

Interface

Lorain County Computer Users Group
www.LCCUG.com info@LCCUG.com
Volume 20 Number 9 September 2008



Inside This Issue

President's Letter	Pg 2
LCCUG Officers List	Pg 2
September Programs	Pg 3
Minutes	Pg 4
Tip of the Day	Pg 4
Treasurer's Report	Pg 4
Genealogy	Pg 5
Simple File Management	Pg 6
The New, The Best...Pg 7	
Back on Track	Pg 8
Need Help	Pg 9
Classes, Workshops & SIGs	Pg 10,11
Microsoft Digital Image Sig	Pg 11
Rootkits...	Pg 12
Speed Up Your Computer	Pg 14
Windows Performance Tweaks	Pg 16
Map	Pg 20



Tuesday, September 9, 2008

MAINTAINING YOUR PC

Revisited

by

Lou Koch

LCCUG VP-Program Director



Tuesday, September 23, 2008

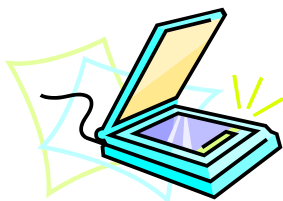
YOUR SCANNER

More Than A Copy Machine

by

Edie Lewandowski

LCCUG Membership Director



Computer Coffee Klatch

co-sponsored by the Lorain Public Library and LCCUG
Wednesday September 24, 2008 at 10 AM in the media room at the
Lorain Public Library

We ask that you register for this program by calling 244-1192 ext. 272.

Monthly Meetings Held At Gould Auditorium
2nd Floor, St. Joseph Community Center, Lorain, OH
5:30 PM Doors Open With Outer Lobby Q & A Sessions
6:45 PM Meeting & Presentation Begins

A Word From Our President



Many times you have heard about free open source software at our club meetings and in our newsletter. I'm sure you have heard Micky and Neil say at club meetings, "and how much is it? It's FREE!!!"

At recent meetings of LCCUG the subject of free eBooks has come up. I thought I would share some sources for finding free eBooks. A good many of the eBooks available now days are eBooks that can be read on the computer screen or downloaded to your portable device – even some cell phones. But my favorite kind of eBooks, audio books, are becoming more and more popular.

There are many advantages of reading a book on a computer screen or mobile device. You can enlarge the font, read with a backlight and other adjustments. With a mobile device (PDA or cell phone) you can easily carry a quantity of books with you in the smallest 'container'.

Amazon.com's eBook reader, the Kindle has gained a lot of popularity helping to spread the acceptance of reading on a small electronic device. You can carry as many as 200 books on a Kindle. You can download new books without even plugging the Kindle into a computer. The appeal has proven to be great!

Some of the eBooks available online are free because they are old enough to be out of copyright. Many of these are available in Project Gutenberg at <http://www.gutenberg.org>. There are over 25,000 books available through Project Gutenberg. You will find a link from this site to over 100,000 titles that are available at Project Gutenberg and their partners, affiliates and resources.

Other than books out of copyright there are also authors that release their book for free because it keeps in line with their personal philosophies.

Not all authors think this way but examples of this are the two successful authors Paul Coelho and Cory Doctorow.

Paul Coelho actually developed a website to give away his own works at first pretending he was a fan who was pirating his books but later admitting he was doing it himself. He reports that sales of his books have since increased and several actually moved onto the Best Seller list since he started giving them away.

LCCUG Officers For 2008

President	Sandee Ruth president@lccug.com
Vice President	Lou Koch vp_programs@lccug.com
Secretary	Don Hall secretary@lccug.com
Treasurer	Micky Knickman treasurer@lccug.com
Newsletter Editor	Pam Rihel newsletter@lccug.com
Web Page Editor	Kaye Coller webpage@lccug.com
Statutory Agent	Sandra Ruth statutory_agent@lccug.com
Director of Membership	Edie Lewandowski membership@lccug.com
Director of Advertising	Temporarily Filled by Peter Bateman
Director of Public Relations	Ken Ritchey public_relations@lccug.com
Director of Education	Open education@lccug.com
Hospitality Director	Keith Kuhn

You can find a discussion of this at <http://www.techdirt.com/articles/20080512/2006431095.shtml> or <http://tinyurl.com/6p276w>

His books can be downloaded here: <http://www.paulocoelho.com.br/engl>

In the meantime, Cory explains his theory on why he should give them away at that link. "Giving away eBooks gives me artistic, moral and commercial satisfaction... By making my books available for free pass-along, I make it easy for people who love them to help other people love them." His books continue to sell very well in spite of the fact that he gives them all away online.

Cory Doctorow books can be downloaded at <http://craphound.com/littlebrother/about/#freedownload>

I have a link to a list of resources for finding other
(Continued on page 4)

TUESDAY
September 9, 2008
Gould Auditorium

MAINTAINING YOUR PC Revisited

by *Lou Koch*



Is your PC slower than it used to be?

- Does it take longer to boot up?
- Does it crash or hang up more often?

This is very common as your computer ages. We have been adding programs and data to our systems for years and the newer software is more resource intensive; Windows has had many security updates, service packs and upgrades; and our hardware is showing some signs of age and obsolescence.

While we may never achieve as-new performance on an older machine, we can certainly strive to keep our computers operating at an acceptable level by investing a little time and effort in maintaining them.

In tonight's program we will discuss:

- causes of poor system performance
- how to make our PCs more efficient
- ways to identify and eliminate unnecessary programs and system processes

Many tools and much information that we need to maintain our PCs is already built into Windows and there are additional tools and utilities which are available as free-ware. In this program we will attempt to develop a systematic approach to using these tools regularly and effectively.

TUESDAY
September 23, 2008
Gould Auditorium

YOUR SCANNER **More Than A Copy Machine**

by *Edie Lewandowski*



Do you have a new computer and the old scanner doesn't work with it? Or do you have a scanner that you only use as a copy machine? Want to know more about using your scanner?

LCCUG Membership Director, Edie Lewandowski, will walk us through buying a scanner, installing your scanner and the various pieces of software that came with the scanner, and then using the scanner for a number of purposes.

Learn how to:

- scan from your image editing software using Twain.
- scan pictures to create digital graphic files
- scan text to create editable document files using the OCR software
- scan items for sending via fax
- and, finally, use the scanner as a copier

If time allows, she will finish with scanning negatives and slides, using your scanner to backup rebate requests, and other little scanner tidbits.

If you have any questions you would like covered in her presentation, contact her at 440-282-4188 or membership@lccug.com!

There will be time for questions to be answered at the end of the presentations.

Raffles will be held at both of these meetings.



Computer Coffee Klatch

co-sponsored by the Lorain Public Library and LCCUG
**Wednesday September 24, 2008 at 10 AM in the media room at the
Lorain Public Library**



Join us for coffee and an introduction to Interesting Websites. Get your questions answered in a friendly atmosphere. This meeting will be an informal gathering for those who want to learn more about computers the fun and easy way. Join us for an information gathering as we explore and demonstrate how to use a computer.

We ask that you register for this program by calling 244-1192 ext. 272.



Executive Board Meeting Minutes



General Meeting Minutes

NO Minutes For August Due To NO Meetings In August!

LCCUG Treasurer's Report

5/9	Beginning balance	\$ 8,722.74
	single memberships	\$ 505.00
	family memberships	\$ 37.50
	Amazon referral income	\$ 145.87
	raffle donations (incl. Acronis)	\$ (484.73)
	Newsletter expenses	\$ (1,245.91)
	Workshop Players tickets	\$ (800.00)
	Internet expenses	\$ (45.00)
	Gould Auditorium & storage rent	\$ (525.00)
	Misc membership expenses	\$ (26.00)
	2008 picnic expenses	\$ (216.91)
8/11	LCCUG Certificate of Deposit	\$ 5,187.03
8/11	General Fund balance	\$ 880.53

(Continued from page 2) President's Column

free books on line in the LCCUG blog: <http://lccug.blogspot.com>

Not only are we seeing books being made freely available online but music. New musicians will frequently give their music away on their websites trying to generate a following. But popular bands will also do this. Recently the Plain Dealer has an article that discussed musical artists who are giving away their music from on the Internet. The group Nine Inch Nails has most recently released their latest album this way: <http://tinyurl.com/6ghgl2>

Of course your Public Library is always a free source of traditional books, music CDs and movie DVDs .

Keep in mind that eMedia (eBooks, audio books, music and movies) are available to CLEVNET libraries at <http://dlc.clevnet.org/> Check it out!!

This story can be read online for easy following of the links at <http://lccug.com>

Sandee



pcM.D.

