ComputorEdge™ Online — 01/08/10

This issue:
E-Books and E-Readers

Today's e-book and e-book reader technology lets you curl up with a good book on a snazzy device of your choice.

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Wally Wang's Apple Farm by Wally Wang

E-book Readers for Your Mac or iPhone

Stanza turns the iPhone into a remarkably compact and easy-to-use e-book reader (also available for Macs). Also, the future is a world where both Windows and the Macintosh are important; for a New Year's present to yourself, download a copy of the turn-based fantasy game, The Battle of Wesnoth; and a tip on the free Unarchiver program, which can not only open RAR files but LHA, StuffIt, ZIP files and more.

Linux Lessons: Fedora, Part 3 by Pete Choppin

Completing the Fedora Installation

Last time, we began the installation of Fedora, and we partitioned the hard drive. We will now complete the install. Also, we will discuss packages and the tasks that drive those packages.

Rob, The ComputorTutor: Technology Solutions by Rob Spahitz

Duplicate Music Files

We often make copies of files instead of making shortcuts to the files. Later, we forget which file is the most recent. Today's solution is one way to get a listing of files that might be duplicates.

Spam of the Week: "Where's the Spam?" by ComputorEdge Staff

The latest in annoying and dangerous e-mail currently making the rounds.

A slow week for malicious spam means the phishermen must be enjoying some time off—except for a tricky Western Union fake transfer.

DEPARTMENTS:

EdgeWord: Where's the Paper? by Jack Dunning

The Paperless Evolution

The paperless society is well under way. But, rather than being a revolution, it's an evolution, and e-books are helping the process along.

Editor's Letters: Tips and Thoughts from Readers by ComputorEdge Staff

Computer and Internet tips, plus comments on the articles and columns.

"MP3 Files," "Windows 7 on Older Computer," "Netbook Dilemmas," "On-Screen Keyboard and Windows Character Map"

Send mail to ceeditor@computoredge.com with questions about editorial content.
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Digital Dave

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

Is there a way to get the Clipbook Viewer feature operational in Win 7?; what's the deal with closing a laptop lid before shutdown?; a forgotten password has locked a reader out of her computer.

Dear Digital Dave,

I have attempted to set the standard Windows keyboard shortcut, Ctrl+Alt+C for Clipbook Viewer (Clipboard) in Win 7 and have not succeeded. As you will recall, using this shortcut makes it possible to see the contents of Clipboard at any time you so desire. Is there a way to get this feature operational in Win 7?

Cicero
Colorado Springs, CO 80906

Dear Cicero,

There are a couple of problems with what you're trying to do. The first is that Clipbook Viewer (clipbrd.exe, formerly called Clipboard Viewer) has not been included in any version of Windows after XP. Microsoft dropped the tool probably because anyone can do the same thing (viewing what's in the Clipboard) with almost any graphics or word processing program by pasting (Control+V). However, if you manage to find an old copy of the program (it's located in the Windows XP system32 folder), it will run under both Windows 7 and Vista.

For the uninitiated, the Clipboard is where images, files and other items are temporarily stored in memory when you either Copy (Control+C) or Cut out (Control+X) an object. Each time you perform one of those operations, the current object in the clipboard is replaced with the new one. The clipboard contents are placed in accommodating programs (graphics, word processing, etc.) with the Paste action (Control+V). Clipbook Viewer merely allows you to view the current occupant of the Clipboard and save it to a file.

As for setting hot keys for opening the Clipbook Viewer program, the technique in Windows Vista and Win 7 of right-clicking on the filename and opening Properties to assign hot keys does not seem to work properly with Clipbook Viewer. I was able to assign a key combination, but it would not open the program when executed. But, you can add it as a hot shortcut on the taskbar, or pin it to the Start Menu. Go figure.

Digital Dave

Dear Digital Dave,

Especially on TV programs, I often see people closing the lid of their laptops/notebooks without shutting down open programs. Is this a bad thing? And, do they lose any information doing this? I feel it's the same as turning off the power switch before shutting down the system.

Peg Salisbury
El Cajon, CA

Dear Peg,

When they close a laptop on a television program (usually to prevent the computer from blocking the camera shot), I would guess that most of the time the computer is not even turned on. Yet, even if it is, it is highly unlikely to cause a problem. Closing the lid on a

laptop is not the same as pulling the power plug on a desktop computer. It is safe to do, and, even if your laptop is set to shut down when the lid is closed, it should do it properly by closing all the open programs first.

Generally, laptop computers are set to go into a standby mode if the lid is closed. The computer is not shut down, but the screen and hard drive are turned off (usually in the screen-locked mode), and all the open programs are kept in memory. When you open the lid and log in again, all your programs should be there, ready to use. (I say "should be" because various strange behaviors may occur in Standby and Hibernate modes. Hibernate saves your open programs on the hard drive rather than in memory.)

In the advanced Power Options for your laptop, you should be able to set the computer to shut down, standby, hibernate, or do nothing when you close the lid. Pick the one that suits you most. None of them will harm your computer unless you slam down the lid too hard.

Digital Dave

Dear Digital Dave,

When I set up my Dell PC with Vista, I entered a password. I lost the password and the help feature does not help. The password wizard does not work because I did not set up a disc. How can I get into my computer?

Sandra Bliss
Cooperstown, NY

Dear Sandra,

I'm glad you asked that question mostly because I've answered it before—one and a half years ago. The problem is finding something that I talked about so long ago. Luckily, the *ComputorEdge* search feature at the top of the page helped me locate my words of wisdom (June 13, 2008). What I liked about the search was how easy it was for me to find what I said way back then.

The first step in finding one of my old columns is to go to the *ComputorEdge* Site Map (*webserver.computoredge.com/sitemap.mvc*) page. A link can be found in the middle of the banner at the top of each page on the *ComputorEdge* site. (Executing a search in the field at the top of the page will also take you to the Site Map.) Select Columns, then Digital Dave. You will note that the text below the search box at the top of the page says, "Search of 'Digital Dave'." The pre-selection of Digital Dave will narrow all searches to only my columns, thereby relieving you of digging through minutiae from other writers.

I entered "lost password" into the search field and selected "Text Search (slower)" with the button below. (Nothing came up with the Title Search.) Clicking the Search brought up the column that addressed the topic. (Note: The link in the column has changed to a new location (*pogostick.net/~pnh/ntpasswd/*).)

I think I may need to use this *ComputorEdge* search feature a little more often, just to remind me of what I've said in the past.

Digital Dave

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Amazon Kindle Overview

“Tote an entire library in your pocket.” by Michael J. Ross

The current champion in the burgeoning e-book reader field appears to be Amazon.com, whose Kindle is considered by most industry pundits—as well as its legion of fans—as the leader among e-readers, and the one to beat in the future.

As the world goes digital, even books are doing the same, in the form of electronic books (usually referred to as "e-books" or "ebooks"). Although most book purists and other bibliophiles still prefer the paper-based versions, more people every day are discovering the advantages of e-books—so much so that there are already hundreds of thousands of books that are now available in digital form. Major publishers are increasingly choosing to offer—usually on their Web sites—electronic versions for sale alongside the print versions. At the same time, the term "publisher" is encompassing authors who, for whatever reason, elect to bypass the traditional publishing houses, and instead publish their own books, entirely online.

A majority of these cyber books can be read on laptops and desktop computers, as well as mobile devices that can receive and display documents. Yet for book lovers who want to take their favorite titles on the road, the biggest leap forward has been the introduction of dedicated book display devices, often referred to as "e-book readers", or simply "e-readers." The books are typically in the form of PDF or EPUB files. The former are generated by and readable using Adobe software and similar applications. The latter are, in most cases, created by publishers using specialized software, with the purpose of having greater control over distribution, for copyright-enforcement reasons.

These e-readers are primarily if not wholly intended for storing digital books and making them easy to read. (More recent products can play music files, among other capabilities.) Consequently, they can eschew many of the components found in more general-purpose hardware—components such as large screens, equally large keyboards, optical disk drives, etc. In turn, these devices can be made remarkably light and slender, and thus can be easily slipped into backpacks, purses, and even large coat pockets. The e-books are stored on memory cards, and with each improvement in technological capacity, people can take a greater number of books mobile, and catch up on their reading in the serenity of a park, or the chaos of a grocery checkout line.

A few of the e-book devices utilize LCD screens, but the majority of them are leveraging a remarkable new technology, electronic ink, which is able to display a screen image without the need of continuous power—unlike LCD and plasma screens. In fact, power is needed only to change the image—in this case, showing the next page requested by the individual using the device. Screen size, as measured diagonally, has varied from five inches to more than twice that. The display screens are high resolution, with crisp enough rendering of letters and images to rival their paper-based counterparts. The displays are bright enough to be easily readable in full sunlight, ideal for people who like to read outdoors.

A River of Good Reads

The earliest models of e-readers appeared in 2005 and 2006, and since then, with each passing year, more hardware manufacturers and booksellers have teamed up to release new generations of e-readers. But the current champion in this field appears to be Amazon.com, whose Kindle is considered by most industry pundits—as well as its legion of fans—as the leader among e-readers, and the one to beat in the future.

The first generation of Kindle was released in November 2007 to a market eager to try out a device that had enjoyed a tremendous amount of marketing buzz and authentic excitement prior to its launch. Early adopters were, for the most part, pleased with their pioneering purchases. The handheld device can store more than 200 books, all of which can be purchased from Amazon.com directly, oftentimes for less than $10 each. Any given title can be downloaded to the Kindle in its entirety, in less than a minute, utilizing a data network based upon EV-DO (*en.wikipedia.org/wiki/Evolution-Data_Optimized*). Consequently, in order to download the latest bestsellers, you are not limited to Wi-Fi hotspots, nor does the Kindle require any sort of wired connection to the Internet or any use of a computer as a gateway.

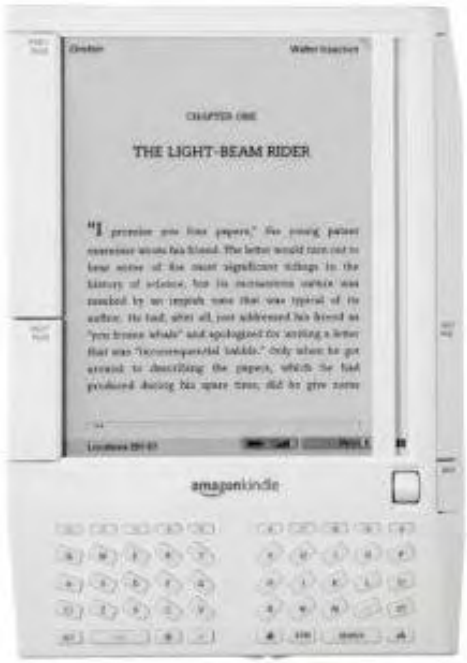

Figure 1. Amazon Kindle Original.

You can choose from more than 360,000 books, magazines, and other publications, including newspapers (at least those still in business). In addition, you can download the first chapters of the available books, as a free sample, without committing to purchase the rest of the book—much like being able to browse through the print edition of a book at any brick-and-mortar bookstore. But like the paper versions we've all grown accustomed to, the Kindle is easier on the eyes than staring at a computer screen. It is also easy to carry, weighing only 10.3 ounces, and sporting equally svelte dimensions of 7.5x5.3x0.7 inches—lighter and thinner than an everyday paperback. Last but not least (especially for those marathon reading sessions in airports and airplanes), Kindle owners will appreciate its impressive battery life—two days if the wireless connection is left on, and a week or longer otherwise.

Despite the focus on books and other printed media, the Amazon Kindle is very much a part of our global world, and the Web that ties it all together. For instance, the available newspapers are not limited to those in the United States, but include papers from France, Germany and Ireland. Moreover, more than 5,000 leading blogs can be read on the Kindle and are continuously updated throughout the day. Wikipedia, the world's most extensive encyclopedia, is also available.

Even though this first Kindle model (*www.amazon.com/dp/B000FI73MA*) has been eclipsed by a newer version (more on that in a moment), it is still available on the Amazon.com Web site through its secondary marketplace. As of this writing, the lowest price is $200—significantly less than its original price of $399—making it a more affordable choice than a typical netbook that an individual might have been planning to use for reading electronic books only.

The Younger Generation

Not content to rest on its laurels, Amazon.com launched a second-generation Kindle (*www.amazon.com/dp/B0015T963C*) in February 2009. Its physical dimensions are 8x5.3x0.36 inches, so it can easily accommodate the same six-inch screen size as its predecessor, and yet be almost half as thin. It weighs 0.1 ounces lighter, and feature 16 levels of grayscale, versus only four in the first model. Yet probably of greatest importance to avid readers, this second incarnation features a far greater capacity, namely a maximum of 1,500 books on average—a lifetime of books for most people, all in the palm of your hand.

