The Association of PC User Groups

Gabriel Goldberg

Monday, May 14, 2007

The Association of Personal Computer User Groups (www.apcug.net), a world-wide organization of several hundred user groups with about a hundred thousand members. APCUG membership provides many benefits to user groups and their members. Gabe will talk about APCUG history, its activities, and how the user group community benefits from APCUG initiatives.

Gabe will also talk about changing gadget technology and show many interesting, useful, entertaining, and surprising gadgets, most priced quite low. This will include multiple USB-pluggable devices, security and safety tools, a nostalgic and amazing electronic game, computer usability enhancements, and who-knows-what else.

Gabe is a technology writer, editor, and consultant. Currently, as co-host of the Compu-KISS Web site (www.compukiss.com) he demystifies today's diverse technologies so that seniors can learn, enjoy, and benefit from it. Gabe is on the APCUG Board of Directors.

Lawrence Library
Meeting Rooms 1 & 2
US Alternate Route 1 South & Darrah Lane, Lawrenceville, NJ

*Meetings of an organization at any of the facilities of the Mercer County Library System
in no way imply endorsement of its programs.*

In this issue:

Upcoming Schedule

June 11----- Sol Libes — USB Flash Portable Applications
July 9 ------ Michael Murphy—Office 2007, Vista Security
August 13 --------Joel May — The Many Faces of Google
September 10 ----Kim Goldenberg — Linux Update
October 15 -------John LeMasney — Firefox Browser Extensions
November 5------Janie Hermann and Karen Klapperstuck
--------------------- — Social Software: Hype vs. Reality

Minutes of the April Meeting

Vic Laurie by Judge Landis

At 7:30 p.m. Clarke started the Meeting.

Vic Laurie talked to us about his experiences with the new Microsoft operating system, "Windows Vista - Now or Later?".. You can talk more with Vic at his blog site: http://tips.vlaurie.com

- Submitted by Clarke Walker

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Pictures from the April Meeting

by Judge Landis, judge@alumni.princeton.edu
Member of the Princeton PC Users Group

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President's Message

As I write this the Trenton Computer Festival is wrapping up. It was an improved show over the last few. Partly because the weather was great for both days and because the organizers did a great job. There were enough vendors to fill the Recreation Center and many sellers in the outdoor area. There were an impressive number of lecturers and I hope to have several come to our meetings.

We had several dedicated volunteers who publicized our club and the talks we offer.

Gabe Goldberg will be our guest this month and tell us more about the APCUG. If time permits he will show us some amazing gadgets.

- *Clarke Walker*

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The Board thanks the following for their help at the Trenton Computer Festival.

Al Axelrod (Table Captain)	Paul Kurivchack
Tom Carman	Arnold Rosner
Tom Cosmas	Bill Sked
	Clarke Walker

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Link of the Month

Visit our associated web site:

http://www.apcug.net/

Have you discovered a useful link? Then share it with the members of the P PC UG.

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Finally! Essential Tech Books for Non-Dummies

by Gabe Goldberg, gabe@gabegold.com
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With holidays just past, many people reading this article from AARP's Web site will need techno-wisdom for dealing with gifts received by family, friends, and themselves. But with conflicting suggestions from mailing lists, Web sites, stores, and manufacturers all around us, a trusted guidebook is valuable.

The books are "Sandy Berger's Great Age Guide to Better Living Through Technology", "... to the Internet", and "... to Gadgets & Gizmos". Their common design is open and uncluttered; accessible language is clear but not dumbed down; there's no mention of dummies or idiots.

Good personal-style writing engages the reader, calming and building confidence. Sandy shares her sense of excitement and

discovery and offers clear opinions on technology and how it affects us. That's pleasantly different from most technology books. And agree or disagree on individual items, you'll certainly know where she stands.

Ideas and technology are amply illustrated by easy-to-read screen images and clear photos. I'd have liked a "lay-flat" binding for easy reference at the computer.

The "Great Age" title credits Pablo Picasso with saying, "Age only matters when one is aging. Now that I have arrived at a great age, I might as well be twenty". Chapters begin with other thought-provoking quotations. My favorite, highlighting the empowering nature of the books' subject matter, comes from marketing guru Greg Arnold: "All greatness is achieved while performing outside your comfort zone". Fear often comes from lack of understanding; don't worry, the books aren't uncomfortable reading -- but they may challenge you to try new things.

