC vs. Mac debate is officially over. Apple has already won.

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Wally is responsible for the following books:

• Microsoft Office 2007 for Dummies (*www.amazon.com/gp/product/0470009233?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470009233*),
• Beginning Programming for Dummies (*www.amazon.com/gp/product/0470088702?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470088702*),
• Breaking Into Acting for Dummies with Larry Garrison (*www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468*), Beginning Programming All-in-One Reference for Dummies (*www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541*),
• Steal This Computer Book 4.0 (*www.amazon.com/gp/product/1593271050?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271050*),
• Visual Basic Express 2005: Now Playing (*www.amazon.com/gp/product/1593270593?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593270593*),
• My New Mac (*www.amazon.com/gp/product/1593271646?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271646*),
• My New iPhone (*www.amazon.com/gp/product/1593271956?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271956*),
• Strategic Entrepreneurism with Jon Fisher and Gerald Fisher (*www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894*).

When not performing stand-up comedy or writing computer books, he likes to paper trade stocks with the video game Stock Reflex (*www.plimus.com/jsp/download_trial.jsp?contractId=1722712&referrer=wwang*), using the techniques he learned from a professional Wall Street day trader.

In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method." (*www.15minutemoviemethod.com/*) Wally can be reached at *wally@computoredge.com.*

Wally Wang's Apple Farm
"Mac-Compatible Tax Software" by Wally Wang

Since taxes are unavoidable, you can do them the old-fashioned way by letting someone else do it, or you can do it yourself using special tax software. Also, a look at the tablet-fest that was CES, and why they all got it wrong; a look at TextWrangler, which makes it easy to manipulate text in a file; and a tip on how to specify how a folder appears within the Finder window.

In the world of organized crime, you have to pay protection money to stay in business and avoid harassment. In the world of government, you have to pay taxes to stay in business and avoid harassment. Basically the only difference between organized crime and the government is the word "organized."

Since taxes are unavoidable (unless you're rich enough to make laws so you'll be exempt from paying them), you can do taxes the old-fashioned way by letting someone else do it, or you can do it yourself using special tax software. The most popular tax program is TurboTax, but for a less expensive option, try OnePriceTaxes (*www.onepricetaxes.com*).

Their software runs on Windows and Mac OS X, but the Web site seems to give two contradictory prices: $14.95 listed on the home page but $19.95 listed when you actually try to buy the program.

You can download and try the program for free, so you can see if it will really work for you or not. For simple taxes, OnePriceTaxes will probably be sufficient, but if you have more complicated needs, then you might want to consider TurboTax or a dedicated tax preparer instead.

If you don't mind crunching numbers on your own, download a free Excel tax template (*exceltemplates.net/financial/2009-income-tax-calculator*) and use Excel to figure out how much you owe in taxes. While this won't fill out the proper forms needed for filing taxes, it can help you get a better understanding of your finances if you're willing to spend a lot of time playing with numbers.
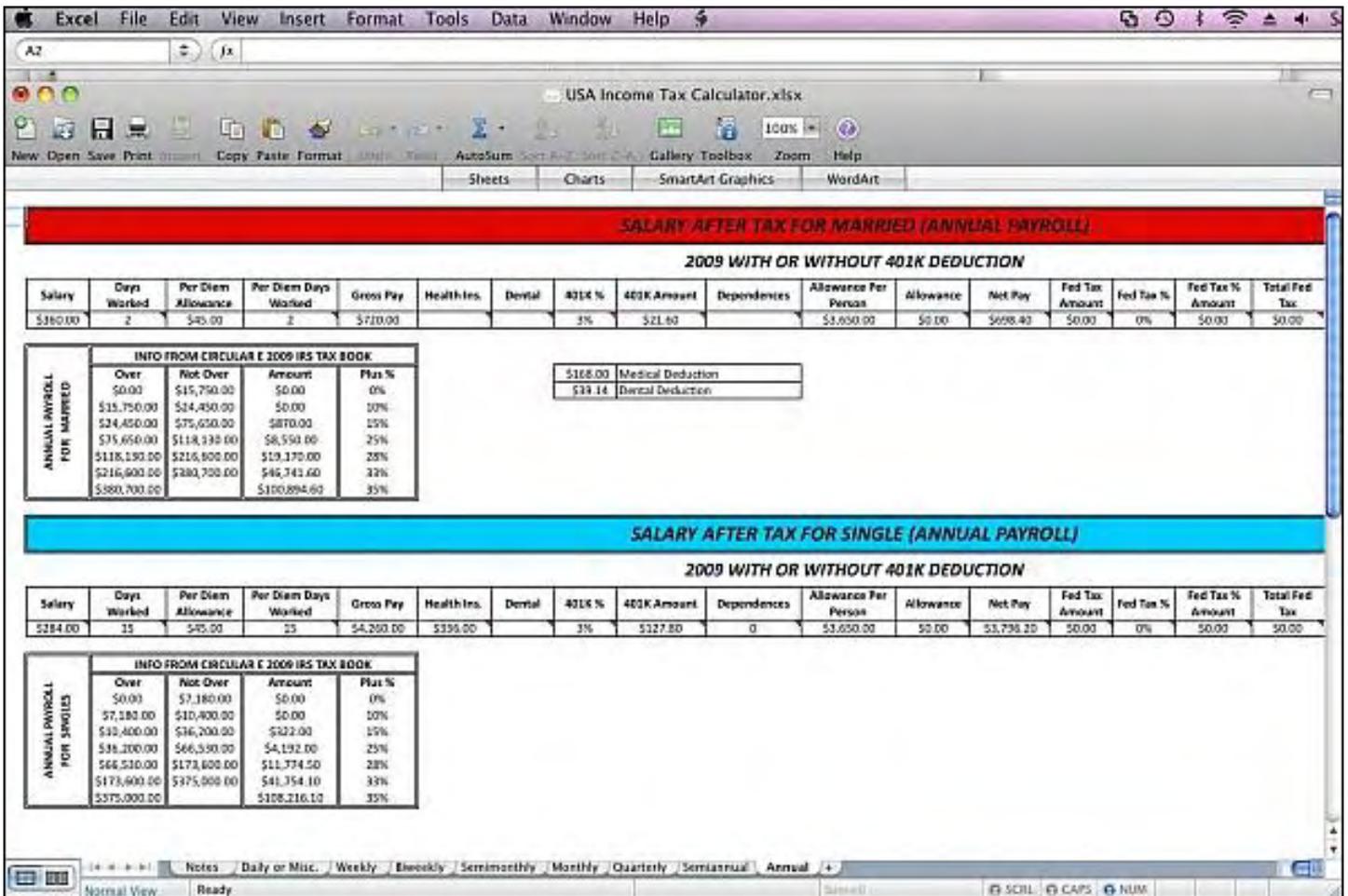
Figure 1. For the adventurous, you can use Excel to help you prepare your taxes.

Another alternative is TaxActOnline (*www.taxactonline.com*), which lets you fill out tax forms online without the need to download any software at all. Of course, if the idea of sending personal data online makes you a bit nervous, you might prefer the traditional tax software on your computer instead.

Figure 2. TaxActOnline offers a free service to prepare your taxes.

The Rise of the Tablet Computer

At the latest Consumer Electronics Show (CES) in Las Vegas, Microsoft, Hewlett-Packard, Dell, and a handful of other companies offered their version of a slate or tablet computer. Hewlett-Packard even created a short video (*www.youtube.com/watch?v=IIIjTDnX2Y0*) demonstrating its slate's features.

After watching Microsoft CEO Steve Ballmer demonstrate three different slate PCs and watching Hewlett-Packard's slate PC video, don't be surprised if you find yourself asking, "So what?"

Hewlett-Packard's slate PC video just shows a touchscreen, which isn't anything we haven't already seen on the iPhone or numerous iPhone knock-offs like the Palm Pre, Google Nexus One, or BlackBerry Storm. Watching Steve Ballmer demonstrate different slate PCs (*www.youtube.com/watch?v=J05Q-Hyr1v8*) is even more yawn-inducing.

Basically Steve Ballmer showed a slate PC running the Kindle e-book reading program and

another slate PC showing a video. While nice, it's nothing that elicits any excitement. An iPhone and other mobile phones already offer the ability to play video on a handheld device, and e-book readers already do much of what Hewlett-Packard's slate PC can do running Kindle software.

The demonstrated slate PCs all seem to be running Windows 7, which offers touch gestures for controlling it, but beyond passive entertainment of reading a book or watching a video, these slate PCs seem more like evolutionary and expensive devices rather than anything revolutionary that would make people want one as soon as possible.

As Steve Jobs reportedly said when he first toyed with a prototype Apple tablet device, "What good is this besides surfing the Internet on the toilet?"

Ask that same question about the latest slate PCs running Windows 7 and you get the same answer. An e-book reader program running on a slate PC is nice, but a Kindle is probably going to be far less expensive than a slate PC running Windows 7. Many mobile phones and netbooks are capable of displaying video files, and those are far less expensive and easier to carry than a slate PC.

If this is Microsoft's vision of a slate PC, it falls under the same snail-pace evolutionary progress as Windows Mobile, Internet Explorer and Windows 7. There's nothing wrong with anything Microsoft produces. It's just that there's nothing new or innovative that captures the imagination of the average person.

Cramming Windows 7 into a slate PC seems about as clumsy as cramming Windows CE into a mobile phone and renaming it Windows Mobile. Windows 7 might be an OK operating system for computers with a keyboard and a mouse, but shouldn't a slate PC have an operating system customized to take full advantage of the slate PC form?

On a touchscreen slate, do you really want to touch the Windows 7 Start button to see a menu, and then wade through multiple menus to choose a program to run? Isn't this the same mistake Microsoft made when it took Windows CE from personal digital assistant devices and shoved it into the smaller form of a mobile phone screen?

Watch Steve Ballmer's demonstration of slate PCs or Hewlett-Packard's video of its upcoming slate PC. If either of these videos gives you a clear idea of the advantages that a slate PC offers to the average person and gets you excited to buy one, please let the rest of us know why.

While we're all waiting for Apple's late January event that may reveal a tablet computer, we can mull over Apple's User Interface Guidelines.

Avoid Feature Cascade

If you are developing a simple application, it can be very tempting to add features that aren't wholly relevant to the original intent of the program. This feature cascade can lead to a bloated interface that is slow and difficult to use because of its complexity. Try to stick to the original intent of your program and include only features that are relevant to the main workflow.

The best products aren't the ones with the most features. The best products are those whose features are tightly integrated with the solutions they provide, making them the most usable.

