TOGGLE

THE MICROCOMPUTER TURN (ON)

MONTHLY NEWSLETTER FOR TACOMA-SEATTLE AREA MICROCOMPUTERUSERS

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Library News

At the March meeting members were offered a CD entitled ''Videos from the Internet,'' which included 65 files of humorous and informative videos circulating on the Internet. Copies of the CD, available for a $2.00 donation, will be available at the April meeting. Members may order a copy by mail by contacting the club librarian, Tom Stepanek, at 253.922.7939.

UPDATE

Communications

In *Life in the Clouds* the author says: *''What can be better than to have access to all of your emails, calendar, files and programs virtually anywhere? Where the accessibility of smart phones, cellular modems and Wi-Fi means you don't have to be separated from the Internet, even while on vacation? That's the goal of cloud computimg.''* He then goes on to discuss cloud computing in some detail.

In *How to Fight Phishing* the author outlines simple steps you can take to turn on the Phishing Filter - but it may slow down your surfing a bit.

In *Tor: Free, open-source anonymity on-line* the author talks about something that has been around for a while, viz: The Onion Rouring network.

He starts by saying: *''Tor protects your privacy when you are online in two ways: (1) it prevents other users of the network you use to reach the Internet (for example a public Wi-Fi hot spot) from seeing the data you exchange and with whom you communicate and (2) it hides your identity from those with whom you communicate.''* Worth a look.

In *Facebook Security* it is mentioned that the founder, Mark Zuckerborg was hacked recently and so is now instituting the more secure https: protocol on the service. It is not automatic but requires that you turn it on. If you use Facebook, it is suggested that you do so.

In *Google Custom Search Creates a Customized Search For Your Own Website* Carl Tenning discusses a new feature provided by the Google Search Engine site.

Operating System

In *Controlling System Restor*e the author Vinny LaBash discusses this useful feature of Windows introduced in the XP version and available in subsequent versions. It takes a ''snapshot'' of your system at a time when it is working to your satisfaction. Then if your system misbehaves at a later time, due to changes that have been introduced, it can be restored back to a configuration that was working well.

In *IP Addresses and Classes* the author Jason Mills gets into more detail than most of you want to know. However, if you ever wondered about the digital addresses you see on the 'Net, this article is for you.

General Interest

In *MP3 Tag - A Useful Utility* the author *''discusses a free utility that allows you to modify the MP3 Tag information that is used by MP3 players like Windows Media Player or iTunes.''* This allows your to organize your music files. Take a look.

In *Make Animated Cartoons* the author talks about a new website called goanimate.com which you can use to create your own animations.

Hardware

In *Hard Drive* the author discusses the history of hard drives. Of some interest to computer owners.

In *Killing the Raid 1 Bug* the author tells of problems encountered with the Raid 1 full backup system on his new Windows 7 computer. He thinks he may havesolved it with the latest hard drive technology.

COMMUNICATIONS NOTES & TIPS

Life in the Clouds

by Drew Kwashnak

What can be better than to have access to all of your emails, calendar, files and programs virtually anywhere? Where the accessibility of smart phones, cellular modems and Wi-Fi means you don't have to be separated from the Internet, even while on vacation?

That's the goal of Cloud computing, where not only are your precious files stored on Internet servers, but the programs used to create, edit and save these files are all just a browser windows away.

Webmail is possibly the first real Cloud service, providing a means for you to read, compose and send emails right through your browser. So when you aren't near your computer and email program, you just have to hop onto a browser to see if that Nigerian Prince has finally accepted your offer yet!

More closely resembling what Cloud computing will be, are the office suites available from **Zoho, Google Docs** and **Microsoft**. All free of charge, these suites provide the functionality of a word processor, spreadsheet and presentation programs, as well as the ability to store the files, download to your local system, upload existing files and share with others either as much or as little you want.

I take full advantage of being able to view a received attachment in my Gmail account right in Google Docs with the click of one link. No need to download or save the file to view its contents.

Google and Microsoft, as much as they would like to be, are not all there is to Cloud computing.

Instant Messengers, the original social media, is available in a browser from the sites of such services as **AIM** and **Yahoo**. For those that prefer to have all their services running in one application, sites like **IMO, IM+, eBuddy, LiveGo** and **Trillian** provide one-stop shopping for many of your services; Yahoo!, AIM, Facebook Chat, Google Talk, ICQ, MSN and possibly even Skype!

Years ago I heard the big complaint against Apple was it didn't run games. Today I hear Linux doesn't run games. I guess it is only a matter of time before I hear the Cloud doesn't play games.

It's true that 3D and shoot 'em up games are usually graphic intensive, but that does not mean there aren't sites to challenge that notion. **FreeMMOGamer** provides a number of games including shooter, racing, fighting, strategy and sports. Sites such as **Kongregate**, **AddictingGames**, provide a wide range of online games alternatives to mindless zombie-killing games. Just don't blame me for lost productivity if you check these out!

While not as graphically intensive as 3D games, image editing is one category that is seeing growth in the Cloud based solutions! So whether you want to fix an embarrassing photo, or doctor somebody else's and you don't have access to your Photoshop, Gimp or Paint Shop Pro, have no fear, the Cloud is here.

Online web albums **Flickr** and **Picasa** have been around for a long time and easily allow you to share your photos with as many or as few members of your family and friends as you would like. The difference is now you can edit those photos right in your album. Picasa provides an easy way to edit your photos in **Picnik** right from the album, and save the modified picture back in your albums as well.

