Member of apcug An International Association of Technology & Computer User Groups

PATACS Posts

Newsletter of the Potomac Area Technology and Computer Society

Member of apcug An International Association of Technology & Computer User Groups

JUNE 2019 www.patacs.org Page 1

Give a Talk, Eat a Meal

Gabe Goldberg, PATACS Member

Two of PATACS' three monthly meetings are held at Carlin Hall in Arlington. The monthly 7 pm first Wednesday gathering features a Q&A session, followed by a relatively informal presentation/demo/discussion, followed by heading to nearby Mom's Pizzeria for the "Pizza SIG". To encourage and reward speakers at these meetings, PATACS buys presenters dinner at Mom's. The menu includes many food groups so there's something for everyone's tastes: pizza, subs, salads, etc.

Presentation/demo/discussion offerings can be VERY informal. People have demonstrated favorite phone/tablet applications, interesting websites, hardware gadgets, interesting gifts received, anything technology/computer related. Everyone has a bit of technology that's important to them -- and if it's shared, it might just be the thing to become someone ELSE's important technology favorite. So think about what you'd like to share with fellow PATACS members and contact PATACS president Paul Howard <plhoward@verizon.net> to schedule sharing.

Meeting Information: Page 2

Google MUCH More Than Search
INTERACTIVE, INFORMATIVE AND EXCITING!
3rd Saturday, June15 1:20 PM

Better Way to Request Help

Asking for help is often fraught with ambiguities. Here is one way to be specific, and accelerate answers.
By John Krout, PATACS member

Every time I write an article or deliver an educational presentation, I start by establishing its relevance. I try to answer the implied question: what about the subject might be useful to you?

In all the years I have been delivering such tech info, including about a decade for the Washington Area Computer User Group (WAC), a couple of years for PATACS, and about 3 years of professional experience while I was finishing my MS in computer science, the one thing I learned consistently from those experiences is that audiences learn far more rapidly when *relevance* of the subject matter is established up front.In 2018 and early 2019, I contributed a series of articles about screen capture techniques to the PATACS Posts newsletter. In the first of those articles, I wrote a long series of relevance suggestions. Mostly the reasons were related to effective meeting presentations; I was encouraging readers to become presenters at club meetings. A few months later, it occurred to me that ***screen captures can be very useful for every one of us (not just presenters)*:** we can

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capture screenimages to document the *precise* error messages shown to us by a computer or phone or tablet, and document what we did to make the error appear. I did not think of that use when writing the screen capture article series. Nonetheless, it works and we can all take advantage of it. How many times have you asked for help on some particular error message or puzzling software behavior, only to find out that the helper needs more info than you are able to recall? You may have not remembered or retained the exact error message, or the precise way you caused it to appear.

It is a very common, even widespread experience. It has happened to me quite often with web pages. Sometimes the web servers suffer some sort of temporary insanity, and fail to respond when I click on a link. Usually the solution is to wait it out. The web servers usually recover within ten to thirty minutes.

web servers usually recover within ten to thirty minutes.

HOW TO CAPTURE DETAILS OF THE ERROR The first time you see a puzzling error message or any puzzling behavior on your computer or smart phone or tablet, *capture* that screen image, and *paste* the image into a word processing doc or a presentation slide. presentation slide. The techniques for capturing and pasting were described in my article series about screen capture techniques published in the PATACS Posts newsletter in 2018 and 2019. Included were capture techniques for Windows computers, Android smart phones and tablets, and iPhones and iPads. See the addendum below for PATACS Posts publication dates, and the web pages where you can find the newsletter issues, so you can retrieve the newsletter issues online and read those articles. Continued Page 3

June 15th - PC Clinic / in the Annex - Computer Got the Blues?

Read the revised PC Clinic guidelines at
https://www.patacs.org/clinicpat.html

to schedule help for your computer.

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JUNE MEETING: Google MUCH More Than Search

In this **highly interactive** session, Andy Livingston guides us to learn and do better all things that are Google such as Gmail, search tips, organize photos w/ Google photos, creating google docs, creating a personalized/shared calendar, make free phone calls w/ Google voice, learn about Google docs, download books, apps, music & more from the Google play store, utilize google keep to take notes, google translate to over 50 languages and much more.

