

TOGGLE

THE MICROCOMPUTER TURN (ON)

MONTHLY NEWSLETTER FOR TACOMA-SEATTLE AREA MICROCOMPUTER USERS

Volume 31

Number 7

December 2010

Issue #331

IN THIS ISSUE

PROGRAMS	12
UPDATE	
- Summary of articles	1
Malware Notes & Tips	
- Hijacked by System Tool 2010	10
Communications Note & Tips	
- Domain Name Scam	2
- Keeping Your Computer Safe	2
- Using Skype	3
Word Processing Notes & Tips	
- How to Delete Tab Stops in WORD Documents	4
- News Alert: Adobe Reader Flaw Appears in Flash	4
Software Notes & Tips	
- Nybbles and Bits	5
Hardware Notes & Tips	
- Solid State Devices	5
- When is a dSLR NOT a dSLR?	7
- A Dual Monitor Setup - On the Cheap .	8
General Interest	
- Computing Experience	7
Library News	
- None at press time.	

Good Cheer!

This is our year end meeting when members bring seasonal goodies for us to snack on during the meeting.

Bring Yours and we'll share

UPDATE

Malware

In *Hijacked by System Tool 2011* Newsletter Editor Bob Thomson tells of his experience with a new piece of malware which took over his computer in mid-November. It almost prevented the newsletter from being published this month. Read all about it on Page 10.

Communications

In *Domain Registration Scams* Carl Tenning says: "Another domain registration scam comes from companies that pose as domain-name registrars. When your domain name comes up for renewal, you will likely receive a legitimate notice from whoever you are registered with. However these scammers pose as your registrar and collect fees ranging into multimillions in bogus renewal fees from many unsuspecting domain name owners."

In *Keeping Your Computer Safe* Vinnie LaBash discusses steps you can adopt to avoid being victimized when using email, browsing the web, and exchanging documents with others.

In *Using Skype* the author points out that using free Skype software on your computer allows you to make phone calls over the internet to others who have the service installed.

Word Processing

In *Howto Delete Tab Stops in WORD Documents* the author discusses step-by-step methods to make it easy

In *News Alert: Adobe Reader Flaw Appears in Flash* Kim Kommando says a flaw in Flash would be fixed by early October 2010 so by the time you read this it should be fixed. If concerned, read all about it.

Software

In *Nybbles and Bits* the author ran into problems with mouse functions after upgrading to Windows 7. If you have similar problems after upgrading you might check this out.

Hardware

In *Solid State Devices* Vinnie LaBash gives you techies something to chew on in this more technical than usual article. Read and learn.

In *When is a dSLR NOT a dSLR?* the author provides you camera buffs with a fairly detailed history of Single Lens Reflex cameras digital and otherwise.

In *A Dual Monitor Setup - On the Cheap* the author discusses how to use an unused second computer as one of two monitors in a dual monitor application.

General Interest

In *Computing Experience* the author discusses how innovations by Microsoft's competitors will change the way we operate our computers in the future. She uses Google's Chrome operating system as an example.



COMMUNICATIONS NOTES & TIPS

Domain Name Scam

By Webmaster

Tacoma Open Group For Microcomputers

A domain name is your world-wide-web address and in the case of TOG is <http://www.toggle.org>. TOG has owned this domain name since July of 1999 and pays a fee of \$12 per year to maintain that registration. We recently received an e-mail from an Angela Zhang of a "Network Service Company" in Shanghai, China, informing us of the request for registration of the name TOGGLE in China by a certain Asian company. The sender identifies themselves as a Network Service Company and while it doesn't actually give the name of the company, it does give an address for their Shanghai office as 3022, Nanhai Building 854, Nandan Road, Xuhui District, Shanghai. They reported that the Asian company applied for registration of toggle.cn and toggle.com.cn and that if we wanted to protect our trademark in Asia, we needed to contact them as soon as possible.

Your webmaster, never having received a notice like this, thought it was genuine. However upon consultation with our club security guru, Ray Mills, he said it was a scam. The scam, of course, was that if you responded they would offer you the Asian registration of TOGGLE at an exorbitant fee. It didn't take much of a Google search to find many such letters and warnings. Do a Google search for "domain name scam" and you will see almost the same email that your webmaster received. While these schemes come mainly from overseas and mostly China, there are at least two US companies using this scheme. The Federal Trade Commission is attempting to shut these two down.

Needless to say, TOGGLE did not respond to this scam, but almost did. It sounds pretty slick.

Keeping Your Computer Safe

by Vinny La Bash, <vlabash@comcast.net>
Sarasota Personal Computer Users Group, Inc.

Sadly, the Internet is filled with predators that are scheming to hurt you in one form or another. Some are out to destroy your system and its data. Others are out to destroy you financially. What can you do to protect yourself and your equipment from threats that appear to be growing daily? Most of us are not IT professionals, and the odds are excellent that one is not living with you. Happily, a high degree of expertise is not necessary to protect yourself from all the nastiness waiting for you in cyberspace. There are steps you can adopt to avoid being victimized when using email, browsing the web, and exchanging documents with others. Let's take a look at some of them.

