

TOGGLE

THE MICROCOMPUTER TURN (ON)

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UPDATE

General Interest

In *Is Free Software Really Free?* the author Alan German of Ottawa User Group explores what we really mean by free and what restrictions there are on the software. Many of you use this software and will be interested to read what he has to say.

In *OPCUG Free Software Guide* the author add more information on the topics in the above article.

In *Clean Up Your Computer Dustbunnies* the author tells how just plain old dust shut his computer down and what he had to do to get it up and running again. A lesson for us all.

Beginners

In *Unwanted Spredssheet scrolling* Bob Thomson admits to a dumb thing that had him stumped.

In *Fake Antivirus* the author suggests you let your anti-virus software download the latest definitions frequently and notes the increased sophistication of some of the new threats in recognizing and circumventing existing anti-virus software.

Operating System

In *Make Windows Rediscover Your Monitor* the author notes that some of the new software that you install may not recognize your hardware and install itself to use generic hardware, thus not taking full advantage of your hardware's capabilities. He shows you how to make the software recognize your existing hardware.

In *2009 Come and Gone* the author discusses some of the current and continuing issue facing computer users including new operating systems, existing applications and the discernment needed to choose our path through the Internet jungle wisely/

In *Making Windows More Legible* the author goes into the math of pixel size and distribution on your computer screen. Whether or not you care about the actual numbers hardly matters. Its the size of the characters on the screen that matter, right? Maybe you'll pick up something that will help you in this article.

Communications

We were alerted to the article *Local Shared Objects -- "Flash Cookies"* by Oclad Wesley. This is a fairly detailed article about how and why cookies are placed on our computers not so much as to help us as to help the vendors or others who are trying to track our viewing habits. Since several techniques are now followed by users to delete cookies from their machine a new breed of cookie has been invented called a flash cookie. That's what this article is about and it gives several references that you can refer to for further information on the subject.

GENERAL INTEREST

Is Free Software Really Free?

by Alan German, Ottawa PC User's Group

This is the title of one of OPCUG's fall presentations for patrons of the Ottawa Public Library system. The sub-title is "And, if it is free, is it any good?" So, what are the answers to these two questions? Well, for the first question, the answer is a definite yes - and no. And, come to think of it, that's the answer to the second question also!

But, we are getting ahead of ourselves. We first need to think about what do we mean by "free". The open-source community has the answer(s). We can mean free as in "free beer", i.e. software that is available to us at zero cost. And, we can mean free as in "free speech", i.e. there are no restrictions on what we can do with the software. Of course, real life is more complicated than this. We can have freeware that costs nothing but has certain - and not unreasonable - restrictions on its use. For example, a number of authors provide their software free for individual use but require commercial organizations to purchase licensed versions. A common requirement is a prohibition on end users selling the software to others. Open-source software has similar restrictions. The product costs nothing - and even the source code available - but the software is licensed. A special licensing scheme, such as the GNU General Public License, essentially requires that if anyone distributes a modified version of an open-source product, then the software and the modifications must be placed in the public domain. The intent of this so-called "copy-left" (basically the opposite of copyright) license is that the open-source software remains completely "free".

Another question worth considering is why do some programmers give their work away? Many freeware authors have developed a program, for their own use, and just want to share the result with other computer enthusiasts. For such individuals, peer recognition is sufficient reward. Some organizations release free versions of programs, but charge for any support that is required. Or, a free - but lightweight - version of a program may be a teaser for a more fully-featured product that is offered for sale. The reasons for developing and distributing free software are as numerous and varied as the names assigned to the distribution modes.

Truly, there are many variants on "freely" distributed software, in addition to freeware and open-source packages. These include: shareware (sometimes called trialware or demoware) that is free to try but requires you to purchase it for continued use; nagware where a "light" version of a product keeps reminding you about a premium package that you can purchase; and adware where the free program downloads and displays advertisements.

Two particular software distribution modes are to be avoided. Spyware watches what you are doing and "calls home" over the Internet to report back to its master. This may be relatively benign like tracking which web sites you visit for marketing purposes, or it may be a form of identity theft where the software steals your passwords and credit card numbers. Malware packages can be fraudulent, such as trying to sell you programs to fix non-existent problems, or they may turn your computer into a Spam-sending robot, or make it part of a network of zombie machines conducting a denial of service attack on some web server. Clearly, none of these types of applications are desirable to have running on your computer.

So, how can we avoid the malicious software that is out there? A good first line of defence is to check out programs on the web before downloading and installing them. For example, the first five pages of the results from a search on Google for "Antivirus XP 2008" provide hits with warnings about this rogue program and instructions on how to uninstall it. (The "anti-virus" program "finds" hundreds if not thousands of "problems" on your computer and then offers to sell you more software to eliminate the (non-)threats!) You should also only use reputable sources for software downloads (such as PC World, CNET, and Tucows) where editors review the programs being offered. Read multiple, on-line reviews but, once again, use discretion unless you are confident about the sources of the information.

Antivirus XP 2008 manages to "find" almost 3000 infected files on a system with an on-access virus scanner that is updated daily, both software and hardware firewalls, and up-to-date patches of the operating system! What's wrong with this picture?

OPCUG members know that being a member of a user group can be of assistance. Our members have access to frequent software reviews, written by other club members, and published in Ottawa PC News. The Linux Free and Open-Source Software Special Interest Group (<http://www.opcug.ca/public/LinuxSIG/LinuxSIG.html>) has web pages listing all of the freeware and open-source packages for which reviews are posted on our web site. And, finally, The PUB, our members-only on-line system, allows us to ask questions about what software is available for a specific task, and to receive feedback from other members on programs they use or have tried.

