IN THIS ISSUE

The SouthEastern Michigan Computer Organization, Inc. (SEMCO) is a non-profit, 501(c)(3), group dedicated to providing information, education and a forum to computer users (professional and amateur) and other interested individuals. Membership in SEMCO is open to all individuals 18 years or older. Persons under 18 years may become members through the sponsorship of a parent or guardian. Dues of $30/year include monthly DATA BUS and free personal ads.

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This publication was created using Adobe PageMaker 6.5 Plus, donated by Adobe Systems, Inc.

DEALS COLUMN
from the DealsGuy
Greater Orlando Computer UG
by Bob "The Cheapskate" Click

I attended part of the FACUG (Florida Association of Computer Users Groups) weekend conference, and it was again very successful. There were about 185 attendees from about 25 user groups, and 61 were first time attendees. Vendor support was down drastically this year with only ten in all. However, the whole event was just as successful. Unfortunately, the Heartland regional in Dayton, Ohio had to be canceled.

Last month I mentioned that the cheapskate would use AARP's free income tax service. Maybe that was a mistake. I took my data and papers there and was surprised to find that the volunteers in this senior center do it by hand, not with computers, but they recheck each other's work. While it was being done, I asked my volunteer about his regular profession and was told the person was an attorney and a CPA. I felt I was in good hands. When it was finished, I took it home ready to mail it out quickly. Out of curiosity, I decided to use the FREE TaxAct software just to see how close I would have come to the figures the tax person ended up with, and to see just how easy it might be that way. I also assumed that I might not be so squeamish about doing it myself next year.

I downloaded TaxAct and installed it, and then spent a couple of hours answering all the questions, finally ending up with their version of my income tax return, but there was a big difference! Not just a few bucks, but my TaxAct version showed over $2200 more income, and I used the very same W2s and 1099s that I gave the tax preparer. Also, as you might expect, about $75 less refund, and I would have to pay tax on over $2000 of our Social Security income, contrary to what I had been told. My wife and I both checked everything over and over, and we could not see what might be wrong with either one. I finally decided to use the TaxAct one because I felt there must be a mistake in the AARP's return. Since I had the TaxAct version all filled out, and the income was higher, I went ahead and filed my TaxAct return electronically (with much trepidation). I had my refund back in 10 days with no changes, much to my relief. I'll write a review of this experience, and about TaxAct, and post it on my Web site. I think the preparer made a mistake in the math, but have not tracked it down yet.

Update From Linda Barlow

Unfortunately Gene Barlow was unable to make the FACUG conference because of scheduling conflicts. However, Linda says they are still busy and still represent PowerQuest. Here are their latest prices:

PartitionMagic V8, $35 (MSRP $69.95).
Drive Image 2002, $35 (MSRP $69.95).
Educational CD, $20 (MSRP $39.95).
Bundle (PM, DI, ED, $79 (MSRP $179.85).

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S&H fee (mail/web orders only) $5.00. Use the special user group order code UGMAR03 to order.

To order, get a form from your user group coordinator to fill out, and return it to User Group Relations, PO Box 275, Orem, UT 84059-0275. For faster service use their secure Web site order form at <http://www.ugr.com/order/>.

Gene says he no longer gets any travel allowance from his vendors; so when they visit your user group, or regional event, give them your full support. Gene and Linda have been very supportive of user groups for years. I tried his Educational CD, and it is an excellent product, even for a beginner, with a wealth of information. It goes quite fast though, so pay attention and have plenty of time because of all the information it contains. I doubt you will finish it in just one session. Gene's Educational CD is a real bargain.

How Much Hot Water Does It Take To Get Hot Water?

Does that title sound confusing? Perhaps, but when you are in your kitchen, or maybe your guest bathroom, how long is it before the water gets hot when you turn it on. My house is a very inefficient design when it comes to the hot water. My water heater is located in the garage and the only room with a close proximity is our master bath. Other areas take forever to deliver hot water, and during that time, a lot of water goes down the drain, but not if you install a Metland D'Mand system.

This is not a computer-related item, but it is a great product and could save many of you money over the long term. I wrote this item up a few years ago and purchased one myself. It was an excellent decision. The Metland D'Mand system is a small circulation pump to install just below the water faucet furthest from the hot water heater. By pressing a button (both electrical and wireless remote included), the pump starts running and circulates water in the hot water line back though the cold water line into the hot water tank until the pump's sensor detects hot water, whereupon it shuts itself off. Motion sensors could also activate the pump. This small pump uses very little power and doesn't run long, preventing you from wasting water down the drain while waiting for hot water.

Both my wife and I love ours, and you can find out much more about the product by checking their Web site <http://www.gothotwater.com>. Don't forget to read the government agency write-up about this fine product. I've had mine for four years, and it's been trouble-free. I had no problem installing it myself with the kit provided, even though I was very squeamish at first, since I'm not a plumber. You can hardly hear this pump work during the short period it's on. Be aware that you might also need to install a new electrical outlet for it.

I saw this company again when I browsed the "Electronic Home Show" at the Orange County Convention Center in Orlando. Larry Acker even remembered me and quickly said yes when I asked if he would like me to write it up again. He says my readers will get a $65.00 discount from any prices on their Web site by asking for the "Bob Click DealsGuy" promotion. Shipping is $18.00 any place in the US. Canadians must call about shipping fees. To order, call 1-800-638-5863 (also good in Canada), or e-mail Larry at <larry@gothotwater.com> with your request.

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More About the Show

By the way, the Home Electronics Show was very interesting, and I sure saw a lot of wonderful automation items for the home. I was working another interesting show (Megacom, better known as the "Comic Book" Show) and managed to find a few minutes to hit the high spots in the Home Electronics Show being held in the next hall. There was a great electronic gate operator on display by <http://www.eliteaccess.com> for your driveway's gate, but it is not meant for a do-it-yourselfer. I saw plenty of electronically controlled home cabling, and tons of audio and video equipment for an automated home at various booths. One company is wholesale only, but you might enjoy their Web site < http://www.worthdist.com>, which is for Worthington Distribution. They have been around for years.

I have mentioned the following before, but if you love shopping for automated gadget stuff, visit <http://www.smarthome.com> and ask for their catalog. There were many more interesting items, but I had to cruise fast to see it in the time I had to explore.

That's it for this month. Meet me here again next month if your editor permits. This column is written to make user group members aware of special offers I have found or arranged, and my comments should not be interpreted to encourage, or discourage, the purchase of products, no matter how enthused I might sound.

Bob (The Cheapskate) Click <Bobclick@mindspring.com>. Visit my Web site at <http://www.dealsguy.com> for past columns and some interesting articles.