Install Anti-Malware Programs and Keep Them Up-To-Date:

Note: *Rather than go through a list of recommendations,*

we suggest you start and end with your local PC User Group. They are ALWAYS the best resource for you to tap. Isn't that one of the reasons you joined? SPCUG maintains a Yahoo forum for the sole purpose of assisting our members. Go to <www.spcug.org> and click on the "Subscribe to the SPCUG Yahoo Group" link.

It's not enough to simply install a malware program. Unlike a Ron Popeil product, you can't set it and forget it. The publishers of these programs release signature and database updates often. If you allow these programs to get out of date, they quickly become useless.

If you make use of social media such as Facebook, MySpace or Twitter you need to be especially vigilant. Last year AVG released figures showing that the number of malware programs is increasing at an alarming level. Most of these programs come and go quickly, but new ones are constantly popping up.

Exercise Caution with Embedded Email Links and Attachments:

If you let your guard down, the chance of infection increases substantially. Your email client should have the capability of scanning emails and attachments for viruses. If it doesn't you are taking a bigger risk than you might recognize.

Before clicking on embedded links, you should access Web sites by opening a browser and manually navigating to the sites in question. This is not as straightforward as clicking on the link, but it's much safer because you lessen your chances of being redirected to a fraudulent site and becoming infected. The method isn't entirely foolproof, but it does eliminate almost all danger from bogus links.

Disable AutoPlay:

Connecting external drives, flash memory devices or a network drive can be a danger to your system. Some viruses work by latching on to a drive and automatically installing themselves on any other drives they detect on your computer. To disable AutoPlay go to Control Panel, open Hardware and Sound, open AutoPlay, select your device or devices, and choose the appropriate action.

Use a High Quality Anti-Virus Program:

The free anti-virus program bundled with your ISP connection rarely has the capabilities required to safeguard your computer. Use a professional business grade program that offers automatic upgrades and features such as rootkit protection and customized scans.

Use Real-time Anti-Spyware:

No single anti-virus program with integrated spyware protection can do an adequate job of defending you. That is also true of most freeware programs because they are simply overwhelmed by the constant flood of new spyware threats. Contact your user group for the most effective programs.

Daily Scans:

Since nothing offers complete protection, you should be proactive in defending your computer against attacks. The

sheer number of new cyber menaces makes it virtually inevitable that one of them will eventually somehow bypass your security and infect your system. You may even have inadvertently allowed one of these programs to be installed on your system by clicking OK on a dialog box you didn't inspect closely enough.

If you're infected, you're infected. Once that happens the how of it doesn't matter. You need to clean your system as quickly as possible. Daily scans add an additional layer of protection. They are an invaluable tool of detecting and removing malware. Even if you can't immediately remove the threat you can quarantine it until you can.

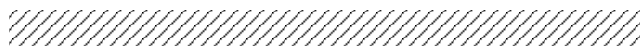
Use Common Sense While Surfing the Web:

There are useful plug-ins for your browser that provide automatic protection without interfering with normal operations. Some guard against phishing attacks, others warn you about Trojans, and still more alert you to possible scams or attempts to steal personal or financial information. Which ones are they? Contact your user group! You can't find a better source of up-to-date information.

Protecting yourself is mostly a matter of common sense.

You wouldn't leave your house with all the doors and windows open and unlocked. Why leave yourself exposed when you enter cyberspace?

Copyright 2010. This article is from the October 2010 issue of the Sarasota PC Monitor, the official monthly publication of the Sarasota Personal Computer Users Group, Inc., P.O. Box 15889, Sarasota, FL 34277-1889. Permission to reprint is granted only to other non-profit computer user groups, provided proper credit is given to the author and our publication.



Using Skype

by Mike Kearns (bmkearns1@yahoo.com) Computer Club of Green Valley AZ (<http://gvcc.apcug.org/>)

Using free Skype software on your computer allows you to make calls over the internet to others who have the service. It's easy to download and works with most, if not all, computers. Try this great way to keep in contact with your kids, grandchildren, siblings and close friends. You need three things to make it happen:

1. A high-speed internet connection.
2. A web cam, and I recommend Logitech. You can buy a good camera (with install disk) at Wal-Mart for around \$50. Newer computers have web cams built in. Each camera requires some adjustments for brightness, contrast and sound, but they are usually easy to work with.
3. You need to download the free program by going to Google and typing "free Skype download." - The PC version is 4.2, and the latest Mac version is 2.8.

When you download the program you will be asked what Skype name you wish to use. You can choose any name you want. If you pick an unusual name, it is a good idea to let your

Skype friends know, because Skype offers a directory to locate their users all over the world.

When you attempt the first contact with another Skype user, the person receiving the call has the option of accepting or rejecting the call. If you attempt to contact someone who doesn't know you, they can reject your call, similar to a spam blocker.

The web cam gives a nice picture of the person to whom you are talking on the screen. Quick movements can distort the picture for a few seconds while the web cam is adjusting. Skype includes a small window of each party at the bottom of the screens so you know what the other person is viewing. The quality of the picture is better if both parties have a good high-speed connection. Going from a dial-up connection to a high-speed connection can cause distortion in the video and also slows down the interaction.

It is best to set up a time with the person you will be calling so they have their Skype program open and ready to accept the video call. The person you are calling also has the option to accept the call with or without video. Once you are connected, you can talk as long as you want--there is no charge. You can make adjustments to see the person on full screen or half screen. I find that the image gets a little distorted on full screen, but overall it is still a good picture.

