

Midland
CComputer
Club

BITS AND BYTES

The Newsletter of the Midland Computer Club

May 2008

GENERAL CLUB MEETING 7:00 P.M.

Meets 4th Wednesday of the month at the Midland Community Center
2001 George St., Midland, MI
<http://mcc.apcug.org/>

This month's date: May 28th

THIS MONTH'S TOPIC: Terry Brown will discuss the importance of researching your family roots and how to use your computer & the internet to do so.

PROGRAM COORDINATORS

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What you missed!

In **April**, Larry Piper gave an informative presentation on how to build your own personal website using the space usually provided by your ISP. A number of ISPs do not provide a good method of constructing your own site, so if frequently is best to use some other tool to create the site and then upload it to your space on the host. Several free tools were discussed as well as some of the less expensive home retail home software offerings.

Upcoming Activities

At the May general club meeting, Terry Brown will be discussing various online options to assist you in tracing your roots via some of the genealogy sites. If you are working on your family tree or want to start, this is will offer a look at places to get you started.

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The President's Corner

I've just returned from my first "road trip" with a laptop and it was a very positive experience! Overall, I was really impressed with the availability of wireless hotspots all over the country. We stayed at six different motels and every one of them offered wireless Internet and frequently I was able to see several connections at any given time. Of the six motels, three of them had "unsecure" access points (i.e., a userid and password were not necessary for access) and three had "secure" access points (i.e., you needed to have a userid and password). Also, many coffee shops, lunch places, etc. had wireless available (although I did not try any of those). I was really impressed by the number of states that offered free wireless access at their Interstate rest areas, however, after thinking about it, most truckers now carry laptops which they use to stay in contact with home. With all of the public access points it was very simple to check your route, the upcoming weather, the news and your e-mail virtually any time you wished. Each morning, I would generally check the route we were going to travel that day, what kind of weather we would probably encounter and potential road construction that might impede our travels. I was able to stay in contact with my family as I travelled so they knew where we were any given day. I've always thought of myself as a fairly "techie" type of guy, but never owned a laptop! Now I wonder why it took me so long to get one and how could I live without one. If you don't currently have a laptop, I would strongly suggest that you consider purchasing one.

— Howard Lewis

(The above comments are the opinion of the author and do not necessarily reflect the views of the Midland Computer Club.)



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In **June**, Howard Lewis will be reviewing some of the various options available for compressing large files so that they can be sent to your friends via e-mail. Howard will also discuss a process called "slip-streaming," whereby you can take an old version of a Windows CD (i.e., Windows XP pre-SP2) and create a Windows XP SP2 CD. This is helpful should your hard drive every fail and you do not have an image of your hard drive. In that case, you will have to re-install Windows XP and it is much quicker to install SP2 directly, rather than installing from your original CD and then having to apply all of the updates to make yourself current.

There will be no meeting in July. The **August** meeting will feature our annual picnic.

The World's First Computer

by Charlene Brown, Newsletter Editor, Big Blue and Cousins, Canada
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Board Meeting

The next board meeting will be 7 p.m., **June 10, 2008**, at Chapel Lane Presbyterian Church, 5501 Jefferson Ave., Midland. Discussion will focus on finalizing the fall program.

"The mechanism has over 30 gears, the most amazing feature of which is the incorporation of a sophisticated system of differentials. Gearing of this complexity was not known to exist until 1575!"

Using Google Alerts is a good way to keep up to date on media coverage of on-going developments in scientific research. I have requested these alerts with various combinations of search words - ar-

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Membership Enrollment form

NAME _____ PHONE _____
 ADDRESS _____ CITY _____
 ZIP _____ EMAIL ADDRESS _____

Membership dues FAMILY (\$20) STUDENT (\$15) NEW Member ____ renewal ____

Please fill out the above form and mail it along with payment of check or money order to :

MIDLAND COMPUTER CLUB Attn: membership chairman
 P.O. box 132
 Midland, MI 48640-0132

you may also pay for membership at a regular club meeting

Useful, useless and strange (in no particular order) Web Sites:

http://www.howstuffworks.com/question317.htm	Ever wonder how an Etch-A-Sketch works? Wonder no more!
http://interact10ways.com/usa/information_interactive.htm	Here's something different. You will need to have Shockwave installed, but this is an interesting way to use photos.
http://www.permadi.com/java/spaint/spaint.html	This Java application will remind you of that kaleidoscope you had as a kid.
http://www.pcworld.com/article/id,132929/article.html	Here's a <i>PC World</i> article concerning the use of System Restore and how to tweak it under Windows XP.
http://www.bleepingcomputer.com/tutorials/tutorial143.html	This is a tutorial from <i>Bleeping Computer</i> that discusses and explains the use of System Restore under Windows Vista.

