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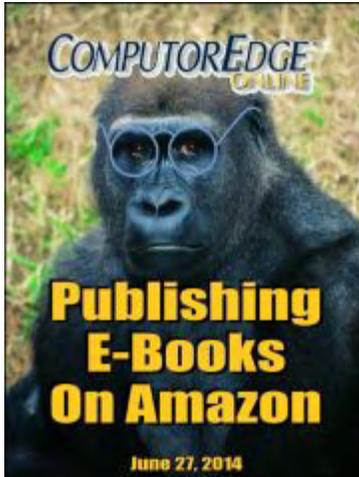
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Automate Any Program in Windows
by Jack Dunning

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Digital Dave

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

64-bit Windows 7 Pro Shutting Down Problems; Does Leaving Computer On Shorten Life?; Windows Media Player Not Playing WAV Files.

64-bit Windows 7 Pro Shutting Down Problems

Dear Digital Dave,

I'm running the 64-bit Windows 7 Pro. I do not Hibernate/Sleep! But lately when I try to shut down the system, it takes so long for Windows to shut itself down that it feels like eternity— I'm afraid to report.

Would you, please, enlighten yours truly a little as to what on Earth is going on here! Am I in the middle a joke, and do not know about it or something? I thank you infinitely.
Jay Siena
Kyoto, Japan

Dear Jay,

I suppose that telling you not to shut down your computer is not the answer you're looking for. There are a number of things that can cause your computer to take a long time to shut down.

It's usually a particular program or service that is the culprit. The process is either not responding or not allowing itself to be shut down. It could also be that you have too many programs running in the background. Even if you have closed all active programs, Windows still needs to close all of the background processes before exiting. If you take a look at the Task Manager (CTRL+SHIFT+ESC), you will be able to see all of the processes still running. It's probably not hardware unless everything else is also slow.

Since this problem has only started occurring lately, I would suspect that something has changed. Did you recently add new software? If so, you might try restoring to an earlier restore point.

Or, it could be a problem with reading from and writing to the hard drive. Sometimes it's a bad connection and other times it could be a bad sector or two.

I would definitely run [CCleaner](#) through its paces and a standard answer is always to look for a virus. Shutdown problems are not dissimilar to start up problems. Windows needs to go through its checks to make sure everything closes down properly. Flakey software or intermittent hardware can contribute to the problem. At least in the interim, although not very elegant solution, you could leave your computer running.

If you can't isolate anything, something that might help is adding more memory. Remember that Windows will shuttle memory contents off to the Pagefile on the hard drive when the RAM gets overloaded. When you close down your computer that Pagefile must be read back into memory with the appropriate portions either written back to the hard drive or closed down. The more the hard drive is used, the slower the process will be. Adding more memory usually will speed up this process.

Digital Dave

Does Leaving Computer On Shorten Life?

Dear Digital Dave,

Thanks so much for all the advice you've provided me over the years.

You mentioned in your last issue that you don't let your computer sleep or hibernate, but you do shut it down once in a while. I would like to the same with mine.

I have a six year old Dell Inspiron 530 running Windows 7, with maxed out RAM and with all of your hints incorporated to help it run and boot as fast as possible (short of over clocking). However, booting from scratch takes close to ten minutes and that's slow when you want to use it now. *Waking from sleep is also slow. So, I'm wondering if leaving it on is going to shorten its life significantly. I do open it now and then to blow out the dust and shut it down once a week.*
Poz
San Diego, CA

Dear Poz,

If it takes ten minutes for a Windows 7 machine to boot up, then there is definitely something slowing it down. Whether it is an overload of Startup software, a hard drive problem, or other issue is hard to know. I certainly sympathize with leaving a computer on all the time for convenience, monitoring other activity, and avoiding slow startups.

The truth is that the only downside to leaving a computer running is power consumption. Electronic components go through an initial period called burn-in. This is the time when they

are most likely to fail. If they don't go down early on then they are likely to continue working for a long time. This is why the best manufacturers burn-in their systems for some initial period of time.

After the burn-in period, the time that electronic components are most likely to fail is when they receive that initial surge while powering up. Although today's systems are designed to minimize any initial electrical surges, anytime you turn on your computer there is still some effect. Leaving your computer on is actually less risky since there is no on/off cycling. In either case, on or off, you are not likely to have much of a problem if you never experienced a problem during burn-in (the first 100 hours or so).

After that initial period, the most likely components to fail are mechanical (hard drives). Again, powering up and powering down the drives can add to the long run risk.

Digital Dave

Windows Media Player Not Playing WAV Files

Dear Digital Dave,

I'm able to play WAV files on my laptop using WIN 8.1. When I attempt to play the same WAV file on another laptop that I have using WIN 7.1, I receive an error message stating "Windows Media Player cannot play the file. The player might not support the file type." Using the "go to Web for a solution" doesn't help.

Please offer a solution to my dilemma, thanks!
Mike
Cardiff, CA

Dear Mike,

Most likely you're missing the proper codec (coder/decoder) for WAV files. Software packs of codecs can be found in numerous places on the Web. One of the most popular is K-Lite Codec Pack which also includes other tweaking tools. If you download the pack from the CNET, be sure to use the Direct Download Link (See Figure 1). This will avoid other unwanted CNET chaff software from being offered.

Figure 1. Use the "Direct Download Link" on CNET's Download.com to avoid extras being offered with the installation.

Every media format has its own associated codec to play the files. If it's missing from your computer, you won't be able to play that type of file.
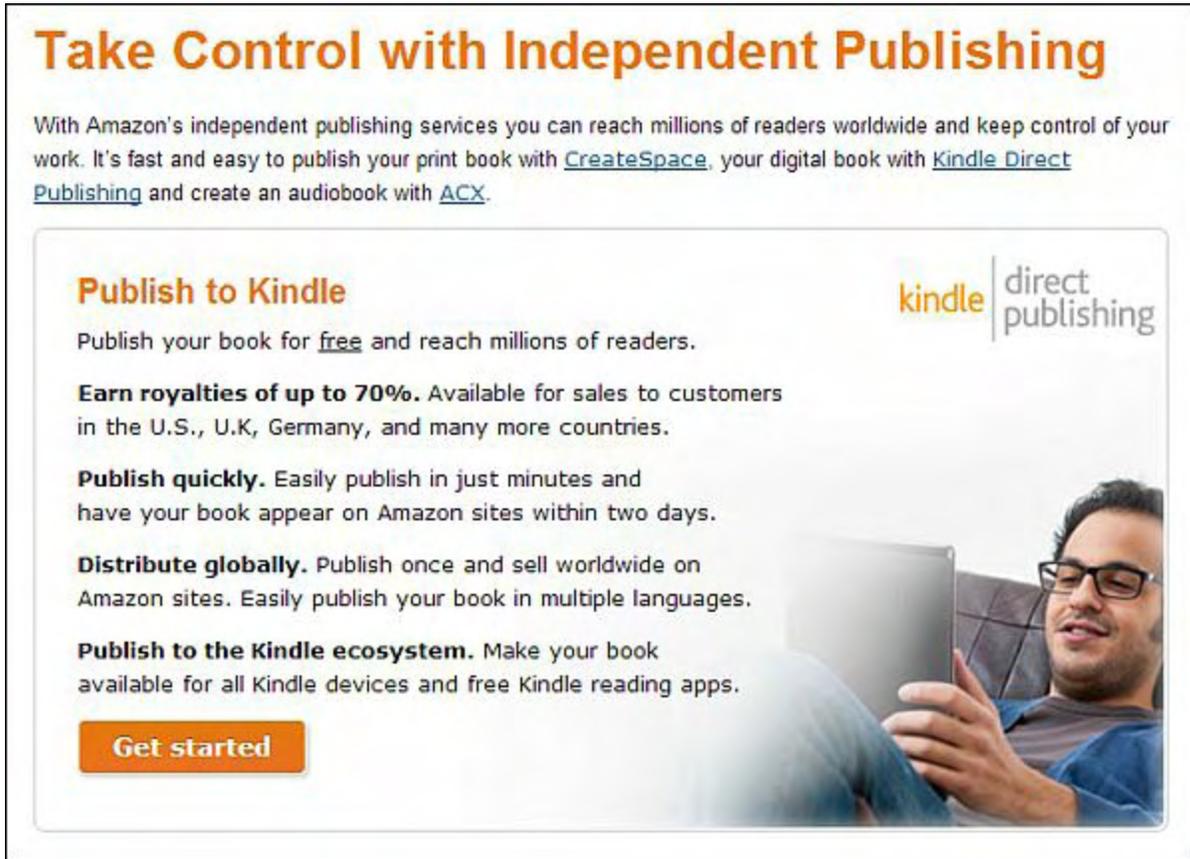
Digital Dave
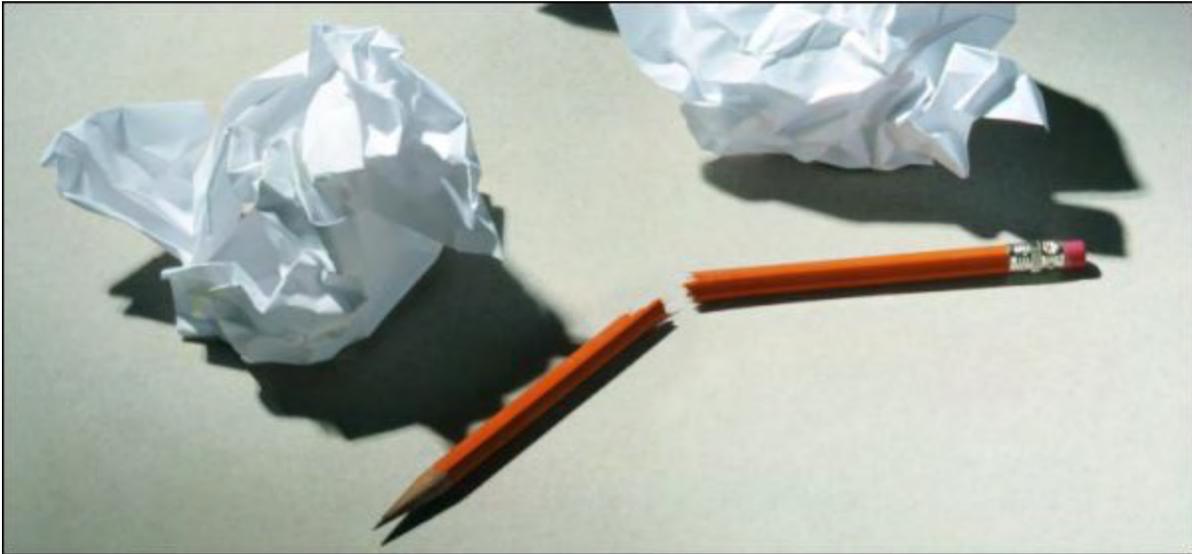
Self-Publishing E-Books on Amazon

"If Plan to Sell E-Books, You Want to Use Amazon--In Spite of the Rules" by Jack Dunning

Amazon is the number one e-tailer of e-books in the world. Because of that, they make all the rules.