So, if people take heed of most of the above advice, they will find that freeware does indeed provide a wide variety of very useful programs. In fact, it is quite possible to build a comprehensive software toolbox - with security applications; office suites; web browsers; E-mail clients digital image, music and video file management systems; backup programs; and even entire operating systems and their associated applications - all with free software. But, the question remains - if it's given away, can it really be any good? Certainly some freeware is very good, and can in fact be better than some similar

proprietary software products. The following are examples of some freeware in the specific categories mentioned.

In terms of security products, many OPCUG members use AVG Anti-Virus Free Edition as their virus scanner of choice. The program is actually a mild form of nagware although, most of the time, the nagging part of the nagware isn't evident. AVG normally goes about its business in the background, scanning files "on access", as they are either read from or written to disk. Even the daily updates, for new virus signatures, and occasional changes to the scan engine, take place without any user notification or interaction. But, should you open the main menu screen, a drop-down notification panel will offer to sell you the AVG Internet Security Suite. You can click on a Hide Notification button and the panel will disappear - only to return next time you open the main menu. A minor inconvenience in an otherwise very efficient package. The software firewall most commonly used is ZoneAlarm. Although many users report that the notification messages are intrusive, the vast majority of these can be eliminated by simple configuration changes. In particular, you should turn off "Alert Events Shown". This will eliminate the nuisance reporting but allow any real alerts to still be displayed. The other thing to do is to use "Allow - Remember this setting" for all of the programs that you regularly use to access the Internet, such as your web browser and E-mail client. Perhaps surprisingly, even Microsoft is in the freeware game with an anti-spyware product. Windows Defender comes bundled with Windows Vista, but a version of the package is also available as a free download for Windows XP.

The free (open source) office suite of choice is undoubtedly OpenOffice. This package is comparable to Microsoft Office which features Word, Excel and PowerPoint, with the OpenOffice equivalents being Writer (word processing), Calc (spreadsheets), and Impress (presentations). The functionality of the suites are very similar, and the OpenOffice programs will even read and write DOC, XLS and PPT files, although sometimes with formatting issues. OpenOffice also comes with Base (a database manager similar to Access) and Draw (a drawing package).

There is lots of choice when it comes to web browsers and E-mail programs, but many users end up with the Firefox web browser and the Thunderbird E-mail client. Both of these programs have lots of built-in features, but much more functionality is available from a wide range of "add-on" modules.

There are also many programs that offer ways to manage your digital photographs. Packages like Google's Picasa 3 provide ways to organise your photos. with albums and image tags, a variety of editing features, the ability to create slideshows or movies and to share photos. by E-mail or on the Internet, plus a multitude of printing options. Batch File Renamer is a very useful utility that, as its name suggests, allows you to rename a group of image files with names of your

choice, and numerical sequencing that makes a lot more sense than IMG_0617.JPG and IMG_0618.JPG. Similarly, if you do wish to send a number of images by E-mail, or post them to a web site, Microsoft's Image Resizer utility can shrink your photographs to a reasonable size for the purpose.

When it comes to audio and video files, there are numerous programs that will play these for you. Old favourites like Winamp can be dressed up in "skins" to drastically change their on-screen personae, and the initial Spartan layout of VLC can be enhanced through a variety of menu options. If you need to be able to record sound or edit audio files, then a program like Audacity can provide all of the tools that you will need.

Archiving files, including digital images and audio compilations, can easily be achieved by transferring your files to either CD or DVD using free programs like CDBurnerXP. And, when it comes to file backup, SyncToy, yet another of Microsoft's PowerToys, will let you set-up "folder pairs" for file synchronization, making it easy to echo (create an exact copy of) a file structure from one disk to another, including external USB devices.

Some utility programs provide replacements or extend the functionality of software that form part of the Windows operating system. For example, the disk defragmenter in Vista tells you - "This may take from a few minutes to a few hours" - which is not very helpful. But, Auslogics Disk Defrag provides a more familiar display with flashing, coloured sectors showing the action, and a progress bar indicating how long the defrag is likely to take. Everest Home Edition gives you a snapshot of your hardware, with lots of details, in lots of categories, such as information on your CPU, monitor display, and storage devices. And, Notepad++ provides many more features than its Windows equivalent, including opening multiple files under different tabs, and spell checking.

Finally, it's even possible to obtain a complete operating system, together with a host of applications, at zero cost. One well-known example is Ubuntu Linux which features new releases every six months. Downloading and burning an ISO file creates a Live-CD so that you try Linux without changing anything on your hard drive. Installation from the CD is simple, and the distribution (distro in Linux-speak) includes OpenOffice, Firefox, the Evolution E-mail client (although Thunderbird can readily be downloaded and installed), plus software for handling digital image, audio and video files.

So, the answers to our original questions can clearly be identified as yes and yes. Lots of software is available at no cost, and much of this is very good indeed. However, it does take a little research to find the ideal package that will accomplish your specific task. But, that's why we like playing with computers - isn't it?