ADDENDUM: With over 25 years of sales, business development, marketing and technical experience in the commercial, government and a variety of vertical markets, commercial, government and a variety of vertical markets, LAD Communications & Technology was started with the spirit of melding electronic marketing with the latest in technolgy support, training and curriculum development.

Certifications:

- DCJS Certified (Department of Justice - electronic security)
- Dept. of Defense Secret Clearance
- Hewlett Packard University certified & trained (desktop/network)
- Sonitrol Security University trained & certified (security system design)
- AT&T Wireless Management Training Program
- CompTIA A+ certification through FCPS ELearnIT program

Ideally, when you do encounter an error, try to make that same error or puzzling behavior happen *again*, make a screen capture of each step of the process leading up to the error, and paste all of those screen captures into the same word processing doc or presentation slide deck.

For screen captures on phones and tablets, the screen images are automatically saved as photo files on the device. You can transfer the photo files to a computer, and then paste them all into a slide deck or word processing document for printing. Finally, save that slide deck or document.

HOW TO EXPLAIN THE ERROR IN DETAIL

When you ask for help, either by email or over the phone or at a PATACS meeting the phone, or have the photos handy so you can easily explain both the precise error message and the process which led to that error message. At PATACS meetings, the best prep is to print the slide deck or document and bring the printed info with you. In email, you can attach the slide deck or document. If you are participating remotely via Zoom, you can use Zoom to show the document to the meeting participants.

SPEEDING UP THE ANSWER PROCESS

You may find that the helpers, after seeing those screen captures, can understand the problem completely and provide solutions immediately.

At the very least, showing the exact error message will enable the helpers to ask you some specific questions. That too means the total time until you get a useful answer may be reduced quite a bit.

In this day and age, help desks for publishers of commercial operating systems and software are seldom considered a profit center, so the human resources are often stretched thin. Your request for help may go into a queue of requests for help, or you may call at a time when nobody is available due to lack of 24/7 coverage. This screen capture approach definitely cannot overcome such structural compromises.

However, when your own problem reaches the front of the queue, and you are contacted by the help desk staff, then you can provide those screen captures. Not only will your own recollection of the problem details be refreshed, but you will still be at least a few steps ahead of the average help-seeker when it comes to getting answers.

SOME QUESTIONS DEFY EASY ANSWERS-

Starting in the mid-1980s at meetings of the Washington Area Computer User Group (WAC), we had an initial general meeting and then used separate classrooms for Special Interest Group (SIG) meetings. We had separate SIGs for Commodore Amiga, Commodore 64/128, and MS-DOS, as I recall. At one point during the Amiga computer era, one person asked the following question at a WAC Amiga SIG meeting:

How do you turn it off?

Initially, I misunderstood the help-seeker's meaning. I thought he wanted to know how to tell the computer to shut down. After a bit of conversation with him, I figured out that the shutdown method was *not* what he wanted. What he really meant was this: *the computer is fascinating. How do I tear myself away*? What he really meant was this: *the computer is fascinating. How do I tear myself away*? This happened log before the Web was invented and so many people became addicted it. No surprise to me though. I have felt the same way ever since I learned to write computer programs in high school in 1968, using a teletype printer terminal with paper punch tape for software storage. The computer was a mainframe, miles away and unseen.

I will mention that Amiga provided a full color display (4,096 colors!) and multitasking, all of which made Amiga games, music composition software, and especially ray-tracing animation software extremely addictive. That was in an era when the first generation Mac was monochrome and task switching, and Windows was task-switching and mostly provided no more than 256 colors, and the first generation of dial-up computer

networks were less than a decade old. Ancient history, but an instructive experience. Some questions defy easy answers.

ADDENDUM: PATACS Posts published the screen capture article series:
•Windows: October 2018 and November 22018 •www.patacs.org/nlposts/1710posts.pdf and www.patacs.orgnlposts/1711posts.pdf •Android phones and tablets: •www.patacs.orgnlposts/1712posts.pdfiPhones and iPads: January 2019www.patacs.org/nlposts/1801posts.pdf **About the author:** John Krout is a past president of the Washington Area Computer User Group (WAC, a predecessor of PATACS, and the founder of WAC Amiga SIG., is a frequent contributor to PATACS Posts and occasionally provides demos and educational presentations at PATACS / OLLI OPCUG joint meetings in Fairfax City VA.