If you're planning to sell e-books, then you want to sell them on [Amazon Kindle Direct Publishing](#) (see Figure 1). It may not be the only place you sell your books, but by a wide margin you will most likely sell more books with Amazon than any other e-tailer. The list of weak selling outlets for most e-books includes notables such as the Apple iTunes Bookstore (at least for Windows books) and Barnes and Noble. Amazon is the only site other than ComputorEdge E-Books which carries all of our books (except the free books). A regular number of books will sell on Amazon, but unless you happen to have a best seller, then you're not likely to generate enough income to live on. While posting an e-book on Amazon is easy, there is much more work involved in selling it.

Figure 1. Kindle Direct Publishing makes the rules for independent authors selling books.

Quite frankly, I gave up on Apple iTunes quite a while ago. They were difficult to work with, took weeks to activate a book, made it too difficult to change data, and required useless information such as an ISBN (retail book code of which I have plenty from a previous book publishing business) which serves no purpose for e-books. The few sales that trickled through weren't worth the effort to post the books. Many of these problems may have been fixed, but I've moved on after a reasonable test time. I now have other plans. Barnes and Noble is much easier to use (similar to Amazon) without all the extra Apple hassle, but its sales still pale in comparison to Amazon. I'm not in a rush to add all of my books to Barnes and Noble.

Amazon Makes the Rules

It may not be fair, but many of the standards for selling e-books are based upon the whims of Amazon. Who argues with an 800lb gorilla—especially when he's not likely to listen? Amazon owns much of the e-book market and most people will sell more e-books there than anywhere else. If you don't like the rules, then you can go it alone—which may not be much of an option.

The first Amazon rule is to price your e-book between $2.99 and $9.99. Amazon has decided that e-books should cost somewhere within this arbitrary price range. This is enforced by

offering 70% royalties to any author who stays within the blessed price range while only yielding 35% when a book does not comply. That's a huge difference and it forces authors to stay within these limits. This is not totally a bad thing, but it doesn't seem to be based upon any sort of rational reasoning—especially on the high end.

I can see this price fixing on the low-end ($2.99) since Amazon does have certain minimum costs (although they're probably minuscule on a per book basis). But why limit the price of a book on the high end? The worth of a book is based upon the value the reader receives. In some narrow markets—especially technical books—the value could be extraordinary for those who need the book. But if an author can only charge $9.99 without sacrificing substantial royalties, then it may not be worth it to even start writing. Many computer books fall into this category (although not mine). These price "guidelines" have a major influence on how authors write books.

For example, the three AutoHotkey books I now have available on Amazon all fall within that $2.99 to $9.99 price range. The least expensive is *A Beginner's Guide to AutoHotkey* at $3.99. This is the shortest book at 128 pages (PDF with letter size pages)—Amazon estimates 163 e-book pages. The second book *Digging Deeper Into AutoHotkey* at $6.99 is 235 PDF pages (339 Amazon e-book pages). The third book AutoHotkey Applications at $9.99 is 364 PDF pages and 480 Amazon pages. These books could easily be combined in to one big e-book, but the price could not be reconciled on Amazon.

A three-book package on Amazon at the same combined price would be $20.97. Since it is over $9.99 the royalty drops to 35% yielding $7.34. By not combining the books into one volume, if someone buys all three books at the same total price, ComputorEdge E-Books gets $13.26—almost twice as much. In effect, authors are forced to split up their books to fit within these "guidelines."

This is not all bad. By having separate volumes people can wade into AutoHotkey a little at a time without being forced to purchase the whole set. On the other hand there would certainly be convenience in having all the information available in one searchable e-book—especially with a combined index. This option gets ruled out by Amazon's pricing "guidelines," even if it would be better for the user. (This is one reason that I offer the free e-book [AutoHotkey Tricks You Ought to Do with Windows](#). It includes the Table of Contents and Indexes from each of the other three books.)

If you're quick with arithmetic, you may notice that some of my numbers don't quite add up.

Amazon Delivery Costs

Amazon imposes a delivery fee to the self-publisher for each e-book sold. As far as I know, no other e-book seller does this. The royalty levels from Barnes and Noble and the Apple iBookstore are similar (65% to 70%), but Amazon tacks on a 15¢ charge for each megabyte of

data in the download. This charge isn't very much for books only consisting of text, but if your books (like mine) include lots of images and screenshots, then this fee is a huge bite out of royalties. That means I'm charged an extra 47¢ for each Beginner's Guide sold on Amazon and 78¢ each for the other two books. Authors have no choice but to accept this charge by Amazon—which equates to digital usury. It was impossible for ComputorEdge E-Books to charge a reasonable price for Jim Whiting's cartoon book (virtually all graphic images) since the delivery fee alone is $1.33. At $2.99 each—which might be reasonable for a cartoon e-book—the royalty is 91¢—which is less than the $1.05 at the 35% royalty level which doesn't impose a delivery fee. Amazon keeps $2.08 which is 70%. There is no way that it costs Amazon anything near enough to download and store e-books to justify a 15¢ per megabyte.

My guess is that Amazon has looked at changing the download fee policy, but when they calculate how many millions of dollars they would be giving up, any thought of reform is canned. The effect is to push authors to severely limit their use of images in e-books—or avoid Amazon completely. Even though a picture is worth 1,000 words, at Amazon, it will cost way more than just using the words. In many ways, this policy is counter to producing better quality books and prevents many authors away from using Amazon at all.

Amazon KDP Select Promotions

Amazon has some promotional programs called [KDP Select](#) (see Figure 2). I have participated in these in the past, but I currently only have a couple of books (which are poor sellers) enrolled. The main reason I don't do more with KDP Select is Amazon demands that any book in the program be exclusive to Amazon. That means I can't make them available on iTunes, Barnes and Noble, or even sell them on the [ComputorEdge E-Books](#) site. The question for you to ask is whether these programs are worth it to you.

Figure 2. The Amazon KDP Select program allows authors to offer promotions for their books, but the books must be exclusive to Amazon.

If the only place you plan to sell e-books is on Amazon, then go ahead and enroll in the KDP Select program. If nothing else, it places your books in the free Kindle Owners' Lending Library program for Amazon Prime members. Each month, Amazon puts an amount of money into a pool which is distributed among the books borrowed free by Amazon Prime members. (This month, June 2014, the pool is $1.2 million.) When I had books in the program, a book might average $2.00 for each borrow—which at many times was more than the royalty for a sale. In some cases, people would borrow the book just to review it, then later they might buy it—if they liked it. That way I could get both the borrowing fee and the royalty for the sale. (I have no idea how many people actually borrowed a book, then later bought it, because I have no numbers. I'm sure any borrowing, then buying would depend upon the type of book.) KDP Select did spark sales, at least temporarily.

Another aspect of KDP Select is that you can make your book available free as a promotion to anyone for a set number of days (five) a quarter or you can do a price promotion which can run for up to seven days. I tested the free promotions and it did help sales after the free period expired, however, over time it seemed to lose its effectiveness. It may have even been counterproductive over the long haul. There are books I would like to give away on Amazon, but I would be locked out of offering that book on other sites for 90 days—the minimum term of enrollment for any book in KDP Select.

Another possible advantage to KDP Select program is that some regional Amazon sites (India,

Japan, Brazil, Mexico) offer the 70% only to books enrolled in the program—otherwise 35%. I never sold that many books in those countries, so that didn't add much of an incentive for me.

You Should Use Amazon.com to Sell E-Books

After pointing out all of my issues with its rules and programs, I do think that you should publish your books on Amazon. There are benefits which will accrue just from being there.

First, if you have a topic of interest to many people, Amazon is the best place to generate immediate sales. It has the widest audience of any site and is easy for people to search. If you have a topic with a unique search term, then get it into the title (and keywords) for your book. For example, unlike many of my other Windows books, if you type "AutoHotkey" into the Amazon search field, my books come up at the top of the list. That means whenever a Kindle user says, "I wonder if Amazon has anything on AutoHotkey?" I appear first. This is fortunate in my case and won't last forever, but don't overlook the importance of the words in the book title in this digital age. (This will come up again when discussing e-book marketing efforts.)

Kindle owners can buy your book risk free. If they don't like it, they can return in within seven days at no cost. This means they are more likely to give it a test drive. If they like it, they might keep it and write a good review. If not, you could get a bad review, which is often the death knell for any book which is then relegated to oblivion. By posting your book on Amazon, you are potentially exposing it to the largest e-book market in the world.

The fact that you have your book on Amazon gives you immediate street cred. Whether it is warranted, or not, having a book on Amazon makes you a published author. Maybe you don't sell any books, but at least it's there. Most people don't realize how easy it is to publish a book on Amazon.

Another marketing benefit is the search engine ranking of Amazon. It's no secret that if you search for your Amazon book, it will most likely appear toward the top of the list on the first page of results. That is gold for Amazon—and possibly for your book. Just being listed on Amazon advertises your book via the search engines. That's better than one of those little ads in the margin—and certainly less expensive.

Amazon Alone is Not Enough

There was a time when I thought I might be able to build my marketing plan around selling e-books on Amazon. Sales were growing enough that it appeared that by adding more titles and using the Amazon KDP Select program I would be able to create a steady cash flow. That was until no matter what I did, the sales started to ebb. I had set up a test site of my own for selling e-books, ComputorEdge E-Books, but since so many of the books were exclusive to Amazon, there wasn't much to offer. I slowly started pulling the books out of KDP Select as their

enrollment expired and reactivated them on the site. Then a surprise occurred.