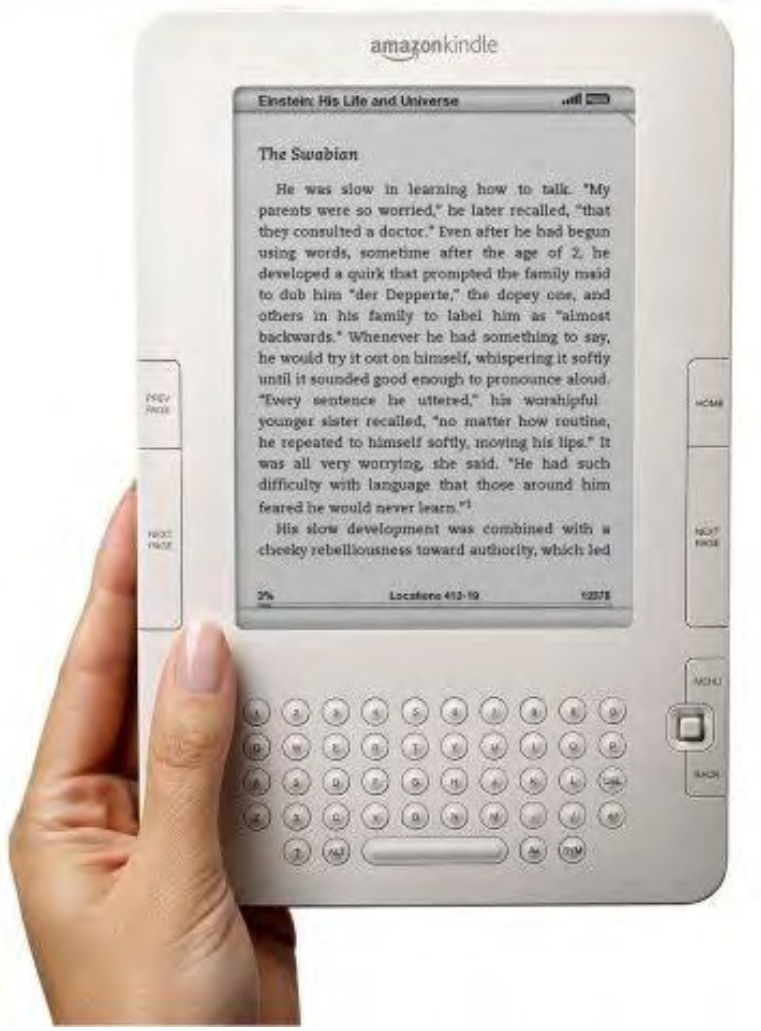

Figure 2. Amazon Kindle 2.

This second model is often referred to as the "Kindle 2" or "Global Wireless" or "Latest Generation," and is usable worldwide. It features a much longer battery life than its predecessor—a full week with the wireless connection enabled, versus four days for the first generation.

On the topic of supported file formats, one of the key concerns for people spending roughly $10 for every digital book is the longevity of the technology—not so much the hardware itself, but the ability to read those books using future devices. Bibliophiles who have made a significant investment in a personal library do not want to risk those books becoming inaccessible just because of some unforeseeable patent battle or other intellectual property disaster. The people who collect and enjoy books are oftentimes the same folks who spent small fortunes assembling libraries of movies on laserdiscs (remember those).

Fortunately, Kindles allow you to read PDF documents, which is a real boon considering that so many of the world's books are being converted into PDF format, partly to avoid the earlier problems of digital rights management, and partly for greater interoperability on the Web. In addition, you can read Kindle books on an iPhone or iPod touch.

A Kindle can be used for viewing images in all major formats (PNG, BMP, GIF, and JPEG), as well as reading Microsoft Word documents. For people who enjoy the convenience and benefits of audio books, the newer Kindles have a text-to-speech capability that allows the user to listen to books, newspaper articles, Wikipedia entries, and all other content for which audio access has been granted. This allows users to hear their content while driving, without having to purchase books on cassette tapes or CDs, or rent them

from the limited collections of libraries.

The latest model, the Kindle DX (*www.amazon.com/dp/B0015TCML0*), may be limited to the United States only, but is far less limited in terms of book storage capacity—upping the average amount to 3,500, more than double that of the Kindle 2. With the physical dimensions of 10.4x7.2x0.38 inches, it is almost as thin as the Kindle 2, but noticeably taller and wider, which allows for a much larger screen, at 9.7 inches diagonal. It is also more expensive, selling new on the Amazon.com site for $489, versus $259 for the global model.

Figure 3. Amazon Kindle DX.

In light of the huge popularity of all generations of the Kindle, it is no wonder that rival manufacturers have been piling into the market, mostly during 2009. Major players are pushing hard to make inroads into Amazon.com's lead. For instance, Barnes & Noble has introduced their "Nook (*www.barnesandnoble.com/nook/*)", which isn't scheduled to ship until mid-January 2010. (Given that it is missing the holiday shopping season, you can imagine the company's chagrin. But at least it gives them a chance to select a better product name, rather than one seemingly chosen to increase confusion among readers, editors and grammarians.) Samsung's Papyrus has many of the same capabilities as the Kindle, but at a much more competitive price (less than $300, according to the consensus of rumors). The Sony Reader (*www.amazon.com/Sony-PRS-505-Portable-Digital-e-Reader/dp/B000WPXQ2M*) is offered in several different models, and can even be purchased from . . . Amazon.com!

It is not clear at this point which—if any—company will emerge the eventual winner. But it is obvious that the biggest winners of all are the countless people worldwide who find reading to be one of life's great pleasures, and really enjoy the convenience of having an entire library in their pocket.

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.

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E-Book Resources on the Web

"Find sites with free e-books and even software-based e-readers." by Dawn Clement

E-books have opened up a global library for avid readers, and you can build your digital library for free, courtesy of the Web. You can even access and read e-books without a dedicated reading device!

We love books—the artwork, the smell of the ink, the feel of the paper. Our house is filled with books of all shapes and sizes, and we have read them all more than once. In many cases, we have different editions of the same book in order to preserve the First Editions. We read for enjoyment, and are teaching our children to take pleasure in the written word. For them, a trip to the library is a joyous occasion. Electronic books (e-books) are the latest way to enjoy reading. The best part about them is that you can carry an entire library on your netbook or dedicated e-book reader.

"I know it's more efficient to burn a thousand books in an e-book reader, but it's not as exciting."

There are many different readers available, and many different e-book formats. Which one you choose to use is pretty much determined by how you are planning to read your e-books. If you have a dedicated device, you are limited to the format supported by that device. You'll have more flexibility if you use a software reader that you have downloaded onto your computer. There are many free e-book readers available online (the software kind). It makes sense for publishers of e-books to provide this software for free; after all, people aren't going to purchase an e-book if they don't have the software necessary to read it. You can also download your books in .txt or .pdf format, which is important if you're planning to use different devices to read the same download. You may run into problems transferring your library from one device to another if your e-books are in a proprietary format.

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You can purchase e-books from retailers online such as Amazon (the company also sells the Kindle dedicated device), which has a selection of more than 240,000 titles, or Barnes and Noble, which has more than a million titles. Google Books has partnered with Sony (who also sells a hardware reader) and has more than a million digital titles available for free!

Some of the best books ever written are available in digital format as free downloads, because they're in the public domain. Google Books (available from Sony) offers more than a million public-domain titles free of charge. Sites offering public-domain books are ubiquitous these days. Check out Book-bot (*www.book-bot.com*) and *www.webliterature.com*. There's also a great selection available at Diesel (*www.diesel-ebooks.com*), which also has current titles for purchase. Project Gutenberg is well known for its collection of online books, and now it's easier than ever to access them with the Magic Catalog of Project Gutenberg E-Books available from *www.freekindlebooks.org*. If you have trouble deciding where to start, you can always go down a list of The Great Books. There are numerable lists online, but a good place to start is *www.greatbooksguide.com*.

Don't forget the libraries! There are a number of e-book libraries on the Internet, such as Read Print (*www.readprint.com*) and Witguides (*www.witguides.com*). In addition, many traditional libraries now offer e-books to read online or download using your library card. You can check with your local library to see what they have available. In some cases, you may be able to access the e-

book collections of libraries outside of your area. There's a great list of libraries with e-book collections available to the general public on the Drs Cavanaugh Web site (*drscavanaugh.org/ebooks/libraries/ebook_libraries.htm*). They also have an "e-book search engine" so that you can find a specific book, or all available works by your favorite author. Additionally, you can search for books in a specific format, so that you can easily read the books you find.

One of the biggest benefits of online libraries is the ability to read books you would otherwise never have the opportunity to read. I'm referring, of course, to the "special collections." I would be thrilled to hold a 16th century illuminated Book of Hours and feel the vellum between my fingers, but the odds of this ever happening are slim to none. Extremely rare texts, like a 16th century illuminated manuscript, are squirreled away in libraries behind lock and key. In order to view them, you have to get permission from the Powers That Be and make an appointment. If deemed worthy, you are granted entry into the "Special Collection." You have a very limited amount of time to look at the books—and you certainly are not allowed to touch vellum pages with your bare hand. You can, however, look at the largest collection of illuminated manuscripts online at the Rare Book Room (*www.rarebookroom.org*). You can bypass all the security surrounding rare books simply by using the Internet.

You can also find e-books designed specifically to be read on your cell phone or Blackberry at BooksInMyPhone (*www.booksinmyphone.com*).

Dawn Clement is a freelance writer, domestic engineer, and mother of three with a Masters of Arts in Philosophy and over nine years experience in technical support.

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How to read ComputorEdge on an iPod touch

"A workaround that alleviates the iPod touch's readability problem." by Barry Fass-Holmes

For 99 cents plus the time it takes to download ComputorEdge's PDF file and transfer it wirelessly, you can comfortably read the magazine on an iPod touch.

ComputorEdge magazine is easy enough to read on a computer screen, even if your eyes are as ancient as mine. Just point your browser to the magazine's Web site and click any of the links on the home page that display the issue's articles in HTML format, or click the PDF version link (*www.computoredge.com/Archive/Editorial%20Archive/ARCHIVE%202802.pdf*) to display the entire issue in Acrobat format. (The link to the *ComputorEdge* PDF can be found under the artwork on the Table of Contents page.) Then adjust the browser window's zoom or font size, along with its dimensions, until the text is large enough to read comfortably without having to scroll left and right to display entire lines.

Reading *ComputorEdge* on a mobile device is another matter. Cell phone users can readily connect to the Web and perform the above steps. The catch, however, is displaying the magazine on a 3x2-inch screen (or less) so that the text is large enough to read comfortably without needing to scroll left and right repeatedly to display entire lines (see Figure 1). The same problem occurs when displaying the magazine's PDF version in a cell phone's e-mail client (after downloading *ComputorEdge* articles or issues on a computer, and then sending them as e-mail attachments to an account that's accessed via the cell phone's e-mail client).

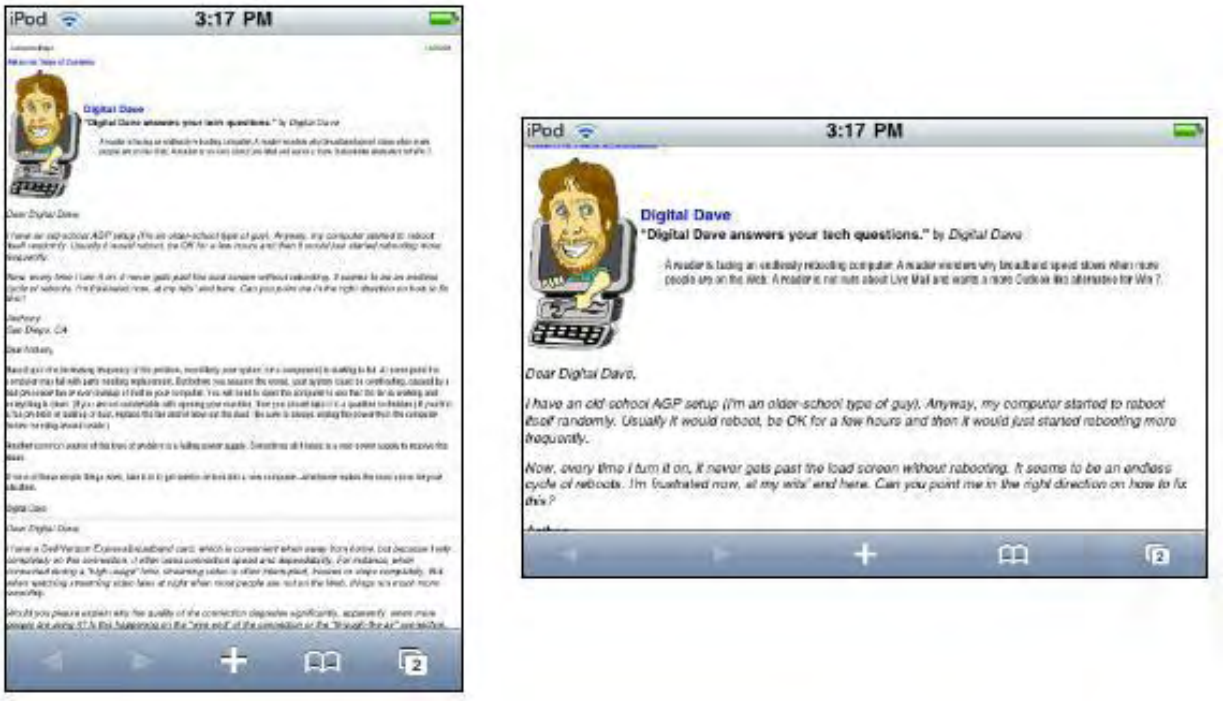

Figure 1. ComputorEdge magazine can be challenging to read comfortably when displayed in a mobile device's Web browser (such as an iPod touch's Safari app); in portrait (left) or landscape (right) orientation, the text is minuscule, and zooming necessitates repeated scrolling left and right to display each line of text.

This problem also affects iPod touch users, except it is compounded by the touch's lack of 3G or EDGE connectivity to the Internet. Instead, Web access is limited to occasions when the user is near a trustworthy Wi-Fi spot. This limitation further weakens e-mail's usefulness as a workaround for reading *ComputorEdge* comfortably on an iPod touch.

A workaround that alleviates the iPod touch's readability problem and Web access limitation is to use a third-party file-viewer app. A file-viewer app would be a better workaround than an e-book reader program (such as eReader or Stanza) because the former natively displays PDF or HTML files, while the latter would require the added step of converting *ComputorEdge's* files from PDF to e-book format.

Third-party file-viewer apps are abundantly available in iTunes' App Store. If you search through the store's Productivity section, you'll find plenty to choose from at prices under $5 (see Figure 2).

Figure 2. A ton of file-viewer apps for the iPod touch is available for under $5 at iTunes' App Store.

To use a third-party file-viewer app on an iPod touch, the files first must be transferred wirelessly from a computer to the touch. You create a temporary (secure) Wi-Fi connection between the computer (e.g., via AirPort on a Macintosh—Figure 3) and iPod touch for wirelessly transferring *ComputorEdge's* PDFs.