Web Pages for Beginners
By Todd Stauffer
Que Publishing

The excerpt below is a sample chapter from *Absolute Beginner's Guide to Creating Web Pages, 2nd Edition* from Todd Stauffer and Que Publishing. This chapter covers the tools needed for creating a Web page and acquiring server space to host the site. This hands-on tutorial teaches readers the fundamentals of creating Web pages, along with more advanced ideas like message areas, chat, and e-commerce options to make the page look like it was created by a professional. Whether you are an experienced computer user or a beginner, this book provides you with all the information you need to have a Web page up in no time and is a great jumping off point for learning more advanced web technologies.

To view the images and notes, tips, and tricks included in the chapter text from the *Absolute Beginner's Guide to Creating Web Pages*, visit <http://snurl.com/absolutebeginners> and click on the link for sample chapters.

The Basic Tools

HTML documents are nothing more than plain-text documents with markup commands that instruct a Web browser to arrange and format text in certain ways. Other commands are used to add images, hypertext, and multimedia to the page, but those commands are still plain-text commands that are interpreted by the Web browser.

The plain-text nature of HTML documents means that all you really need to hand-code HTML is a text editor application. It can be something as simple and friendly as Windows Notepad or the Mac's SimpleText

editor. You have similar choices in other operating systems—vi or emacs in any Unix and Unix-like OS, and TextEdit in MacOs X.

The main issue to remember is that your documents need to be saved as plain-text or ASCII documents, so your text editing application must be capable of saving such documents (as opposed to, say, Microsoft Word format or Rich Text Format). You can use a word processing application to create your HTML documents, as long as you save the documents as plain-text.

If you do opt to use a word processor (which I don't really recommend), note that many of them have the specific option of saving files as HTML documents. Generally, you *don't* want to do that because the word processor translates the page, as typed, into HTML, adding markup to maintain the appearance of the document in your word processor. In other words, it ignores the HTML markup that you've entered yourself and adds markup so that the page appears with the tags intact when displayed in a browser.

Instead, you should save the document as plain-text, text, or ASCII text, but with the filename extension .htm or .html (more on that later).

Ideally, though, you'd use either a text editor—which can be very basic or rather specialized—or an HTML editor that enables you to edit the HTML *source code* (the text and markup) directly. Let's look at each possibility.

Text Editors

As noted, you can opt to use the simple text editors included with your operating system. In Microsoft Windows, it's Notepad; in the MacOs it's SimpleText or TextEdit. Unix and Linux systems offer a number of text editors, from basic to sophisticated.

If you'd like to move up to the next level, however, you'll find that a good programmer's text editor may be helpful in creating and organizing your HTML code. Popular editors for Microsoft Windows include TextPad <http://www.textpad.com>, UltraEdit <http://www.ultraedit.com>, and EditPlus <http://www.editplus.com>, among many others. The Macintosh has fewer text editors. However, two, BBEdit and BBEdit Lite <http://www.barebones.com> are very highly regarded, for both MacOs 9 and MacOs X. (MacOs X also includes Unix-style text editors via its Terminal application.)

Most text editors you come across are designed to work well for HTML authoring, as well as other types of markup and programming. You'll find that some of them automatically recognize markup as such, turning them into different colors for easy viewing. Others may offer a toolbar button for displaying an HTML document in a Web browser (to test how it looks and whether hyperlinks are working correctly), a spell-checking feature, or other interesting options. Experiment a bit to find a text editor that really works well for you.

HTML Editors

The other type of editor you might consider downloading or purchasing is one that's specifically designed for HTML documents. These editors come in two basic flavors— source code editors and WYSIWYG editors. WYSIWYG, which stands for "What You See Is What You Get," means you're editing the Web page as it will look in a Web browser. In this case,

you're not marking up text and adding HTML commands and elements, but rather typing text, importing images, and moving items around on the page, much as you'd do in a word processing or desktop publishing program.

Because *Absolute Beginner's Guide to Creating Web Pages* focuses on editing XHTML source code (the raw text and markup elements), WYSIWYG editors are not discussed in the book itself, but you can go online to find "Graphical Editors," a chapter that will introduce you to some of the more popular graphical editors, such as Dreamweaver and FrontPage. You'll find that a WYSIWYG editor is a great tool to have on hand for prototyping and editing Web sites. That said, it's important to learn the raw XHTML first, particularly if you aspire to do Web publishing professionally, because no WYSIWYG editor is perfect. They can't always adhere to the latest standards, they aren't all capable of more complex tasks (such as scripting or interactive elements), and sometimes you need to "dig into the code" to get them to work exactly as you'd like them to. If you want to go beyond a text editor, you might look into one that's specifically designed to help you edit HTML source code. For Microsoft Windows, some recommended editors include HotDog Professional and HotDog PageWiz <http://www.sausagetools.com>, HandyHTML <http://www.silveragesoftware.com>, and CoffeeCup HTML Editor <http://www.coffeecup.com>. For Macintosh, popular options include PageSpinner <http://www.optima-system.com> and WebDesign <http://www.ragesw.com>.

If you need to watch out for anything with HTML editors, it's that they're up-to-date and support the level of HTML (or XHTML) that you want to use for your authoring. For the purposes of this book, you should use an editor that supports HTML 4.01 Transitional or XHTML 1.0 Transitional, if it's an option. (If you're trying to create strict documents, you can use XHTML 1.0 Strict, if the editor supports it.) Older HTML editors may support an older standard, or may recommend elements or markup that don't conform to the newer standard. You can probably still use them; just be aware of the differences.

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Choosing a Digital Still Camera
By Ira Wilsker

Digital cameras have become one of the most popular new consumer items. As is common for many high technology items, the price of digital cameras has fallen, as the technology improves. The dramatic increase in sales of digital cameras is mostly due to their "instant gratification" by eliminating the cost and inconvenience of film and processing. Another advantage is the ease of editing digital photos. The increase in sales of digital cameras has

often more than offset the decline in sales of film cameras and accessories.. Also, digital photography has in some cases, replaced film photography in many professional applications. According to Olympus, one of the leading digital camera manufacturers, the high-end digital cameras are now used by many professional photographers for weddings and other events. Many newspapers and magazines are now employing digital photography, which bypasses the darkroom, and allows the input of images directly to editors.

For home users, digital cameras range from very inexpensive (under $30, often before rebates) point and shoot models to sophisticated models that rival 35mm SLR cameras, including accessory lenses and peripherals.