Another neat feature permits you to move a Netbook or laptop with the built-in camera around the room to show the person different items of interest in your home. The new, small Netbooks are especially useful because they are so portable and lightweight.

Skype can also be used as your telephone service by clicking on their Shop button. You set up a credit-card account with Skype to pay for the calls. Then you can make a phone call to a person's land line and talk to them through your computer.

I have noticed a few people using the new Netbooks as both a phone and video-calling service. They weigh only two pounds, and many women can carry them in their purse. With Skype you can make phone calls anywhere in the world, and the cost per minute will vary depending on where you are calling. I understand that overseas phone calls are very reasonable.

Keep in mind that Skype is not designed to be a replacement for your ordinary home phone since you would not have your computer on all the time. Also, be aware that you cannot use Skype for emergency calling such as 911.

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).

WORD PROCESSING NOTES & TIPS

How to Delete Tab Stops in WORD Documents

by Susan Harkins,
Computer Club Bearly Bytes October, 2010

Tab stops are a paragraph format. That means you can assign different tab stops for individual paragraphs. Fortunately, that doesn't mean you have to delete them all individually or by the paragraph. There's a quick, easy way to delete all the tab stops in a document.

First, select the entire document. There are a number of ways to do so, but the quickest is to press [Ctrl]+a. With the entire document selected, do the following to delete all tab stops:

1. Choose Paragraph from the Format menu. Or, right-click the selection and choose Paragraph from the resulting context menu. In Word 2007 and 2010, click the Home tab | Paragraph group Dialog launcher.
2. Click Tab (at the bottom-left).
3. In the Tabs dialog box, click the Clear All button at the bottom-right.
4. Click OK.

The truth is, deleting all the tabs is a simple enough task, but the feature's placement isn't particularly easy to find, in any version. Of course, you won't always want to delete all of the tab stops. You can clear individual tab stops as follows:

1. Position the insertion point in the appropriate paragraph.
2. Choose Paragraph from the Format menu. Or, right-click the selection and choose Paragraph from the resulting context menu. In Word 2007 and 2010, click the Home tab | Paragraph group Dialog launcher.
3. Click Tabs.
4. In the Tab Stop Position control, highlight the tab stop you want to delete.
5. Click Clear.

Some might consider using the ruler a bit easier:

1. Position the insertion point in the appropriate question.
2. Find the tab indication on the ruler and drag it off it couldn't be simpler!

As long as we're talking about the ruler, there are two quick ruler tips that I really like:

1. Double-click an existing tab on the ruler to display the Tab dialog box for quick formatting.
2. Double-click the ruler where you want to insert a tab to both insert a tab and open the Tab dialog box.

News Alert: Adobe Reader Flaw Appears in Flash -

By Kim Komanado

Adobe has just announced a new security flaw in Flash. The flaw is the same as the recent problem revealed in Reader. The Flash flaw won't be patched until the week of Sept. 27. And the flaw in Reader won't be patched until the week of Oct. 4.

Until the patches arrive, there are few options to stay safe. You can use another PDF reader. Unfortunately, though, there isn't a good alternative to Flash. Adobe and Microsoft recommend trying Microsoft's latest

Enhanced Mitigation Experience Toolkit (EMET). This makes it easy to enable advanced security options in Windows. One of these options is turned off in Reader and Flash.

The cause of the flaw is complex, but here's the short version. One of the Adobe files lacks Address Space Layout Randomization (ASLR) capability. This allows hackers to circumvent safeguards and run code.

Activating ASLR for Flash and Reader can slow down hackers. Note that ASLR is only available in Windows Vista and 7. XP users will have to wait for a patch.

Download and run the EMET program. Click the Configure System button. Change the Profile Name to Maximum Security Settings. Click OK.

Now click the Configure Apps button at the bottom of the program. Click the Add button. Then go to C:\Windows\System32\Macromed\Flash\. You will see at least one application (.EXE) file. Select that and click Open. Repeat this step for every .EXE file in that directory.

Now click the Add button again. Go to C:\Program Files\Adobe\Reader 9.0\Reader\. Select the application file AcroRDd32.exe. Then click Open. Once this is done, click OK. Now restart your computer. Your system should be reasonably protected.

Now, it is important to note that Flash and Reader weren't designed to work this way. You may encounter some problems. In that case, you will need to turn off ASLR.

Open the EMET program. Click the Configure Apps button. Now select an application and click the Remove button. Do this for all programs. Click OK and restart the computer. Now select an application and click the Remove button.

SOFTWARE NOTES & TIPS

Nybbles and Bits

John Pearce (Glenihan@comcast.net),
February 2010, Pikes Peak Computer Application Society
(<http://ppcompas.apcug.org>)

Last month, I mentioned an article in TechRepublic regarding removing old drivers from your system. Little did I know that issue was going surface in my notebook that I upgraded to Win 7. The touchpad on my notebook computer has a vertical scroll area at the right side of the pad. I had no problems using the vertical scroll until I upgraded to Win 7 at which point, it stopped working.

I ignored the problem until just after the January PPCompAS meeting. When I started to investigate and tried to access the settings for the touchpad, there was a pop-up dialogue box telling me that IntelliPoint was blocked from running because of known incompatibilities with Win 7. It took me a few minutes to remember that I had bought a USB mouse and installed Microsoft IntelliPoint software shortly after purchasing the notebook. I had used the USB mouse until I bought a Logitech wireless mouse a year or so ago.

