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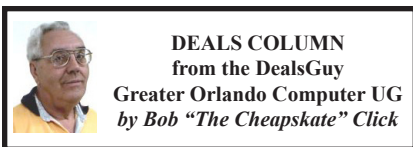
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This article about a new operating system to be released later this year might interest you <<http://www.informationweek.com/showArticle.jhtml;jsessionid=VXX3ONZTMMENEQSNDLRSKHSCJUNN2JVN?articleID=197801331&queryText=Thomas+and+Claburn>>. It's a free XML-based OS that runs inside a Web browser. Free software, especially an OS, might be good news, but we'll see when it is introduced.

Also, here is an article about some amazing technology to "rewire the brain" of stroke victims and perhaps help the patients develop movement <<http://www.informationweek.com/showArticle.jhtml;jsessionid=DGOOCR2VULTB4QSNDLRSKH0CJUNN2JVN?articleID=199000976&queryText=K.+C.+Jones>>.

In the Feb. 5, 2007, issue of Information Week was a lengthy article about conflicting opinions inside the open source community that are hindering further development of it; even some of the foremost developers don't agree. <<http://www.informationweek.com/showArticle.jhtml?articleID=197002953>> There were also some side articles on particular versions.

We worked the 2007 CTIA Wireless show <<http://www.ctia.org>> that you might have seen news reports on. It was a large show taking the entire West building of the Orange County Convention Center (1.1 million square feet of exhibit space) and I didn't get much chance to tour that show. A couple of editors asked me if I would

write up something, but I didn't feel up to going in early to look around. Actually, I don't know enough about that subject to write an intelligent article on the show. Past Presidents George H.W. Bush and Bill Clinton were the featured keynote speakers. I read about an interesting comment by George H.W. Bush. He said, "This hour I'll be up here (speaking) is about the longest I ever go without using my Blackberry."

It was unusual that after the keynote speech the presidential entourage entered the show floor to see some exhibits, probably because this show was important for all the new products introduced, especially concerning security. The security company working that show, building security and the Secret Service cleared a 15-foot path for them to caravan from one booth to another for a while. I'll bet a few attendees were thrilled to be that close to those guys regardless of the politics. There may also have been security people watching from the catwalks 40 feet above the show floor. I was working afternoons, and missed all that.

May 2007 will bring the largest trade show ever (in total exhibit area) <<http://www.nationalhardwareshow.com>> to Orange County Convention Center. It will take both the old and the new cc buildings (over 1.1 million square feet of exhibit space in each building, not including meeting rooms, concourses, lobbies, etc.). Some of the show and its events will be in at least four hotels nearby, and two tents will even be set up in the parking lot.

Microsoft's Tech Ed 2007 show will also be back here in June, and its only \$1,995 to attend the full conference <<http://go.microsoft.com/?linkid=6643812>>. You'll have 440

breakout sessions to choose from if you attend.

Now For The Deals

I have not tried any of the items below so study them well if you are interested. A klutz like myself is not qualified to try out and give opinions on most products. The write-ups are theirs, but edited by me to shorten them, and correct some wording.

Chop Up PDF File Without An Ax

A-PDF Solution has announced the immediate availability of A-PDF Size Splitter 1.2, the newest version of a useful and handy tool for splitting any Acrobat PDF file or group of files into smaller-sized PDF files. A-PDF Size Splitter 1.2 doesn't require Adobe Acrobat and works independently producing PDF documents compatible with Adobe Acrobat Reader 5 and above.

A-PDF Size Splitter 1.2 is a flexible utility letting the user set any size of split files, and supports batch operations. Thanks to the built-in output file name pattern, each of the split PDF files is logically named and can be easily identified later. A-PDF Size Splitter 1.2 works even with password protected PDF files. It keeps the original PDF file encryption. Additionally, the generated split PDF files can be recombined with other PDF files, using A-PDF Merger, another utility developed for forming new composite PDF files.

A-PDF Size Splitter 1.2 runs under Microsoft Windows 98/NT4/Me/2000/XP/Vista and costs \$49 (USD). Users group members get 20% discount on a purchase using coupon code APD-AASX. Click the "Buy now" button, then click the "Add to basket" button and input the code. A free 15-day evaluation version is available to

download at <http://www.a-pdf.com/size_splitter/a-pdf-ss.exe>. For more information, please visit <<http://www.a-pdf.com>>.

Product page link: <http://www.a-pdf.com/size_splitter/>

Manipulate Your Files and More

SoftPrime has announced the release of Advanced File Organizer 3.0 that not only features an opportunity to collect all information about drives, files and folders, but developers placed great emphasis on the ability to use this information later. Advanced File Organizer offers several ways to organize your data: add searchable comments for your files and folders; combine disks and folders into groups based on any feature you want; or sort your data by categories. All files can be referred to one or several categories that form a hierarchical tree, making your own virtual file structure. You can restructure your data collection in a minimum of time and effort by just dragging a certain item (file or folder) and dropping it wherever necessary in categories.

The program includes an ability to extract information from ISO and Nero CD/DVD images and import it as a folder, and to import information from DVD-Video thereby getting a comprehensive catalogue of all information on your hard drive, and any other data storage media.

Advanced File Organizer runs under Windows 95/98/ME/NT4/2000/XP/Vista and costs \$29.95 (USD) or 24.95 (Euro). Users group members get a 10% discount on Advanced File Organizer 3.0 by following this link: <<http://www.softprime.com/discount/group.htm>> and using the SOFT-6C6F coupon code. The trial version of Advanced File

Organizer is available at <<http://www.softprime.com/download/aforg.exe>> (1.85 Mb).

Company website: <<http://www.softprime.com>>.

Translate Everything For FREE

New York, 4/16/07—LingvoSoft <www.lingvosoft.com> has announced the launch of the newest web-based translation service for anyone needing to work with foreign languages. LingvoSoft Online <<http://www.lingvosoftonline.com>> provides visitors with an array of indispensable translation utilities. It features a selection of tools that can be used to communicate over the web. LingvoSoft Online not only delivers dictionaries based on its own translation vocabularies, but also an online PhraseBook that is able to translate between 45 of the world's most popular languages, and their FlashCards language learning utility.

The service is available for over 40 languages, and offers voice capabilities. LingvoSoft Online provides the voicing of translations out loud using the latest TTS (text-to-speech) technology as well as native-speaker voice narration of the PhraseBook entries. It has an advanced spell-check function that finds misspelled and incorrectly entered words, and a similar word search that provides a list of synonyms for a word.