Tips, Tricks & Techniques

Removing Applications From Your Computer

To remove applications from your computer, you can either use the applications uninstall program (if available) or use Windows built-in uninstall utility. To use Windows built-in uninstall utility:

Click the *Start* button and then select *Control Panel* to open the Control Panel window.

If you are using the **Category** view (where you see a list of Control Panel categories), select *Add or Remove Programs* to open the **Add or Remove Programs** dialog box. If you are using the **Classic** view (where you see individual Control Panel icons), double-click the *Add or Remove Programs* icon.

Next click the *Change or Remove Programs* button to display the **Currently Installed Programs** list box. (This list may take a few moments to display all installed applications.)

In the **Currently Installed Programs** list, click on the program you want to remove (when you select a program name, the description expands to include a **Change/Remove** button or separate **Change** and **Remove** buttons).

Click the *Change/Remove* button or the *Remove* button, if Change and Remove are separate.

Click the *OK* button in the dialog box that appears to confirm your removal of the program. When the uninstaller finishes removing the program, click the *Close* button to close the **Add or Remove Programs** dialog box and to return to the **Control Panel** window.

You can use the Windows XP uninstaller to get rid of any unwanted program that you've installed. Using this utility to remove a program (rather than just deleting the program folder) ensures that the application is properly removed from the system. Some files may remain (i.e., files created specifically for you) and some registry entries will also remain. However, this is a sure way to remove only those things necessary to get rid of a specific application.

Removing Unused Windows Components

To remove various Windows components that you do not use you can use the built-in Windows uninstall utility:

Click the *Start* button and then select *Control Panel* to open the Control Panel window.

If you are using the **Category** view (where you see a list of Control Panel categories), select *Add or Remove Programs* to open the

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Add or Remove Programs dialog box. If you are using the **Classic** view (where you see individual Control Panel icons), double-click the *Add or Remove Programs* icon.

Next click the *Add/Remove Windows Components* button in the **Add or Remove Programs** dialog box.

Now locate and remove the check mark from any of the components that you want to remove before you select the Next button.

Remember that if you remove the check mark from a category of components rather than from a particular component within that category, Windows will remove all the components.

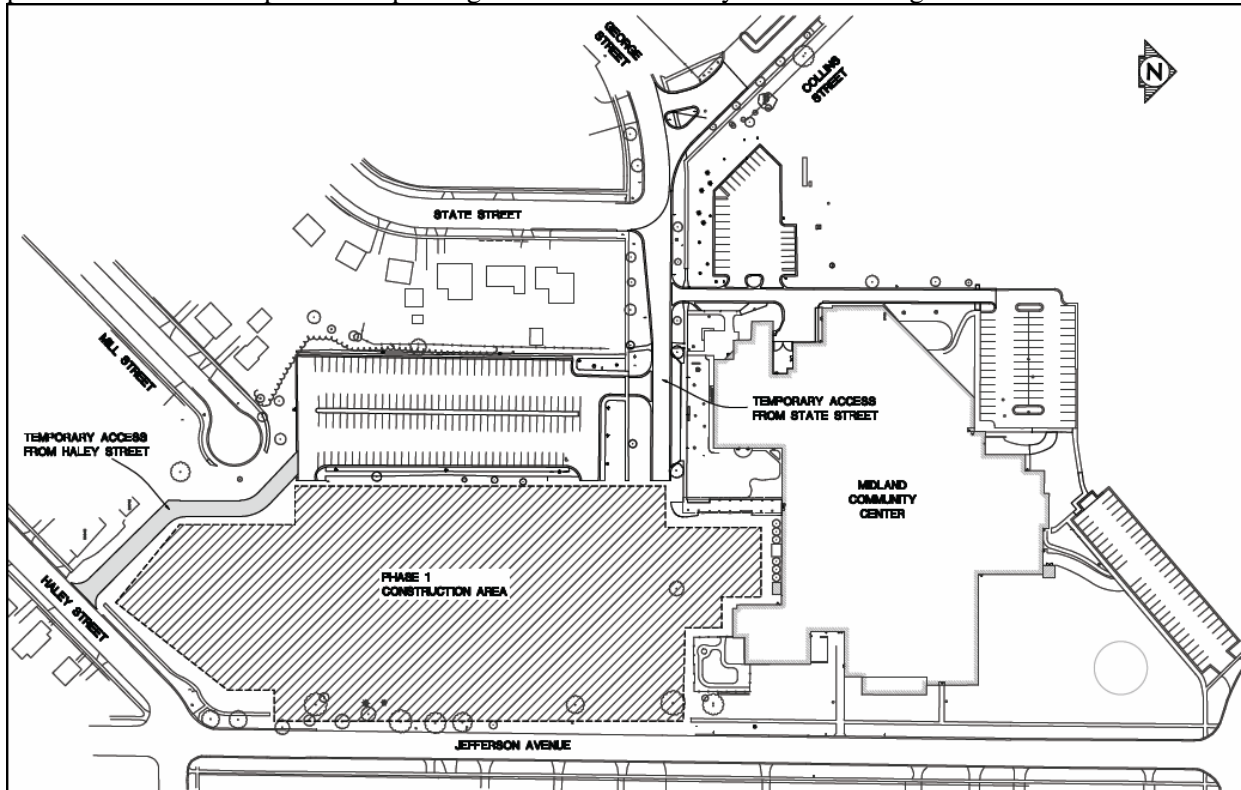
AutoFilter (Microsoft Excel 2000 to 2003)