I was selling a few dollars a month at ComputorEdge E-Books, but nothing to get excited about. In fact the cost of the site and credit cards (about $50 to $60 a month) wasn't getting covered. Then last August for some unknown reason, the sales spiked. It more than covered the monthly cost, but more importantly it caught my interest. One of the cardinal rules of business is don't overlook unexpected success. The insight was that unless I had a mega hit on Amazon, the earning potential of my own site was greater than that of Amazon—at least in dollars cleared.

I've already explained how much Amazon takes out of every sale. But with the ComputorEdge E-Books site, less the fixed expenses of $50 to $60 a month, the only additional cost is the credit card percentage from each sale. That means we get to keep between 90% and 95% of the revenue. It is quite possible for ComputorEdge E-Books to sell fewer books on its site, yet produce a much better cash flow than it does with Amazon. Since that time, I've been implementing a plan to do just that. We have not reached the point where ComputorEdge E-Books generates more than the books on Amazon, but I'm now seeing continual growth. (I will go into greater depth in future articles about how I'm marketing ComputorEdge E-Books.)

There is a way to earn another four to six percent on some of the Amazon sales. Join the [Amazon Associates Program](). By adding your tag to any links you post for the books on Amazon, you'll earn a commission on the book and anything else a person may buy. Quite frankly, it's not likely to amount to much unless your links generate an awful lot of sales, but it's better than nothing.

I plan to continue using Amazon, but now I see it as a supplement to my other efforts. I think that it should be a part of anyone's overall marketing plan, but, unless selling e-books is only a hobby, I wouldn't make Amazon the entire plan.

Next time, I'll go into more of the nuts and bolts of publishing an e-book on Amazon. I'll offer more insights into the process and market while discussing the steps involved in becoming a self-published author—at least on Amazon.

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](). Jack is now in the process of updating and compiling his hundreds of articles and columns into e-books. Currently available:

Recently released is Jack's FREE AutoHotkey book, [AutoHotkey Tricks You Ought to Do with Window](), available exclusively at ComputorEdge E-Books in the EPUB for e-readers and tablets, MOBI for Kindle, and PDF for printing formats.

ComputorEdge E-books offering is his [AutoHotkey Applications](), an idea-generating

intermediate level e-book about using the AutoHotkey Graphical User Interface (GUI) command to write practical pop-up apps for your Windows computer. (It's not as hard as it sounds.)

Hidden Windows Tools for Protecting, Problem Solving and Troubleshooting Windows 8, Windows 7, Windows Vista, and Windows XP Computers.

Jack's *A Beginner's Guide to AutoHotkey, Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8* and *Digging Deeper Into AutoHotkey.*

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and *That Does Not Compute!,* brilliantly drawn cartoons by Jim Whiting for really stupid gags by Jack about computers and the people who use them.

Automate Any Program in Windows

"One Strength of AutoHotkey Is It Can Automate Any Windows Program" by Jack Dunning

Although every program operates in a different manner, the flexible tools in AutoHotkey can make it easier with any software.

During a conversation with a new AutoHotkey user it became clear to me that I had not discussed in *The Beginner's Guide* one of the most important uses of the software—automating programs. Sure, I had covered many of the commands and techniques that might be used in setting up hotkey combinations for specific applications: Chapter Fifteen of *The Beginner's Guide*, "How to Cheat at Computer Games" gives some basic techniques and action recording apps that will help you identify the commands needed; Chapter Nine of *Digging Deeper Into AutoHotkey*, "A Simple Way to Automate Any Windows Program with (or without) Mouse Movement", gives a couple of basic approaches (the menu shortcuts and the *Click* command); and the *AutoHotkey Applications* book includes pertinent information within some of the Tips and Tricks. But I had never provided general guidelines for those many times when a program forces you repeat the same steps over and over again. This is something that should be addressed in *The Beginner's Guide* since it is one of the best uses for AutoHotkey. (The information provided here will be added to the next update of *The Beginner's Guide*.)

AutoHotkey Works with Any Program

While it is possible that there is a program which runs in Windows which will not work with AutoHotkey, I don't know what it is. It would be highly unusual to find any such software. That's the power of AutoHotkey. It works everywhere whether running from your Windows computer or on the Web! There may be an occasional hotkey combination which will conflict with a particular Windows program, but all you need to do is change the hotkey in the AutoHotkey script.

There are many programs such as Microsoft Office which will allow you to record repetitive actions and turn them into a macro you can run at any time. It is a great time saver. The advantage to using AutoHotkey is that it will run in every Windows program you use, not just

Microsoft Office. That means you can speed up the operation of your favorite applications regardless of its built in capabilities. There are a few basic AutoHotkey commands needed to start automating your program. The techniques you choose to incorporate into an automation script depend heavily upon how the program works. Regardless, with the variety of tools in AutoHotkey, there is almost always a way to get the job done.

New to the free AutoHotkey software for Windows computers? See the ComputorEdge *"[Installing AutoHotkey and Writing Your First Script](#)" Web page.*

Automating Program Menus

The most basic way to navigate a program's main menu structure without a mouse is with the keyboard. In many Windows programs the main menu structure is accessed with the ALT key. Press the ALT key and the first heading in the menu becomes the focus. (If the menu is hidden the ALT key will often expose it.) Once the menu is active, you can navigate it with the cursor arrow keys and the ENTER key to select an option. In this case, I'm using OpenOffice as a demonstration program. When I press the ALT key, move to the right by pressing the right arrow key twice, ENTER to open the menu, press the down arrow key nine times to Nonprinting Characters, then ENTER again, the hidden characters are exposed (see Figure 1).
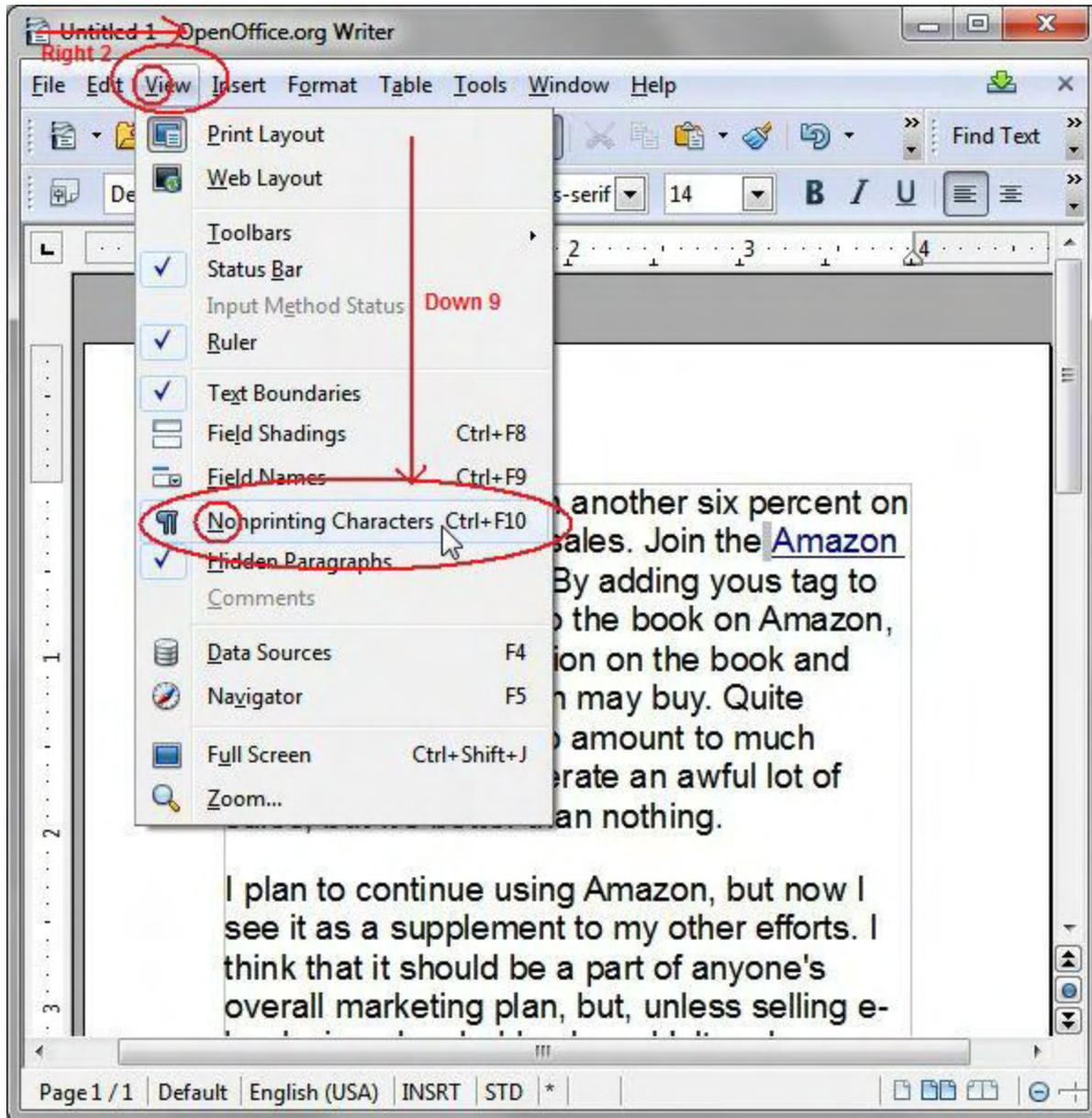
Figure 1. The non-printing characters are exposed by navigating the View menu.

The easiest way to simulate these steps is to navigate the menu with the Send command using *{Alt}* to access the main menu, *{Right}* to move through the menu headers, *{Enter}* to open the menu, *{Down}* to move to the appropriate item, then *{Enter}* again to select:

```
#y::
   SendInput, {Alt}
   SendInput, {Right 2}
   SendInput, {Enter}
   SendInput, {Down 9}
   SendInput, {Enter}
Return
```

This approach is simple and adaptable to virtually any menu. (In some programs other hotkeys

may be needed to open a menu. Check the program's documentation.) This technique does require that you first count the number to times you press each key to properly implement the action. (I use *SendInput* rather than *Send* because it is faster and buffers the keyboard characters making interference less likely.)