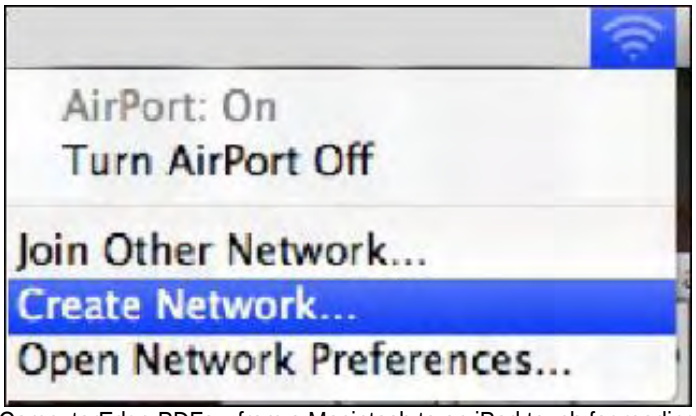

Figure 3. To transfer files—such as ComputorEdge PDFs—from a Macintosh to an iPod touch for reading in a third-party file-viewer app, you create a temporary AirPort network and then follow the instructions provided in the app's Help.

Several of the third-party file-viewer apps that I have tested with *ComputorEdge's* PDF files unfortunately have the same weakness described above—text is too small or, if you zoom to enlarge the text, scrolling back and forth is necessary to display entire lines.

An exception, however, is GoodReader. This file-viewer app, which costs only 99 cents, has a feature called PDF reflow that distinguishes it from competitors. Basically, this feature displays a PDF file's text (without graphics or active links) in a user-configurable font, in a user-configurable color, with a user-configurable colored background (see Figure 4).

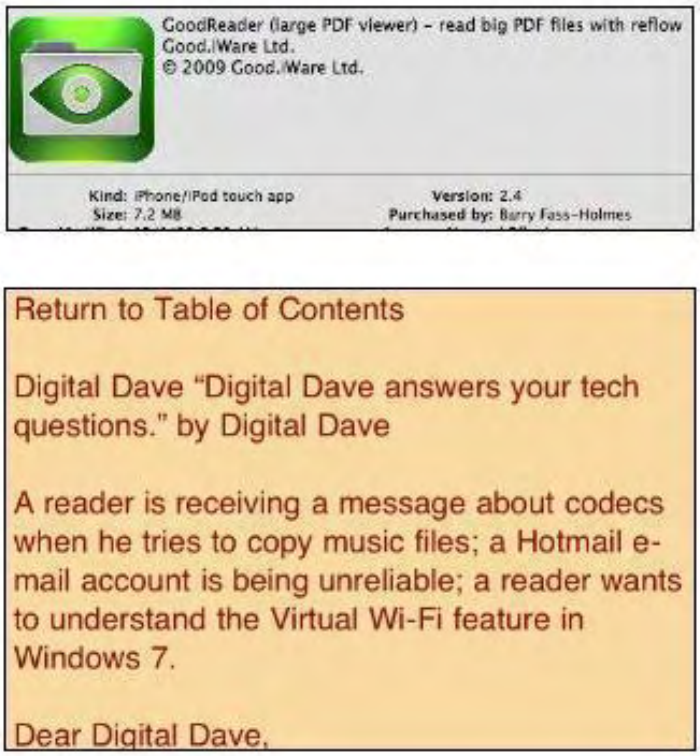

Figure 4. GoodReader (top) is a third-party file-viewer app with a user-customizable PDF reflow feature that displays ComputorEdge PDFs in a comfortably readable font against a colored background (bottom).

To activate GoodReader's PDF reflow mode, simply tap the third icon from the left at the bottom of the iPod touch's screen that looks like a page with a thick arrow on the page's left side (see Figure 5).

Figure 5. To activate GoodReader's PDF reflow feature, tap the third icon from the left at the bottom of the iPod touch's screen.

But wait, there's more! To make reading *ComputorEdge* on an iPod touch even more pleasant, GoodReader's PDF reflow mode has an autoscroll feature that scrolls the file downward (like a teleprompter) without your needing to swipe or tap the screen. A configuration setting regulates the autoscrolling speed. Wicked cool! Autoscroll is activated by tapping the third icon from the left at the bottom of the iPod touch's screen that looks like a right-pointing arrowhead (see Figure 6).

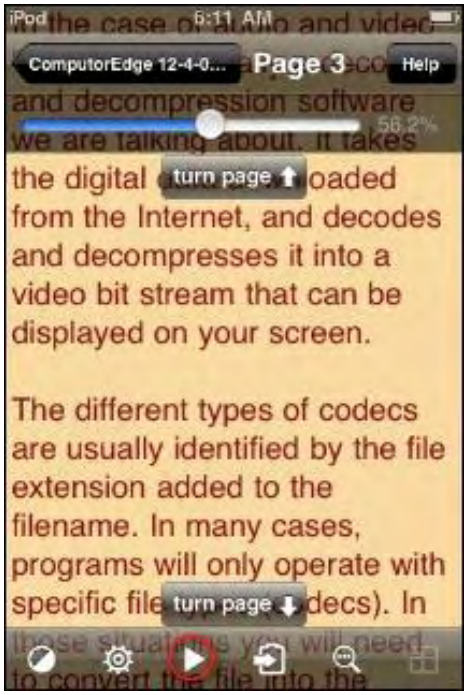

Figure 6. To activate GoodReader's autoscroll feature in its PDF reflow mode, tap the third icon from the left at the bottom of the iPod touch's screen.

If all of the above sounds too good to be true, there is one minor fly in the ointment. Macintosh users will want to open *ComputorEdge* PDF files in Mac OS X's Preview app and re-save them before transferring the files to an iPod touch. Windows users will want to print *ComputorEdge* PDF files to new ones using the Adobe PDF printer that is installed by Acrobat, making sure that this printer's settings for the first two Compression fields in the Images tab show JPEG rather than JPEG2000. This will automatically convert the images in the PDF to a format that is compatible with iPhone OS software for when GoodReader displays the PDF files without PDF reflow turned on. Otherwise, the images will be replaced by a generic icon.

For more information, visit the GoodReader Web site (*www.goodreader.net/gr-man-trouble.html#pdfjpeg2000*).

There you have it—for 99 cents plus the time it takes to download *ComputorEdge's* PDf file and transfer it wirelessly, you can comfortably read the magazine on an iPod touch!

Barry Fass-Holmes has been reviewing products for *ComputorEdge* since 2003. He previously worked as a software support representative and quality assurance analyst in San Diego. His product reviews are available in *ComputorEdge's* archives and at his Web site (*homepage.mac.com/barryfhphd/custom/art_comp.html*).

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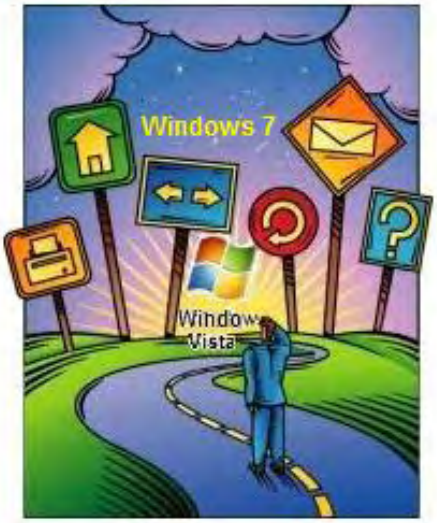

Windows Tips and Tricks

Windows Tips and Tricks: Make Your Own Font

“Private Character Editor” by Jack Dunning

In all versions of Windows, Private Character Editor allows you to design your own characters for embedding in documents and printing.

I'm not the type to use numerous fonts in my computer work. I tend to pick one that I like and stick with it. Therefore my knowledge of fonts is somewhat limited. In the past few weeks, I've stumbled upon a number of features in Windows that make the subject of fonts a little easier. I'm ready to move on to other topics, but before I do, there is another program in Windows that should be addressed: Private Character Editor.

In all versions of Windows, Private Character Editor (eudcedit.exe found in the system32 folder inside the Windows folder) allows you to design your own characters for embedding in documents and printing. The easiest way to load Private Character Editor is to use the Run command and enter eudcedit.exe. (Only in Windows 7 was I able to find the program by searching for one of the words in the name.)

The character editor is fairly easy to use, operating much like a paint program. You can select characters from any font as a source for copying and editing (see Figure 1).

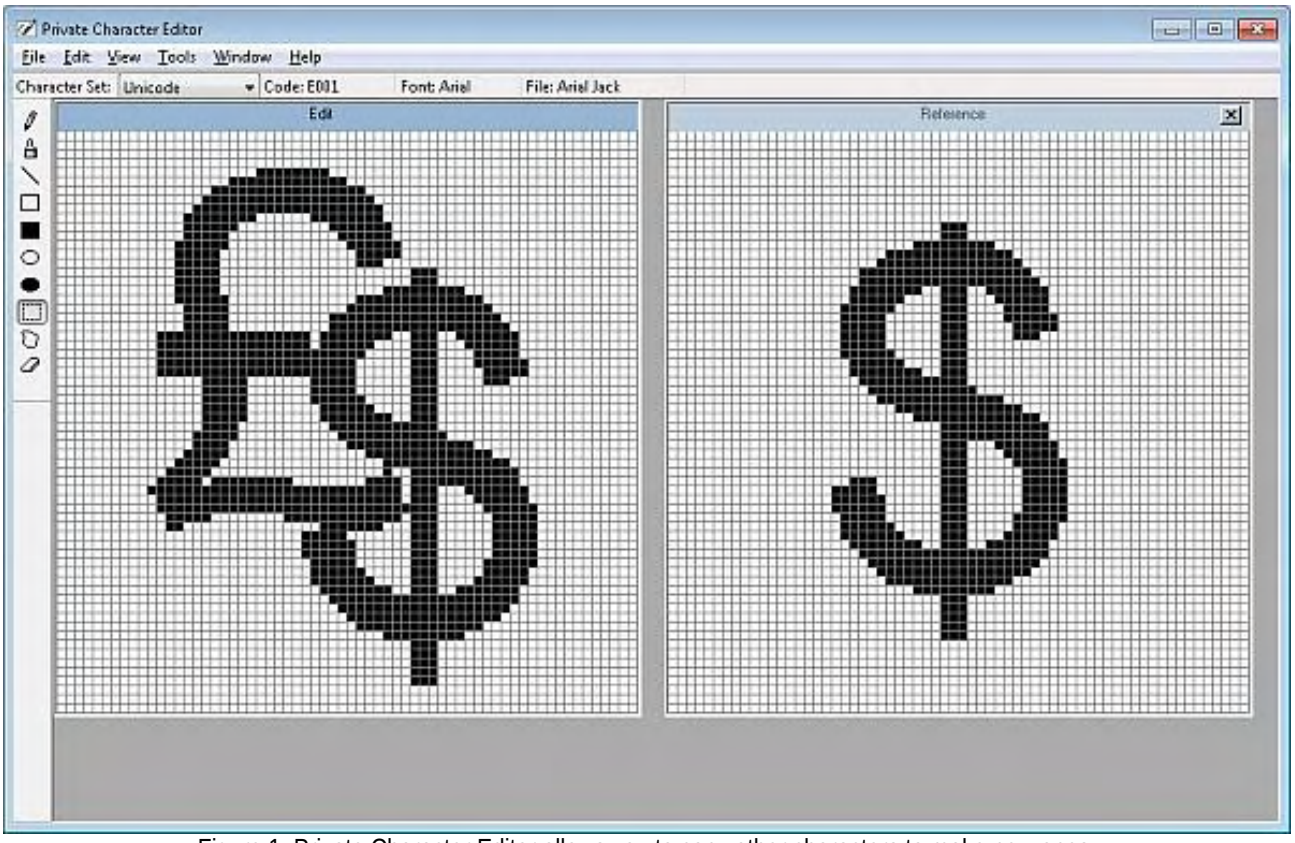

Figure 1. Private Character Editor allows you to copy other characters to make new ones.

As you create characters, you can either use the Next Code button in the View menu to increment to a new character, or you can open the Select Code grid with the Edit menu, and then pick a code. Each character will appear in the grid as you create it. To embed the characters in a document or e-mail, use Character Map as explained in the December 25 Windows Tips and Tricks column (see Figure 2).

