The Cursor

Monthly Newsletter of the
Washington Area Computer User Group

Meeting Location:
Fairfax County
Government Center

Member of **apcug**

Next Meeting:
Aptil 21, 2007

Presidential Bits

April 2007 Meeting

By Paul Howard

Those who miss our monthly meetings need to make more of an effort to rearrange their schedules! In March, we were enthralled by Bill Walsh's demonstration of communications and computer connected equipment and software that allows a visual display of the radio frequency spectrum. My "Keeping Up" column in this month's Cursor picks up on Bill's discussion, with more on the changes in television broadcasting and the introduction of HD radio.

As I'm writing this, I'm using one of the Internet radio sources mentioned by Geof Goodrum for background music. Check the web site's "recent meetings" page for Geof's presentation. See: http://www.wacug.org/recmtgs.html

Our April 21st meeting will be held in the Fairfax County Government Center, from 12:30 - 3:30 PM, in room 2/3 of the conference center. Your attendance is important – please join us! Bring a friend and introduce them to "Real PC Power!" Our membership is down slightly this year - we need you to be our ambassador to the community and get the word out to other computer users of the value of user group membership.

Hidden in all the hype of the introduction of Windows Vista, Microsoft also introduced their latest upgrade to their productivity suite, Office 2007. WAC's Bob Mason will be April's featured speaker, and will demonstrate this package and show us what's new and worthwhile with this historically best selling suite of word processing, spreadsheet and related packages available in a variety of configurations.

Geof Goodrum will also introduce us to Internet shopping comparison web sites. Here's another resource for finding great prices and new suppliers to feed your computer habit!

New from O'Reilly

The O'Reilly School of Technology has officially opened its virtual doors with educational offerings for students looking to further or launch their IT careers, whether they aspire to become alpha geeks or not. The school is a unique partnership between O'Reilly Media and the University of Illinois.

Lloyd's Web Sites for April, 2007

by Lloyd Johnson, WACUG Member

http://www.wacug.org/ is the URL for the Washington Area Computer User Group. Visit it for past issues of Web Sites with hyperlinks

1. Database of cooking and wine schools, sports camps, film and video workshops… more
    www.shawguides.com

2. Why would you want to visit URL of Steve and Sally Browning? Because they have laid out two nifty applications (a) timelines of people and events from the past 1,000 years and (b) Famous quotes from history's greatest writers.
    www.sbrowning.com

3. A way to match a person's need with available resources in D.C., Maryland and Virginia.
    www.211metrodc.org

4. Must-Have Gadgets for your Car
    a. At-a-glance tire pressure monitors cost around $18
        www.genuinehotrod.com
    b. (Item number 533-4444) Driver-Alert-Issues a loud beep if you begin to nod off- $30
        www.gadgetuniverse.com
    c. Sticky Pad- fits on the dashboard and grips items securely.
        www.handstands.com

6. Places to Donate Unwanted Items
    a. Musical Instruments – www.hungryformusic.org
    b. Children's and teen's books – www.readertoreader.org
    c. Coats – www.onewarmcoat.org
    d. Business Clothing – www.careergear.org
    e. Gowns and Shoes – www.fairygodmothersinc.com

7. On-line Bargain tracker. Best buys on electronics, computers and more
    http://dealnews.com

8. To see how a short sentence looks in a different dialect. Try
    www.rinkworks.com/dialect

9. Daily Poems – www.poems.com

Students can earn a Certificate for Professional Development from the University of Illinois Office of Continuing Education upon completion of a selected series of courses. Certificates are currently offered in Client-Side Web Programming, Linux/Unix System Administration, Web Programming, Open Source Programming, and .NET Programming.

Courses are offered at beginning, intermediate, and advanced levels. Whether students take the courses individually or with a certificate in mind, the completion of each course earns Continuing Education Units

from the University of Illinois, and count toward the certificates that include that course.

For more information about the O'Reilly School of Technology, including a current list of certificate and courses, see:

http://www.oreillyschool.com/?CMP=BAC-ostug

Watch the video to see how it

GNU/Linux SIG

By Geof Goodrum

Review: D-Link Rangebooster™ N 650 Notebook Adapter

D-Link donated a few Rangebooster N 650 Notebook Adapters to the door prize pool at the 2007 APCUG Annual Conference, and I was fortunate enough to win one for use with WAC's laptop computer; current online pricing is around $65.. The Rangebooster N 650 (D-Link model DWA-645) is a draft 802.11n wireless network adapter designed for the PC Card (Cardbus Type II) slot of laptop computers. D-Link claims that this adapter is up to 6.5 times faster and has 5 times greater range than 802.11g wireless adapters under ideal conditions, but is also backwards compatible with 802.11g and 802.11b wireless networks. According to the specification, 802.11n devices use multiple antennas and 2.4 Ghz or 5 Ghz frequencies to achieve data rates up to 540 Mbps (200 Mbps typical) and indoor ranges up to 165 feet.

D-Link is not the only vendor offering draft 802.11n wireless network devices. However, since the specification has not been finalized and devices do not have Wi-Fi Alliance (http://www.wi-fi.org/) certification, vendors offer no guarentees that their equipment will comply with the final specification nor that they

will be compatible with equipment from other vendors. Therefore, buyers should only use draft specification devices from the same vendor and only when they have an immediate need for the new features.

My home wireless network router does not support the draft 802.11n specification (D-Link draft 802.11n routers include the DIR-625 and DIR-635), but I was able to test with the following:

Computer: Dell Inspiron 1100 laptop; 640MB of RAM.

Network: D-Link DI-624 rev C wireless router, firmware 2.76; D-Link DWA-645, firmware 1.01.

Operating Systems: Windows XP Home SP2; Fedora Core 6; Kubuntu 6.10 (Edgy Eft).

Under Microsoft Windows XP, I ran the setup utility on the CD-ROM included with the DWA-645, which installed the driver and gave me the option of using the native Windows XP wireless network utility or installing the D-Link network utility. I chose the latter. The setup program did not detect my network until I enabled the router's SSID beacon (disabling the beacon is recommended for better security). I found and installed a newer Windows XP driver (v1.0.2) from the D-Link web site (a test Vista driver is also available). During driver installation, Windows reported that the driver "has not passed Windows Logo testing to verify its compatibility with Windows XP." I did not have any significant problems configuring or using the adapter software.

See the accompanying figures on page 5 for screenshots of the D-Link network utility. Figure 1 shows a survey of wireless networks within range and their signal strength. Figures 2 & 3 show configuration of the utility for my home network, geoAP.