Special Note: I use the Windows key ⊞ *(#) in the hotkey combination because I found that any of the others (CTRL ^, SHIFT +, and ALT !) interfered with the* SendInput, {Alt} *line of code. If you're running into a similar problem with the script not accessing the menu, then try using only the Win* ⊞ *key (#) in your hotkey combination. This was not a problem once the script was written to use the built in menu shortcuts (below). I did not encounter this problem in the* Digging Deeper *book (Chapter Nine), because I was using the unless INSERT key (Ins) as the hotkey.*

Using Menu Shortcut Keys

Many programs written for Windows assign shortcut keys to each menu and its options. If the menu does have these shortcuts available they will appear as an underlined character in the name. Note in Figure 1 the V in View and the N in Nonprinting are underlined indicating that they are shortcut keys. When the menu is active (press ALT), pressing V will open then View menu, then pressing N will activate the Nonprinting Character option.

If the software you're using has these shortcuts keys, it simplifies the script and resolves the problem with the ALT key not working when CTRL or SHIFT is used in the combination—at least in this case. The menu can be opened by sending the ALT key in combination (acting like a hotkey) with the V from the View menu eliminating some lines of code (see Figure 2):

```
^+y::
   SendInput, !v
   SendInput, {down 9}
   SendInput, {enter}
Return
```

Notice that I changed the hotkey combination to CTRL+SHIFT+y (*^+y*) since it will no longer interfere with the *SendInput, !v* line.
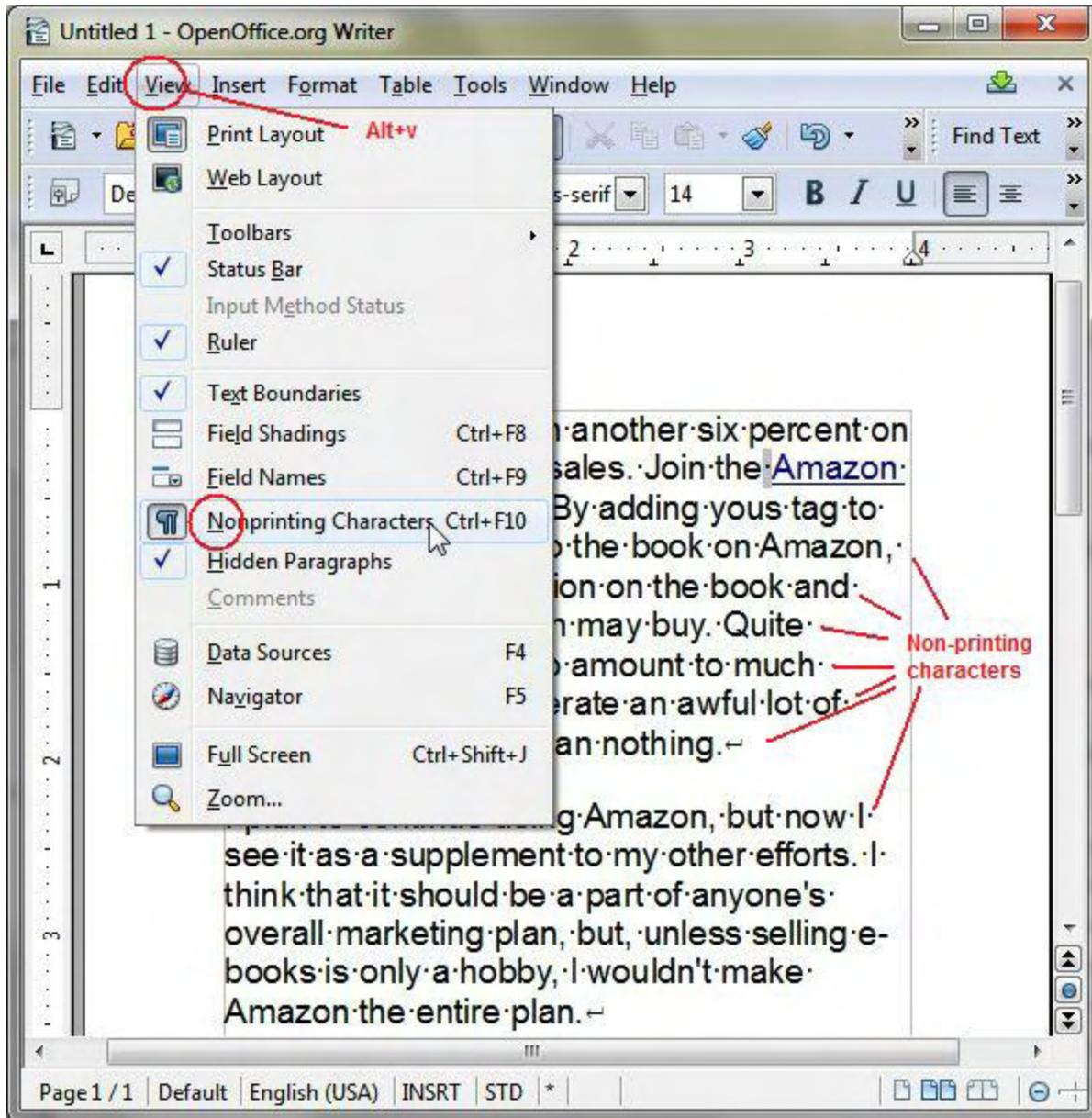
Figure 2. By using the shortcuts keys (circled) in the menu structure, the AutoHotkey script is simplified.

The *!v* now acts as a hotkey combination opening the View menu. I've left the last two lines in place, but they can be replaced with one line which uses the N shortcut:

```
^+y::
   SendInput, !vn
Return
```

This particular script toggles the hidden characters on and off, so each time the hotkey combination is used the process is reversed.

Tip: It is best to use lowercase letters in hotkeys and with the *Send* command. In many situations uppercase letters will be interpreted as SHIFT plus the letter. This can change the meaning of the code (i.e. ^a => CTRL+a whereas ^A => CTRL+SHIFT+a). Using lowercase

letters will save possible confusion.

Cascading Menus

While menus within menus seem more complicated, they only add minor changes to the script. In the example in Figure 3 the View menu is used to turn the 3D Settings toolbar on and off.
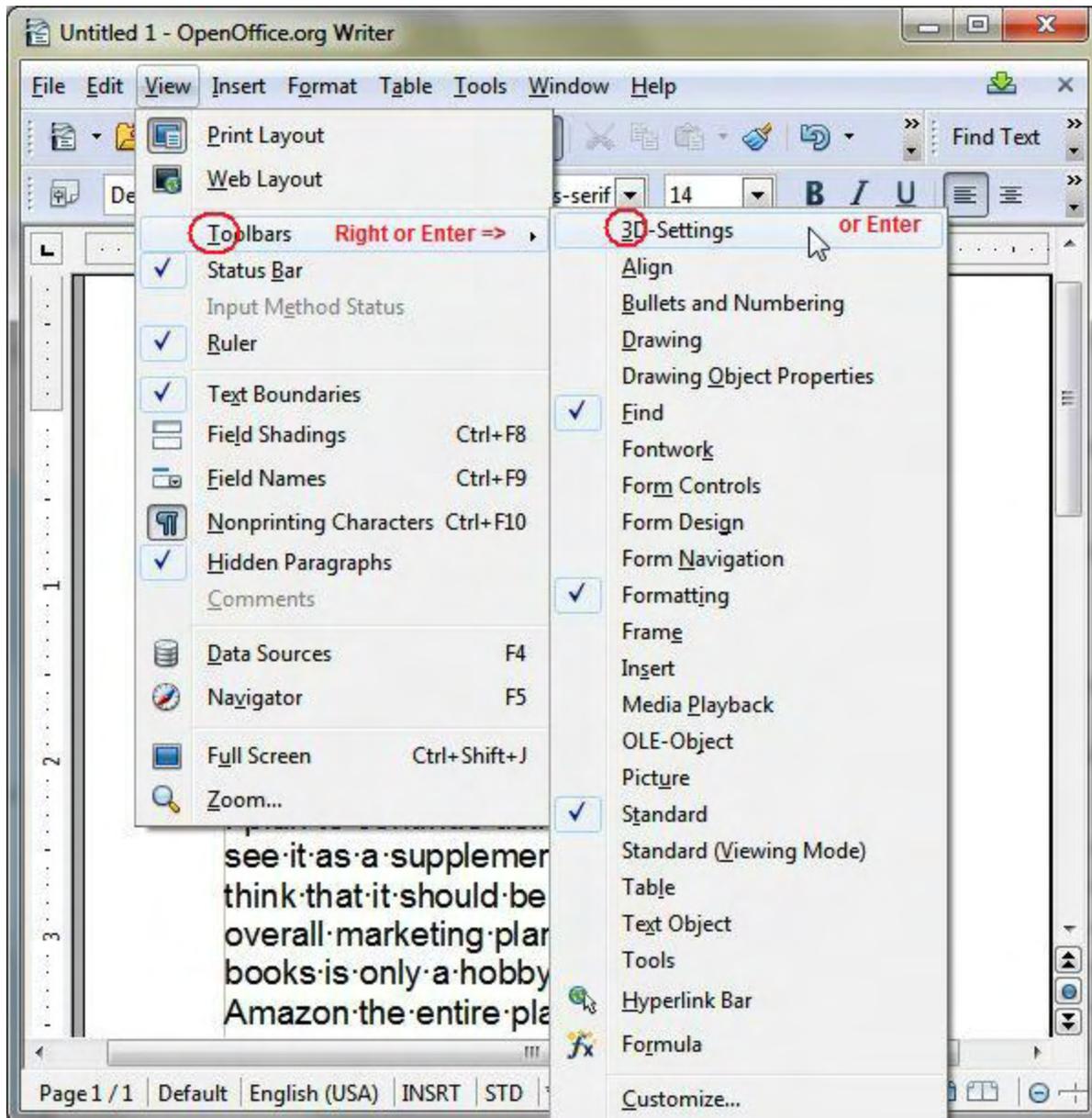

Figure 3. To turn the 3D Setting toolbar on and off requires accessing the secondary menu.

