



THE COMPUTER CONNECTION

SAUK COMPUTER USER GROUP

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FEBRUARY 9, 2019 MINUTES: SCUG CLUB MEETING

The February 9, 2019 meeting of the Sauk Computer Users Group was called to order by President Art Bendick. He next welcomed members to the meeting. Following this was an interesting and informative question and answer session. Things covered included information on many web sites and information and programs available on line. We also had questions about computer problems some of our members had. Interesting stuff!

President Bendick welcomed two guests, Tom Welton from Rock Falls and Carol Shippert from Dixon. The treasurer's report was given and approved. Terry gave a short report on the Computer Lab; including the fact that he has some things that he would like to get rid of, for more information please contact Terry.

It was noted by Neal that the Sterling/Rock Falls Ham Fest will be held in March at the Rock Falls Community Building. You can get more details by contacting the Community Center or any member of that club.

The business meeting was adjourned, and the program began. It was very good

information and an explanation of the Deep/Dark Web. It was noted that there are three levels of the entire internet. Level 1 is the one that we all use and is only about 11 percent of that internet. Level 2 is the legal part, and is used by banks, doctors and colleges to keep their information private. The level is only accessed using passwords. The third level is the so-called Dark web and can certainly be a dangerous place to visit if you do not know the precautions needed to protect yourself from unwanted material and goods. This level is used by many in the criminal community for the illegal activities.

The presentation was very good, and we thank our presenter for this information. The drawing was held next. Our member bid in an auction for a secret box, provide by Terry. Darla won the bid on the box and the proceeds (\$12.50) of this auction was donated to our club treasury. The next meeting is March 9 at 1p.m. We always welcome members and guests; wouldn't you like to join us?

*Respectfully submitted by
Gloria Schneider for club secretary*

Club Information

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**BOARD MEETING MINUTES FOR
JANUARY 16, 2019**

Drawing for March

The SCUG board meeting was called to order by President Art Bendick at Wendy's on February 13, 2019. Attending the meeting were Joe Fornero, Neal Shipley, Joe Schmitt, Terry MacLennan, Cheryl Johnson, Glenda MacLennan, and Tom Rich.

Joe Fornero summarized treasurer's information. No existing expenses were noted.

Group reviewed a quote for an LED sign for WCSC. Awaiting decision by senior center. Terry volunteered to review details of quote.

Nancy Rich was approved by board as new secretary.

Current and future club donations were discussed.

Terry reviewed current lab issues. New computers for public use will not be purchased. Instead, back-up computers will be utilized and other existing units will be upgraded to become back-ups. The lab purchased a splitter box to allow connection of a greater number of computers. We

are looking for additional training personnel to assist with current requirements. Will evaluate the use of training videos. We also need to determine method of covering top of wall in lab area and also review current and future club equipment requirements

Discussed future meeting presentations and topics. John Miller will present 40 tech tips in 45 minutes for March, Neil will cover Word software in April, Joe F. on Quicken Deluxe in May, Cheryl in June, club picnic in July (food from Pizza Hut), and Christmas Party in December (food from Candlelight). Also Terry, Neal, and Tom will cover electrical and charging requirements for various mobile equipment (i.e. iPhone, iPad, tablets, Android units, etc.).

Meeting was then adjourned.

*Respectfully submitted by Tom Rich
for Secretary Nancy Rich*

We will still have 3 more Amazon Fires as large prizes, but you can also chose a \$50 gift certificate from either Galena Steak House or Candlelight. Only one of the above given out and you can only win a large prize once per year. Smaller prizes will include a \$25 gift card from Walmart, Menards or Pizza Ranch. Two awarded each month along with a 256 Gb 3.0 flash drive and other misc. items and you can win them as often as your ticket is drawn, but only one per month.

32-bits, 64-bits – How many do I need?

By Phil Sorrentino

Over the past few years, Personal Computers have been moving from 32-bit Central Processor Units (CPU) to 64-bit CPUs. (Actually, 64-bit CPUs were first introduced way back in 2003, but it takes time to get new CPUs through the design/manufacture/produce cycle to finally provide “affordable products”.) So it’s not a matter of how many you need, it is a matter of what is on the market. From a user’s point of view, the main difference between 32-bit and 64-bit CPUs is performance. Performance is basically the speed at which the CPU can complete tasks and is measured in calculations per second: the faster the CPU, the higher the performance. Additionally, 64-bit CPUs can come in dual, quad and eight core versions which can provide further improvements in performance. Another difference is the maximum amount of RAM memory that can be accessed. 32-bit CPUs can access a maximum of 4 GB, whereas a 64-bit CPU can access far beyond 4 GB, which is necessary if you are using software to

accomplish things like video editing or graphic design. In general, the more bits you have, the better the processing performance and capability, and therefore the better your computing experience.