Excel's AutoFilter feature makes it simple to hide everything in a database except the records you want to see. To use AutoFilter on a database, position the cell pointer somewhere in the database and then choose *Data/Filter/AutoFilter* from the menu bar.

To filter the database to display only those records that contain a particular value, you then click the appropriate field's drop-down list button to open a list box containing all the entries made in that field, and select the one you want to use as a filter. Excel then displays only those records that contain the value you selected in that field (all other records are temporarily hidden).

Midland Community Center Parking Lot Construction

Construction continues on the new parking lot in front of the Midland Community Center. George Street in front of the Center has been permanently closed and the east portion of the lot is currently being rebuilt. During this time of construction, access to the Center will vary depending on the current status of construction. Currently to access the Center, please enter the West part of the parking lot from either Haley Street or George Street.



For most people coming to the Center via Jefferson Ave., this will mean turning onto Haley and entering the area via that entrance. There is a light at the corner of Haley and Jefferson. Those coming from Saginaw or Bay City via U.S. 10 will turn left at the light and those coming from most other parts of Midland will turn right onto Haley. For those coming from the downtown area or West of Midland (via M-20), you can currently enter through the George Street entrance. Once the East portion of the lot is completed, you will all enter the new lot via Jefferson Ave. as the Haley and George Street entrances will be closed for the second phase of the parking lot construction. Eventually a second entrance will be constructed off of George/State/Collins Streets. Updated maps will be maintained on the Midland Community Center website (www.mymcc.org) as work progresses. If you have any questions, please either let me know or call the Midland Community Center at 989-832-7937 extension 0.

Howard

Google Releases Updated Version of “Google Earth”

By Ira Wilsker, APCUG Director; Columnist, The Examiner, Beaumont, Texas; Radio & TV Show Host
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WEBSITES:

<http://earth.google.com>

<http://earth.google.com/download-earth.html> - FREE Version

<http://earth.google.com/tour.html>

http://earth.google.com/enterprise/earth_plus.html - \$20 Plus Version

http://earth.google.com/enterprise/earth_pro.html - \$400 Pro Version

It has been nearly two years since I first (and last) discussed Google Earth in this column. In the ensuing time since the last review, Google has been busy updating and improving the product, adding new features, and improving the graphics. For those who may not be aware, Google Earth is a program that allows the immense Google database of terrestrial and satellite images of the earth, along with amazing images of space, to be utilized and manipulated on the computer.

What is new and improved in the recently released Google Earth 4.3 (beta) is demonstrated in an interactive video tour online at earth.google.com/tour.html. One of the new features in version 4.3 include what Google calls “Photo-realistic Buildings”, where hundreds of buildings in many of the world’s major cities are shown in three dimensions (3D). If a building that is displayed “turns purple” when cursoring over it, clicking anywhere on the building will open up a smaller window giving details of the building, and the moniker of the person who created or updated the digital image. The images displayed can be manipulated to zoom in or around them from any angle, effectively creating a dynamic 360 degree panoramic view. These 3D views are not just of cities and buildings, but there are also spectacular images of natural beauties such as mountains, rivers, waterfalls, and canyons. Another new feature on this version is what Google calls “Swoop Navigation” where the user can virtually “Fly seamlessly through the landscape with new navigation controls. Swoop from outer space to street level and leap from one building top to another. Use the look joystick to view buildings as if you were standing right in front of them.”

Another aspect of the new version is the “Light and Shadow” feature where many of the images can be shown in selected or sequential times of the day, such as displaying a mountain top from sunrise to sunset. On the top of the screen is an optional slider which can be moved with the mouse to display the simulated or realistic image at any chosen time. In some of the more scenic images it appears to show the path of the sun across the sky with the corresponding light and shadows. The new and improved “Street View” that has been previously available online with Google Maps (maps.google.com) is now integrated into Google earth. Google has a fleet of vehicles which cruise major cities taking high resolution 360 degree digital photos as they drive down the streets. With “Street View” the user can virtually visit a city and virtually walk or drive the streets using the mouse instead of a vehicle. Views are literally from the street level showing cars, people, store fronts, intersections, and any other features visible from street level. Using the mouse, the user can cruise the streets just as if he was navigating the city for real. While not yet available for every city, a camera icon, when displayed on a map, will zoom in to a 360 degree panoramic image from street level. Many street level images contain additional camera icons which allow the user to travel seamlessly up a selected street, and the mouse can be used to turn in any direction.