Bottom Line:

- Audacity <http://audacity.sourceforge.net/>
- Auslogics Disk Defrag <http://www.auslogics.com/disk-defrag>
- AVG Anti-Virus Free <http://free.avg.com/>
- Batch File Renamer <http://www.ezyware.com/>
- CDBurnerXP <http://cdburnerxp.se/>
- Everest Home Edition [http://www.oldversion.com/
Everest_Home_Edition.html](http://www.oldversion.com/Everest_Home_Edition.html)
- Firefox <http://www.mozilla.com/en-US/firefox/upgrade.html>
- Image Resizer - Microsoft PowerToys for Windows XP
[http://www.microsoft.com/windowsxp/downloads/power
toys/xppowertoys.msp](http://www.microsoft.com/windowsxp/downloads/power
toys/xppowertoys.msp)
- Image Resizer PowerToy Clone for Windows
<http://www.codeplex.com/PhotoToysClone>
- Notepad++ <http://notepad-plus.sourceforge.net/uk/site.htm>
- OpenOffice <http://www.openoffice.org/>
- PhotoStory 3 for Windows [http://www.microsoft.com/
windowsxp/using/digitalphotography/PhotoStory/
default.mspx](http://www.microsoft.com/
windowsxp/using/digitalphotography/PhotoStory/
default.mspx)
- Picasa 3 <http://picasa.google.com/>
- Thunderbird [http://www.mozillamessaging.com/en-US/
thunderbird/](http://www.mozillamessaging.com/en-US/
thunderbird/)
- SyncToy [http://www.microsoft.com/prophoto/
downloads/synctoybeta.aspx](http://www.microsoft.com/prophoto/
downloads/synctoybeta.aspx)
- VLC Media Player <http://www.videolan.org/vlc/>
- Winamp Media Player <http://www.winamp.com/>
- Ubuntu Linux <http://www.ubuntu.com/>
- Windows Defender [http://www.microsoft.com/windows/
products/winfamily/defender/default.mspx](http://www.microsoft.com/windows/
products/winfamily/defender/default.mspx)
- ZoneAlarm [http://www.zonealarm.com/security/en-
us/free-upgrade-security-suite-zonealarm-firewall.htm](http://www.zonealarm.com/security/en-
us/free-upgrade-security-suite-zonealarm-firewall.htm)

OPCUG Free Software Guide - Part II

Compiled by Alan German

This guide features an annotated list of free computer programs. The software mentioned has not been reviewed (except where noted) nor have any tests necessarily been conducted. Consequently, no guarantees are provided that the individual programs will perform as described. Rather the list of available software is provided for the information of our members who may find one or more of the programs useful. If you try one of the listed items, you are encouraged to share your experience, good or bad, by providing a brief review of the program for a future issue of the newsletter.

Microsoft Security Essentials

Microsoft Security Essentials provides real-time protection for your home PC, guarding against viruses, spyware, and other malicious software. The free download is simple to install, easy to use, and always kept up to date. It's easy to tell

if your PC is secure - when you're green, you're good. It's that simple.

Current Release: Version 1.0.1611.0

Web Site: http://www.microsoft.com/Security_Essentials/

Inkscape

Do you want the power of programs like Adobe Illustrator or CorelDraw, but in an open-source package? Perhaps you should try Inkscape, a vector-graphics editor with the same tools and resources as those other drawing applications.

Current Release: Version 0.46

Web Site: <http://www.inkscape.org/>

AMPWinOFF

This utility will schedule your computer's shut down at a specific time, after a certain length of time, or you can select from a number of other options.

Current Release: Version 4.55

Web Site: <http://www.ampsoft.net/utilities/WinOFF.php>

Audacity

Audacity is a free, easy-to-use audio editor and recorder for various operating systems, including Windows and Linux. You can use the program to record live audio; convert audio tapes and vinyl records into digital recordings or CD's; edit MP3, WAV or other sound files; cut, copy, splice or mix sounds together, and more!

Current Release: Version 1.2.6

Web Site: <http://audacity.sourceforge.net/>

TaggedFrog for Windows

Andrei Marukovich, a software consultant based in Toronto, offers TaggedFrog to help organize your files, documents and Web links. Just add objects to the library and tag them with any keywords. That's it. You can forget the file name or where the file is located - the tags will find the file for you!

Current Release: Version 1.0.3

Web Site: <http://lunarfrog.com/taggedfrog/>

Autoruns for Windows

Unnecessary services and applications that run whenever you start your PC are a big cause of system slowdowns. This Windows Sysinternals utility has the most comprehensive knowledge of auto-starting locations of any startup monitor. It shows you what programs are configured to run during system bootup or login, and shows you the entries in the order that Windows processes them.

Current Release: Version 9.56

Web Site: [http://technet.microsoft.com/en-us/sysinternals/
bb963902.aspx](http://technet.microsoft.com/en-us/sysinternals/
bb963902.aspx)

Pictomio

Pictomio easily manages thousands of images and video archives using libraries and albums. You can view thumbnails in 3-d folders and image carousels, and even apply geotags to your digital photos.

Current Release: Version 1.2

Web Site: <http://www.pictomio.com>

Cleanup Your Computer Dustbunnies!

by Doug Agee, SWIPCC Member
SouthWest International Personal Computer Club
February 2009

The other day, I attempted to boot up my desktop computer only to encounter a series of bizarre problems--not blue screens of death exactly but rather black screen of incapacitation. During the boot up process, the operating system appeared to be booting normally, then suddenly a black screen would appear. Occasionally, when a black screen failed to appear the system would prompt me to boot up in the safe mode, but when I acquiesced, the screen would freeze up or display a page of gibberish. Frustrated, I toted my computer and monitor into an adjacent room, one with sufficient space to open the computer case and check things out.

The only obvious anomaly was the interior was covered with a layer of dust, which is not surprising because I hadn't cleaned the interior of the case in at least four years.

So I carefully vacuumed the case, inspected and reseated the memory cards and checked the connections to the two hard drives (HDs). I then rebooted the computer but to no avail. Finally, I decided to remove both HDs and check them out. It was then that I discovered a congregation of dust bunnies still lounging on the underside of the master HD, clinging to some of the connector pins and to exposed parts of the circuitry. I carefully cleaned and reconnected the HDs and rebooted the computer. This time the boot up was successful and the computer has been operating flawlessly since. Apparently the dust bunnies were conducting miniscule amounts of electrical current, causing anomalous computer performance.