The original no-shortcut keys script can be modified as follows:

```
#y::
  SendInput, {Alt}
  SendInput, {Right 2}
```

```
  SendInput, {Enter}
  SendInput, {Down 2}
  SendInput, {right 1}
  SendInput, {Enter}
Return
```

If the desired option is further down the menu, then another line with the *{Down}* parameter would be required before the last *{Enter}* line. But, if the shortcut keys are available, then this is the easiest way to do it:

```
^+y::
  SendInput, !vt3
Return
```

This works because OpenOffice responds really quickly to the input from AutoHotkey. That is not always the case with all programs and pop-up menus. Sometimes there is a noticeable pause before the next menu or window appears—especially if it's a Web based program. When a slowdown occurs it's possible for the AutoHotkey script to outrun the application's response. Sometimes we need to slow the script down between each step by adding the *Sleep* command. *Sleep 200* will pause a script for 200 milliseconds. By placing this line (the time duration may need to vary) between the lines of code, the script is paused allowing the program or Web page to catch up:

```
^+y::
  SendInput, !v
  Sleep 200
  SendInput, t
  Sleep 200
  SendInput, 3
Return
```

There are also times you may want to place the [Sleep command](#) (1000 or 2000 milliseconds for one or two seconds respectively) in a script just so you can see what it's doing—especially if you're having problems. You can always reduce the interval or remove the code later.

Another way to pause a script until you're ready to move on (perhaps you need to use the mouse to select some text for further processing) is to use the [KeyWait command](#). Add the following line at the appropriate place:

```
  KeyWait, Insert, D
```

This code puts to use the usually useless INSERT key. The *D* option forces the script to wait until the INSERT key is pressed down.

Navigating Pop-up Windows

Often there is more to navigation and setting than menus. Maybe a window opens in which

settings are selected or changed. Since the behavior differs for windows there are other parameters that we must use with the *Send* command. Suppose we want to change the layout of our OpenOffice document from Portrait to Landscape. First, the Format menu is selected, then Page… (see Figure 4).
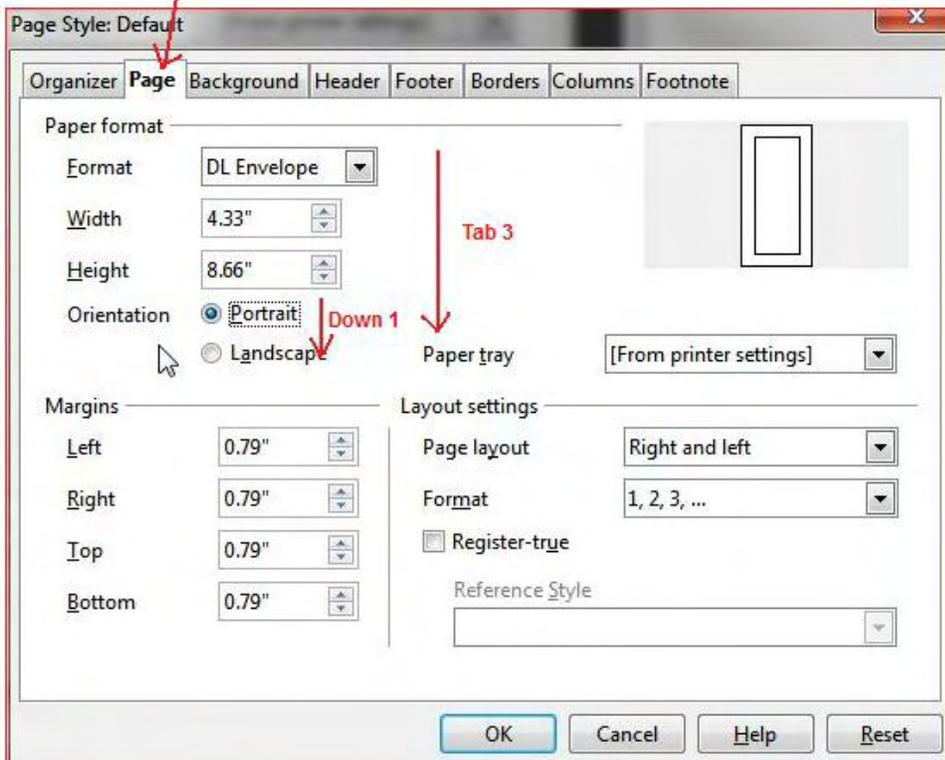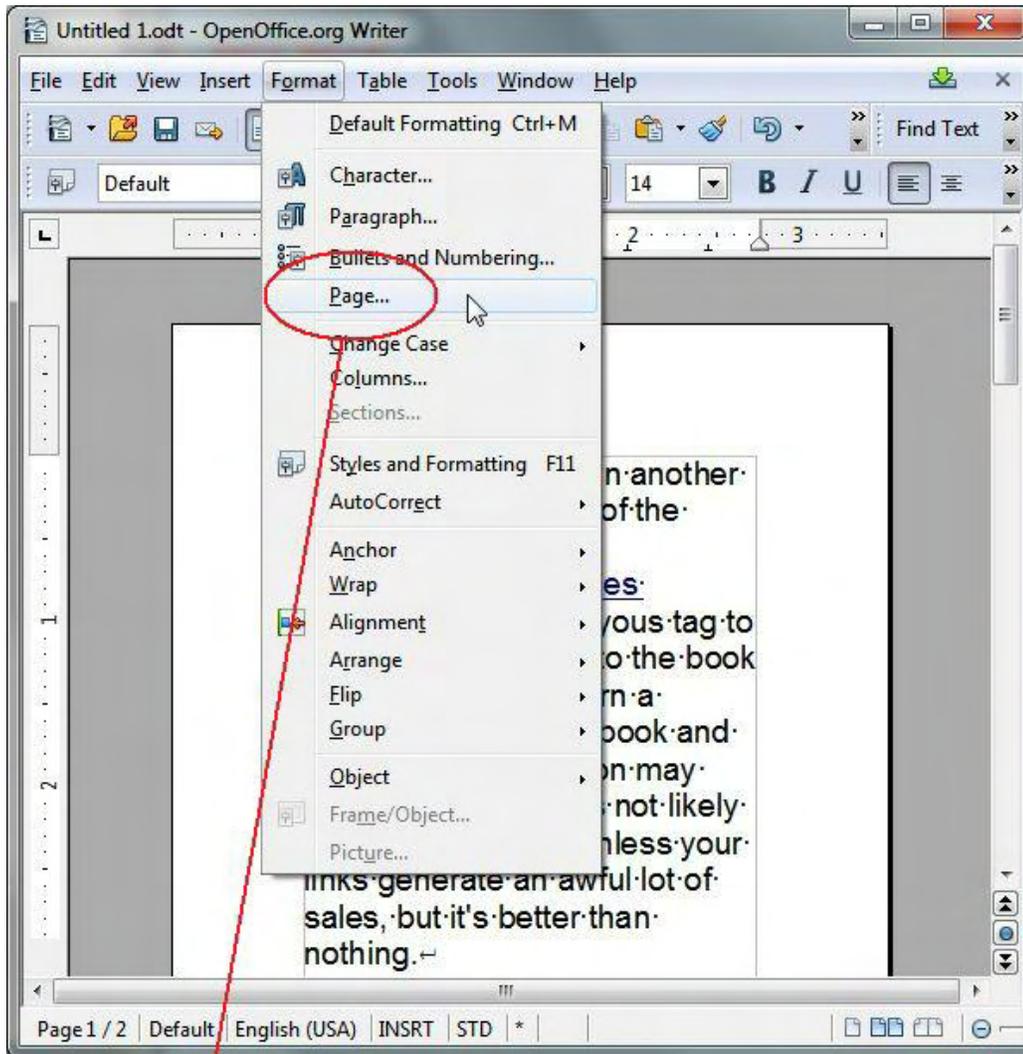
Figure 4. Changing from Portrait to Landscape in OpenOffice requires another window to open.

The desired settings are located three fields down which can be reached by using TAB key. Then the Landscape radio button must be selected and OK clicked. In this situation the shortcuts keys are pretty much useless. Since the default control is a menu, sending a shortcut key with AutoHotkey will only jump around in that first Format menu. Here is the alternate approach:

```
^+y::
  SendInput, !o
  SendInput, p
  SendInput, a
  SendInput, {tab 3}
  SendInput, {down 1}
  SendInput, {return}
Return
```

The TAB key is standard for moving from field to field in both Windows programs and on the Web. The ENTER or RETURN key is often require for execution, although it is likely to activate whatever is the default control—in this case the OK button. The UP ARROW *{up}* and DOWN ARROW *{down}* is for navigating within certain types of menus, list, and buttons.

Click to Success!

