Confirmed meeting dates

July 23 (4th)
Room A

August 27 (4th)
Room A

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Check www.caeug.net for confirmed meeting dates

:: ::

MEETING PLACE
is the
Glenside Public Library

:: ::

Visitors Welcome
HOPE TO SEE
YOU THERE!!

**Next meeting will be
on July 23 (4th Saturday) In ROOM A**

TBA

Room A (07/23/16 4th Saturday)

Building or Buying a Computer in 2016

By Bart Koslow, Review Chair, Channel Islands PCUG, CA
April 2016 issue, The Outer Edge
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Whether you buy or build a new computer, there are a number of important things to know to obtain the best computer for the money you wish to spend. Is it better to build or buy a new computer? Most people will opt for buying a new desktop or laptop for the convenience of not having to build, particularly if they are not technologically or mechanically oriented. There are others who could easily build one if they had the courage. There are many websites where you can find detailed instructions on building a computer. If you are a computer club member, help and advice are always available if you have difficulty. So why not try?

I have always felt it is better to build one. Why? When I build, I get exactly what I want and do not pay for what I do not desire. I often use some drives, keyboards, monitors, cases, DVD burners, etc. from an earlier computer, saving money, but still obtaining the best computer for the money.

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Name brand computers have drawbacks. You have to take what you get, even though the computer may not have all the things you would like, and you may get items you do not need. They do not come with the usual (at this time) Windows 10 operating system disk. If you have a major problem, instead of reloading Windows and retaining all of your program connections you may have to start all over again, adding all the programs, etc. that you installed after buying the computer — not a pleasant prospect.

At present, you may download a bootable copy of Windows 10 from Microsoft, which will solve this problem. Name brand computers often have little room for expansion in the event you wish to add drives, internal cards or memory. The motherboards and other hardware may be proprietary, which means you must go back to the manufacturer if you have a problem or need a replacement, and the replacement may cost you more than similar non-proprietary hardware.
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Build or buy
There are many things you should know before you proceed. I usually do not buy state of the art because of the expense and because today's state of the art is passé in six to 12 months. Instead, I look for the best price/performance ratio that will fit my pocket book without making too many compromises.

CPU
Whether you build or buy, the CPU is the most important part of any computer and is the part you should decide upon first. In the past, I have used AMD CPUs as they were cheaper for similar performance. This is no longer the case except for budget PCs, so I am now switching to Intel CPUs. I believe the added cost is justified by their better performance, making them a better value. I look for the fastest CPU at a reasonable price. There are hundreds of CPUs with similar names available in a bewildering variety. Compare CPUs. How? Just do a search for CPU speed comparison and you will find https://www.cpubenchmark.net, where you may compare the comparative speeds and costs of any CPU.

Memory
Next, you want to decide on what memory capacity, type and speed you wish. If you are buying, compare whether you are getting 4GB, 8GB, or more. When building you should be looking at the newer DDR4 memory at speeds of 2133 MHz or more. In either case, I suggest not less than 8GB. I will be adding 16GB at a minimum speed of 2133 MHz or more depending on pricing. In most cases, the amount of memory is more important than the speed. What is dual channel memory? For example, instead of buying a recommended minimum one 8GB module you buy two 4GB modules which work in tandem and supposedly run 20 percent faster. The price is the same. When you buy the memory modules, make sure you buy heat spreaders (for a few dollars) for each module if they do not come with the modules. They should be installed before you place the memory on the motherboard. Before you purchase memory, read the manual to find out which memory is supported by the motherboard. Then go to the motherboard manufacturer's website and find out which manufacturer's memory has been tested and recommended by the motherboard manufacturer. If you buy other memory, make sure you can return it or exchange it in the event it does not work properly in your motherboard.