• **VIRUS REMOVAL** •
UPGRADES & REPAIRS
 • NEW / USED COMPUTERS / PARTS •
SERVICE ON ANY COMPUTER MAKE AND MODEL
CALL US WITH YOUR COMPUTER QUESTIONS!
FREE ESTIMATES!

440-365-2380

• **THIS DR. MAKES HOUSE CALLS** •
 405 Cleveland St., Elyria 44035
10% DISCOUNT TO LCCUG MEMBERS!

Smart Computing
In Plain English

Tip Of The Day: August 26, 2008

Universal Remotes

Nobody likes ripping up couch cushions or searching under the coffee table looking for one of the seven remotes he needs to watch a movie. Break out of this ritual by purchasing a universal remote control that lets you control all of your media with just one device. Generally speaking with a less-expensive universal remote, you can control from three to 10 or more audio and video devices, such as your CD player and DVR. In addition, you can execute basic functions and switch between controlling one device at a time and controlling all of them at once. Devices can be made from different manufacturers, as well. For example, a remote made by Philips could control your Samsung TV and your TiVo.

Universal remotes that are less than \$99 have many of the same functions as a regular remote, such as rewind, fast-forward, and record buttons. In addition, there are buttons assigned to each device controlled by the remote.

Reprinted with permission from Smart Computing.
 Visit <http://www.smartcomputing.com> to learn what Smart Computing can do for you and your user group!



Kaye Coller caseycatnip@gmail.com



Using Search Engines to Search For Ancestors

In an earlier article, I talked about using Google Alerts as a genealogy tool. You can sign up by going to Google. At the top you'll see a line of links. Click on more, then at the bottom of the dropdown list, click on **even more**. The **Alerts** choice is the first one. Enter a few words into the box indicating what topic you want to be alerted to. Google will search the web and send information to your mailbox.

I signed up for six surnames a long time ago. I would check out each alert without any results. But just last week (as of writing this column) I clicked on *Vandervort* and saw the names of my great great great grandparents, Barnet and Elizabeth Vandervort. I immediately went to the site, which turned out to be a blog, and emailed the blogger to see if these were indeed mine. I knew Barnet's wife's name was Elizabeth, but not her maiden name and I learned I had his mother's name wrong. I now know Elizabeth's parents' names and a whole lot more. The blogger lives in Atlanta and I doubt if we would ever have connected if not for computers. Why am I telling you all this? For one thing, it's important to use as many different research tools as you can. For another, you should never give up. And, I just had to share my excitement at learning more about my family! Isn't the Internet wonderful!!

This month I'm going to give you 3 more sites containing tools to use with Google: <http://tinyurl.com/afwcj> **Free Genealogy Search Help for Google**. This site helps you avoid getting overwhelming amounts of information that doesn't apply to you. It suggests ways to minimize the number of results. If you have surnames spelled the same as common words, like curl,

pond, waters, etc., this site will help you narrow your results. It does this by having you complete a small family tree for the ancestor you want to search for. The site will then set up the best searches for you based on what you entered.

<http://tinyurl.com/4rx55> Ancestor Search—Easy Google Genealogy Searcher

This one helps you search by using Google's advanced features on one page so you don't have to remember all the methods of limiting your search. For example, you can search for specific surname sites, newsgroups, images, and much more. Just put your term in the appropriate box and click. There are suggested keywords and advice for searching as well as explanations for each search box. You can research in another country even if you can't read the language. Copy the language you don't understand and paste it into the translate box.

Google translate text:

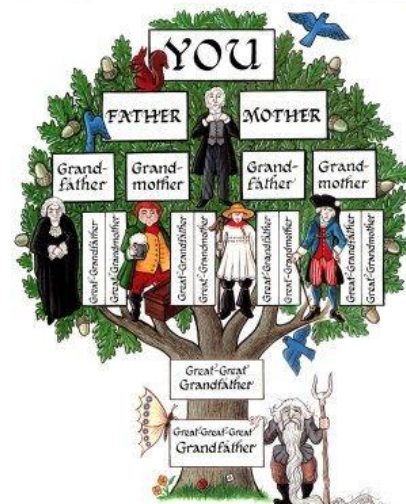
Translate a genealogy web page:

eXpertGenealogy WebSearch Wizard

<http://tinyurl.com/5oathh> eXpert Genealogy

This site is more complicated than the other 2. If you don't have success with those, perhaps this site will help you. For one thing, it has over 100 search buttons. You can try them all, but you only have to enter the first and surname once. It will be copied to the other searches. Not only does it search the "Visible Web" using Google, Yahoo, and MSN, but it searches web pages that are not indexed by those search engines. As I said, it's a bit complicated, but you might just have a breakthrough with it.

HAPPY
HUNTING!



Simple File Management Enhancements Are At The Top Of A Wish List For Windows 7



by Linda Gonse, Editor,
Orange County IBM PC Users' Group
www.orcopug.org
[editor\(at\)orcopug.org](mailto:editor(at)orcopug.org)

Besides the obvious - a stable system that performs fast, without vulnerabilities - I have thought of a few things I'd like to see integrated into the Windows 7 OS which may be released in 2009/2010.



When it comes right down to it, I don't care if I can use 10 fingers to Paint with or other iPhone-like multi-touch features, or if Internet Explorer can recall a previous browsing session. Simple file management enhancements are at the top of my wish list. I want to be able to print a list of my files and file information - a print directory feature. In the "old days" of DOS, you could do this. And now, you can use third party programs to accomplish this, but why isn't this already built-into Windows?

In Windows 3.11, there was a simple undelete feature. In later versions, the Recycle Bin gives you a chance to recover files you delete in haste or ignorance. But, what about files you deleted from the Recycle Bin? If you don't have a third party program installed, the files are really history.

Wouldn't it be great to have autofiltering in Windows Explorer? Clicking on the top tab in a folder allows you to sort by Size, Date Modified, Type, etc. - but you still have to scroll through all the files in a directory to get to the specific file you are looking for. If you could set an autofilter, such as Excel has, you could choose which extensions would be viewable, click on one, and only those files would be visible.

Windows 3.11 had the capability to only show certain types of files. This was closer to what I'd like, but it was a little involved to set it up and then be sure you reverted to the default file view afterward.

And, what about being able to flag a file and see the flag in Windows Explorer? Or, jot a post-it like note and attach it to a file?

DOS also allowed you to rename extensions on an entire directory of files. That would be a handy tool now.

What happened to the "quick view" inside of a word processing file in a directory? I want it back again.

A constant aggravation is the Open and Save As boxes in Windows and applications. Sometimes there is a miniscule box to view an entire directory in bitesizes. Why can't all the boxes be large ones? And, why can't they be modified permanently so you can always view them the way you like them, such as you do in Folders?

Another drawback to these windows is that despite file names that are not very long, to the right of the file name I have to slide the first two columns - Size and Type - closer, scrunching them together, so I can see the Date Modified tab in the same window. Sometimes you can scroll to see the Date Modified tab, but that is still not handy.

I have rearranged the headings to suit my need for selecting files by the most current. But, after closing and reopening an application, I have to modify the list again. Why can't my modifications be permanent? Also, I'd like to see these types of windows open up larger or have a resizing option to drag a corner border to make them larger.

Name	Size	Type	Date Modified
Kay_ Words of Wisdom.txt	2 KB	Text Document	1/9/2001 8:57 PM
Kay_ Twelve Thoughts to ...	5 KB	Text Document	1/18/2005 9:04 PM
Kay_ Confucius Joking.txt	3 KB	Text Document	2/20/2005 2:05 PM
JimSanders.txt	9 KB	Text Document	2/12/2008 1:28 PM
japanese footbridge.txt	1 KB	Text Document	6/26/2007 11:34 PM
How to ping.txt	1 KB	Text Document	9/21/2000 10:03 AM

Why do directories sometimes get scrambled? They aren't alphabetized or in any other order. Before I can open a file (not every time), I first have to click on the Name bar to alphabetize the directory. (Yes. There is a trick to closing a window to retain the order when it's reopened. Hold the Shift button down as you click on the "X" in the corner. But, you shouldn't have to do this.)

I'd also like to be able to format file names and related information in a directory. Maybe make some bold and orange, or some a bit smaller. Or, add stars or a ranking notation to files. The logical next step would be to set-up a sort function to be able to look for all items in a certain color or in 8 point type, or the file ranking.

Do you see the usefulness of these changes in sorting files? Modifying directory listings can be very helpful. It would allow users to see at a glance which items are important, or used most often, etc.

This is my short list. Have I mentioned anything on yours?

This article has been provided to APCUG by the author solely for publication by APCUG member groups. All other uses require the permission of the author (see e-mail address above).