LingvoSoft offers other website owners the opportunity to put the added functionality of online translation to work for them on their own sites by providing the opportunity to include a LingvoSoft translation module on their pages to increase traffic and keep visitors coming back for more.

A Bonanza Of Freebies From Microsoft

Here is an excerpt from the Microsoft Newsletter if you are not getting it: "Here are 101 fantastic freebies by clicking on <<http://go.microsoft.com/?linkid=6626107>>. Want to make your PC more productive, secure, informative and entertaining? These downloads and services will do the trick and they don't cost a dime." These goodies were actually selected by PC World.

That's it for this month. I'll soon have more new product announcements on my Web site. Meet me here again next month if your editor permits. This column is written to make user group members aware of special offers or freebies I have found or arranged, and my comments should not be interpreted to encourage, or discourage, the purchase of any products, no matter how enthused I might sound. Bob (The Cheapskate) Click <bobclick@mindspring.com>. Visit my Web site at <<http://www.dealsguy.com>>.



Penguicon 5.0
By Warner Mach

Penguicon 5.0 was held at the Troy Hilton, Troy Michigan, on April 20 through 22, 2007.

This is the fifth year of the Penguicon which, as usual, featured technical sessions (Linux issues and other technical issues), as well as science fiction, games, anime, music, and assorted weirdness; including the 'Chaos Machine,' a giant rig that is continually added to in Rube Goldberg fashion, with crisscrossing rolling steel balls.

The Penguicon web site is at <<http://www.penguicon.org>> and they indicate, on the site, that they will be podcasting events that took place at this year's events, as well as looking forward to Penguicon 6.0, next April.

I attended all three days, focusing on the technical sessions. To present a 'flavor' of what went down, here are some of the sessions that I attended:

Routers and Open WRT (John Marrett): It is possible to hack some of the inexpensive home routers. The 'hacks' may be hardware or software. Sites that specialize in information about this hobby: <<http://www.seattlewireless.net>> and <<http://www.openwrt.org>> .

Moodle, Free Software Web Portal For On-Line Education (Matt Benjamin): Coming from a background related to educational software, I was curious about this open-source product designed to present online courses. Web site: <<http://www.moodle.org>> .

Introduction to Open Source Embedded Systems (Rob Landley): Life as it is led 'next to the metal.' In recent years, embedded programming has been using Linux: See: <<http://www.gumstix.com>> and <<http://www.gentoo.org/proj/en/base/embedded>> .

The Future of Spyware (Bruce Schnier and Charlie Stross): On reading the title of this session one might think that it is related to sneaky little hacker programs. But, instead, it was related to the actions of governments.

Mr. Schnier is an American security expert and author ("Beyond Fear: Thinking Sensibly About Security in an Uncertain World") and Charlie Stross is an English author. This made their two-man panel particularly interesting since it contrasted the differing security concerns of the two governments.

There were a host of issues discussed, some related to science and technology, and some related to social issues. One issue was that of the 'national identity card.' Mr. Schnier noted the American law designed to provide a standardized national driver's license. I remembered hearing about this at one point, but had forgotten about it. However, it is on the books, having been pushed through by a single congressman.

This is an unpopular law and an 'unfunded mandate' and a number of states have voted to not participate. In England, by contrast, a national ID card is being implemented for all citizens, apparently with some amount of difficulty and error.

The Economics of Open Source (Eric Raymond): Eric Raymond, author of "The Cathedral and the Bazaar" and editor of "The New Hacker's Dictionary" is a regular attendee at Penguicon and a spell-binding speaker. He is developing an economic theory of software development. He does not believe in the 'commoditisation' of open-source software, as other experts do. His notions on this theme were related to another panel he was on (next below).

The 64-Bit Transition: Taking Advantage of the End of 32-Bit Windows (Eric Raymond and Rob Landley): This presentation reflected on the operating system transitions from DOS to Windows 3.0 to Windows XP and relates each transition to the size of the address space that became addressable at that time. At each address-space transition there was an operating system that became 'standard.'

We are now entering the era of the 64-bit operating system and either Vista,

or Mac, or Linux will become the new standard.

The basic thesis and all the surrounding details are outlined in the paper, 'World Domination 201': <http://catb.org/~esr/writings/world-domination/world-domination-201.html>.

RepRap.org the 3D Printer That Paints Another One (Sebastian Ballard): According to the Penguicon schedule: "RepRap, short for Replicating Rapid-Prototypes, has been called the invention that will bring down global capitalism, start a second industrial revolution and save the environment. It will make plastic, ceramic, or metal parts and is itself made from plastic parts, so it will be able to make copies of itself."

This was an interesting session, dealing with an inexpensive 3-D printer but, based on what I saw, I have not sold my normal capitalistic stocks <http://objects.reprap.org>.

Knowledge Gardening (Sarah Elkins): Session on using 'social software' in an organization: How to make such software effective. Ms. Elkins talked about Wikis, blogs, tagging, and RSS feeds; and when each one is appropriate.

- WIKIS: <http://twiki.org>.
- BLOGS: <http://wordpress.org> and <http://www.livejournal.com>.
- TAGS: <http://www.connotea.org>.

This social software talk tied in closely with the session on using the web (next below).

Getting the Most Out of the Web (David Kiecha): Mr. Kiecha gave a whirlwind tour of a lot of specialized features of the web, especially from the standpoint of those who want to keep 'on top of' some particular topic:

- <http://del.icio.us>: Save your own browser bookmarks and share them with others.

- <http://www.google.com/alerts>: Google alerts. You choose a topic and web site(s) and get automatic updates. You can track news or blogs or web information or groups, or all the above. Results go to your Google gmail account.

- <http://www.everystockphoto.com>: A source for royalty-free photos for presentations, etc.

- <http://www.rsspect.com>: Add RSS to any website and get update feeds when something changes.

Screening of Cellular Visions: The Inner Life of a Cell! With Expert Commentary (Jonathan Sullivan and Rachel Weisenfeld): An amazing simulation of what goes on inside of your cells. If you ever get a chance to see this high-definition simulation, it is to be highly recommended. At this session there were scientists to translate the technical terms.

Other Remarkable Things:

- At the opening ceremonies someone noted that a large Trojan horse had been constructed in the lobby. The person holding the mike observed, "Well, after all, we are in Troy!"