Meanwhile, **Aviary** provides photo editing, advanced image editing, vector graphics and even music creating applications all in the cloud. Except for the use of the browser, the URL in the address bar or the integration with online sites, you'll be hard-pressed to tell a Cloud application from an installed one!

Of course you cannot talk about image editing without bringing up the industry standard, **Photoshop**. Even Adobe has gotten into the Cloud with **Photoshop.com**.

The **Pixlr Editor** allows you to pull in your pictures in Facebook, Flickr and Picasa, as well as the images saved in your Pixlr Library, and edit them right in your browser.

Lately some nice products have come around that don't play nice with Flash, Java and/or Silverlight. Thankfully with HTML5 there are sites available that require no downloads, yet are amazingly capable. The Cloud Canvas is an image editing Cloud application using HTML5, CSS, JavaScript and PHP, and a few other technologies, to do what the others have to resort to Flash to perform.

Of course there are times when you just need to get something done!

Project Managers may live and die by Microsoft Projects, and **Multitask** is a cloud-based project management application which can upload and download MS Projects 2000 through 2010. Currently they are working at integrating this with Google Docs, making it even easier to use!

If you don't mind paying a small fee, **SmartSheet** provides more capabilities for Project Managers including online collaboration, goals and objectives tracking, marketing, crowdsourcing and much more. That you can do this online and collaborate with whom you need may be enough to warrant the costs.

Sometimes, though, you just need to code. While not a replacement for Visual Studio or Eclipse, there are some IDE (integrated development environment) available online. Usually for HTML, JavaScript and PHP, there are ones for other languages as well.

In most cases the IDE site FTPs into your existing server and provides a list of files. You can open and edit the files and when

it comes time to save, the IDE FTPs it back up to your site. These IDEs usually doesn't store your code which should make the security-minded developers happy.

I heard a lot of good things about **PHPAnywhere**, though I myself have not had luck with it.

I have gotten good results from **ShiftEdit** which is based on Mozilla Lab's Bespin project. It has been straight forward and stable, plus my code has not been mangled. A neat feature is the split view, where you can see the code and the WYSIWYG side-by-side. It even provides a live view of the rendered page.

.NET programmers will have difficulty finding a Clouding-based IDE though I did find CodeRun, which provides an IDE for C# ASP.NET, ASP.NET MVC, Silverlight, PHP and AJAX. It includes database support, compilation and debugging features. If you decide to use their CodeCloud servers for hosting, you get the additional abilities to collaborate on your code with selected developers, and one-step publishing.

One of the great features for Cloud computing is that anybody can start using it. People probably are already using it and not realizing it!

To use the Cloud requires two things, a working system that includes a browser, and a different mindset. In return you get applications and files accessible from anywhere, access to updated applications without needing to purchase, download and install anything and the thrill of exploring this growing technology.

These applications listed are a tiny list of the exploding list of Cloud computing services available today online. Try them out today! Get your head in the clouds!

Drew Kwashnak's migration to the Cloud was accelerated once he received a Chrome OS notebook, but he has been utilizing it for some time now between work and home. This article was naturally written online in Google Docs on 3 different computers.

REFERENCES

Office Suites<

Zoho ***<http://www.zoho.com/>***

Microsoft Office Live ***<http://office.microsoft.com/en-us/web-apps/>***

Google Docs ***<https://docs.google.com>***

Instant Messengers

AIM ***<http://www.aim.com>***

Yahoo ***<http://messenger.yahoo.com/>***

IMO ***<https://imo.im/>***

IM+ ***<https://plus.im/>***

eBuddy ***<http://ebuddy.com/>***

LiveGo ***<http://www.livego.com/>***

Trillian ***<http:www.trillian.im/>***

Photo Albums

Flickr ***<http://www.flickr.com/>***

Picasa ***<http://picasaweb.google.com>***

Image Editors

Photoshop.com ***<http://photoshop.com>***

Aviary ***<http://www.aviary.com/>***

Cloud Canvas ***<http://cloud-canvas.com/cloudcanvas.php>***

Pixlr Editor ***<http://pilr.com/editor>***

Online Games

Kongregate ***<http://www.kongregate.com/>***

FreeMMOGamer ***<http://freemmogamer.com>***

AddictingGames ***<http://www.addictinggames.com/>***

Project management

MultiTask ***<http://multitask.gochromium.com/>***

SmartSheet ***<http://www.smartsheet.com/>***

Integrated Development

PHPAnywhere ***<http://phpantwhere.net/>***

ShiftEdit ***<http://shiftedit.net/>***

CodeRun ***<http:/coderun.com/>***

Mozilla Bespin ***<https://bespin.mozillalabs.com/>***

How to Fight Phishing

Phishing is a scam that can fool innocent people into doing something they would never do otherwise (such as divulge passwords and credit card information). You can minimize phishing in Internet Explorer:

1. Click the Tools button on the toolbar. You'll see a drop-down list.
2. Choose Phishing Filter to display that submenu. The Phishing Filter pops into action.
3. Confirm that the second command reads Turn Off Auto matic Website Checking. If so, you're done; otherwise, continue.
4. Choose Turn On Automatic Website Checking. A special security dialog box, Microsoft Phishing Filter, appears.
5. Click OK.

The phishing filter is now activated.