Another alternative is to use the [Click command](#) which simulates the click of the mouse at a specified location (see Figure 5). You can use Window Spy (right-click on the green icon in the System Tray of a running AHK file and select Window Spy) to get the exact coordinates within a window.
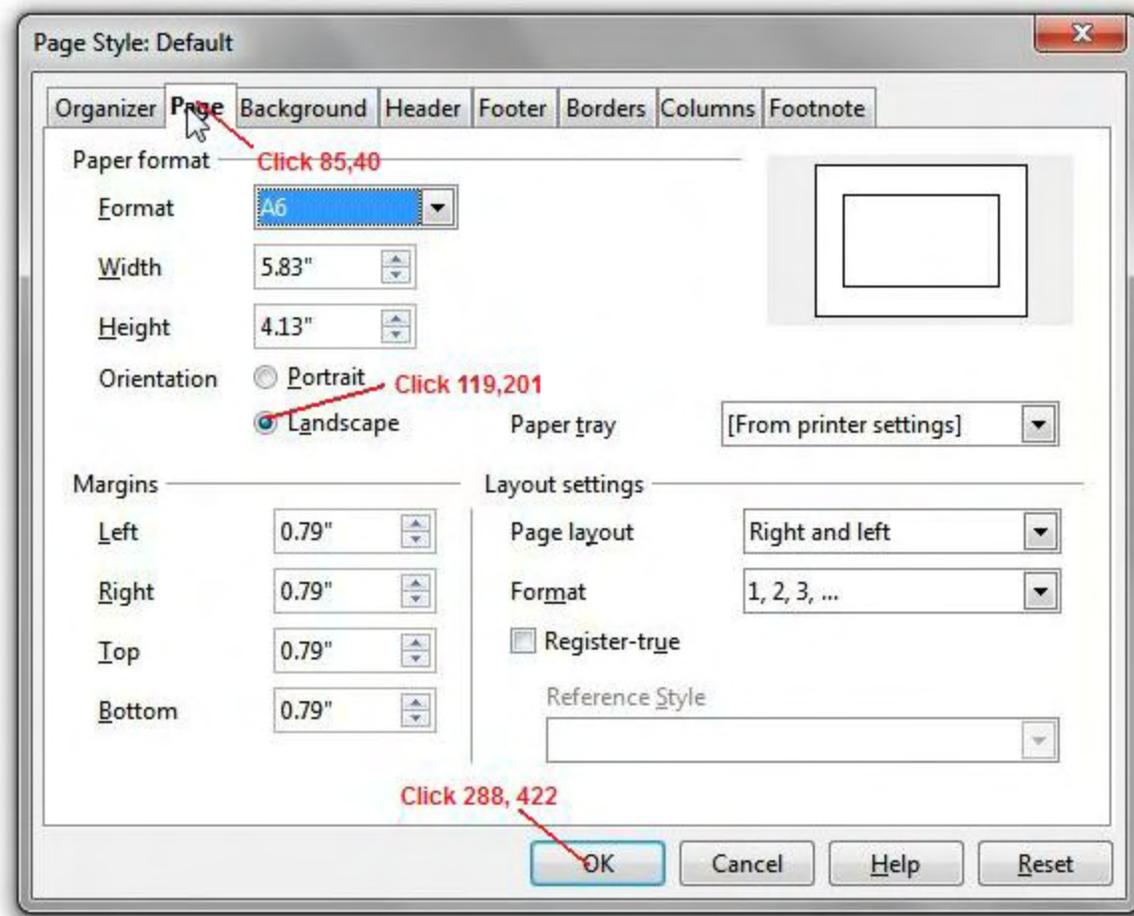
Figure 5. If there are no other shortcuts and the basic movement keys don't work, then the Click command is a good alternative. The coordinates were taken from Window Spy by hovering the mouse cursor over the target.

As it turns out in our OpenOffice example, if the Page Style window shown is opened manually and the selected tab has been changed, the script will not automatically open the correct window tab (Page). I found no way to switch heading tabs within the window without using the mouse. (I'm not saying there isn't a key combination to navigate the top tabs without a mouse, I just couldn't find one.) This is a good example of when it's necessary to resort to the *Click* command:

```
^+y::
  SendInput, !o
  SendInput, p
  Sleep 200
  Click 85,40          ; selects the Page tab
  Sleep 300
  Click 119,201
  Sleep 300
  Click 288,422
Return
```

As a precaution, it's a good idea to add the *Click 85,40* line to any script which needs the Page tab open. However, the *Click* commands takes a little longer to register with the program so it

was necessary to add the *Sleep* command at critical points to slowdown the execution of the script—first to wait for the window to open, then to allow each spot in the window to be *clicked*.

Since changing the orientation of the page is not a toggle, a separate hotkey must be set up for changing it back to Portrait mode:

```
^+u::
  SendInput, !o
  SendInput, p
  Sleep 200
  Click 85,40          ; selects the Page tab
  SendInput, {tab 3}
  SendInput, {up 1}    ; selects the Portrait mode
  SendInput, {return}
Return
```

You may also want to limit these hotkeys with the [#IfWinActive command](), operating only when an appropriate window is active. This will prevent odd behavior if you accidentally hit the key combinations while using another program.

Some programs don't use a standard menu bar. In that case, locate the proper program hotkeys in the documentation to open menus. Lacking any such hotkeys, you may need to settle for just the *Click* command.

Finding AutoHotkey Key Names

To get a quick boost when writing an AutoHotkey script to automate any program, there are a number of action recording apps available (also written in AutoHotkey). These tools record your actions (keystrokes, mouse clicks, etc.) while working with the target program and write the necessary AutoHotkey code for repeating the same steps. (These scripts are discussed in slightly more detail in "[Restart Learning AutoHotkey with Action Recorders]()" and Chapter Fifteen of *[The Beginner's Guide]()*.) If you're having trouble knowing which key name to use with the *Send* command, then these tools might help. The simplest one is probably [Macro Recorder](). While [Macro Creator]() has many more features, learning to use it will take a little longer. In the long run Macro Creator is probably a better bet if you want something that will actually generate the necessary script. As for me, I might start with a generated script, but then tweak it manually.

<p style="text-align:center">*   *   *</p>

Free AutoHotkey E-Book

Just released! *[AutoHotkey Tricks You Ought To Do With Windows]()!* This e-book includes both those tips and the reference material (Table of Contents and indexes) from the other three

AutoHotkey books. Pick up a copy free and share it with your friends. (If you don't want to be identified when signing up for the free book, just use a fake name and address. But the e-mail address must be real so we can send you a download e-mail. I promise that no one will ever get your e-mail address—at least not from me.)

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. Jack is now in the process of updating and compiling his hundreds of articles and columns into e-books. Currently available:

Recently released is Jack's FREE AutoHotkey book, [AutoHotkey Tricks You Ought to Do with Window](), available exclusively at ComputorEdge E-Books in the EPUB for e-readers and tablets, MOBI for Kindle, and PDF for printing formats.

ComputorEdge E-books offering is his [AutoHotkey Applications](), an idea-generating intermediate level e-book about using the AutoHotkey Graphical User Interface (GUI) command to write practical pop-up apps for your Windows computer. (It's not as hard as it sounds.)

[Hidden Windows Tools for Protecting, Problem Solving and Troubleshooting Windows 8, Windows 7, Windows Vista, and Windows XP Computers]().

Jack's [A Beginner's Guide to AutoHotkey, Absolutely the Best Free Windows Utility Software Ever!: Create Power Tools for Windows XP, Windows Vista, Windows 7 and Windows 8]() and [Digging Deeper Into AutoHotkey]().

Our second compilation of stupid *ComputorEdge* cartoons from 2011 and 2012 is now available at Amazon! [That Does Not Compute, Too! ComputorEdge Cartoons, Volume II: "Do You Like Windows 8 or Would You Prefer an Apple?"]()

Special Free Offer at ComputorEdge E-Books! [Jack's Favorite Free Windows Programs: What They Are, What They Do, and How to Get Started!]().

[Misunderstanding Windows 8: An Introduction, Orientation, and How-to for Windows 8 (Seventh Edition)]()!

[Windows 7 Secrets Four-in-One E-Book Bundle](),
[Getting Started with Windows 7: An Introduction, Orientation, and How-to for Using Windows 7](),
[Sticking with Windows XP—or Not? Why You Should or Why You Should Not Upgrade to Windows 7](),
and [That Does Not Compute!](), brilliantly drawn cartoons by Jim Whiting for really stupid gags

by Jack about computers and the people who use them.

Wally Wang's Apple Farm

"The World of Wearable Computing" by Wally Wang

The World of Wearable Computing; HealthKit and HomeKit; Swift, Xojo, and LiveCode; Getting Women to Code; T-Mobile vs. Sprint; It's a Software Problem; The Storage Tab.

With all the rumors swirling around Apple's wearable computer supposedly coming out this fall, it's time to look at the obvious and not so obvious benefits. First of all, *The Wall Street Journal* claims that the iWatch "will incorporate more than 10 sensors including ones to track health and fitness…Apple aims to address an overarching criticism of existing smartwatches that they don't provide functions significantly different from that of a smartphone…"

The obvious feature of the rumored iWatch is that it does not duplicate the function of a smartphone, unlike Samsung's Galaxy Gear watch that basically crams the features of a smartphone into a smartwatch. A wearable computer needs to give people new features that they can't get from existing technology, not duplicate features they already have. Why Samsung thought that shoving a smartphone into a smartwatch form would suddenly become a hit demonstrates faulty thinking from people who lack imagination.

While everyone focuses on the potential iWatch's health and fitness tracking features, they're overlooking an enormous range of new capabilities. In the movie industry, studios often show rough cuts of films to test audiences to gauge their reactions. Based on the test audience's answers to surveys they fill out afterwards, the studio might change or alter the film.

For example, *Terminator 2* actually had a different ending where Sarah Connor is an old lady watching John Connor and his son playing on a playground on the date SkyNet was supposed to start a nuclear war. Test audiences thought this ending seemed too simplistic and cheery that didn't fit the dark mood of the rest of the film. Based on this feedback, James Cameron cut this ending and reshot a new ending where you see a road at night leading into the darkness with Sarah Connor's voice telling us that if a machine can learn the value of a human life, then maybe there's hope that people can learn that lesson too.

The problem with relying on test audiences is that they can only tell you their reactions after the movie is over. What wearable computers can do is measure a test audience's emotional

[reactions in real-time](#) while the movie actually plays.

By measuring a test audience's pulse and sweat, studios can pinpoint exactly where in the movie the audience seems most emotionally engaged and where the audience might seem bored. Now film directors can alter the film to maximize audience emotional appeal.

Just that simple example of wearable computers demonstrates new features that you can't get from a smartphone, tablet, or PC. While critics with no imagination still cling to the necessity for an RS-232 serial port, a physical keyboard, and Adobe Flash support, the rest of the world can explore new ways to exploit wearable computers that were difficult or impossible to achieve with current technology.

The future belongs to those who have the imagination to see possibilities. The past belongs to those who lack imagination and only see how new technology fails to duplicate existing technology. Guess who will thrive in the world of tomorrow?

HealthKit and HomeKit

With innovations right in front of everyone's face, it's still surprising that some people still can't see where the future is heading after Apple revealed details of their HealthKit and HomeKit software development kits for iOS developers.

Both HealthKit and HomeKit allow third-parties to develop software and hardware to take advantage of these dual platforms. While creating a smart home with HomeKit might seem like a trivial application, a smart home that could monitor an elderly patient in real-time could be far more useful.

Imagine slapping wearable computers on the elderly in a nursing home. Now using HealthKit, the wearable computer could monitor that patient's health in real-time to alert doctors of any emergencies. Using HomeKit, the wearable computer could track a patient's movement through a building, turning on lights automatically in their room and changing the room temperature to best accommodate the people inside.

Elderly people suffering from Alzheimer's often wander away from home. HealthKit could monitor changes in a person's body that often signals when that person might wander away. HomeKit could lock the doors to keep that person from getting out while also alerting relatives or neighbors to check in on that person.