The DWA-645 supports WEP, WPA and WPA2 encryption. Unless you run a public access site, encryption is a must. WEP encryption is vulnerable to malacious hackers and should not be used. I configured my router for WPA with AES encryption.

My router is located in the back of my townhouse on the third floor. I was able to maintain a good quality network connection even at the front of my house on the ground floor.

I was not able to locate native drivers for Fedora Core 6 or Kubuntu 6.10. However, the ndiswrapper software program allows use of the Windows XP NDIS drivers in GNU/Linux. Although I installed both ndiswrapper and the v1.0.2 driver in Fedora Core 6, I could not get the system to recognize the DWA-645 or make a wireless network connection. I installed Kubuntu 6.10, which has a better reputation for wireless device support, and the ndiswrapper 1.18-1ubuntu2 package. After installing the v1.0.2 driver and loading the ndiswrapper kernel module (following instructions with ndiswrapper), the Kubuntu KNetworkManager detected the local wireless networks much like the D-Link utility, and allowed me to configure the network connection for my router. Again, the network connection is very good.

Draft 802.11n devices are worthwhile for those who need to transfer large files within their home network. There is little benefit for most home Internet connections, which are currently slower than

802.11g speed. Sharing video content between Series 2 or later TiVos or SlingBox-type devices would be a good example of such an application where draft 802.11n would be a benefit. However, most people will find little advantage at this time and should continue to use 802.11g wireless networks or wait for the final 802.11n specification devices certified by the Wi-Fi Alliance. It is also worth noting that wireless networks slow to the slowest wireless device, so if you have 802.11n, 802.11g and 802.11b devices running on your wireless network, all devices will slow down to 802.11b speed (11 Mbps maximum).

Linux CD of the Month

In addition to the monthly CD described below, WAC can provide CD-R and DVD±R media for any downloadable GNU/Linux operating system distribution (e.g. Fedora Core, Mandriva, Ubuntu, Debian, Knoppix). Please note that download versions of commercial distributions do not include official technical support nor printed documentation.

Discs are available only by pre-order. Contact Geof Goodrum by phone (703-370-7649) or e-mail (linux@wacug.org) at least 48 hours before meeting day to order or for more information. Single CD-R discs are available with a $3 donation; GNU/Linux distributions on multiple CD-Rs or single DVD±R are available with a $6 donation.

April 2007

Ghouls 'n Ghosts Remix - v0.38. Free GNU General Public License C++ source code by Valarsoft. Ghouls'n Ghosts Remix is a remake of Ghouls'n Ghosts, a platform action game from Capcom 1988 with some differences from the original game. It's a mix of Ghosts'n Gob-

lins, Ghouls'n Ghosts, and Super Ghouls'n Ghosts.

ndiswrapper - v1.41. Free GNU General Public License C source code by Pontus Fuchs et al. and Fedora Core 6 executable. For devices without native Linux drivers, ndiswrapper lets Linux use Network Driver Interface Specification (NDIS) files provided with Microsoft Windows drivers. With ndiswrapper, most miniPCI (built-in), PCI, PCMCIA (Cardbus only) or USB wireless network cards work with Linux x86 or x86-64 systems. Although ndiswrapper is intended for wireless network cards, other devices are known to work: e.g., USB to serial port device, ethernet card, home phone network device, etc.

OpenOffice.org – v2.2. Free GNU Lesser General Public License executable by the OpenOffice.org Project. OpenOffice.org (OOo) is an integrated office applications suite, including full-featured word processor (Writer), spreadsheet (Calc), database (Base), presentation (Impress) and graphics (Draw) programs. OOo uses the new OASIS OpenDocument format, the future-proof international standard for office software (ISO/IEC 26300), but also reads and writes Microsoft® Office file formats, including Word 2003 XML. This version includes security fixes, improved text rendering, better support for Pivot Tables in Calc, more PDF export options, and several improvements to Base.

GNU/Linux Distibution Updates - Security and bug fix monthly updates for Fedora Core 6.

Kernel Source - The latest versions of 2.4 and 2.6 kernel source code for all platforms.

🖱

Keeping Up

by Paul Howard

If you missed Bill Walsh's presentation on the radio spectrum, you need to pull on your learning hat and do some research. Getting to see the radio spectrum was fascinating, especially learning about things that we didn't know were there. But the "wow" moment was the discussion centered on where some popular communications are going.

Do you realize the TV we've all grown to love and hate, good old analog TV, disappears from the airwaves on February 17, 2009, so that we've got to get new TVs with digital tuners, or converter boxes, to receive the digital TV signals that will be all that's available after that point? Those with cable service 'should' be ok, because the cable box most subscribers use should make the digital to analog conversion necessary for those with "old" TVs.

In addition to changing the mode of broadcasting from analog to digital, the primary TV frequencies will be changing from the VHF TV bands, which will be reallocated, supposedly to emergency services, to the