The potential resolution of digital cameras is measured in "pixels," a condensed term for "picture elements." Pixels are basically the little colored dots that compose an image. More pixels in an image mean that a larger size picture can be printed or viewed, but this increases the amount of storage or memory necessary to hold the image. Contrary to popular belief, more pixels are not necessarily better. Consider that a typical 14" monitor has a resolution of 640x480 pixels, which is about 300,000 pixels. The unedited image from a digital camera with a pixel resolution of 300,000 will fill the screen of that 14" monitor. My 17" monitor is currently set at a 1024x768 resolution; a digital photograph of about 740,000 pixels would fill that screen.

Many digital photographers take their photos at the highest resolution, which is often unnecessary, and a waste of memory and time. If the image is to be e-mailed, or posted to the web, the image will likely have to be substantially reduced in size to be practical. Using good quality photo paper and a photo-grade color printer, an 11x14 inch image will require about 4 million pixels (4 megapixels) to approximate the quality of a 35mm print. An 8x10 inch print will require about 2 megapixels. An inexpensive 1-megapixel camera is quite capable of producing satisfactory 5x7 inch photos. The least expensive digital cameras on the market, sometimes under $20 (I recently paid $19 for one), can easily produce a printed picture in the common 35mm print size of 3.5x5 or 4x6 inch sizes. Some digital cameras, such as one of the Olympus CamMedia series, can print directly from the camera, using Polaroid film, or conventionally export images to a computer.

Digital cameras need something to hold the images until they are downloaded to a computer, or printed directly. Various types of non-volatile memory cards, typically compact flash, smart media, or memory stick formats, are used to store images. Currently, these cards are available in capacities up to 1 gigabyte (about 1 billion bytes), with 16meg (16 million bytes) to 128meg being both common and relatively inexpensive. The cards are reusable as images are erased from the cards. The contents of the cards can typically be transferred by the camera to a PC or Mac via a USB connection, or read directly by a card reader. Other popular cameras, such as some of the Sony Mavica series, use common 3.5" floppy disks. These floppies, each

holding about 1.4 megabytes, can be read directly by a computer, as the images are written directly to the floppy. Some more advanced (and expensive) digital cameras can write to mini-CD discs, which can hold well over 100 megabytes, and can be read on any CD drive. Generally, the more storage of any type available in a camera, the better.

Many digital cameras also have the ability to record short movies, sometimes with sound. The length of the movie is only limited by the memory or storage available in the camera. For most common movie-capable digital cameras, the length is typically measured in seconds, or a few minutes.

Zoom is another feature often available. With the traditional film cameras, optical zoom is used. The zoom on digital cameras can be optical, digital, or a combination of both. In terms of image quality, optical zoom is superior to a digital zoom with the same magnification. One digital camera I tried is advertised as having a 20x zoom; 4x optical, and 5x digital. At 20x (combining the digital and optical zoom), the images were quite grainy, but at 4x (optical) they were very sharp. The same image at 4x digital zoom was visibly grainy, especially when enlarged. If a choice is available, optical zoom will be better than digital zoom.

Convenience factors, such as size, weight, flash, and battery capacity are often a matter of personal choice. Many digital cameras utilize the common AA size battery for convenience. Disposable alkaline batteries become expensive if many pictures are taken, as they have a relatively short useful life. Rechargeable Nickel Metal Hydride

(NiMH) batteries are much more expensive to purchase, but the better ones have a capacity of two to four times the photos as alkaline batteries, and can be recharged around 1000 times. In the long run, NiMH batteries are far less expensive to use than alkaline. Select the NiMH batteries by comparing their capacity, typically 1200 to 1800 mAh (milliamp hours), the more the better.

Another factor to consider is the viewfinder. Many digital cameras have a conventional lens-type viewfinder, while others have a small LCD screen that is a "what you see is what you get" view. Some cameras have both. Many users have found that it is harder to aim a digital camera using an LCD screen than a viewfinder, but others prefer to see the exact picture on the LCD an instant before the image is captured.

Almost all digital cameras come with either an integral flash, or some sort of "hot shoe" or plug for an external flash. Some digital cameras combine their still function with a live video function, as they can also serve as webcams, sending live video over the net.

Digital photography can be both a money and a time saver for many users, and should be strongly considered for that next camera purchase.

Accu-Chek Compass™ Diabetes Care Software

By Harold Balmer
SEMCO Member

Meeting Notes for March 2003

We started the meeting with a short Power Point presentation about diabetes, explaining the two types of diabetes and what it all means. We also looked at a partial list of medical problems for the diabetic. These were found on the health section at <www.yahoo.com>. Then we looked at carbohydrates, or carbs for short, which the body turns into sugar. The excess sugar in our blood is the stage for diabetes. We then looked at some carb ratings for things like a baked potato (71), a 4 to 4 ½ oz plain bagel (71), a piece of pita bread (46), and finished with a candy bar (25). Then we looked at my meal plan (60 carbs per meal).

Then we started the Accu-Chek Compass software. Think of this software as a glorified database with charting capabilities. It can be used for more than one person, keeping data separate. Backing up of the data file is highly recommended (voice of experience). But you will need something larger than a standard 1.44 MB floppy disk. I have a Thumb drive, which connects to my USB port (64 MB), and it works great.

We started at the usual welcome screen, and then we went to the user profile or the patient history section, entering the name of the person with diabetes and the doctor's information. You can also set up some of the things for the program here. Do you use insulin (yes or no), shots or an insulin pump; you can also set your lower limit at this point.

Then we moved on to the data collection area where I manually entered my morning readings. It should be pointed out here that you do not have to use an Accu-Chek meter to use the software, but if you use another make, all entries must be made manually. Some third party meters can be downloaded using this software, but my old meter (At Last) cannot be downloaded. I currently have less than 50 tests left with the old meter, as the meter is no longer made, and all test strips expire in July, 2003. Accu-Chek gave me a new meter (since they bought the old company), and I have been making dual tests for about the last month. I have yet to get the same reading on both meters, but that is another story. If you use an Accu-Chek meter with download capability, then things are somewhat easier.

To download meter readings, you will need a computer with a 9-pin serial port for the infrared reader; the one built into your computer will not work. There are at least two correct readers available. The download will import the date and time of the reading and what the reading was. My Accu-Chek Active meter will hold about 200 readings, which take about a minute to download. Then, through the software I can clear the meter's memory. This way the next time I download, I will not get duplicate data.

The are several other items I still need to manually enter: the reading time (before breakfast, after breakfast, before lunch, etc), the amount and type of insulin used, my carb intake, my exercise rate, and miscellaneous other information, such

as sick day, oral medication, etc.

OK, I have all my data entered; now what. The data entered is stored with the most current data on top. You can print out the data to take to the doctor. My list took 6 pages to print and covered over one year of data with two readings per day.