Drives: go for solid state Most store computers come with the older spinning drives. At present, if

you desire one with a Solid State Drive (SSD) you will find them only in more expensive store computers at a cost that may not suit you. I highly recommend that you include an SSD for the boot drive (the one that contains the operating system) in your next computer. SSDs are much faster, more durable, quieter, and smaller. Though they're more expensive, prices are dropping rapidly. If you buy a computer that does not come with an SSD, you can have the spinning drive replaced with an SSD or added afterward, depending on space available. In the very near future, SSDs will be the primary drive in all computers. Most SSDs still use a SATA 3 interface. SATA 3 is limited in speed and is rapidly being replaced by M.2 SSD drives, which can run SSDs at much faster speeds. There are two kinds of M.2 drives — PCI-E and SATA.

The PCI-E interface is faster, as the SATA 3.0 spec is limited to 600MB/s maximum speed, while PCI-E Generation 1 is capable of up to 1000MB/s. Generation 2 is capable of up to 2000MB/s. There is also a newer PCI-E Gen 3 technology that is becoming more common with speeds of up to 4000MB/s.

Motherboard
If building, next and very important is the motherboard. Today you should look for a motherboard that supports your CPU, and dual channel 2133 MHz or more, DDR4 memory. I prefer a full ATX motherboard rather than a mini or micro as it has more slots, both bus and memory, and often more built-in capabilities. Some motherboards also have built-in graphics. The downside is that these may use some of the CPU power. The upside is that it is cheaper than buying a separate graphics card. I prefer the separate card since you usually get better performance, and prices are very low today. The motherboard should support two to four SATA 3 drives that run at a maximum of 600 MB/s, at least two PCI-E devices (hard drives, DVD, CD drives) and at least eight USB ports half of which should be USB 3.0 or 3.1. Buy a quality motherboard. Before you buy your motherboard, go to the manufacturer's site and make sure the CPU and memory you intend to buy is compatible with that motherboard.

Computer case
Your computer case is significant. Almost all cases support both AMD and Intel motherboards. You want an ATX case that has room for expansion. I suggest at least two 5¼-inch external bays, one or more external 3½-inch bays and three or more internal 3½-inch bays for hard drives. My Antec case has eight bays with front panel USB 2.0 connections and holds a standard size ATX motherboard. It has a large (and quiet) 120 mm fan and places for two more 80 mm fans, which I installed to keep the motherboard and CPU cool. Incidentally, air flow of the fans should be in from the bottom front of your case to out at the top rear. A nice feature of the case is the two hand removable screws that enable removing all the case covers without using a screwdriver or nut driver.

I never stand my case on the carpet if there is some air circulation from under the case or from the bottom front, which may be blocked. I place a 1-inch-by-8-inch board (or two 1-inch–by - 4-inch boards) on the carpet and stand the case upon it.

You should make sure you have a power supply with ample wattage. Otherwise, you may have problems that are due to insufficient power. I use a heavy duty 600 watt ATX power supply with a quiet 140 mm or larger fan, which complies with the newer power saving requirements.

http://www.caeug.net

Graphics cards

Graphics cards are becoming much cheaper. PCI-Express motherboards support dual (two) linked graphics cards, either NVidia SLI or ATI Crossfire. Make sure if you buy dual cards that they match SLI or Crossfire, and are supported by your motherboard. The dual cards are powerful and extremely fast. Good if you are a gamer, but much too rich for me. If you buy one card, it does not matter if it is an ATI or an NVidia card.

You do want a card that has both a digital DVI (or DVD) output and HDMI output. Most still have a VGA output as well. Look for at least 1 GB of DDR4 memory on the graphics card. Since I am not a gamer, I buy a low cost video card.

Items to save from the old computer

I transfer from my old computer DVD burners, a fax/modem, a mouse, a keyboard, a printer, a scanner, and a monitor. I still use the fax/modem to send and receive faxes. I install an internal card reader with a USB 3.0 connection in a 3½-inch external bay. Do not forget your Windows 10 operating system license.

Monitor

What about the monitor? I have a 23-inch Acer LCD monitor, and am very happy with it. In my book, bigger is better. There are a number of things you should be aware of when buying an LCD monitor. Do not buy an LCD monitor unless it has a digital connection either DVI or HDMI, or both, as the apparent resolution is much better using the digital connection. It will probably still have an analog VGA connection as well. All LCD monitors have a native resolution, which is usually the one advertised. Important!