The New, the Best, and the Worst



July - August 2008

Collected BY Pim Borman, Webmaster, SW Indiana PC Users Group

<http://swipcug.apcug.org>
[swipcug\(at\)gmail.com](mailto:swipcug(at)gmail.com)

Picasa web album

In June, I took a brief vacation with son Mike and cocker spaniel Bonnie, touring scenic central West Virginia. We visited the stark rock outcropping known as Seneca rocks, admired the amazing 110-meter steerable radio telescope at the green bank national radio astronomy observatory, and found carnivorous plants in their natural habitat in the cranberry glades botanic area. Together we took over 400 pictures along the way that we culled down to 60-some upon our return. It is often said that the secret of great photographers is that they take hundreds of pictures but save only the one or two best ones. Nobody ever mentions how hard it is to pick out those few winners!

I decided to try and upload the best pictures to one of the online free photo albums. I was already somewhat familiar with Flickr, but I decided to try the Google-Picasa web album instead. Picasa is an excellent simple photo editor and it gives direct access to the online web album. The album allows 1gb of storage, enough for some 4000 pictures, and you can get even more than that for a small fee.

Since I already had a Google email account, setting up the web album was easy, using the same user name and password. On the web site you can set up separate albums (folders, really) to store pictures in separate categories. I created a new album for my vacation pictures and prepared to upload them. After some trial and error I found it easiest to first assemble the captioned pictures in a Picasa album on my pc and then to upload them all at once to the web album. Once the pictures are uploaded you can add more or delete mistakes, move them around into the desired order, and add or change captions. By default, the photos are automatically converted to the optimum size for display on a computer screen, but there are options for larger (up to 20mb) or smaller file sizes.

Once the album has been installed it is ready to be shared with the rest of the world. You may choose to make your photos public, available to anyone, or keep them private, only accessible to those you share the URL with. The view album page shows large thumbnails of the photos. They can be viewed individually or as a slide show. The view map button brings up Google

maps where you can indicate where you took your pictures. The Organize and Edit captions buttons are self-explanatory. A new features link at the top of the page leads to the latest features added. It is now also possible to upload videos from Picasa to your web album. That might be preferable to using YouTube, unless you want the whole world to admire your movie.

The web album displays the URL of your album site either as the address itself or as a short paragraph of html code that you can insert on your web site. Either way, it is best to copy and paste the information since the URL tends to be lengthy and confusing. My vacation pictures are located at <http://picasaweb.google.com/swipcug/WestVirginiaVacationJune2008?authkey=kovCoYRBoaY>.

To do your correspondents a favor you should convert the URL with SNIPURL (<http://snipurl.com>) or TINYURL (<http://tinyurl.com>) to a simpler address, such as <http://snipurl.com/pimspix>. If you have never done that before, you'll find it easy to do. Just go to <http://snipurl.com> (or the TINYURL site) and paste the URL of your album in the box. Specify an easy-to-remember nickname (such as "Pimspix," but only available in SNIPURL) and "snip it!" the shortened URL (<http://snipurl.com/pimspix>) will be shown and also copied to your clipboard, ready to be pasted in your message.

Gathering CLOUDS

My experience with setting up a photo album "somewhere up there" is a typical example of the current trend towards "cloud" computing. Almost since the beginning of the world wide web we have been using online search engines that access indexed information stored "somewhere up there." many of us have changed from our pc-based email programs to online programs, such as Yahoo or Google Mail, that store our email correspondence on computers "somewhere up there." somewhere up there in the clouds, as it were.

The push is now to extend cloud computing to office suites. Instead of using expensive ms office we can choose to use Google docs and conduct all our administrative activities online, with the option of sharing our work with colleagues far away if necessary. Microsoft, always ready to recognize good ideas after others first thought of them, is moving versions of its office suite online under the "live" banner. Others are jostling to join the crowd.

If this trend continues and spreads to other computer activities, our operating systems, whether windows, Mac, or Linux, will become less and less important. The functions of the operating system will be taken over by browsers. To those of us using multiple operating systems, such as windows and Linux, we already find that

(Continued on page 8)

it makes no difference if we use Firefox in windows or Linux. Similarly, Picasa is Picasa and my new web album is the same no matter how I access it.

So far, that all sounds good. But gathering clouds threaten to bring rain. If everybody is going to use the Internet almost all the time, the current Internet infrastructure will not be able to keep up. There will be a need for millions of additional servers and drastically increased connection speeds.

The computer industry is aware of that. According to the Economist (May 24, 2008) Microsoft is building a new \$500 million data center near Chicago. It will require 3 electrical substations with a total capacity of almost 200 megawatts. Google is said to have 3 dozen data centers with an estimated million individual servers. More and more these extensive data centers are being built in out-of-the-way places near sources of low-cost power, even in Iceland with cheap geothermal power. With all this power consumption computers are becoming a major source of global warming.

To increase transmission speeds the industry is eying the airwave bands that will be freed up in February 2009 when analog TV will be phased out. There are so-called white spaces between the frequency bands assigned to TV broadcasts, and tech companies want to use those buffer zones for lightning-fast data transmissions. Initial tests show that it might wipe out nearby HDTV broadcasts, but they keep working at it. (Scientific American, June 2008)

The computer revolution has just begun!

This article has been provided to APCUG by the author solely for publication by APCUG member groups. All other uses require the permission of the author (see e-mail address above).

Back On Track

Add Pep To Your PC's
Fatigued Performance

SmartComputing[®]
In Plain English

Oct. 2008 issue

by Blaine Flamig



As humans, the responsibilities of daily life periodically wear us down physically and mentally, leaving us unenergetic, unmotivated, and unproductive. Often, some R&R is all it takes to refresh the mind and body and to get back on course. In this regard, computers aren't so different from us. Slowing down is exactly what a PC tends to do after a year or two of steady

use due to numerous factors, including dated, unnecessary files taking up valuable space; competing, resource-hogging programs; and underpowered hardware running demanding, modern software.

Detecting signs of PC fatigue isn't difficult. Windows takes noticeably longer to load. Applications, files, and Web pages take minutes instead of seconds to launch. The system momentarily or permanently freezes while executing even simple tasks. Video playback hiccups. Running multiple programs simultaneously brings the system to a dead stop. Combined, such slowdowns not only can cause maddening levels of frustration, but they also can hit productivity, which many users can't afford.



Using Windows Vista's Disk Cleanup tool to delete unnecessary files is one of the easier steps you can take to boost system performance.

Take solace. By giving your PC a new lease on computing, you can have it humming along like new in short order. SmartComputing articles are aimed at showing you how to do just this for Windows XP and Windows Vista PCs. In addition to quickening Windows' startup time (**"Speed Up Your Startup"**; SC page 48; Interface page 14), we've compiled instructions for tweaking Windows-based settings to add performance boosts in such areas as hard drives, memory, GUI (graphical user interface), and other components (see **"Windows Performance Tweaks"**; SC page 52; Interface page 16). You'll also find instructions for customizing Windows' look and feel to better match your needs (**"Customize Windows"**; SC page 56). Further, if you've kept your distance from the dreaded Windows Registry up to now for fear of missteps damaging the system, we've addressed these risks but also the merits of using third-party Registry cleaners designed to remove unneeded entries and

ROYAL
business equipment

365-2288 - Elyria1-800-238-8973 - USA

591 Cleveland Street Elyria, Ohio 44035

- * COMPUTER REPAIR
- * PRINTERS & SUPPLIES
- * UPGRADES
- * CUSTOM PC'S & LAPTOPS
- * CALL FOR BEST PRICES
- * EDUCATION DISCOUNTS
- * LCD MONITORS & TVS



Shop at **www.ROYALBUSINESS.com** and save \$\$\$

Financing Available - 90 days same as cash

protect settings.

Beyond the Registry, we've detailed how to upgrade a PC's RAM ("**Upgrade Your Memory**"; SC page 63), one of the best and easiest tasks for improving system performance. In addition to pinpointing the type and quantity of RAM your system can handle, we show you how to install it. Finally, in a nod to peripherals, we detail how and why adding a memory card reader and additional USB ports ("**Boost Your Connections**"; SC page 66) is worthwhile, and you may be surprised at how easy both projects are.

Why So Down?

As mentioned, numerous factors can negatively influence system performance. Among the more common reasons are files that Internet Explorer, Firefox, and other Web browsers accumulate over time. Additionally, many preinstalled and user-installed programs configure themselves to launch automatically at startup and run in the background, eating up valuable system resources. A hard drive that becomes fragmented, meanwhile, will gradually lengthen the time it takes to retrieve data, while malware will steal resources from legitimate programs.