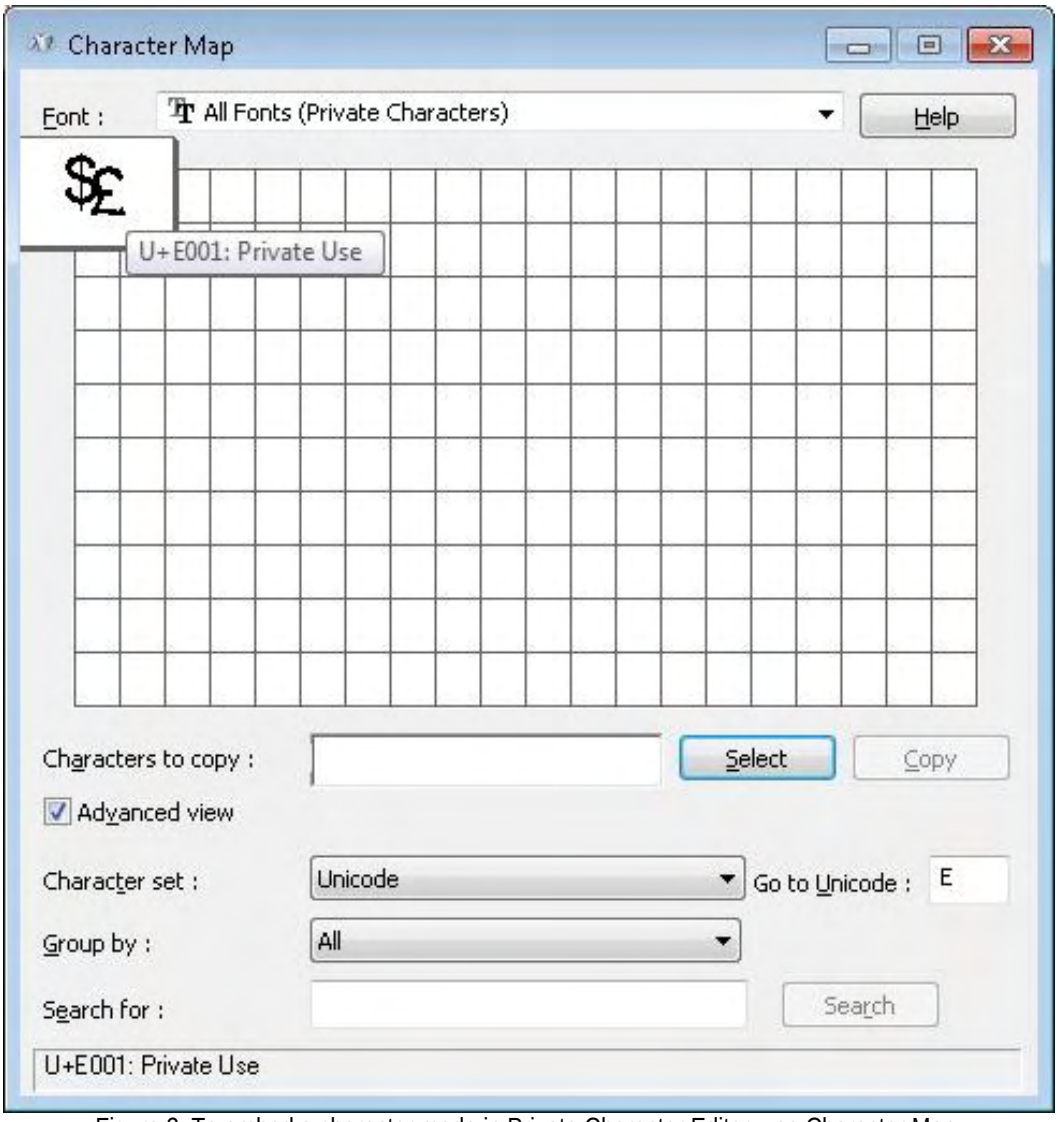

Figure 2. To embed a character made in Private Character Editor, use Character Map.

I was able to print the characters without a problem, and they would show up in all the documents that support fonts. However, the primary problem is that when you send a document or e-mail with your creations to another person who doesn't have your specially designed characters, they won't be able to read them. Plus, there is no easy way that I can see to share the characters.

I can see possibilities for creating your own custom signature for use in printing. The problems of sharing the special font, though, make Private Character Editor a bit too awkward for electronic communications.

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*

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Wally Wang's Apple Farm

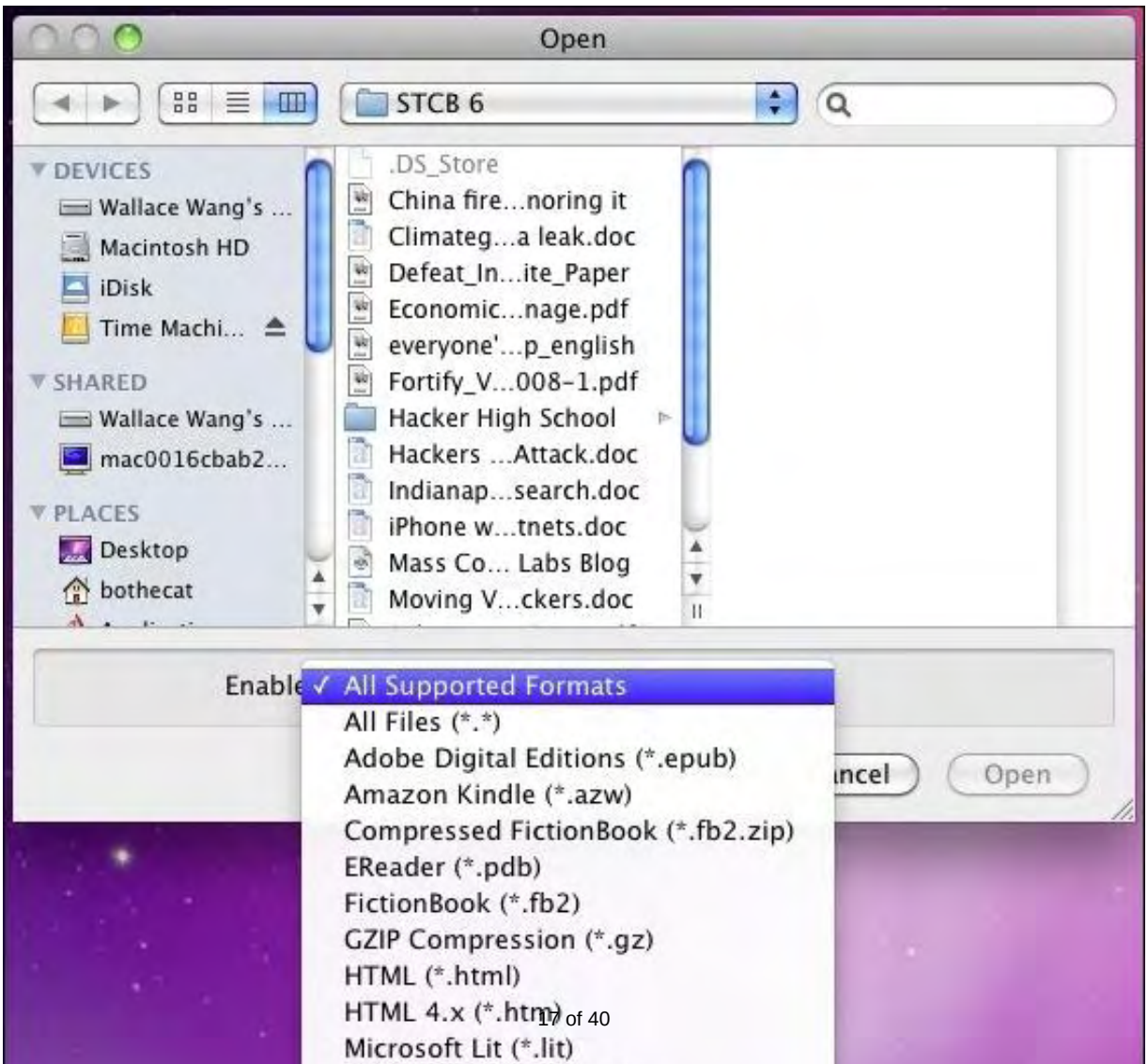
Wally Wang's Apple Farm

"E-book Readers for Your Mac or iPhone" by Wally Wang

Stanza turns the iPhone into a remarkably compact and easy-to-use e-book reader (also available for Macs). Also, the future is a world where both Windows and the Macintosh are important; for a New Year's present to yourself, download a copy of the turn-based fantasy game, The Battle of Wesnoth; and a tip on the free Unarchiver program, which can not only open RAR files but LHA, StuffIt, ZIP files and more.

Amazon's Kindle and Barnes & Noble's Nook are specialized e-book readers, but if you're already lugging around a Macintosh laptop or an iPhone, you may not want to carry around a separate device just for reading a book. In that case, you may want to get Stanza (*www.lexcycle.com*), an e-book reading program for the iPhone with beta versions available for Mac OS X and Windows.

Stanza is absolutely free and can display a huge variety of file formats including Word .doc files, PDF files and epub files. Stanza can't open Kindle e-books since the format is copy-protected.



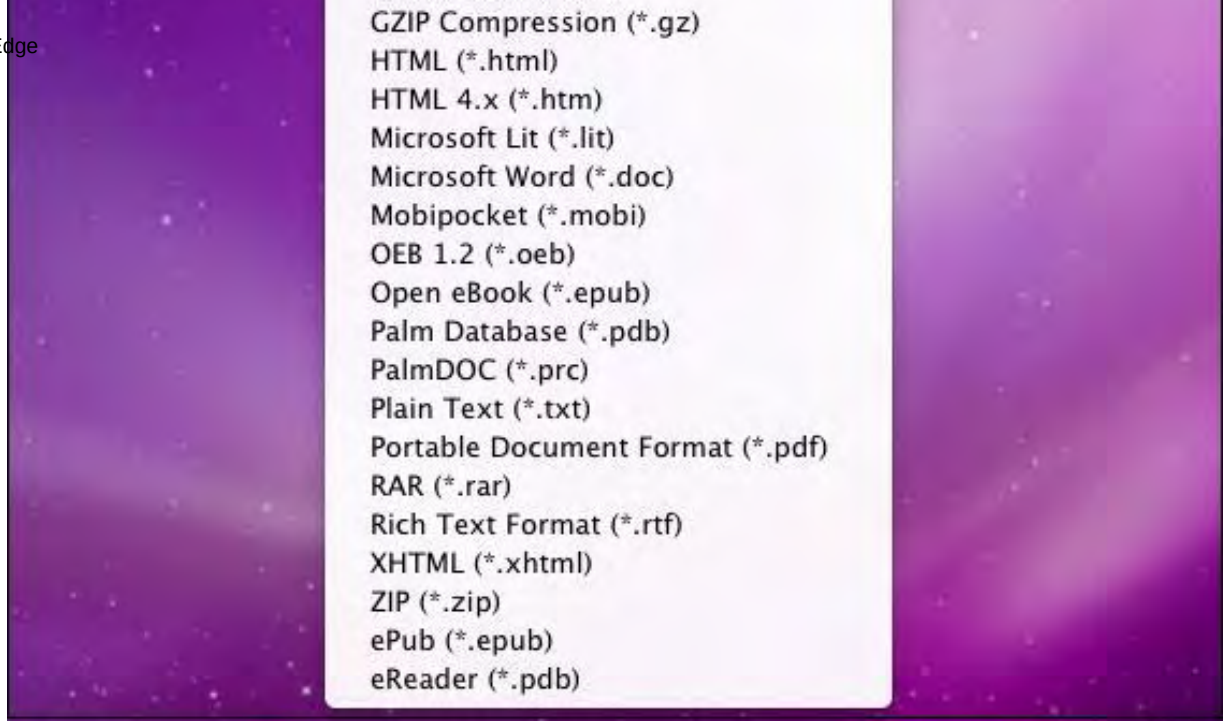


Figure 1. Stanza can open a variety of file formats typically used to store e-books.

When you open Stanza on a computer, you'll see text displayed in multiple columns. By using the horizontal scroll bar at the bottom of the window, you can view other pages in the e-book. If you're used to reading PDF files page by page vertically, you might find Stanza's display initially awkward.

Figure 2. Stanza for computers displays text in columns.

Fortunately, Stanza for the iPhone appears much more polished. Since the iPhone has such a tiny screen, Stanza displays text like a page. Just swipe your finger sideways across the screen and Stanza displays the illusion of turning a page.

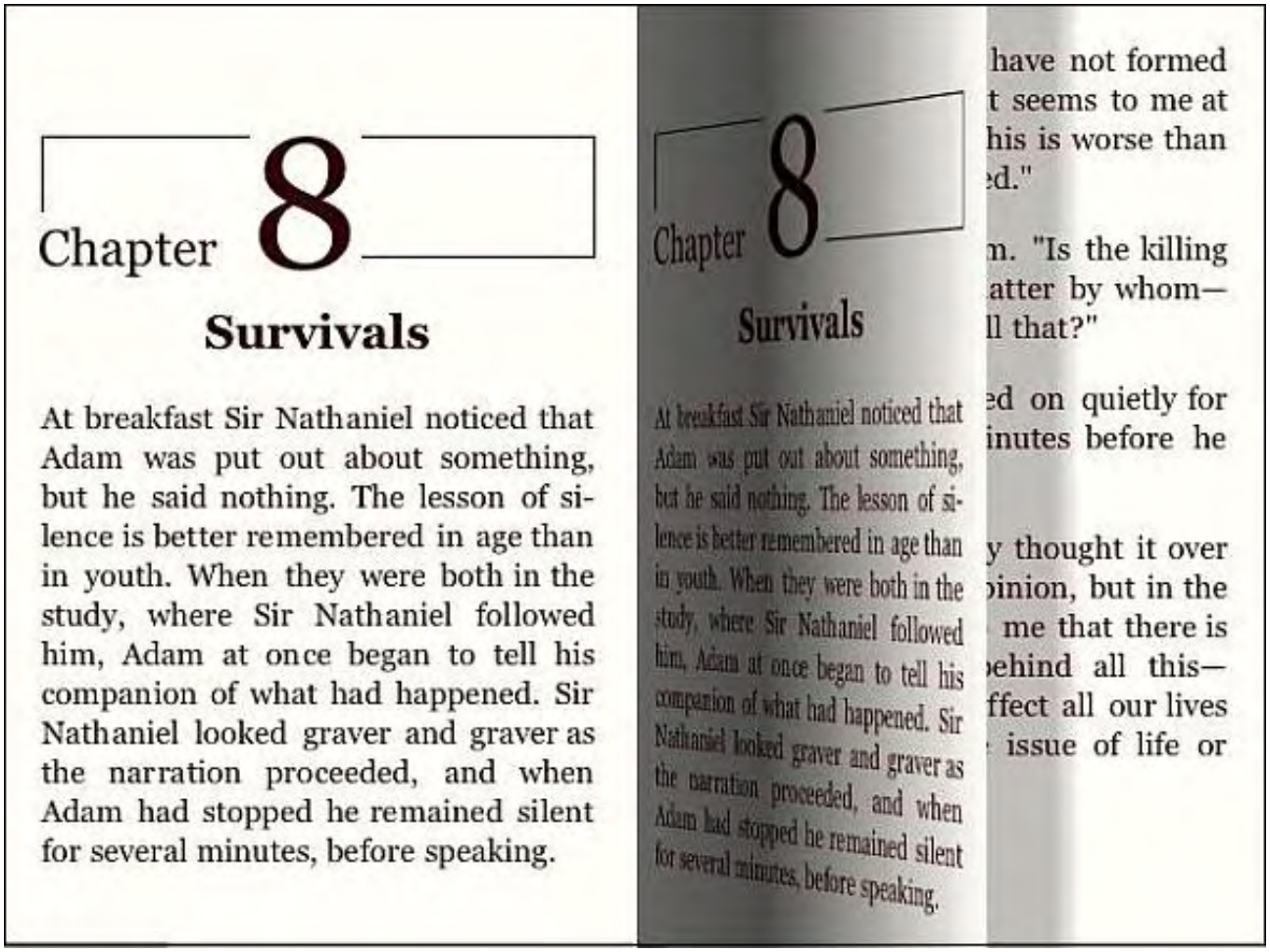


Figure 3. Stanza mimics turning a page.