Select "charts" on the left side of the screen, and you can look at charts of your progress for a specified period of time. I have mine set to a two-week period, with the week ending on today's date. I can check a typical day, where it takes each reading and posts it in the chart. A trend graph shows readings for each day of the week and time period. At the bottom are listed how many readings, with the tolerances, and how many readings under or over the desired readings. There is also an area for you to design your own graphs and store them. The directions are in the printable (PDF) manual.

The software can be purchased from the Accu-Chek web site at <www.accu-chek.com>. Once there, click on products; then click on software, and there it is at $29.95. The cables vary in cost. The one for the Active and Compact models was $30.00. The universal cable was $50.00. If you would rather talk to a real live person, call 1-800-428-5076 for help.

With all the money I have had to spend on the meter, test strips, lance, and drugs, the software is super cheap and gives me a running record of how I am doing between doctor visits. I can also take my results to him to review. Sorry, I don't think they have a user group discount, but be sure to ask anyway. I like the program, and why not use the computer to track my progress.

Free Software
What it Is And Where
To Find It
By Michael Rudas

While any discussion of the meaning of the word "free" might seem a bit like William Jefferson Clinton's legal wrangling over what the meaning of "is" is, there are some useful distinctions to be made in the context of "free software." Some of these issues are outside the scope of this article, but should be touched upon to provide a context; it may also help to show why Microsoft is so concerned.

The two most basic distinctions here are "free," as in "free beer" (free of cost) and "free," as in "free speech" (freely distributable with source code available — source code is usually defined as the human-readable and editable text from which a computer program is generated). There is some overlap between the two, of course.

A major driving force behind free software is an organization called the Free Software Foundation (FSF). One of their projects is the GNU Project (GNU's Not Unix), which has created a standardized licensing structure for free software; the main license is the GNU General Public License (GPL), which codifies the "free speech" side of things. Several of the programs I will mention here (though not all) are covered by the GPL.

The GPL and organizations like the FSF (which now has ties to the United Nations) are what has allowed major collaborative projects like GNU/Linux to move forward so quickly over the last ten years. While many of you may never have seen a computer that runs

Unix, Linux, or BSD (you are likely to see some form of Linux soon), most Internet servers run these operating systems using Apache as the web server (outnumbering Windows servers 2-to-1) — Apache is GPL'd software.

There are grades of free software. Let's define some types:

Freeware:—free to obtain, free to use. May not be freely distributable or may have restrictions on commercial use. Some authors may solicit optional donations.

"Lite" software:—a cut-down version of commercial software. Useful, but may lack features of the retail version.

Trialware:—a fully-functional (or nearly so) version of a commercial package that times out after a period or will only run a certain number of times before becoming disabled.

Demoware:—a fully-functional (or nearly so) version of a commercial package that marks its output in some way; for example, a graphics program that inserts a "watermark" into images that it edits or creates.

Crippleware:—a demo program with features turned off; for example, a hard-drive backup program that can create backup files, but not restore those files.

Adware:—software that either contains advertising or downloads it from the Internet, which overlaps with:

Spyware:—software that monitors your system usage and sends information out to another party. This is used to send the user tailored advertising or to create a database of saleable information. Gator is an example of this.

The following list is primarily Windows-oriented, but there are Linux versions available in several cases. The software I will be covering in this article is either freeware or "Lite," with one adware service of special value. My intent is not to show you how to use these programs; they all have tutorials. For the following software, I make no representations as to functionality, fitness for use, or overall quality. Though I have tested and used most of it, I am NOT responsible if your system has problems as a result of its use—though problems are unlikely.

Let's start with the adware exception:

WeatherBug:—<http://www.WeatherBug.com>
Weatherbug is a very useful service which puts real-time local weather information in the system tray. When the tray icon is clicked, the window shows details including windspeed, humidity, and more. It is advertising-supported, but so useful that I had to include it. There is a paid "Pro" version available.

Here are a few free utilities to keep your system protected and running smoothly:

Grisoft AVG Anti-Virus: —<http://www.Grisoft.com>
AVG is free for personal use. It's actually one of the better anti-virus packages; low system overhead, regularly updated, and highly effective. Registration is required for download access.

SpyBot-Search & Destroy:— <http://Security.Kolla.de>
SpyBot-S & D is a free program for personal use (donations are requested, but are not mandatory). This utility will find and remove spyware & adware,

and it will also manage cookies and temporary files. It is more effective than the other similar package, Ad-Aware.

ZoneAlarm:—<http://www.ZoneLabs.com>
The free version of ZoneAlarm is a "lite" version of the commercial package. While especially useful for broadband users (cable or DSL), it's useful for dialup, as well.

Diskeeper Lite: — <http://www.executivesoftware.com/profile/submit-select.asp?a=l&PId=15>
Diskeeper Lite is a free manual-only version of Diskeeper with limited functionality. Diskeeper Lite can analyze and detect fragmentation levels. With Diskeeper Lite you can run a manual defragmentation on a single disk volume at a time. It's MUCH better than the defragmentation software available in ANY version of Windows. Registration is required for download access.

BigFix:—<http://www.BigFix.com>
BigFix is a free utility to help you keep your system updated. Even with the availability of Windows Update, there have been some times when BigFix notified me of problems before Microsoft did.

Java:—<http://java.sun.com>
Java is a programming language that has been in the news lately. In a trial with Sun over Java distribution, Microsoft lost. Not only that, there have been a number of security alerts connected with the Microsoft implementation of the JVM (Java Virtual Machine). The Windows implementation, as supplied by Microsoft, was also incomplete and incompatible with the current Java standard. It's an excellent idea to download and install the most recent version from Sun. Look for the J2SE version. Java is used especially by Internet browsers.

Here's some text-editing software:

EditPad Lite: — <http://www.editpadpro.com/editpadlite.html>
EditPad, in its various versions, is a very nice text-editor. EditPad Lite is a cut down, but still useful, free version of EditPad Pro. I use it in place of Notepad.

AbiWord:—<http://www.AbiSource.com>
AbiWord is a free word processor, comparable to Microsoft Word 97 or better. I use it alongside the OpenOffice.org software suite; while less powerful, it's somewhat quicker and less system-intensive. On both my Windows and my Linux systems, it's the default editor for rich text format (RTF) files, which are non-proprietary, cross-platform, and immune to macro viruses. With plug-ins, it can read and write MS Word file formats.

The following are the heavyweights of free software:

OpenOffice.org:—<http://www.OpenOffice.org>
OpenOffice.org is a free office suite comparable to Microsoft Office 2000 or better (except that it has no database component—Microsoft "professional" Office versions have Access). It can read and write Microsoft-compatible file formats, but its native formats are completely open and non-proprietary. It is a 50-megabyte download, so broadband is helpful, but it is also available on CD for a nominal charge.