The phishing filter alerts you to any Web page link that, well, appears to be fishy. The link may claim that it goes to one Web page when in fact it goes to another. Or, the link may go to a Web site known for doing naughty things with peoples personal information. Either way, youre warned. If you suspect a Web page of not being the real deal, click the Tools toolbar button and choose Phishing Filter?Check This Website from the menu. After clicking the OK button, IE does a specific and thorough check of the Web site to confirm whether you're being duped.

Read more by Dan Gookin @ Dummies.com:
http://www.dummies.com/how-to/content/how-to-fight-phishing.html?cid=dn_article#ixzz1DzJvMGjU -

Tor: Free, open-source anonymity on-line

by Dick Maybach, n2nd (at) charter.net
BCUG Bytes - February 2011

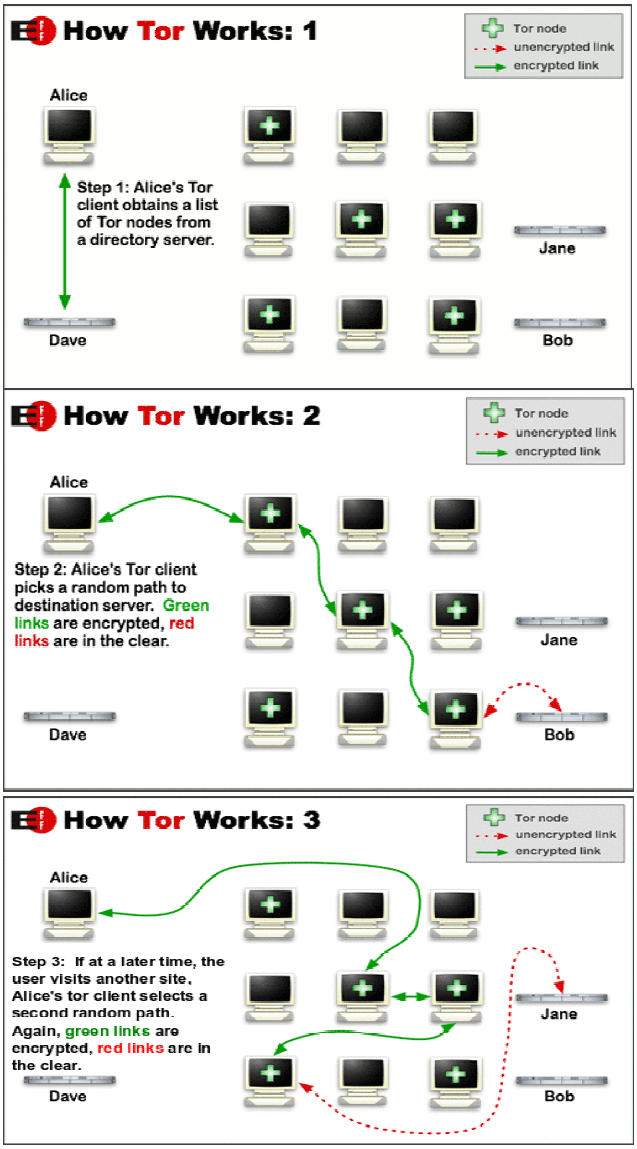
Tor protects your privacy when you are online in two ways: (1) it prevents other users of the net work you use to reach the Internet (for example a public Wi-Fi hot spot) from seeing the data you exchange and with whom you communicate and (2) it hides your identity from those with whom you communicate.

For most of us, item (1) is more important. For example, when we use a WiFi hot spot to access the Internet, every byte we send and every one we receive is accessible to all its other users. One defense would be to add a separate defensive tool for every offensive one, which is the approach taken to foil Windows viruses. The result will surely be the same - an ever-increasing kit of defensive programs to counter the never-ending supply of offensive programs. A much sounder approach is Tor, which defends against all such attacks; as a result you need install only one tool.

Item (2) is probably less important to you; it prevents sites you visit from knowing who you are or what other sites you've visited. We are seeing ever more intrusions into our privacy by governments and businesses, and Tor was developed to help us preserve our privacy, safety, and dignity in the face of this. Although Tor is legal in all countries, you can do illegal things using it. In this way, it's similar to the gas pedal on your car, which is essential if you want to go someplace, but must be used with restraint to avoid awkward and expensive discussions with the law.

Hiding what you say to who

Tor hides not only what you say, but also who you say it to. You could use it to communicate back home from a location where disclosing your country of origin or religion might expose you to unpleasantness or risk. This feature also allows you to circumvent restrictions that your ISP has placed on the Web sites you visit. It's used by individuals, businesses, activists, reporters, the military, and law enforcement for investigations and to protect themselves, their organizations, and those with whom they communicate. Using it, you can surf the Web, exchange e-mail, use instant messaging, and transfer files. However, please don't just install it and assume you're safe. You need to change some of your habits, and reconfigure your software. Tor by itself is NOT all you need to maintain your anonymity. Tor consists of two parts - a public, secure virtual private network (VPN) and the software to access it. The software is free and available for Windows, Mac OS X, Linux, and some smart phones at ***http://www.torproject.org/*** . Most PC and Mac users will want the Tor Browser Bundle, which includes the FireFox browser. (For reasons you can read on the Tor Web site, neither Internet Explorer nor Safari is suitable for secure browsing.) The Tor VPN is distributed and accessible world wide, is free, and is provided and maintained by volunteers. Because the network consists of thousands of independent Web sites, it's quite robust; there is no single point of failure.