Another common problem area is using PC components that lack the juice to efficiently run modern software, including Vista, thus taxing processor, memory, and graphics resources. Although a PC can limp by running Vista Home Basic edition with an 800MHz CPU, 512MB of RAM, a 20GB hard drive with 15GB free space, CD-ROM drive, and SVGA (Super Video Graphics Array; 800 x 600 pixel) monitor, this configuration won't cut it with premium Vista editions or running advanced Vista features, such as Vista's Aero interface. To run Home Premium, Business, and Ultimate editions, for example, Microsoft specifies a 1GHz or speedier CPU, 1GB RAM, 40GB hard drive with 15GB free space, and Internet access is needed. Additionally, graphics specifications call for DirectX 9 and Pixel Shader 2.0 support, 128MB or more graphics memory, and a WDDM (Windows Display Driver Model) driver.

The aforementioned articles address such issues and others with explanations on how to disable programs from launching at startup, using Disk Defragmenter to efficiently arrange data on hard drives, using Disk Cleanup to free hard drive space (including getting rid of those files that Web browsers generate), upgrading dated hardware, and using such features as Windows ReadyBoost to help Windows access files more quickly.

SEE-SPEED UP YOUR START-UP PG. 14
WINDOWS PERFORMANCE TWEAKS PG 16

See next issue for continuing articles mentioned in this article.

Reprinted with permission from Smart Computing. Visit <http://www.smartcomputing.com> to learn what Smart Computing can do for you and your user group!

NEED HELP?— Here's Who to Contact:

Neil Higgins

440-967-9061 - higgins.neil@gmail.com
Evenings 6 p.m. - 10 p.m. + Weekends
Hardware, Linux & Windows Operating Systems,
Tweaking your system

Micky Knickman

440-967-3118 - micky@knickman.com
Evenings 5 p.m. - 9 p.m. + Weekends
General Software Configuration, Hardware Installation,
Basic to Advanced Windows

Lou Koch

440-985-1585 - lkoch@centurytel.net
Microsoft Office: Excel, Word, PowerPoint, Publisher, Access, &
Outlook, Basic to Advanced Windows

Edie Lewandowski

440-282-4188 - elew@erienet.net
Daytime - midnight
Desktop Publishing, General File Management, Eudora Email,
MSWorks Tools,

Richard Barnett

440-365-9442 - Richard216@aol.com
Evenings & Weekends
General Software Configuration, Hardware Installation, Basic to
Advanced Windows & Web Page Design

Sandee Ruth

440-984-2692 - sandee29@gmail.com
6 p.m. - 10 p.m. except when at work
Basic Word Processing, Windows, & Web Design
Advanced Internet

Jeff Kasler

440-967-7142 - Jeffk@roadrunner.com
10 a.m. - 7 p.m.
Burning CDs using Record Now

David Kennett

440-327-8624 - w8kfj@yahoo.com
9 a.m. - 8 p.m.
Video Editing & DVD Burning

Cathy Ratcliff

therats1@verizon.net
Though she lives in Coshocton, you can call
740-327-1483 before 8 pm
Paint Shop Pro, other Photo Editing programs,
Microsoft Office programs

We have lost some of our members willing to take calls. If you would like to help us out, add your name to this list by contacting the Newsletter Editor newsletter@LCCUG.com

LCCUG ONGOING CLASSES AND WORKSHOPS

ALL ARE FREE AND OPEN TO THE PUBLIC

Microsoft Digital Image

Date: Continues in October

Time: 3:00 to 4:30 pm

Place: LCCC Learning Center
St. Joe's Com. Center, 21st & Broadway

Call Dina Ferish 366-4507 to register
Dial 0 if you can not get through on her number.

For Info contact Joe Harold - 440-967-5847 or
Jncharold@centurytel.net

Continues in October

Problem Solving Workshop

Date: Tuesday, September 16, 2008

Time: 5:30 - 8 pm **Instructor:** Micky Knickman, et al.

Place: Amherst Church of the Nazarene
210 Cooper Foster Park Rd., 44001

Learn how to repair or update your computer by changing hard drives, memory, CD ROMs, etc.

Members are encouraged to bring their computers anytime before 7:30 pm for assistance from Micky, Neil or other knowledgeable members.

Genealogy Class

Date: Tuesday, September 16, 2008

Time: 5 - 7 pm

Instructor: Pam Rihel

Place: LCCC Learning Center.
St. Joe's Com. Center, 21st & Broadway

Learn more about finding your ancestors with public records & online websites. How to start & sources to use.

You must register before the 15th,
Email: LadyGeneo@roadrunner.com
Phone: 440-277-6076

Ubuntu Linux

Date: Mondays (except Labor Day)

Time: 6:00 to 8:00 PM

Place: Amherst Church of the Nazarene
210 Cooper Foster Park Rd., 44001

Instructor: Neil Higgins

Learn all about using Ubuntu Linux Operating system
For Info Contact - higgins.neil@gmail.com

Digital Photos & Graphics SIG

Date: Monday, September 22, 2008

Place: Lorain Public Main Library - 6th & Reid Ave.

Time: 7 - 8:20 pm

Instructor: Sandee Ruth, president@lccug.com.

Check our blog for photo ideas in the meantime -
<http://lccugphotosig.blogspot.com/>

All Senior Center Classes

Date: Cancelled until further notice

Time:

Place: Lorain Senior Center
3360 Garfield Blvd

Instructor: Sandy Strong & Marie Green

Variety of classes for Seniors: Computer 1 & 2,
Keyboarding and Review

Cancelled until further notice



**Where Local Technology Information
Can Be Found 24/7**



**ERIENET
COMMUNICATIONS**

**LCCUG
Web Site
Provider**

www.erienet.net

Phone: (440) 960-5300

September 2008 Classes

Class Type	Location	Registration	September	Time	More Info
Classes / Workshops					
Problem Solving Micky Knickman	Amherst Church of the Nazarene 210 Cooper Foster Park	Not Required	Tuesday September 16, 2008	5:30 - 8 pm	Page 10
Linux Neil Higgins	Amherst Church of the Nazarene 210 Cooper Foster Park	Higgins.neil @gmail.com	Every Monday	6 - 8 pm	Page 10
Digital Imaging SIG Joe Harold	LCCC Learning Center St. Joe's Com. Center 21st & Broadway	440-967-5847 or Jncharold @centurytel.net	Continues in October		
Genealogy Class Online & Off Pam Rihel	LCCC Learning Center St. Joe's Com. Center 21st & Broadway	Reg. required LadyGeneo @ roadrunner.com	Tuesday Sept. 16, 2008	5 - 7 pm	Page 10
Digital Photos & Graphics SIG Sandee Ruth	Lorain Public Library 6th & Reid	440-244-1192 or 1-800-322-READ x272	Monday Sept. 22, 2008	7 - 8:20 pm	Page 10
All Sr Center Classes Sandy Strong Mavle Green	Lorain Senior Center 3360 Garfield Blvd.	440-288-4040	Cancelled Until further notice		

Microsoft Digital Imaging SIG

Like other LCCUG classes, this special interest group had been cancelled for the summer. Plans now are to resume this SIG in early October. Arrangements are yet to be made with the St. Joe's LCCC Learning Center for available and suitable times. Current expectations are to continue meeting on Monday from 3:00 to 4:30 PM, but reduced to one Monday each month. The actual meeting day each month and time of day will be announced in September.

The format for this SIG is for the people that attend to help each other to learn and experience using the advanced digital picture processing features that the Microsoft Digital Imaging 2006 software offers. Individuals are encouraged to bring their own personal project to the meeting to work on, to seek help for or to demonstrate what they have learned and accomplished. Working on and experiencing digital picture processing projects is

the main objective of this SIG.

Microsoft Digital Imaging 2006 software features include basic touchup, advanced picture editing and audio/video strip development for groups of digital photos. The detailed subjects are too numerous to include here.

Only a small few have shown interest in this SIG or this subject. We encourage others to feel free to attend even if you do not yet own digital picture processing software. See what the subject can do for you.

Don Hall has served as the initial mentor of this SIG. Joe Harrold will take his turn as the next mentor. Please contact Joe at (440)967-5847 or **jncharold@centurytel.net** if you have an interest or would be planning to attend this Microsoft Digital Imaging SIG when the exact day and time is announced in September.

Rootkits - A Continuing Security Problem



by Brian K. Lewis, Ph.D.,
Member of the Sarasota Personal Computer Users
Group, Inc., Florida www.spcug.org
bwsail@yahoo.com

By now I suspect everyone reading this article is familiar with most malware: viruses, botnets, Trojans, etc. These are becoming less of a problem because of the efforts of the security companies to provide software solutions. More and more users are also becoming aware of the need to have some means of protecting their computer. As a result, hackers are turning to a more effective method of controlling your computer – rootkits. Although these have been around more than ten years, like other malware, their numbers seem to be increasing.