This unscheduled maintenance took me several hours, so I decided to put together this reminder for SWIPCC members: GET RID OF YOUR DUST BUNNIES! Most computer manufacturers recommend that you clean the interior of your computer periodically to prevent the accumulation of dust and potential overheating of components. This is particularly important in places like El Paso, where dust seems to penetrate every nook and cranny of the household.

Before cleaning your computer case, you should turn the computer "off" and disconnect it from the electrical outlet. Using a small vacuum cleaner with a brush attachment, you can vacuum the interior of the case. When using the vacuum, be sure to wear a grounding strap on your wrist to dissipate any static electricity, thereby preventing you from "zapping" the CPU, memory cards or other critical components.

BEGINNER'S NOTES & TIPS

Unwanted Spreadsheet Scrolling

by Bob Thomson,
Tacoma Open Group for Microcomputers

This is a short note about one of those dumb things that we all do but hate to admit. This happened to me recently and had me stumped for a day or so.

I have a spreadsheet program that I have used for years to do all manner of things such as balancing my checkbook, computing my income tax, and so on. The other day the program began acting in an unexpected manner. Every time I moved the cursor with the arrow keys, the whole screen of figures would move in the opposite direction instead of staying stationary while the cursor moved.

I went to the spreadsheet program menu and tried everything I could think of to stop it from doing that, but try as I might I couldn't stop it from shifting the whole spreadsheet.

I closed the spreadsheet that I was working on and tried another one. Same thing. The whole spreadsheet moved, not just the cursor.

I left the problem for a day or so then went back to try again. For some reason, this time I looked at the keyboard and noticed that the Scroll Lock light was on. I clicked the Scroll Lock key and the light went off.

My cursor now scrolls properly and as expected again! The fault was not with the spreadsheet program but with the keyboard setting. This is a phenomenon known in the computer world as operator error!

Fake Anti-virus

by Jason Mills, Durham Personal Computer User's Club

Let's face it; dealing with a virus is no fun. I'd rather format my hard drive and reinstall all my software than try to recover.

Whether it is Conflickr or a new fake anti-spyware program, it sort of feels like spyware and viruses are inescapable for any computer hooked up to the Net. It's estimated that the amount spent on security software in the US has risen to over \$800 million in recent years, but PCs are still getting infected daily. Why aren't we virus free yet?

The answer lies in the nature of malicious programming or greedy programmers. Computer viruses don't spring up out of nowhere, they're designed by programmers who either have nothing better to do and think it is going to be interesting,

or professionals who make money by abusing your PC. Whenever anti-virus programs are informed of a new virus, they create a new definition for their anti-virus software to help isolate and remove that virus if it is downloadable onto your PC. Once the new definition is widespread enough that a serious percentage of PCs are safe against that virus, a new one is made by the nefarious programmers and the cycle starts again. Almost two thousand new viruses were identified each day in 2007, and the issue isn't going away any time soon. This is why you want to allow your anti-virus software to download new virus definitions as frequently as possible.

Annoyed hackers tired of the quick turnover of "regular" viruses have graduated to attacking your computer's defenses directly: your anti-virus software. Many new viruses include programming that hides itself specifically from several popular anti-virus programs, prevents them from downloading new virus definitions, or shuts them down entirely. Even when these new viruses are identified quickly, many PCs will already be infected and the software on the machines will not be able to get rid of the virus. In circumstances where one virus shuts down the anti-virus software completely, other viruses will usually infect the machine and render it inoperable in a couple of hours if not minutes. Still other nasty viruses employ tricks to avoid removal strategies, and will re-infect a machine after an anti-virus program or a user attempts to remove them.

The war against computer viruses is non-stop, but you can do something to help protect your system. Installing a good anti-virus program and allowing it to update frequently is just the first step, but beware of fake anti-virus programs you may find online (many of these are viruses themselves).

The fake anti-virus programs normally go by the names: Antivirus 2010 Pro, Windows Pro Police, System Guard 2009, Personal Antivirus, Antispyware XP 2009, and lots more. You can see a pattern in how they name themselves - no branded company name. Never download anything from a person or Internet site you do not trust, never open suspicious email (you do not always have to open attachments to become infected), and don't go to websites with a poor reputation. If you take these steps and your PC still gets infected, have a trained professional remove the virus for you rather than attempting to remove it yourself. Modern viruses can be terribly difficult to isolate and remove, and it's very easy to damage your system accidentally while trying to remove one.



OPERATING SYSTEM NOTES & TIPS

Make Windows Rediscover Your Monitor

from Bearly Bytes Newsletter
Big Bear Computer Club

Have you noticed that your computer display looks funny or simply different recently? It happened to us and to other people that we know who are using Vista or Windows 7. When we checked the display properties, we discovered that the monitor was identified as a 'Generic PnP Monitor'. In other words, the display driver had been reset to generic and Windows no longer recognized the brand and model of the monitor. This caused some problems with the display. Fortunately, it is not difficult to correct. Following, are screen shots and an explanation of what we did to reset the display in Windows. Things look better now.

To begin, go to 'Start', 'Control Panel'. Click 'Personalization' to access the display properties.

Select 'Display Settings'.

In the Display Settings window, click the 'Advanced Settings' button.

In the Advanced Settings window select the 'Monitor' tab. Click the 'Properties' button there.

Click the 'Driver' tab in the Monitor Type Properties window. Select the 'Update Driver...' button.

Click the 'Search automatically for driver software' button.

Windows will search for the correct driver for your monitor.

Hopefully, it will find and install it.

If the driver is not successfully installed automatically, you can go to the monitor manufacturer's website and download the latest driver file. In that case, go through the same steps as above until you get to the search for driver software. At that point, select the 'Browse my computer for driver software' button.