Your video card must support the native resolution of the monitor for best results.
An older computer may not support a new LCD monitor in digital mode at its native resolution. In that case, you may have to add or change the graphics card.

Many manufacturers consider it OK if the LCD has eight or fewer bad pixels. If you get one or more, especially in the middle of your screen, you may not like it, or you may not like the monitor in general once you try it out. That is why I would only buy an LCD monitor locally, where I have a return privilege for any reason.

Some monitors can swivel vertically, which gives you a longer page view. Some LCD monitors come with a digital cable, but many do not. You must have the correct digital cable for the monitor, and LCD monitors do vary. Go to www.datapro.net/techinfo/dvi_info.html for a lucid guide to the Digital Video
Interface and which cable to use in each situation. You will find buying cables is much cheaper online. The $6 cable is just as good as the MONSTER $141 one, so don't get ripped off.

Printers, scanners and more

You still need a printer, and I need a scanner for copying and faxing. The choices are innumerable. I like and use a black and white laser printer for the bulk of my printing. It looks better, is cheaper to run, and like the Energizer bunny just runs and runs and runs. If you buy a laser printer watch out for the ones that need drum replacements in addition to toner cartridge

replacements after a certain volume of use. You will end up paying more than the original printer cost. If you require color printing there are many inkjet and color laser printers available, or you may buy an all-in-one inkjet that combines printing, copying, scanning, and faxing. I leave the choices to you.

If you have a little adventure in your soul, you can build a new computer and obtain help from fellow computer club members. If not, you know what to look for. In any event, happy computing.

Lamp Post 182
by John Spizzirri
July 2016

Teri Goldstein is a travel agent in California. She needs her computer to do her job. She was running Windows 7 last August (2015). She was making her bookings for the last quarter of the year (the second busiest times of the year). Windows 10 installed on her machine without her asking for it **(1)**. Her machine was marginal but functional for Windows 7. After the 'upgrade' her machine "limped along". The crippling of her machine cost her business $17,000. She tried to get Microsoft (MS **(2)**) to help her to no avail. She used the courts for redress. She was awarded $10,000 by the court. She sued MS for the unwanted OS (Win 10) and lack of help for return to Windows 7. MS "decided to cut further expenses should the litigation continue". MS probably does not want too much publicity on this loss so that others do not follow suit. MS pulled out of its suit against Lindows some years back because the judge indicated that the term 'Windows' may not be capable of trademark or copyright protection. MS sued Lindows. MS paid Lindows a few millions of dollars to change its name, not counter sue, and accepted no judgment from the court. As I recall, when you sue someone and win, you are supposed to collect the money. Lindows lost and got paid! MS knows its on shaky ground with Goldstein as well as Lindows.

1) http://goo.gl/FBZUXM
2) https://www.microsoft.com/

ABC News ran with the story about Teri Goldstein from the Associated Press (AP **(1)**). ABC had to run a corrected version because they misspelled Teri as Terri and gave her an age which she did not authorize **(2)**. The mention of Goldstein was introductory, the primary focus of the story was Microsoft's Windows 10 anniversary coming up on July 29, 2016. An Anniversary Update will be released on August 2nd that will give more 'features' to Cortana. The article claims that there are 350 million users of Win 10. It went on to say, "Microsoft says adoption has been faster than previous versions." The article reveals that the income generating strategy is based on Bing. This is much like the Google method of making money - presenting you with advertising based on your past searches and e-mail content. I would go further in that Win 10 spies on you at every turn **(3)**. CEO Satya Nadella is trying to rebuild MS's business since the crash in PC sales (**(4), (5)**). The forced upgrades to Win 10 are generating "a backlash from some PC owners." **(6)** "Microsoft

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acknowledged the confusion this week" about forced upgrades **(7)**. Well la tee dah! Its only 11 months late. If everyone, that had Windows 10 forced on them, would have sued Microsoft like Goldstein (even in small claims court), MS would have ended it policy much sooner. I think that MS needs to learn that other operating systems exist and they all MUST learn to co-exist together. MS claims it has embraced Linux **(8)**. Nonsense! If it did, Win 10 would be able to read and write to Linux based disks just like Linux can read and write NTFS disks **(9)**. To be clear Windows cannot read Linux based disks without third party software **(10)**.