Stellarium – A Home Planetarium

By Dick Maybach, Member, Brookdale Computer User Group, NJ
www.bcug.com

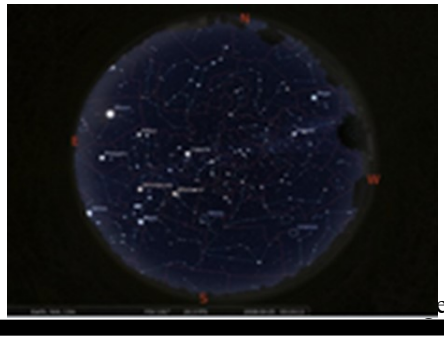
This free software for Windows, Linux, and OS X (http://stellarium.org/) turns your PC or Raspberry Pi into a planetarium to display the stars in the sky, the constellations, and individual and groups of stellar objects. There is a Web-based version you can access with a browser (at http://stellarium-web.org/), and variants are available for cell phones (usually for a small cost). Available on the

- Over 600,**000 stars from the Hipparcos Catalogue and the Tycho-2 Catalogue, with extra catalogues available co**ntaining more than 210 million stars
- Illustrations of the constellations, from the Western and other cultures
- Images of nebulae (full Messier catalog)
- Realistic Milky Way
- Realistic atmosphere, sunrise and sunset
- Planets of the solar system and their major moons
- Ability to display stars and other celestial objects as seen from reference points other than the Earth

Figure 1. Stellarium Day View

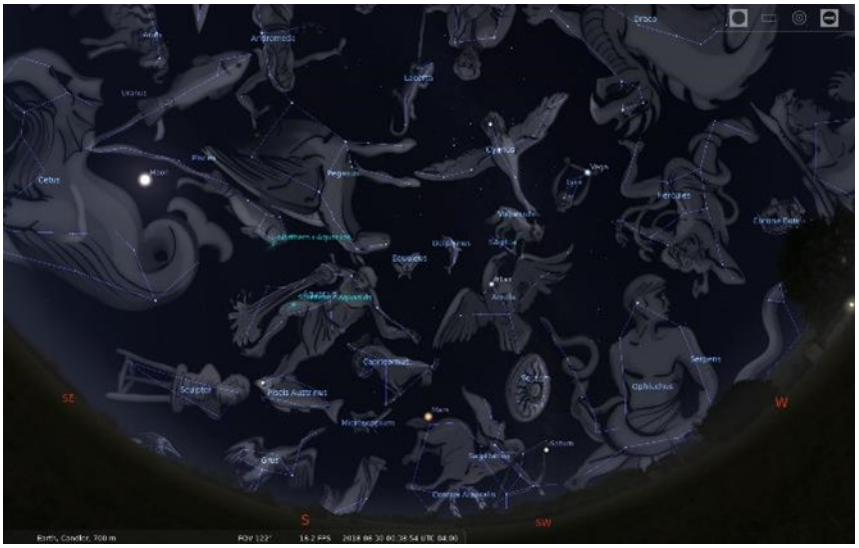
Advancing the time past sunset, results in the more satisfactory view of Figure 2, where the field of view has also been increased to show more of the sky. By default, only the major objects are labeled. (The two objects labeled "Aquariids" are meteor showers.) (See at left.)

Figure 2. Full Sky View.



You move around the sky with the mouse and zoom with the mouse wheel (or the Page-up and Page-down keys). Because your PC screen is flat and relatively small, you will probably display only a portion of the sky. (Stellarium's default is to show approximately what appears in your normal field of view.) However, you can zoom back to see everything above the horizon, as shown in Figure 2.

Figure 3. . Constellation Art (Western Traditional).

