

**NO MEMBERSHIP DUES
FOR 2010**

The Board of Directors has decided to forego membership dues for 2010. This follows action taken last year to forego dues. The Board will take this up for discussion at the end of the year to determine a future course of action.

A large part of our being able to do this is that the newsletter went electronic and is on the KVCS web site, thereby saving publishing and mailing expense. The rest of it comes from volunteer work that keeps things going. Our continuing primary expense is the cost of rent for the general membership meetings and the gratuity for the Board meetings.

Brian Boudreau Presents Facebook

KVCS member Brian Boudreau is going to lead the discussion and present working with Facebook at the February meeting. Facebook seems to be THE site for social networking. I hear Twitter is losing ground. I use Facebook, but I must tell you I get very frustrated with the interface at times and I really don't care if someone is cleaning out their aquarium or feeding their animals in the farm yard. I suppose it does amuse some folks but I sure would like to shut that stuff off. How do you do that? I'll bet Brian will be able to shed light on those and other questions. So fight cabin fever. Come to the meeting February 11 and have some fun.

ICE JAM

Have you been down to the Kennebec River to see the giant ice jam? This jam is bigger than anyone can remember. A friend, David Gomeau, took the picture in the next column of the ice jam that was blocked, building up, flooding the parking lots behind buildings on Water Street. I heard that the ice jam is 10 to 15 feet high in some places further down stream. This is one huge amount of ice. Let's hope it warms up slowly and breaks up gradually.



**Ice Jam on the Kennebec River with Old City Hall and Fort Western in the background.
Photo Courtesy David Gomeau**

PLEASE NOTE

The KVCS Board will meet on Wednesday, February 17 instead of Thursday the 18th

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KVCS MEETINGS

General Membership

The program for this month's meeting will be a presentation by KVCS member Brian Boudreau of the ins and outs of Facebook.

Thursday, February 11, 7:00 PM
Buker School on Armory Street,
just off Western Avenue near the
National Guard Armory in Augusta.

Board of Directors Meeting

NOTE DATE CHANGE

The next meeting will be **Wednesday, February 17, 6:30 to 8:30 PM** at Margaritas, 390 Western Avenue, Augusta



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You may upload copy via E-Mail or bring to the KVCS general membership meeting. **Deadline for submission of copy for the newsletter is the 15th day of the month preceding the month of issue and will be run on a space available basis.** Copy is subject to editing.

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KVCS WEB SITE

The URL for our web site is
www.kvcs.org

Check there for more information about KVCS. Bob Wells is suggesting you make it the opening page for your web browser so you get the latest announcements.

Bob Wells is the webmaster for the KVCS site. Go to *www.kvcs.org* and look around. While there sign up for member access.

Apcug Reprint Series

**Ubuntu 64-bit
Operating System
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As I mentioned in my previous Monitor (August 2009) article, I was interested in installing a 64-bit operating system (OS) on my laptop. Since I have a relatively new system that is 64-bit capable, it seemed to be time to try it out. I had downloaded the .iso file for the latest version of Ubuntu, version 9.04 or "Jaunty Jackalope". This is the latest regular release. Another one is due in Canonical's six month release cycle about the time this article is published. The next long-term release is due in the spring of 2010. For more information on the Ubuntu release cycle see <http://www.ubuntu.com/products/ubuntu/release-cycle>.

I used the Brasero Disk Burner software that was provided with Ubuntu version 8.10 to burn the .iso file to disk. Burning the .iso file produced a bootable "Live" CD that could be used for the installation. I already had two operating systems on

my computer and I wanted to add the 64-bit OS as the third rather than remove one. The hard drive had Vista in one 160 GB partition and the 32-bit Ubuntu in another 160 MB partition. I thought I would be able to divide that latter partition to use half for the 32-bit and half for the 64-bit version of Ubuntu. At least that was the plan.

I booted the computer using the installation CD. With a Live CD, the first menu allows you to run Ubuntu directly from the CD, install Ubuntu, do a check on the CD or boot from the hard drive instead. To do a few checks of the compatibility of the 64-bit system with my hardware, I ran Ubuntu from the CD. Everything seemed to work properly, except for the printer. That I had expected as the Brother printer I use requires drivers to be downloaded from the Brother web site. At this point everything was looking good, so I clicked on the Install Icon on the desktop.