- I wandered into a room where they were showing a Japanese movie. Only one other person was watching. This movie featured teenage Japanese actors and was a combination of 'Rocky' (with a girl who overcomes self-doubt to win a martial-arts fight) and science fiction (with an artificial intelligence program that gives advice) and Existentialism (with a heroine who commits suicide).

- When, on Sunday morning, I arrived at the hotel for the Sunday sessions there was a 'unique' looking fellow outside

the door who was telling/bragging to someone that he had been up “since Thursday night.” I saw him a couple of hours later bragging to someone else about this. Then, shortly afterward, I went to the hospitality room and he was zonked out in a chair... This was in the spirit of Penguicon which runs, in some fashion or another, on a 24-hour basis.

- Of course I got my tee-shirt, ‘It Came From Penguicon 5.0.’ It features a mushroom cloud explosion and a rampaging robotic penguin.



According to a British website, “Answers That Work” <<http://www.answerthatwork.com>>, 65% of problems on PCs, such as lockups, crashes, blue screens of death, and poor performance are due to causes other than the commonly suspected culprits. Many people erroneously blame malware such as viruses or spyware for the problems on their computers, and some go to extreme measures to attempt to resolve these problems. Unbeknownst to the users of computers with the symptoms above, the problems they are experiencing are not due to the possible presence of malware, but to background tasks that are loaded and running mostly from the software the users have installed on their computers. A solution to improve performance by giving the user easy and informed control over the tasks running on the computer is a \$29 program called “The Ultimate Troubleshooter,” commonly known in industry circles by its acronym, “TUT.” TUT is a

compilation of solutions learned based on over 20 years experience trouble shooting computers.

For the past four years I have diagnosed my computers using TUT, and have been able to tweak them and maximize performance based on the recommendations made possible by the software. One of the functions integral in TUT is its “PC Tuning” service which uses its extensive database of tasks that may be running on a PC, and the degree of necessity of that task. As I type this, I have 45 tasks running on my computer, and TUT displays each of the tasks running and explains the functionality in understandable terms. Each task can be managed by the user such that only necessary tasks are running, which will free up system resources resulting in improved performance. Each of the running tasks is labeled by status (unknown, user’s choice, multiple possibilities, OK, and Not OK), task name, CPU usage of each task, memory being used, manufacturers’ description, and other technical information is displayed. Right clicking on a task will allow the user to terminate the task, suspend the task, or get additional information about the task.

Many users are plagued with slow booting of their machines when turned on and subsequent impaired performance. The primary cause of this malady is too many or unnecessary programs loaded when the computer is booted. The startup sequence becomes bloated as software is installed, as many programs want to be automatically loaded every time the computer is started, and this can degrade performance. TUT contains one of the most comprehensive startup managers available. The “Startups” function of TUT displays each program

that is loaded when booted, regardless of whether the program is loaded from the startup file, registry or other source. Each program is labeled by status, startup name, launch command, manufacturer, description, and startup source. The status indicator shows if the programs are necessary and OK (green), user's choice (yellow), dangerous or otherwise unnecessary (red), or unknown (no color tag). By removing any red tagged startup items (which may also be viruses or spyware) dangerous and otherwise useless items will not be loaded at the next boot. The user's choice (yellow) items can be reviewed and selected or deselected by the user by simply utilizing a checkbox. Unchecking an item will prevent it from loading at next boot. Stopping unnecessary items from loading at boot will improve performance and speed the boot performance.

The "Services" tab shows the internal workings of the operating system and other programs that are running at the moment. Right clicking on a running service allows the user to control the service by stopping it, and control the loading and execution of the service item at startup. The traditional red-yellow-green indicator on each service clearly indicates the degree of functionality, necessity, and safety of each running service.

The "Housekeeping" function of TUT allows the user to selectively clean junk files from the hard drive, freeing up disk space. Housekeeping also runs a PC health check to determine the operating condition of the computer. Freeing up drive space and ceasing unnecessary tasks contributes to stability, another key ingredient of overall system performance.

For both informational and maintenance purposes, it is often useful to know precisely what hardware and software is in and on the computer. "System Info" displays comprehensive information about the machine and its software. The "System Summary" displays detailed information about the motherboard, BIOS, CPU, graphics card, operating system, memory, disc drives, and other information. Detailed information about components is often necessary for maintenance and update purposes, and TUT provides that information. Details are also provided about the cache memory, comm ports, drives, environmental variables, graphics card and settings, and many other computer components. Installed software is also listed in detail, along with a very helpful adjunct; TUT also displays an Internet "Help Link" for more information from the software publisher, and as a resource for updates and upgrades. Other hardware and software information is listed as well. One helpful feature is a complete listing of Windows updates that shows the date of the update, a simple description of the update, and the Microsoft Knowledge Base ("KB") number for additional information from the original source.

For those who want to know about websites and other Internet information, TUT offers several utilities, including the identification and display of the computers IP address (TCP/IP configuration, MAC address, etc.), name server lookup, ping, trace route (shows the path that Internet connections follow over the Internet) and "whois" (displays the registered owner of a website).

One nice service provided by TUT is the frequent updates of its database, as well as periodic updates of the software

itself. As I type this, I am using TUT version 4.21, which is an update from the recently released version 4.0.

TUT version 4 works on Windows 2000, XP, Win2003, and 32 bit versions of Vista. For the bargain price of \$29, I found that TUT is an indispensable utility for diagnosing computer problems and improving PC performance. Its full name, "The Ultimate Troubleshooter" is a well earned moniker, and I strongly recommend it. A free demo version is available to download from <http://www.answersthatwork.com> so users can examine the product prior to purchase.

WEBSITE: <http://www.answersthatwork.com>.

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**Live CD-ROMs
By Dick Mayback**

In the early days of PCs, we did much more experimenting than we do now. The only long-term storage was on diskettes, and when we removed the diskette holding the operating system, we also removed any problems that resulted from our experiments. Now, our hard disks hold large, complex operating systems, and if they are damaged by our errors or by malware viruses, the recovery process can be long and painful. Those who still like

to experiment should consider live CD-ROMs.

A live CD-ROM contains an operating system and applications and can be run without using the hard disk at all. When you remove the CD-ROM, your old operating system (probably Windows) takes over. In fact, since the hard disk was not accessed while the live CD-ROM was running, Windows is no more aware that the PC has been used than if you had never switched on the power.