1) **http://www.ap.org/**
2) **http://goo.gl/ou7Ev1**
3) **http://goo.gl/bGeAlf**
4) **http://goo.gl/WN4XYS**
5) **http://goo.gl/qNwaHl**
6) **http://goo.gl/3w8wKJ**
7) **http://goo.gl/iipfLq**
8) **http://goo.gl/g9cuaU**
9) **https://goo.gl/OGpWJ1**
10) **http://goo.gl/aRd5YY**

The Windows 10 update cutoff date rapidly approaching. Some people have asked, "can I upgrade and roll back and still retain the Windows 10 license for a future upgrade?" According to Steve Gibson of Gibson Research Corporation (GRC **(1)**), the answer is yes. The How to Geek web site also confirms that you can still get Win 10 free after July 29th if you upgrade now and roll back to your previous version **(2)**.

1) **https://www.grc.com/**
2) **http://goo.gl/FGZPQy**   Between you, me and the LampPost, that's all for now.

PDF File Type – What and Why?
By Phil Sorrentino, Contributing Writer, The Computer Club, Florida
http://scccomputerclub.org / Philsorr.wordpress.com
philsorr (at) yahoo.com

The Portable Document File (.pdf) file type has been around since 1993 when Adobe Systems made the specification available to all, free of charge. However, PDF was initially a proprietary format, controlled by Adobe, until it was officially released as an Open Standard in 2008. Since then it has been controlled by a committee of volunteer experts who are part of the International Organization for Standardization. The .pdf file type was developed as a way to share documents that would include text, formatting, and inline images, among computer users of different types of computers from different companies. (PCs, Apple, IBM, Sun, anyone remember DEC?). The PDF standard endeavors to present documents in a consistent manner that is independent of application software, hardware and operating system. The .pdf file type, by its very nature, and name - Portable, was intended to be a file that could be a complex of text, graphics and so on, and be easily shared by people that didn't have the same hardware or software. So, the real benefit was that the file would look exactly the same when displayed on all different types of computer systems.

Each .pdf file encapsulates a complete description of a document, including text, fonts, graphics, forms, annotations, outlines, and other information needed to display the file. .pdf files can also contain links, buttons, audio, video, and business logic; and where security is important, they can be password protected. So a .pdf file can end up as a pretty big file. (When I was almost finished with this article I saved it as a .doc and a .pdf. The .doc was 36KB, and the .pdf was 106KB. I also looked at a PowerPoint presentation, 127 slides with lots of graphics; it was 11.5MB saved as .ppt, and 32.4MB saved as .pdf. Finally, I saved a fairly large Excel spreadsheet (125 rows, with columns that went out to column AT, with quite a few calculations within the spreadsheet), which was 157K saved as .xls and 475 KB as .pdf. So from that limited testing it looks like the .pdf will be about 3 times the native applications size.)

.pdf files can easily be viewed on your computer using a free PDF Reader from Adobe called "Acrobat Reader DC". A mobile "Acrobat Reader DC" App is also available, free, for your Smartphone or Tablet. And for Windows 10 users, who are also Microsoft Office owners, PDFs can now be created from the Office Apps, Word, Excel, and PowerPoint. (By the way, you may have seen a reference to an .xps file type along with .pdf. The .xps file type is Microsoft's alternative to .pdf. It was introduced with Windows Vista but never attracted much of a following. Of the two, the .pdf format is the preferred choice.)