Images downloaded from the Tor Project website These diagrams explain how Tor software, when configured correctly, creates a secure connection over the internet.

How does Tor work?

How does Tor work? When you access the Internet with it, you first communicate with a Tor Directory Server over an encrypted link (one with a URL beginning https;//). Here, you obtain a list of available Tor Nodes. The Tor software on your computer selects at least three of these; call them Node 1, Node 2, and Node 3. It then sets up a secure link to Node 1, which forwards your traffic to Node 2, which forwards it to Node 3. All these links are secure, and only Node 3 can decrypt your packets. Finally Node 3 sends your packets to your desired end site.

Note that if the end site is secure (indicated by a URL beginning with https://), even Node 3 can't read your data.

Packets coming to you follow the reverse path, Node 3 encrypts them in such a way that only you can do the decryption. As far as the end site knows, it is communicating with Node 3; it has no way of finding your computer's URL. An observer on your local network knows only the URL of the Tor Directory Server and Node 1; he can't find the location of the end site or read any of your packets. Only Node 1 knows your location, and only Node 3 knows that of the end site. Note that Node 3 can also see the data you exchange, unless you're using end-to-end encryption, i.e., talking to a site with a URL beginning https://.

When you install Tor, you will also install the Torbutton add-on for FireFox, which allows you to turn Tor anonymous browsing on and off. Turning Tor on changes some of Firefox's operation.

No cookies [awwww!]

None of the cookies you acquired during normal browsing will be available. This is because cookies can tell the site you are communicating with a lot about you and which sites you've visited. As a result, you will have to reenter passwords where they are required. These cookies will return when you toggle Tor off.

Some sites will be displayed in a foreign language. Since they don't know where you are, they assume you are located in the same country as Node 3. See the Tor site for workarounds.

You will see moderate delays while surfing the Web. There are at least three intermediate sites on the path to your final destination, and several layers of encryption are involved.

While the delays are noticeable, I haven't found them to be obnoxious, and I consider it a good trade-off to achieve better security. Many users need only browser access to the Internet when away from home, since through it they can also exchange e-mail and transfer files. (I've found that the FireFTP add-on is convenient for the latter, but see the Tor site for instructions on how to configure it and follow these exactly.)

If you want to use secure instant messaging, use Pidgin, which Windows and OS X users can obtain by installing the Tor IM Bundle, available on the Web site. (Pidgin is in most Linux repositories.) You can't use Tor for file sharing, i.e., using BitTorrent; instead use the I2P network, ***http://www.i2p2.de/***. See the Tor site for how to configure other Internet access programs, including some that provide access to your home computer.

However, if you really need access to files on your home computer, it would be better to transfer them to your laptop or to a cloud service before you go. Otherwise, a power transient or other failure could disable your computer until you return home to restore it.

Accessing the Internet away from home without Tor is like driving without insurance, you can almost always get away with it. That doesn't mean it's a smart thing to do.

Factoid: Why Tor; why isn't it TOR?

[From the FAQ page on the Tor website]

Because Tor is The Onion Routing network. When we were starting the new next-generation design and implementation of onion routing in 2001-2002, we would tell people we were working on onion routing, and they would say ''Neat. Which one?'' Even if onion routing has become a standard household term, Tor was born out of the actual onion routing project run by the Naval Research Lab.

(It's also got a fine translation from German and Turkish.)

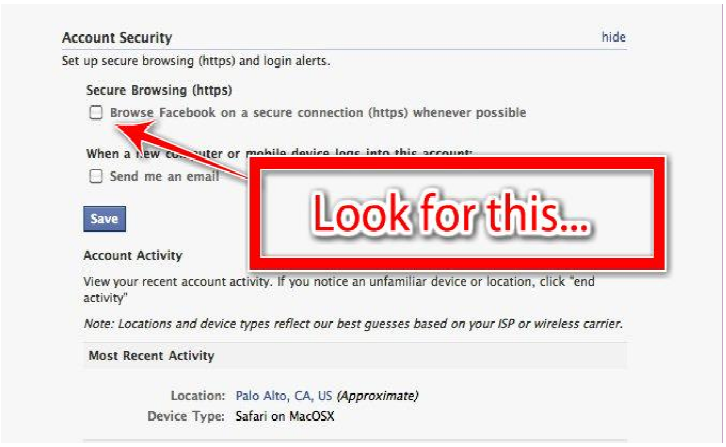
Note: even though it originally came from an acronym, Tor is not spelled ''TOR''. Only the first letter is capitalized. In fact, we can usually spot people who haven't read any of our website (and have instead learned everything they know about Tor from news articles) by the fact that they spell it wrong.

Facebook Security

By motorbelly, Oregon PCUG

We've had discussions at our meetings about Facebook Security in the cafe and how anyone with the Firefox extension Firesheep could access our accounts while using Facebook in the cafe. Now there is news on the Facebook Blog about this: A Continued Commitment to Security (1) ***<http://blog.facebook.com/blog.php?post=486790652130>***

Apparently Mark Zuckerborg, Facebook's founder was hacked recently so now the https:// version of Facebook is going to be rolled out. It still requires you turn it on and it will mean slower loading pages. My account is not updated yet but when it is going to Account settings will have the new option to turn on:



I suggest you look for it and when it appears, turn it on.