Probably the most dangerous form of the rootkit is the "kernel mode Trojan". This is a program that inserts itself into the "kernel" of the operating system. The kernel is the central component of the operating system – its heart or brain to put it in more common terms. It manages the communication between the operating system, the hardware and the software applications.

Most viruses operate as applications and can be readily found in memory or in the file system. Rootkits, however, can hide themselves in such a way that it is very difficult to find them. In order for a rootkit to alter the normal execution path of the operating system, one of the techniques it may employ is "hooking". In modern operating systems, there are many places to hook because the system was designed to be flexible, extendable, and backward compatible. For example, a rootkit can "hook" itself into the Application Programming Interface (API) which allows it to intercept the system calls that other programs use to perform basic functions, like accessing files on the computer's hard drive. If an application tries to list the contents of a directory containing one of the root kit's files, the rootkit will censor its filename from the list. It'll do the same thing with the system registry and the list of running processes.

A rootkit is a collection of tools an intruder brings along to a victim computer after gaining initial access. A rootkit may contain network sniffers, log-cleaning scripts, key-loggers and trojaned replacements of core system utilities. Although the intruders still need to break into a victim system before they can install their rootkits, the ease-of-use and the amount of destruction they cause make rootkits a considerable threat. One main purpose of a rootkit is to allow the intruder to come back to the

compromised system later and access it without being detected. A rootkit makes this very easy by installing a remote-access backdoor. A rootkit can also allow the intruder to use the compromised computer as part of a botnet (see **Botnets, SPCUG Monitor, January, 2008**).

Another mechanism for hiding a rootkit is to add it to a system driver file. Windows XP and Vista store driver files in the System32/drivers folder. Many of these system files load early in the boot process. These files have boot or system flags in the registry and load before any of the malware-prevention software. That means they are very difficult to find. Although the file size for the driver will be increased, the rootkit may report the original file size to any query, not the infected file size. All of this means that once a rootkit has been

installed and activated on your computer, it is difficult to find by any of the usual malware prevention software.

Rootkits do not require large software applications to carry out their function. We are accustomed to commercial applications that are many megabytes in size. Even the anti-virus software may be 40-50 megabytes in size. In 2003 a rootkit was identified that required only 7

kilobytes for its cloaking routine and 27 kilobytes for maintaining the open backdoor.

Anti-malware programs depend on two main means of identifying malware. One is the signature method and the other is heuristics. The signature method requires that the malware be identified and reverse engineered to determine a code sequence which can be used to identify the application in the wild. This code sequence is referred to as the signature and is used by the anti-virus database. This signature is then compared to code sequences in applications to determine if they are malware. This method is of no value when dealing with new or unreported malware.

So the next option is heuristic signatures. Their primary advantage lies in their ability to identify new, previously unidentified malware. The heuristics technique assumes that malware will display certain characteristics or attributes. They also attempt to recognize deviations in "normal" system patterns or behaviors. Using these predicted patterns, the anti-malware application will attempt to determine if the target application is malware. This has been a successful approach for identifying viruses, but it is less successful for active rootkits.

The April 2008 Virus Bulletin (www.virusbtn.com) reported the results of testing a number of popular commercial A-V programs, Internet security suites, web-based scanners and specialized anti-rootkit tools. The testing involved 30 known rootkits. The testing catego-



ries were detection of: (1) inactive rootkits; (2) active rootkits; and (3) malware hidden by rootkits. Then they tested removal of (1) inactive rootkits; (2) malware hidden by rootkits; and (3) active rootkits. The results were not encouraging.

The seven Internet Security Suites used in the test were able to detect 95% of the inactive rootkits. (Remember, these were known samples that had already been identified and their signatures incorporated into the anti-malware applications.) These suites were also able to remove 95% of the inactive rootkits. However, when it came to active rootkits the story was very different. The Internet Security Suites detected only 65% of the active rootkits and were able to remove only 48%. They also were able to remove only 48% of the hidden malware. All of the versions of the Internet Security Suites were the latest available at the time of the test.

There were fourteen specialized anti-rootkit tools tested using the same thirty rootkits. They were not tested against the inactive rootkits, only the active rootkits and the hidden malware. Again, the results were anything but satisfying. These tools detected 83% of the active rootkits and 80% of the hidden malware. The anti-rootkit tools removed only 60% of the active rootkits and 67% of the hidden malware.

The web-based scanners did a far poorer job of identification of the rootkits. They also were uniformly unsuccessful in removing rootkits. The detection rate was 53% and the removal was around 32%.

In reviewing these tests it is obvious that successful detection and removal of rootkits depends on their being inactivated. This can be done by running the computer in "SAFE" mode which does not allow the rootkit to load from the hard drive. However, it would be expected that if detection/removal tools were developed for this specific purpose, then rootkits would appear that would load in "SAFE" mode. Another alternative would be to develop rootkit scanning software that would run from a CD. The computer would boot from the CD and the operating system for the scan would load from the CD. This should improve the detection and removal rates considerably. However, it then depends on the user running the CD application periodically to scan the entire computer. Considering how few users backup their hard drives on a regular basis, this CD system might be less than universally successful.

Given the current difficulty of detecting and removing rootkits from your computer, what is a user to do for protection? The only answer to this is to prevent the rootkit from getting access to your computer. That means using every tool you have available to prevent the malware from gaining access to your system. Your firewall is the first line of defense, followed by your anti-virus, then your anti-spyware. Also, when you are surfing the web, make sure you aren't your own worst en-

emy. Be careful and check out links before you click on them. It's just like getting spam in your e-mail. Check where the link will take you before you click on it. Social engineering techniques are also used to propagate everything from viruses to rootkits. These are techniques that encourage the user to take some action which allows the malware to be downloaded and installed on the user's computer. A very interesting analysis on these techniques is contained in this article from the University of Cambridge (U.K.); <http://www.cl.cam.ac.uk/techreports/UCAM-CL-TR-666.pdf>. Although this is written specifically about virus propagation, similar techniques are used to gain entry for rootkits. This paper illustrates many of the "carrot & stick" methods used by malware to gain access to computer systems. Microsoft has also published a paper detailing many of the common methods used to trick users into installing malware. These can be found in the paper "Behavioral Modeling of Social Engineering-Based Malicious Software" on the Microsoft web site.

So to all of you reading this paper, I would suggest that "caution is the watchword" when it comes to using your computer. I'm afraid that the situation will only get worse when it comes to new forms of malware.

Update Note: In my article on iFrame attacks (**SPCUG Monitor, May 2008**), I listed a number of portals that had been affected by iFrame attacks. One of these was the **eHawaii.gov** portal. I have received information from the site manager that the problem has been corrected (removal of the iFrame) and actually only affected one page on their site. Thanks to Russell Castagnaro for correcting this problem and notifying me.

Dr. Lewis is a former university and medical school professor of physiology. He has been working with personal computers for over thirty years, developing software and assembling systems.

This article has been provided to APCUG by the author solely for publication by APCUG member groups. All other uses require the permission of the author (see e-mail address above).



Special Thanks

to those at the Murray Ridge Production Center in Lorain, a worksite of the Lorain County Board of Mental Retardation, for collating, folding, and stapling our newsletter. If any other organizations or businesses would like to acquire their help, contact them at (440) 284-2720 or www.mrpcinc.com.

Speed Up Your Startup

The Slow Road To A Fast Boot

Smart Computing
In Plain English

Oct. 2008 issue

by Tessa Breneman

Starting your computer is a relatively easy task. All you have to do is find the power button, push it, and voilà! Your computer wakes up and kicks in to gear.



Clearly, there is much more to this process on your PC's end. And as your computer gets older, that process seems to get longer. Though it may seem like you don't

have much of a hand in getting your computer up and running, you can control more of the startup process than you might think. By understanding what happens after the power button is pushed and knowing how to tweak the process, you can make changes to help your PC start quicker than it has in quite awhile.

The Bootup

Your PC's startup process is initiated by the **BIOS (Basic Input/ Output System)**, which is software located on your motherboard that provides a basic set of instructions for loading the operating system. The BIOS runs the **POST (Power On Self Test)**, which checks your computer's hardware and alerts you if the components are damaged or missing. If all goes well during the POST, your computer may beep once. If problems occur, the BIOS will prompt an on-screen error code, and you will likely hear more than one beep (depending on the error). As the POST runs, your screen will usually show the name of your PC's manufacturer and a progress bar at the bottom.

Next, the BIOS will search for the boot device, which is a hardware component used to start the operating system, such as the hard drive or an optical drive (if booting from a disc). Then, it starts the OS (operating system). Once Windows is started, it begins to load Windows services, which are executable programs that run applications in the background, such as Windows Update. After Windows services are launched, the programs configured to begin at startup are initiated, such as instant messenger programs and



The System Configuration utility is where you will find a list of the programs that launch when Windows starts.

backup software.