WinGimp:—<http://www.WinGimp.org/>

WinGimp is a Windows port of the GNU Image Manipulation Program. It is a freely distributed piece of software suitable for such tasks as photo retouching, image composition, and image authoring. It is comparable in power to the full Adobe Photoshop program and much more powerful than Photoshop LE or the similar PhotoShop Elements. Be sure to download and install the required GTK libraries as well. A CD version is available at <http://www.WinGimp.com>, which includes plugins, filters, clip art, tutorials, and documentation.

Here are some other useful programs:

WinAmp:—<http://www.WinAmp.com>
Winamp is a free program that plays MP3s, WAV audio sample files, and CDs with less overhead than Windows Media Player. I recommend version 2 over version 3—it's less bloated. There are a variety of plug-ins available. If you like Internet radio (especially with broadband access), check out <http://www.Shoutcast.com>. Rock, classical, jazz, Celtic—it's all there in streaming MP3 format.

IrfanView:—<http://www.IrfanView.com>
IrfanView is a really useful, free graphic-file display program. It can display nearly any graphics format in a variety of ways, including an "instant slideshow" of pictures in a directory. Plug-ins are available that allow playing sound files and animations. You can download the plug-ins when you download the main program.

AB Commander Lite:—<http://www.WinAbility.com>
AB Commander Lite is a free, slightly cut down version of a program that acts in a similar fashion to Windows Explorer, but is MUCH easier to use for things like copying, moving, or renaming files. I had been looking for a program like this for years.

ZippHO:—<http://www.zippho.cjb.net>
ZippHO is a program similar to WinZip, except that it handles more types of archive formats, and it's free. It works well with AB Commander Lite.

Mozilla:—<http://www.Mozilla.org>
This is the new, open-source replacement for the Netscape browser; in fact, Netscape 7 is based on Mozilla (except that the Netscape vesions are bloated by AOL adware, etc.). It features a built-in pop-up stopper, tabbed browsing, and better security than MS Internet Explorer.

MultiRes:—<http://www.EntechTaiwan.com>
MultiRes allows the user to switch video monitor resolutions and refresh rates on-the-fly. I often encounter users whose monitors are set to a 60 Hz (cycles-per-second) refresh rate. This can lead to eye strain — most video cards and monitors can now support up to 85 Hz and beyond, which is much easier on the eyes.

Here are a few that are just for fun:

XEarth:—<http://www.softlab.ntua.gr/~mario/projects.html>
XEarth is a Windows port of an Xwindows program that puts an image of the Earth (complete with city markers) in the background image on your desktop. It shows night and day and updates the view every ten minutes. Data files are available or can be created. The image can also be saved and used for graphics such as a book-report cover.

DX-Ball:—<http://www.blitwise.com/downloads.html>

DX-Ball is a free Arkanoid/Breakout/Brickout-style game that's a lot of fun.

Disasteroids-3D:—<http://www.lmnopc.com>

A free Asteroids clone that simulates a 3D environment within the game. Requires a relatively fast PC and graphics card.

Here are some good sources to start with for more freeware and shareware:

<http://www.Download.com>
<http://www.Tucows.com>
<http://www.WebAttack.com>

PicoZip—A Review
By Franz Breidenich
SEMCO Member

PicoZip is a versatile archive program and backup utility. PicoZip can extract files from 15 different archive types. There are the popular ones like .zip and .cab, and many obscure ones like .zoo and .lzh. This program can also create archives in 8 different formats, including the popular .cab and .zip formats. PicoZip also has a utility that allows you to create backup sets to back up the data on your computer.

The first task in my review was to see how well PicoZip extracts files from archive zip files made by other soft-ware. I downloaded some zip files from the Internet and was able to extract these files with no problems. In extracting these files, PicoZip gives you more information on its display than my previous unzip program did. Also, in the previous program the files in the archive file were not displayed until the file was unzipped, and then in a DOS window. PicoZip displays the file name, the date the file was created, the packed and unpacked size, and the ratio of the compression.

The next task was to use PicoZip to extract archive cab files from my Windows CD. PicoZip did the task with no problem, but the display was not quite as informative, as it only shows the date the file was created and the unpacked size. The packed size and the ratio were shown as zero. This was true for all the cab files I have tested, including the one I have archived and then extracted.

I wanted to test out others of the 15 different archive formats but was unable to find examples of these formats, so I created archives in 6 different formats PicoZip supports. These formats are: .bh BlakHole archive, .jar Javasoft archive, .lha Lha archive, .lzh Lzh archive, .cab, and .zip. I was able to create archives in each of these formats, then extract the original files using PicoZip, and used the same set of original files for each of these tasks. I had no problem with any of the archiving or extracting of these files.

Of interest was the size of the archive files. The zip, .bh, and .jar files all archive to the same size with a compression ratio of 83 %. The .lha and .lzh compression was also 83 %, but file size was a little larger than the others. Also, it appears that .lha and .lzh both

use the lha compression scheme. The cab files have the most compression, with a compression ratio of 90 %.

The files I used were four Word documents and seven Excel documents. The total size of the 11 files was 235,520 bytes. The .cab file compressed to 23,819 bytes. The .zip, .bh, and .jar compressed to 39,628 bytes. The .lha and .lzh compressed to 40,560 bytes.

My next task was to create a self-extracting zip file. This was easy to do. You start out with an archive file and then convert to an EXE file. This function adds about 30 kB to the archive file. There are 8 different archive formats that can be made into self-extracting EXE files. These formats are: .ace, .arj, .bh, .jar, .lha, .lzh, .rar, and .zip. The PicoZip help file shows two different ways to make these EXE files. While in the PicoZip program, open the archive file you want to make into a self-extracting file. Select Make .EXE File from the Action menu. The Save EXE As dialog box will appear. Select a folder and name for the file and click the Save button to complete the task.

The second way does not require you to have the PicoZip program running. When you are in Windows Explorer, right click on the archive file you wish to convert; then select Make .EXE from the popup menu. Now select a folder and name for the file and click the Save button to complete the job.

Also while in Windows Explorer, you can select a group of files or folders, right click on them, and select Add to "Filename.EXE." PicoZip will then compress these files and folders and make them a self-extracting .EXE file in one easy step. This Exe file can be run on any MS Windows computer without any additional software.

One of the features in PicoZip is the View feature. This feature allows the user to view the content of the archive file. All you need to do is click on the selected file; PicoZip will then go and extract the file and bring up the proper program that will display that type of file. For example it will start MS Excel to display .xls file.