-=Lare=-

OPERATING SYSTEM NOTES & TIPS

Controlling System Restore

Vinny La Bash(vlabash (at) comcast.net), Sarasota Personal Computer Users Group, Inc. (www.spcug.org)

Did a shareware application you were enamored of turn out to be an unmitigated disaster? Perhaps a device driver installation, system update or modification to a registry key went bad, and your system wandered into an alternate universe. Windows has a utility called System Restore that takes a picture, called a Restore Point, of your system before certain types of operations are started. System Restore is a very handy feature that allows you to go back in time to erase actions you have come to regret. If a problem occurs you can revert back to the way things were, and all is well again.

System Restore, for all its utility and convenience, has its drawbacks. Some argue that if there is not enough free disk space, System Restore will fail to create a restore point, so an unsuspecting person may discover that there is no restore point available when trying to put things back to normal. There is also no way to make a permanent restore point that will not get deleted after a time when automatic restore points need the disk space. This could be a predicament if a problem is intermittent.

It is possible that System Restore may be responsible for your disk drive running out of room. While today's supersized drives make that less likely than a few years ago running out of disk space could still happen, especially if you load up your system with videos. You can reduce that likelihood even further by configuring System Restore properly.

The snapshots we talked about in the first paragraph are taken by a built-in program called the Volume Snapshot Service (VSS). There is no way to access this utility in the standard Windows Graphical Utility Interface (GUI). This means you can't get to it with a menu option. You need to open a Command Prompt window with elevated administrator privileges.

Click on the Start orb located down at the bottom left corner of your screen, select All Programs, and open the Accessories folder. Right click on the Command Prompt icon, and then select Run as Administrator from the menu. That will open up a Command Prompt window with enough authority to configure System Restore.

Before doing any configuration, let's take some time to understand how System Restore works. You can do this with the vssadmin tool. At the Command Prompt type vssadmin / ? (Press Enter after typing a command.) You see a list of all the commands supported by the utility.

(Note: Shadow copy = Restore Point)

Enter the command vssadmin list shadows

This displays a list of all the restore points currently on the system. The list shadowstorage command displays the amount of disk drive space currently being used to store restore points, how much space is set aside to accommodate restore points, and the maximum permitted size for restore points.

To see what's available on your own system, at the Command Prompt type:Vssadmin list shadowstorage Take a few minutes to understand the way the information is displayed. If there is enough free disk space you can store up to 64 restore points before Windows automatically starts deleting old restore points to accommodate new ones.

Making backups is an essential task, but there is no reason why Windows should be allowed to consume every available byte of storage with System Restore points. The default settings allow Windows to run amok but you can reset the maximum value with the resize shadowstorage command.

Here is an example:

Vssadmin resize shadowstorage /for=c: /on=c: /maxsize = 12GB The /for= switch specifies the disk drive where the storage space is to be resized.The /on= switch tells Windows where to save the Restore Point. The /maxsize= switch tells Windows how much space it can use for Restore Points.

If you don't specify a maximum size you are giving Windows permission to do anything it wants. The minimum size is 1GB. I have seen references stating that the minimum size can be as low as 300MB, but I could not verify that information.

After entering the resize command the system needs to be restarted to take effect. Configuring System Restore points won't solve every problem you may have with Windows, but it will give you more control of how Windows allocates resources.

IP Adresses and Classes

by Jason Mills, Durham Personal Computer Users' Club

Every computer that can access the Internet has a unique identifying number, which is known as the IP address of that computer. An IP address is always expressed as in four decimal number format for example 192.168.1.1, this is how we humans understand and remember the IP address but computers understand the same IP in binary form. IP addresses are 32 bit addresses.

IP addressing is simply configuring each host with a unique and a valid IP address. An IP basically has two parts; the network part (numbers to the left) and the host part (numbers to the right). The network part of the IP address identifies a particular network on the internet it is the netID, whereas on the other hand the host part of the IP address identifies the host or the workstations that are connected on that network, it is the hosted.

IP addresses are organized in the form of classes or address formats according to the number of the bytes (first byte represents the network); this is because networks vary in sizes. First few bits of an IP address determine the class it's using. There are four different classes:

- Class A: These addresses are for large networks with large number of total hosts.
- Class B: These addresses are for medium-sized networks.
- Class C: These addresses are for small (LAN) networks.
- Class D: These addresses are multicast addresses and are not allocated to the hosts.

IP addresses are placed in a particular class on the basis of the decimal values of their first octet.
- Class A address first octet has decimal values from 1 to 127, (127 is reserved)
- Class B address first octet has decimal values from 128 to 191
- Class C address first octet has decimal values from 192 to 223
- Class D address first octet has decimal values from 224 to 239, with four left most bits as 1110.

Number of hosts on each class:
- Class A: 16,777,214 hosts
- Class B: 65,532 hosts
- Class C: 254 hosts
- Class D: addresses are multicast addresses

Number of networks on each class:
- Class A: 126 networks
- Class B: 16384 networks
- Class C: 2097152 networks
- Class D: addresses are multicast addresses

Format for class address:
Class A:
0xxxxxxxXXXXXXXXXXXXXXXXXXXXXXXX
Class B:
10xxxxxxxxxxxxxxXXXXXXXXXXXXXXXX
Class C:
110xxxxxxxxxxxxxxxxxxxxxXXXXXXXX

Here:
x - represents network X - represents computers

One important point to note is that every network no matter what size and class it is from has a broadcast and network address that can't be used at any point. This also means that when calculating network class one must subtract 2 from the available IP addresses within that network.