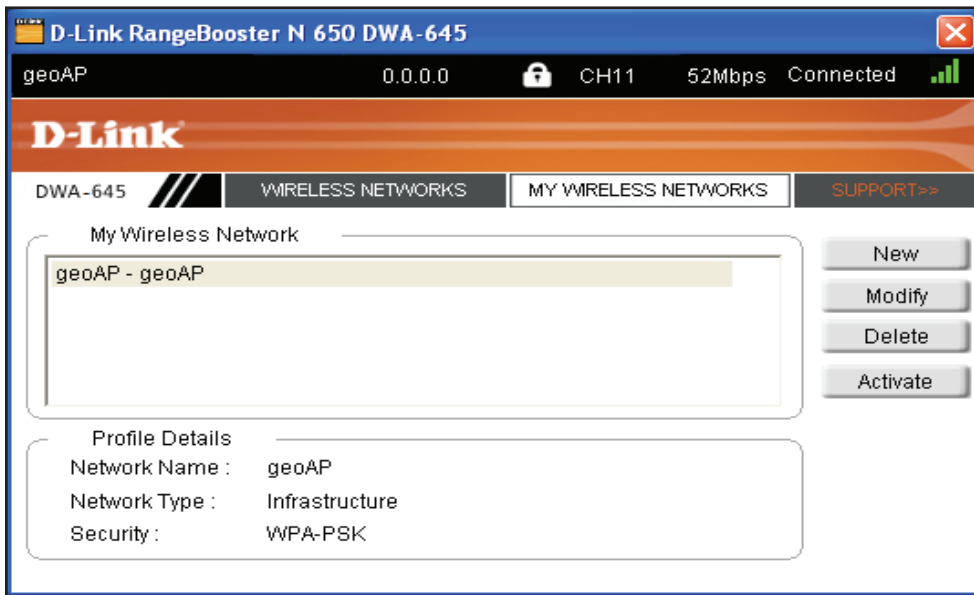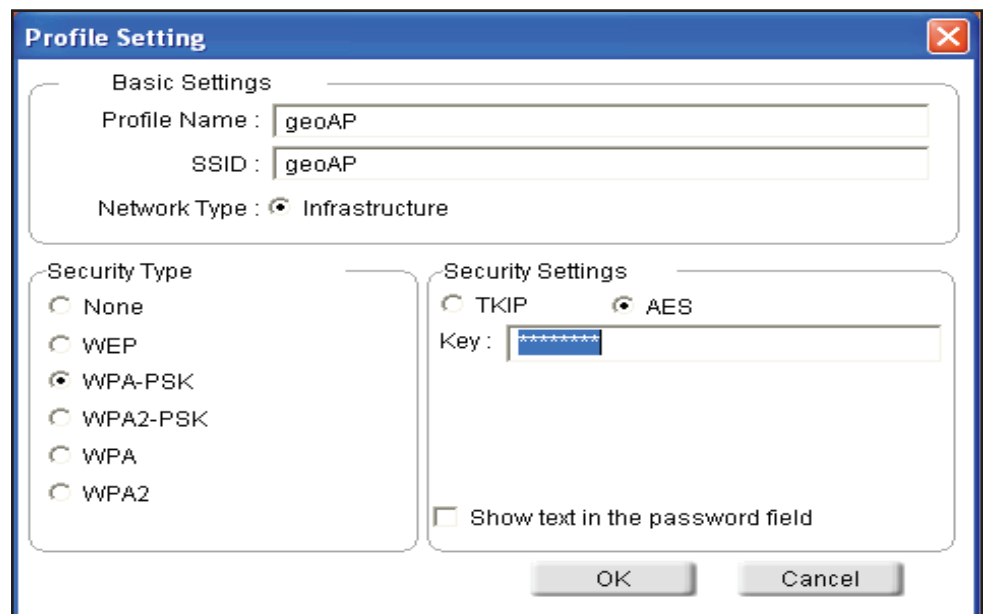**DLink Utility Figure 1: Results of the Wireless Network Survey**
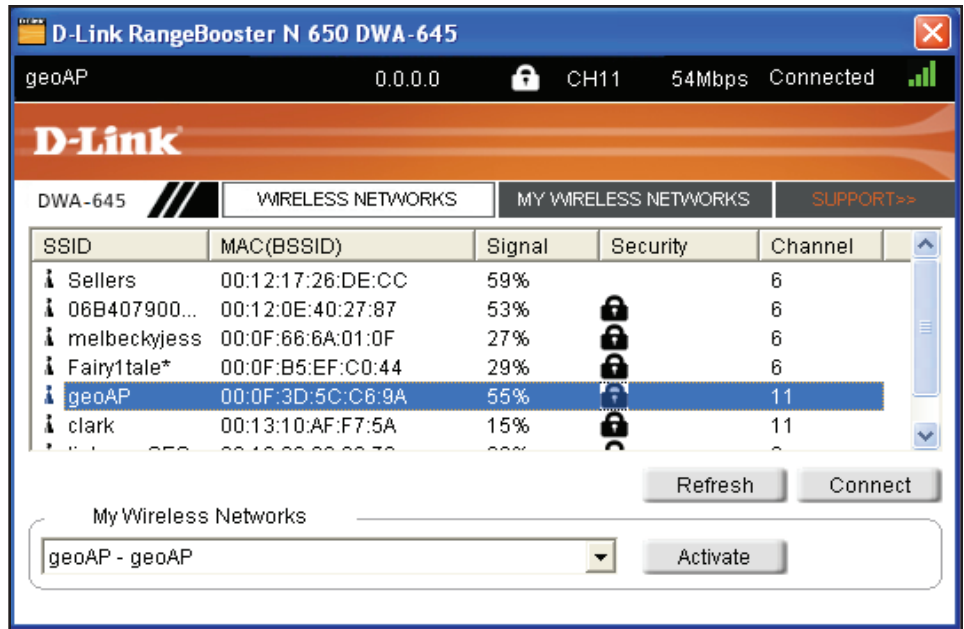
DLink Utility Figure 2: My Wireless Network

DLink Utility Figure 3: Security Settings: To ensure the security of my network, I configured my router for WPA with ASE encryption

UHF TV band. Currently, VHF TV channels 2 - 6 occupy the radio frequency spectrum between 54 - 88 MHz; channels 7 - 13 range from 174 - 216 MHz; each TV station broadcasts across 6 MHz of the radio frequency spectrum. For a station list of area stations, see: http://www.dcrtv.com/mediaw5a. html DCRTV.COM is also a great site to keep up with local radio and TV station personnel changes and gossip.

Another facet of Bill's presentation was the advent of HD Radio, which purportedly allows AM stations to sound better and broadcast a stereo signal, and FM stations to sound better, or more likely, to broadcast one or more additional streams of programming in nearly the same radio spectrum.

As with many new technologies, the initial receivers for HD Radio are relatively expensive - $200 and up for the ones I've seen advertised. But, unlike XM and Sirius, there's no subscription fee for the extra "channels." For industry "propaganda" and lists of stations in the local area broadcasting in HD, see: http://hdradio.com/ For the technical aspects, a starting point is http://electronics.howstuffworks. com/hd-radio.htm which includes a discussion and links regarding some of the controversial aspects of this particular selection of broadcast technology by the FCC. Also, you may want to check out Wikipedia's article on HD Radio, which has a lot of technical material, and links to other resources.

Researching the HD Radio portion of this article has led me to some fascinating stuff, especially regarding the selection of one system of improved AM radio audio frequency response over another. Broadcasting, both radio and television, has had many controversies in its history over technical issues and patents. Such disputes seem to be continuing. See: http://www.wra-thofkahn.org/wst_page5.html

I also spent hours following links on radio station transmitter tours, radio history, and other topics that caught my eye - an Internet junket of a kind I'd not taken in several years. Where does the time go?