All slate PCs get it wrong by focusing on passive entertainment such as watching video or reading e-books. The real key is a tablet that can accept data in addition to displaying video or e-books. Today's slate PCs won't let you create anything on them easily. How do you enter numbers and formulas in a spreadsheet running on a slate PC?

This ability to create data on a tablet is what slate PCs should aspire to do, but they won't until someone shows them how to do it. Here's a big hint on how to create data on an Apple tablet. A few years ago, Apple bought a struggling input technology company called FingerWorks, which specialized in creating multi-gesture touchpads (*www.amazon.com/Fingerworks-IGESTURENUMPAD-iGesture-Pad/dp/B00013MVT4*) for controlling a computer.

Some of FingerWorks's technology (*www.ergocanada.com/products/mice/fingerworks_igest_numpad.html*) wound up in the iPhone, but the bulk of its finger-gesture controls is going into the rumored iSlate table computer. By turning the surface of the iSlate into an entire input device, the iSlate tablet will be a more capable replacement for a netbook despite the lack of a physical keyboard.

Animated Gesture Tutorials For

- Point, Click, Drag, and Scroll
- Editing Commands
- Text Cursor Manipulation
- File Ops Hand **Gestures**
- Application Exit & Switching
- Web Browsing **Gestures**
- Fine Scrolling and Resting
- XWinder Window Manipulations

Hand Gesture QuickGuides For

- Right Hand Gesture/Hotkey map
- Game Mode **Gestures**

Tips for Gesturing & Typing

- Typing (on the Mini)
- Top 10 Gesturing Tips
- Gesture and Pointing Don'ts
- Do as we do
- Relaxing Hands
- Resting
- Customizing

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- Do as we do
- Relaxing Hands
- Resting
- Customizing
- RSI Links

Figure 3. The type of finger gestures available for the FingerWorks touchpad.

TextWrangler

One nice thing about Windows is that you can find plenty of free programs for doing a variety of tasks. Although the number of free Mac OS X programs hasn't caught up to Windows yet, there's a growing number of free programs available for the Macintosh.

One of the most deceptively simple ones is a text editor called TextWrangler (*www.barebones. com/products/TextWrangler*). At the surface, it appears to be nothing more than a simple editor like TextEdit. However, buried deep inside TextWrangler is a full-blown language for manipulating characters and text.

For example, if you have a list of names exported from a database, it might list names by first name followed by last name (or vice versa). How can you switch these two names around?

You could do it manually and slowly lose your mind. Better yet, you could use TextWrangler. Just write a cryptic formula for recognizing first and last names to switch their places around, and TextWrangler takes care of the task no matter how long your list of names might be.
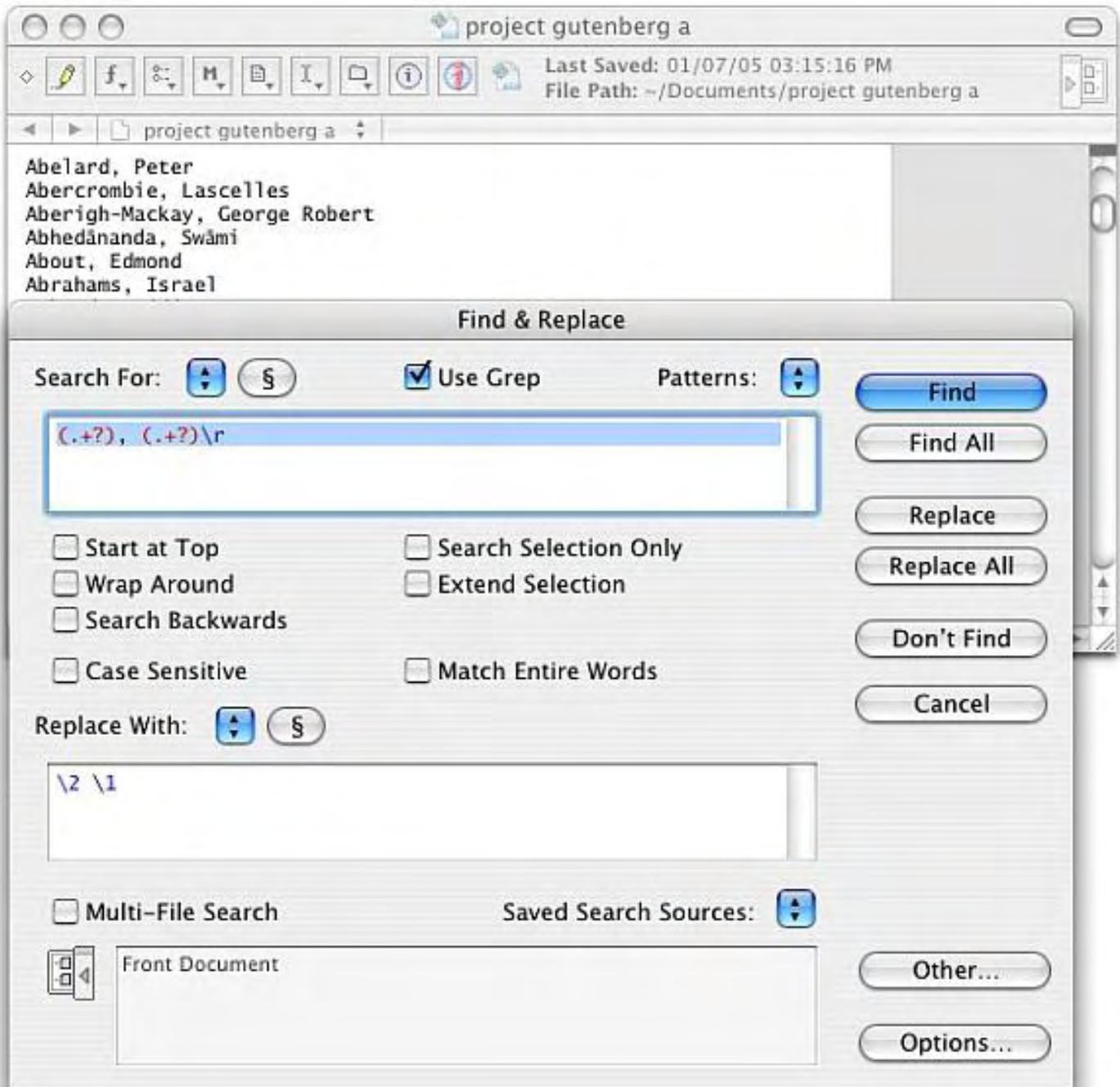
Figure 4. TextWrangler makes it easy to manipulate text in a file.

Suppose you've converted a file from one format into text. Oftentimes, such format conversion leaves behind garbage characters that you'll need to weed out. Once again, TextWrangler can recognize these characters and rip them out for you.

To use all of TextWrangler's features, you'll need to take some time learning its cryptic pattern-matching language for recognizing and manipulating text, but if you need to do some form of text manipulation on a regular basis, a free program like TextWrangler is a unique tool to keep on your Macintosh.

                              *   *   *

When you use the Finder to look at your folders and files, you can view them in one of four ways:

Icon view (Command+1)

List view (Command+2)

Column view (Command+3)

Cover Flow (Command+4)

If you like viewing a particular folder in a specific type of view all the time, switch to that view and then right-click on any file inside that folder. A pop-up menu appears. Click Show View Options.

A palette now appears with a check box at the top that you can select to specify to use the current view every time you open that particular folder. In addition, you can customize other features of that folder such as icon and text size.

Figure 5. You can specify how a folder appears within the Finder window.

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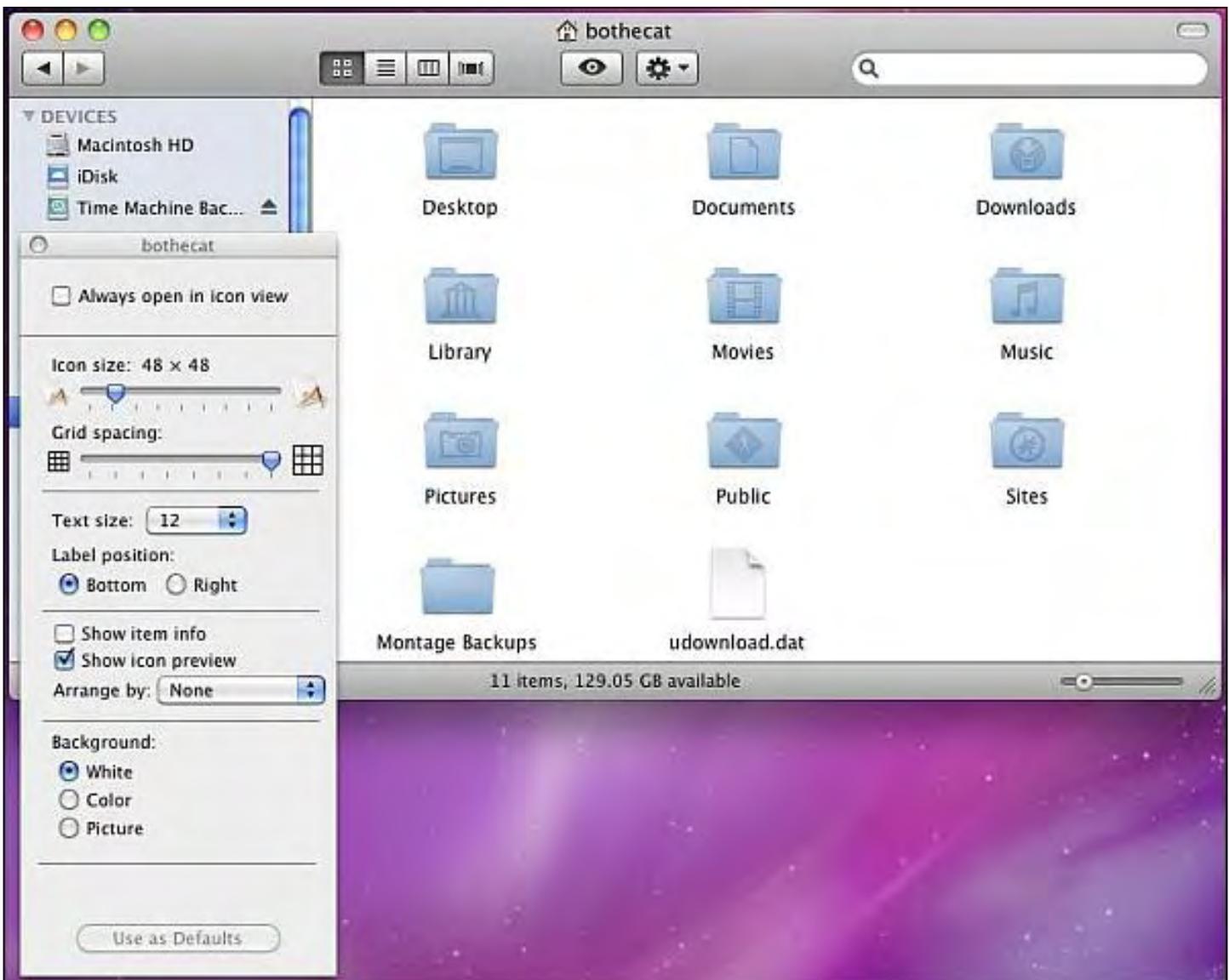• Breaking Into Acting for Dummies with Larry Garrison (*www.amazon.com/gp/product/0764554468?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0764554468*), Beginning Programming All-in-One Reference for Dummies (*www.amazon.com/gp/product/0470108541?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=0470108541*),
• Steal This Computer Book 4.0 (*www.amazon.com/gp/product/1593271050?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271050*),
• Visual Basic Express 2005: Now Playing (*www.amazon.com/gp/product/1593270593?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593270593*),
• My New Mac (*www.amazon.com/gp/product/1593271646?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271646*),
• My New iPhone (*www.amazon.com/gp/product/1593271956?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1593271956*),
• Strategic Entrepreneurism with Jon Fisher and Gerald Fisher (*www.amazon.com/gp/product/1590791894?ie=UTF8&tag=the15minmovme-20&linkCode=as2&camp=1789&creative=9325&creativeASIN=1590791894*).