Whether the driver installs automatically or manually, at the end you will see the 'Windows has successfully updated your driver software' window. It will show a monitor icon with the brand name and model number of your monitor next to it. The generic label will be gone. Your display should look better.

What caused Windows to forget what kind of monitor it has? We don't know. Perhaps we can point to a Microsoft update? Anyway, if it happens to you, it can be fixed. Just fix it!

2009 Come and Gone

by Elizabeth B. Wright, Computer Club of Oklahoma City, OK
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This article has been obtained from APCUG with the author's permission for publication by APCUG member groups; all other uses require the permission of the author (see e-mail address above).

Yes, another year is coming to a close. And what do we have to show for it? Another Microsoft OS for those who are not already confused, limited software and a world gone wild on the internet. Is that what we had hoped for as 2010 looms on the horizon? While all of the above were probably inevitable, how can we make the most and best of it?

First: the new MS OS, fondly known as Windows7. It's really not too bad, considering the fact that all Windows based computers work under the original handicap of the hardware created by IBM for its personal computers. I have seen my friends and loved ones switching to Apple based computers and loving every minute of it, even though Apple creates new operating systems about as often as does Microsoft. But then, most people switch for the graphics and possibly the word processing capability of Apple (Mac) machines, and perhaps are not as compelled to upgrade to a new OS like Windows customers are. Yes, our photographs are very important to us and Apple made that kind of computing a good experience many years ago.

But what about those of us who like to work with both graphics and number-crunching software? Best to stick to the unending procession of Microsoft operating systems. With powerful enough hardware, including RAM memory and a good graphics card, even Windows can do a passable job with graphics. It has always done exceptionally well with the numbers stuff. And if we can get version 7 and whatever comes next to work with our older software, then maybe we can carry on business as usual. I for one plan to give it a try. But to utilize additional RAM, we are faced with using the 64bit version of Windows 7 with a 64bit processor.

So we might not actually get as much good out of the new OS and newer photo editing software if our hardware can't meet those standards.

Second: limited software. By now most average users have all the programs they will ever use. About the only thing new many people buy is the latest, greatest antivirus program. Businesses use number crunching, word processing and data manipulation software; individuals tend to use graphics, word processing and the internet. Microsoft and Apple, and to some extent Sun Microsystems, have both categories firmly in hand, and we likely will see no new software for average users. But the old MS and Adobe stuff will continue to be improved in order to keep those companies in business. No need to beat that dead horse. Programs for Linux based computers are more of the same. As for huge corporations,

they depend on specialists to continually fine-tune their programs in order to keep up with the competition. The industry that has developed for just that purpose is something of which most of us are not likely to have much knowledge or interest.

Third: The World Gone Wild. That is the one that worries most thinking people more than anything else. Again, it doesn't need explaining since most of the people reading this are well aware of the idiocy available on the internet. Yes, there is still some really good stuff out there, but so few people are taking advantage of it. The bad stuff, and everyone knows just how bad it is, may be the ultimate downfall of civilization as we now know it. From selling iffy goods to selling sex and extreme violence, the internet is a place where legitimate learning and business is losing the battle. Even the so-called online universities are often nothing but sham corporations. They tie people up with debt as soon as they enroll, knowing full well that many of their students will never finish even the first course, much less graduate. And what are those degrees worth? I guess I can expect a lot of dissent on that subject, but first hand experience with relatives has shown me that my theory is on target.

But of course, the upside is that the internet system will probably implode in perhaps the not-too-distant future. Either governments will hijack it or it will just crumble from its own weight and greed. Do you remember the world before the internet? What you may not remember, or possibly don't know about, was the existence of computers connected via phone lines and other cabling systems which were military and scientific in nature. Then the rest of us got into the act.

Outlook for 2010: For computer users who want something more than email and surfing, there continue to be ways to improve skills. And many of those choices are still available free on the internet. Check out your favorite program to see what and where you can find training programs, then DO IT!! Make the effort to at least make Microsoft, Apple and all others work for you instead of the other way around.



Making Windows More Legible

by Gary Bentley, Editor, Throughput, Southwest
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Have you noticed that each time you purchase a new computer with a higher resolution screen you find everything on the screen looks smaller than it did on the lower resolution monitor screen (if the diagonal size of your monitor was increased you might offset this phenomenon somewhat, but still be surprised that things looked about the same size in that case)?

Why would this assumption make things (icons, pictures, text, etc.) look smaller on a monitor that had higher native resolution (native resolution meaning the actual number of pixels lighting up per actual physical inch on your screen)?

Let us look at a real-world example. My Dell Latitude D620 has a 14 inch diagonal LCD screen with 1440 (horizontal) by 900 (vertical) pixels (native resolution, i.e., actual LCD pixels). How many DPI, i.e., pixels per inch is my screen? Well, recalling the Scarecrow's recitation in the Wizard Of Oz when he received his brain diploma (or what he should have said, since he actually misstated the Pythagorean theorem--we can only assume that the Wizard did not want to damage Scarecrow's self-esteem by correcting him), we know that the 14 inch diagonal on my screen is the hypotenuse of a right triangle, the sides of which are 1440 and 900 pixels. So we can take the square root of the sum of the squares of those two sides and that will give us the number of pixels along the 14 inch diagonal. The square root of 1440 squared plus 900 squared is, using Wolfram|Alpha (www.wolframalpha.com/examples/Math.html), 1698. Note that Wolfram uses standard means of entering mathematical operators. You might have to look those up and make adjustments, e.g., I asked for the square root by telling Wolfram to take the parenthetical operations to the 0.5 power since I knew how to enter the exponentiation operator (^), but not a square root sign (a radical sign).