Next, programs in the prefetch cache are loaded. The **prefetch cache** stores information about recently used programs and loads these programs into the system

memory. Windows loads (but doesn't launch) those programs before it finishes the boot process in order to reduce the program launch times. In the final step of the boot process, Windows loads the Desktop.

Solve A Sluggish Startup

The longer you've had your computer, the more programs you have likely downloaded; therefore, more programs launch during the startup process. These programs include antivirus and antispyware software and other programs that run in the background, such as system backup software and instant messenger programs.

If you have upgraded from WinXP to Vista, you might have noticed that there are changes to the amount of time it takes to boot your system. When Microsoft released Vista, it made significant improvements to the overall startup speed by changing the way applications start.

Compared to older versions of Windows, Vista doesn't have to wait for certain programs to load before getting the Desktop up and running. Rather than waiting for these programs to boot, Vista runs them in the background and focuses its attention on booting the Desktop as quickly as possible. This doesn't necessarily mean your startup will be blistering fast from the time you purchase your computer until the day you upgrade, however. Here are some ways you can speed up your startup, whether you're running Vista or WinXP.

Eliminate programs that run at startup.

You can lessen the amount of time it takes to boot Windows by trimming the number of programs that are launched during the startup process.



In this example, the mouse pointer is pointing to the button you want to click in the Windows Vista Start menu in order to put your computer in Sleep mode.

In WinXP, open the Start menu, click Run, and then type **msconfig**. Click OK. This opens the System Configuration Utility. Click the Startup tab, and you will find a list of all the programs that start when Windows is launched. Scan the list and deselect the checkboxes next to the programs you don't need when WinXP is started. If you are unsure what the program is as listed under Startup Item, you can expand the width of the Command column to get a better idea of what the program is and where it's located. Click Apply and OK after making any changes and then restart your computer for the changes

to go into effect.

While you might not have to wait for some programs to load before you can navigate your Desktop in Vista, some programs, such as instant messenger software, will pop up once they've been launched. To reduce the number of programs that run at startup, open the Start

menu and then type **msconfig** into the Start Search box and press ENTER. This will bring up the System Configuration window. Click the Startup tab to see the list of all the programs that are launched when your computer boots. Deselect the checkboxes next to the programs you do not want to launch during the Startup process. Click Apply and OK.

Change the power settings. By changing the power settings, you can boot your computer more quickly, because you won't be completely shutting it down.

Two time-savers for WinXP include system Standby and system Hibernate. System Standby will turn off your monitor and hard drive to conserve energy. When you return to your computer, all you have to do is move your mouse around or press any key on your keyboard. This is a good option if you are going to be away from your computer for just a few minutes or hours, because Standby mode will not save your work. If the power to the PC would be cut, work that had not been saved would be lost.

Using system Hibernate is a good option if you are leaving your computer for long periods of time. When Windows goes into hibernation mode, it saves all work so that you can pick up where you left off when you return.

To put your PC in Standby mode, open the Start menu and click Shut Down. This will prompt a dialog box with the question, "What do you want the computer to do?" Select Stand By from the drop-down menu and then click OK.

Hibernate mode is controlled by your computer's display settings. To access and change these settings, click Start and then open the Control Panel. Click Appearance And Themes, select Display, and then choose the Screen Saver tab. Click the Power button to open Power Options Properties. Under the Hibernate tab, select the checkbox next to Enable Hibernation. Click Apply and OK.

You can control when your computer automatically goes into both Standby and Hibernate modes under the Power Schemes tab in the Power Options Properties dialog box. At the bottom of the tab are drop-down menus that manage how much time should pass before your computer will automatically go into Standby mode, Hibernate mode, or both.

Vista offers Sleep mode, which combines the benefits of both Stand-by and Hibernate modes. Sleep mode will save the work you've done in all of your open documents, and your Desktop will look the same as when you left. For example, windows and programs you had

open will remain open. It will shut down everything except a few important components of your computer, which conserves power, and you can reboot in just seconds

To enter Sleep mode, open your Start menu and click the button to the left of the Lock icon (bearing the power sign). Click this button and then your computer will instantly go into Sleep mode. To restart your computer, just press the hardware power button, move your mouse, or press a key on the keyboard. Within seconds, your computer is restored to look just as you left it.

Turn off the Windows splash screen. You can side-step the Windows splash screen (the screen that appears right before the Desktop), which will shave a few seconds off your startup time. This will also eliminate the startup blue screen that displays any errors. So, by avoiding the splash screen, you won't be able to view any error messages that may appear.

To do this in Vista, first press the Windows Logo key and the *R* key simultaneously so the Run box appears. Type **msconfig -2** into the space provided and then click OK. Next, place a check mark in the No GUI Boot checkbox. Click Apply and OK. In WinXP, click Start, select Run, type **msconfig**, and click OK. Select the BOOT.INI tab and place a check mark in the / NOGUIBOOT check-box. Click Apply and OK.

Use automatic logon. If you have only one user account set up on your system, you can configure your computer to skip the logon process. To set up automatic logon in WinXP, open the Start menu and then select Run. Type **control userpasswords2** and click OK. In Vista, open the Start menu and type **control userpasswords2** into the Start Search box and press ENTER. Deselect the Users Must Enter A User Name And Password To Use This Computer checkbox. Click OK. Next, enter and confirm your password in the Automatically Log On window that appears. Click OK.

Upgrade hardware. Your computer hardware could be what's slowing down startup speeds. RAM is the first piece of hardware to look at replacing because it's relatively inexpensive and easier to install than other hardware components that affect the startup. RAM affects the startup process because each program has a certain amount of memory it uses. When you increase the amount of memory, more programs can run simultaneously. WinXP users should have at least 1GB of RAM, while Vista users should have 2GB.

A hard drive is also a factor in startup speeds because this is where all programs are stored and launched from. The faster your

(Continued on page 16)



In Windows XP, select the checkbox labeled / NOGUIBOOT in order to disable the splash screen and shave a few seconds off your Windows startup time.



The Hibernate settings for WinXP are located in Power Options Properties.

hard drive operates, the quicker your programs will launch. If you upgrade your hard drive, try to find one that spins at 7,200rpm and avoid the older 5,400rpm models.

Finally, your CPU will affect the startup time, because it executes the programs being launched by the hard drive and RAM. If your CPU is outdated, it's probably best to buy a new PC rather than go through the expense and hassle of purchasing a new CPU. When you go to purchase a computer or a new CPU, consider purchasing a dual-core processor, such as the Intel Core 2 Duo processor, so that your PC can run more programs at the same time.

Clean up your hard drive. When you organize the shelves and closets in your home, it makes it easier to find items and get things done, because you aren't wasting time shuffling through the items you don't need. The same thing happens when you defragment your hard drive. When your computer defragments its hard drive, it can read files and perform tasks with greater ease, including the startup process.

To run the Windows Disk Defragmenter in WinXP, click Start, All Programs, Accessories, System Tools, and then select Disk Defragmenter. In Vista, follow the same steps until the last step and then click Defragment Now.

Unclog the prefetch cache. When you have used Windows for quite a while, your prefetch gets clogged with applications that have been tagged as recently used programs, even if you rarely use them. To unclog the prefetch cache, begin by clearing it. Open the drive on which Windows is installed (usually the C: drive) and then select the Windows folder. Find the Prefetch folder and then delete all of the programs in it. Once this is done, the next reboot will be slow because Windows needs to read the new configurations, but the boots that follow will be much faster.



To unclog your prefetch cache, erase all of the files located in the Prefetch folder.

computer from falling into the slow startup routine. It'll save you time and help keep your frustrations at bay.

Reprinted with permission from Smart Computing. Visit <http://www.smartcomputing.com> to learn what Smart Computing can do for you and your user group!

I will continue with the other pages listed in this article in next months Interface. They are: Customize Windows, & Boost your Connections.
Pam Rihel, Editor

Windows Performance Tweaks

Smart Computing
In Plain English

Tips For Operating At Top Efficiency

by Nathan Lake (Oct. 2008 issue)

A lot of things in life need a little modification to function at peak performance. Like tuning your car's engine or rearranging the work spaces in your home, you can tweak Windows to increase PC efficiency and improve your productivity. Besides boosting performance, optimizing your OS (operating system) ensures the PC's hardware is running at its full potential, which can also help extend the life of PCs with older components. We'll cover ways you can tune up both Windows XP and Windows Vista for maximum efficiency.