🖱

Camera Raw — what is it?

by Chuck Roberts

So what's the big deal with Camera Raw? What exactly does this mean? Should I care? Where do Raw images come from? Can I edit raw images? If so, how? These are the most frequently asked questions by those exploring digital photography today. Let me try to answer these questions for you.

As you might expect, there is a tiny computer inside your digital camera such that when you snap an image, the CCD chip (charge couple device) in your camera captures the light through the lens of your camerak as an image, then converts the image to a jpeg (jpg) file and writes it to your memory card. Hey, that's simple enough except that everyone knows jpeg files are compressed – simply by the definition of jpg. Remember, I keep telling you that you should always store images in a "lossless" file format like PSD for Photoshop and PS Elements (or even Tiff if your editor doesn't support PSD). This means that no data is discarded or "thrown-away" when saving an image.

Jpeg always compresses an image by discarding bits it decides have little value to the image quality with each "save". This compression is part of the jpeg file specification. As a side note — this means that every time you save a jpg file, it is compressed again and yet more data is discarded. But simply opening and then closing a jpg file does not cause compression because the file was not saved. So guess what? That jpeg file you get out of your camera has already been compressed! Yep. Data bits have already been discarded by the time the image file is written to your memory card! Is that cool or what? *No*, I didn't think so. I believe if anyone is going to discard my data, I should at least be involved in deciding what data is being trashed — OK?

So that brings us to camera raw. Some of the latest digital cameras will capture your image and store it to your memory card without compression. The price for this is two-fold: the image is larger without compression and the image file is in a "raw" format that most image editors cannot read. So do all digital cameras manufacturers offer camera raw? It depends on the manufacturer and the camera model. Camera raw is a proprietary format based on the individual manufacturer and their line of cameras. Usually it is the top of the line models (digital SLRs) that offer the raw output format, and it may vary by camera models from the same manufacturer.

As I mentioned, camera raw is proprietary so the file format is not standardized across camera manufacturers which means that each

manufacturer has their own camera raw file format – and sometimes a different version for different model cameras! Oh, by the way, Photoshop Elements uses the same software to process raw images as Photoshop CS2 (soon to be CS3). In fact, one can update the camera raw component of both PS Elements or Photoshop CS2/3 by visiting the Adobe website and downloading the latest filter for camera raw.

So What's The Big Deal With Raw?

Raw simply means that what gets saved in a raw file is exactly what the camera sensors recorded. No changes were made, no compression was used when saving the file to your memory card. This means the raw image you see on your monitor is as close to the image you shot as possible using your camera. Most professional photographers would rather work with the real image instead of allowing the camera to compress and "finish" the image and thereby compress or discard some data. So camera raw is the way to go. Another way to help describe the differences between jpeg and raw is to consider the jpeg images from your camera as being "completed" or "finished" when you upload it to your computer. Raw images are not considered complete after you have uploaded them to your computer. Working with camera raw files is considered more like working with negatives in a darkroom where you can adjust the white balance and exposure until you have the image "perfect." While the same resulting adjustments can be made post-production with jpg files, it's different because you're readjusting information that's already been set.

Here's another analogy. Once your film is developed in the darkroom, the negative is complete. Working with raw is like the film development stage which results in negatives. Raw images become digital negatives.

Can I Edit Raw Images?

The answer is yes. Most camera manufactures include a CD that includes some image editing capabilities and since camera raw is proprietary, they provide a utility to open, view and edit camera raw files.

However, as I mentioned previously, PS Elements can open camera raw files from most cameras. Since Adobe is *the* primary imaging software company, Adobe has proposed a new image file format known as DNG (digital negative file format) and has made the file specification available to digital camera manufactures. While it is not yet a file standard, PS Elements as well as Photoshop CS2/3 will open camera raw images and save them in .dng format as negatives. Adobe updates their raw editor software on a regular basis to keep abreast of new camera models and if you use PS Elements 5 or Photoshop CS2, it is easy to update your raw editor by visiting the Adobe website.

Editing camera raw images is unique in that we are tweaking inside the data from the camera. Also, keep in mind that Adobe never works on the original image in raw, but on a copy. That way, the raw image from the camera is always available.

My new Olympus Digital SLR is great (in my opinion) and the camera raw files are tagged as .ORF. It took me a while to understand that ORF stands for Olympus Raw Format (I actually thought I was reading OAF at first). RAW lets us fix

all sorts of things after the fact and because it is all happening within the data from the camera, we can tweak the exposure, white balance, and lots of other settings to create a new, perfectly balanced "original" from our digital negative. When finished, the edited, ORF (Raw) file is saved in .dng format which I save in PSD format which is lossless. This is very powerful stuff!

If everything goes as planned, I will be delivering a presentation on Digital Asset Management (see my article in the March Cursor) as well as demonstrating editing Camera Raw images in PS Elements 5 at the May meeting. I hope to see you at the May meeting! My new camera has the option to save a captured image as both an ORF (raw) as well as jpeg at the same time so we will compare them together and explore editing raw images.

🖱

works:
http://www.oreillyschool.com/why/theostmovie.mp4

And UG Members Receive a 30% Discount!

As an O'Reilly User Group member, you save on all the courses and certificate series. To redeem, use Promotion Code "ORALL1," good for a30% discount, in Step #2 of the enrollment process. Each course comes with a free O'Reilly book and a 7-day money-back guarantee. Register online: http://www.oreilly-school.com/?CMP=BAC-ostug

🖱

Windows XP Upgrade to Vista

By Vinny LaBash, a member of the
Sarasota PCUG, Florida
www.spcug.org
labash(at)spcug.org

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

Previous versions of Windows always accepted an installation disk as proof you had a legitimate copy of Windows. This entitled you to install the upgrade version of the latest release of the operating system. Vista doesn't work the same way. The only thing it will recognize is a copy of Windows already installed on a hard drive. Why Microsoft did this remains a mystery, but perhaps there really are things that mere mortals are not meant to know.

Don't go out and splurge on a full version of Vista. Read on and save some money. There are four primary versions of Vista:

Vista Home Basic
Vista Home Premium
Vista Business
Vista Ultimate

The difference between the full and upgrade versions of each variation of Vista ranges between $72 and $155. Even though Vista is a big improvement over XP, why spend the extra money for a full version if you don't have to?

If you're attempting to upgrade from a version of XP or Windows 2000 that's already installed on your hard drive, the upgrade version of Vista will install as soon as it recognizes the older version of Windows on your system. However, if you've formatted your hard drive, Vista refuses to accept an installation disk from a previous version of Windows as evidence that you do indeed own a legitimate copy of Microsoft's flagship product.