To use a live CD-ROM, you must set up your PC so that if a CD-ROM is present, it will try to boot from it, rather than the hard disk. Watch carefully as your PC boots, and you should see a message telling you how to start the BIOS set-up program. Often, the procedure is to press the F2 key repeatedly during booting. Don't just hold it down, as the PC will think your keyboard has a stuck key and will refuse to start. Once the set-up program has started, read each screen carefully before changing anything. If you think you've made a mistake, exit without changing anything (often done by pressing the escape key) and start again. You are looking for the screen that lets you change the boot order, which is the order in which the PC checks devices for an operating system. It always includes the hard disk, diskette, and CD-ROM, and (on newer machines) USB devices. In our case we want the CD-ROM checked before the hard disk. Once you are satisfied that everything is ok, save your changes and exit the program, often done by pressing F10.

You can download live CD-ROM programs free from the Internet. However, you will now have what's called an ISO image; this is not a file,

and if you write it to a CD-ROM as a file, it won't be bootable. Unfortunately, the free versions of CD-ROM burner programs included with many PCs won't burn ISO images. However, a suitable program, *ISO Recorder*, is available, free over the Internet from <http://isorecorder.alexfeinman.com/isorecorder.htm>. Many live CD-ROMs are also available as pre-recorded CD-ROMs; see the referenced Web sites for information.

A good place to start is with the *Ultimate Boot CD*, available at <http://www.ultimatebootcd.com/>. This provides four versions of DOS and five of Linux, plus tools for motherboard, hard disk, and file system maintenance, in addition to four virus scanners.

If you long for the simpler days of DOS, see <http://www.freedos.org/> to obtain an open-source clone of DOS. This will allow you to get reacquainted with the command line, BAT files, BASIC programming, and run those old programs that no longer work under Windows. The full version contains some extras, FreeGEM (a clone of the old Digital Research graphical user interface), BWBasic (Bywater Basic), and several games.

If you would like to experiment with Linux, but aren't ready yet to install it on your hard disk, look at Ubuntu, <http://www.ubuntu.com/>, which provides a Windows-like interface, or Knoppix, <http://www.knoppix.org/>, which is known for being very adaptable to different PC hardware. Several tutorial books are available for each; check your local Barnes & Noble or Borders.

For Linux, Windows, and, to a limited extent, Macintosh maintenance and recovery, my favorite is INSERT,

available at http://www.inside-security.de/insert_en.html.

Security Tools Distribution (STD), <http://s-t-d.org/>, is a variant of Knoppix, customized for those in computer security. It includes tools for encryption and code-breaking, for finding evidence of computer break-ins, for working with firewalls, for building honey pots (traps for ensnaring hackers), for analyzing and breaking passwords, for analyzing network traffic, and for assessing computer vulnerability.

You can see a long list of available live CD-ROMs at <http://www.frozentech.com/content/livecd.php>. Most of these are versions of Linux, because its source code is available and free, and because it's modular. Windows, by comparison, is proprietary and monolithic; at one point, Microsoft claimed that you couldn't remove even its Internet browser without disabling the operating system.

[See also, associated article, this issue: "USB & Operating Systems"—ED].

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Computer History

1984: IBM introduces 'AT' machine.

USB & Operating Systems

By Tom Callow and
Carl Massie, Jr.

At the May 13 meeting, Tom Callow and Carl Massie gave examples of bringing an operating system into memory from a USB memory device. Tom's presentation showed how to boot from the USB device and bring up Windows XP. Carl's presentation showed how to bring in Linux from a USB device and run it as a program under Windows.

What follows are the references to appropriate links:

(A) Tom Callow, on booting into Windows XP

Reference

Bart's Preinstalled Environment (BartPE): <<http://www.nu2.nu/pebuilder/>>

BartPE Plugin Repository: <http://www.bootcd.us/BartPE_Plugins_Repository.php>

Windows Server 2003 Service Pack <<http://www.microsoft.com/technet/downloads/winsrvr/servicepacks/sp1/>>

Files

The two files actually needed by BartPE to boot from USB are "ramdisk.sys" and "setupldr.bin".

The ramdisk.sys in Windows 2003 Server Service Pack 1 is a compressed file called ramdisk.sy_. Uncompress it before copying it using the command: Expand -r ramdisk.sy_.

Procedure

The procedure used to create a USB boot disk using Windows XP was:

1. Make sure the computer supports booting to USB in its BIOS setup. You will want to set up the boot order to boot from USB before booting from the hard drive.

2. If your copy of Windows XP is pre-Service Pack 2, create a slipstreamed copy of Windows XP with SP 2. The Windows XP with SP 2 can either be in a folder on the hard drive or on a Windows XP install disk.

3. Download and install BartPE's PEBuilder.

4. Download Windows Server 2003 Service Pack 1 and extract the files by running the exe file from a command prompt using the -x parameter. Expand the ramdisk.sy_ to ramdisk.sys with the Expand utility from a command prompt with the -r parameter.

5. Create a folder called C:\pebuilder3110a\srsp1 (assuming you installed pebuilder to its default location) and copy ramdisk.sys and setupldr.bin from the folder into which the Server 2003 Service Pack 1 files were extracted.

6. Create a BartPE preinstallation environment using PE Builder. You can select and add plug-ins to run different windows software.

Plug-Ins

1. You may need to install an additional plugin to support your network driver, if you will want to access the Internet or a network.

2. Install the Firefox plugin or another browser plugin if you will want to access the Internet.

3. From <<http://gocoding.com/>> download PEtoUSB.exe (which will be in a zip file) and copy the executable to the c:\pebuilder3110a folder.

4. Run PEtoUSB to copy the BartPE preinstallaton files created in step 6 (by default c:\pebuilder3110a\BartPE\) to the USB flash drive.

5. Reboot the computer with the USB Flash Drive plugged into a USB

port to run Windows XP in the BartPE environment.

Note that this procedure creates a stripped down version of Windows XP that supports networking and allows you to do diagnostics and repairs of your regular hard drive but which is not a substitute for a full Windows XP installation booting from a hard drive.

(B) Carl Massie Jr. on running Ubuntu Linux under Windows

The procedure consists of a small number of steps, which requires the ability to download, expand archive files, and copy. The instructions are found at <<http://www.pendrivelinux.com/2007/03/26/portable-gemupersistent-ubuntu-linux/>>; and the latest version of Ubuntu may be found at <<http://www.ubuntu.com/>>, which at this writing is Feisty Fawn version 7.04.