The popular features that were in earlier versions of Google Earth have been retained. One that I periodically use is the “Directions” feature, which does not just give traditional driving directions and maps, but also animates the drive by clicking on the play button at the bottom of the driving directions listing. When animated, a detailed sequential zoomed-in satellite image is displayed, with the directions overlaid on the image. For example, when I requested driving directions from the Examiner offices on Willow Street in Beaumont, to the Bush Airport (IAH) in Houston, the seamless animation in Google Earth showed the street images including real pictures of the highway showing which lane to be in, detailed images of each turn or exit, and high resolution images of the airport. The images are actual photographs, not computer generated images. By seeing the route in exquisite detail prior to a journey may help ease the anxieties of the drive.

Once at a destination, it may be helpful to find nearby “points of interest”, such as restaurants. By simply entering the word “restaurants” in the “What?” box, and the current address in the “Where?” box, restaurants will be displayed on the Google map. By clicking on the icon displayed for each restaurant, details will be displayed for the selected restaurant in a window overlay. Typical information displayed included the name, address, phone, a hyperlink (if any) to the restaurant website, any reviews that may be available and driving directions “to” and “from” the restaurant.

Google Earth does not just provide maps and images of terrestrial and earthly locations, but also includes celestial maps and images. Clicking on the Saturn-looking icon on the top of the screen will open a “Search the Sky” search box. By

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entering a celestial body or location, such as “Mars”, Google Earth will display a sky map with an image of the heavenly body, and also display the current geometric coordinates for those using sophisticated telescopes.

The basic version of Google Earth 4.3 (beta) is a free download from earth.google.com. For those desiring more features, Google offers Google Earth Plus for \$20, which adds support for a variety of GPS devices (verified support for Magellan and Garmin GPS devices, but can not upload to those devices), improved network performance, and improved high resolution printing. For professional and commercial use Google offers the Pro version for \$400.

Google Earth is a fascinating utility, and will run on Windows 2000 or XP (Vista is not mentioned), and requires a minimum of 400MB hard drive space, and a video card capable of 1024x768 resolution with a 16bit color depth. An internet connection of at least 128Kb/sec is required. I suggest that readers of this column at least download the free version of Google Earth and simply play with it. Click on the icons at the top of the page, and check and uncheck some of the boxes on the left margin, and experiment with it; do not worry, you can not hurt anything by experimenting with it. Google Earth is one of my favorite “fun” programs.

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Moving on to Vista – Part 6

by Neil Stahfest, Librarian, Tacoma Area PC User Group, Washington
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It's easy to lose track of time when you're playing computer games or cruising the Internet. As our computers have improved we tend to use higher screen resolutions to see more detail and, unfortunately, that can cause eye strain. The solution is not to reduce screen resolution but to increase the size of the text.

Windows Vista offers an easy way to do this. Click on “Start”, then “Control Panel” and then type “adjust font size” in the search box in the upper right corner. A menu choice “Personalization” will appear and right under it you will see “Adjust font size (DPI)”. Click on it and a window called “DPI scaling” will appear. You'll see three choices: “Default scale (96 DPI), Larger scale (120 DPI), and a button that says “Customize”.

The first two choices are pretty clear. In the third choice, if you click “Customize DPI”, the “Custom DPI Setting” window will open. Just follow the instruction to increase or decrease the DPI setting to find the setting that works best for you.

One question new Vista users ask me is “What happened to the search command?”. People who have used Windows XP and previous versions of Windows are used to clicking on the “Start” button and then clicking on the “Search” label on the right side of the menu.

Search is still available but Microsoft apparently thought it was more intuitive for us to click on the “Windows” key plus the “F” key (think “Windows find” to remember this). Look at the upper right corner of the window that opens for the “Search Box” and enter the word or phrase that you are looking for. Notice in the line below you have a number of options to limit your search to “All”, “E-mail”, “Document”, “Picture”, “Music”, and “Other”. There is also an “Advanced” selection that allows you to select a range of file dates, locations, names and authors. To close the Search Window you have to click on the red “X” in the top right corner.

You might also notice that when you Click on “Computer” (used to be “My Computer”) there a search box appears in the top right corner of the window. This feature is universal and appears whenever you open any folder window. It also appears when you click on the “Start” button (the “search line” appears in the menu directly above the Start button).