GENERAL INTEREST

MP3 Tag - A Useful Utility

Phil Sorrentino (president (at) spcug.org), Sarasota Personal Computer Users Group, (www.spcug.org)

As I have said in the past, ''Utilities are usually small programs that are intended to do a specific task or a small range of tasks.'' And I have also directed you to the SPCUG Monitor Computer Buffet (on *their* Website -ed), where you can learn about various free utilities (and even find a website from where you can download the utility). However, keep in mind that when you download something from the internet, you could get something you were not expecting; so be very careful. With that said, I'd like to discuss a free utility that allows you to modify the MP3 Tag information that is used by MP3 players like Windows Media Player or iTunes.

The reason you might want to use an MP3 Tag utility is because these types of media players depend on the Tag information to organize the tunes they find in your music folders. If the Tag information is not what you expect, the tune will be put in a location that might make it difficult for you to find. It doesn't matter what the file name is, the tune will be put in a sequence depending on the Tag information, only. Is it ''The Beatles'', or ''Beatles'', ''The Kingston Trio'', or ''Kingston Trio''? When I put all my tunes together, I found both versions of artist names. Also, sometimes the tune comes from a compilation of artists. In this case it probably goes into the ''Various Artists'' category, instead of the ''artist's name'' category.

MP3Tag is a free metadata editor that supports the MP3 audio format as well as many other formats such as AAC,FLAC, MPC, OGG, MP4, WMA, and others. It runs under Microsoft Windows XP and Vista (and probably Windows 7). MP3Tag allows the user to modify the ID3 tag data that is created along with the MP3 file when a tune is initially created, or ripped from a CD. It allows information such as the title, artist, album, track number, or other information about the audio portion of the file to be stored in the file itself. By the way, there are many MP3 Tagging utilities available, just Google MP3 Tag and you'll see all the possibilities.

This may be too much detail, but there are two unrelated versions of ID3: ID3v1 and ID3v2. (If this is too much detail, skip this paragraph entirely.) ID3v1 was the original attempt at capturing data about the tune. ID3v2 followed shortly after and is very different from the v1 version. ID3v2 is fairly complex, but suffice it to say that it includes all of the pertinent information, and then some, relating to the specific tune. ID3v2 has been modified and improved over the past few years and is currently at ID3v2.4. For those of you who asked ''What the heck is metadata?, here is a brief discussion that comes

from Wikipedia. Metadata (or sometimes metainformation) is ''data about other data'', of any sort in any media. An item of metadata may describe an individual datum, or content item, or a collection of data including multiple content items and hierarchical levels. In data processing, metadata provides information about, or documentation of, other data managed within an application or environment. This commonly defines the structure or schema of the primary data. For example, metadata would document data about data elements or attributes, (name, size, data type, etc.) and data about records or data structures (length, fields, columns, etc.) and data about data (where it is located, how it is associated, ownership, etc.). Metadata may include descriptive information about the context, quality and condition, or characteristics of the data. And there you have a description of metadata.

MP3Tag is very easy to use. First, I have created a folder called ''FixThese'' in my ''MP3Music'' folder, where I put any tunes that I think need to have their ID3 tags modified. Then I setup MP3Tag to use this folder. This way, I do my work in a specific folder so I don't upset anything in the folders that contain all my music. Also, it is easier to work with a folder that has a handful of files rather than thousands of tune files. (The folder to be used is setup by clicking ''File'' and then selecting ''Change Directory'', then navigating to the directory of your choice, ''D:\MP3Music\FixThese'' in this case.)

The MP3Tag window has two panes. The right-hand pane shows the files in the designated folder. The left-hand pane shows each of the specific ID3 data items that can be modified. (By the way, default values can be setup for each of these items, but I have left the default to ''keep'', so that I preserve the values when a tune is selected. These default values can be setup in the Tools-Options-Tag Panel window.) When you select a tune in the right-hand pane, the appropriate values show up in the ID3 tag items on the left. Once the tune selection is made, the values on the left can be changed to your desired values. In the example shown above, the tune ''Ventures Hawaii Five-O.mp3'' has been selected. The Title is ''Hawaii Five-O The Ventures'' which is the file name. The title of the tune should be only ''Hawaii Five-O'', so I would change the title to be such. The Artist: name is ''Various Adult'' which I would want to change to ''Ventures'', or possibly ''The Ventures'' if that is how you are referring to this artist. Other information such as Album, Year, and Track may be correct as indicated and will probably be left alone. Genre is an item that is not as well defined as the other tags and therefore I have found it to be less useful. Genre has some general meaning but the meanings may vary a lot from person to person. There are some fairly specific meanings for genre such as ''Rock & Roll'', ''Country'', ''Classical'', but many other meanings are in the grey areas such as ''Popular'' and ''Easy Listening''. If you want to employ this tag to any degree of usefulness, you'll have to make your own definitions and then categorize all your tunes according to these definitions. Otherwise, you'll get whatever the recording studio used for their definitions of genres. After you are satisfied with the changes you have made, click ''File'' and then select ''Save tag'' or just click on the icon that looks like a floppy disk, to save the tag information with the tune.

MP3Tag is a useful utility if you are accumulating a large music collection and you have some specific ideas about how you would like the tunes to be organized. MP3Tag has a lot of additional features. I have described the ones that, I feel, are basic to organizing a music collection. Music collections have a way of growing in all directions and using an MP3 Tag utility is a way of controlling that growth.