My first thought was to just remove the offending software. Good idea except there was nothing shown for IntelliPoint in the Programs and Features list and nothing for the USB mouse in the Mice section of Device Manager. Connecting the USB mouse made it appear in Device Manager and caused IntelliPoint to appear in the Programs list. I thought I was close to being done. Surprise, surprise! Trying to perform an uninstall of the software produced the pop-up about IntelliPoint being blocked. I wondered how you could uninstall it if it was blocked from running. This time the pop-up dialogue box provided a link to an update and I performed the update. After the IntelliPoint update completed, the vertical scroll on the touchpad worked correctly. However, I decided to remove IntelliPoint because I no longer use the USB mouse and could not think of a good reason to leave the software installed.

This is the first time I can remember where it was necessary to upgrade software just to remove it. I expect the Win 7 upgrade did not upgrade the IntelliPoint software because the USB mouse was not connected at the time the upgrade was performed. Maybe next time I will remember that USB devices should be plugged in during an upgrade and to make the related software and drivers visible. Even better would be to remove old drivers as TechRepublic suggests. 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).

HARDWARE NOTES & TIPS

Solid State Devices

by Vinny La Bash, <vlabash@comcast.net>
Sarasota Personal Computer Users Group, Inc.

Measuring the effect of SSD technology is more than the numbers game we play with conventional Winchester disk drives. What you experience with SSD drives centers on how certain tasks feel. Loading applications, boot up, shut down, and changing levels in your first person 3D shooter game are prime examples. Everything happens incredibly fast.

Examine the current state of SSD technology and you see a rapidly evolving technological landscape. Concerns about performance, longevity, and outright failure that plagued early solid state drives are fading. These issues are being replaced by how well manufacturers are optimizing the components of SSD technology. NAND chips, controllers, and cache memory are made by multiple suppliers. SSD vendors must take these separate components and merge them into a reliable storage device with good performance at a price that potential customers are willing to pay.

SSD manufacturers select a controller based on the controller's cost and capability, match it with one of several different kinds of cache memory, and marry the combination to either MLC or SLC NAND flash memory chips. Single Level Cell (SLC) holds one data bit per cell. Multi Level Cell (MLC) has greater capacity. Currently MLC data chips hold two data bits per cell.

Experience reveals that the future belongs to MLC based devices. Up until now SLC based technology offered faster writes, lower power consumption, and greater longevity. Still, Intel and other chip makers appear confident that MLC technology will become dominant in the marketplace. That confidence is backed up by the design of current MLC devices where performance measured against SLC based devices is becoming nearly indistinguishable. An examination of technology publications shows that reviewers of SSD drives overwhelmingly prefer MLC gear.

Intel has been and continues to be a leader in this area. In the early days of SSD development, controller problems were so prevalent that Intel assigned a team of development engineers to redesign the controllers. A new generation of controllers came about which rehabilitated the technology. That too is about to change. Earlier this year Intel and Micron announced 25nm NAND flash memory production which means yet another generation of controller technology is imminent.

Why Performance Declines Without TRIM

It is important to understand how SSD devices handle a

delete operation. (*Otherwise you may have difficulty comprehending TRIM, which will be described later*). No storage device, whether it is an SSD or traditional drive, has access to the operating system's file structure. Therefore, it does not know what data the OS has marked for deletion and is available for overwriting. Later on, when the OS wants to perform a write operation, this becomes an overwrite operation from the viewpoint of the storage device.

For conventional disks, this is the same as writing to an empty sector, but because of how an SSD must operate at the hardware level, an overwrite operation involves considerable additional overhead which can effectively cripple write performance.

An SSD stores its data in flash memory cells. These cells are organized and grouped into pages. Typical page capacity is 4 KB. These pages are further consolidated into blocks consisting of (typically) 128 pages or 512 KB of data. Early SSD performance slowed down over time because data can be erased only at the block level. An erase operation is theoretically possible at the page level, but because of the physical construction of an SSD device, erase commands won't work except at the block level. This is inherent in the design, and cannot be changed.

Note: By design, it is impossible to write to a NAND memory cell unless it is empty. Any data in the block must be transferred into cache memory where it is then erased and rewritten to flash memory as empty pages. The actual operation is more complex, but a data overwrite is essentially a read, modify, erase, and write cycle. The memory and processor embedded in the controller handles the entire procedure and does not go outside the SSD. The process is commonly referred to as *write amplification*.

Example: You have 8KB of data. In a previous session the OS marked some of the data for deletion, and the OS now wants to overwrite the "deleted" data.

1. The OS sends instructions to the SSD controller to begin the data overwrite.
2. The contents of the entire block are read into cache memory.
3. The memory cache is now updated. Unneeded data is deleted, and the rest undisturbed.
4. The entire block is erased on the SSD.
5. The updated data in the cache memory is now written back to the block.

The longer the SSD has been in use the greater the performance degradation because of the way data must be stored and modified.