When not performing stand-up comedy or writing computer books, he likes to paper trade stocks with the video game Stock Reflex (*www.plimus.com/jsp/download_trial.jsp?contractId=1722712&referrer=wwang*), using the techniques he learned from a professional Wall Street day trader.

In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method." (*www.15minutemoviemethod.com/*) Wally can be reached at *wally@computoredge.com.*

Linux Lessons: Fedora, Part 4

"Modifying Your Linux OS" by Pete Choppin

Last week, we completed the installation of Fedora. We are now ready to login and make some modifications to the desktop as well as install a few tools that will help to make the OS more useful. Also, an introduction to KDE.

Last week, we completed the installation of Fedora. We are now ready to login and make some modifications to the desktop as well as install a few tools that will help to make the OS more useful.

We are also going to introduce another popular desktop environment called KDE (*www.kde.org/whatiskde/*).

Let's start the Fedora system that we've installed. When it boots up you should be presented with the login screen. Click on the login name. This should have been created during the installation, which we covered last week. Before you type your password, notice that some options appear on the toolbar at the bottom when you select your login name. The option I want to discuss is the choice of desktop environments, which is shown here as sessions.

When you click on this option, you should see two options similar to this:

Go ahead and select KDE as shown. When you choose this option, the KDE desktop environment will be loaded when you log in. We are going to primarily discuss KDE for this Linux Lesson. The Ubuntu lessons went over the Gnome desktop environment. However, if you prefer to load Gnome, by all means go ahead. The same applications will be available in either environment, as you can see by comparing the two, but our screenshots and modifications will be within KDE for this presentation.

Once you've selected KDE as your session, type your password and click Log in. The desktop and your session are loaded. Without having made any modifications, your desktop should look similar to this:
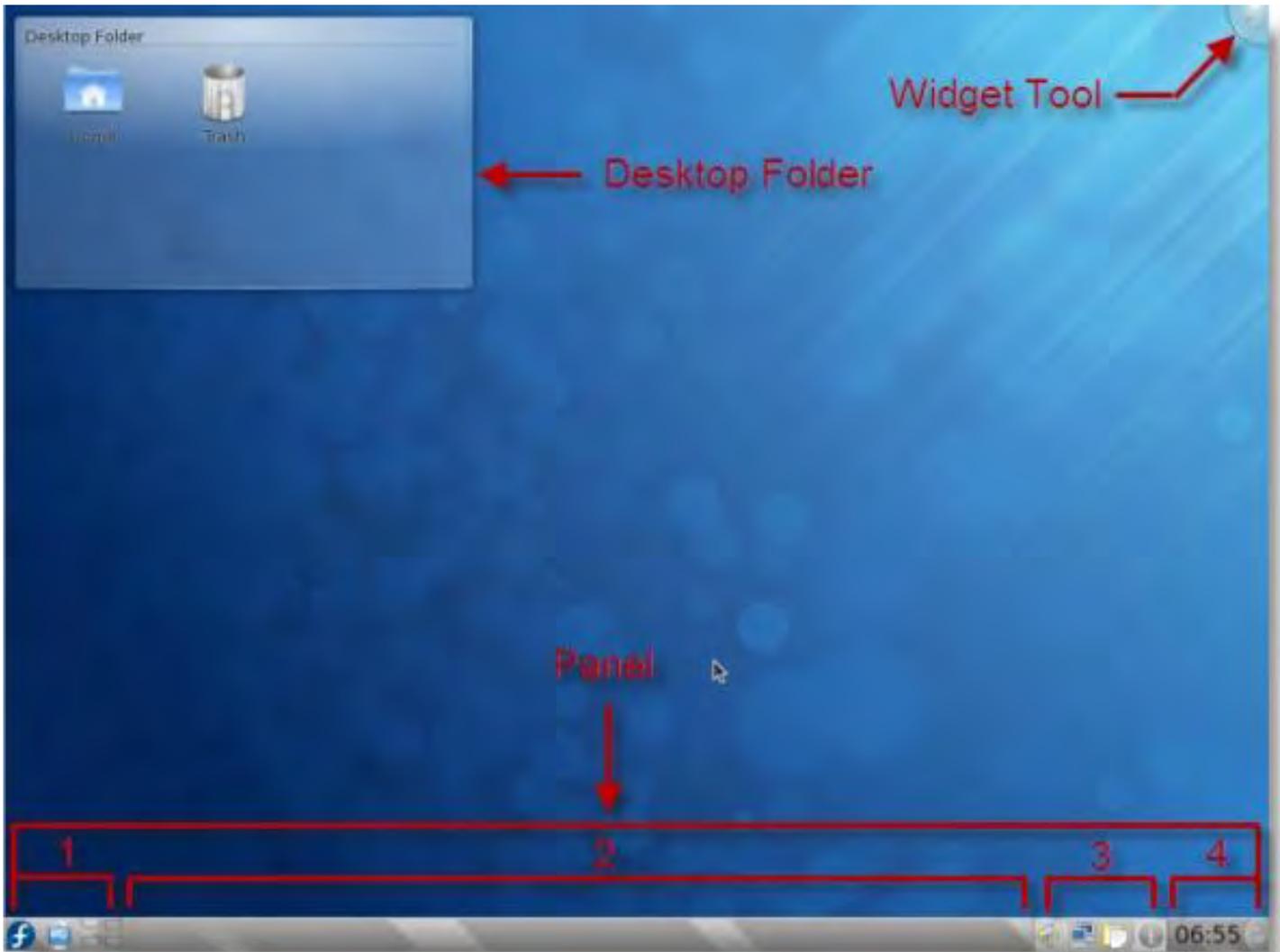
(1) Application Launcher and desktop tools, (2) Task Manager, (3) System Tray, (4) Clock and Panel settings.

I will refer to this figure later as we discuss the different areas of the desktop.

Preferences

We all have our own preferences and way of doing things on a computer. The strength of Linux is that it allows any user to adjust their work environment to suit their needs.

I will show you what my preferences are for my work environment, and hopefully this will demonstrate the vast array of options available for you to modify the desktop to suit your needs. This is by no means the only way or the right way; it is just my way.

Some users do not even load the Linux GUI. There is a way to bring up your system in the command prompt only (*www.linuxtopia.org/HowToGuides/runlevel.html*). These are for strictly

command-line Linux users. One advantage to this is the system runs much faster without loading the GUI. I am not that much of a hard-core command-line user, so we will continue to run the GUI.

Feel free to set up your desktop preferences and your tools the way you work best. That is the point of the Linux Desktop Environment.

Application Launcher
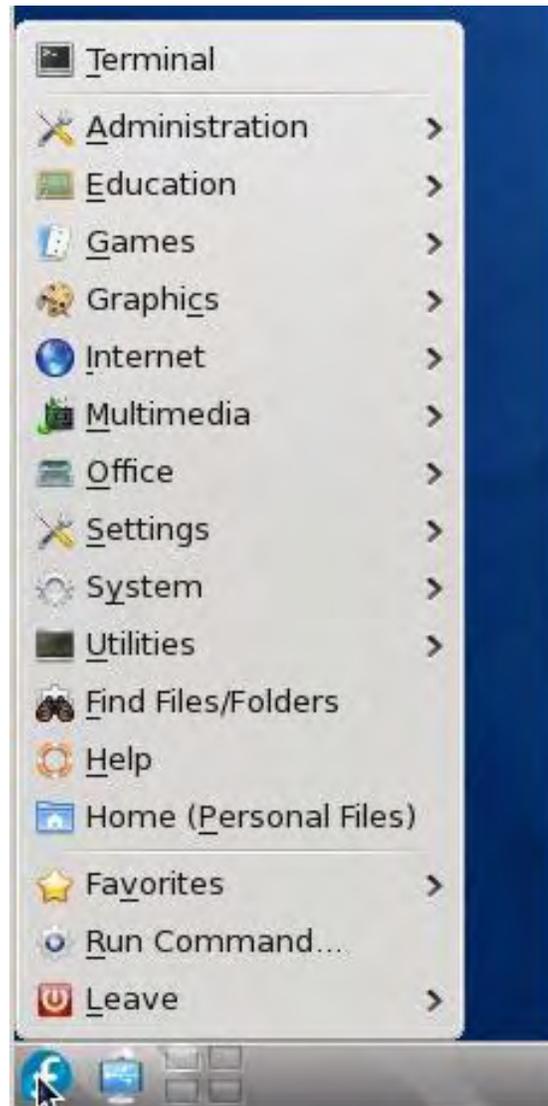
This tool is where you will find most of your applications, utilities and system settings. As you might expect, everything here can be modified. The default setting for this tool is Kickoff menu style. Although there may be some advantages to the way this is set up, I personally prefer to change this to the Classic menu style. To do this simply right-click the Fedora icon in the lower-left corner and choose "Switch to Classic menu style." You can change it back to Kickoff the same way; however, I will be demonstrating in Classic style.