The CPU defines the architecture. A 64-bit CPU is used in a 64-bit architecture and a 32-bit CPU is used in a 32-bit architecture. Today, almost all PCs are built around the 64-bit architecture, giving you the best possible computing experience if you only consider the number of bits. (Other contributing factors to your computing experience might be Internet connection speed, display size, hard drive size, and the number and speed of USB ports.) The Operating System (OS) software is intimately connected to the hardware architecture. That said, keep in mind that a computer with a 64-bit architecture can have a 64-bit OS or 32-bit OS installed; however, the 64-bit architecture with a 32-bit OS installed will not provide the 64-bit architecture’s full capability. Also note that the 32-bit architecture can only run a 32-bit OS. Windows 10 is built for the 64-bit architecture as was

Windows 7, unlike Windows XP and 95 which were built for the 32-bit architecture.

A quick look in the rear-view mirror shows the original PC that was released in 1981 by IBM. This early PC was built around a 16-bit architecture which was quite a bit less capable than our current 64-bit or 32-bit CPUs. (The initial CPU was an 8088 which actually used 16 bits internally, but had an 8-bit Input/Output (IO) interface (possibly to keep costs down and possibly to interface to certain peripheral devices), making it a hybrid of sorts, 16 bits internally for calculations and 8 bits externally for I/O.) PCs that followed used the 8086 CPU which was a true 16-bit processor. 32-bit computers started to appear as early as 1985 with the Intel 386 CPU. Improvements in the 32-bit architecture continued from the mid 1980s till the 64-bit processor arrived in 2003. The 64-bit architecture has been improved over the past 15 years and the cost has been reduced to the point

where almost every PC produced today has a 64-bit CPU in it. If you are looking for a new computer, definitely go for the 64-bit architecture. (You can find the architecture and OS information in Settings-System-About. In this window, “System type” will show the number of bits for the processor, and also the number of bits for the OS.) The number of bits in a particular PC architecture indicates the number of bits used in calculations and the number of bits used to address an item in memory. So, a 64-bit architecture has a 64-bit Arithmetic/Logical Unit at the heart of the CPU and can address up to 2^{64} or 16 exabytes in memory. (Note, not all PCs are built to take advantage of this large memory space, in fact most are limited by their hardware design to less than 512 Gigabytes.) An Exabyte is a very large number it is a million-million Terabytes. To put it in perspective, see the following table:

1024 Gigabytes=	1 Terabyte
1024 Terabytes=	1 Petabyte
1024 Petabytes=	1 Exabyte

On top of the hardware limitation, which is not

really very limiting, the Operating System in use places some limitations. The following table shows the limitations for some of the popular versions of Windows 10:

Operating System

Operating System	Maximum Memory (RAM)
Windows 10 Home 64-Bit	128GB
Windows 10 Pro 32-Bit	4GB
Windows 10 Pro 64-Bit	512GB

So, considering the number of items or bytes that we currently concern ourselves with, 4 to 32 gigabytes of RAM memory, and maybe 4 to 12 terabytes of hard drive space, the 64-bit architecture will probably take us pretty far into the future.

If one were purchasing a new computer, the best situation would be a 64-bit hardware architecture with a 64-bit OS and all 64-bit drivers. You would probably get this if you bought a middle to high end PC from a popular company like HP, Dell, or Lenovo. Low end or economy models might have a 32-bit or a 64-bit architecture. Note that if the amount of installed memory was over 4 GB then it would have to be a 64-bit architecture. If one did purchase a PC with a 32-bit architecture it would

probably have a 32-bit OS installed. Knowing what OS is installed on your PC is important if you are installing new software. If your new software is built for a 64-bit OS, it will only run on a 64-bit OS; it will probably not run on a 32-bit OS. If your new software is built for a 32-bit OS then it will probably run on a 32-bit OS or a 64-bit OS. Sometimes a software vendor will make two versions available, one for the 32-bit OS and a different one for the 64-bit OS. So, if you can find it in your price range, a 64-bit architecture with a 64-bit OS and 12 GB of RAM and a 1TB hard drive would probably satisfy almost everyone’s needs, except maybe for a few very serious gamers.