While I'm on the subject of the “Windows” key, the combination of “Windows key plus the “L” key locks your keyboard. Everything you are working on becomes hidden by the login screen and you need to enter your password to continue to use your computer. This feature may be convenient even if you're not trying to hide

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chaeology + computer + maps or GPS or 3D models or mtDNA etc.—to obtain updates on the topics I write about in the area of computer applications in archaeology.

The alerts, which I receive several times a week, provide links to news stories and thus tend to emphasize surprising research findings or announcements of odd theories:

The discovery could accelerate efforts to clone woolly mammoths and other extinct beasts

Device made for contractors helps archaeologists create first-ever digital blueprints

Topographical or historical details in Gospel of John may be accurate

Some weeks ago, I received an alert about the Antikythera Mechanism, which caught my eye because it referred to two of the places I was planning to visit in October.

The Archaeological Site of Kamiros

The Antikythera Mechanism is the world's first known 'computer.' It was developed at an academy founded by Posidonius at Kamiros on the Greek island of Rhodes. In the first century BCE, the mechanism was on board a ship, part of the treasure transported to Rome to support a triumphal parade staged by Julius Caesar. Unfortunately, the ship sank in a storm off the island of Antikythera. Since the device was found in the wreck in the early 20th century, it has been the subject of much debate - some scholarly, some not.

Various models of the mechanism have been constructed, based on fragments, now on display at the National Archaeological Museum in Athens (two of the fragments shown). CT scans of the pieces have revealed much about the interior GRAPHIC – 2nd model workings, and computer-enhanced, optical-imaging techniques were used to examine explanatory inscriptions on the many surfaces.

The mechanism has over 30 gears, the most amazing feature of which is the incorporation of a sophisticated system of differentials. Gearing of this complexity was not known to exist until 1575! The device determined the position of the sun and moon, and calculated other astronomical information such as the location of planets and the timing of eclipses. The possibility has even been raised that it was based on the concept of heliocentricity, rather than the then-dominant view espoused by Aristotle, that the Earth was the centre of the universe.

This ancient, and apparently lost, 'computer' technology is mentioned on various paranormal blogs to support the theory that alien beings (usually arriving from space in chariots of fire) passed on advanced technology - but departed without providing follow-up support, another concept years ahead of its time.

Or perhaps failure to form a user group caused the technology to be lost until the twentieth century.

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The Big DTV Transition

by Sister Dorothy Robinson, OSB, OMUG Newsletter Editor, The Olympia Microcomputer User Group, Washington

<http://www.oly mug.org>

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Obtained from APCUG with the author's permission for publication by APCUG member groups.

Computer users often speculate about how digital technology will affect us and our world. We are now entering the final stage of a rather large digital transition, that of digital television signals. Didn't know this transition was going on? You're not alone.

On February 16, The Olympian ran an Associated Press article on the digital television transition that is happening in the United States. The article said that in about a year, on February 17, 2009, all analog TV broadcasts will end in this country. If a TV does not have a digital tuner, or is not connected to cable or satellite or other paid services, it will need a digital converter box to receive and display digital signals. About 13 million households would be affected—those with older TVs (no digital tuner) or receiving signals only over the air as in the past. This is because analog tuners can't decode and display digital signals.

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your work from anyone. My son's cat seems to be fascinated by computer screens and anything blinking or moving on the screen. She frequently jumps up on the desk next to an unattended computer and walks across the keyboard to touch the screen with a paw or her nose. It's cute but sometimes I return to find a program has been suspended or the computer placed in "sleep" mode. For me, "Windows Lock" is protection from pets.

Do you use the Vista Sidebar? Some people love it, some don't. There have been complaints of people using the Notes Gadget to store web addresses and they've lost them. Other people have set up their home city in the Weather Gadget only to discover that the program reverts back to Redmond Washington. Gadgets are individual programs that store their own preference files on your hard drive. Anytime you close a "gadget", you lose all the data that you typed into it; addresses, locations, etc. So... either find a better place to store your information or don't click on a gadget's "X" button unless you really want to cease using the gadget.

Windows Vista has been out for a year now and there are rumors that Microsoft will release the long-awaited Service Pack 1 for downloading in March. If they do, I'm sure we'll see enough changes in Vista for another newsletter article.

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Vista Service Pack 1 What You Need to Know

by Sandy Berger, CompuKISS
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Obtained from APCUG with the author's permission for publication by APCUG member groups.

Microsoft recently released Service Pack 1 (SP1) for Windows Vista. A Service Pack is a rollup of updates, fixes and enhancements. Many techie advisors like to wait to install a new operating system until the first Service Pack is released because it means that the operating system has matured and gotten all the original bugs out.

Microsoft says that this Service Pack includes all updates that have been released since the debut of Vista in February 2007, plus additional improvements and better compatibility with some hardware and software. Two things that may be especially useful for Vista users is a purported speed improvement and native support for 802.11n, the latest wireless standard.