The books open onto Contents at a Glance -- a list of chapter titles and page numbers. That's handy, giving a quick focus without requiring flipping past usual book-front boilerplate. Each book includes a brief "What's Inside" write-up, noting that there are no special instructions for reading, and highlighting unique design elements. The Technology and Internet books include valuable sidebars calling out Sandy's Tips, Blooper Alerts, Lingo, and Trivia. Selected items in Gadgets and Gizmos are designated Sandy's Favorites.

Sandy Berger's Great Age Guide to Better Living Through Technology reminds us how pervasive technology is, how much things have changed in our lifetimes, and how change is accelerating and never-ending. It covers topics such as how families can use the digital world, how technology has affected shopping, travel, health, finances, and even meeting people. Throughout, it encourages continued learning at any age -- after all, we know HOW to learn. This book shows much that's worth learning. It's not preachy or prescriptive. For example, it lists diverse search engines, giving attributes and advantages for each. Many are specialized, less known than Google/Yahoo/etc., and yet may be best for fulfilling certain quests. I'm happy that it highlights the wonderful Library of Congress. This treasure, local to me, is available to all online.

Sandy Berger's Great Age Guide to the Internet focuses on getting online, learning the language of the Internet, having fun and communicating, and avoiding problems and staying safe. It reports scientists believing that humans use about 10% of their brainpower, and speculates that most people use about 10% of their PC's power -- and aims to help raise both numbers. The book starts gently, introducing Internet concepts and terms, and assembles them into tips and tricks for Web searching, e-mailing, understanding Web advertising, and even building our own Web pages. It gives tips for picking an ISP (Internet service provider), demystifies browser windows components, and offers netiquette advice for instant messaging. I take issue, though, with its use of the term "hacker" as bad guy; I grew up hearing it as a term of praise [en.wikipedia.org/wiki/Hacker].

Sandy Berger's Great Age Guide to Gadgets & Gizmos is a different sort of book, a bit hard to categorize. It's a catalog, shopping guide, and a tour through current and future technology. It offers gift ideas for oneself or Santa; if you observe someone reading it with widened eyes, you'll guess what they'd like gift wrapped for them. It's not Consumer Reports, since it doesn't compare choices head-to-head. But its interesting and opinionated narrative gives products' good and bad news; general advice and principles are interleaved so it won't become outdated as fast as a simple products list would. If Santa had watched me, he'd have seen me reading carefully about phones and clocks - two of my interests.

As you've seen, the books are complementary -- it's worth collecting them all. They're easy cover-to-cover reads, or you can refer to them for specific ideas, services, and products. Good indexes locate topics quickly; because the books topics are interrelated, a consolidated index of the three books' topics would be useful. Perhaps the publisher will provide one online. There's some necessary overlap but they provide different information with varying orientation and emphasis. Overall, the books fulfill their "Better Living Through ..." titles' promise, delivering usable information about evolving technology areas.

Specifications
Book Title: Sandy Berger's Great Age Guide to Better Living Through Technology
Author: Sandy Berger
Paperback: 272 pages
Publisher: Que
ISBN: 0-7897-3440-0
Price: $20
URL: www.quepublishing.com
Book Title: Sandy Berger's Great Age Guide to the Internet
Author: Sandy Berger
Paperback: 268 pages
Publisher: Que

ISBN: 0-7897-3442-7
Price: $20
URL: www.quepublishing.com

Book Title: Sandy Berger's Great Age Guide to Gadgets & Gizmos
Author: Sandy Berger
Paperback: 242 pages
Publisher: Que
ISBN: 0-7897-3441-9
Price: $20
URL: www.quepublishing.com

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To Dual-Core or not to Dual-Core?

by Jim Sanders, editor@noccc.org

Editor, North Orange County Computer Club, California, http://www.noccc.org

If you have been in that should I or shouldn't I mode for a while, now is a pretty good time to make the plunge. The prices of dual-core processors has come way down in the last year, at the same time the performance has moved several rungs up the ladder. In May, AMD introduced several new high-end Athlon processors. In July, Intel unveiled it's long anticipated Core 2 Duo (AKA code name Conroe) chips. These are Intel's long awaited response to being out-gunned by AMD. They have the new Core micro-architecture that reportedly out-performs similar models of AMD chips

The introduction Core 2 Duo chips by Intel started a price war between AMD and Intel. One sage speculated that this was a strategic move by AMD to make it difficult for Intel to dump a huge inventory of older technology chips without taking a loss on them and lower the profit margin on the new chips. What ever the case, the end users win. The latest and greatest chips from both vendors are a lot less expensive than they were just a short while ago and the older chips are available at bargain basement prices.