[On the related subject of booting from CD see the article 'Live CDs' in this issue of the DATA BUS—ED].



Google Docs and Spreadsheets (Beta)
By Ira Wilsker

Most of us know Google as one of the premier search engines. Many of us know that Google also offers additional services such as its mapping and driving directions (maps.google.com), and its global imaging (earth.google.com). What many may not be aware of, is that Google is now beginning to offer a suite of office products, including a fully featured word processor, and a spreadsheet that includes graphics. It was also recently announced that Google will soon be offering a presentation program to

compete directly with Microsoft's very popular PowerPoint. It is obvious that Google is trying to compete with Microsoft by offering for free, office functions competitive with some of the components of Microsoft Office.

For the past six years I have typed this column using the ubiquitous Microsoft Word, but not tonight; tonight I am typing this on Google Docs (<<http://docs.google.com>>). One might ask, "Why Google Docs?" For one, unlike its Microsoft competitor, all of these services are free. Another feature is the automated ability to save the document online on a secured Google server which can be accessed by me or by approved collaborators from anywhere in the world with Internet access. Third, the user can upload and open documents composed in Word, Open Office (<<http://www.openoffice.org>>), RTF (Rich Text Format), or plain text. Of course, documents can be created from scratch, as I am doing now. Google Docs offers "WYSIWYG" (What You See Is What You Get), meaning that the document will print as it appears on the screen. Documents created with Google Docs can be uploaded as web pages, or posted to blogs as desired. Documents can also be downloaded in a multitude of formats, including Word, Open Office, RTF, PDF, HTML, or ZIP formats; this means that these documents can then be opened on almost any other word processor or browser. Prior to saving or printing, or at any other time, an integral spell checker can be executed by clicking on the yellow "Check spelling" hyperlink. Upon implementing the spell checker, questioned words are highlighted in yellow (or any other selected color), and right clicking on the highlighted word

will open a selection of correctly spelled words to select from, or words can be added to the dictionary

One nice feature built into Google Docs is the “Revisions” tab on the toolbar. By clicking on “Revisions” the user can easily go back to any of many selected prior versions that had been created. By apparent default, Google Docs automatically saves a copy of the document every five minutes, and keeps multiple sequential backups. For those who have been known to want to go back to an earlier version of a document, or undo a catastrophic error (such as failing to save and properly backup documents), this feature can be a lifesaver

While lacking some of the visual polish of the commercial word processors, Google Docs is quite full featured. Clicking on “File” offers the traditional commands common on competing products, plus a variety of additional useful commands. It is from this “File” menu that the user selects to securely save the document online at Google, or in any of the several supported formats. “Word Count,” “Find and Replace,” and “Document Settings” (default fonts and other settings) can be accessed and selected. In “Edit” mode, the mode where text is entered (that is the mode I am in as I type this) a toolbar appears which includes a comprehensive variety of useful icons which displays an informative label when the cursor is moved over them. A “Style” radio button on the toolbar allows the user to selectively choose desired paragraph styles, justification, and text formatting.

Clicking on the “Insert” tab opens another toolbar allowing for the easy inclusion of images, hyperlinks,

comments, tables, bookmarks, a choice of separators, and special characters such as symbols or foreign alphabets

The “Edit HTML” link adjacent to the tabs displays the typed content in HTML format including HTML commands such that anyone familiar with HTML coding can edit the appearance of the document when displayed on a web page. “Preview” displays the page as it would appear if printed or posted to a web page. “Print” and “E-mail” icon functions are obvious. The “Collaborate” tab gives the user the opportunity to specify who else can work on and edit the document, and “Publish” will assign the document a unique URL where others can access the document on the Internet, or post the content to a blog.

Google Spreadsheet is a full featured spreadsheet, now complete with graphic capabilities. The spreadsheet can import and export data in a variety of popular formats, such as XLS (Excel), CSV, TXT, and ODS. Spreadsheets can also be exported in HTML format for posting to a website and viewable with any browser, or saved and printed in PDF format. Navigating around the Google Spreadsheet is very similar to most other spreadsheets, allowing the experienced spreadsheet user to use Google Spreadsheets without learning any new skills. Novice users can easily learn basic spreadsheet tasks by simply playing with Google Spreadsheet. Like any other spreadsheet product, the sheet and its output can be easily manipulated to appear as desired, and can then be published to the web as a web page, inserted into a blog, saved and downloaded in any of the available formats, or just saved to the Google secured server. One interesting

feature allows live real-time chat with collaborators while multiple users work on the same document from distant locations, all the tasks being accomplished simultaneously over the Internet.

I was pleasantly surprised by Google Docs and Spreadsheets (Beta). I found it to be intuitive and easy to use, while rich in features. It is a capable adjunct for anyone to use with his current word processor or spreadsheet, but powerful enough to be used instead of a commercial word processor or spreadsheet. Google Docs and Spreadsheets would be an especially useful product to anyone who does not have access to a full featured office product, or who does not want to invest the money in a commercial product. Since Google Docs and Spreadsheets can read and write Microsoft and other formats, it may be useful for students to use for homework and other tasks. Docs and Spreadsheets would also be useful for home users or organizational employees. This web based software may also be useful as an external backup solution, since it supports other popular formats, and can allow for the easy transport and conversion of documents and spreadsheets, as well as the secure storage of files

For the price (free), Google Docs and Spreadsheets will be very difficult to beat. I eagerly look forward to the upcoming release of the Google presentation program that will compete with PowerPoint.

WEBSITE: <<http://docs.google.com>>.

Ira Wilsker is an APCUG director; Columnist, The Examiner, Beaumont TX; Program Director of Management Development at the Lamar Institute

of Technology, Beaumont TX; and a radio & TV show host. Contact him at <iwilsker@apcug.net>

Why You Need A Firewall By Brian K. Lewis

When you connect your computer to the Internet, you have opened a door which invites any other computer in the world to come in. Actually, you have more than 65,000 doors into your computer, any one of which may be open. That is, unless you have taken steps to keep these doors closed. That is the purpose of a firewall. The firewall filters the information packets that show up at your “door” or computer port as we usually refer to it, and can either prevent them from entering or pass them through.