Multiple Desktops

This is a concept which, among Microsoft users, may be somewhat foreign. This is because no version of Microsoft Windows has anything natively that really compares. Multiple desktops give you the ability to have several areas designated as additional desktop workspaces. The advantage, of course, is that your work area is greatly expanded. You do not view all the desktops at once; rather, you can switch between desktops as you work.

Right-click the Multiple Desktop icon. Choose "Configure Desktops." You will see the following screen:

This configuration screen allows you to indicate the amount of desktops as well as their labels. Labels are useful when you want to designate desktops for specific purposes.

System Tray

The purpose of the System Tray is to provide quick access to services, utilities and small apps called Widgets. These are often presented with small icons from which you can make modifications to settings. For example, clicking the speaker icon will allow access to the sound volume, mute and mixer settings for other system sounds. Try clicking on the icons in the System Tray and see what options you have available to you. You can also delete existing icons or add new ones.

Other Desktop Tools

There are a few other tools, such as the Desktop Folder and the Widget Tool, that you might want to try on the desktop. These are fairly self-explanatory, and most of the tools are readily available with a click of the mouse.

Many more tools and configurations are available to customize your desktop the way you want it to be. If there are specific areas of the desktop or KDE you have questions on, feel free to submit them and I will do my best to answer them.

Next week we will discuss more tips and tricks for Fedora 12.

Pete Choppin has been an IT Professional for over 15 years. He currently works as a network and systems administrator for a company called Albion based in Clearfield, Utah. He has experience in all types of hardware, software, and networking technologies. He is proficient in many operating systems including Linux, Windows and Macintosh. His interests include cooking, sci-fi, computers and technology, and Web design—a semi-professional endeavor, having designed Web sites in the dental field, e-commerce businesses, and for the Boy Scouts of America.

Pete has been a devout reader of *ComputorEdge* since 1990 and contributes regularly to featured articles as well as the Linux Lessons section of *ComputorEdge*. He can be contacted at *pchoppin@comcast.net* but prefers to have comments on *ComputorEdge* articles submitted to the editor and posted for the benefit of all readers.

Rob, The ComputorTutor: Technology Solutions
"Finding Duplicate Files, Part 2"
by Rob Spahitz

Last week, we looked at the idea of locating duplicate files on your Windows system. We started by creating an application that was able to navigate through the entire file structure and collect the files into a single list box. This week, Rob was going to handle the part of collecting just the duplicate files, but ran into problems. So instead, he takes a moment to talk computer philosophy.

Last week, we looked at the idea of locating duplicate files on your Windows system. We started by creating an application that was able to navigate through the entire file structure and collect the files into a single list box. This week, I was going to handle the part of collecting just the duplicate files, but I ran into problems. So instead I'll take a moment to talk computer philosophy.

First, the computer industry is very special. There's really never been anything like it in the history of the world. It's the only place where you can solve so many problems without actually creating anything of substance. And because you don't really have to go anywhere or get anything to make something, the resources tend to come easier and the solutions tend to come easier. This seems to lead to the problem we have now with the instant-gratification society. Everyone expects solutions to come easily, cheaply and instantly.

In fact, each solution is built upon hard work created by someone. That work required many hours of design effort and implementation. And as the necessary computer hardware got better and better, the solutions tended to come more easily. This was unlike other real-world solutions because there wasn't the distraction of physics to get in the way of creating a prototype (i.e. imprecise tools and components). If things didn't work as expected while building some computer application, you could simply throw it away and start from scratch without wasting anything except a bit of energy.

So where am I going with this? Well, sometimes the things we want are not quite there yet. As far as we've come with creating Photoshop for manipulating virtual images, and Excel for managing numbers virtually, Facebook for communicating with friends through a virtual world, and iPhones for running an endless number of applications, not everything is available immediately or as easily as we'd like. Specifically, I wanted to take the list of Windows filenames and throw them into an unbound recordset (set of records not specifically attached to a database). I've done it in the past in previous versions of Visual Basic and Access. However, with VB.Net 2008 I just couldn't find in the help files or my favorite search engines (including Google, Yahoo and MSN) anything to tell me how to set this up. Sure, I found some things that looked right, but I simply couldn't get the pieces to work.

So I set out to find an alternate solution. After all, when you're out to solve a problem, sometimes the solution is not the best one that you can't find, but rather a good solution that you *can* find that does the job. So I followed directions to add a database item to the project; I simply wanted to create an on-demand table (dynamically created) within that database. Well, that didn't work either, so I took that same database and added a table to handle the task of adding all of the files into the table so I could sort the filenames later. Well, I searched and searched and simply couldn't find the code to add records to that table.

That left me with a dilemma. I could still easily solve the problem. I could create an external database with the one table I needed and use that with the connection wizard and other things that I've written about before. However, this is such an inadequate design that I wanted to do it the right way (one of many things I teach in my technology classes). After all, why use pliers as a hammer or a hammer as a screwdriver? It may get the job done, but you're likely to have problems and side effects. And, of course, my deadline was approaching to get this article out. So I decided to buy time and write an article on failed solutions. It happens. We don't all know how to intuitively solve every problem presented to us in an optimal way. But, the sign of experience is being able to solve the problem *somehow* by tapping into the tools that you know.

Solutions 101

Given all of that, let's look at projects that work and don't work. What's the difference? First, I'm of the mindset that any virtual problem can be solved with a computer. Further, I believe more and more that most real-world problems can also be solved with a computer. The key is understanding the problem (in enough detail) and understanding the goal.

Let's take a look at the problem of traffic. Is the problem too many cars? Is it not enough space on the freeways/highways? Is it possibly that people simply don't know how to drive properly? Well, I see that people are looking to solve the problem the wrong way. If you look at all of these roads, most of them are idle or very underused most of the day (like between 10 a.m. to 3 p.m. and from 7 p.m. until 6 a.m.). This would mean that the problem is not too many cars, but maybe too many cars at one time.

How might a computer help? Well, obviously there are many solutions to the problem. Some locations have tried to solve this with movable dividers. Many are out there making the busier locations wider. However, as long as the population increases in these popular areas (typically cities), these solutions are likely to be very temporary solutions. One way that a computer can help is to let people know traffic volumes at any given location so that people can find alternate routes. Another really great way is to rethink the whole reason that the traffic is there: people trying to get to work. And if you look closer, you notice that most of these people are sitting around at computers doing things that could be done from anywhere in the world, such as at home.

Back to solutions. Science is a wonderful thing. It taught us how to solve problems—not just by trial and error, but also by reason. That leads to the bigger issue here. When you're trying to find a solution, you have to look at several factors: (1) Is this a one-time problem or a repeating problem? (2) When do you need a solution to the problem? (3) Is this problem similar to other problems so you can share resources and solutions? (4) Is the problem even worth fixing? And there are surely other concerns.

Is the problem one-time? If you need to perform a quick calculation, then the built-in calculator is fine. No need to sit around designing an application that will determine the optimal way to get data from you, make sure that each value is saved as submitted (in case your system goes down) and gives you a beautiful report of the results. Conversely, if you use the computer to balance your checkbook, maybe the calculator is simply not enough. Maybe you'd like to be able to save every entry, check it for reasonableness (like having the application ask about a value of 12345, wondering if maybe you mean to put 123.45). The solution would include references to recurring items, a listing of commonly used entries (like DEPOSIT) and additional tools that would help you balance the checkbook.

When do you need the solution? If you're working on your annual taxes, maybe creating a great application to track all of your deductions is not going to work. You may just have to bite the bullet and handle it manually this year. However, the idea of an application like that is good, so it's worth creating when you have time. (I guess it's such a good idea that several companies already did the hard work for you!)

Do similar problems exist? If you're working with a lot of drawings with custom formats and trying to add captions to them, do you need to create your own custom application to handle that? Since applications like Photoshop allow you to add captions to photos, maybe you could use the same tool if you could just figure out how to get the drawing into the tool. So rather than create a tool to add captions, all you'd need to do is make a tool to convert the drawing into an importable format. (Of course, sometimes this task is more trouble than it's worth, but if you're dealing with hundreds of these, that might be the way to go.)

Is the problem even worth solving? Looking at the traffic example I listed earlier, just because people *could* work from home, given the corporate issues (fear of not being able to monitor employees, lack of communication, etc.), it simply might not be worth the effort at this time. You could still handle it the old-fashioned way and have people show up at offices where they can assemble for meetings and have bosses watch over you.

So, when looking at computer problems, sometimes you take up the challenge and sometimes you bail. If the problem takes too long to solve, has little long-term benefit, or is too complex, then maybe it's not worth doing. One big mistake that many companies (or people) make is assuming that something in the computer world is cheap or easy to implement. When it fails to meet reasonable deadlines, they simply push the product out to market with the assumption that it will work itself out (and to get the quick profits). Sometimes it works itself out; many times it doesn't. Many times future expectations are not added into the scope of the project, so when these things come to be, the design can't handle it and the project becomes patchwork rather than enhancement. Some day, I believe, all of these shoddy systems will come falling down, as we saw to some degree with the collapse of the market known as the "dot bomb" of the late 1990's.

Meanwhile, I will continue to explore solutions to the data problem and report back. Stay tuned, and if you know the solution, feel free to send it along so I can put your name in lights.

Rob has been in the computer industry for over 25 years and is currently a part-time teacher, offering classes in Excel, Access, Visual Basic, and a variety of other technical tools. He has loved *ComputorEdge* since 1990 and can be contacted at *RSpahitz@Dogopoly.com*.

Looking for a great boardgame? Grab a copy from DOGOPOLY.com (*dogopoly.com*) and have a dog-gone great time.

Worldwide News & Product Reviews

"The latest in tech news and hot product reviews." by Charles Carr

Getting a Jump on IT Spending for 2010—Five tips for smart IT spending in the New Year; The Human Factor in Laptop Encryption—The first study on the use of encryption on laptops by employees within corporations; Bamboo Fun Pen & Touch—A review of Wacom's input and drawing tablet; Listen Different—A look at Sleek Audio's SA1 audio earphones.

Getting a Jump on IT Spending for 2010

Siamak Farah, CEO of InfoStreet (*www.infostreet.com*), a provider of IT and productivity Software as a Service (SaaS) and developers of StreetSmart business software, writes in this week with his five tips for smart IT spending in the New Year:

1. The OS Is Irrelevant!

As the battle of operating systems (OS) wages on between Apple and Microsoft, many businesses feel caught in the middle, unclear of which system to choose. Once a side has been chosen, there is still the ever-present (and recurring) dilemma over which version to choose—not to mention the potential nightmare of migration (i.e., should we migrate from XP to Windows 7; what pitfalls, if any, might we encounter?, etc.).