TRIM

Without TRIM, performance declines because the operating system doesn't bother to inform the SSD when data is available for re-write, and the operating system doesn't actually delete the data. The TRIM command addresses the situation by working with the operating system to notify the SSD that data marked for deletion should be immediately erased. In other words, the TRIM command tells the SSD to delete data at the same time the user initiates the delete function instead of waiting for the OS to decide when to overwrite the "deleted" data.

When the operating system "deletes" a file, if TRIM is enabled, the operating system updates the file system and notifies the SSD via the TRIM command which pages need to be deleted. Then the SSD reads the block into cache memory, updates the cache, erases the block on the SSD, and then writes back only pages containing data which was not marked for deletion by the OS. The delete is slow, but there is no performance hit for write operations because the affected pages are now empty, and write performance is what's important. TRIM improves performance only when you delete files.

The TRIM command acts as an interface between the OS and the SSD that tells the SSD when data should be erased. The SSD then performs the delete operation immediately after the OS marks the data for deletion. Since TRIM ensures that data is actually deleted immediately after the user deletes a file, traditional file recovery programs will not work on solid state devices with TRIM enabled.

Note: Windows 7, Windows Server 2008 R2, and some versions of Linux support TRIM. **Windows XP and VISTA do not, repeat, do not support TRIM.** However, a few vendors have included utilities that will enable the command with XP or Vista if the SSD supports the command. However, most early SSD devices do not support TRIM. Check with the manufacturer.

Partitioning and Formatting

While the physical structure of solid state devices is considerably different from traditional disk drives, partitioning and formatting operations appear virtually identical from a PC user point of view. What goes on under the covers should be of no concern to most users.

Defrag

In a standard disk drive, information is accessed by a combination of platter rotation and movement of read/write heads. Defragmentation takes all the sections or fragments of a file and positions them in one contiguous location. This minimizes seek time and speeds up disk operations.

Solid state devices have no moving parts. Performance is the same no matter where data is located. Therefore, nothing can be gained by defragging a solid state device. The addi-

tional, unnecessary read/write cycles may actually reduce the SSD's life expectancy. Therefore, defragmenting SSDs is not only useless, but may be harmful. Don't defrag an SSD.

Wear Leveling

Flash memory chips have a finite life cycle. This cycle is defined by approximately 10,000 write operations before the cell is subject to breakdown and no longer reliably records data. *Wear Leveling* is the process by which no flash memory cell is required to undergo significantly more write operations than any other memory cell on the drive. The process evenly distributes write operations among the available flash memory cells.

Wear Leveling affects the data capacity of solid state drives because some of the disk space must be reserved to carry out the leveling operation. The amount of reserved space varies by manufacturer and is known as *over-provisioning*. The longevity of an SSD appears to be directly proportional to the efficiency of *Wear Leveling*. Most manufacturers reserve around 7% of the SSD. Conservative vendors such as Mushkin reserve up to 13%. This can account for much of the discrepancy between stated total capacity and formatted capacity. The trade off could become an issue to SSD customers who may be unwilling to sacrifice storage space even for potential increased longevity.

Summary and Conclusions

There is no doubt that solid state devices will eventually replace conventional disk drives, but prices of solid state drives will have to decline significantly first. Until that day, expect to see hybrid systems consisting of an SSD boot drive, and traditional drives for bulk storage. Solid state drives have no moving parts. Therefore, they have considerable advantages over traditional drives:

1. They are very fast because seek time is greatly reduced.
2. Less likely to malfunction.
3. Smaller and lighter.
4. Generates very little heat.
5. Completely silent.
6. Consume far less energy.

Copyright 2010. This article is from the October 2010 issue of the Sarasota PC Monitor, the official monthly publication of the Sarasota Personal Computer Users Group, Inc., P.O. Box 15889, Sarasota, FL 34277-1889. Permission to reprint is granted only to other non-profit computer user groups, provided proper credit is given to the author and our publication.

When is a dSLR NOT a dSLR?

Jerry Schneir (editor @lacspc.org),
Los Angeles Computer Society(www.lacspc.org)
via ACGNJ News November 2010

Simple question but very indicative of what the future holds for some of us photo buffs. In simple terms, it is a camera that is devoid of a mirror box assembly. In other terms it is an interchangeable lens camera, but unlike a single lens reflex (SLR) it does NOT have a mirror to redirect the light from the lens to the optical viewfinder. All SLR cameras, digital and otherwise, use a mirror assembly to intercept the light that comes through the lens and redirects the incoming light to the viewfinder rather than to the film (or sensor) at the back of the camera. Generally the light will also pass through a prism or fixed mirrors at the top of the camera on its way to the viewfinder. It is this complex configuration that gives a SLR a distinctive look. It is also this configuration that gives a SLR a distinctive sound as the mirror swings out of the path of the incoming light and then returns to redirect the light back to the viewfinder.

To answer the question we need to go back in time. The entire dSLR world started changing in September of 2004 with Olympus's introduction of their E300 dSLR. Here was a camera that didn't look quite like anything else, not SLR nor rangefinder. It sported a mirror that worked different, didn't have the traditional top bulge and was based upon the Four Thirds sensor design. In September of 2005 Olympus came out with their E500 a dSLR looking camera and then in January of 2006 they introduced the E330, another dSLR type, but a camera with "Live View", the ability to see the image on the LCD before the shot was taken. That feature caused an uproar among the traditional SLR manufacturers. In February 2006 Panasonic introduced their unique looking L1 which was also based upon the Four Thirds sensor.