Fortunately, there is a legitimate method to work around this otherwise severe and unnecessary restriction. There is an undocumented procedure that allows you to do a full clean install of Vista to a physical hard drive without a previous version of the operating system installed.

The setup program in the Vista upgrade is the tool that lets you perform a full clean install of the product. In addition to XP and Windows 2000, Vista will recognize a copy of itself that has not yet been activated. What if we install Vista twice? We are going to install Vista, and then "upgrade" to Vista. Before you do ANYTHING, please read the entire 20 step procedure first. I'll wait while you do this. OK, let's get started.

1. Boot your PC from the Vista DVD.

2. In the dialog box that comes up select "**Install Now**". **DO NOT** enter the product key at this time. You'll do that later.

3. Turn off the option that that says **Automatically activate Windows when I'm online**.

4. Another dialog box comes up. Confirm the Vista installation without the product key.

5. Tell the installation program what version of Vista you're installing. Don't fib about this.

6. This step is important. Select the "**Custom (Advanced)**" install, **NOT** the "Upgrade" install.

7. Wait for the install program to copy files. Your system will probably reboot several times. Don't touch anything. Let the install complete.

8. Eject the installation DVD **WITHOUT** activating Vista.

9. Reboot to make sure everything is working OK.

10. Reinsert the Vista installation diskette and run setup again.

11. Click "**Install Now**".

12. Select **Do not get the latest updates for installation**. You can do that later.

13. Enter the product key.

14. Turn off the option to **Automatically activate Windows when I'm online**.

15. Now select "**Upgrade**," not "Custom (Advanced)." This is where you do the actual "upgrade" to Vista.

16. Pay attention! Don't do anything while the setup program copies files and does a reboot.

17. At some point the system will ask if you would like to boot from the DVD. Decline the invitation.

18. No matter what happens on the screen, leave the keyboard and mouse alone. Resist the urge to do something. Vista setup is making all the right choices for you automatically.

19. The Thank You dialog box will eventually appear. Click Start.

20. Vista's login screen will come up shortly. Enter the user name and password you created during the first installation.

Congratulations! You're finished upgrading to Vista, but you still

have a housekeeping chore to perform. You have to activate Vista within 30 days of installation or it will cease working properly. To activate Vista:

1. Reboot your machine.
2. The Welcome Center appears.
3. Click **Show more details**.
4. Click **Activate Windows** now.
5. Activation will now take place automatically over the internet.

It is unknown why Microsoft programmed this procedure into the setup program. My conjecture is that the procedure was implemented for the convenience of programmers while testing the product and someone decided that it was too much trouble to remove. Another possibility is that when Microsoft management gave the order to stop development and concentrate on fixing bugs, there was no time to remove the feature before product release. Whatever the case may be, let's use Microsoft's perhaps unintentional gift to save a few bucks.

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

⌁

Upgrading to an LCD Monitor

by Herb Goldstein, Software Evaluation Chairman and Reviews Editor, Sarasota PCUG, Florida
www.spcug.org
reviewseditor(at)spcug.org
Obtained from APCUG with the author's permission for publication by APCUG

member groups.

Actually, I was happy with my high quality CRT (cathode ray tube) monitor. It was with considerable reluctance that I recently decided to get with the modern era and upgrade to an LCD. It has been quite a learning experience. Looking back, I realize that there are a number of very important practical considerations of which I was unaware in making the change and in making a choice. Perhaps I can pass along a summary of them along with some insight gained by hands-on experience to make the experience a little easier for you than it was for me. You need to do your homework both before and during your investigation. Here are some of the most important things you should know.

An LCD monitor offers considerable advantages in upgrading from a CRT. It is infinitely lighter and takes up much less desk space than a CRT. It uses the smallest fraction of electricity by comparison and is devoid of radiation concerns. When properly installed, its display may prove brighter, sharper and provide superb color.

SIZE: In any size range, an LCD will display more viewable screen than a similarly sized CRT. I decided on a 19 incher, the size of my CRT that I was happy with. Seventeen may work for you if that's what pleased you on your CRT. Over 19 for average use is both too much screen and excessive cost for most people.

ORIENTATION: Most prefer a normal tall screen (portrait view) for average usage. Wide (landscape) screens are available at greater cost in the same size range and are not recommended unless you have special need for that display. Some

makes offer a swivel screen that you can change from tall to wide and back again instantly. You will pay considerably more for this feature when it is available.

COST: Has been decreasing from a few thousand some short years ago to a few hundred today. A quality 17 inch LCD can be found today for under $200, and a 19 incher for less than $300. If you have a watchful eye, special sales are common and offer substantial saving.

BRAND: There is a very significant display quality to be gained in better models of better brands. The most common best quality brands usually topping the review lists in computer publications are LG, NEC, Viewsonic, Dell and Samsung. Different models in the same brand provide different features. Check them out carefully on their respective websites and "Google" for reviews. You need to do your homework both before and during your shopping experiences if you want the best for your buck.

WARRANTY: Better brands provide a 3 year replacement on defective monitors. Don't settle for a one year warranty!

VIEWING ANGLE: Unlike a CRT, an LCD's view falls off sharply at the sides when you are not positioned in front of your monitor. In practical usage, this should notbe at all a problem. Your view will be just fine when you are normally seated at your screen, with more than sufficient leeway from the norm.

RESPONSE TIME: Usually indicated in the advertising of better models. A faster response time is better--it indicates how quickly the screen can refresh a video image. If

an LCD's response time is too slow, the display's pixels won't be able to keep up with the information sent from the computer's graphics card, and you may see ghosting and digital noise as a result. 8ms or better response time is common on quality LCD's and is preferred! The lower the response time, the less of a blurring effect is possible on the screen.

ANALOG VS. DIGITAL: Video cards can provide outlets for two different monitor display types, analog and digital. CRT monitors are cabled to your video card with an analog (15 pin) cable. LCD's usually provide the same cable and connection but will provide a significantly better display when attached via a digital (VDI-D) to a digital port on your video card. Better LCD's provide both digital and analog connections. So do better video cards. If your card doesn't have a digital port, you can either replace the card with one that does, or you can add an additional card. Easy to do. Just plug it into a PCI slot and your computer will recognize it. You are really better off in many ways with a better card.

If need be, you can run your LCD with the same analog connection as you used for your CRT previously, but a digital connection will give you better results.