Consider, instead, going OS neutral. With the growing popularity of Web-delivered software (also referred to as Software as a Service—or SaaS), companies can relieve themselves of a tremendous headache by relying on experts who deliver always-up-to-date applications via a simple Web browser. This path allows employers to avoid worries over software updates, *plus*, you have the added benefit of being able to "take your desktop with you" (as you can log in to your desktop from any computer in the world with a browser and Web access).

2. Ditch the Servers

Perhaps the most significant line item of any IT budget is the cost of hardware (servers), and the hidden cost associated with this occurs when the IT department is pressured to estimate the right size. Assuming a large growth path, many servers must be ordered in advance to be ready to support the growth.

Should downsizing be in the cards, you need to plan on decommissioning servers that are hard to dispose of, as they often are worth a fraction of their purchase price. SaaS takes the guesswork out of your budget. In the same fashion that you do not think about the cell phone infrastructure and just orders or decommissions cell phones based on the number of employees, IT managers can always have the right amount of server power and be poised for growth with

SaaS providers.

3. Give Your Employees a (Virtual) Key to the Office

The average American now works longer hours than even our overseas counterparts. If your company makes use of next-generation SaaS tools, your employees can have *anytime/anywhere* access to their desktop, allowing them to work remotely and during off-hours if that is what is necessary to get the job done.

We've found that by making remote access to *all* aspects of the work environment easy for our employees, they have become infinitely more efficient—many log-in to check for urgent issues before starting their morning commute and check-in again in the evening—from home. This type of employee dedication can help propel a company from being just a player in their industry to being *the player*.

4. To Thy Own Client Be True

OK, perhaps that isn't how the saying actually goes; however the sentiment is valid. In this day of aggressive competition, it's important to use every tool and advantage you can afford to keep in touch with your clients (and have a reliable means for including personal details and generating automated follow-up reminders).

CRM (customer relationship management) software is not new; however, the leaders in this industry charge more than a pretty penny for their tools.

Consider one of the "optimally sized" versions (such as StreetSmart's Web-based CRM) that can be literally a fraction the cost and which offers the core functionality you need. Don't be left without such a valuable tool just because you've heard CRM software can be too price prohibitive.

5. Automate Your Protection

Every industry has its own set of compliance rules and best business practices. However, many companies overlook one of the most basic—yet most crucial—practices: e-mail archiving. This simple step can offer tremendous peace of mind and protection.

Investigate automatic e-mail archiving software that has the potential to serve as the most affordable business insurance you have ever had. Such software works invisibly in the background to back up *all* employee e-mail, protecting your company from accidental or intentional e-mail deletion.

The Human Factor in Laptop Encryption

Absolute Software and the Ponemon Institute have finished what they're calling the first study on the use of encryption on laptops by employees within corporations in the U.S., U.K. and Canada.

According to the study, "The research findings show that business managers are not taking the necessary precautions to secure their laptops, such as using additional security solutions, and instead are overly dependent on their encryption solutions to protect the sensitive data on their laptops.

"For companies relying solely on encryption, they cannot be sure whether the stored data has been encrypted, if it has been compromised, or even which files have been accessed. Corporations not using a layered approach to security are left with gaping holes—exposing the company, employees, customers and consumers at risk for data and identity theft."

The study's key findings include:

• 52% of business managers have employer-provided encryption. These are the people most likely to have the most sensitive info (PII and/or IP), and only half of them have encryption.

• 57% of business managers either keep a written record of their encryption password, or share it with others in case they forget it.

• 56% of business managers have disengaged their laptop's encryption.

• 61% of business managers share their passwords, compared to only 4% of IT managers.

• Business managers are much more likely than IT security practitioners to believe encryption makes it unnecessary to use other security measures for laptop protection.

Read the entire white paper at Absolute Software (*www.absolute.com/en_US/resource_center/ whitepapers/human-factor*) (fee associated after 30-day trial).

Bamboo Fun Pen & Touch: Tap Into Fun with a Bamboo Drawing Tablet

Most computers designed for consumers or businesses come equipped with a conventional pointing device such as a mouse or trackpad. However, why stick with such limiting standard equipment when a more talented and valuable alternative is available in the form of Wacom's Bamboo line of input and drawing tablets (*www.wacom.com/bamboo/product_comparison.php*)?

In case you have the impression that an input and drawing tablet lies beyond financial reach in these tough economic times, rest easy. Unlike Wacom's Intuos or Cintiq lines that cost from $400 to over $2K and are intended for graphics professionals, the five Bamboo models targeting home and office users start at MSRP $69 and top out at MSRP $199 for the Bamboo Fun Pen & Touch (aka Bamboo Fun (*www.wacom.com/bamboo/bamboo_pen_touch.php*)), which is the subject of this review.

The Bamboo Fun is a slender (~0.3") and lightweight (under 2 lbs.) tablet made of sturdy gray plastic with four rubber feet on the underside that keep the unit stable on a desktop. It is about 30 percent larger than its four ~10" x 7" siblings, occupying almost a legal-size sheet of paper's worth of real estate (see Figure 1). The unit's upper surface is divided into an active area (details in a moment) plus a strip of four customizable white buttons (officially called "ExpressKeys"). A USB cable emerges from one end of the tablet (it can be connected to a keyboard's port rather than requiring a brick or powered USB hub), and a fabric loop (to stow the digital pen when not in use) is embedded in the other end.

Figure 1. The Bamboo Fun is a medium-sized (13.3" x 8.8"), plastic tablet with multi-touch and gesturing support like a smartphone's, plus it comes with a pressure-sensitive pen (for image editing, drawing and digital handwriting) and an exceptionally valuable package of third-party graphics software.

With regard to functionality, the Bamboo Fun greatly surpasses standard equipment pointing devices for use in navigating through and interacting with your computer's software. This tablet is more akin to the glass trackpad in current MacBook Pros and the touchscreen in the iPhone; if you are accustomed to these devices, the Bamboo Fun's navigational support for single- and two-fingered tapping (instead of clicking or right-clicking, respectively), tap and hold (to drag), and swiping (to scroll) will immediately feel familiar, except way less claustrophobic. That's because the touch-sensitive portion of the Bamboo Fun's active area is 7.5" x 5.1" which represents over 50% more real estate than a MacBook Pro's glass trackpad and over 100% more than an iPhone's screen.

But wait, there's more—in addition to supporting multi-touch and gesture-based navigation, the Bamboo Fun's active area also supports an included battery-free and cordless digital pen (also made of sturdy gray plastic) that has a pressure-sensitive tip officially supporting up to 1,024 levels of pressure, a digital eraser and a customizable rocker switch that functions as two buttons. The pen's active area is larger—8.5" x 5.4"—than the touch-sensitive one described above, and it works in conjunction with the included package of graphics software (details in a moment) for image editing and drawing. If your computer has handwriting software (e.g., Mac OS X's Ink), Bamboo's digital pen also can be used to create signatures and insert cursive text. Fun!

In order to take advantage of the Bamboo Fun's multi-touch, gesture and digital pen functionality, you need to install Wacom's driver software (compatible with Mac OS X Leopard and Snow

Leopard plus Windows 7, Vista and XP Service Pack 2). I strongly recommend downloading the latest and greatest version from Wacom's Web site (*www.wacom.com/downloads/drivers.php*) rather than installing the version included in the package. This software has features for configuring the tablet's handedness orientation (Figure 2a), ExpressKeys and pen button customizations (Figures 2 a and b), pen tip's and eraser's "feel" (Figure 2b), and more (Figure 2c).