So we have 1698 pixels along my 14 inch screen diagonal, or 1698 pixels/14 inches = 121 pixels per inch (121 DPI). How wide is one pixel? 1 inch/121 pixels = 0.008264 inch per pixel. Why would this make things smaller on my Windows desktop? Well, Windows assumes 96 pixels make an inch, so an inch on my screen is now 96 x 0.008264 or 0.79 inch. So everything on my Windows desktop is only 80% of the size it would be if there were actually 96 pixels per inch on my screen. I can verify that my calculations are correct by setting Microsoft Word to display an 8.5 x 11 inch standard document at 100% size. When I measure the width of that document on my screen I obtain 6 13/16 inches or 6.8125 inches. $6.8125/8.5 = 0.80$, i.e., the 8.5 inch wide document is displayed at 80% of its actual size as we calculated would occur.

This means that text fonts are 80% of their intended size on my screen also. Fonts are defined in terms of points. A point is defined as 1/72 inch, i.e., 72 points per inch. Windows assumes there are 96 pixels per inch, so a Windows logical point is $96/72 = 1.333$ device independent pixels. A 10 point font should be around 10 x 1.333 pixels or 13 pixels vertical (leaving aside details of leading, etc.). That would be 13/96 = 0.13 inches high roughly on a 96 DPI monitor. On my 121 DPI monitor that 10 point font would only be $13/121 = 0.10$ inch high approximately, again about 80% smaller.

A Microsoft study indicates about 55% of people reduce the resolution of their monitors (configure Windows screen resolution in Display Properties for a lower value), presumably

to make the text and other items on their computer screen larger. For example, if I changed my laptop screen resolution to 800 x 600 there would be fewer Windows pixels to cover the same area, so the pixels would be larger, making everything constructed with those fat pixels larger too. Fat pixels make fuzzy or pixilated images, though they are larger images. This is rather like purchasing a \$474 Canon EOS Rebel with 10 Megapixel resolution and then setting it to take 640 x 480 photos (when you have paid for a camera that can take 3648 x 2736 pixel photos roughly).

A better way to increase the size of text and other items on your screen is to use Windows DPI scaling. You can tell the operating system that you want an inch on your screen to be made up of more than 96 dots/pixels (if you don't have a monitor with more than 96 actual dots per inch this would not work as well, since the operating system would have to fake the additional pixel density using mathematical algorithms). In Windows XP you can right click on the Desktop, select Properties, then Settings, then Advanced, then DPI setting. Choose more dots per inch, say 120 DPI. Go higher if needed. Evaluate the effect in normal use of your system.

In Windows Vista, Open Personalization by clicking the Start button, clicking Control Panel, clicking Appearance and Personalization, and then clicking Personalization. In the left pane, click Adjust font size (DPI). If you are prompted for an administrator password or confirmation, type the password or provide confirmation. In the DPI Scaling dialog box, increase the size of text and other items on the screen by clicking Larger scale (120 DPI) make text more readable, and then click OK. You can use higher DPI settings to obtain still larger fonts and objects.

If we chose to scale up to 120 DPI on my laptop, then an inch would be 120 dots/pixels and a Windows inch on my screen would indeed be an inch, restoring the size of items on my screen to that of a typical 96 DPI monitor. I should note that Internet Explorer 7 and 8 both have a zoom feature which will enlarge text and other items on a web page. This is a separate issue in some respects.

How big would that 10 point font be if you used a 64.5 inch diagonal HDTV with 1920 x 1080 native resolution with PC VGA input for your computer monitor? Calculate screen DPI: 34 DPI (calculate the number of pixels in the 64.5 inch diagonal for 1920 x 1080 pixel right triangle as we did above; divide that number of pixels by 64.5 inches). Simply looking at the ratio, the HDTV pixels would be 96/34 or 2.82 times larger than a 96 DPI monitor. So, a 10 point font might be around 0.13 inch x 2.82 = 0.36 inches high--over a third of an inch. And if you scaled up your Windows DPI setting to 200 DPI, you might get that 10 point font up to 0.8 inches high (over three quarters of an inch high) on that 64.5 inch \$4,000 dollar HDTV computer monitor.

I have barely scratched the surface on this topic, but I hope I have said enough to give you some ideas about making

things more visible on your computer screen without throwing away the high resolution of your monitor.

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Bio: Mr. Bentley studied electrical engineering at the University of Texas, began working in the electronics industry in 1978 with GTE Network Systems (Lenkurt), then software engineering with various startups in the 1980's, designing and implementing, among other things, pre-Internet email communications systems multitasking on Intel platforms and MSDOS PC's 1984 - 1986. Gary now provides Information Technology consulting services in the El Paso, Texas and Las Cruces, New Mexico areas. Gary has edited and contributed articles to the award-winning Southwest International Personal Computer Club monthly magazine, Throughput, since December, 2003.

COMMUNICATIONS NOTES & TIPS

Local Shared Objects -- "Flash Cookies"

Electronic Privacy Information Center

Introduction

Cookies <www.epic.org/privacy/internet/cookies/> are small text files used to save information about an individual or their use of a web site. For instance, a cookie can be used to save your login name, your preferences for viewing content, or to track you as you browse the Internet.

With the advent of spyware and spyware removal programs, as well as media attention and the increase of online literacy, users now understand the purposes and risks of using cookies. Recently, users have become more vigilant in purging cookies from their computers. According to a Jupiter Research study <www.jupitermedia.com/corporate/releases/05.03.14-newjupresearch.html>, 58% of online users have deleted cookies from their computer and 39% of users do so on a monthly basis. This regular "cookie tossing" is causing direct marketers to see more invasive methods to track individuals. One of those methods is to set a "Local Shared Object," also known as a "Flash cookie" to track individuals. Simply put, the idea behind this tracking is to set two cookies on the user's machine--a standard cookie that the consumer may erase, and a second Flash cookie that the user probably will keep, because the existence of Flash cookies is not well known.