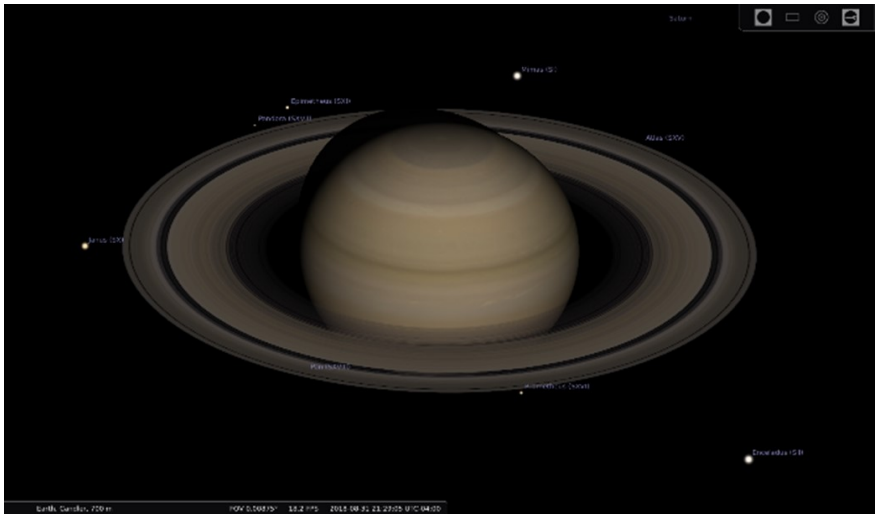


You can add the constellations as lines connecting their starts as shown in Figure 4, and you can also see their artwork as in Figure 5. The constellations and artwork shown are those used in the western world, which are the defaults. The program can instead display the constellations of many other cultures.

Figure 4. Information Displayed About Polaris.

Selecting an object displays information about it; Figure 4 shown this for Polaris. Most users will configure the program to show fewer data, as much of what is shown here will interest only astronomy enthusiasts.

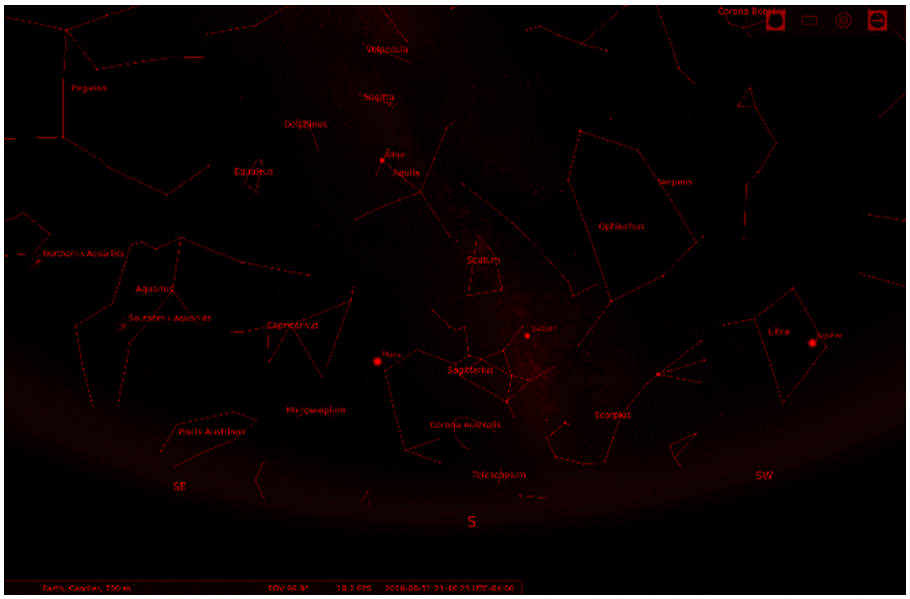
Figure 5. Saturn



You can zoom in to view individual objects, such a Saturn in Figure 5. By default, Stellarium shows the sky in real time, and at high magnifications individual objects will rapidly move off the screen, but you can correct this by stopping its clock.

Continued Page 6

Figure 6. Night Mode.



If you have Stellarium on a laptop or other mobile device, you can use it outside to help you identify features in the actual sky. In this case, you'll want to use Night Mode, which displays everything in red to preserve your night vision; see Figure 6.

In addition to the visible stars and planets, Stellarium can also show artificial satellites and deep sky objects (DSOs). The term is used for the most part by amateur astronomers to denote faint objects such as star clusters, nebulae, and galaxies. It can also show exoplanets (planets that orbit other stars than our sun). As Figure 9 shows, if you display both satellites and deep sky objects, the screen becomes quite cluttered. Especially, since the satellites except those in synchronous orbits are in rapid motion. (In the figure, the synchronous satellites appear in an arc about one-third down from the top.)

Figure 7. Satellites and Deep Sky Objects.

Folks now know far less about our night sky than in the past, when nights were darker and the stars more visible, and we also tend to spend our nights indoors. Most of us can identify only the big and little dipper constellations. Stellarium offers you a way to expand your knowledge without even leaving your chair, although stepping outside on a clear night to look at the actual sky is always rewarding.