The technology that is in the new chips from both AMD and Intel has been significantly improved in the last two years. Intel has upgraded it's NetBurst architecture with the Core and Core 2 Duo technology. AMD has introduced the new AM2 processor socket which, compared to the older 939/940 socket, effectively doubles the processor-to-memory bandwidth with it's support of DDR2 RAM.

There are a lot of individual engineering pieces or basic building blocks that make up all X86 processors. For years Intel rode the marketing bandwagon that basically touted the "My processor clock is faster than yours, so I am better than you are" concept and that was, more often than not, true. AMD tried to compensate for the fact that their high speed chip technology lagged behind Intel by building more efficient CPUs. There are lots of ways to do that, and doing more things in parallel (at the same time) is one of the ways to build a more efficient CPU. So if the CPU is doing twice as many things at the same time, the processor clock can be half the speed. To pick a number, lets say the AMD chip actually has a clock of 500MHz but it is marketed as a 1000+ and the fine print explains that it "Performs as well as other CPUs that really do have a 1000MHz clock." A number of people feel that back a few years, AMD was overly optimistic with their "Performs as well as" ratings. The concept however remains true. Over the years, AMD improved the efficiency of their CPUs as well as the clock speeds and the "Performs as well as" ratings more closely matched reality. Once Intel started making chips in the over 3000MHz clock range, they started tripping over the difficulty of making chips run that fast at all, complicated by the huge amount of heat it created. Acknowledging the writing on the wall, Intel decided they had to start making more efficient chips as well.

The irony of Intel running into the wall that those irrefutable facts of Physics represent is that Intel had to borrow a page

from the AMD marketing manual. They had to convince their followers that these new Intel CPUs with the slow clock speeds were getting just as much or more work done as the older chips with the impressive clock speeds. Both companies had to deal with the problems created by CPUs that generated as much heat as a 100 watt light bulb. Along with other problems, the size of the heatsink/fan assembly was getting obscene. The demand for ever increasing compute horsepower, however, was relentless. In addition to improving the efficiencies of their processor cores, both companies decided the next logical step was to build two complete CPUs inside one chip and really approach doing twice as many things in the same amount of time. Because Intel still leads AMD in the ability to build chips with tinier features (65nano meter vs. 90nano meter), they can afford to put twice as much cache in their chips and run a higher clock speed and still have a good power consumption rating. By moving the memory controller inside the CPU, AMD has a better multi-core memory scheme. And the technical details, and the debates about them, go on and on.

I am going to try and give you enough of an over-all picture of who is offering what in today's processor world that you can at least determine if you want to try and play in the major leagues or the minor leagues. That is really a daunting task and I hope I come somewhere close to success. One master list of currently offered X86 chips (all of those chips that trace their ancestry back to the original Intel 8086) had nearly 400 different models listed. Most of those are no longer made and ranged in price from $7.00 for a 600MHz Celeron to $954 for a Pentium Core 2 Etreme 3.2GHz and from $17.00 for a 700MHz Athlon Slot-A to $769.00 for a dual core Athlon FX-62 socket AM2, 2.8GHz processor.

There are a lot of very fast single core CPUs available at very good prices. If you are not an enthusiast user (mostly that means gamer) or heavy into video editing, you may not need one of the dual core units. Some of the single core units are the best values (read cheapest) available and any of them that are rated as being in the 3.0GHz or more category should even run the Vista operating system when it is released. Visit the MS Vista hardware requirement site at http://www.microsoft.com/technet/windowsvista/evaluate/hardware/vistarpc.mspx and get the official, albeit optimistic, definition of the minimum hardware you will need to run Vista. Based on my experience with the September RC1 release of Vista running on an AMD 2800+ with 1Gig of RAM, I would not be happy with a slower machine.

If you are an enthusiastic gamer or hard core videophile, and live next door to Bob Jones, plan on spending close to a thousand dollars for your CPU. Not to mention the dual $500 video cards and 4Gig of RAM. The first of the three categories of processors that we are going to list is the one that you enthusiasts are interested in.