Put wearable computers on children and now you can receive an alert if they stray too far from you. Slap a wearable computer on yourself and your house can unlock and open doors as you approach with an armful of groceries. If HomeKit detects someone in your house when you're not around, it could alert you, turn on a camera in your house, and let you view the intruder so you can verify if it's a thief or someone you know.

HealthKit and HomeKit make little sense without a wearable computer since not everyone wants to carry an iPhone around with them all the time. If you leave your iPhone behind, then you can't take advantage of features in HealthKit or HomeKit, so a wearable computer eliminates this problem by clinging to your body at all times. Combine Apple's TouchID fingerprint sensor and you can verify your identity in ways that thieves can't easily duplicate.

Wearable computers represent a huge new world of computing in much the same way that PCs freed the power of computers from isolated, air-conditioned rooms to homes and businesses. Remember when mainframe and minicomputer users derided PCs as toys incapable of doing serious work?

People who fail to see the potential of wearable computers can join the mainframe and minicomputer users and claim that older technology will always be much better. After all if you attach wheels and a long extension cord to a mainframe computer, it can do everything a wearable computer can do at a thousand times the price and inconvenience, so that proves that wearable computers have no future and everyone should be using mainframes instead.

Swift, Xojo, and LiveCode

With HealthKit, HomeKit, and the growing popularity of iOS dominating the smartphone and tablet market (and soon possibly the wearable computer market), it only makes sense for developers to focus on creating apps for iOS. However, how exactly should you create iOS apps?

The free solution is to use Apple's Xcode with their Swift programming language. Right now you have to join Apple's developer's program for $99 to get access to the beta version of Xcode 6 that lets you write Swift programs. Swift is like a simpler version of Objective-C so it's much easier for beginners and experienced programmers to learn.

The huge advantage of Swift is that it's free and gives you access to all features of iOS. The disadvantage is that Swift may still be too difficult for novices to master. For novices who still want to create iOS apps, they can consider Xojo and LiveCode.

[Xojo for iOS](#) should be available later this year, but won't allow access to all iOS features. However, Xojo should be much easier to learn than Swift. If you know how to use Visual Basic, you should have no problems learning Xojo since Xojo is often referred to as Visual Basic for the Mac.

While Xojo relies on the BASIC programming language, LiveCode relies on Apple's old HyperTalk programming language. [LiveCode](#) mimics HyperCard and can even convert old HyperCard stacks into executable files for Windows, Linux, and OS X. Unlike both Xcode 6 and Xojo that aren't available yet for creating iOS apps, LiveCode can also create both iOS and Android apps today.

So if you want to create iOS apps for free, wait until this fall when Apple release Xcode 6 and then use Swift to write your apps. If you're a Visual Basic programmer, then Xojo for iOS will require almost no learning curve at all so you can transfer your Visual Basic skills to creating iOS apps.

If you know nothing about programming at all and want the simplest solution, then consider LiveCode. LiveCode also makes sense since you can create Android and iOS apps from a single program, which is impossible to do with either Xcode or Xojo.

With HealthKit and HomeKit, iOS represents the most lucrative market for software developers. Learn Swift because it gives you complete access to every feature in iOS. Then consider learning Xojo or LiveCode to create iOS apps faster. If you also want to create Android apps, LiveCode is your only choice.

Get ready to make money developing apps for iOS, especially when Apple's iWatch arrives this fall. The iOS developer market is about to become richer for everyone, except for those who refuse to recognize the lucrative market for iOS developers.

Getting Women to Code

Despite the money that developers can rake in, few women want to become programmers. This has nothing to do with female abilities and more to do with the lack of role models and perception surrounding computer programmers. Women are just as capable in programming as men, and if more women wrote programs, maybe the female perspective could help improve the quality of software engineering.

To encourage more women to code, Google has set up a site called [Made with Code](). This site can help encourage women to write programs by highlighting how other woman have used computer programs to perform a variety of tasks from choreographing Broadway dance shows to mixing Jay-Z's songs.
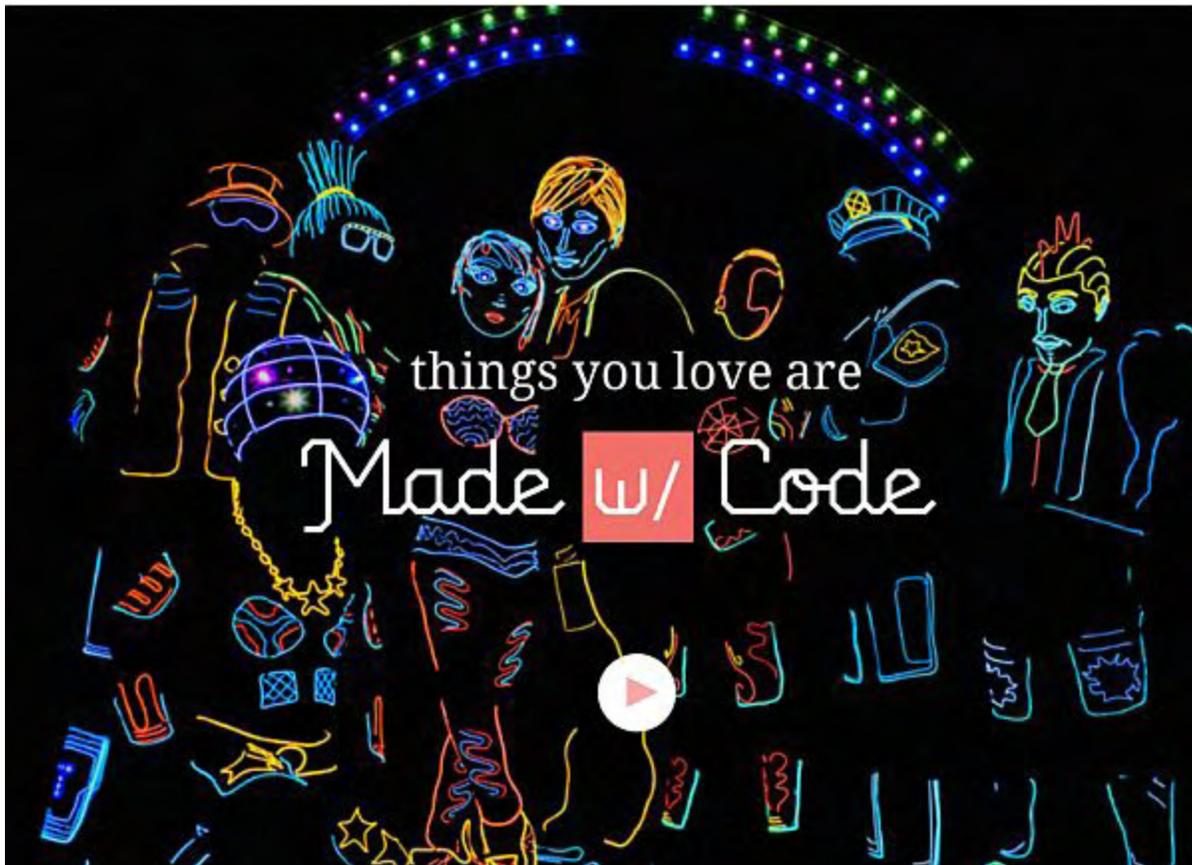
Figure 1. Google's Made with Code site encourages women to write programs.

Besides providing positive female role models, the Made with Code site also helps females find programming classes and workshops in their area and connect with other women programmers through social networks like Google+ and Twitter. The more women who learn to write code, the better off everyone will be.

There's absolutely no reason why computer programming needs to be a male-dominated industry. Women can write code just as well as men. They just need to get started and prove it.

T-Mobile vs. Sprint

Given the dominance of Verizon and AT&T in the American market, how can T-Mobile and Sprint compete? Sprint tries to compete by offering the exact same features as Verizon and AT&T, except with smaller network coverage. That's basically a recipe for failure.

On the other hand, T-Mobile has announced a new trial plan. Get an iPhone 5S to use absolutely free for a week. This lets you test T-Mobile's coverage everywhere you normally go. If after a week you're not convinced, return the iPhone 5S. In many cases, T-Mobile is betting that people will be happy using the iPhone 5S and will want to keep it while switching over to T-Mobile.

In the past year, T-Mobile has lowered their prices, offered unlimited data plans and texting, and now provides a free week's worth of an iPhone 5S to test out their network. Guess which network will likely attract more customers, T-Mobile or Sprint?

It's a Software Problem

When Microsoft released their Surface tablets, I rushed out to buy one. What stopped me was Windows 8. With both the first and second generation of the Microsoft Surface tablets, you can touch the screen to display the virtual keyboard in case you don't have the optional physical keyboard attached.

When using Word, the screen slides up to display the virtual keyboard while letting you see the text you want to edit. With PowerPoint, the screen slides up to display the virtual keyboard while letting you see the slide you want to edit. With Excel, the virtual keyboard covers up the cell you're trying to edit, making it impossible to use the virtual keyboard at all.

This problem appeared in both the first and second generation of the Surface tablets. Hopefully Microsoft finally fixed this problem with their latest generation of Surface tablets, but given Microsoft's penchant for complexity and lack of concern for the user's experience, I'm not expecting this to change.

I'm not the only one who loves Microsoft's hardware but hates their software. Jeremy Kaplan tried using a Surface Pro 3 tablet and found the hardware gorgeous but the software sorely lacking. When he tried to adjust the trackpad settings in Windows 8, he discovered that Windows 8 has two Control Panels for modifying settings.

Even worse, each Control Panel changes different settings. That means if you don't use the right Control Panel, you might not know of additional settings you can modify.

Here's the big question for everyone who loves Windows. Why have two Control Panels instead of just one? If you're going to have two Control Panels, why don't both Control Panels let you change the exact same settings?

By putting different settings in two different Control Panels, Windows 8 simply complicates matters for absolutely no good reason. Why did Microsoft duplicate the exact same feature and confuse users by letting each Control Panel change different settings that the other one cannot?

Microsoft's love of complexity isn't just limited to Windows 8. In Word 2010 you can open a document in two steps. Click the File tab and then click Open to display an Open dialog box. To do this exact same task in Word 2013 now takes four steps.