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Make Animated Cartoons

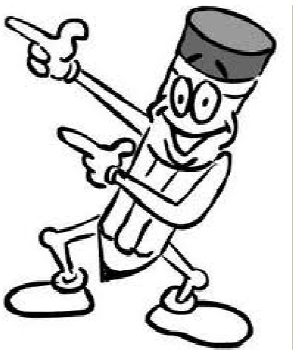
by Kim Kommando
seen in Big Bear Computer Club Bearly Bytes March, 2011

Creating animated movies used to take a lot of work. Each frame had to be painstakingly drawn and colored. It certainly wasn't a job for one person!

Technology has made it easier to create animations. Software like Adobe's Flash greatly simplifies the process. Still, a lot of work goes into creating Flash animations. That doesn't mean you can't create fast, fun animated movies, though. GoAnimate has the tools you need to create animated shorts. You don't even need to know how to draw!

Once you register for a free GoAnimate account, you're ready to start. Begin by setting the scene. There are lots of backdrops from which to choose. Then, add characters. Again, there are many from which to choose. Next come effects and props. Finally, add music or dialog.

You'll have a lot of fun with GoAnimate. And I'm sure you'll want to share your creations. GoAnimate makes that easy-you can even embed your animations in your Web site CLICK HERE TO VISIT: ***<www.goanimate.com>***



HARDWARE NOTES & TIPS

Hard Drives

Wil Wakely (wilw(at)adnc.com), Seniors Computer Group, California (www.SCGsd.org)

We all talk about the hard drives in our computers, of which most computers have at least one. But what is their history and how do they work? The first commercial hard drives by IBM appeared in 1956 with multiple disks 2 feet in diameter. Those ancient drives contained only 30MB of fixed data and 30MB of removable data, so they were called Winchester drives in honor of the historic 30/30 rifle.

What we have now are smaller cousins to those huge mainframe disks. They are constructed of thin aluminum or glass disks (platters), 3 '' diameter, which are coated with a very thin layer of magnetic material. Similar to a record player's tone arm, a read/write (R/W) head at the end of an arm quickly moves across the platter surface and either magnetizes (writes) a tiny area or detects (reads) the magnetic polarity of the same area. The R/W head does not touch the disk and literally flies over the surface on a thin layer of air.

Any dust or dirt under the head can cause a crash, so the drive must be very clean and carefully sealed. A north magnetic pole might designate a 1, while a south pole would be a 0. These ones and zeros are later converted to numbers or letters.

The extremely tiny magnetized area locations on the disk are designated (addressed) by a Cylinder and Sector combination. Cylinders are numbered concentric circles on the disk similar to the grooves on an LP record. Sectors, also numbered, are short segments of each cylinder with each sector usually containing about 4KB of data. These cylinder/sector locations (addresses) are stored in a Table of Contents called the FAT (File Allocation Table) which identifies the location where each file is stored. A second copy of the FAT is also kept on the disk as insurance, because a corrupted FAT can't locate the file. Disaster!

The disks spin very fast, typically 7200 RPM, and the R/W head moves quickly to the address of the data, so data writing and retrieval is extremely fast, on the order of milliseconds. (300 MB/second) A file larger than 4KB must be stored in more than one sector or address. If these sectors are all stored in sequence on a single cylinder, one after the other, they can be read very quickly without moving the R/W head; however, if they are scattered all over the disk surface, the R/W head must take extra time to search for them. They get scattered because some sectors are already full and other, empty ones that are located elsewhere on the disk must be used.

A scattered file is considered Fragmented. Defragmenting rewrites the file into one continuous string of sectors, which can then be read much faster. That's why periodically defragmenting your hard drive will speed up your computer.

On-board memory chips temporarily store (buffer) information to speed up R/W access.

Larger drives contain multiple platters and R/W heads, and faster disk rotation, improved R/W heads and better magnetic properties also improve speed and reliability. Read errors, which are bound to happen, are repaired by Error-correction codes written in each sector. Also, many other things happen quietly in the background to improve performance.

We now have 3 TB (terabyte) drives; want to guess what's coming next? For further info see: ***http://en.wikipedia.org/wiki/Hard_disk_drive***

Stay tuned.

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Killing the ''Raid 1'' Bug

by Farncomb Le Gresley, Durham Personal Computer Club

Having purchased a new very capable computer with Windows 7 Ultimate and Raid 1 installed to provide full time backup by mirroring all data on two identical hard drives, I was not prepared for the circus which followed.

For several weeks all went well and I was very pleased with how the Raid 1 was functioning. Then it happened! All of a sudden there was an error message stating that the Raid 1 drive configuration was compromised, along with a message that ''drive 0'' was dead. There was also a further error message, which asked if I wished to repair the problem. I responded, ''YES'' and at this point the computer proceeded to format my Linux drive, which it built into a new Raid 1 drive, which worked fine, but goodbye Linux. The failed drive ''0'' then went back to the manufacturer for warranty repair, which took about three or four weeks.

Happy days did not last long as in a couple of weeks or so I got a repeat of exactly the same symptoms except I did not have a Linux drive for the computer to grab to repair the system. By this time I was checking the Raid Newsgroups on the Internet and discovered that many people were having exactly the same problem with running Raid 1 on Windows 7. In order to solve this episode I purchased another drive for the system and the second failed drive went back to the manufacturer for warranty repairs, as the first failed drive was not yet back.