While you can surf over to the Microsoft website and download the Service Pack right now, you may not want to. Part of the reason for waiting is that some drivers, especially audio drivers are currently adversely affected by SP1. While this problem can usually be easily rectified by reinstalling the problem driver or changing default settings, most average users will not want to encounter these problems.

Microsoft realizes that there are some problems with the Service Pack and it is making some moves to make sure that this Service Pack is well received rather than a poke in the eye for Vista, which has already received quite a bit of bad publicity.

These moves include the fact that Microsoft won't begin the automatic rollout of the Service Pack via Windows Update until next month. Microsoft has also added some detection code to its update service that will block you from deployment of SP1 if your computer's drivers will be adversely affected. You will only be offered the update if your system can handle it.

So the best policy for most users is to just sit back, relax, and wait until the Microsoft Update offers you the SP1 download as part of their update process. If you have been doing automatic updates through Microsoft, you already have most of the important security updates, so there should be no rush to install Service Pack 1. However, some future software may require SP1, so you will want to install it at some point in time.

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Although some technology reviewers are singing praises for the Vista Service Pack, it is not completely without problems. A small amount of third party software is adversely affected by this Service Pack. It should be noted, that this is not unusual for a Service Pack, since it often makes changes to the core operating system. The list of software that has incompatibility or reduced functionality with SR1 is mostly obscure or old software, Yet, when it comes time to install this Service Pack, you might want to check the Microsoft list of incompatible software at <http://support.microsoft.com/kb/935796> .

As with any important update, you will want to properly prepare your computer before you start the installation. First, backup any important files. If you don't already have a backup system in place, click on the Start button and type in backup to start the Vista backup utility. Remember that the safest place to backup is to an external drive rather than to the internal hard drive.

Then, check your hard disk for errors. Double-click on the Computer icon on your desktop, right-click on the main hard drive icon, which is usually C: Select Properties, then, on the Tools tab, click Check Hard Disk for Errors. You may also want to check with your computer manufacturer or hardware vendor to see if you need any updated drivers for Service Pack 1.

Last, but not least, give yourself plenty of time for the update. It can take several hours. Luckily, in an effort to make this go smoothly for everyone, Microsoft is offering free support for the installation of Vista Service Pack 1. As far as I know, this is unprecedented. And it is very welcome. Email, chat support, and even phone support is free for problems related to the compatibility and installation of Service Pack 1 until March 18, 2009.

You can find these free support options and information at the Microsoft Vista Service Pack 1 Website. Be sure to save this address, just in case you need it. Although this free support is available to everyone, it is not being highly publicized.

<http://tinyurl.com/2q4xrk>

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Internet Security: iFrame Attacks

By Brian K. Lewis, Ph.D., Member and Contributing Columnist, Sarasota PCUG, Florida
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Obtained from APCUG with the author's permission for publication by APCUG member groups.

I'm sure that most of you reading the title of this article are asking "What is an iFrame?". Well, sit back, get comfortable and I'll tell you about the latest method hackers are using to steal information from you.

First the definition of an iFrame, which is shorthand for inline frame. That clears it up doesn't it? I guess I'd better add some more to that. An inline frame is code within a web page that permits a second page to be imbedded inside the first page. For example, they can be used to imbed an ad that is located on a different web site. One example is the clickable scrolling ad you frequently find on web sites. IFrames generally load after the main page and may sometimes have their own scroll bar. The iFrame may contain Javascript programming code which can permit interactive content. Some iFrames may be invisible and may contain code which can redirect the user to another page or download trojans or viruses.

Whenever your Internet browser sees an "iFrame tag" in the web page code it sets aside the space requested in the tag. It also goes out to the web page specified in the code to download the requested information.

So is this something new? I thought it was until I read a report in a tech newsletter (Windows Secrets) about an attack on the AskWoody web site. It turns out that iFrame attacks have been recorded since 2004. The first exploit implanted a worm on thousands of computers. The only thing that stopped it was a patch that Microsoft had to apply to Internet Explorer 6. In June 2007 over 10,000 pages were infected in Italy. In November 2007 Monster.com had to shut down as a result of an iFrame attack. Then, this year the AskWoody site had iFrame code added to its main web page. His research indicated that the code originated on a Russian web site, which subsequently disappeared. The code placed on the AskWoody web page linked to a web site in China and subsequently to the Russian web site. This was all done by a short length of code that setup a single, invisible pixel on the web page. The code was designed to load data from

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the Chinese web site. Anyone with an unpatched IE 6 that visited the AskWoody web site would probably have been infected. However, it was never determined just what was being delivered by the offshore web site.