NATIVE RESOLUTION: LCD monitors will provide their best display when run at their "native resolution" which varies with the size of the monitor. For a 19 incher, the native resolution is 1280x1024. The resolution of a display can be changed easily by right-clicking on an empty area of your desktop and selecting "properties," and "settings." The same can be accomplished through your Control Panel in your Start Menu. Normally the correct choice will be made automatically by the installation software that accompanies your new monitor.

When you change your most common CRT setting of 1080x760 to 1280x1024, everything, including all your icons and fonts, will suddenly appear much smaller. Your LCD display however will become infinitely sharper. If you find it strange to your eyes, you can easily change your display properties to provide larger fonts. Additionally, many programs like word processors permit you to change your text to any size you wish while maintaining its quality, regardless of screen resolution.

Running at native resolution (your choice to do or not, but very highly recommended) will make your screen display smaller but you will be able to accommodate more viewed area on a page. It may be strange somewhat to your eyes at first, but the greatly increased sharpness and over-all quality of your LCD display will more than make up for it, especially if you are using digital rather than analog display.

AUTO-DISPLAY: Most quality LCD monitors will automatically install at their best display settings when you plug them in. However, they will also provide easy to adjust menu settings for most of their values that permit you to easily adjust the display to what is most pleasing to your eyes. They most common adjustment people make is for brightness. Most LCD monitors tend to be too bright unless adjusted. LCD screen illumination is entirely different and better than that from a CRT.

RUNNING MULTIPLE MONITORS: What's to do with your CRT now that you have your new LCD? One of your choices may be to keep it and run two monitors side-by-side. If you are using Windows XP and you have two ports on your video card (or two video cards), it's easy to do with a few simple settings in your display properties menu. You will then be able to run two different programs at the same time and easily drag items from one monitor screen to the other. Your cursor will readily mouse from one monitor to the other alongside. It can double your productivity and allow you to see and do things you did not know were possible.

Over all, upgrading to an LCD monitor will greatly enhance your computer experience and enjoyment. It's way more than worth any effort or expense involved.

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

The Cursor

The 2007 WAC Board of Directors, SIG Leaders and other Volunteers

President:	Paul Howard, 703-860-9246, plhoward@verizon.net
Vice-President:	Jim Brueggeman, 703-450-1384, bigjimo1@aol.com
Secretary:	Bill Walsh, 703-241-8141, bill.walsh@cox.net
Treasurer:	Bob Rott, blbob1b@verizon.net
Director Emeritus:	Lu Spriggs, 571-991-9953, luspriggs@aol.com
Internet Support:	Lloyd Johnson, lloydhj@aol.com
Vendor Contact:	Chuck Roberts, 703-876-9787, chrobe@cox.net
PC SIG Leader/Disk Librarian:	Bob Mason, 703-503-9324, Bob.Mason@remjem.com
Linux SIG Leader, Membership Chair:	Geof Goodrum, 703-370-7649, ggoodrum@bigfoot.com
Meeting Setup/APCUG Liaison:	Bill Walsh, 703-241-8141, bill.walsh@cox.net
Web Site Team:	Paul Howard and Chuck Roberts
Newsletter Editor:	Chuck Roberts, 703-876-9787, cursor@wacug.org
Member at Large:	Mel Mikosinski, 709-978-9158, melvin22003@aol.com

The Cursor provides news, commentary and product information to members of the Washington Area Computer User Group.

Send membership inquiries and address changes to: membership@wacug.org
Send article submission and reprint requests to the Editor: cursor@wacug.org

2007 WAC Membership/Renewal Application

Dues are collected on an Annual basis and includes three coupons redeemable for WACUG Software Disks, and WAC's monthly newsletter, *The Cursor*, in PDF format

Individual/Corporate/Family Dues: $25.00
$12 annual surcharge for delivery of the Cursor by 1st Class mail

Remit payment in person at the WAC Membership table on meeting day, or by mail to:
Washington Area Computer User Group
30 Fendall Ave.
Alexandria, VA 22304-6300
Make checks payable to WAC. Please do not send cash by mail. *Thank you for joining WAC!*
Complete if you name and address do not appear on the reverse side. Include E-mail Address
Name:
Street:
City:
State: Zip:
Phone: (   ) –

E-mail:

Membership Survey: Help us to help you by completing this survey. List the computer systems you own / use (in order of preference)

Operating System(s):

Modem(s):

Printer(s):

Other Hardware:

Favorite Software:

Connection: (circle one)   Dial-up   or   Broadband

Circle Your Interests: Photo Printing   Investing Games
Digital Photography   Internet Access   Education Music
Graphics/Animation   Genealogy   Video   Finance
Programming Language(s)
Hardware Upgrades/Repair   List others below

Next WAC Meetings: • Apr 21 • May 12 • June16 • July 21 • Aug 21

Call (703) 370-7649 for the latest meeting information or Visit our Web Site at:
http://www.wacug.org

April Meeting will be
held at the Fairfax County
Government Center

Through Front Entrance to
the Left Hallway, Past the
Elevators to:
Conference Room 2/3

Service Desks Open at
12:30 Meeting Starts at
1:00 PM
FREE ADMISSION
BRING A FRIEND!
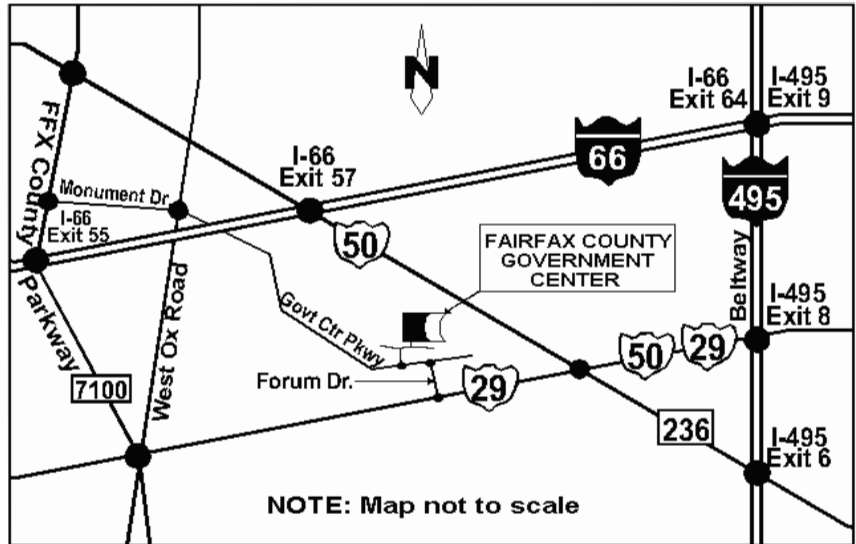
Washington Area Computer User Group
30 Fendall Avenue
Alexandria, VA 22304-6300
ADDRESS CORRECTION REQUESTED

Label

Vista Alternatives – Part II

By Brian K. Lewis, Ph.D., a member of the Sarasota PCUG, Florida
www.spcug.org
bwsail at yahoo dot com

This article is being written in the Linux version of Open Office 2.0 on a computer that uses Ubuntu as the operating system (OS). Since this system is now networked with my Windows XP computers, both desktop and laptop, I can easily transfer files between the computers. I am also able to print from this Linux computer to my laser printer over the Windows network. So what did I have to do to accomplish this?