Another feature is the Check Out feature. This feature allows the user to view, examine, or run files in an archive. It does this by creating a temporary folder, extracting all the files into the folder, and opening shortcuts to all these files. After completing the task, PicoZip can delete this temporary folder and it's contents by exiting PicoZip.

In the Tool pull down menu there are several options to enrich your experience using this program. The first one is the convert tool: this converts one type of an archive file to another type. I used it to convert a zip file to a cab file. The next tool is Repairs Damaged Zip Archive. I was not able to test this function, as I had no files to repair.

Another tool I want to mention is Uuencode Archive; this is used to send a file across a mail system that does not support binary e-mail attachments. Again I did not test this function.

Another item in the Tool pull down menu that I will mention, but did not do, is Batch functions. The author has provided a full set of batch functions for all the different tasks mentioned above. The help menu has a tutorial on each of these batch functions.

The next function I selected to test was to manage backups. In the PicoZip program, select Managed Backups from the Tool pull down menu. This brings up the Managed Backups Window. This window will show the existing backup

files, and it has buttons along the bottom for: Create, Modify, and Remove. Along the right side of the window there are buttons for Run Backup, Close, and Help. When you select the Create button you bring up the New Backup Set window. This has many options to create this backup set. It will do full backups, incremental backups, and multi-generation backups, where you set the generations. The backup can be written to any drive that windows can write to, including hard drives, floppy drives, and Zip drives.

To run these backups you can use Quick Backup on the Tool menu. When you select Quick Backup, it brings up a list of your backup sets, and you check in the box before the names of the sets you want to run. Or you can use Manage Backup on the Tool menu.

These are most of the features of PicoZip software, but I have not covered them all. One feature I failed to mention is the Test feature on the Action pull down menu. By selecting an archive file and this option, it will test the archive file and tell you if there are any errors. If this was a zip file, it could be repaired by the Repair Damaged Zip Archive tool.

There is no printed manual or CD for this program; you must download the program from <http://www.picozip.com>. The Help menu is very complete for PicoZip, with tutorials for each task or function. There is also a wizard to help you do many of the tasks in PicoZip, but after using this

Letter From The Editor

I've been having trouble with the mouse on my laptop for a number of weeks. After working for several hours the cursor gets very slow and jerky. As time goes on it gets so bad I have to quit and turn off the computer. When I start up again everything is fine for another hour or so; then the same problem. I began to suspect overheating in the computer; I've heard laptops are prone to overheat.

So I propped the back end of the computer up on a brick on my desk to let more air circulate underneath, and I slipped a tray of ice cubes under the computer. The brick was a very special brick, a memento from my days at the GM Tech Center when I did something to deserve honor. It has a bright, glossy red glaze on it, according to the specifications of Eero Saarinen, the famous architect of the Tech Center, and a brass plate with my name and the date 1982. A legend says GM couldn't find anyone to make the bricks as Saarinen wanted, so they bought a brick factory just for that purpose, and sold it when they finished.

Well, it solved the problem; now the cursor flys around as it should even after hours of use. I even found that the tray of ice cubes wasn't required; the brick is enough.

So now I plan on getting one of those curvy plastic stands that I've seen advertised for tilting your laptop up on the desk.

The lesson: Beware of heat in your laptop. Or do something to be honored with a brick, preferably glossy red.

Bill

program for a few days, I found it easier to do the functions without the wizard. There is also a step-by-step illustrated guide for beginners on the PicoZip website at: <http://picozip.com/visualmanual/vguide.html>.

So, as you see, there are many features in this $24.95 program. Until the end of May, SEMCO members can get PicoZip for $14.95, a discount of 40% using the coupon for SEMCO members. The coupon is at: <http://www.picozip.com/coupon/coupon.php?couponid=PZSPUG127>.

Special Offer

Here is an offer for PicoZip from the author, Christopher Tan, for a 40% discount on his software. The price will be $14.95 instead of $24.95.

PicoZip is a file compression utility. Formats supported are: Zip, Rar, Ace, Arj, Bh, Cab, Jar, Lha, Lzh, Tar, Tgz, and Zoo. The author states that it is a full feature automated backup tool. He also offers lifetime free upgrades with your purchase. See the web site: <http://www.picozip.com> for more information on the program.

To get the 40% discount, go to: <http://www.picozip.com/coupon/coupon.php?couponid=PZSPUG127>. Enter your name and e-mail address that will generate a registration code. Coupon code = PZSPUG127. Expiration date of offer May 31, 2003.

Tip: You can find the exact time of day at: <http://www.time.gov/timezone.cgi?Eastern/d/-5/java>.

**BOARD MEETING
4/13/2003
Carol Sanzi**

Board Members Present: President Gary DeNise, Treasurer Roger Gay, Secretary Carol Sanzi, SIG-Advanced Chairman Franz Breidenich, SIG-IBM Co-Chairman Tom Callow, Warner Mach representing SIG-IBM Intermediate Chairman Jack Vander-Schrier, Publications Committee Chairman Bill Agnew, and Members at Large Bob Clyne and Chuck Morey. The meeting was called to order at 12:06 p.m.
Old Business: Treasurer Roger Gay reported that SEMCO's bank balance is $4854.60. SEMCO's membership is now 82. Tom Hagen's membership was up for renewal in March. Expiring in April are the memberships of Donald E. Clark, Willie Ihlenburg, Randy Mims, Lynn Omiecinski, and Thomas M. Reuter.

Bob Clyne moved to reimburse Warner Mach $7.10 for refreshments. Tom Callow seconded the motion, and it was carried.

In order to publicize SEMCO meetings, Gary DeNise contacted four township TV stations and arranged meeting announcements to run on their local channels. Bill Agnew posted SEMCO notices at several locations. Carol Sanzi arranged for a meeting announcement in the Detroit Free Press Community Section for Troy, Rochester, and Rochester Hills.
New Business: Gary DeNise is offering to host a June picnic at his home. The date and details will be announced next month.

Bob Clyne moved to adjourn. Roger Gay seconded the motion, and it was carried. The meeting was adjourned at 12:28 p.m.

SPECIAL INTEREST GROUPS (SIGs)

SIG-IBM
Tom Callow
Warner Mach

May 11: Surfing Off The Beaten Path: SIG-IBM Co-Chairman Tom Callow will talk about sites on the World Wide Web that you may not have heard of before, but which are interesting, amusing, or even useful.

SIG-IBM INTERMEDIATE
Jack Vander-Schrier

May 11: Jack's Favorite Internet Sites: Chairman Jack Vander-Schrier will educate and entertain as usual.

NOVICE-IBM GROUP
Rotating Volunteer Hosts

May 11: Q&A: Member directed discussion.