To help you read your e-book, Stanza for the iPhone also lets you customize how the text appears by changing the font, color, background color, or font size. Despite working on the iPhone's tiny screen, Stanza actually turns the iPhone into a remarkably compact and easy-to-use e-book reader.

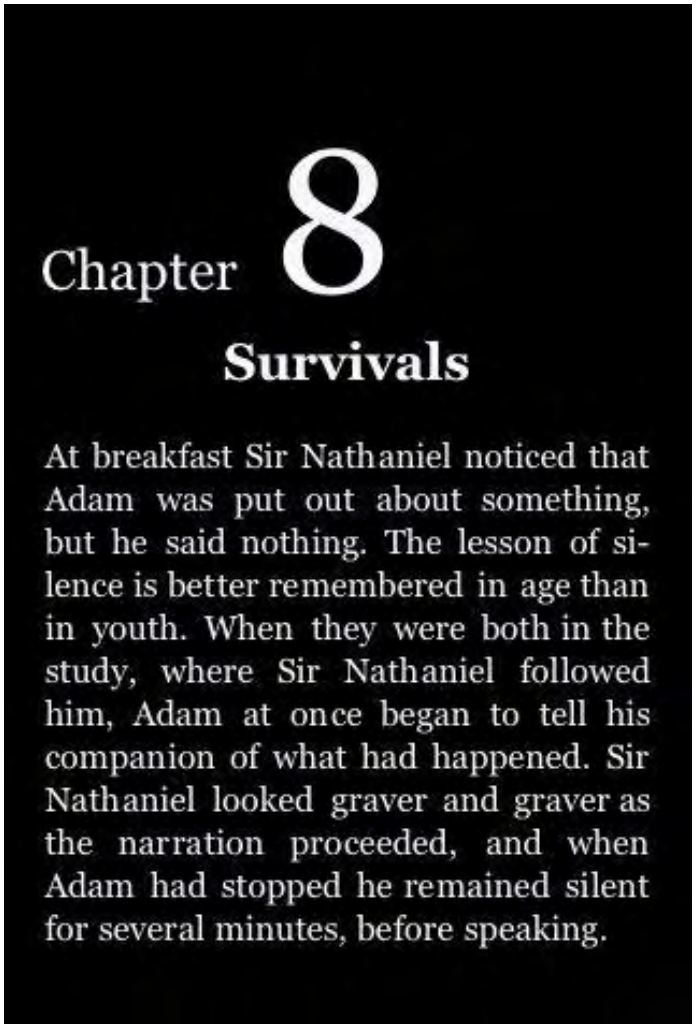


Figure 4. Stanza offers different ways to modify how text appears on the screen.

To help you find e-books, Stanza for the iPhone provides a list of sources that offer e-books for free (or for a price). By browsing through the free libraries alone, you can be sure to find something interesting to read that you can take with you wherever you take your iPhone.

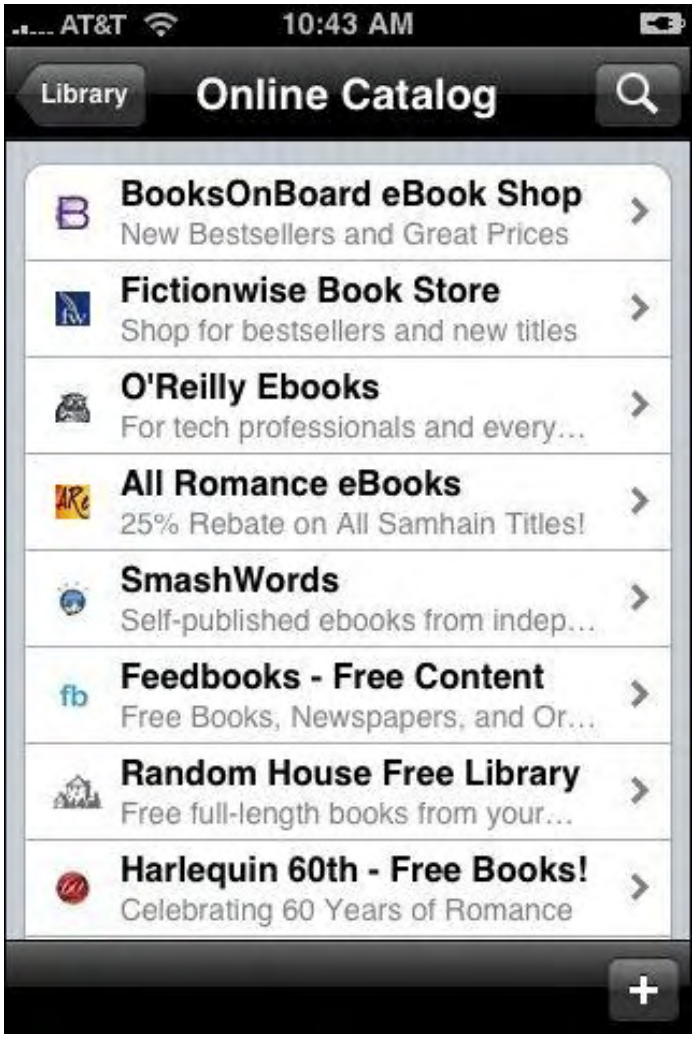


Figure 5. Stanza links directly to various e-book resources.

If you're thinking about buying a separate e-book reader, you might want to save your money and just get Stanza and run it on your iPhone or iPod touch. You might not be able to access the latest best-sellers through Stanza like you can with Amazon's Kindle, but with so many classic works of literature available, you should never run out of quality reading material for free.

Windows 7 and Boot Camp

Apple has missed its self-imposed deadline to provide Windows 7 support for Boot Camp to allow you to run Windows 7 on a Macintosh. For now if you want to run Windows 7 on a Macintosh, you'll have to use Parallels or VMware's Fusion, both of which run Windows at approximately 90 percent speed compared to a dedicated PC.

If you want to run Windows exclusively, it's pointless to run it on a Macintosh. The real purpose of running Windows on a Macintosh is to wean yourself away from Windows and make the transition from Windows to the Macintosh. If you need to run an occasional Windows program, such as a game or specialized program like a stock-tracking program, then you might use Windows regularly through Parallels or Fusion. Otherwise, think of Parallels and Fusion as a bridge to gently guide you to the world of the Macintosh without leaving the safety and familiarity of Windows before you're ready.

Despite the launch of Windows 7, ComputerWorld (*www.computerworld.com/s/article/9139253/Apple_immune_to_Windows_7_impact_analyst_says*) reports that sales of Windows 7 haven't hurt sales of the Macintosh. While Windows 7 has a greater market share than Mac OS X, it also had a massive head start from the huge number of Windows XP and Vista users who switched to Windows 7.

Yet a steady stream of Windows users continues to buy Macintosh computers, not necessarily to replace Windows PCs but to complement them. More likely, people will continue using both types of computers, with a small group switching exclusively to the Macintosh while an even smaller group switches back exclusively to Windows.

While Windows users like to emphasize market share as proof of the superiority of Windows, that logic makes as much sense as touting the superiority of Mandarin Chinese as a better language just because more people on the planet speak it than any other language in the world.

At one time, WordStar, WordPerfect, Lotus 1-2-3, Turbo Pascal, and dBASE III Plus had the largest market share in their respective categories, and they all faded from view over time. Windows isn't immune from this fate and neither is Apple. In the past, Windows was dominant. Today, Apple is the recognized leader that everyone else is trying to catch. Tomorrow it may be Google with its Android and Chrome operating systems.

What is certain is that nothing lasts forever, and the dominance of Windows is nothing like it was 10 years ago. You can ignore change, you can fight change, you can belittle change, but you can't avoid it. Windows users can co-exist with the Macintosh as it continues to grow in popularity, or they can continue snubbing it.

Parallels, Fusion and Boot Camp (without Windows 7 support for now) give you the option of co-existing with Windows and a Macintosh on a single computer. With Apple's dominance in the mobile music player market (iPod) and smartphone market (iPhone), Apple isn't going away any time soon. The future is a world where both Windows and the Macintosh are important. If you choose to ignore the Macintosh, you risk choosing to ignore the future.

The Battle of Wesnoth

For a New Year's present to yourself, download a copy of the turn-based fantasy game, The Battle of Wesnoth (*www.wesnoth.org*). In this free, open-source game, you can play against the computer or online against other players as you control armies in a fantasy setting.

Figure 6. The Battle of Wesnoth lets you control fantasy armies to battle for the throne.

Since the game is open source, you can peek at the code and modify the game yourself to improve it, or just study the source code to

create your own turn-based game. For non-programmers, ignore the source code altogether and just play the game by yourself on your Macintosh or any other computer, including Windows and Linux.

* * *

Mac OS X includes built-in compression for storing files in the ZIP format. To compress multiple files, just open the Finder, hold down the Command key, and click on each file you want to include in your ZIP file. Then right-click and choose Compress to create your ZIP file.

Unarchiving a ZIP file is just as simple. Just double-click on it, and your Macintosh will create a folder with your unarchived files inside.

Although ZIP files are easily opened and transferred between Macintosh and Windows computers, many Windows users are now moving to the newer RAR format, which can compress files even tighter than the ZIP compression format.

Since the Macintosh can't create or open RAR archive files, download the free Unarchiver program (*wakaba.c3.cx/s/apps/unarchiver.html*), which can not only open RAR files but LHA, StuffIt and ZIP files as well as a handful of other obscure archive formats as well. With the Unarchiver program, your Macintosh will be able to create and open nearly any type of archived file that you might find on the Internet.

In the early days, before Wally became an Internationally renowned comedian, computer book writer, and generally cool guy, Wally Wang used to hang around The Byte Buyer dangling participles with Jack Dunning and go to the gym to pump iron with Dan Gookin.

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*.

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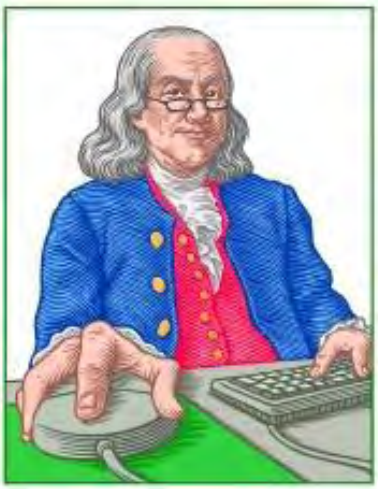


LINUX LESSONS

"AN INVESTMENT IN LINUX KNOWLEDGE PAYS THE BEST INTEREST."

Linux Lessons: Fedora, Part 3

"Completing the Fedora Installation" by Pete Choppin

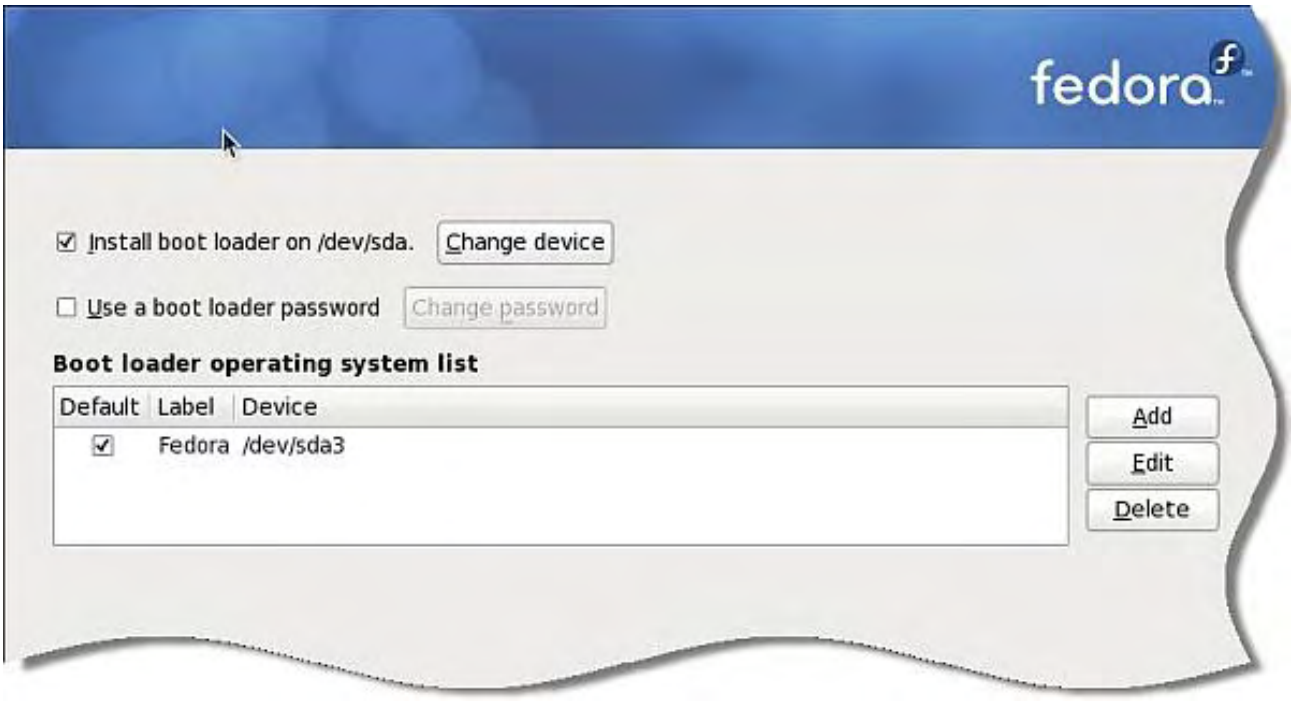
Last time, we began the installation of Fedora, and we partitioned the hard drive. We will now complete the install. Also, we will discuss packages and the tasks that drive those packages.