Things went fairly well for several weeks and the same thing happened again! By this time I was really getting very unhappy about the whole situation, which was not improving my opinion of Windows 7 and Raid 1, and I was ready to forget about using Raid. After some searching I found a professional IT person who was familiar with what was happening and the solution to the problem. He was sure that the computer was feeding data to the Raid 1 drive faster than the drive could write the data and probably overflowing its buffer. His suggested solution was to get two new Enterprise Class hard drives, which are used in professional file servers and cost twice as much as standard hard drives.

Finally, as he was 99% sure this would solve the problem I followed his advice. It is now over three months later and the Raid 1 system has operated flawlessly and it is very reassuring having a full time backup, but I do of course realize that one should still have an offsite backup. If you are planning to use Raid 1 configuration in Windows 7 I suggest starting with Enterprise drives.

Google Custom Search Creates a Customized Search For Your Own Website

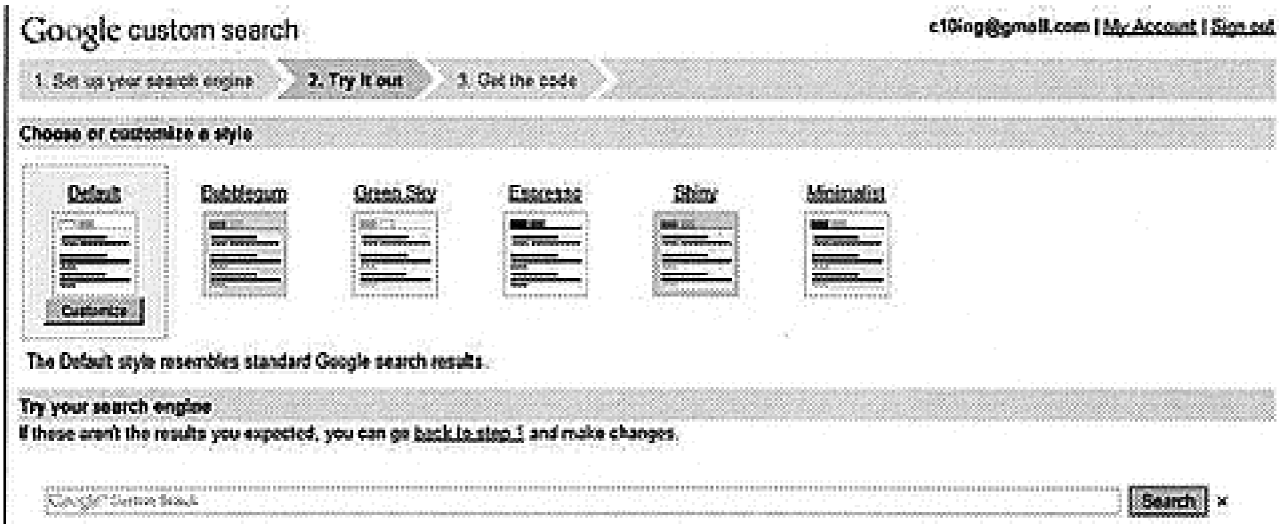
by Carl Tenning, Tacoma Open Group For Microcomputers

Google has many applications in addition to their search engine. Some of them are Gmail, Picasa, and the Chrome Browser, all free. A new addition, still in beta, is their customized search application. Users may embed it in their own web pages and provide a customized search of their web page, a folder, or the entire web site. To create a custom search engine go the Google site: **<http://www.google.com/cse/?hl=en>**

To set up your custom search, you first assign a name to your search engine, provide a description, select the language, and assign the sites to search. The free version includes advertizing in the results. The paid version, which is $100 per year, has no advertizing. It is possible to select from six style formats. It then gives you the HTML code to insert into your web page.

A custom search engine has been added to the TOGGLE web site, **<http://www.toggle.org>**

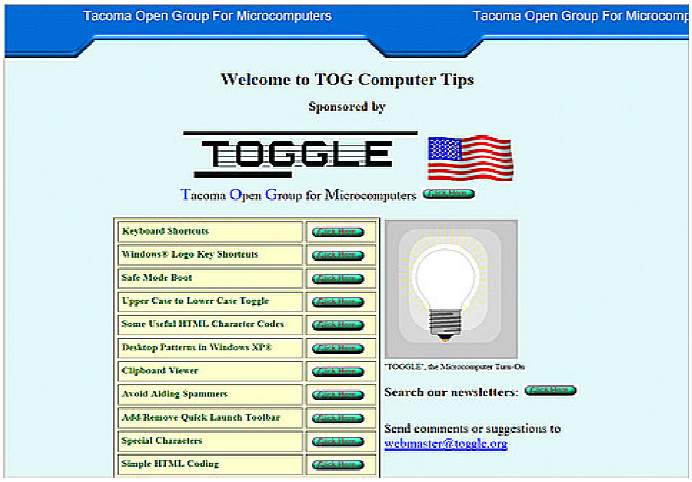
This search engine searches all of the club's newsletters from July 1999 to the present. View the TOGGLE Newsletter custom Google search at: **<http://www.toggle.org/html/news_letter.htm>**



Help Lines

HARDWARE HELP	Advisor No.
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

SOFTWARE HELP	Advisor No.
Win 95/98/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

Visit the TOGGLE Website: www.toggle.org

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 14 Apr 2011 -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

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

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 relationship 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 prefer 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 meeting. 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 Presentation

Tom Stepanek will give a presentation on ''Composing and Editing Pictures in Compupic.''