When your computer connects to the Internet, it is assigned a numeric address or IP (Internet protocol) address. These addresses are a 32-bit number. They are usually written out in four groups with periods between each group as follows: 111.11.11.111. Traveling over the Internet are many programs that simply look for unprotected IP addresses. The IP address of any unprotected computer is sent back to the originator who can then upload a trojan or spyware package to that address. The originator can then take control of the computer or the application will record keystrokes and send all recorded information back to the program originator.

Although your computer has one IP address there are many different ports on your address. There are different ports for different purposes on your computer. Your connection to the Internet is usually through port 80. This

is referred to as the HTTP (hypertext transfer protocol) port. It is used when you connect to a web page. The web page data is downloaded to your computer through this port. Another commonly used port is 25. This is used for the SMTP (standard mail transfer protocol) or e-mail transfer. Another port used for incoming mail or POP3 transfer is port 110. These are all part of the port series from 0 to 1024 that are the most common ports. Many applications use ports in this region including PC Anywhere, Internet telephones, MSN messenger, Net Meeting, and all AOL operations. Ports 1024 to 49451 are referred to as registered ports. There are many Internet games that use ports in this region. There are also other specific functions assigned to these ports and some may duplicate functions in the common port region. The final group of ports are dynamic and have no specific functions registered. However, the point is that all of these ports can be accessed by remote computers somewhere out on the Internet and used to connect to your computer if you have not protected them.

Automated port scanning software is available free on the Internet from many “hacker sites.” Its use is very common on the Internet. There are various types of scans. Some scanners will look for any of the 65,535 possible ports. Another type looks for open UDP (user data protocol) ports or may use an FTP (file transfer protocol) bounce to hide the origin of the scan. If an open port is located, software can be downloaded that will open a “backdoor” on your computer. This allows remote input and output. Such access can be used to record and transmit out information from your computer. It can also be used

to attack other computers to produce a “zombie” network. Such networks have been used to attack large computer servers in attempts to bring them down or to produce a “denial of service” attack.

Many users believe that a router with a firewall is adequate protection. Most routers use either network address translation (NAT) or a packet filter. Information on the Internet is transmitted in packets which contain the IP address of the sender and the address of the receiver in addition to the data. The router’s firewall uses filters that look at the sending and receiving addresses of incoming packets on port 80 (HTTP). Only those packets that are a response to an outgoing request are allowed through. If your router uses a packet filter it can be penetrated by a fragmented scan. This type of scan breaks up packets into fragments which can easily get through the simple packet filter found in most router firewalls. Routers using NAT either alone or in combination with a packet filter can also be easily thwarted. NAT is not successful when the packet is an FTP packet or is sent by Microsoft’s Netmeeting or similar audio/video applications that bury the address in the body of the packet. Only when the address is in the header of the packet can the router use address substitution. So packet filtering and NAT, although useful, do not provide complete firewall protection for all Internet connections.

Another method for preventing intrusions is “stateful” packet inspection. This is the method used by most software firewalls and is found in some of the newer routers. When your web browser opens a connection to the Internet, the firewall software records that connection and keeps a record of

its status. Whenever a packet arrives at your computer, the data in the packet can be compared to the information in the firewall state table. The firewall software can also make decisions based on the data content of the packet, not just the sender's address. Because this examination does require some time there may be a slight slowdown of your system. However, in most cases, there will not be a long enough delay for most users to notice.

So inbound packets can be filtered and examined for dangerous content. However, when the user connects to a web server, the page requested is downloaded to the users computer. It is possible for that web page to contain a small program or a link to a dangerous site in a one-pixel unit on the page. When this is downloaded the program is run or the link activated. This results in an outgoing packet to some Internet address through a non-standard port so the user is not aware of the activity. This type of activity would not be stopped by a hardware firewall in a router. It can only be blocked by a software firewall which recognizes that this activity is coming from a new application that has not previously made an Internet connection. In this case the software will query the computer user to determine if this new application should be allowed to connect. Hopefully, the user would recognize that this was not an application that the user was running and the outbound packet would then be blocked. It is absolutely necessary for the firewall to process both incoming and outgoing packets. Only a software firewall can establish the necessary tables for comparing the incoming/outgoing packets to allowed activity

and to request user interaction when necessary.

This leads us to the Windows firewall. This firewall, as used with Windows XP, does not have any control of outbound packets. Any application is allowed to connect to the Internet without any filtering or other checking of source or content. Windows Vista was supposed to come with both inbound and outbound filtering. However, as it is delivered it provides only inbound protection just as did XP. The outbound protection is turned off by default. So, if it is there, how do you turn on the outbound protection. To change this you have to use the Microsoft Management Console. Then you have to write a rule to block each "malware" application you anticipate might get on your computer. You can not create a general rule for all malware. Creating rules that would cover all possible malware applications is an impossible task. Microsoft has been quoted as saying "outbound filtering isn't really needed, and the key is making sure that malware doesn't infect the PC in the first place." Also they have stated that large enterprises had requested that it be turned off by default. Microsoft does say that "core Windows Services have specific behaviors which are monitored by the firewall." Instead of using outbound filtering Microsoft recommends that you buy "Windows Live OneCare," a product and subscription service. My recommendation is that you obtain a free two-way firewall like ZoneAlarm and ignore the Windows firewall completely.

Whatever you do, don't connect your computer to the Internet without using a firewall and an antivirus application. I have come across too many computers

recently that are attached to constant on Internet connections and had no protection. The cost of removing the malware from these systems was more than the cost of premium protection. So don't get caught short!

Dr. Lewis is a former university & medical school professor. He has been working with personal computers for more than thirty years.

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 below).

Dr. Lewis is a member of the Sarasota PCUG, Florida. <<http://www.spcug.org>>. E-mail: <[bwsail_at_yahoo dot com](mailto:bwsail_at_yahoo_dot_com)>.

BOARD MEETING
5/13/2007
Charles Moery

BOARD MEMBERS PRESENT

President Gary DeNise, Vice President Richard Jackson, Treasurer Bette Gay, SIG-Advanced Chairman Franz Breidenich, SIG-IBM Co-Chairman Tom Callow, Publications Committee Chairman Warner Mach, and Members-at-Large Bob Clyne and Chuck Moery. Also present was Internet Committee Chairman Mike Bader. The May board meeting was called to order by Gary DeNise at 12:10 p.m.