The first thing I had to do was to install a copy of Samba on this Linux computer. Ubuntu has an Add/Remove graphic interface for the Synaptic Package Manager. This has a one-click download install for new applications. The Samba package that was installed had a GsambaD graphic front end. This turned out to be very frustrating as it insisted I had to be logged in as Root to run the application. Now with most Linux versions this would be a simple change of user. Root is usually the designated Administrator and is the only user allowed to alter system files and add/remove software. There is also a user that has fewer privileges. (Sounds somewhat like Vista doesn't it?) However, in Ubuntu, the user is also the administrator. To carry out any functions that require administrator privilege, the OS asks for the password. The idea being that only one password is required for the user to remember.

Anyway, the GsambaD software refused to acknowledge that I was the administrator and didn't ask for a password, it simply shut down after presenting me with the error message.

The next step was to manually edit the samba configuration file. I did have to do some searching through the Ubuntu on-line forum in order to find some help on the lines I needed to edit. It also required some facility with the command line mode (terminal) in Ubuntu. Obviously, if you are not comfortable making these types of changes, this OS is not for you. Until Ubuntu is able to install peripherals and local networking functions as easily as does Windows, it will not attract a truly large following.

So after making the configuration changes and re-booting the system, I went to the Places-Connect to Server menu. Immediately on clicking on that line, an icon was placed on the desktop and a window opened up showing the shared folders on my WinXP computer. I had no problem pulling up data files or PDF files and reading them. On my Windows computer I also found a new icon in the "My Network Places" folder. This was the icon for the Ubuntu computer. Here I was also able to read the folders and located data files that could be opened on the Windows computer. So the file sharing was successful.

My next complication was to setup a network printer. This had not worked in any of my previous attempts. Now that I was definitely connected to the Windows network I tried again. Going to System – Administration – Printing brought up a window with an Add Printer icon. This time by following the instructions in each window I was able to install my networked laser printer. When I indicated that I wanted install a networked printer there were a series of windows to go through. I had to change the designation from a CUPS printer to a Windows (SMB) printer. Then using the drop-down list I was able to select the name of the Windows computer. The next line also had a drop down list and I was able to select the name of the laser printer. The list did show both of the networked printers. The most difficult part of the printer install was locating the device driver file. First I had to select the manufacturer and the printer model. Then I was asked to locate the PPD driver file. I had to go back to the file management search function to find the folder where the driver files are located. Search is located at the bottom of the Places menu. The folder turned out to be at the end of this path: File system-usr - share – ppd. Yes, the folders in Linux have names that are not always straightforward. It takes some getting used to the differences. Once that was done, the last window asked for a description and a location. For the location I typed in the name of the Windows computer. Once back at the Add Printer window the laser printer icon appeared. Then I right-clicked, opened Properties and did a test print. The test print came through much faster than it did when I had tried printing from Windows Vista. So at least I had one printer that I could use with the Ubuntu OS.

The next thing I wanted to test was using a dual boot setup. I had Windows Vista installed on this computer but the changes to the boot menu to allow a choice of booting Vista didn't work. So I tried another

tactic. I installed the latest version of Linspire. After its installation I rebooted the system and ended up back in Ubuntu. So after using the Linspire CD to force the boot from the Linspire partition I printed out the Linspire loader file. Then I used that information to edit the Ubuntu loader. I added five lines of code that I had copied from the Linspire loader file. After saving the file I rebooted the computer and brought up the boot menu. Linspire was listed as the first application in the list. Pressing return selected this item and Linspire loaded. So now I had a dual boot system with Linspire and Ubuntu.

One of the first things I accomplished in Linspire was installing the network printer. Linspire automatically installed Samba so I didn't have that to do. In the graphic printer installation I was able to select a network printer as the type. Next I provided the network name; the server name and the application found my networked printers. After that it was simply a process of letting the installer find and install the printer driver and run a test print. I still don't have my inkjet connected to either Linspire or Ubuntu. That will be another project.

Finally, I checked on the networking ability of Linspire. It found my Windows XP computer with no problems. Then I had to figure out how to list the Windows folders I wanted to show in the Linspire file manager. Every time I tried to bring up the Windows "My Document" folder, it would appear to be empty. Since I knew that wasn't correct I went back into the Linspire Network Share Manager and tried to figure out the problem. When I would put in the folder name I

would get a bad share name error. So then I made the entire Windows C drive shareable. That worked but I still couldn't get any files or folders listed under my user name. I tried using the Windows user name and password but that didn't work either. Finally I used the Admin user name and password and that worked! Now I can browse all of the folders and files in the Windows "My Documents" folder. The Linspire "My Documents" folder also shows in the "My Network Places" on the Windows computer. So, I can now move files and folders either direction on my local network. The final network setup was to connect my laptop to the wireless network and see if it was visible in Linspire. The laptop immediately found the Linspire computer and I was able to transfer a number of files with no difficulty. However, I did have to first provide the Administrator name and password.