After a short delay as the software loaded, I was greeted with the opening screen to select the language. English was highlighted, so I just clicked on "Continue". The next screen was to select the keyboard and US was highlighted. Again, just click on "Continue". Next came the screen for the time zone. Since I was doing this in the Central Time Zone, I clicked in that area and Chicago came up as the location. Next click on "Continue" again.

Now I got down to the real business of the installation. The software loaded the

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Member of
The Association of
Personal Computer User Groups

Apcug Reprint Series

Hard Drives, Connectors, Performance and You Performance Drives May Be Worth the Price

**Written by Ira Brickman,
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The ICON Graphic, Newsletter of
the ICON PCUG, July 2009
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You buy a new computer and you're pleased that it is faster than your old one. You spend time keeping it fast. You keep crapware and malware away. You add memory. After a time, as your hard drive fills up, you decide to replace it or add another hard drive. After all, the price of hard drives is relatively low. They are less expensive than ever. So you make sure you get an inexpensive, reliable brand.

But did you know that with the right new hard drive, your computer can be noticeably faster? Most manufacturers decide on hard drives the same way you do, if you do what is described in the paragraph above. In average-priced desktops and notebooks alike, OEM's find reliable, inexpensive drives; drives that are smaller than the largest drives available. Most people aren't aware of this because that new processor, memory and larger drive are so much faster than their old computer.

So with a little understanding of specs and some real-world benchmarks, you can do more for your computer than add more storage space when you buy a new hard drive.

First some information about the specifications and standards for various kinds of interfaces used to connect hard drives. Newer computers use internal SATA-connected hard drives. The old internal connection for hard drives was IDE and was called ATA. It is now called PATA. The P stands for "parallel." The "S" in SATA stands for "serial."

When drives are connected externally, directly to your computer, your choices are USB, Firewire, and the newer eSATA (external SATA.) USB is virtually on every computer. The currently faster Firewire is more common on Apple computers. Newest desktop PC's often can include an eSATA connection. Slowest to fastest, here are the theoretical maximum speeds for the fastest versions of these interfaces:

- USB 2.0 – 480 Mbps
- FireWire 800 – 800 Mpbs
- PATA – 1.6 Gbps
- SATA 3.0 (and eSATA) – 3.0 Gbps

Based on these theoretical numbers, SATA is nearly twice the speed of PATA and nearly eight times faster than USB. In the real world, however, drives don't transfer data at nearly those speeds. Performance of things like your CPU, support chips, memory and what your computer is doing while data is being transferred, act to throttle maximum speed.

You can add any or all of these connections to both desktops and

notebooks. If they aren't there already in your computer, you can install a controller card. In a desktop that has SATA, adding eSATA is simply buying a cable – one end connects to the SATA controller on the mainboard, the other end has a female eSATA port. Connecting an SATA drive externally, then, requires no special electronics or interface in an external case, unlike the electronics required for USB. Internally-connected SATA drives function as fast when externally connected by eSATA.

OK... the above is necessary to understand my recent real world experiences replacing a hard drive on my one-year old Vista notebook. It focuses on SATA drives since those are now the standard included in all desktop computers and notebooks. My notebook came with a 2.5" 250 Gb Seagate SATA internal drive. At the beginning of the year, Seagate began shipping 500 Gb notebook drives. Like most modern notebook drives, they both rotate at 5,400 rpm and have an 8mb cache. More recently, Seagate began shipping premium notebook drives that rotate at 7,200 rpm and have a 16Mb cache, including one with a 500 Gb capacity. I bought that premium drive, hoping the added cost would translate to a significant increase in performance.

Using an external case with an eSATA connector and an eSATA PC Card inserted into my notebook, I used Acronis True image to clone my old hard drive onto the new drive. Even with the faster interface speed, it took well over an hour to finish.

Before I replaced the notebook drive, I decided to experiment. I copied to

-continued on next page-

-Hard Drives and Connectors - continued

the new larger, hopefully faster drive, 35 Gb in 340 files ranging in size from 20Mb to nearly 1 Gb, using the eSATA connection. Next, I deleted the files and did it again using the external case's USB connection. Then I switched to a smaller USB external drive with a 5,400 rpm, 60Gb PATA drive with a 16Mb cache and copied the same files.