In Word 2013, you have to click the File tab, click Open, click the Computer icon, and then click the Browse icon before you can see the Open dialog box. Why did Microsoft think that

doubling the number of steps to perform the exact same task was somehow an improvement?

For a software company, Microsoft seems to love adding steps, hiding commands, and duplicating features without making their software simpler, easier, or faster to use. By increasing complexity while confusing the user, Microsoft seems intent on making computers as difficult to use as possible. Given a choice between a computer that forces you to learn how to use it vs. a computer that lets you use it with little training or studying at all, which type of computer do you want to use?

<p style="text-align:center">*   *   *</p>

If you're curious to know what types of files are taking up the most space on your hard disk, click the Apple menu and choose About This Mac. Click the More Info button and then click the Storage tab. Now you can see a color coded displays of what types of files take up the space on your hard disk.
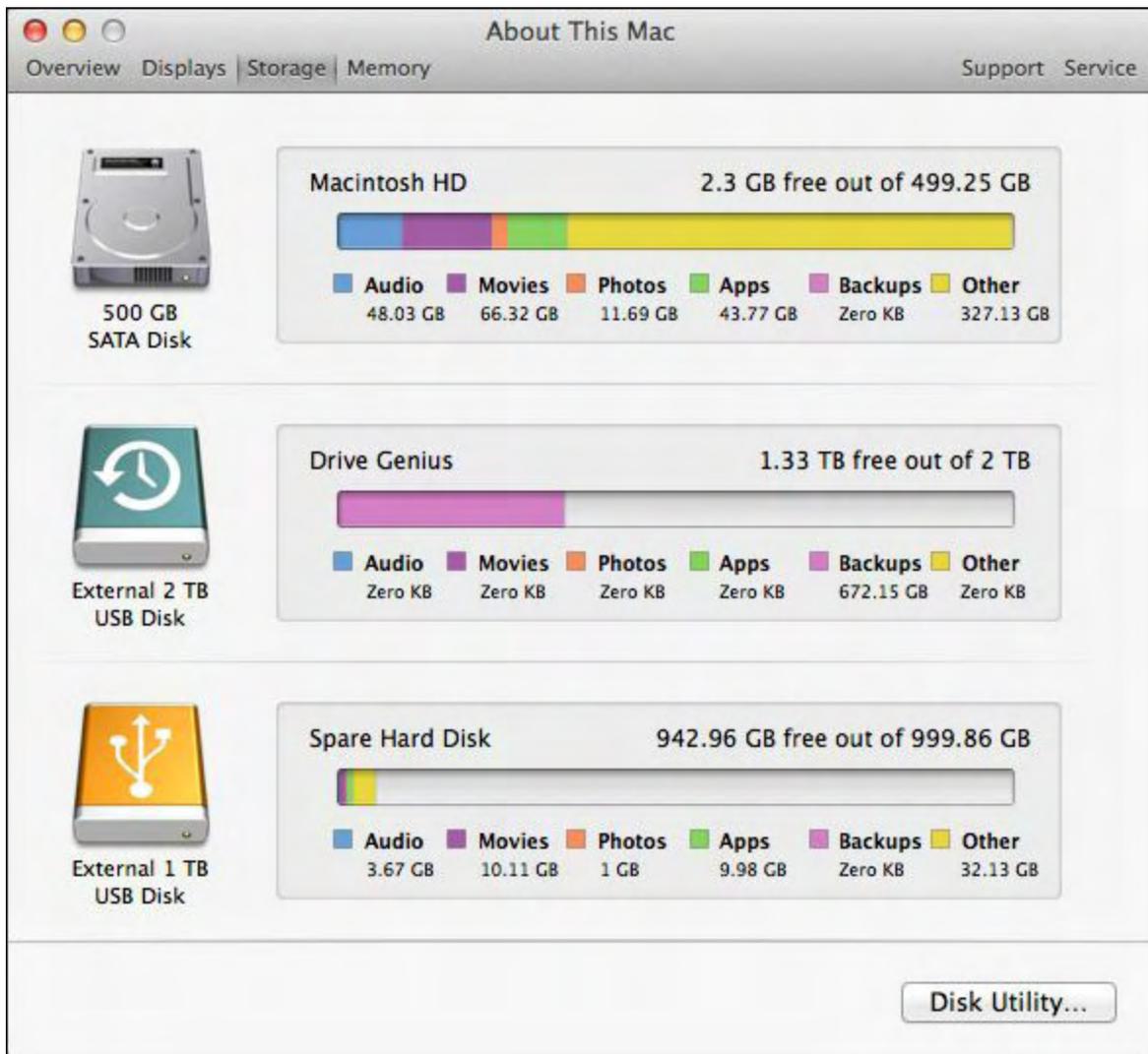

Figure 2. The Storage tab lets you see the files taking up the most space.

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 2013 For Dummies

Beginning Programming for Dummies

Beginning Programming All-in-One Reference for Dummies

Breaking Into Acting for Dummies with Larry Garrison

Strategic Entrepreneurism with Jon and Gerald Fisher

How to Live with a Cat (When You Really Don't Want To)

The Secrets of the Wall Street Stock Traders

Mac Programming For Absolute Beginners

Republican Fairy Tales (Children's Stories the 1% Tell About the Rest of Us)

The Zen of Effortless Selling with Moe Abdou

The 15-Minute Movie Method

Erotophobia (A novel)

Math for the Zombie Apocalypse

How to Write a Great Script with Final Draft 9

How to Write a Great Script with Fade In

The Elements of a Great Script: Star Wars

The Elements of a Great Script: Die Hard

The Element of a Great Script: Back to the Future

The Elements of a Great Script: Rocky

The Elements of a Great Script: It's a Wonderful Life

In his spare time, Wally likes blogging about movies and writing screenplays at his site "The 15 Minute Movie Method," finding interesting news stories about cats at his site "Cat Daily News," giving advice to authors who want to self-publish e-books at his site "The Electronic Author," and providing the type of advice he wishes someone would have told him when he was much younger at his personal Web site. Wally can be reached at *wally@computoredge.com* or you can follow him on Twitter @wallacewang_com.

Editor's Letters: Tips and Thoughts from Readers

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

"Home Automation," "How about a Scanner," "VoIP," "Laptop Booting Windows 7 Home Premium"

Home Automation

[Regarding Jack Dunning's June 6 article, "Internet Connected Devices":]

I currently have a home automation system that utilizes the Wi-Fi in my home. I would like to see a new style though. Currently I have a hub connected to my Wi-Fi and then it speaks to the other devices which are various electrical outlets, cameras, door switches and a thermostat. However since my whole house is in range of my Wi-Fi I would have preferred just to have each device communicate directly using Wi-Fi rather than through a hub as it is my belief that this would be a faster connection. I don't like to wait to be able to turn off the lights.

-Paul Anthony, San Diego, CA

How about a Scanner

Will someone please create a Wi-Fi scanner? Preferably with a touchscreen. Connectivity with your smartphone would be even better as it would keep cost down.

I want to be able to scan one and two sided various sized documents, and then select where it goes on my Dropbox or Cloud storage folder. It should be small and portable so I can take it to any room in my home or office, and low cost, around $79.

Also I want it to be uncomplicated, just choose color only if you need it and OCR only if you need it. Default should be as fast and easy as a high end copier with multiple page documents stored as a PDF.

[Regarding Jack Dunning's June 6 article, "Internet Connected Devices":]

If it is a business card then it should scan both sides and convert it to fill your contacts list and let you choose a business, personal or whatever location you wish. I want to get rid of all the paper, and the need to file it in a cabinet, or business card holder. If it is a bank statement I

want to quickly just drop the paper in and select a "macro" that lets it know it is to be filled with all my other bank statements from this account. If this is something that is to be filed into its own category them I want to use the touchscreen to select where and create a new folder of needed.

If this is some coupon then I want to scan, and crop it if necessary, then be able to pull it up on my smartphone later. If it is a document needing to be signed and delivered then I want to be able to scan it, and then using the touchscreen sign and date it, then email it off. In short, I want a paperless office for the masses.

-Paul Anthony, San Diego

VoIP

[Regarding Jack Dunning's June 6 article, "Internet Connected Devices":]

If you have Merlin@home transmitter (pacemaker monitor) will *not* work on VoIP only on land lines! At my old home it worked fine (I had CA LifeLine service @ $3.88 per month). Now at my new home I can't get CA LifeLine and AT&T U Verse is $25.00 per month! If you have AT&T U Verse you can't have CA LifeLine service!

-Walter SW, San Diego, CA

Laptop Booting Windows 7 Home Premium

[Regarding the June 6 Digital Dave column:]

Encountered this exact issue today(!) when helping a friend load WIN 7 into a C700 Compaq notebook. Check PC health report in WIN 7 to see that there are not issues detected with the HDD.

Download the free SeaTools ISO and generate from it a bootable CD that will evaluate the HDD. If SeaTools encounters any error(s), then depending on the type/kind, SeaTools may provide an option to fix them (eg, reallocate one or more bad sectors).

You may then have to use your OS installation CD and use it to repair or even possibly re-install WIN 7. If it is a re-install, then before installing, "WIPE" the drive (clears artifacts), then create the new OS partition (create & format) using the OS installation CD. Monitor the HDD performance in PC Health to ensure that it remains stable (ie, no more errors happen).

If any additional/subsequent errors occur over time, then replace the HDD as drive failure is likely.

-Chris Romel, San Diego, CA

I have experienced the same thing on an older laptop with minimum ram. I found out that it was indexing every drive and storage device hooked to the computer plus the virus program was trying to scan the same devices on startup.

One other thing that I have found on occasion is there is an error message from Win 7 or some program that is trying to load. This error message is waiting for a keypress and other programs in the load up queue can't proceed until you press Y, N or OK. To add to the problem is the fact that some Win 7 error messages stay hidden behind other program screens or in the info section on the right side of the taskbar. There is a small up arrow there that if you hover your mouse over it will say "show hidden icons". Click on that arrow and it will show all icons generated by Win or other programs, check to see if any of them is an error message or a warning that something needs to be done to continue startup. You may also have to change the order in which programs start. Google "startup manager".

-Buck, El Cajon, 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 specific article/column at ComputorEdge.com. 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. If you would like to review our recent e-books, please visit ComputorEdge E-Books.

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