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January 2019
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How to stay on course when scrolling up & down a web page

By John Krout

At a recent PATACS/OLLI meeting in Fairfax City, a question was raised about scrolling up and down a web page: why does the browser sometimes suddenly revert to the top of the page?

This experience, no doubt familiar to many of us, has to do with pointing device behavior. With a normal mouse or track ball, you click and hold the button down on the vertical scroll bar on the far right of the web page, and then drag the scroll bar up and down.

While doing that, often you are intently reading the visible portion of the web page, and not watching the mouse pointer. I run into this a lot when examining the CNN.com home page. It is easy to let the mouse pointer drift slightly right or left. When the pointer moves off the vertical scroll bar, the web page automatically reverts to the top of page. This much I explained at the meeting.

Another member proposed a solution, one that I had not previously thought of, and I think it is a very useful solution: obtain a trackball or mouse with a vertical scroll wheel. Instead of moving the pointer in the familiar way, simply rotate the scroll wheel. Up and down the page goes, very reliably, with no drift.

Now, if the problem described above is unfamiliar to you, then read no further. The rest of this article is a brief survey of products you may wish to know about if the problem is one you would like to solve.

After the meeting, I took a look on the Web at mouse and trackball products including such a wheel. They are not very expensive.

This is not a recommendation or a review. I just want to show you the bottom of the price range and some options.

From here on I focus on products available from

Amazon because of the small commission paid to PATACS by Amazon when you use the link to Amazon appearing on the PATACS.org home page and you spend money on Amazon. The sum total of that income to PATACS from Amazon was a few hundred dollars in the last full fiscal year for the club. That is equivalent to 20+ additional dues-paying PATACS members, far more than I expected, and is why the club offers that opportunity.

I used this search on Amazon: *mouse with scroll wheel*. Then I sorted on low price to high price.

On Amazon, I found there are USB scroll wheel mice for less than \$10, and wireless and Bluetooth scroll wheel mice for less than \$20. All provide a wheel on the top of the mouse, equally accessible for right handed and left-handed use. You will see many such products, even in a

choice of colors.

I happen to use a USB trackball for my desktop computer at home, partly because the open space on my desk is often not sufficient for moving a mouse around. So I also looked at trackballs equipped with a scroll wheel.

I used this search on Amazon: *trackball with scroll wheel*. Then I sorted on low price to high price.

It happens that several

such trackballs exist. USB trackballs with scroll wheel start at less than \$25.

Logitech tends to put the scroll wheel on top and the ball on the side, which means it is difficult for lefties. Maybe they make left handed versions; I did not nose around enough to find out.

I found a very interesting innovation from Kensington, the trackball brand that I have been using. Their trackball

scroll wheel is in fact a ring around the centered trackball.

Incidentally, in that same set of Amazon search results, I also found keyboards with a trackball and scroll wheel built in. As you might guess, these are more expensive than standalone trackballs, but if your desktop real estate is extremely limited, the all in one keyboard may be of interest

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Kensington Wired Mouse



Logitech Wireless Mouse with scroll wheel



Kensington Trackball with scroll ring



Computer Flu Season on Windows

By Jim Cerny

Did you get your flu shot this year? It's always good to protect your health from those nasty germs and viruses – and the same is true with your Windows computer. In this short overview we will cover some essential basics of computer protection.

There are many FREE anti-virus protection programs (apps) out there, and almost all of them offer an “upgraded” version for a monthly or annual fee. I really have no experience with what the upgrades (\$) versions offer compared to their free version, but I have used the free Windows Defender for quite a few years now and so far, so good. Windows Defender comes with Windows and it may already be active on your computer. Just left-click on the little Windows icon in the lower left corner of your screen and you will see an alphabetical list of all your apps. Left-click on “Windows Defender Security Center” and you will see if this program is running on your computer.