Finally, I swapped out the old 260Gb for the 500Gb drive, re-booted, and tried the same transfers with the with the 250Gb SATA drive installed in the external case. Here are the results (rounded to whole numbers):

500 Gb SATA drive: 260 Gb SATA: 60 Gb PATA:
eSATA 38 Mbps eSATA 32 Mbps USB 8Mbps
USB 25 Mbps USB 21 Mbps

Comparing apples to apples, looking first at the USB results, it is clear that SATA drives have a clear speed advantage over PATA drives even though some of the slower PATA USB results can be attributed to the IDE to USB interface in one external case vs. a faster SATA to USB interface in the other. Comparing the SATA drives, the increased rpm and cache are responsible for a definite increase in overall speed since the case was the same in both instances. This test revealed more than an 18% increase in speed. Interestingly, the Vista "Windows Experience Index" scored the old drive at 5.3 and rated the new drive 5.9 – an 11% increase. Benchmarks like this, and single tests like my file transfer experiment, share the same limitation: they don't reflect drive performance for all real world circumstances.

So what about my real world experiences? With the new 500 Gb drive installed in my notebook, I experienced faster booting times and a noticeably "snappier" performance. Opening a "My Computer" window, for example, seemed to have eliminated a delay I had gotten used to. Web pages seemed to open more quickly in Internet Explorer. Microsoft Word loaded more quickly. These are perceived, not measured, results. But when it came to running Photoshop, I was delighted to see it load in ten seconds, not the 25 seconds I'd bemoaned (and timed) for the past year!

Keeping in mind that my notebook is now working faster, and has more storage than when I bought it, that makes the added price of the new drive worthwhile to me. And with the old drive in an external case, I can now image my notebook drive pretty quickly using eSATA. Hopefully this article and a little research on your part will benefit you similarly when you purchase a new hard drive.



Ubuntu 64 Bit - continued-

drive partitioner. The current partitions were identified as Windows Vista, Ubuntu 8.10 and the Linux swap partition. There were two different bars showing the current partitions in different colors. My choices here were (1) use the entire drive for Ubuntu 9.04; (2) install 9.04 side by side with the current OS's; or (3) do a custom partition. On selecting the second option and clicking on the Ubuntu partition, there was a slider that I could use to alter the size of the current Ubuntu partition on the second bar. So I used that to reduce the 8.1 partition and the software then added the 9.04 partition to the graphic. Once I was satisfied with the size of the new partition, I again clicked on "Continue". After a few seconds an error message popped up telling me that the process had failed. Oh well, back to the beginning. After trying the process twice, I canceled the installation and restarted the computer with Ubuntu 8.10.

I suspected the partitioning problem was caused by one of two possibilities. One that the partition I was working with was 32 bit and I wanted to install a 64 bit OS which didn't fit the disk formatting. Or two, all the partitions were on the boot drive and so were locked. I needed to try a different tactic. Next, I downloaded an .iso file for the graphic version of Gparted. This is a free partitioning program that works with many different file systems. It can also resize and move partitions without loss of data. Since I had already backed up my Ubuntu 8.10 to an

external hard drive, I felt it was safe to use Gparted to create an empty partition on the drive. After booting from this CD, Gparted identified all the partitions in use on the drive. I highlighted the Ubuntu 8.10 partition and clicked on Move/Resize. After entering the new size for the partition, I clicked on Apply. It took about 10 minutes to complete the process. This left an unallocated partition of about 75 GB. Next I exited Gparted, removed the CD, replaced it with the Ubuntu install CD and restarted the system.

After getting back to the partitioning section of the install, it offered me an additional choice to install Ubuntu 9.04 in the largest unallocated partition. That was exactly what I wanted. Selecting that and clicking on Continue allowed the installation to go forward. In about 25 minutes the installation was complete. After the computer was rebooted, I logged into Vista just to be certain it was working. Then I exited and booted into Ubuntu 9.04.

My first impressions of this 64-bit version of Ubuntu are very positive. It loads from the boot menu in about 10-15 seconds. This is noticeably faster than the earlier 32-bit version. It also makes Vista look like a snail. Turning off the computer results in complete shutdown in less than 10 seconds. Try to get Vista to do that!

Ubuntu comes with most of the software that I use on a regular basis: OpenOffice 3.0, Firefox 3.0, Gimp (Photoshop equivalent), XSane (scanning software), Brasero Disc Burner, and Tomboy notes. There are four other packages that I downloaded using the Add/Remove function on the Applications menu. These are: Jpilot (Contact manager), Gramps

(genealogy), GnuCash (finances) and Firestarter (a firewall). All of these applications are maintained by the Ubuntu developer community and are free under the GNU license. The download and install process took about 30 minutes, primarily due to the slowness of my Internet connection at that time.