As an added bonus, the Bamboo Fun also comes standard with an outstanding and useful graphics software bundle that is perhaps this product's most significant strength. The bundle consists of Adobe Photoshop Elements (version 7 for Windows, 6 for Macintosh; note that these are not the current versions for their respective platforms), Corel Painter Essentials 4.0, and Nik Color Efex Pro 3.0 WE3. You could purchase the programs in this software bundle individually and pay more than the Bamboo Fun's MSRP! If you have a use and/or need for these programs, purchasing the Bamboo Fun is worth serious consideration.
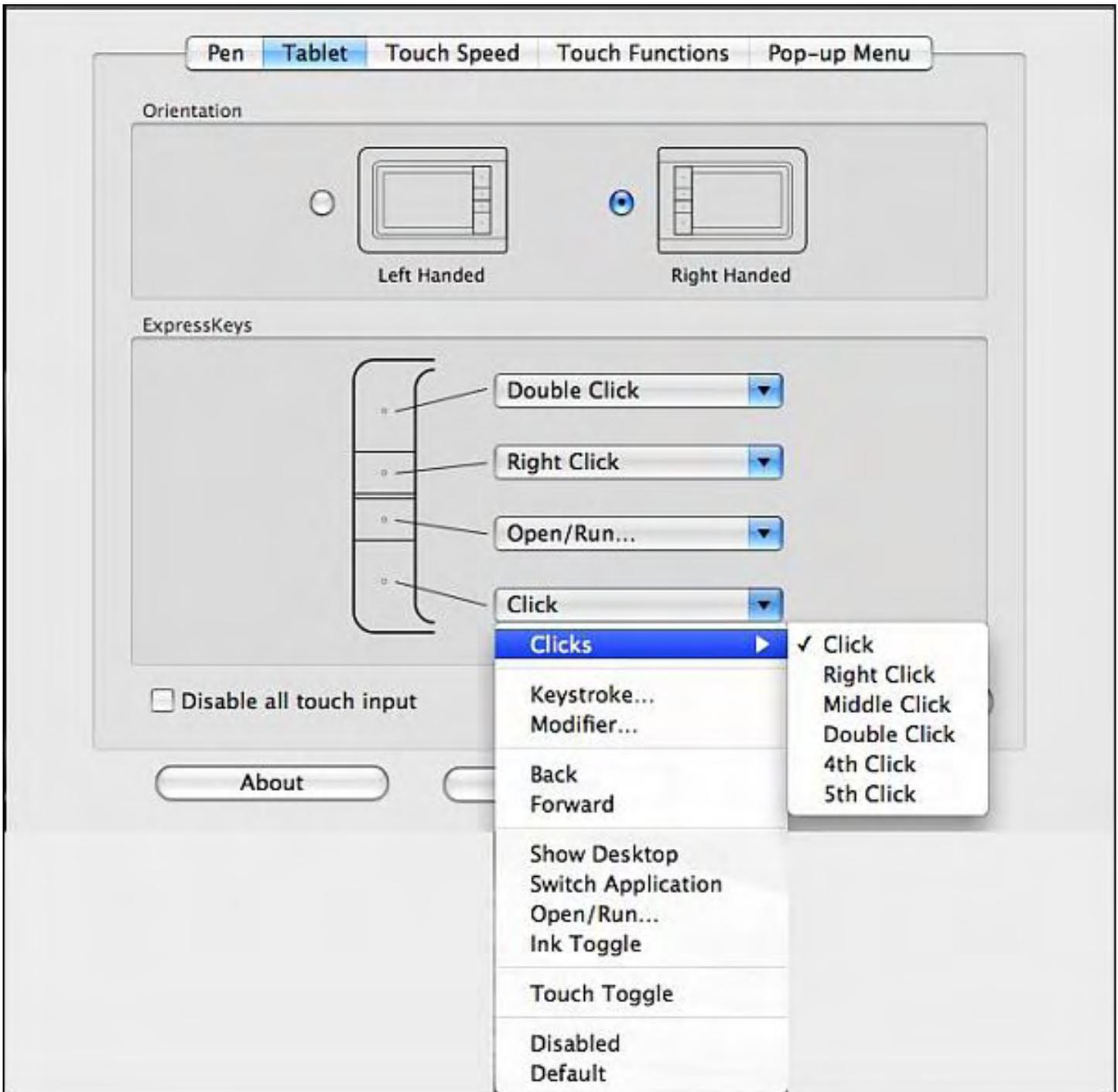
Figure 2a. The Bamboo Fun is ambidextrous thanks to its configuration software, which also supports an impressive range of customization options for the tablet's four ExpressKeys.
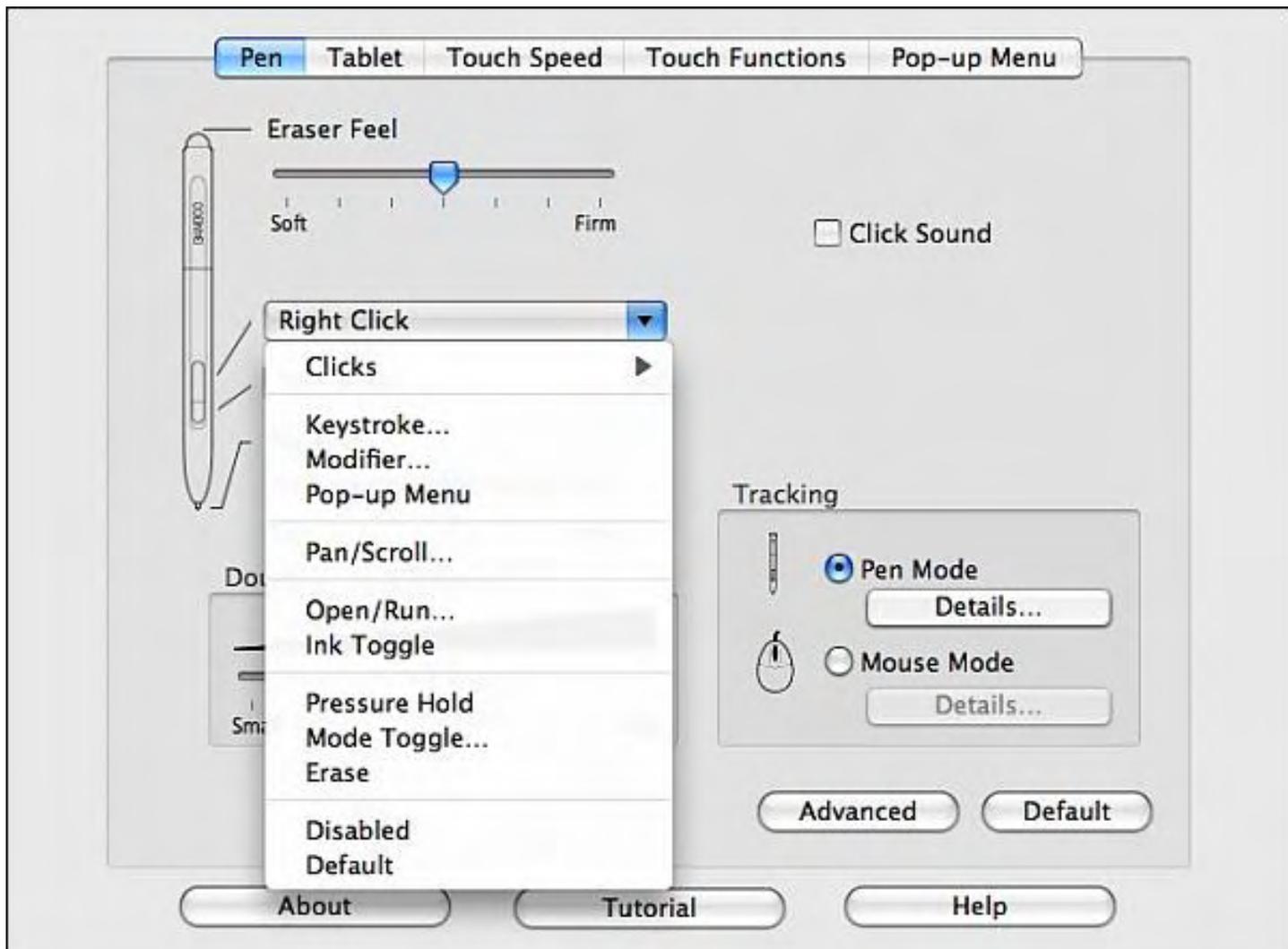
Figure 2b. The configuration software supports the same impressive range of customization options for the digital pen's rocker switch, and it has a control for the "feel" of the pen's tip and eraser.
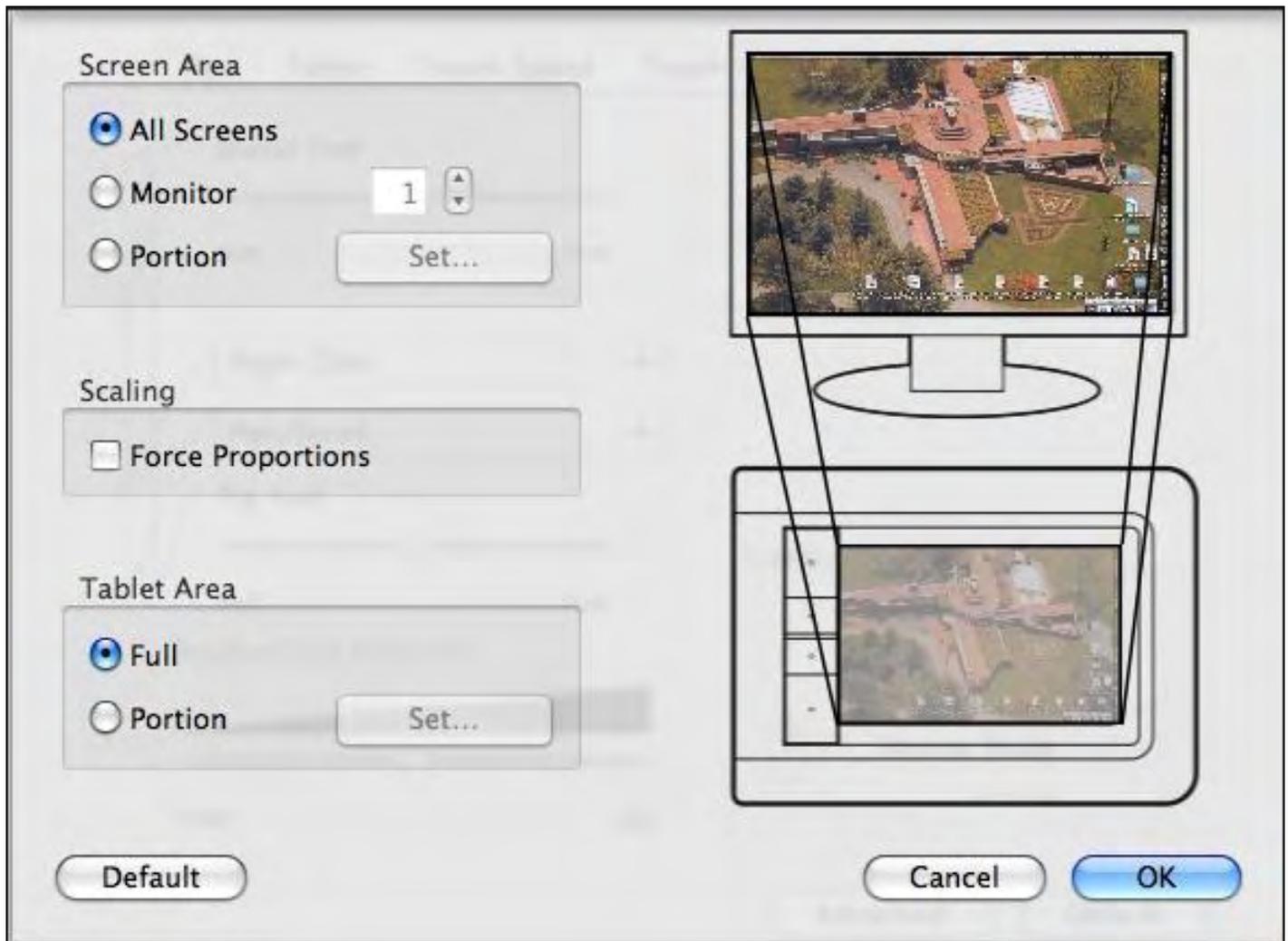
Figure 2c. A clever and highly useful feature of the Bamboo's configuration software is that it can map either the entire active area for the digital pen or a user-defined portion of it to your monitor, and it can support a single screen or multiple ones.

What I like most about the Bamboo Fun (in addition to its outstanding graphics software bundle) is the expansiveness of its touch- and gesture-sensitive active area (creative hobbyists and former Graphire owners will especially appreciate this), the ExpressKeys, the tablet's quality of construction, and the truly vast help resources that Wacom provides in the package (a self-contained tutorial slideshow file and well illustrated user guide PDF file that are automatically installed on your computer's hard drive when you install the configuration software, plus a printed quick-start guide) and on their Web site (highly instructive videos (*www.wacom.com/downloads/videos.php?category=2*) on how to get started with, install and customize the Bamboo Fun) to assist new users in getting up to speed.

Although the Bamboo Fun's strengths are highly compelling, I have the following reservations.

Perhaps paradoxically, the tablet's size doubles as both a strength and a weakness. First of all, it requires workstation space about the size of a legal pad of paper, which could be challenging for some users to accommodate. Secondly, while positioning the Bamboo Fun in a crowded workstation, ergonomic considerations easily could be overlooked despite the information presented in the user guide and other help resources. Lastly, even if the tablet is positioned properly, tasks involving a lot of precise, repetitive actions with the digital pen could induce

greater fatigue and/or pain in wrist muscles than would be experienced using a mouse. Your mileage may vary.