At this point in computer evolution, .pdf files can be opened by just about every major operating system (Windows 7, 10, OS X, iOS, Android) and can be used by many different applications. In addition, the majority of modern web browsers (Chrome, Edge, and Firefox) allow .pdf files to be read without the use of an external application, making them easy to use in web applications. (Though the literature doesn't give these internal PDF readers much of a good review; and advice on how to replace the internal PDF reader is easily found.) Also, Mobile Operating Systems (Android, iOS) are including PDF readers, making the PDF format almost universally useable. (This can't be said of any other file type; even though we all may be familiar with Microsoft's Word format (.doc), this format can only be used by a limited number of applications.)

Those of you who have been to our File Explorer class know that there are hundreds of file types on a typical computer, and that you can inspect and change the association between a file type and the program that uses that file type, using the Control Panel. (Remember, "Default Programs", followed by "associate a file type or protocol with a program"?) So, you have to have a program on your computer that knows how to use the .pdf file type. If you are having trouble opening a .pdf document, you probably don't have a program that knows how to use the .pdf file type, on your machine. If this is your situation, consider getting the free Adobe Reader, from the Adobe website, http://www.adobe.com.

Normally, .pdf files cannot be modified by the user, making these files perfect for use by an "end user", i.e., someone who needs the content of the file without being able to modify the file contents. In other words the file was not intended to be changed, once it was created or "published". So, originally there was no way to change a .pdf file without using the very expensive PDF Creator software from Adobe (or lesser expensive PDF creation software from Foxit). However, there are situations where it makes sense to change the contents of a received .pdf file, like "if you need to fill in some information on a PDF form".

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"PDF to Word" conversion websites like "PDF Converter", "PDF to Word" or "PDF Online" are websites that advertise that will do the conversion for free. (Google "free pdf to word" and you'll see many possibilities.) Also, you could try "free document converter" found at www.hellopdf.com. I haven't any experience with these, but the literature claims they work as indicated. And, for those of you who need to do a lot of these conversions, Adobe offers "Adobe Acrobat DC" for about $15/month or you could buy it for around $200. There must be a large enough number of people who need to convert .pdf files to .doc files because when I Googled "pdf to word", I was pointed to many websites that could supposedly help me in my quest. There even was a YouTube video that indicated that you could upload a .pdf file to Google drive, (yes, you'll probably need a Google Drive account), and then download it as a word (.doc) document. When I tried it on a pretty simple PDF, the conversion didn't seem to preserve a lot of the formatting, so it didn't look like it would be acceptable, at all, on a more complex document. I haven't had the occasion to need to convert a document, but if the situation ever arises I'm sure I'll be able to get it done, though I just might have to go to the lab and get some help from one of the very able and helpful Monitors. So, when all is said and done, the PDF standard is deeply ingrained in modern computing because it allows a single file to provide a display that looks the same on all different types of computers.

Back to Basics
Your Internet Connection
By Jim Cerny, Chairman, Forums Committee, Sarasota Technology UG, Florida
February 2016 issue, Sarasota Technology Monitor
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Today most people have and use more than one computer device that can connect to the internet. Smart phones (such as the iPhone), tablets, laptops, and desktops all LOVE the internet. In fact, most of these devices try to connect to the internet automatically. In this article we will look at how you can easily determine the answer to that all important question: Am I connected to the internet?

In the old days of ancient history, people connected their computers to a network (which could have been a private network) with a wire connection (telephone or private lines) perhaps using a telephone modem. Do you remember those telephone modems with the two rubber cups to hold the handset? Ah, those were the days when carrier pigeons were faster! But enough of days gone by.

Today the access to the internet is mostly wireless and devices can be connected to it in different ways. One easy way to see if you have internet access regardless of the device you are using is to try to go to a web page. If you can, the web page will display and you know you have access. If not, you should see a message on your screen that tells you there was a problem.

If you are using a smart phone or a tablet device, you may have a model that can use the cellular phone network to access the internet. This may work just fine, but be aware that you will be using your "minutes" or "bits" which will be billed to your cellular phone bill. I recommend that you only use the cellular network to access the internet when no other means are available.