While the L1 still incorporated a mirror it did not have the look of a SLR, but more closely the rangefinder cameras of the 1950-1960 period. That camera bombed primarily because of cost. In August of 2007 Panasonic introduced the L10 which now resembled the traditional look of the SLR and had Live View but again did not do as well as hoped for by Panasonic.

In September of 2008 Panasonic brought forth the G1 a Micro Four Thirds camera that looked like a dSLR in that it had the characteristic bulge on the top of the camera, had interchangeable lenses, but it did NOT have a mirror box assembly. In the G1, light passed directly through the lens onto the imaging sensor. This was a much different camera. The camera was different for several other reasons. It was based upon the Four Thirds sensor size introduced several years earlier, but used Micro Four Thirds mount lenses, and used an electronic viewfinder (EVF) in place of the traditional optical viewfinder of the digital single lens reflexes (dSLR) cameras. Though it looked like the smaller dSLR cameras, Micro Four Thirds

cameras are not dSLRs. They are also smaller because they don't house a dedicated autofocus image sensor. The autofocus on the G1 uses the Four Thirds image sensor. This is exactly like autofocus on a compact camera. But here, autofocus is speedier because on the Micro Four Thirds cameras they use both a faster autofocus algorithm and a faster processor. This makes autofocus feels faster and more like a dSLR, at least on some cameras.

Up to this time, two companies, Olympus and Panasonic had adopted the Kodak developed Four Thirds sensor design. The major advantage, and to some old diehards, the only advantage, was the reduction in both size and weight of the lenses and to a certain extent, the size and weight of the camera body as well. But these earlier cameras although smaller and lighter in weight, still could NOT do what every point and shoot camera could, show the image on the LCD or EVF before taking the picture and shoot movies. The G1 still lacked the movie ability. The movie mode was just peeking its head up in regular dSLR at about that time with "Live View". Panasonic changed that with the arrival of the GH1 in March 2009, a new movie mode had been added.

Up to this point in time, all these cameras still utilized the mirror box, nothing really had changed until the earth shattering (somewhat an exaggeration) introduction of the new mirrorless cameras in 2009, the Olympus E-P1. This was a rangefinder looking camera, albeit, without a rangefinder but having the rangefinder look. However, this breakthrough camera lacked two important built-in features, no flash and no viewfinder of any type. Olympus partially corrected this "whoops: with the introduction of the E-P2 in November 2009. This camera had a port for connecting a high resolution EVF. In February of this year, Olympus announced its newest edition to this family, the E-PL1. This camera had a built in flash and a port for connecting the EVF.

Panasonic finally took the plunge into a rangefinder style camera with the introduction of the GF1 in September of 2009. The GF1 uses an optional EVF and has a built-in flash unit. In March of this year, Panasonic announced two new cameras, the G2 and the G10. These are almost identical cameras resembling SLR designs more than anything else. Interchangeable Micro Four Thirds lenses but no mirror boxes.

But this question about dSLR cameras doesn't end here, other cameras with interchangeable lenses but lacking a mirror box have been introduced, have been announced, or are rumored to be in the works. I have deliberately skipped talking about Leica cameras since, IMHO they are just largely rebadged Panasonics. Sony showed their non-working prototype based upon a full APS-C sensor. Ricoh's GXR comes with interchangeable units containing a lens and a sensor in a rangefinder style camera. Can't say much about the sensor size since it is dependent upon the lens that is part of the system. I have strong reservations about this concept.

The Samsung NX10 is a rangefinder style camera using a new lens format called NX. What is most interesting about this camera is that it uses a APS-C size sensor, that is about 1.5x that of the Four Thirds sensors. Of course, this means larger and heavier lenses than that of the Panasonic or Olympus cameras of similar designs. While Canon and Nikon have said nothing, rumors are rampant. I suspect that we will see new mirrorless digital cameras from these mammoths of the industry in the later part of this year. I suspect that the designs will be that of rangefinder styles reminiscent of earlier Nikon RF cameras of the 1940-1960 and the same with Canon except they may base it more on their popular G series of cameras such as their G11. So here we have it, a whole new class of cameras, you might say SLR cameras minus the R. I prefer to say RF style since in my mind they are truly reminiscent of cameras from the 1940-1960 time period. The advantage to this new group of cameras is smaller size and lighter weight while maintaining the excellent image quality associated with the dSLR cameras. Disadvantage, fewer lens choices and, for the time being, relatively more expensive. Some of these cameras tend to be slower focusing but that is changing in the newer models.

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).

A Dual Monitor Setup - On the Cheap

by Moe Norris (vnorris@cox.net),
Topeka PC Users Club (<http://www.topekapcusersclub.org>)

As seen in November 2010 ACGNJ News

Have you dreamed of having two monitors sitting on your computer desk with all the added screen real estate which that would provide? But that would entail buying a second monitor, then replacing your computer's video card with a dual head model (and if you are using a laptop, forget about it).....all in all, an expensive project that your wallet (or your spouse) may not tolerate. But don't give up hope there may be another solution.

Do you have two computers in the house? You need two - any two: desktop, notebook, or netbook. You can mix or match in any combination, and turn the second computer into a dual monitor for your primary machine. How? Through the magic of software.