After playing with Linspire for a time I went back to Ubuntu. Most Linux distributions don't come with any anti-virus software. Both Linspire and Ubuntu do include a built-in firewall. So I wanted to add an anti-virus. Since my Windows anti-virus of choice is Avast I checked their web page first. They do have a Linux version of their free home edition and it was a Debian package. Both Linspire and Ubuntu are Debian based versions of Linux. This, again, is one of my preferences as I find it easier to obtain and install software packages based on Debian. So I downloaded the Debian version of Avast. Clicking the install package Ubuntu brought up a menu asking if I wanted to install the package using "Gdebi Package Installer" and I clicked on OK. The installation took no time at all, but I couldn't find Avast on any of the

menus. So I went to the Avast forum on the web and looked through some of the Linux questions. Not surprisingly there were a number of questions related to installation on Ubuntu systems. I found a command line entry fairly quickly. So I copied it and pasted it into a Terminal window. That put an Avast icon in the Applications – Accessories menu. The next problem was when I clicked the icon it immediately asked me for a license key. I had found a comment in the forum that you could use a Windows Avast key for the Linux installation. Since I had a license key that I obtained for Vista that I was no longer using, I typed it in, pressed Enter and Avast came up in the graphic interface. With one click I did an update on the virus database. Then with another I started a full system scan. So Avast is now protecting my Ubuntu installation.

There was another application that I wanted to install on the Linux systems. This is Picasa, a photo editing and organizing application. It is produced by Google and is another example of quality freeware. I use it for downloads from my digital camera, for photo editing and for e-mailing photos. Picasa automatically compresses photos for e-mailing. For Linspire I was able to find Picasa in the Click-n-Run (CNR) warehouse. So that was a single click to have it downloaded and installed on the hard drive. In Ubuntu I had to go to the Picasa web site and find the download page and select a Debian version. Once it was downloaded I double-clicked it and Gdebi installed it just as had been the Avast. In both OS's I found that Picasa worked just as cleanly as it did under Windows. Incidently,

both Linux OS's identified and installed my USB card reader as soon as I plugged it into a USB port. That will make downloading photos from my camera as easy as it is in Windows.

So why have I spent so much time playing with these Linux systems? It is mainly because I see them as viable competition for Windows. Granted there is a learning curve to getting these systems running on a computer. But that is true whenever you install any new software application. However I believe that Linspire and Ubuntu have come a long way toward meeting the needs of Windows users. There is a wide variety of software available for these Debian versions of Linux and the download-install functions have been quite simplified. In some respects adding software to either Linspire or Ubuntu is simpler that installing software under Windows. It is only in rare instances that you have to reboot your Linux system after installing a new application. The graphic interface of both of these Linux versions has improved to the point that most Windows users would have no difficulty in making the transition. The major problem is finding drivers for peripherals. I think this is a real stumbling block for some users who might like to change from Windows. Because of this problem I can't recommend either OS for novice users, only for those willing to do some web searching when they can't find drivers for their printers, scanners or other devices directly through the OS software.

I do have several remaining questions on my use of Linspire and Ubuntu. The first is solving my problem with a driver for my Canon printer, possibly replacing it. The second is seeing if some of my Windows software can be run on either system. There are several applications that allow Windows software to be run under a Linux OS. One is called WINE and the other is CrossOver Linux sold by CodeWeavers (www.codeweavers.com). WINE is a free application (winehq.org) and CrossOver Linux sells for either $39.95 or $69.95. So in the next few months I will continue my adventures with both Linspire and Ubuntu. You will see an occasional Linux article whenever I come across something that I think might be of interest to Windows users looking for alternatives. As for me, I intend to gradually transition all of my rk to Linux.

Dr. Lewis is a former university & medical school professor. He has been working with personal computers for more than thirty years. He can be reached via e-mail: bwsail at yahoo dot com.

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

⌒

The Garage

By Berry F. Phillips, a member of the Computer Club of Oklahoma City and a monthly contributor to the e-Monitor
http://www.ccokc.org
bfpdata(at)1access.net

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

IT was born in a garage! If you had driven by the garage located in a residential neighborhood, you would not have noticed there was anything strange about the garage since it looked like all the other garages attached to residences. However, if you were a neighbor you would be aware of certain unusual activity. You would have at times noticed the cars lining the street, and people going into the garage carrying various equipment usually in the evening. If a neighbor was blessed or cursed as the case may be, with an active imagination several fantasy explanations could come to mind. Perhaps it was a band practicing in the garage but there was no sound of music. Perhaps it was some kind of a terrorist group but no smoke or explosions or sounds of automatic rifles being fired. Perhaps they had a still operating in that garage however there were no police raiding the garage. Well, the garage could be used for all kinds of purposes but one thing is certain; it was not being used as a garage!

The garage was located in Menlo Park, San Mateo County, California and was a maternity ward for the birthing in March 1975 of the Homebrew Computer Club. The 1999 made for television movie. "Pirates of the Silicon Valley (and the book on which it was based, "Fire In the Valley: The Making of the Personal Computer") describes the role the Homebrew Computer Club played in creating the first personal computer.

Hackers were attracted to the garage like steel to a magnet since in those days it was just another name for a computer enthusiast like nerd or geek. In the old days a hacker is one who "hacks" through a computer problem and who writes his own code to fix it. In modern times a hacker has unfortunately a nega-

tive connotation which should be correctly called a cracker, a combination of the word, criminal and hacker. The hackers wanted to "homebrew" their own machines using parts from the Altair computer kit, computer chips such as Intel 8080, or any other computer equipment. While the members of the Homebrew Computer Club were hobbyists, most of them had electronic engineering or programming backgrounds. I am reminded of Bill Gates' Open Letter to Hobbyists which lambasted the early hackers of the time for modifying and pirating commercial software programs. Several founders of microcomputer companies including Bob Marsh, Adam Osborne, Lee Filsenstein, and Apple founders, Steve Jobs and Steve Wozniack were founding members of the Homebrew Computer Club. Thirty years later in 2005, a reunion celebration was held as part of the Vintage Computer Festival sponsored by the Computer Museum. Upon the completion of the activities in the exhibit hall, there was an autograph signing as well as vintage computer equipment for sale that took many a hacker back to those early days they "homebrewed" their computer.

The Homebrew Computer Club's newsletter was one of the major forces that influenced the formation of the Silicon Valley created and edited by the members. The first issue was published in 1975 and continued in several designs ending after 21 issues in December 1977. There have been other Homebrew Computer Clubs that have emerged like the one in the Netherlands that started with a dozen members and operates today with 180 thousand members which is the largest association in the world. Their small newsletter grew into the magazine, "Computer Total."

Today, many of the original members of the Homebrew Computer Club meet today as the 6800 Club named after the Motorola (now Freescale) 6800 microprocessor. Who would have ever thought that a garage would be a maternity ward for the IT (Information Technology) Industry? I have decided to elevate the status of the lowly garage in my mind especially since I found out many of our largest corporations were also born in a garage! Why I am thinking now that a garage should not be for cars or junk but a shrine dedicated to American ingenuity and innovation!

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