Performance Diagnostics

When you're fine-tuning Windows, immediate results are not always self-evident. Fortunately, both WinXP and Vista include performance monitoring tools to let you see if the adjustments are having a real impact. In WinXP, simultaneously press CTRL-ALT-DELETE on your

keyboard and select Task Manager. Click the Performance tab to view graphs of your PC's memory usage. The CPU Usage graph shows you how much of your computer's RAM is being used at one time, and the Page File Usage graph indicates how much space is taken up on the hard drive when your PC requires more memory than the available RAM on your computer. Minimize the dialog box, run a demanding application, and then bring up Task Manager again. To set a baseline for your PC's memory performance, note the numbers generated by the application. As you tweak WinXP, you can take the same steps to see if the changes are improving your PC's memory usage.

In Windows Vista, you'll find a host of other charts to determine the processes that consume resources on your computer. Press CTRL-ALT-DELETE, select Start Task Manager, choose the Performance tab, and click the Resource Monitor button. At the Resource Monitor dialog box, you'll see tabs for CPU, Disk, Network, and Memory resources. Above the tabs, there are graphs for each listing, and if you click one of the tabs, you can view details about each of the processes running in Vista. Minimize the Resource Monitor, run a few demanding applications, and note the activity levels before you fine-tune the OS. When you make changes, rerun the same applications and see how effectively the alterations affect your PC. If the change in your PC's performance is minimal, you may want to add any lost functionality back to the OS.

Sweep Out Your Hard Drive

To run Disk Cleanup in WinXP or Vista, click the Start button, select All Programs, choose Accessories, select System Tools, and click Disk Cleanup. In Vista, you'll need to select a specific drive for Windows to scan. When you run the utility in WinXP, it will simply search the drive where Windows is installed. Note that if you want to use Disk Cleanup in WinXP on another drive, such as a portable hard drive, press the Windows logo and *E* keys simultaneously, right-click the drive you want to scan, select Properties, and click the Disk Cleanup button.

Regularly defragmenting a hard drive is also a good way to ensure peak performance. In Vista, the Disk



access.

Unlike Vista, WinXP does not schedule defragmentation, but you can use the Schedule Tasks utility to automate the process. To do so, click Start, select All Programs, choose Accessories, select System Tools, and click Scheduled Tasks. Double-click the Add Scheduled Task icon, click Next, and then click Browse. Select the drive where Windows is installed (likely the C: drive)

The interfaces of WinXP and Vista are certainly more visually appealing than the primarily grayscale design found on Windows 98 and Windows 2000. However, the greater graphics appeal also requires more of your PC's system resources—particularly true if you use Vista's stylish Aero interface. Reducing the visual effects in WinXP and Vista is one of the easiest ways to speed up your PC, because Windows will dedicate less computing power to its interface graphics.

By default, both OSes are set to the Let Windows Choose What's Best For My Computer option, but you can boost your PC's performance by selecting the Adjust For Best Performance radio button. Note that in Vista, the Best Performance settings turn off some features of the OS, such as the Tasks pane. Therefore, selecting the Custom radio button and choosing among the features you want may provide you a better balance between performance and appearance. Once you've made your choices, click the Apply button.

When you start an application, its files are copied into your computer's RAM, which is the quickest way for the PC to access the data. However, the RAM may not always have enough space for the application's needs, so Windows will allocate a portion of the hard drive as virtual memory—called a **page file**.

To access the page file settings in WinXP, right-click My Computer, click Properties, select the Advanced

Volume 20 Issue 9 | Page 17



Choosing the best time and day for Disk Defragmenter to run in Vista will help ensure the files on your hard drive are organized for fastest access

tab, and click the Settings button under the Performance heading. Choose the Advanced tab, select the Change button under the Virtual Memory heading, choose the drive where you want to create a paging file, and click the System Managed Size radio button. If you'd prefer to set the page file size, Microsoft recommends that the size of the paging file is one and a half to three times the

amount of RAM on your computer. Repeat the process for any other drives on your PC.

In Vista, click Start, right-click Computer, and choose Properties. Select Advanced System Settings from the left-hand pane and click the Settings button under the Performance heading. Select the Advanced tab and click the Change button under the Virtual Memory heading. Click the Automatically Manage Paging File Size For All Drives and click OK. You'll need to restart your PC before the OS applies the page file alterations.

Ready, Set, Boost!

One of the most highly touted features in Vista is ReadyBoost, which lets you connect flash memory to your PC, such as a USB flash drive, to improve OS performance. In much the same way as Windows uses the page file, ReadyBoost lets Vista use a portion of the flash memory to quickly access data that cannot be stored in your system memory. The advantage of using ReadyBoost vs. using virtual memory on a hard drive is that the OS can access the flash memory faster than a hard drive—resulting in comparatively quicker system performance. Additionally, ReadyBoost can use Vista's SuperFetch technology, which stores data about your usage patterns, to improve PC response times for the tasks you regularly perform.

Setting up ReadyBoost is easy. After you insert a flash memory device that supports ReadyBoost, click the Speed Up My System option from the Auto-Play dialog box. At the ReadyBoost tab, click the Use This Device radio button. You can also allocate how much storage Vista will reserve on the drive for ReadyBoost. Click Start, select Computer, right-click the drive, and choose the ReadyBoost tab. Under Space Reserved For System Speed, enter the amount of space Vista can use on your drive. The hardest part of using ReadyBoost is finding a flash memory device that's compatible with the Vista-specific feature. It must support a minimum of 2.5MBps (megabytes per second) for reads and 1.75MBps for writes. Typically, the device's packaging will also list if it supports ReadyBoost. For instance, the M-Flyer Pilot (\$54.99; www.memorex.com) from Memorex is ReadyBoost-compatible, includes 2GB of memory, and features a retractable USB connector.

DMA Tests

If your IDE (Integrated Drive Electronics) drive seems to run slower than it used to, it's not necessarily a sign of drive failure. IDE-based hard drives and optical drives can occasionally switch, without warning, from DMA (direct memory access) mode to the slower PIO (Programmed Input/Output) mode. To check the IDE mode in WinXP, click the Start button, select Control Panel, and double-click System. Select the Hardware tab, click Device Manager, and double-click IDE ATA/ATAPI Controllers. Next, double-click the Primary IDE Channel and choose the Advanced Settings tab. In the Transfer Mode drop-down menu, the field should list DMA If Available, rather than PIO Only. The Advanced



The Resource Monitor in Windows Vista lets you observe the use of system resources; it's ideal for seeing if tweaks are improving performance.

Setting tab will indicate if your hardware does not support DMA mode.

In Vista, click the Start button, click Control Panel, choose System And Maintenance, and select View Hardware And Devices under Device Manager. Double-click the IDE ATA/ATAPI Controllers and ATA Channel 0. Under the Advanced Settings tab, make certain the Enable DMA checkbox is selected. Repeat these steps for the other ATA channels. Note that you may need to reboot before the changes take effect.

A Core Problem

Multiple processor cores are all the rage, but some apps may not be designed to work with multicore CPUs and may operate slowly or not at all with multiple processor streams. In Vista, you can force the application to use only one of the processor cores. To do so, press CTRL-ALT-DELETE and click Start Task Manager. Select the Application tab, right-click the application that seems slow (or isn't working), and choose Go To Process. Select the entry in the Image Name column, right-click it, and choose Set Affinity. At the Processor Affinity dialog box, remove the check mark from all but one of the CPU checkboxes and click OK. Run the application to see if it is more responsive.

Update Windows

Think of Windows as a work in progress. Patches, hotfixes, and service packs often fix bugs and performance issues within the OS, so it's a good idea to enable Automatic Updates or visit the Windows Update Web site (update.microsoft.com) for the newest patches. If you haven't ever updated your OS, you should at least install the service packs, which address the most pressing stability and vulnerability issues.

To enable automatic updates in WinXP, right-click My Computer, select Properties, choose the Automatic Updates tab, and click the Automatic (Recommended) radio button. In Vista, click the Start button, select Control Panel, choose System And Maintenance, and click

Windows Update. Next, select the Change Settings link in the left-hand pane and click the Install Updates Automatically (Recommended) radio button.

Performance Enhancers

Once you've tried a few of these performance-enhancing tips, use your PC for a while to see if it's more responsive. Depending on the hardware (and its relative weaknesses) in your system, some performance changes may seem to make no impact at all, while the benefits will be readily apparent for others. The tools built into Windows Task Manager can also help you measure the impact of your tweaks. As time progresses, you may find that some adjustments, such as reducing the visual effects, aren't worth the performance gains, and continued tweaking is necessary.