Once all my software was installed, I copied the data files from the old 32-bit partition to the new 64-bit partition and I was off and running. All the data was immediately accessible and it was apparent I had lost nothing in the transition to 64-bit. I am also very pleased with the responsiveness of all the 64-bit applications. I can't say that there is a tremendous increase in speed, but the time required to load applications does seem to be reduced. OpenOffice for one, opens in about half the time that was required in the 32-bit system. The opening logo appears with little or no delay after clicking on the shortcut icon on the desktop. That alone is a real improvement.

The last item I needed to install was the multifunction printer. As I mentioned earlier it is a Brother MFC machine and the printer/scanner drivers are not provided by Ubuntu. Brother has a web site devoted to the Linux drivers for its products. They also provide installation information for both 32-bit and 64-bit systems. To get the printer drivers to work with my 64-bit system I had to download and install a specific library file. That was available through the Synaptic Package Manager under the System menu. All I needed to do was select the file and click on Apply. The Package Manager downloaded and installed the file. Then I used the command line function in a terminal window to install the printer drivers and

the scanner drivers. This was simplified by the fact that Brother had the complete command in their installation instructions. It was very simple to copy it into the command line in the terminal window. Testing both the printer and the scanner indicated that the overall process was successful.

All of the software applications that came with Ubuntu 9.04 were 64-bit as it does not work with 32-bit software. Also, I didn't need to specify what I need for any of the applications I downloaded, with the exception of the Brother scanner software. Both the Add/Remove software function and the Synaptic Package Manager select only the 64-bit applications from the various repositories. When it comes to using a 64-bit Windows OS, it won't be this easy. Although 64-bit Windows can also run some 32-bit applications, this doesn't apply to all software. So in going 64-bit with Windows will require replacement with 64-bit applications. This is especially true of anti-virus software, firewalls and any other utilities that work directly with the hard drive. This means that more time, and money, will be involved in going from 32-bit to 64-bit Windows.

I have been using this new Ubuntu installation for just about a month. Everything I have tried has worked without complaint. I have used both the broadband wireless connection as well as the WiFi in a couple of hotspots. Both have worked without the need for any additional setup. The wireless connection menu comes up with a single click on the wireless icon on the top of the desktop page. Then one click connects the broadband. Once I turn on the WiFi the same menu shows me any available WiFi connections. It also