OLD BUSINESS

Bette Gay reported that the May Treasury balance totaled \$8,176.93 of which \$4,517.97 is invested in three Certificates of Deposit. Interest of \$5.19 and \$12.78 was credited in March and April to the Certificates of Deposit account. The membership currently is

79. It is time for John Samarian, Claude Watson, Phillip (Vic) Charns and Jim Rarus to renew their memberships.

Bob Clyne reported that the DATA BUS postage will increase by two cents effective May 14, 2007.

Bob Clyne suggested that an effort be made to keep SIG meetings "on schedule." Several comments were introduced relative to this subject with an agreement to keep presentations within the scheduled time limits.

NEW BUSINESS

The subject of how to more effectively administer the New Users Group was introduced by Bob Clyne. A number of suggestions were presented. Carl Massie Jr. will announce details of the meeting at beginning of the SIG-IBM Intermediate meeting.

Richard Jackson reported that Joseph W. Stern M.D. will make a presentation on "Medicine On the Internet" on June 10, 2007 at the next SEMCO meeting. It was suggested that members bring their prescriptions and/or medications to the meeting, if they are willing to discuss them publicly, for information on their prescriptions from Dr. Stern.

Tom Callow moved to adjourn. Bob Clyne seconded the motion and the motion was carried. The meeting was adjourned at 12:42 p.m.

Computer History

1992: Microsoft releases Windows 3.1.

SPECIAL INTEREST GROUPS (SIGS)



SIG-IBM
Tom Callow
Warner Mach



SIG-IBM INTERMEDIATE
Carl Massie, Jr.

June 10: Medicine and the Internet: Dr. Joseph Stern will present part one of his audience-interactive discussion on your health and medical resources on the Internet. Audience members willing to discuss their medication publicly may want to bring in prescriptions or medicine..

June 10: Medicine and the Internet: For the June SIG-IBM Intermediate meeting, Dr. Joseph W. Stern, M.D. will continue his presentation “Medicine and the Internet” started during the SIG-IBM meeting.

Chuck Moery and Carl Massie will explore Windows Vista in a separate room. Chuck has done a Vista upgrade install on his laptop and will speak of features and issues he has encountered. Carl will bring a manufacturer installed

NOVICE-IBM GROUP Rotating Volunteer Hosts

June 10: Help Q & A:

Discussion directed by the audience. No question is too simple! Note: The Novice-IBM Group is ‘by request.’ If you have special questions for this group then speak to one of the officers to schedule the session..



SIG-ADVANCED
Franz Breidenich

July 2, 2007: (First Monday), 6:45 p.m., at the Oak Park Library. The library is located at 14200 Oak Park Blvd., Oak Park, MI. Phone: (248) 691-7480.

Topic: Wide ranging discussion of computers and computing.

Computer History

1997: Netscape releases web browser as open-source..

July 2007 DATA BUS DEADLINE (7th day after 2nd Sunday in month)

SEMCO Input and Members’ Ads—Deadline: Sun., June 17, 11:59 p.m. Members’ personal ads are free. To mail, use [Editor address on Page 2](#); e-mail address: machw@att.net. PLEASE send to arrive sooner than deadline.

Business Ads - Deadline: Second Friday monthly. Contact [Editor \(address Page 2\)](#).

DCOM Computer Club

June 8, 6:30–8:30 p.m., (2nd Friday); Henry Ford C.C., Patterson Tech Bldg, Ford Rd/Evergreen, Rm T143, Parking Lot C. Info: Doug Piazza 313-582-2602.

MacGroup- Detroit

June 24, 2:15 p.m.–5 p.m., Birmingham Temple, 28611 West 12 Mile Rd., Farmington Hills. Info: Terry White, <terry@macgroup.org> or 313-571-9817. <<http://www.macgroup.org>>. Topic: Latest version Adobe After Effects & Adobe Premiere Pro CS3 & Encore CS3 & Soundbooth App.

MacTechnics, (MAC User Group)

June 16, 11:00 a.m., (3rd Saturday); (SIGs at 9:30); Ann Arbor Open School, 920 Miller Ave., Ann Arbor. <<http://www.mactechnics.org>>. Cassie at <cassiemac@yahoo.com> or 313-971-8743.

MDLUG (Metro Detroit Linux User Group)

June 9, 12:30–2:30 p.m., (2nd Saturday); MDLUG meetings will be at The Gaudior Academy located at 27100 Avondale Avenue in Inkster. Web: <<http://www.mdlug.org>>. Info: Raymond McLaughlin 248-960-1864.

MUG (Michigan User Group)

June 12, 6:00 p.m., (2nd Tuesday): MUG meetings are at The Farmington Community Library–Main Branch, 32737 W. 12 Mile Rd., Farmington Hills, MI. 48334. <<http://www.mug.org>>.

Michigan Apple Computer User Group

June 14, 7:30 p.m., (2nd Thur.); General meeting; Fraternal Order of Eagles Hall in Clawson, 174 Bowers St. (one block North of 14-Mile and one block East of Main). Avi Drissman 248-232-7865. Web: <<http://www.themichiganapple.com>>.

Oak Park Computer Club

Every Fri., 10:15 a.m. at Oak Park Recreation Bldg, Oak Park Blvd. west of Coolidge.

Wayne State University Mac User Group

June 9, 10:00 a.m.–Noon, (2nd Saturday); at Mich.com, 21042 Laurelwood, Farmington. Information: Lorn/JoAnn Olsen 248/478-4300 or Denny McLampy 248-477-0190.

Computer History

1977: Commodore shows the Commodore Pet 2001 computer. Uses MOS Technology 6502 processor with 4KB of RAM and 14 KB ROM.



May REFRESHMENT DONORS

Gary DeNise, Coordinator
Al Bochenek
Gary DeNise (& Kaye)
Betty Mackenzie

COMPUTER RESOURCE PEOPLE

This is a list of members willing to be resources for other members to call when they have hardware or software questions.

Are you willing to help members learn?

Which software programs are you familiar enough with?

It is not necessary to be an expert, but just have some familiarity with the program and be willing to help someone starting to learn it. Please give this some thought and volunteer at the next group meeting.