Eliminate Malware Slowdowns

There are many types of malware, but nearly all types will slow down your PC as they run and attempt to perform their nefarious tasks. Removing malware that's stealing your system resources can significantly speed up your PC. Both Windows XP and Windows Vista can use Windows Defender, a program that's designed to detect and eliminate spyware (software that secretly monitors your computing activities to steal personal information about you) from your PC. To access Windows Defender in Vista, click Start, select Control Panel, choose Security, and click Windows Defender. To use Windows Defender in WinXP, you'll need to download Windows Defender from Microsoft's Web site (www.microsoft.com). Once Windows Defender is downloaded and installed, click Start, choose All Programs, and select Windows Defender.

Although Windows integrates an antispyware utility, you'll also want to scan your PC for viruses, adware (software that delivers ads when you surf the Web), and other types of malware. Most security software publishers offer suites that protect your PC from all of the above, and most also include firewall and pop-blocker functionality to proactively protect your computer. In general, you'll need a single suite or a set of utilities that cover antivirus, antispyware, adware blocking, pop-up blocker, and firewall protection. By attempting to block the malware before it reaches your PC and using antivirus and antispyware tools to locate and remove the sneakier perpetrators, you can ensure the PC's performance isn't being brought down by unseen software.

Cleaning House

If you've ever had to boot Windows from a disc after your system crashed, or you had some other issue that required you to reinstall Windows, then you probably also had to tweak the BIOS (Basic Input/Output System) settings to allow you to boot from a disc. Now, when you boot your computer, you get the "Press Any

Key To Boot From CD" message. While this only adds a few seconds to the startup process, it can still be annoying. And, if you do press a key while the message is displayed (and if you don't have an installation disc in the drive), you could receive an error message, or the process will start over from the beginning.

To disable this message, you will need to access your PC's BIOS. Restart your computer and look for a startup message that prompts you to press a specific key (such as F12 or DELETE) to access the PC's BIOS settings. Pay close attention, because this message might only be up for one or two seconds. Press the specified key to open the menu for the BIOS. From here, you typically will only be able to navigate using the keyboard and not your mouse.

Look for keywords such as "Boot Sequence" or "Startup" to guide you to a list that specifies the order that the BIOS checks devices when searching for the operating system. To disable the "Press Any Key To Boot From CD" message, modify the setting to put the CD-ROM drive anywhere after the first entry. Directions on how to perform this task are at the bottom of the screen

Introducing Instant-On

The times are always changing on the technology front, and some new technologies are creating computer startup times that take just seconds rather than minutes. Phoenix Technologies is leading the way with its HyperSpace technology. HyperSpace runs side-by-side with your operating system, and it creates an environment that will allow you access to certain "lifestyle applications," such as your Web browser or instant messenger service, while also allowing you to perform repairs and remote system maintenance. This "instant-on" technology is especially useful for mobile devices, such as laptops, so you can perform tasks quickly when you only have a limited time. For instance, you can jump on the Internet to quickly send an email to your husband from the airport to tell him that your flight was just delayed.

Reprinted with permission from Smart Computing. Visit <http://www.smartcomputing.com> to learn what Smart Computing can do for you and your user group

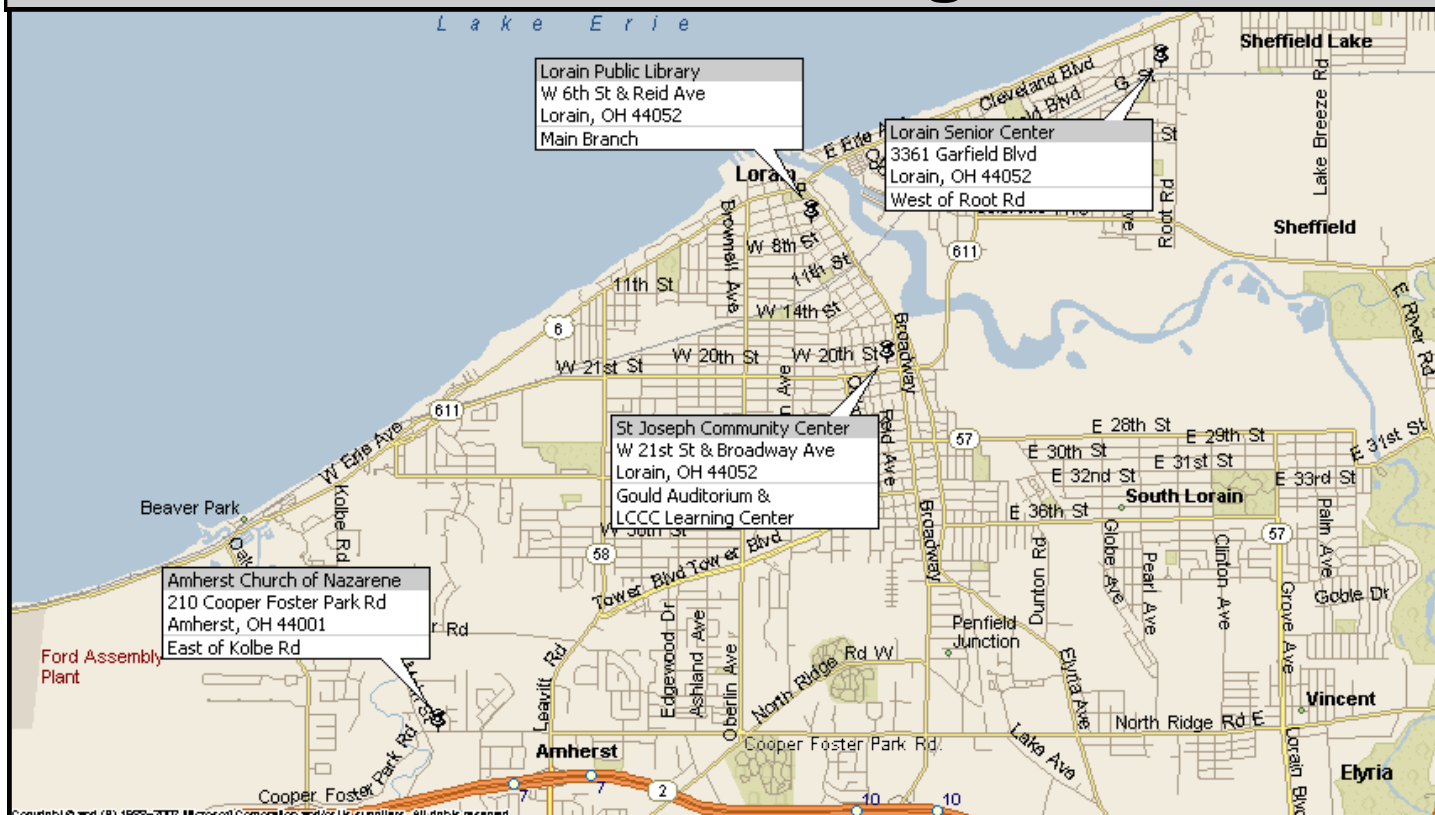


Newsletter Editor: Pam Rihel using Microsoft Publisher, Corel Paint Shop Pro X & American Greetings CreatoCard

This Month's contributors: Micky Knickman, Lou Koch, Edie Lewandowski, Sandra Ruth, Kaye Collier, Don Hall, Ken Ritchey, Pim Borman, Linda Gonse, Blaine Flamig, Brian K. Lewis, Tessa Breneman, Nathan Lake, Smart Computing Magazine, APCUG, and Microsoft Office art online.

Printing Done In House
Assembly Done By:
Murray Ridge Production Center of Lorain, OH.

Various LCCUG Meeting Locations



Gould Auditorium

All General Meetings are held at Gould Auditorium - St Joseph Community Center, Lorain, OH.

Park in the parking garage attached to the building. Go west at the corner of Broadway and W 21st St to the next block, Reid Ave., turn north and the entrance for our parking is on the west side of the garage.

Go up the ramp and park anywhere on the 2nd floor and up. Use the elevators to go to the 2nd floor, which opens to Gould Auditorium.

Note: Parking on the South, W. 21st St side is only for the Emergency Vehicles.



POSTMASTER:
SEND ADDRESS CHANGES TO:
LCCUG
P.O. BOX 792
AMHERST, OH 44001-0792

TIME VALUE
MAIL
PLEASE
DELIVER
PROMPTLY

NON-PROFIT ORG.
U.S. POSTAGE

PAID
Permit # 792
AMHERST, OHIO

MEMBERSHIP WITH LCCUG

Yearly dues are \$25 for a single membership.

Family membership dues are \$25 annually for the first member, additional members in the same household are \$12.50 each. (Family memberships receive only 1 newsletter per household).

Interested persons wanting more information should contact:

Edie Lewandowski, Director of Membership,
(440) 282-4188 or membership@lccug.com.

Look Here
For Membership
Renewal Date



Place Label Here