Power users, people with large hands, and klutzes (like yours truly) likely will experience some frustrations using the Bamboo Fun. The reason is that the tablet's active area responds to intended and unintended contact. Thus, while tapping or gesturing, it is imperative to use only the middle and/or index fingers (or pen tip) while keeping other fingers and items such as pieces of paper off the active area. Otherwise, unexpected and undesired outcomes (such as selecting the wrong portion of text, menu item, and/or desktop icons; opening the wrong file) will occur.

Also paradoxically, the vast help resources could double as both a strength and a weakness. Wacom provides and makes available so much information that beginning users could feel overwhelmed collecting, reading, or searching through it all to find exactly what they're looking for.

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reviewed by Barry Fass-Holmes

Listen Different

"Innovation" is a big-time buzz word in the tech universe these days. Everyone wants their products to be seen as "innovative." The troubles with the "innovative" label, however, are that 1) it obliges the innovator to deliver something truly different and/or new, and 2) the labeled product had better function as advertised or else this label could lead to serious buyer's remorse.

What innovation can be imagined for in-your-ear-canals earphones to be used with portable music players? What different and/or new features could be invented that truly function as advertised? That's where Sleek Audio's SA1 (*www.sleek-audio.com/products/universal/sa1*) enters the picture (Figure 1). These earphones probably are the most innovative ones I've found to date.

Figure 1. The SA1's innovative, distinguishing features include replaceable cables and Variable Equalization treble tips, a rosewood body, and Kleer wireless compatibility.

First of all, unlike competitors' products, the SA1 has replaceable cables. When other brands of earphones suffer a cable break, kink, or mishap that renders them useless, you're stuck needing to purchase a whole new product. If the SA1's cables break, however, you simply detach them from the driver units and connect replacements that are available from Sleek Audio for a fraction ($25) of the SA1's price. Moreover, when the company releases designer cables (i.e., various colors) or ones with a built-in microphone, users will be able to upgrade seamlessly for a fraction of the SA1's price. Totally practical.

Second, unlike competitors' products, the SA1 has a feature that Sleek Audio calls the Variable Equalization (VQ) system. The VQ system is a metal piece (aka "treble tip"; shown in Figure 1) that screws into each earphone in front of the 6mm dynamic driver unit and regulates the degree of treble. Included with the SA1 are two pairs of treble tips that differ with regard to their aperture diameter; consequently, the two pairs differ in the amount of treble they deliver to your ears. You can mix or match, as desired. The underlying concept of the VQ system is that it replaces or complements your portable music player's graphic equalizer and can be customized for each ear to obtain the preferred sound quality. Nice concept; details on the delivery in a moment.

Third, instead of using plastic or metal materials for the SA1's driver housings, Sleek Audio uses Siam rosewood. The company's marketing materials say that this feature is intended to provide a "unique sound and style" and "enhanced resonant bass." Concur with regard to style; details on the delivery of "resonant bass" in a moment.

Lastly with regard to innovation, the SA1's driver units support Kleer wireless technology. Kleer technology is a different flavor of wireless than Bluetooth, using the 2.4GHz Industrial, Scientific and Medical band (*www.answers.com/topic/ism-band*) to deliver audio without tethering cables to

your portable music player. Users can purchase Sleek Audio's W-1 Audio Wireless unit (Figure 2) separately ($120) or bundled with the SA1 ($169.99) and ditch the replaceable cables altogether.

Figure 2. The SA1 wireless bundle comes with Sleek Audio's W-1 Audio Wireless unit that uses Kleer technology to stream music wirelessly via
a dongle (which plugs into a music player) and ear-set (into which the earphones plug). The dongle and ear-set both contain a rechargeable battery rather than using your music player's battery.

In case you're thinking that each of the above features—replaceable cables, treble tips, wooden housing and Kleer wireless support—is available in competing products, the challenge is finding another brand that offers all four innovations together at a price matching or beating the SA1's MSRP $79.99. This unique combination of features at a below $100 price point is what makes the SA1 truly innovative.

These earphones have several additional noteworthy (although not innovative) features. The following accessories are included in the package—three pairs of flangeless silicone sleeves (small, medium and large), three pairs of double-flanged silicone sleeves (ditto), and a pill-shaped carrying pouch. The black plastic-coated cables—all 4+ feet of them—have a fixed splitter located about 15 inches south of the driver units plus a handy movable splitter above that.

Innovation might be a wonderful thing, but what about sound quality? The SA1's audio afforded excellent clarity, fidelity and a pleasing balance between treble and bass without muddiness or tinniness when using the less treble pair of treble tips (silver-colored) in a quiet environment. My impression of the more treble (black) tips was too high and bright, approaching tinniness..

The reason for the emphasis above on a quiet environment is that the SA1, regardless of which silicone sleeves I used during my testing outdoors or in a noisy environment, almost completely lacked bass and offered weak isolation from ambient sounds. Also, I did not perceive any bass resonance that might be provided by the rosewood housing. I asked two younger people (presumably with better auditory acuity than my aged ears) to check out the SA1—their impressions matched mine. This is the opposite of my experience with competing products, such as V-Moda's Vibes. When I replaced Sleek Audio's medium silicone sleeves with the Vibe's counterparts, the bass and ambient sound isolation were noticeably improved. Thus, the issue

probably is related to the lack of proper seal with the SA1's silicone sleeves rather than the SA1's drivers or treble tips. Your mileage may vary.

A couple of minor drawbacks are worth mentioning. The user's guide included in the package is weak at best. It consists of a 3.5" x 2.5" folded sheet of paper with five bullet items, limited warranty info, and warnings/safe usage in English only. The company's Web site did not offer any usage instructions as of this review's writing. Another drawback is that the letters "L" and "R" on the cables are black and almost impossible to discern. Lastly, the driver units are not threaded; instead, they are removed from the cables by pulling on the driver units, then installed by pushing them on. This is not documented anywhere that I could find.

Regarding the Kleer technology W-1 Audio Wireless unit, it definitely is worth considering even though it costs more than the SA1 (note, however, that the SA1 bundle discounts the W-1's price by $30). During my testing, audio quality showed no noticeable degradation with the W-1 compared to the cables. The unit's official range is 10 meters (about 33 feet). Its built-in, non-replaceable batteries are rated to last up to 10 hours before needing a 2–3 hour recharge via the included USB cable (or with an optional charging adapter). My primary complaints with the dongle and ear-set are 1) their on-off switches are hidden under a "protective cover" that can be a bit difficult to open, 2) the switch itself requires a sharp object to turn on or off, 3) they lack an indicator for the current charge level, and 4) they lack a control for pause-play, volume, and next/previous track. Although the ear-set officially tips the scale at 20 grams (~0.7 oz.), it probably is too heavy to stay in your ears during vigorous exercise.

In conclusion, portable music player owners who are looking to upgrade their listening pleasure on a limited budget are likely to be delighted by their auditory experience with the SA1. Users looking for the ultimate in bass support, however, potentially will be disappointed unless the SA1's included silicone sleeves seal properly.

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Review contributed by Barry Fass-Holmes

In addition to being an editor and columnist for *ComputorEdge* and *ComputerScene* Magazines, where he has written hundreds of feature articles and cover stories over the past decade, Charles Carr has also penned well over 1,000 non-tech newspaper and magazine articles and columns for various publications, including two widely-read columns each week for San Diego's *North County Times* newspaper.

Carr has covered such diverse topics as pesticide use in area schools, invasive background checks for county volunteers, asthma awareness, the debate over standards-based grading, potential vulnerabilities in electronic voting machines, and Southern California's devastating 2003 and 2007 wildfires. He has also written many humorous pieces.

Carr has also edited dozens of stories and articles written by others which have appeared in major publications and web sites across the country.

He has been a contributor and technical advisor to *L.A. and San Diego Parent* magazines and receives dozens of requests a year to appear on Southern California television and radio stations to talk about important events in the tech world.

Carr has judged many writing competitions including San Diego Press Club and Time-Warner Communications contests and was sole judge for the national NAPPA Tech Toys awards for five years (which his kids really appreciated). He was recently a judge for the national "Poetry Out Loud" competition.

He has won many writing accolades, including Press Club awards for Best Column Writing, Consumer Writing and Best Arts and Entertainment, and has repeatedly taken top honors in San Diego Songwriter's Guild competitions for his original musical compositions.

Carr will soon publish his first book, *What a World*, a collection of his best writings.

Learn more at *www.charlescarr.com*.

Spam of the Week
"The latest in annoying and dangerous e-mail currently making the rounds." by ComputorEdge Staff

There is a phony spam going around that is trying to trick you into giving up some information by purporting to come from your e-mail provider's technical support.