I survived vacation, and I'm very glad to be back. Rumors of my having been buried in snow were slightly exaggerated.

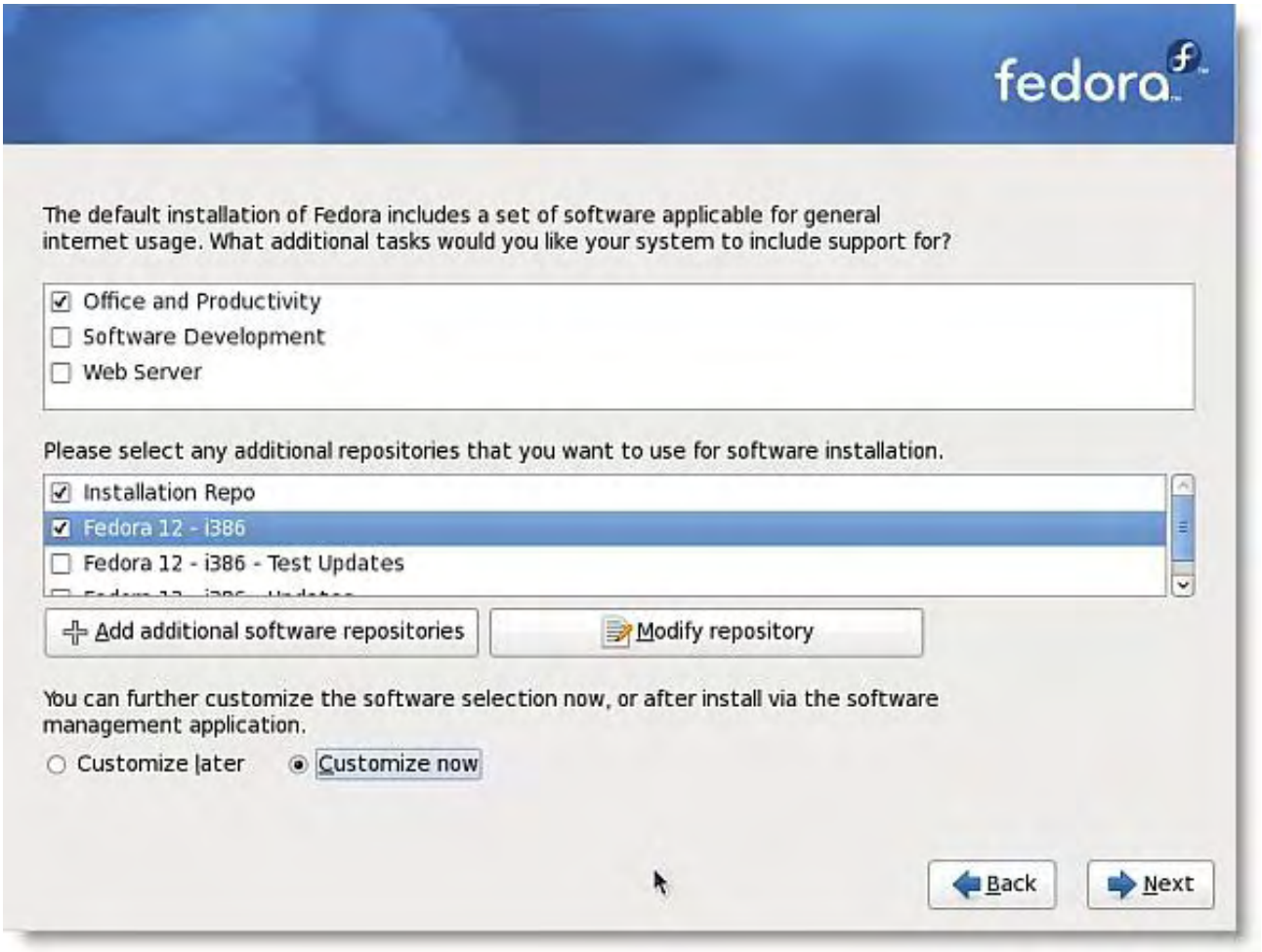
Last time, Linux Lessons: Fedora, Part 2 began the installation of Fedora, and we partitioned the hard drive. We will now complete the install. Also, we will discuss packages and the tasks that drive those packages.

Fedora is, in fact, a package-driven OS. Your choice of packages and how you use Fedora greatly depends on the tasks you will be doing with your computer. The installation is a guide to how you will set up your computer based on the tasks you will commonly perform.

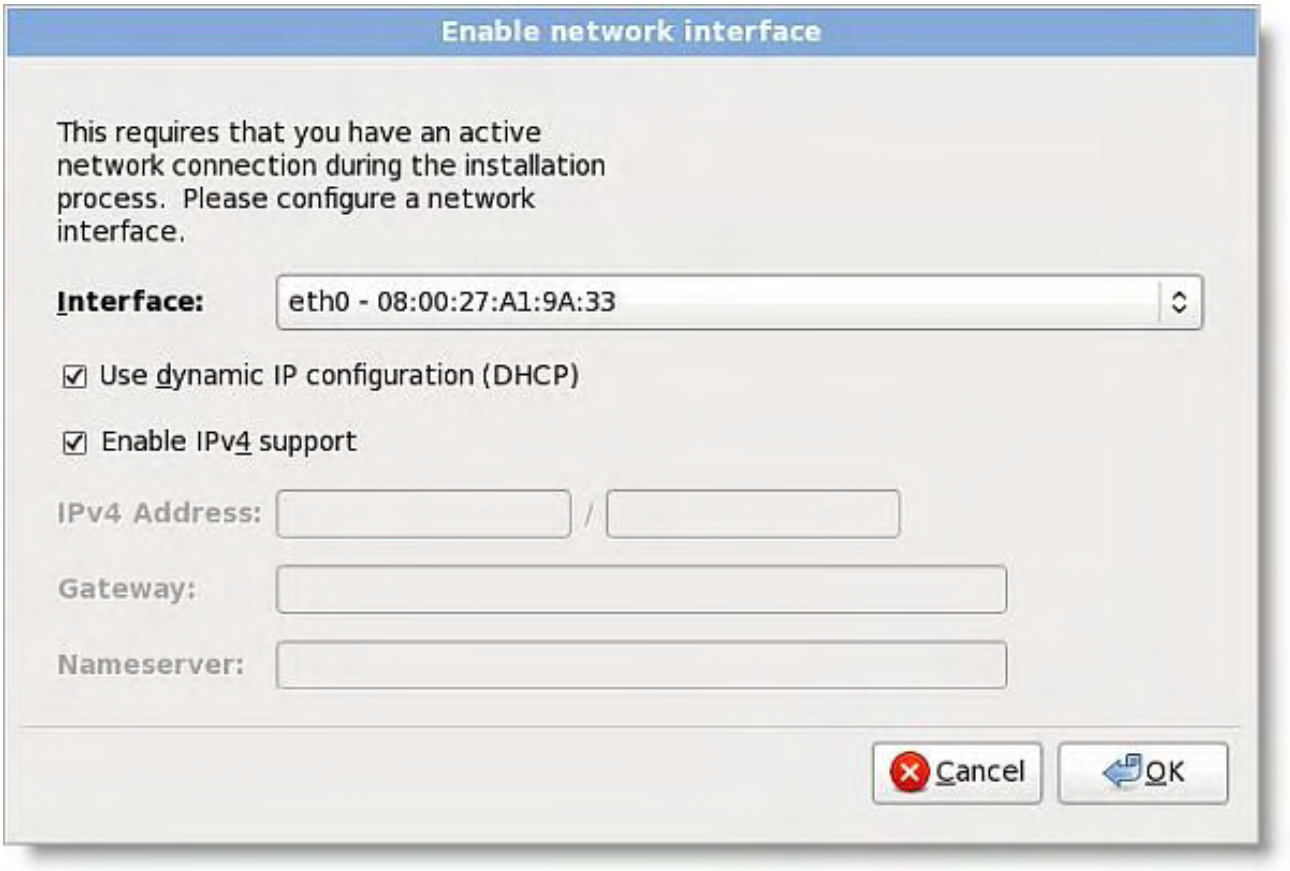
After the partitioning is completed, you will get a screen where you set up the boot loader, which is typically grub, so no changes are necessary here.



The next screen introduces you to the Fedora packages. This screen first allows you to classify your tasks by what type of computing you normally do or will plan on doing. In this way, Fedora can gear your package setup based on your task selections—more or less.



Two things to note on this screen: You will notice there are selections for something called repositories. These are no more than storage places for all the packages you will be installing. A very smart person a while ago came up with the idea of creating these repositories to keep all the literally hundreds of software packages available for Fedora available to be downloaded and installed. Now, thousands of Linux users can benefit from this huge repository of software applications. You can select any of the repositories you wish. I added Fedora 12— i386 to my repository selection. When I do this I need to establish a connection to the repository location, which means the network connection must be enabled. You will see the following screen. Just click OK to proceed.

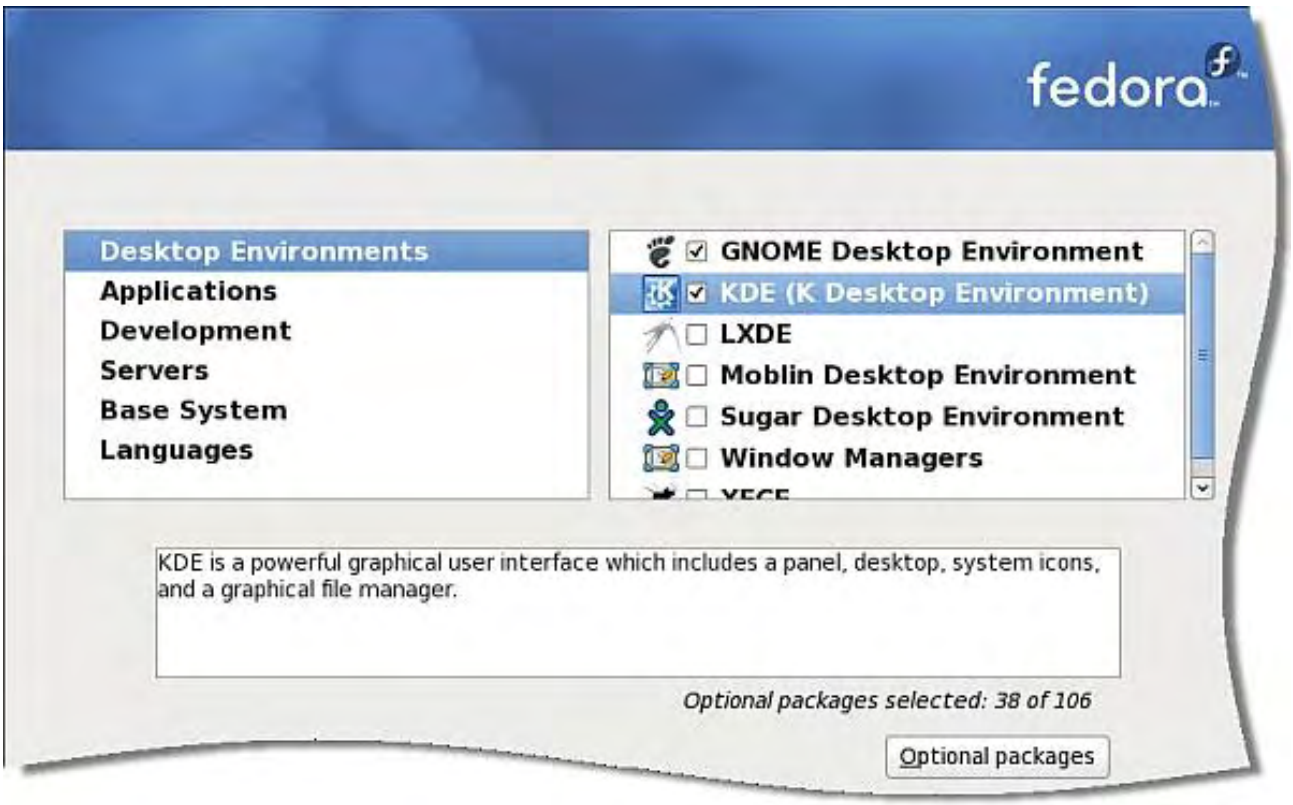


[image – center – eth0_enable.png]

The other item to note is the option to either Customize now or Customize later. What this option allows you to do is to either accept the pre-configured package setup, based on whether you selected Office and Productivity, Software Development, or Web Server from the top section, or to further customize your packages now during the installation. We will leave the option selected on Office and Productivity only for this install.

We are going to chose Customize now to show the options available for this. Now click Next.

The next screen presents you with the following options:



[image – center – production_categories1.png]

On the left are categories from which packages are selected. On the right are the packages available within each category. I recommend that you read through the packages and see what all the applications are. There are several, and for a typical installation I will peruse each one and choose the packages I need, one by one. I do this not only because I am very choosy about my packages, but also because I like to know about each piece of software that I install.

Also note the Optional Packages button on this screen. You can select this for each package option and further customize each individual application.