The worst part of this scenario is that the owner of the AskWoody web site did not find out about the iFrame exploit until he started receiving messages from someone who advised him that their AVG Resident Shield said his site was infected. That was followed by Google advising him that his site was infected and down rating the site. Google also provided a warning to anyone attempting to link to AskWoody warning them that visiting the site might infect their computer.

The question becomes, how did the iFrame code become attached to the web page? The code pages on web sites are generally password protected. Access to these pages for the purpose of making changes is controlled by the web site host and the hosting software. However, there are several programs available which enable hackers to take advantage of holes in web site security. Some of these are described as “kiddie scripts”, indicating their ease of use. Others, such as Mpack, require a more sophisticated knowledge of programming. The problem is that thousands of respectable sites have been infected. The following are only a few that were reported in March 2008 by Dancho Danev's blog (a security information web site):

eHawaii Portal - ehawaii.gov - 992 pages
The World Clock - timeanddate.com - 944 pages
Boise State University - boisestate.edu - 471 pages
The U.S. Administration on Aging (AoA) - aoa.gov - 425 pages
Gustavus Adolphus College - gustavus.edu - 312 pages
Internet Archive - archive.org - 261 pages
Stanford Business School Alumni Association - gsbapps.stanford.edu - 157 pages
BushTorrent - bushtorrent.com - 147 pages
ChildCareExchange - ccie.com - 131 pages
The University of Vermont - uvm.edu - 120 pages
Hippodrome State Theatre - Gainesville, FL - thehipp.org – 112 pages
Minnesota State University Mankato - mnsu.edu - 94 pages
Medicare – medicare.gov – 12 pages

In many instances it appears that the hackers were able to “harvest” passwords which gave them access to these sites. Then, if the site did not have current input validation patches, the iFrame could be added to web pages. In some cases, home users may have been the source of the initial password theft. By use of a keylogger a hacker can obtain passwords to any protected site visited by the user. In other cases clicking on a banner ad that attracts you can result in the download of a bot, a trojan or other spyware. This is especially true if you are still running an unpatched Internet Explorer 6. It appears that Firefox is less vulnerable to these types of exploits. Also, clicking on an executable file in IE 6 generally results in running the file. In Firefox you are usually only given the option to download the file. Obviously you should never download or run any file that you don't know or don't recognize. This is especially true when the site tells you that you need some kind of add-on or special viewer to see the information you want. This the type of social engineering being used to tempt users into downloading spyware.

There is also a danger related to the firewall you are using on your computer. A keylogger or other trojan needs to be able to report “home” without the user being aware that information is being sent out. This is done by opening a “back door” to the Internet; an outgoing port in one the thousands on every computer. If your firewall doesn't check on all outgoing data and requests permission for new unknown activity, then you will not be able to block the trojans back door connection. So it is very important that your firewall check both incoming and outgoing data. Then, anytime your firewall requests permission for a program, one you don't recognize, to connect to the Internet, just say NO.

There is one other recognized method for obtaining the information needed to get into web page code. Hackers can purchase web site administrator information on the black market. One software application used to hack web sites, Mpack, sells for about \$1,000 US. The person behind this software is known as \$ash in the Russian underground. The software exploits six flaws in Windows and Internet Explorer. Thus for not a lot of money, hackers can obtain everything they need to exploit weaknesses in web pages.

As you can see, the iFrame attack is a real danger for those who surf the Internet. If you want to read more about these attacks, a Google search will provide you with tons of information. If you want to protect yourself from these

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attacks, your ability is limited. It is really up to your ISP and the web hosts to provide the security needed to prevent the web page intrusion of an iFrame. So what can a home user do? The following will help, but are no guarantee of protection.

Beware of pages that require software installation. Do not allow new software installation from your browser unless you absolutely trust both the Web page and the provider of the software.

Scan with an updated antivirus and anti-spyware software any program downloaded through the Internet. This includes any downloads from P2P networks, through the Web and any FTP server regardless of the source.

Use only a firewall that checks both incoming and outgoing data.

Beware of unexpected strange-looking emails, regardless of their sender.

Never open attachments or click on links contained in these email messages

Enable the "Automatic Update" feature in your Windows operating system and apply new updates as soon as they are available

Always have an antivirus real-time scan service. Monitor regularly that it is being updated and that the service is running.

OR another option would be to verify that the address is safe before going to it. You can do this by checking it at: <http://linkscanner.explabs.com/linkscanner/default.asp>

As you can see, for Windows users, the Internet is becoming more of a hazard to navigation. You, as a user, must always be cautious about clicking on links or accepting downloads. If in doubt, don't do it! If everyone practiced safe-surfing, it would be harder for the hackers to succeed.

Dr. Lewis is a former university and medical school professor of physiology. He has been working with personal computers for over thirty years; teaching, developing software and assembling systems. He can be reached at bwsail at yahoo.com.

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(The Big DTV Transition—continued from page 7)

analog tuners can't decode and display digital signals.