Flash cookies are set through a mechanism in Macromedia's Flash MX player. According to Macromedia, 98% of computer users have some version of Flash on their computers.

What is a Local Shared Object (Flash cookie)?

Using previous versions of Flash, developers could save information between sessions by using 'normal' cookies, but the process was considered difficult for developers to implement. Placing a normal web cookie requires the use of a scripting language outside of Flash (Javascript or ASP, for example). Placing a Local Shared Object only requires the use of ActionScript--the scripting language that controls Flash movies. In its newest version, Flash MX, Macromedia introduced the Local Shared Object, which provided an easier way to store information. Flash cookies can be considered to be equivalent to 'normal' cookies, save for a few minor differences.

Flash cookies provide the only method by which a flash movie can store information on a user's computer. Intended uses of the object include storing a user's name, a favorite color or the progress in a game. The actual information is stored in a .SOL file in a special directory on the user's computer. Using the flash configuration tool <www.macromedia.com/support/documentation/en/flashplayer/help/settings_manager.html>, the user can decline Flash cookies by domain as well as control the amount of data a site is allowed to store. By default, sites are permitted to store 100kB of information without prompting a user.

Unfortunately, few consumers are aware of where Flash cookies are stored or how to control their use. Normal web cookies can be managed via the preferences dialog of most web browsers, but no similar utility is included for these Flash cookies. It is possible for Flash cookies to remain on user's computer indefinitely, as there is no mechanism to set an expiration date on Flash cookies.

How do Flash cookies allow Identification on individuals?

The type of information stored in a Flash cookie is limited only by the information that the creating Flash movie has access to. According to Macromedia's Flash MX Security Whitepaper <<http://download.macromedia.com/pub/flash/whitepapers/security.pdf>>, this is limited to:

- ◆ Anything in the actual movie file
- ◆ Any information the user provides
- ◆ Some configuration information about the computer running the movie
- ◆ Flash cookies created by the same domain from which the movie originated
- ◆ Servers in the domain from which the movie originated

Using some or all of the above categories, the Flash movie can create a unique ID and store that ID in a Flash cookie on a user's computer. The Flash movie can then communicate this information to a database, or other applications. Subsequent visits by the same users could be tracked by reading the ID contained in the Flash cookie.

Who can access a Flash cookie?

As with normal web cookies, a domain can only access data that it created; it is not allowed to read Flash cookies created by other domains. This prevents sites from observing user behavior at other sites.

How can users prevent Flash cookie tracking?

Like normal cookies, Flash cookies are represented as small files on users' computers. To prevent Flash cookies from being placed, users can adjust preferences on a per site basis in the Macromedia Website Privacy Settings Panel <www.macromedia.com/support/documentation/en/flashplayer/help/settings_manager06.html>. Using this tool, Flash cookies can be completely disabled or allowed on a per domain basis.

To get to the settings panel, right click on any Flash movie, click settings and then advanced. Macromedia has published a walk through guide <www.macromedia.com/cfusion/knowledgebase/index.cfm?id=52697ee8> to help users disable Flash cookies.

Users can get rid of the current Flash cookies and their tracking information simply going to the correct folder (see below) and deleting them. The Flash cookies are organized in folders according to the site that placed them, so users can choose which objects to keep.

Firefox users can use Objection <www.yardley.ca/objection/>, a recently developed extension that adds a LSO deletion tool to Firefox preferences.

Where are Flash cookies stored?

Flash cookies are stored in a special directory depending on the operating system on the client machine. They are arranged in directories according to the site that placed them on the computer (look for a file with a .SOL extension):

- ◆ Windows C:\Documents and Settings\[username]\Application Data\Macromedia\Flash Player
- ◆ Macintosh OSX /Users/[username]/Library/Preferences/Macromedia/Flash Player
- ◆ GNU-Linux ~/.macromedia

Persistent Identification Element ("PIE")

United Virtualities <www.unitedvirtualities.com/>(UV), an online marketing firm, has introduced a tracking platform that takes advantage of the relative obscurity of Flash cookies. In a press release this March <www.unitedvirtualities.com/UV-Pressrelease03-31-05.htm>, UV announced PIE, a backup ID system for cookies. Mookie Tenenbaum, founder of United Virtualities, explained the reasoning behind the product, "All advertisers, websites and networks use cookies for targeted advertising, but cookies are under attack. According to current research they are being erased by 40% of users creating serious problems."

UV's press release also claims that the PIE system can restore deleted web cookies. Although there is little official information on the implementation of the PIE system, it is not likely that the cookie is actually restored. Instead, it appears that the Flash cookie acts as a redundancy. That is, the PIE system uses Flash cookies as a backup. A site interested in tracking a user would set a normal cookie and a Flash cookie. If the user erased the normal cookie, the PIE-enabled site could use the redundant Flash cookie to track the user.

To justify this tracking mechanism, UV's Tenenbaum said, "The user is not proficient enough in technology to know if the cookie is good or bad, or how it works."

This practice is highly deceptive. By deleting cookies, consumers are clearly rejecting attempts to track them. Using an obscure technology to subvert these wishes is a practice that should be stopped. Cookies have many beneficial purposes and can make the end user's web experience better. Websites should be honest and up front about how they use cookies, and they should respect the decisions of those users who do not want to be tracked via cookies.