Important: Select whatever packages you wish for your install. For the purposes of this presentation, make sure to include the KDE (K Desktop Environment) with your package selections, as we will be discussing this in next week's Linux Lessons (this is highlighted in the screenshot above).

Once you have selected the package options you wish, click Next. At this point the installation process will begin. You will see a few messages indicating this. Once that is completed you will see the packages installing. This process could take some time, depending on the amount of packages you have selected.

The install will complete and then ask you to reboot. The system will come up and you will just have some final system setup items to complete. These should be self-explanatory.

The system will do a final reset and you will come up to the login screen.

We will stop here. Next week, we will take a look at another popular desktop environment called KDE and some basic Fedora setup to make your Linux experience a little easier.

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 designïFFD4a 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.

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Rob, The ComputorTutor: Technology Solutions

“Duplicate Music Files” by Rob Spahitz

We often make copies of files instead of making shortcuts to the files. Later, we forget which file is the most recent. Today's solution is one way to get a listing of files that might be duplicates.

We continue the New Year by looking at solutions to various tasks. In a recent *ComputorEdge* column, someone asked Digital Dave how to find duplicate music files. This got me to thinking that we often make copies of files instead of making shortcuts to the files. Later, we forget which file is the most recent, if any, since we lose track of where the files are located.

Today's solution is one way to get a listing of files that might be duplicates. This will require some programming, so we'll try using VB.Net 2008, although this could also be done using VBA in Excel, Word or even Outlook. One quick note: I previously showed people how to install and use the beta version of VB.Net 2010. This version or the 2005 version could be used instead of the 2008 version. Either way, the free, fully functional Express version is available from the Microsoft.com Web site (*msdn.microsoft.com/en-us/vbasic/default.aspx*).

First, let's formulate a simple design. Initially, we need to get a listing of every file in Windows. This is not overly challenging, but will certainly take a while for any Windows project to perform. As such, you'll want to consider things like an hourglass image while the process works and possibly a progress bar to attempt to show the user how long the process might take. For now, we'll consider these enhancements, since the project will work even if they are not included.

Next, we'll consider a few controls for the project. We'll need a placeholder for the list of all the filenames. A listbox should handle it. We want a button to launch the process and find the list. Then, to ensure that we can differentiate between duplicate entries, we need something like a set of labels to show additional information (such as file size, date created and path) about selected files. Later we can add more enhancements to have VB flag those files that have matching sizes so they're easier to see. We could also add features to let users select profiles (filters) to show only certain types of files rather than everything. Let's proceed.

Start a new VB.Net Application project and call it DupFinder. At the bottom, add three buttons named "btnBegin," "btnReview" and "btnExit" with Texts of Begin, Review and Exit respectively. Feel free to add Accelerator shortcuts (B, R, X) by adding an ampersand (&) before that letter in the text, such as E&xit. Next, add a List box (named lstFiles) along the left end and two labels (lblFileInfo1 and lblFileInfo2) along the right edge, similar to Figure 1. One other nice thing to do is to anchor the buttons to the bottom and labels to the right, plus various other settings, so that the controls stretch if the form is re-sized. I leave it to the reader to decide what anchors would be appropriate.

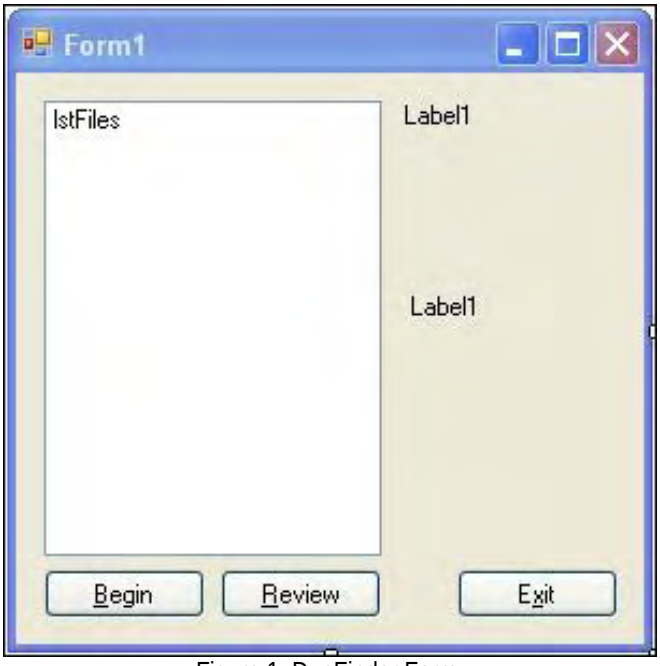

Figure 1. DupFinder Form.

Let's add a little bit of code. For the Exit button, simply double-click on that button to get to the code, and then add Me.Close to this button's Click event procedure. For the Begin button, let's add some code to read through the root directory of the C drive. To handle this, you might be tempted to go to the toolbox and grab the OpenFileDialog control. However, this is used only to let the user SELECT a file; not to collect files for use by the developer. Although there were controls available for this in VB6 and earlier, the concepts were changed a bit with VB.Net.

Try this code in the btnBegin's Click even procedure:

```
Dim strDesiredPath As String = "C:*bckslsh*"
Dim strFile As String
Me.lstFiles.Items.Clear()
Try
    For Each strFile In FileIO.FileSystem.GetFiles(strDesiredPath)
        Me.lstFiles.Items.Add(strFile)
    Next
Catch ex As Exception
End Try
```

FYI: To run this on earlier versions of VB (VB.Net 2002 or VB 6, such as VBA), replace the code inside the Try/Catch section with the code below (and note that VB6 does not support the Try/Catch, so you'll have to look up the On Error procedures I mention in previous articles).

```
' For VB.Net 2002 or earlier versions of VB
Dim iFileNumber As Integer
FileSystem.ChDir(strDesiredPath)
iFileNumber = FileSystem.FreeFile
strFile = FileSystem.Dir("*.*", FileAttribute.Hidden)
Do Until strFile = vbNullString
    Me.lstFiles.Items.Add(strFile)
    strFile = FileSystem.Dir()
Loop
```

Looking at the code, first, after defining a variable for the set of files we want to locate, we clear the List (Me.lstFiles.Items.Clear) in case there's anything in it, like a list from the previous run.

Next, we set up a catch for errors using the Try command. It's followed by a Catch command that currently ignores any errors. This error-trapping will be important later when we try to navigate through subfolders, some of which might be protected from viewing, such as those on a network.

Then we set up a loop structure using "For Each" that navigates through a collection of items. In this case, we will be putting the items from the collection in the strFile variable, and then adding it to the list box.

The source of the data is found by communicating with Windows through the FileIO library, which contains the FileSystem library (which lets us manage everything related to files, such as asking for file sizes or anything else that Windows Explorer lets us do), and finally, using the GetFiles method to request a collection of files based on the criteria in parentheses, which we specified as the main directory/folder of the C drive. When you run this, you see something similar to Figure 2, depending on what's on your C-drive.

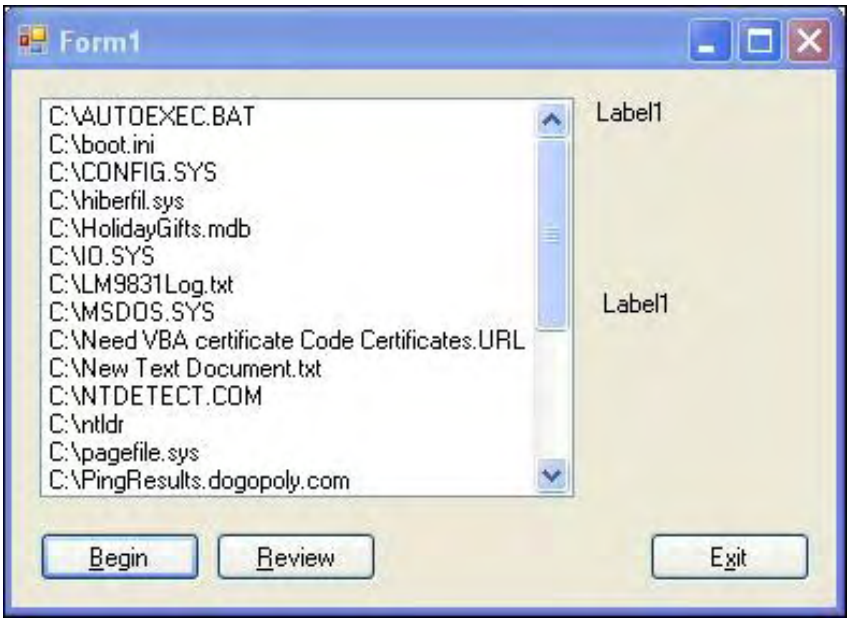

Figure 2. File List.

With a little bit of investigation, you'll see that we can automatically navigate through all files with another parameter in the GetFiles method. However, before you go there, realize that this will force the application to read all files from all subdirectories of the C drive and put them into the listbox. Since you probably have many thousands (or tens of thousands) of files, this process will take a while, and the application will not let you interact with it until it completes. For this reason, we want to explore a few more design considerations.

One nice feature for a long user wait is showing an hourglass instead of the arrow cursor. This can be handled by simply setting the Cursor object for the project. To do this right, we should save the previous setting, change the current setting, perform our action, and then restore the original cursor. This will handle it nicely:

```
        Dim objCursorSave As Cursor
        objCursorSave = Me.Cursor
        Me.Cursor = Cursors.WaitCursor
(add above code here)
        Me.Cursor = objCursorSave
```

When you do this, you get an hourglass while the project is loading the filenames, and the arrow comes back when it's done. However, what is not so obvious is that the list of files does not show up in the listbox until all of the files are read into memory. This becomes a

bit more obvious if you change the "For Each" line to load all subdirectories (subfolders). I don't recommend trying this on the entire C drive yet since it might take hours, but you can see the effect by looking at the Windows System32 folder or just the Windows folder (with all subfolders) like this:

```
     For Each strFile In FileIO.FileSystem.GetFiles("C:
*bckslsh*windows*bckslsh*system32", _
          FileIO.SearchOption.SearchAllSubDirectories)
```

After some research, I determined that the GetFiles procedure actually does all the work upfront and loads the files before it runs the rest of the code. That is, all the files are read into memory before they are processed rather than reading the next file and letting our code process it, and then reading the next file, etc. This means a very long wait if you ask it to collect the entire C drive before processing the list.

As such, we probably want to find a different solution so we can add the files more frequently rather than only after we've identified all of them. This will require what is known as recursive processing. It will start at a point such as the Windows folder and, for each subfolder, look for each subfolder, which will in turn look for each subfolder, which will, etc. Eventually, you reach the lowest level of subfolders and only have files left to add to the list. Then you back up one folder and look for the next folder until there are none left, and then back up one folder and start again. There are several approaches to this. One way is very memory-intensive, since you have to hold onto each collection of subfolders as you go. I'll take another approach that's a tiny bit slower, but takes less memory.

My approach is to create a subroutine to handle all of the processing and have the subroutine call itself as needed. Also, we will need to read the set of directories, which was not shown previously. This can be done with the GetDirectories method rather than GetFiles shown above. Here's my solution, which moves the "For Each" to a subroutine and calls the routine to handle the processing:

```
    Private Sub btnBegin_Click(ByVal sender As System.Object, _
        ByVal e As System.EventArgs) Handles btnBegin.Click
        Dim objCursorSave As Cursor
        Dim strDesiredPath As String = "C:*bckslsh*windows*bckslsh*system32" '"C:
*bckslsh*"
        objCursorSave = Me.Cursor
        Me.Cursor = Cursors.WaitCursor
        Me.lstFiles.Items.Clear()
        AddFilesToList(strDesiredPath)
        Me.Cursor = objCursorSave
    End Sub
    Sub AddFilesToList(ByVal FileProfile As String)
        Dim strFile As String
        Dim strDirectory As String
        Try
            For Each strFile In FileIO.FileSystem.GetFiles(FileProfile)
                Me.lstFiles.Items.Add(strFile)
            Next
            Application.DoEvents()
            For Each strFile In FileIO.FileSystem.GetDirectories(FileProfile)
                AddFilesToList(strFile)
            Next
        Catch ex As Exception
            Debug.Print("unable to access directory")
        End Try
    End Sub
```

Notice how I start by adding the files in the current directory. Next I process DoEvents, which tells Windows to take a turn and

essentially refresh the screen with the new information in the listbox. After that I go through each subdirectory in the current directory and call the same "AddFilesToList" routine, which is where the recursion starts. In this case, VB puts aside the current processing of AddFilesToList and starts a new one. If that one has more subdirectories, it puts this one aside and handles that one.

Eventually, it finds one without any additional subdirectories and exits the routine back to the most recent one, which looks for the next subdirectory; if found, push this aside otherwise wrap this up and go to the previous one that was put aside, etc. The key part to making recursion work is to have a way out of each routine. In my case, I will never repeat an existing directory because of the way VB stacks the previous ones that were found, and I only move forward within a directory. You'll also notice that I added a message to the Catch area just in case there's a problem reading a file or folder. However, this message is sent to a VB output window that the user will never see. This could certainly be added to a MessageBox or status Label as needed.

One more thing to consider is that, even when you can see the list building, you will still have a long wait for all files to appear. One thing you may want to add is a way to stop the process. This can be handled with a class-level variable that tracks when the user requests that the process stop. I chose to handle that by letting the user click on the form to stop the process through this code:

```
Add this to the top of the class:
    Private mbInterruptProcessing As Boolean = False
```

Add this to handle the request:

```
    Private Sub Form1_Click(ByVal sender As Object, _
        ByVal e As System.EventArgs) Handles Me.Click
        mbInterruptProcessing = True
    End Sub
```

And set the variable each time the user clicks on the Start button such as here:

```
...
        mbInterruptProcessing = False
        AddFilesToList(strDesiredPath)
...
```

And, finally, check to see if the flag is set in AddFilesToList' directory loop:

```
...
            For Each strDirectory In FileIO.FileSystem.GetDirectories(FileProfile)
                AddFilesToList(strDirectory)
                If mbInterruptProcessing Then
                    Exit For
                End If
            Next
...
```

If you run this as assembled above, you should see something like Figure 3 (which can be re-sized if you set the Anchor properties right).