You do need an active “running all the time” virus protection program on your Windows computer to protect you from the nasties. If you use another virus protection app, remember that only ONE virus protection program should be active or running, do NOT try to run two at the same time – they will interfere with each other and bring your system back to the stone age of slowness. I think it

is wise to delete all other virus protection apps from your computer except the one you are actively using. On my computer, if I delete an active virus protection program, Windows Defender steps right in to protect me right away. That's very nice of them. Whatever virus protection app you are running, check the options for “automatic updates” and turn that “on”. That way it will update itself without you having to do anything.

Like they say on TV – “But wait, there's more..” and there is. Besides active virus protection, you also should use some free software that will SCAN your system for problems. In my case, I use “CCleaner” (note the two-letter C's) and “Glary Utilities.” There are probably a least a dozen more you can pick from. These apps are not “always active” type of virus protection – you have to run them. I usually run both of them every day, it only takes a minute.

Of course ALL of these apps have multiple options, tools, and things you can do with them. For example, Windows Defender has an option to scan your computer for problems too – a “quick,” “full,” or “custom” scan. Whatever app you choose, please take some time to learn about it by searching YouTube – “How to use Windows Defender” for example. You do not have to

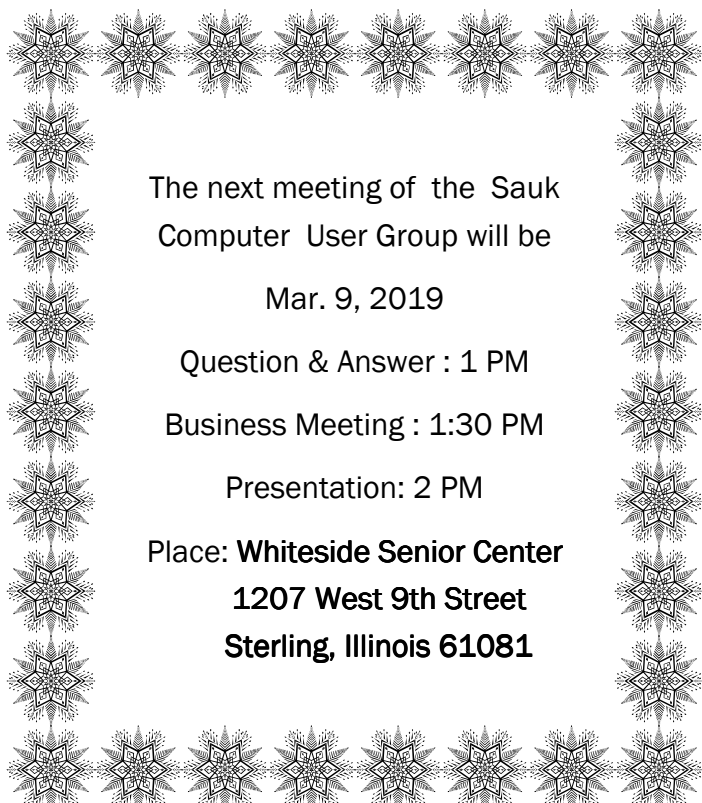
learn all the options – there are way too many anyway – but only the basics.

As another example, Glary Utilities can also tell you what software upgrades you need and install them for you – a very nice option. Please ask your friends and relatives – “What do you use to protect your computer?” And searching the internet for the “most popular” apps is always a good idea too. I am sure you are aware of how great it is to use Google or YouTube to find very helpful videos on how to use whatever apps you pick. If you run ANY app, it is always a good idea to watch a ten-minute video about it. You will learn not only how to use it for the “basics,” but also will learn some of the popular options that may also be helpful to you. Most of the options or choices offered are way over my head so I just stick with the basics.

Unfortunately nothing is guaranteed. You could pay good money for protection and still get a virus. But it is always to have something than nothing. And if that something costs nothing, well, that's not a bad deal.

By Jim Cerny, Forum Leader,
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There will be a half hour Question & Answer session starting at 1 PM. Bring any questions you have about your computer or problems you may be having. It will be conducted by:
Art Bendick & Neal Shipley



The next meeting of the Sauk
Computer User Group will be

Mar. 9, 2019

Question & Answer : 1 PM

Business Meeting : 1:30 PM

Presentation: 2 PM

Place: **Whiteside Senior Center**
1207 West 9th Street
Sterling, Illinois 61081

MARCH PRESENTATION WILL BE A PRESENTATION BY JOHN MILLER: 40 TECH TIPS IN 45 MINUTES