News

- ◆ Tessa Wegert, The Web cookie is crumbling - and marketers feel the fallout <www.theglobeandmail.com/servlet/story/RTGAM.20050721.gttwcookie21/BNStory/TechTechnology/>, The Globe and Mail, July 21, 2005.
- ◆ Matt Marshall, Escalation in the Cookie Wars <www.mercurynews.com/mld/mercurynews/business/technology/11422793.htm>, The Mercury News, April 18, 2005.
- ◆ Michael Cohn, Flash Player Worries Privacy Advocates <www.internetweek.com/showArticle.jhtml?article_ID=160901743>, InternetWeek, April 15, 2005.
- ◆ Tool can resurrect deleted cookies <www.out-law.com/page-5502>, Out-Law.com, April 5, 2005.
- ◆ Roger Park, United Virtualities Develops ID Backup <<http://imediaconnection.com/news/5392.asp>>, iMedia Connection, April 1, 2005.
- ◆ Antone Gonsalves, Company Bypasses Cookie-Deleting Consumers <<http://informationweek.com/story/showArticle.jhtml?articleID=160400801>>, InformationWeek, March 31, 2005.

Resources

- ◆ Macromedia.com, How to disable Local Shared Objects <www.macromedia.com/cfusion/knowledgebase/index.cfm?id=52697ee8>.
- ◆ Trevor Zion Bauknight, Cookies and PIE - An Introduction to Flash Security <www.cafeid.com/art-pie.shtml> Cafeid.com.
- ◆ Waleed Anbar, Your Privacy and Macromedia Flash Player <www.macromedia.com/devnet/flashplayer/articles/privacy.html>, Macromedia.com.

Help Lines

SOFTWARE HELP	Advisor No.	HARDWARE HELP	Advisor No.	
Win 95/98/ME	2, 3, 4, 7	Reformat Hard Disk, FDISK	2, 4, 5	
Win 2K/NT/XP	2, 3, 7	Install Hard Drive, CD-ROM/RW	2, 4, 5	
MS Word	2, 7	Install Video Card		
MS Excel	4	Deleting Files, Wiping	6	
MS PowerPoint		Internet/Intranet	6, 7	
WordPerfect	1, 7	Audio Cards	4	
QuickBooks	8	MP3 Files, WMA Files, WAV Files	4	
Norton/Symantec AntiVirus	2, 3, 6, 7	Burning CD's	3, 5	
Norton System Works	2, 7	Partitioning Hard Drives	2	
CompuPic/CompuPic Pro	3, 7	Net Objects	7	
Winzip, WinRAR	6	Homesite	7	
JV Registry Cleaner	3	MS Access		
Outlook, Outlook Express	2			
Internet Explorer	2, 7			
Netscape Navigator	7			
Instant Messaging	2			
Installing Software after Reformatting	5			
Ccleaner	3			
Easy CD DA Extractor	3			
ADVISORS	PHONE		HOURS	
Fred Shelton [1]	(253) 752-0120		Variable	
Bob Henkel [2]	(253) 537-6732		8A-8P anyday	
Tom Stepanek [3]	(253) 922-7939	7-9P Mon-Fri		
Carl Tenning [4]	(206) 824-3843	6-9P Mon-Fri		
Oclad Wesley [5]	(253) 503-7833	6-9P		
Bob Thomson [6]	(253) 752-5582			
Ray Mills [7]	(360) 692-7568	6-9P Mon-Sat		
Sandee Gimblett [8]	(253) 952-3538			

Tacoma Open Group for Microcomputers (TOG)

New Member Application/Existing Member Change of Address Form

For **Tacoma Open Group** annual membership, send form (if needed) & **\$25** to Bob Henkel., 10613 25th Avenue E., Tacoma, WA 98445.

Make checks payable to TOG

Please print or type. Date: _____ Sponsored by: _____

Member's Name: _____

Address: _____

City: _____ State: _____ Zipcode: _____ Plus Four _____ Country: _____

Home Phone: (____) _____ Work phone: (____) _____ E-Mail Address _____

TACOMA MEETING

When: **Mon 8 Feb 2009 -7:00 PM**
Where: SE Tacoma Community Centre
1614 99th Street E.
Tacoma, Washington

From I-5 take Exit 127 (Hwy 512) to
Portland Ave., north on Portland to 99th,
left over tracks. Building is on south side.

Future Dates: 2nd Monday of Month

TOG BOARD MEMBERS

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TOG Web Site: <http://www.toggle.org>

Deadline: 15th of this month to appear
in next months' issue, if room

Corporate Sponsors:

Raymond Mills & Associates
www.rm-a.com

How To get To The Meeting

For those readers still unfamiliar with
how to find our meeting place we have
reproduced the map showing its rela-
tionship in Tacoma to Portland Ave S.
and the 512 Freeway. The 512 Freeway
can be entered from I-5 in Tacoma on
the west or from Hwy 167 in Puyallup on
the east. Proceed to Portland off-ramp
and turn north to 99th Street. Some
folks in the middle of Tacoma may pre-
fer to take Portland southbound to 99th.
At 99th turn west over the tracks and
there you are!



Tacoma OPEN Group for Micros
1808 Lenore Drive
Tacoma, WA 98406-1920

Change Service Requested

PROGRAMS

This Month's Meeting

This will be a regular monthly meeting.
Meeting discussions are always interesting
and the ever-popular Q&A (Question &
Answer) period is sure to pique your inter-
est, come up to your expectations and tickle
your fancy. Come and share your own
experiences, problems and discoveries.

Discussion topics have not been dis-
closed at press time but several are likely to
be presented during the meeting. Come and
bring your questions and comments to add
to the lively discussions which are the usual
fare of our meetings.

Bring a friend.