Those categories are; the Enthusiast Dual Core Processors, Main Stream Dual Cores, and Single Core Processors. There is some overlap in both the performance and price of the high end single core and the low end of the dual core processors. One thing to keep in mind, all of the Dual Core chips are 64 Bit processors and most of the single core processors are not 64 Bit.

Enthusiast Dual Core Processors
For the AMD processors you have: Athlon 64 FX-62, Athlon X2 5000+.
For the Intel processors you have:Core 2 Extreme X6800, Core 2 Duo E6700, E6600.
Because Intel and AMD are constantly jostling each other to claim title to King Of The Hill, it changes hands. For many months, through June of 2006, it was AMD. Then, in July 2006, Intel reclaimed the title. For almost anyone except the well heeled enthusiast with a social need to be on the Bleeding Edge, any of these processors would make a great system. As has been the case for years, the price curve for the last three to four speed ranges is geometric in nature. The 2.4GHz E6600 is about 40% of the price of X6800 and provides about 60% of the performance. The same is true for the AMD pricing.

Main Stream Dual Cores
For AMD – Athlon 64 X2 AM2 4600, 4200, 4000, 3800, Athlon 64 X2 S939 4800, 4600, 4400, 4200, 3800
For Intel – Core 2 Duo E6400, Pentium Extreme Edition 965 & 955, Pentium D 960, 950, 945, 930, 915, 840, 830, 820, 805
On the AMD line you can easily see just one of the many things that can be confusing about the different designations for AMD's dual core processors. There is an Athlon 64 X2 AM2 4600 and an Athlon 64 X2 S939 4600. The only visible difference is that one says AM2 and the other says S939. As explained above, the AM2 designation is for the new DDR2 RAM CPUs. AMD uses two different speeds of DDR2 RAM. The DDR2-800 is used with the Enthusiast CPUs and the DDR2-667 is used with the Main Stream CPUs. Faster memory will, in general, improve through-put and is most noticeable on memory intensive applications. Another consideration when trying to decide between the new AM2 socket and the older S939, is the supply and cost of memory. Production of DDR RAM is being reduced while production of DDR2 RAM is being RAMped up. That means that the price of DDR is going up and the price of DDR2 is going down. You may have noticed the price of the older PC100/133 RAM is almost double the price of PC2700 DDR RAM and I have seen a price for a 1GB DDR2 that was less than the price for the PC3200 1 GB DDR Ram.

Strangely, at the price top of the Intel Main Stream Dual Core line category are the older technology Dual Core models:
D 965 DC Extreme Edition (3.73GHz/775pin PLGA /1066FSB /2X2MB L2 Cache Dual Core) $1075

D 955 DC Extreme Edition (3.46GHz/775pin PLGA /1066FSB /2X2MB L2 Cache Dual Core) $995
D 960 DC Standard Edition (3.6GHz/775pin PLGA /800FSB /2X2MB L2 Cache Dual Core) $349.
The E6400 Core 2 Duo Processor (2.13GHz/775pin LGA 1066FSB 2X1MB L2 Cache) at $245 is the better buy. This is a good example of the seemingly weird pricing that occurs with bleeding edge CPUs. The D955 is $646 more than the D960 which has a faster clock but a slower FSB (Front Side Bus). Even stranger is that the price for the older technology D 955 is more than the fastest Core 2 Duo chip. The oldest technology dual core chips from Intel are the D800 series.

Single Core Processors
After looking at the long list of single core processors that are clocked at 3GHz or greater, I changed my mind about listing them. Instead, I will just repeat the advice about computing needs and price. If you are not into gaming or a videophile, they can make a fine system. I am still using an Intel 3.1GHz P4 with 512Meg of expensive Rambus RAM to produce the Orange Bytes and it works fine most of the time.

The future of computing is going to be 64 Bits for a long time even though it is just now starting to gain traction. Since that is true, if you are going to upgrade at all, going with a dual core 64 Bit CPU is the only thing that make sense if you take a long term perspective. Same thing is true for DDR2 RAM, PCI-Express video, and SATA2 hard disks. So the sweet spot today is a system based on a Athlon 64 X2 AM2 4200, or an Intel Core 2 Duo E6400 and a good 256Meg PCI Express video card, everything else, your choice.

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The Garage

by Berry F. Phillips, bfpdata@1access.net
Member of the Computer Club of Oklahoma City and a contributor to the e-Monitor, http://www.ccokc.org

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 Menio 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 negative 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!

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All unattributed articles are solely the fault of the editor.