Almost Anything: Vander-Schrier

AutoCAD: Comptois

Genealogy: Cook

IBM PC Hardware Issues: Clyne, Yuhasz

Operating Systems: Callow, Clyne, Yuhasz

MAC Hardware and OS Issues: Yuhasz

Security: Bader

MS Office for Windows: Callow

MS Word: Clyne

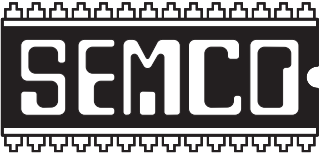
Networking: Callow

Novell Netware: Yuhasz

Quicken: Clyne

Geocaching: Cook

Bader, Mike—586-573-7330, 9am–8pm..... mdbader@flash.net
Callow, Tom—248-642-5770 9am–5pm..... tcallow@monaghanpc.com
Clyne, Bob—810-387-3101, 9am–10pm..... clyne@lodden.com
Comptois, Jerry—248-651-2504, anytime
Cook, Stephen—313-272-7594, eves..... scook48227@ameritech.net
Vander-Schrier, Jack—586-739-7720, 12–8pm..... jvanders@myself.com
Yuhasz, Steve..... Help@yuhasz.org



SOUTHEASTERN MICHIGAN
COMPUTER ORGANIZATION, INC.

SEMCO CALENDAR

ArvinMeritor Building
2135 West Maple Road
Troy, Michigan

June 10–SUNDAY (Meet 2nd Sunday)

SEMCO Board Meeting at 12:00 noon. For Officers and SIG Chairpersons.
Other members are invited to attend.

SEMCO General Meeting at 1:30 p.m.

Special Interest Groups (SIGs)

SIG-IBM 1:45 p.m. **Program: Medicine and the Internet:** Dr. Joseph Stern will present part one of his audience-interactive discussion on your health and medical resources on the Internet, including where to find informaton on the prescription drugs you may be taking. Audience members willing to discuss their medication publicly may want to bring in prescriptions or medicine.

SOCIAL PERIOD 3:15 p.m. Refreshments! (Reminder: We must continue to maintain a neat environment.)

NOVICE-IBM GROUP 3:45 p.m. **Program:** Help From An Expert With Discussion Directed By The Audience.

SIG-IBM Intermediate 3:45 p.m. **Program: Medicine and the Internet:** Dr. Joseph W. Stern will continue his presentation: “Medicine and the Internet” started during the SIG-IBM meeting.

SIG-ADVANCED, July 2, 2007–MONDAY, 6:45 p.m., (First Monday), Oak Park Public Library, 14200 Oak Park Blvd., Oak Park, MI. Phone: (248) 691-7480. Directions: Oak Park Blvd. is 9 1/2 mile Road; library is west of Coolidge. Info: Franz Breidenich 248-398-3359. **TOPIC: Wide-Ranging Discussion Of Computers & Computing.**

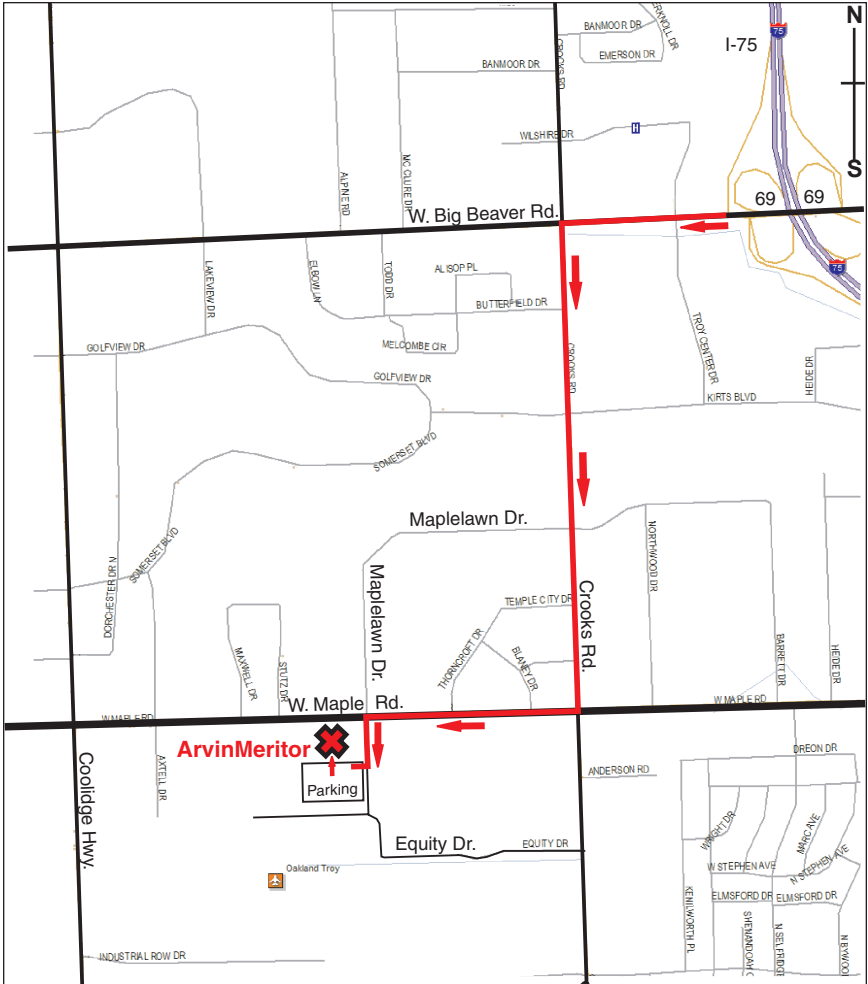
July 8 –SEMCO Sunday

<http://www.semco.org>

PUBLIC INVITED

(Please copy this and the next page to post on your bulletin board)

**SEMCO Meetings at [ArvinMeritor](#)
2135 West Maple Road, Troy, MI 48064**



DIRECTIONS

From I-75, take Exit 69 to westbound Big Beaver Rd. (16 Mile). Turn left (South) on Crooks Rd. Turn right (West) on Maple Rd. (15 Mile). Turn left (South) on Maplelawn Dr. Turn right into the parking lot at the rear of the ArvinMeritor building. The building is shaped like an X. Enter the building thru the South entrance at the center of the rear of the building. Follow the SEMCO signs.

SEMCO thanks the [ArvinMeritor](#) Corporation for their hospitality in providing their facility for our meetings.



**SouthEastern Michigan
Computer Organization, Inc.
P.O. Box 707
Bloomfield Hills, MI 48303-0707**

SEMCO (future meetings)

June 10

July 8

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