SIG-ADVANCED
Franz Breidenich

June 2: Meetings held first Monday, 6:45 pm, at the Oak Park Library. The library is located at 14200 Oak Park Blvd., Oak Park, MI. Phone: (248) 691-7480. Directions: 14200 Oak Park Blvd. is 9 1/2 Mile Road, located west of Coolidge. Best route from freeway is to take I-696 to the Coolidge exit. Head south on Coolidge for 1/2 mile to Oak Park Blvd. and turn right. **Topic: Wide ranging discussion of computers and computing.**

May 2003 DATA BUS DEADLINE (7th day after meeting)
SEMCO & SIG DATA, & MEMBERS' ADS - Deadline: Sun, May 18, 11:59pm.
Members' personal ads are free. To mail, use Editor address on Page 2; e-mail address: <agnew@bignet.net>. PLEASE send to arrive sooner than deadline if possible.
BUSINESS ADS - Deadline: Second Friday monthly. Mail **unfolded** camera-ready copy; payment in full made out to SEMCO, to the Editor (address Pg 2).

Bill Agnew
agnew@bignet.net
(to post monthly computer group info)

**CALENDAR-OF-EVENTS
OTHER GROUPS**

AAIICI (American Association of Individual Investors, Computerized Investors)
May 24–Saturday, 10am-noon (4th Saturday); W. Bloomfield Huntington Bank, Orchard Lk Rd., S.of Maple Rd. Info: Jack Lockman at 313-341-8855 or <thunder@tir.com .

COMP (Computer Operators of Marysville & Port Huron)
June 4–Wednesday, 7pm (1st Wednesday): Rm 201, Clara E. Mackenzie Library-Science Bldg, 323 Erie St., Port Huron. Ron Walters, 810-679-4144. Web: <http://www.bwcomp.org>.

DCOM Computer Club
May 9–Friday, 6:30 - 8:30pm (2nd Friday); Henry Ford C.C., Patterson Tech Bldg, Ford Rd/ Evergreen, Rm T143, Parking Lot C. Info: Doug Piazza 313-582-2602.

Delta Computer Club
May 29–Thursday, 7 pm (last Thursday); Bay de Noc C. C., Escanaba. Info: Gordon Nelson, Pres. & Editor at <gnelson@bresnanlink.net> or 906-428-1014.

DPUG, (Detroit Palm Users Group)
May 8–Thursday, 7pm (2nd Thursday); Kensington Community Church, northwest corner John R & Square Lake Rds, Troy, MI. <http://www.dpug.org>. **Free membership.** Topics: Garmin iQue 3600 GPS/Palm unit.

MacGroup Detroit
May 18–Sunday, 3pm-5pm (3rd Sunday); Bloomfield Twp. Library, 1099 Lone Pine Rd. (corner of Telegraph Rd.). Info: Terry White, <terry@macgroup.org> or 313-571-9817. <http://www.macgroup.org> . Topic: iLife Tips and Tricks.

MacTechnics, (MAC User Group)
May 17–Saturday, (3rd Saturday); Coffee 9:00am, SIGs 9:30am, Main meeting 11:00am. Mack Open School, 920 Miller Road, Ann Arbor, MI 48103. <http://www.mactechnics.org>). Info: Cassie at <cassiemac@yahoo.com> or 313-971-8743. Topic: Terry White—Creativity Without Limits.

MCUG (Michigan Computer Users Group)
May 15–Thursday, 7pm (3rd Thursday); 35271 Rockingham Dr, Sterling Hts., MI 48310-4917; Info: Jerry Zinger, Pres., <kahuna15@comcast.net> 810-792-3394.

Michigan Apple Computer User Group
May 8–(2nd Thur), MAC SIG; May 8–(2nd Thur), Golden Masters SIG; May 15–(3rd Thur), Green Apple SIG; Eagles Hall in Clawson, 174 Bowers St (one block North of 14-Mile and one block East of Main). Carl Pendracki 248-647-8871 or <carlpen@aol.com>. Web: <http://www.themichiganapple.com>.

Oak Park Computer Club
Meets every Friday, 10:15am at Oak Park Library, Oak Park Blvd. at Coolidge Hwy.

SHCC (Sterling Heights Computer Club)
June 3–Tuesday, 7:30pm (1st Tuesday); Carpathia Club, 38000 Utica Rd, Sterling Hts, Pres. Don VanSyckel at <Don@VanSyckel.net>, 586-731-9232; Web: <**http:// www.Sterling**HeightsComputerClub.org>. Topic: PowerQuest's Partition Magic & DriveImage.

SVCA (Saginaw Valley Computer Assoc.)
May 8–Thursday, 6:30-9:00pm (2nd Thursday); Zauel Library, Shattuck & Center Rds., Saginaw. Web: <http://www.svca.org>.

Wayne State U. Mac User Group
May 10–Saturday 10:00am-Noon (2nd Saturday); at Mich.com, 21042 Laurelwood, Farmington. Info: Lorn/JoAnn Olsen 248/478-4300 or Denny MeLampy 248-477-0190.

TAX DEDUCTIBLE DONATIONS
SEMCO Members Helping the Community

Beth Fordyce is accepting Macintosh computers, components, peripherals, manuals and software (working or broken) for Immaculate Heart of Mary School PreK–8th grade, 175-200 students for computer science classes. Contact Beth 734/453-0349 7pm–10pm or bfordyce215331MI@comcast.net You may also contact the school directly: Sister Mary Stephanie Holub 19940 Mansfield (Greenfield/8-Mile area, Detroit) 313/272-0990

Tip: To learn the Morse Code (dots and dashes) and the Phonetic Alphabet (alpha, bravo, charlie, etc.) go to: <http://www.soton.ac.wk/~scp93ch/morse>.

APRIL REFRESHMENT DONORS
Warner Mach, Coordinator
Betty MacKenzie
Carol Sanzi
Roland Maki
Bert Farmilo
Cheryl Fil
Elliot Chandler
Deb Wall

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, Gay
Genealogy: Cook
IBM PC Hardware Issues: Clyne, Gay, Yuhasz
Operating Systems: Callow, Clyne, Yuhasz
MAC Hardware and OS Issues: Yuhasz

MS Office for Windows: Callow
MS Word: Clyne
Networking: Callow
Novell Netware: Yuhasz
Quicken: Clyne, Gay
Geocaching: Cook

Clyne, Bob—810-387-3101, 9am-10pm .... clyne@lodden.com
Callow, Tom—248-642-1920 9am–5pm .... tcallow@vmddlaw.com
Comptois, Jerry—248-651-2504, anytime .... jerrycandotoo@juno.com
Cook, Stephen—313-272-7594, eves .... scook48227@ameritech.net
Gay, Roger—248-641-7799, 9am-10pm .... rgay@voyager.net
Vander-Schrier, Jack—586-739-7720, 12-8pm .... jvanders@myself.com
Yuhasz, Steve .... Help@yuhasz.org

SOUTHEASTERN MICHIGAN COMPUTER ORGANIZATION, INC.