Options, said The Olympian, for continuing to receive TV signals after February 17, 2009 are to buy a digital converter box (\$40-50, according to this AP article), a new TV with a digital tuner, or get connected to a paid service. The federal government is offering \$40 coupons, up to two per household, good on the purchase of a converter box. You can now call 1-888-388-2009 or apply online at <http://www.dtv2009.gov>. There is also an option online to print out an application and mail it in. You may want to apply early.

<http://www.9wsyr.com> says "You will still need an over-the-air antenna in addition to the converter box to receive a digital signal on your analog television set. Your current antenna should work the same as before. Many major chains have been certified to sell the converter boxes, including Best Buy; Circuit City; Kmart; Sam's Club; Wal-Mart; Sears, Radio Shack and Target."

Best Buy, according to centredaily.com, "will stock an Insignia-branded analog-to-digital converter box exclusively, retailing at \$59.99."

PRNewswire.com states "Converter boxes at \$49.97 are on shelves now at Wal-Mart already."

According to radioshack.com, you can find a Zenith converter in stores for \$59.99. It is looking like the difference between the price of the converter box and the coupon will be \$10 and up.

The Olympian article said the reasons for the changeover are to allow for auctioning off excess airwaves (digital broadcasting is much more efficient so there will be an excess), for new wireless services, and "possibly" providing emergency air networks for disasters. Digital signals can also provide better picture definition—but that depends on whether high definition programs are being broadcast and on whether a TV is set up to receive high definition programs. Digital signals can support high-definition (HDTV) broadcasts—but is *not the same as* HDTV.

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From How Stuff Works, <http://electronics.howstuffworks.com/hdtv1.htm>, comes this information: "Some people believe that the United States is switching to HDTV—that all they'll need for HDTV is a new TV and that they'll automatically have HDTV when analog service ends. Unfortunately, none of this is true." If you want more information on how HDTV works, check this site at the link above.

The government website at <http://www.dtv.2009.gov> has this to say about the reasons for the changeover: "Digital broadcasting promises to provide a clearer picture and more programming options and will free up airwaves for use by emergency responders." It says nothing about auctioning off air wave spectrum or the intricacies of HDTV.

The Benton Foundation page at <http://www.benton.org/index.php?q=node/1257> has information on the background and time-line for DTV transition. It states:

"Digital television (DTV) is a new, more efficient technology for transmitting and receiving broadcast television signals. But DTV signals are not compatible with today's analog TV sets in most American homes. Under the Telecommunications Act of 1996, the amount of spectrum given to television station owners was doubled. The policy rationale for this was to enable the stations to transition US consumers to digital TV without interruption of analog broadcasts. But after ten years of digital TV broadcasts, only a small number of US households have made the switch to DTV, delaying the return of valuable spectrum that could be used by emergency officials and auctioned to offset federal deficit spending."

Included in benton.org's time-line called "Getting to February 2009: Implementing the Digital TV Transition," is this step:

"January 28, 2008 The FCC must conduct the auction of the licenses for recovered analog spectrum, commencing the bidding no later than this date, and is to deposit the proceeds of the auction in the US Treasury no later than June 30, 2008."

In other words, this is happening right now, if things are proceeding on schedule.

CNN.com's take on this topic in January of 2006:

(http://money.cnn.com/2006/01/04/technology/pluggedin_digitaltv/index.htm):

"Once TV stations switch to digital transmission, they will return to the government a big chunk of the radio spectrum they currently use to transmit their analog channels. Some of that spectrum will go to first responders—police, fire and public safety officials—so they can better communicate with one another. Breakdowns in emergency communication slowed the response to the September 11 terrorist attacks and Hurricane Katrina. New spectrum should help.

The rest of the spectrum will be auctioned off to the highest bidders—probably tech companies. The sale of this valuable, scarce real estate is expected to bring in about \$10 billion, maybe more. That will help reduce the federal budget deficit."

CNN also talked about the new technology and services that will likely be developed using this increased air availability, for example, cheap wireless broadband access virtually everywhere. Referring to an historical parallel, it states:

"Scheduled for 2008, the auction will be the biggest spectrum sale since a 1994-95 spectrum auction. That sale helped boost the mobile phone industry, boosting the number of cell phone subscribers in the U.S. from 24 million to 200 million. It also helped drive down the cost of wireless minutes from an average of 47 cents a minute to 9 cents a minute, according to analysis from financial services firm Stifel Nicolaus."

Whether we like it or not, the DTV revolution is on its way. The best we can do is prepare ourselves. For many of us, the \$10 or \$20 needed to buy a converter box is not a problem. Unfortunately, some people on fixed or low incomes will find it very difficult to get ready for the change. For them, the TV screen may go dark at midnight on February 17, 2009. :