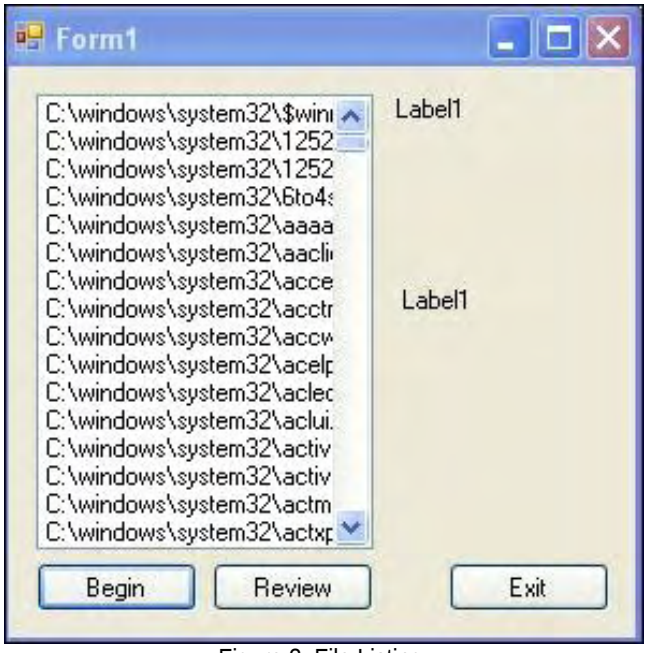

Figure 3. File Listing.

Since we're out of space this week, next week we'll add the code to locate duplicate entries from our new listing.

If you have any ideas for problems in need of solutions, send them in, and I'll look into offering some ways to solve it. Also, if you just read these articles on a regular basis, why not drop me a line just so I can see how many readers are out there? *Thanks* for stopping by!

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*.

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Spam of the Week: "Where's the Spam?"

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

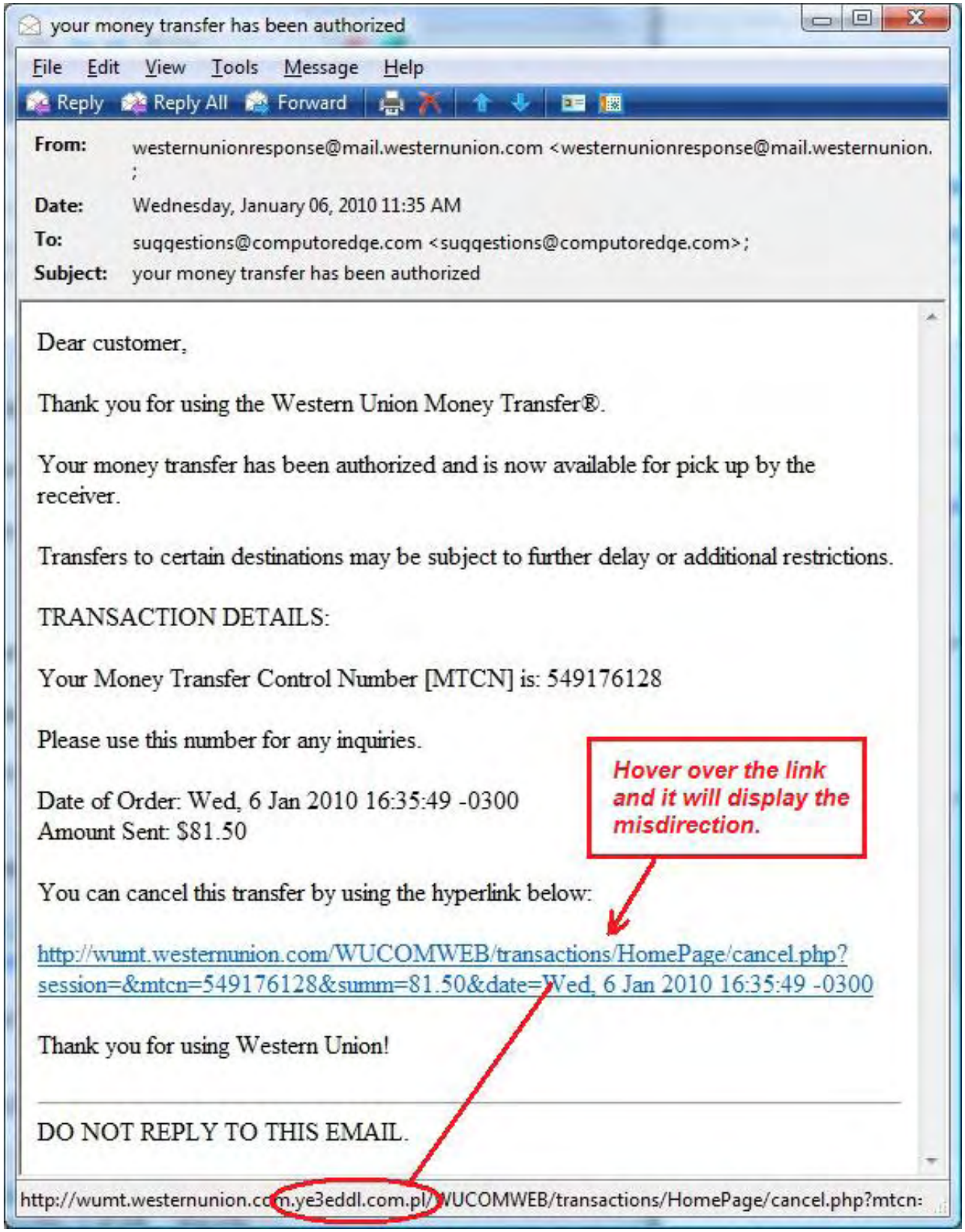
A slow week for malicious spam means the phishermen must be enjoying some time off—except for a tricky Western Union fake transfer.

It is with mixed feelings that we report that there has been a dearth of malicious spam in the last week. Usually we are plagued with tempting missives on a daily basis. But, alas, all we are getting are the usual solicitations for software and Viagra. We even checked our spam folder to see if our filter was doing a better job—nope!

Our guess is that the phishermen are on their holidays after a pretty intensive 2009. They'll soon be back filling this column with pictures of their dangerous e-mails. In the meantime, it could be worthwhile to click the "View Columns Last Six Months" link at the top or bottom of this column and review the spams of the past couple of months. You can be sure that many of the features found in those older spams will appear in the near future.

* * *

Whoa! This just in from Western Union:



By hovering over the hot link you can see how the link is actually a bogus link directed to some unknown parts. You can bet that they want to install something on your computer, if not steal your bank account number, Social Security number, or a password or two. Just delete it.

Happy New Year!

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*.

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EdgeWord: Where's the Paper?

"The Paperless Evolution" by Jack Dunning

The paperless society is well under way. But, rather than being a revolution, it's an evolution, and e-books are helping the process along.

The paperless society is well under way. But, rather than being a revolution, it's an evolution. Despite what some people may say, paperless has been creeping into our world. The e-book phenomenon is only adding to the obsolescence of paper. When we look at the shrinking newspapers and disappearing bookstores, it becomes obvious that we are on an irreversible course.

When computers and printers first hit the scene, we saw an immediate increase in the volume of printed paper. It was a natural reaction, since we could produce so much more pulp with our new computers. Plus, old habits are hard to break. We were accustomed to our printed lists and documents. Seeing the data on the screen was fine, but nothing could replace the feeling of paper in our hands. Every time we produced anything on a computer, we needed to print it—with multiple copies for everyone else. There would be more printed matter caused by the technological revolution—or so we thought.

It took a decade or so for us to realize that we were no longer looking at all those documents that we were printing. When we needed to see something, we checked it out on the computer. The printouts were filling drawers in filing cabinets and storage spaces never to be seen again—until shredding time. In a few organizations, daring people stopped printing on paper. Nobody noticed—except the people whose job was to distribute and/or file the documents and lists.

Don't think that society is becoming paperless? Take a look at the U.S. Postal Service, which is currently in a death spiral because people are mailing less paper. Their primary job is to move paper. The Internet and e-mail have made much of that work irrelevant.

The more e-books that are read, the less trees that will be cut to make paper. E-books are only just starting to have their impact. This may be the year of the e-book reader. Each e-book that is downloaded makes the further decline of paper inevitable.

Paper will not disappear. In the next few decades, books and other printed material will become a major source of memorabilia. People are already collecting more books—even paperbacks. Owing printed books will be a status symbol. A book in print will distinguish itself as being worth more than the paper it's printed on. We won't read the paper books for fear that we will leave fingerprints. Specialty printing will thrive, while our pulp fiction will appear only in electronic format.

I have mixed feelings about the slow crumbling of newspapers such as *The New York Times*—I like their crossword puzzles. There is nothing quite like the folding back of the newspaper and working through the clues with a stubby pencil and almost nonexistent eraser. Doing a crossword on a computer just isn't the same. Reading a book on an e-book reader isn't the same as a bound printed copy, either—but it is a heck of a lot more convenient.

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*

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Editor's Letters: Tips and Thoughts from Readers

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

"MP3 Files," "Windows 7 on Older Computer," "Netbook Dilemmas," "On-Screen Keyboard and Windows Character Map"

MP3 Files

[Regarding the December 11 Digital Dave column, where a reader was looking for a program to organize and find duplicate files:]

Not to plug any particular software or hardware, but one option to consider is iTunes. iTunes will do a search of your drives, as does Windows Media Player. With iTunes you have the option to display possible dup files.

-Dave V, King George, Va.

Windows 7 on Older Computer

[Regarding the December 18 EdgeWord: New Win 7 on an Old Computer column:]

Perhaps the most challenging aspect of installing a newer OS is the hardware drivers. Windows 7 may have a lot of drivers built in and still others available by clicking a new search-for-driver option called "Windows Update." That's where I found a Win 7 driver for my 1996 vintage LaserJet 5 printer. Some specialized manufacturer drivers for Vista may not be available for 7. You can try to right-click on the "exe" install file and use the compatibility tab of the Properties window to run it in "Vista SP2 Compatibility Mode." Good luck!

-Ron Cerrato, San Diego, CA

Netbook Dilemmas

[Regarding Pete Choppin's November 27 article, "Picking Operating Systems":]

I enjoyed reading your article in *ComputerEdge Online* about operating systems.

After apparently "blowing" $400 on a pair of Asus netbooks—one for me and one for my girlfriend—I'm pretty frustrated and wondering if there's a way to fix my dilemma.

I saw a great ad for a netbook through Buy.com for $180 and bought two. After a lot of snags trying to get hooked up to my Internet provider, Verizon, it turns out that they don't support Linux—only Mac and Windows. On top of the $400, I also spent $100 on an external disk drive while trying to load the Verizon software. The keys are too small, so I need to buy a keyboard—and also a mouse.

At this point, I need to shell out the money for Windows to get connected to Verizon.

Should I unload the netbooks and maybe just get a laptop? Maybe spending the extra money to load Windows (or try to) isn't worth it at this point? Would the netbooks now make good lamp stands?

I had no idea that I was getting a great price because I wasn't paying for Windows software licensing—some things you just have to learn the hard way, I guess. Thanks for any feedback you can provide, at your convenience. I really appreciate it!

-Dave, San Diego, CA

Dave,

It's funny you mention the netbook. I have an HP netbook that I use for work often, and you are absolutely

correct on many aspects—the screen is small, the keyboard is small, and it is true that Verizon does not support Linux, at least not with the VZ Access Manager software. That's the trade-off for being able to use a computer that is roughly the size of a note pad.

I know you didn't really plan on purchasing an extra hard drive, either. That is another drawback of the netbook. There is no CD/DVD drive. However, you now have an external drive that you can use for whatever you want. If you wanted to install other software, you now have a device that you can use, so it wasn't a total waste.

Just so you know, we did go ahead and install Windows XP Pro on the HP netbook here, and it works fine. Unfortunately, that may be your only recourse to get your netbooks to function the way you want.

*I know that the Verizon connection is nice, but you do need to pay extra for it. If you can live without Verizon and just use wireless networking, another alternative you might consider is the Asus Eee PC (*eeepc.asus.com/global/product1101ha-spec.html*). It comes installed with a flavor of Linux called Xandros. I do not have one of these, but a friend of mine got one and he said it is great. All of the wireless functionality works with the Linux OS that it comes with.*

Good luck with that.

-i#Pete#

On-Screen Keyboard and Windows Character Map

[Regarding the December 11 Windows Tips and Tricks: Using Funky Fonts column:]

That is really cool! Thank you! I always have to look it up when I want to use a special font—this makes life much easier.

-Jill Scott, Escondido, CA

In your Dec. 11 Windows Tips and Tricks: "Using the Windows On-Screen Keyboard" column, you mention:

"The problem with using these [symbolic] fonts is first knowing what characters are available, then finding them on the keyboard. I'm sure that there are look-up charts for these fonts readily available."

Lucky for you, Windows has had a solution readily available forever (well, at least since Windows 3.1). The charmap (Character Map) lets you do exactly this. Go to Start/Run and enter charmap (or you can find it in Programs/Accessories, but the location seems to change in every version of Windows).

You'll see a listing of all the printable characters for any given font, and at the top is a dropdown list to select the desired font. Pick WingDings and you'll see a nice grid of choices for the font, along with the ability to enlarge it, select it and copy it (so you can paste elsewhere).

BTW, another font I've found useful is Symbol, which contains a few more commonly used symbols, plus the Greek Alphabet. Also, Terminal (as in "old style computer terminal character set") gives you graphical lines for making boxes and grids; it also contains a (cheesy) Greek alphabet.

Oh, and your solution of changing the virtual keyboard font was really cool. I'll have to try that one of these days.

-Rob S.

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