SEMCO CALENDAR—May/June

SCIENCE & ENGINEERING BUILDING, OAKLAND UNIVERSITY, ROCHESTER, MICHIGAN

May 11–SUNDAY (Meet 2nd Sunday)

SEMCO <u>Board</u> Meeting at 12:00 noon, **Room 164.** For Officers and SIG Chairpersons. Other members are invited to attend.

SEMCO <u>General</u> Meeting at 1:30 pm, **Room 164.**

Special Interest Groups (SIGs)

<u>**SIG-IBM**</u> 1:45 pm, **Room 164. Program: Surfing Off The Beaten Path:** SIG-IBM Co-Chairman Tom Callow will talk about sites on the World Wide Web that you may not have heard of before, but which are interesting, amusing, or even useful.

<u>**SOCIAL PERIOD**</u> 3:15 pm, **Room 172.** Refreshments! (Reminder: We must maintain a neat environment.)

<u>**NOVICE-IBM GROUP**</u> 3:45 pm, **Room 168. Program: Q&A, member-directed discussion.**

<u>**SIG-IBM Intermediate**</u> 3:45 pm, **Room 164. Program: Jack's Favorite Internet Sites:** Chairman Jack Vander-Schrier will educate and entertain as usual.
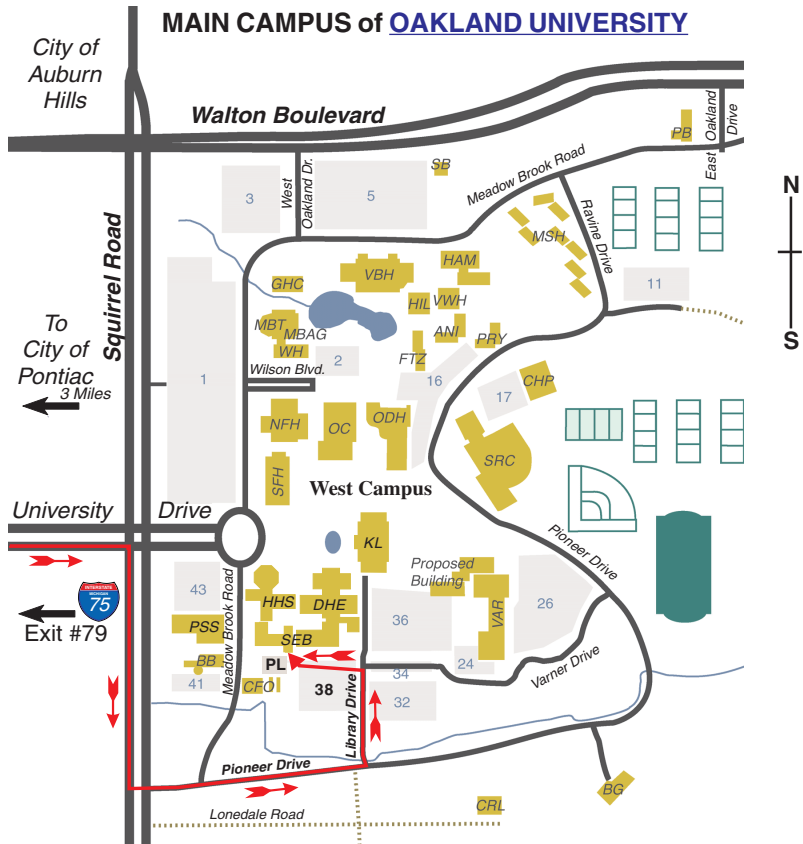
<u>June 2–MONDAY , 6:45 pm</u> (Meet 1st Monday), <u>**SIG-ADVANCED**</u> Oak Park Public Library, 14200 Oak Park Blvd.,Oak Park, MI. Phone: (248) 691-7480. Directions: Oak Park Blvd. is 9 1/2 mile Road, located west of Coolidge. Best route from freeway is to take I-696 to the Coolidge exit. Head south on Coolidge for 1/2 mile to Oak Park Blvd., and turn right. Info: Franz Breidenich 248-398-3359. **TOPIC: Wide-ranging discussion of computers & computing.**

<u>June 8–SUNDAY</u> (Meet 2nd Sunday). <u>**SEMCO**</u>, 1:30 pm. **Topics: To be announced.**

http://www.semco.org

PUBLIC INVITED

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

MAIN CAMPUS of OAKLAND UNIVERSITY

City of Auburn Hills

Walton Boulevard

Meadow Brook Road

To City of Pontiac
3 Miles

Squirrel Road

West Oakland Dr.

Ravine Drive

East Oakland Drive

N
S

University Drive

Exit #79

PB
SB
3
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11
GHC
VBH
HAM
MSH
HIL VWH
MBT MBAG
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ANI PRY
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FTZ
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CHP
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Wilson Blvd.
NFH
OC
ODH
SRC
SFH
West Campus
KL
Proposed Building
43
HHS
DHE
36
VAR
26
PSS
SEB
BB
PL
34
24
41
CFO
38
32
Library Drive
Pioneer Drive
Varner Drive
Pioneer Drive
Lonedale Road
CRL
BG

MAP LEGEND

SEB	**Science and Engineering Building**
DHE	**Dodge Hall of Engineering**
KL	**Kresge Library**

Note: SEMCO meetings are in the **Science** (west) wing of the **Science and Engineering Building**.

DIRECTIONS

Driving north on I-75 (from Detroit and suburbs), take Exit 79 (University Drive), stay to the right on University Drive to campus entrance. Turn right (south) on Squirrel Road (at traffic light which is just outside campus); turn left on Pioneer Drive (next street to left). Turn left off Pioneer Drive onto Library Drive (second left) toward Kresge Library. Turn left before you get to the buildings, into parking lot 38 on the left. Proceed to the far end of the parking lot and up to the next lot. After parking, enter the first set of glass doors (at the SE corner of the building).

Member of
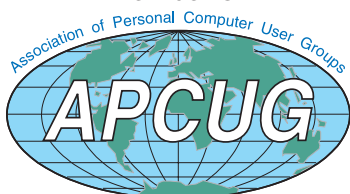
The meetings at Oakland University are sponsored by the University's Academic Computer Services (ACS).
SEMCO thanks Oakland University and ACS for their assistance.

Association of Personal Computer User Groups

APCUG

FIRST CLASS MAIL
Dated Material

SEMCO: A Community Organization
Helping People for the 21st Century