-continued on page 7-

KENNEBEC VALLEY COMPUTER SOCIETY
Presents

Social Networking with FaceBook

Presented by

Brian Boudreau

Thursday February 11 th 2010 - 7 PM

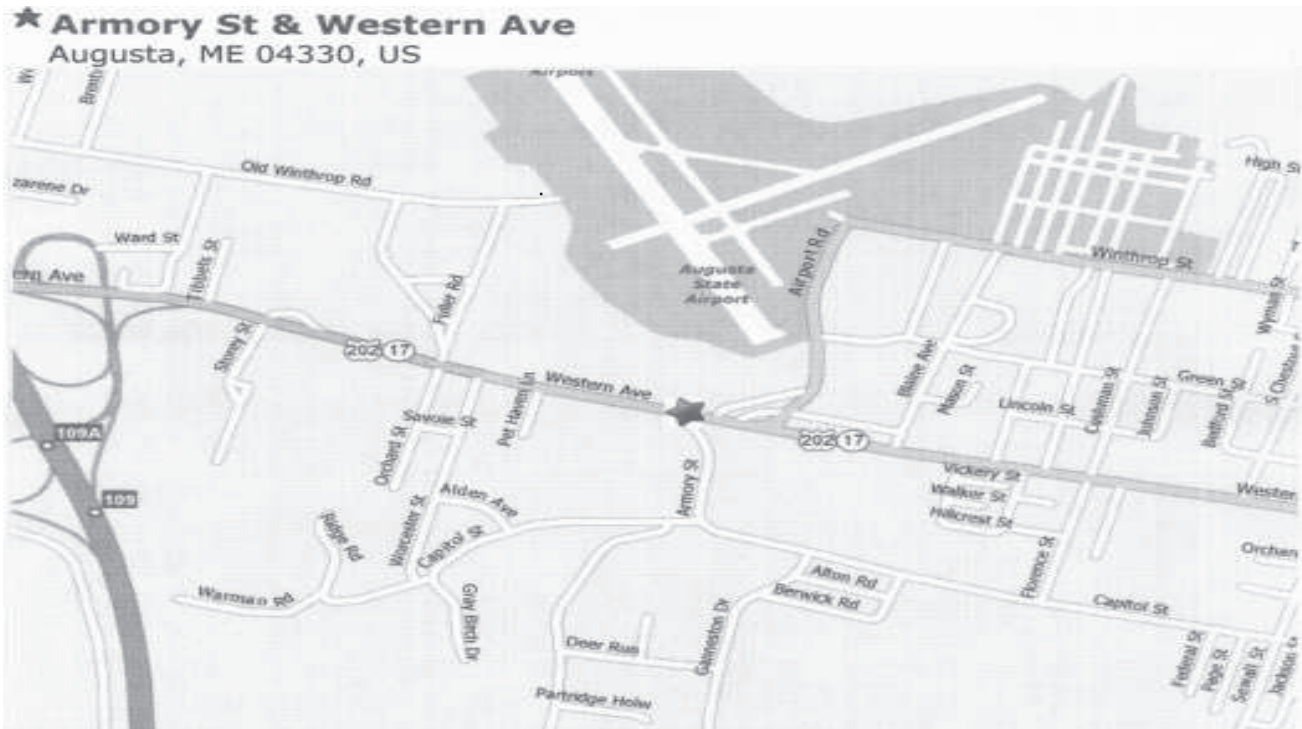
Social Time 6:30 to 7 PM

**Lou Buker Community Center
Armory Street
Augusta, Maine**

The Public is Cordially Invited

Bring a friend, meet a friend

KVCS MEETING LOCATION



MELUG-Central Linux User Group Meeting

Saturday, February 13 at 10:30 AM, Room 110 at the Frye Building, Kennebec Valley Community College, Fairfield.

There will be a group discussion and hands on day with the following topics: Genealogy, Software in Linux, Movie Editors and Wine. Well..... that sounds like a lot of interesting things.....!

Ubuntu 64 Bit - continued-

indicates whether or not a password is required for access. My broadband connection has shown download speeds ranging from 1 Kb/S to 3100 Kb/S (kilobits per second). That of course was in different locations. The speed really depends on how close I am to a cell phone tower. Both wireless operations are quite simple and provide me with alternate means of getting to the Internet.

One thing I had not anticipated was the size of the update that needed to be installed after I had my system up and running. I knew there would be some updates since this version had been

released several months earlier. The Update Manager notified me that there was a total of 132 megabytes of files that needed to be downloaded and installed. These were various updates including some security updates. There was also an update to the Ubuntu kernel. This is the heart of the OS. So I clicked on OK and waited for the download and installation to be completed. This was one of the few times that I had to reboot the system after an installation. Unlike Microsoft, Ubuntu notifies you of new updates as they are available and the update rarely requires rebooting of the system.

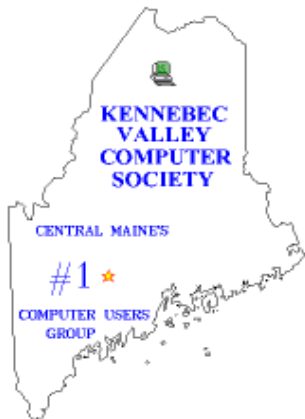
After using this 64-bit version of Ubuntu I wonder why I bothered to

keep the 32-bit version. Now it just seems to be taking up space on my hard drive. There is no doubt in my mind that this 64-bit Ubuntu is a keeper. I hope I can say the same when I receive and install Windows 7

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

KVCS
Working to help the community

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____ Change of address

____ I would like to see more. Please send me a complimentary issue of the Newsletter.

____ I would like to join KVCS / renew my membership.

() Annual Renewal (Dues waived for 2009 membership year)

FOR KVCS USE

() New Member (Dues waived for 2009 membership year)

DP _____

() Family (Dues waived for 2009 membership year)

CH _____

() Student (Full time status - Dues waived for 2009 membership year)

CA _____

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E-mail address: _____

Address: _____ City/State _____ Zip: _____

Home Phone: _____ Work Phone: _____ Date of Birth: ____/____/____

Your Interest in Joining KVCS? _____

Referred by: _____

10/02 Signature: _____