What you need:

Windows from 2000 through 7 (you can mix or match). The two computers must be connected through a network which supports the TCP/IP protocol. (If you don't already have an ethernet or wireless LAN setup, you can connect the two computers directly using a crossover ethernet cable, Firewire cable, or a special USB-to-USB cable.)

Forty dollars you can shake out of your piggy bank for a copy of MaxiVista, the magic software that makes the whole thing happen. (There are more expensive versions of MaxiVista with additional features, but you only need the \$40 version to enable the screen stretching.)

So how does it work? When you install MaxiVista on the primary computer, it creates a virtual video driver on that machine. This causes Windows to think that an additional monitor is installed. The contents of this virtual video card are compressed and transmitted to the secondary PC via any standard network connection and displayed by a separate MaxiVista viewer program on the second computer. Now you can spread the screen content across two monitors! The picture below shows a dual monitor setup with a Photoshop image open for editing in the primary monitor, a 24" model running at a resolution of 1920 x 1200 pixels. The secondary monitor is a 15" laptop screen with a resolution of 1024x768 pixels.

Problem:

The control panels cover a portion of the image that is being worked on. Not to worry! Just move the panels to the secondary monitor and Voila! To see videos showing MaxiVista in action, go to maxivista.com/demo.htm. If you would like to try this program, a 14-day free trial can be downloaded from: maxivista.com/download.htm.

The free trial will allow you to make certain that it works well with your equipment - and decide whether you really want the program - before investing any cash. Have a second computer? Then give MaxiVista a try - it won't cost you a cent to find out if a dual monitor setup is for you!

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).



GENERAL INTEREST

Computing Experience

by Constance Brown, [constanceb\(at\)camug.com](mailto:constanceb(at)camug.com)
Canton/ Alliance/Massillon UG North Canton, OH
The Memory Map, April 2010 <http://www.camug.com>

Our total computing experience may well be shaped in the future by Microsoft competitors. Think that is an overstatement? Just think of the changes Microsoft is making to keep up with new demands from a changing computer environment based on more mobile devices and the need to share documents quickly in a web-based environment. Many changes are being pioneered by competitors that are stepping up with new devices, applications, and software.

One competitor is Google. Google Docs was designed to allow the creation of documents online in an environment similar to Word, Excel, and PowerPoint, making it easy to collaborate in real time. Price? No charge. A few months ago Google released the new Chrome Browser. Google also released the Android operating system for phones which are very popular and not susceptible to the viruses written for Windows. Droid phones allow users to browse the Internet, exchange email, take pictures, and do hundreds of tasks quickly and efficiently. Oh, yes. People talk on them too.

We have been waiting for Google's new Chrome Operating System, wondering how it will compare to Windows.

To answer that question I visited Google's blog. Here is some of what I learned from the July 7 2009 entry.

“Google Chrome OS will run on both x86 as well as ARM chips and we are working with multiple OEMs to bring a number of netbooks to market next year. The software architecture is simple--Google Chrome running within a new windowing system on top of a Linux kernel. For application developers, the web is the platform. All web-based applications will automatically work and new applications can be written using your favorite web technologies. And, of course, these apps will run not only on Google Chrome OS, but on any standards-based browser on Windows, Mac and Linux thereby giving developers the largest user base of any platform.”

“Google Chrome OS is a new project, separate from Android. Android was designed from the beginning to work across a variety of devices from phones to set-top boxes to netbooks. Google Chrome OS is being created for people who spend most of their time on the web, and is being designed to power computers ranging from small netbooks to full-size desktop systems. While there are areas where Google Chrome OS and Android overlap, we believe choice will drive innovation for the benefit of everyone, including Google.”

We hear a lot from our users and their message is clear--computers need to get better. People want to get to their email instantly, without wasting time waiting for their computers to boot and browsers to start up. They want their computers to always run as fast as when they first bought them. They want their data to be accessible to them wherever they are and not have to worry about losing their computer or forgetting to back up files. Even more importantly, they don't want to spend hours configuring their computers to work with every new piece of hardware, or have to worry about constant software updates.'

On November 19, 2009, Google open-sourced the code for Chrome OS, a year before the developers anticipate that the OS will be ready for general use. Anyone who wishes to download the code and contribute to the development of the operating system may do so. I am not a developer and have no interest in writing code. But I am interested in the results. It is a totally new way of computing. Here are excerpts from Google's official blog on November 19, 2009.

'First, it's all about the web. All apps are web apps. The entire experience takes place within the browser and there are no conventional desktop applications. This means users do not have to deal with installing, managing and updating programs.'

'Second, because all apps live within the browser, there are significant benefits to security. Unlike traditional operating systems, Chrome OS doesn't trust the applications you run. Each app is contained within a security sandbox making it harder for malware and viruses to infect your computer. Furthermore, Chrome OS barely trusts itself. Every time you restart your computer the operating system verifies the integrity of its code. If your system has been compromised, it is designed to fix itself with a reboot. While no computer can be made completely secure, we're going to make life much harder (and less profitable) for the bad guys. If you dig security, read the Chrome OS Security Overview or watch the video.

'Most of all, we are obsessed with speed. We are taking out every unnecessary process, optimizing many operations and running everything possible in parallel. This means you can go from turning on the computer to surfing the web in a few seconds. Our obsession with speed goes all the way down to the metal. We are specifying reference hardware components to create the fastest experience for Google Chrome OS.