There are two icons that seem to be universal for indicating that you are connected to the internet – a small bar graph or an "eyebrow" icon. In either case, the more "bars" you have on the bar graph or the more "eyebrows" you have, the stronger the internet signal. You should know where to find these small icons on the screen of your device, usually in a corner. You should know how to get to the "settings" option on your device and there will probably be a setting option that deals with the internet and will show you if you are connected.

Many portable devices (laptops, tablets, smart-phones) are constantly searching for a wireless internet connection. Say you went to a restaurant and wanted to get on the internet. You would look at your device's icon and see that you had no internet signal or a "not connected" message. So you would ask an employee of the restaurant for instructions on how to get connected. They would reply with the NAME of their Wi-Fi network and a PASSWORD (if required). Go to the "settings" option on your device and select the wireless network option. You will probably see a list of all the Wi-Fi networks within range of your device. Although you could try to connect using any of the networks found, you probably want to use the network name given to you by the employee.

Naturally that network should have the strongest signal and be at the top of your list. Select that network and you will be prompted for the password (if needed). Entering the password should get your connection. The nice thing about this is that the next time you return to that restaurant your device may connect automatically without you having to do anything. That is unless, of course, they changed their password.

If you have a problem understanding this for your device, go to Google (on the internet, of course) and ask Google "How do I connect my iPhone to a Wi-Fi network", or "How do I know I am connected to the internet on my Toshiba laptop?" etc. Try to be as specific with your device name as possible. It's nice to know if you are connected and what to do if you are not.

Computer jokes from Reader's Digest

I was in a couple's home trying to fix their Internet connection. The husband called out to his wife in the other room for the computer password. "Start with a capital S, then 123," she shouted back.

We tried S123 several times, but it didn't work. So we called the wife in. As she input the password, she muttered, "I really don't know what's so difficult about typing Start123."

Mom: What do IDK, LY & TTYL mean?

Son: I don't know, love you, talk to you later.

Mom: OK, I will ask your sister.

July DVD ot the Month List

AlternateQuickAudio - Program to for easy recording WAVs or MP3s
ARI - Monthly newsletter
AudioBook - Free audio book
audioSwitcher - Switch between sound devices

DVDOMlists - Contents of CDs and DVDs of the Month

FireAlpaca - Drawing program

GnuCash - Money management program
GWXcontrolPanel - Program to stop the Windows 10 Upgrade

Hardwareld - Program that identifies system hardware

InternetOff - Allows you to quickly turn off the Internet

ManicTime - Time tracking software which collects data on your
    computer usage
MemberContributions - Things members send me

Networx - Program show upload and download speeds in real time
Never10 - Program to stop the Windows 10 Upgrade
NoteStorm - Note taking program

Ocenaudio - Fast and functional audio editor
OldTimeRadio - Old radio audio files
openElement - Web design software and website editor

QText - Note taking program

RestorePointCreator - Easily create a restore point

ScreenReader - Text-to-speech easy for everyone
ServiceTray - Start, Stop or Restart any Windows Service with a
    couple of clicks

Vidiot - A non-linear video editor targeted for home video editing

WinISOdownloader - Windows ISO downloader
WinToHDD - All-in-One Microsoft Windows Setup application

XMediaRecode - Convert almost all known audio and video formats

Meeting Location and Special Accommodations

The Glenside Public Library address is at 25 E Fullerton Avenue, Glendale Heights, Illinois. Please park away from the building. Thank you. The meeting(s) are not library sponsored and all inquiries should be directed to Mike Goldberg at

. Individuals with disabilities who plan to attend this program and who require certain accommodations in order to observe and / or participate in the program are requested to contact CAEUG president, Mike Goldberg at at least five (5) days prior to the program, so that reasonable accommodation can be made.

Mailing address:
CAEUG
P.O. Box 2727
Glen Ellyn, IL 60138

Members Helpline
Any member with a specific
expertise can volunteer to
be on the Members Helpline.
Hardware problems, XP,
Win 7, Linux
and Virus Removal
 - John Spizzirri

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