In the name of your e-mail provider, which could be where you work, there is a phony spam going around that is trying to trick you into giving up some information. What makes this work is the fact that it looks like it's coming from technical e-mail support for your business (see Figure 1). It comes in various fonts, but the message is always the same. It didn't work on us because we have no technical support.
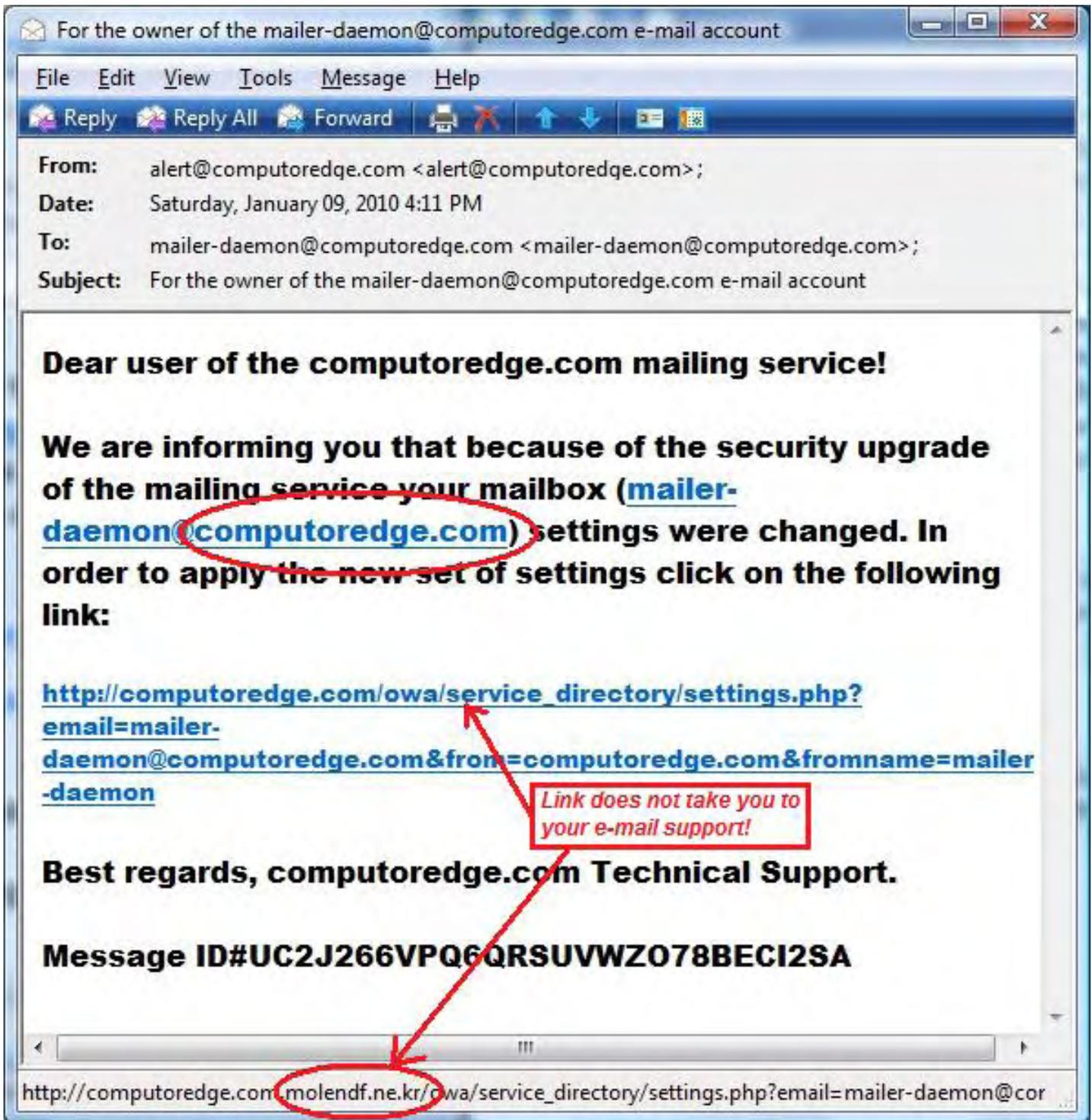
Figure 1. ComputorEdge technical support appears to have gone phishing. Even if it looks like it's from your company, be suspicious.

Note that the link will take us to Kuala Lumpur (kr). *ComputorEdge* does not have any offices in Kuala Lumpur. Just delete it!

ComputorEdge always wants to hear from you, our readers. If you have specific comments about one of our articles, please click the "Tell us what you think about this article!" link at the top or bottom of the article/column. Your comments will be attached to the column and may appear at a later time in the "Editor's Letters" section.

If you want to submit a short "ComputorQuick Review", or yell at us, please e-mail us at *ceeditor @computoredge.com*.

EdgeWord: TurboTax Has Lost Me
"Even Costco can't make TurboTax a good deal this year." by Jack Dunning

Just because TurboTax could be the best tax program on the market doesn't mean that they can keep raising the price.

TurboTax (actually Intuit) is making a big mistake. Don't get me wrong. I think that TurboTax is a great program. I've used it for years. In the past I had it automatically sent to me annually so that I wouldn't need to search for it. The package would include the federal and state returns, plus rebates on eFiling. I generally thought that I was paying a reasonable price, until I realized that I could get it cheaper at Costco with a coupon. I canceled the subscription.

That was a couple of years ago when the deluxe version of TurboTax was selling for $39.95 at Costco. There was a $15 off coupon that brought the pre-tax price down to $24.95. I considered that very reasonable and couldn't pass it up, although there was no longer a rebate for eFiling federal taxes. I printed my forms and mailed them in.

I think the fact that I mailed in my return in 2008 must have been noticed, because last year TurboTax included five free eFiles. (What was I going to do with the five eFiles? I know, I could give them to other members of my family, but that wasn't convenient.) Yes, there was a $10 coupon at Costco, but TurboTax had raised its price another $10.

This year TurboTax Deluxe (with state) has raised its price another $10 to $59.95—plus, the cost of a state eFile has gone up to $19.95. Even with the $10 Costco coupon (good through January 24), that's over $70 with tax. My guess is that Intuit will raise their price again next year, unless the market wakes them up. (I think that significant market share may be lost this year.) Just because TurboTax could be the best tax program on the market doesn't mean that they can keep raising the price.

What is the right price for a tax program that includes federal and state and both eFiles? For the average return (no major complications), it's about $25. If there is an extra charge for eFiling, people will tend to print and mail. When the price creeps up to $50 or more, people start looking for alternatives—and there are plenty of them.

Although H&R Block (former TaxCut) looks like an alternative, they're priced pretty much the same as TurboTax. The one program that keeps coming up as a viable substitution is TaxACT. It will cost about half the price, and, based upon reviews by those who have used it, it will do the job. It looks like I'll be giving TaxACT a try this year. I will lose the capability of importing from last year's return, but I still know how to type my name and Social Security number.

There is a marketing philosophy in the software industry that they will let people use the product cheap (often free) until the users are hooked—then they jack up the price. There is nothing wrong with this business model, but if implemented with too much arrogance (and too rapid a price increase), it can be self-defeating—even disastrous—for the software company. I certainly think that TurboTax is pushing the envelope. Maybe they think people won't remember how

much the pricing is rising from year to year.

With so many people in the tax software business, one would think that Intuit would want to garner more market share rather than maximize their price. Software is one business where you can truly make it up in volume if you have the right price.

As always, I could be wrong about the impact of Intuit's decisions. I'm merely giving my personal reaction. I think that there may be a few others that feel the same way.

Jack is the publisher of *ComputorEdge* Magazine. He's been with the magazine since first issue on May 16, 1983. Back then, it was called *The Byte Buyer*. His Web site is *www.computoredge.com*. He can be reached at *ceeditor@computoredge.com*

Editor's Letters: Tips and Thoughts from Readers

"Computer and Internet tips, plus comments on the articles and columns." by ComputorEdge Staff

"Bravo for Firefox!," "Removing Partitions and Grub," "Wiping a Drive," "Mac vs. PC Article Comment," "Thanks for the Linux"

Bravo for Firefox!

[Regarding Pete Choppin's December 18 article, "The Best Firefox Web Browser Extensions":]

Excellent article. I have found some great Web sites—and anticipate discovering more in the future—and am motivated to switch from Google Chrome to Firefox.

Thank you!

-Garry Schaeffer, San Diego

Removing Partitions and Grub

[Regarding the December 18 Digital Dave column:]

Cicero Walker asked how to remove partitions and the GRUB bootloader using XP. I believe the keys he's looking for are XP's Diskpart, FixMBR, and possibly Fixboot. There is a wealth of information regarding these on the Web. Diskpart can remove partitions and FixMBR will "remove" GRUB (it actually rewrites/repairs the master boot record of the boot disk).

After using FixMBR, dual booting will no longer be possible. Fixboot may be needed if there is trouble booting after using FixMBR. These programs are accessible from XP's recovery console. XP's recovery console is accessed by booting from XP's Setup disc, then pressing the R key to start the Recovery Console. Recovery Console will prompt for a number that represents an XP install you want to fix; usually '1' is the only choice. After typing the appropriate number (again, usually '1') you should be prompted for your Administrator Password. After entering the correct password, you should see a DOS-like prompt (e.g.,C:*bckslsh*WINDOWS>). At that prompt, type diskpart to work on partitions or fixmbr to "remove" GRUB. When running diskpart, typing help will bring up a list of possible commands. If after running fixmbr there are problems booting from the PC's hard disk, running fixboot should help.

-Marc Pincince, Burke, VA

Thanks, DD, Eric and Marc. With the help you have provided me, I hope to return my dual-boot HDD to a single XP boot with no trace of Linux, and then use "Eraser" to improve my security. I do not have any installation copies of WinXP. This leaves me in a predicament wherein I do not have the option of blanking the drive and reinstalling the OS from an installation disc.

-Cicero, Colorado Springs, CO

Wiping a Drive

[Regarding the December 18 Digital Dave column:]

I work for a a school district and we use Darik's Boot and Nuke ("DBAN") (*www.dban.org/about*) for wiping hard drives.

-Eric, Temecula

Cleaning a drive (military style)—A product we used and they still use today in the USMC is Wipedrive. It offers the ability to overwrite the drive 1-3 times and provides additional options as well. I use it today in the private sector for my business clients. Works great and to government standards, if that's what you're looking for.

-Michael, Murrieta, CA

I have used DBAN for years; 37-pass guttman wipe is overkill, but the 7 pass is quite secure and not very slow, unlike some of the other utilities out there that work under Windows.

From www.dban.org:

"Darik's Boot and Nuke ('DBAN') is a self-contained boot disk that securely wipes the hard disks of most computers. DBAN will automatically and completely delete the contents of any hard disk that it can detect, which makes it an appropriate utility for bulk or emergency data destruction.

"DBAN is a means of ensuring due diligence in computer recycling, a way of preventing identity theft if you want to sell a computer, and a good way to totally clean a Microsoft Windows installation of viruses and spyware. DBAN prevents or thoroughly hinders all known techniques of hard disk forensic analysis.

"DBAN is a free software product that can be used at home or in a business at zero cost. The only official place to obtain DBAN is by download at this Web site. We do not sell DBAN media."

-Tim, El Cajon California

Mac vs. PC Article Comment

[Regarding Barry Fass-Holmes' November 27 article, "Marketing Mythologies about Macs and PCs":]

Barry is simply wrong when he said in his reply:

"...the article demonstrates that Macs are compatible with Windows, they run all the programs that Windows can run, and they are as expensive as comparable, competing brands."

Change "compatible with" to "similar to" and "all" to "many of" to make it sound more reasonable.

-Ron Cerrato, San Diego, CA

Thanks for the Linux

[Regarding the December 18 Linux Lessons: Introducing Fedora column:]

A big "THANK YOU" to *ComputorEdge* and Pete Chopin for the Linux lessons! I've enjoyed your excellent magazine since its inception.

-Dan Cooley, Julian, CA

ComputorEdge always wants to hear from you, our readers. If you have specific comments about one of our articles, please click the "Tell us what you think about this article!" link at the top or bottom of the article/column. Your comments will be attached to the column and may appear at a later time in the "Editor's Letters" section.

If you want to submit a short "ComputorQuick Review", or yell at us, please e-mail us at *ceeditor@computoredge.com*.