No doubt this new model will change the way we use computers in the future--at least for most people. Things will not change suddenly. But it is highly likely that a web based computing environment will be the norm for most users in the future.

MALWARE NOTES & TIPS

Hijacked by System Tool 2011

by Bob Thomson, TOGGLE Editor
Tacoma Open Group for Microcomputers

On October 18th, 2010 my Windows XP computer which is hooked to the Internet was hijacked by malware called **System Tool 2011**. It took over the computer and wouldn't allow me to do anything in the Windows XP mode without paying a substantial ransom to get rid of the hijacking program. I didn't know the name of the program to start with. I learned that later.

I rebooted my computer and managed to get it into the SAFE MODE from which I tried many things attempting to recover from this disaster. For several hours I was unsuccessful but did have rudimentary control of my computer. I have two hard disks in my machine, C: and D:. I transferred several important files from the C: drive to the D: drive as a back up of the most recent changes in case I had to reformat the C: drive to recover.

I phoned TOG President Carl Tenning and he made me aware of a program provided by Microsoft called MRT.EXE which resides in the Windows32 folder. Its sole purpose is to search its list of rogue software and delete it from your system, if found. I maneuvered to that directory and ran the program. There were two choices: a quick version and a full blown effort. I tried the quick one and it ran for a few minutes and didn't find the current malware in its list. So I ran the longer version. It ran for about three hours. It didn't find any malware either. Of course, my copy of XP is rather old. Maybe there is an updated list of malware in a more recent copy.

Since I was running in SAFE MODE I hadn't even tried to run System Restore. However, I then tried to find it and after a bit of a search (remember I was in SAFE MODE) I located it and ran it. To locate it press Start/All Programs/Accessories/System Tools/System Restore. Fortunately I remembered that I had run a Restore point about a month ago. I ran it and it took quite a while to run but finally did the job restoring my computer to its month ago configuration. I rebooted and all was well, although the computer seems to run rather slowly. I will probably have to do some tweaking.

According to some research done by Carl Tenning, **System Tool 2011** is fairly recent malware having appeared on the computing scene in October 2010. You should take heart in knowing that it can be removed by running System Restore in SAFE MODE.

Although I removed the threat using System Restore there is also a remedy provided by Malware Bytes, a commercial company. You can read more at: <http://forums.malwarebytes.org/lofiversion/index.php?66064.html>

Note: My MRT.EXE was updated on Nov 22, 2010.

Help Lines

HARDWAREHELP	AdvisorNo.
Reformat Hard Disk, FDISK	2,4,5
Install Hard Drive, CD-ROM/RW	2,4,5
Install Video Card	7
Partitioning Hard Drives	2
Internet/Intranet	6,7
Audio Cards	4
MPs Files, WMA Files, WAV Files	3,4
Burning CD's	3,5
Homesite	7
Net Objects	7

SOFTWAREHELP	AdvisorNo.
Win95/98/ME/2K/NT/XP	2,3,4,7
Win 7	4,7
Microsoft Word	2,7
Microsoft Excel	4
Microsoft PowerPoint	4
WordPerfect	1,7
Norton/Symantec AntiVirus	2,3,6,7
Norton System Works	2,7
CompuPic / CompuPic Pro	3,7
Winzip, WinRAR	6
Ccleaner	3,4
Outlook, Outlook Express	2
Internet Explorer	2,7
RegSeeker	3,5
Instant Messaging	2
Installing Software after Reformatting	5
Deleting Files; Wiping	6

ADVISORS

Name	Phone	Hours
[1] Fred Shelton	(253)752-0120	Variable
[2] Bob Henkel	(253)537-6732	8A-8P any day
[3] Tom Stepanek	(253)922-7939	7-9P Mon-Fri
[4] Carl Tenning	(206)824-3843	6-9P Mon-Fri
[5] Oclad Wesley	(253)212-0352	6-9P
[6] Bob Thomson	(253)752-5582	Variable
[7] Ray Mills	(360)692-7568	6-9P Mon-Sat

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 13 Dec 2010 -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

President Carl Tenning (206)824-3843
& S. King County Rep c.10ing@toggle.org
web page: <http://carlten.tripod.com/index.html>
VP/Prog Chair Vacant
Sec/Treas Bob Henkel (253) 537-6732
bobh@nventure.com
Disk Library Tom Stepanek (253) 922-7939
tomstep7@msn.com
Newsletter Editor Bob Thomson (253) 752-5582
rjthomson@comcast.net
Kitsap County Rep Ray Mills (360) 692-7568
e-mail: r.mills@rm-a.com
web page: <http://www.rm-a.com>

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!



TOGGLE

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 meet-
ing. Meeting discussions are always
interesting and the ever-popular Q&A
(Question & Answer) period is sure to
pique your interest, come up to your
expectations and tickle your fancy.
Come and share your own experiences,
problems and discoveries.

Program

Bob Thomson will give a brief report
on System Tool 2011 malware.

This is our annual Holiday meeting.
Many members bring seasonal good-
ies for us to enjoy while discussing
current computer problems and dis-
coveries. Come and enjoy the program,
goodies and congenial company of
fellow computerists.