Six Little Word Problems and their Solutions

By Nancy DeMarte, 1st Vice President, Sarasota Technology User Group, FL
STUG Monitor www.thestug.org / ndemarte (at) verizon.net

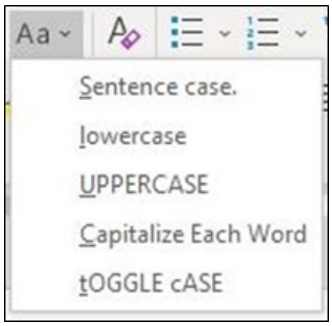
1. You print a multi-page Word document and get an unexpected blank page at the end of the document. Because it has a footer, you won't be able to use that sheet for anything except scrap paper.

Solution: Before you click Print, press the Show/Hide key on the Home tab > Paragraph group and scroll or press the Ctrl+End keys to get to the end of the document. You will see one or more paragraph icons on the last blank page. Select them and press Delete. Then save the document to avoid the blank page in future printings.1.

2. You open a document and find you have to squint to see the small type.

Solution: Go to the Zoom slider at the bottom right of the screen and click the + sign a few times until the document text is large enough to be comfortable for your eyes. This will not affect the text size when printed.

3. You are just about done typing a Word document and notice that all the text in the last couple of sentences is in upper case. You had pressed the Caps Lock key on the keyboard accidentally.



Solution: First select the text you want to reformat. Then click the Change Case tool (Aa) on the Home tab > Font group. Click the case pattern you want from the list, which in this situation is probably "Sentence case."

Sometimes you forget what version of Windows you have on your computer. "Version" includes the operating system (Windows 7, 8.1, or 10) and the Windows update version number, such as the recent update, 1803. But you're not sure how to find the answer.

Solution: To find the version of your Windows operating system, type in the Search box at the bottom left of the taskbar the word **winver**. Then click the winver run command to see your computer's details.

4. Sometimes you forget what version of Windows you have on your computer. "Version" includes the operating system (Windows 7, 8.1, or 10) and the Windows update version number, such as the recent update, 1803. But you're not sure how to find the answer.

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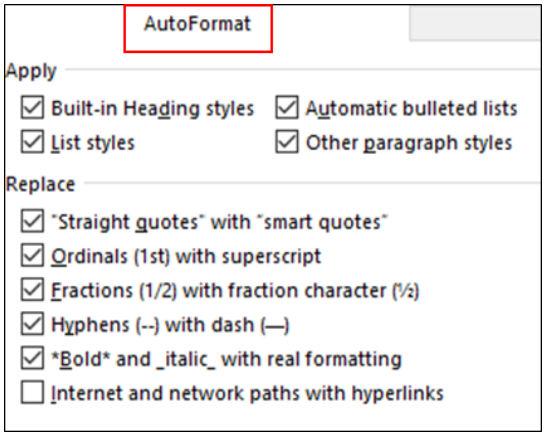

5 . When you enter an email or web address in a document, by default Word automatically adds a hyperlink to the address. You can identify a hyperlink by its blue text and underline. Many times, you don't want the hyperlink included.

Solution: There is a way to change the setting to stop the automatic hyperlink from being added. Click the File tab (top left of the ribbon), then click Options (last item on the menu). Click Proofing > AutoCorrect options > Autoformat and uncheck the last item on the Replace list, "Internet and network paths with hyperlinks," then click OK.

Continued Page 8

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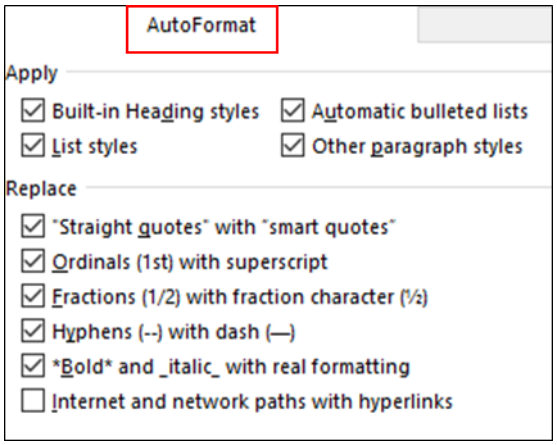
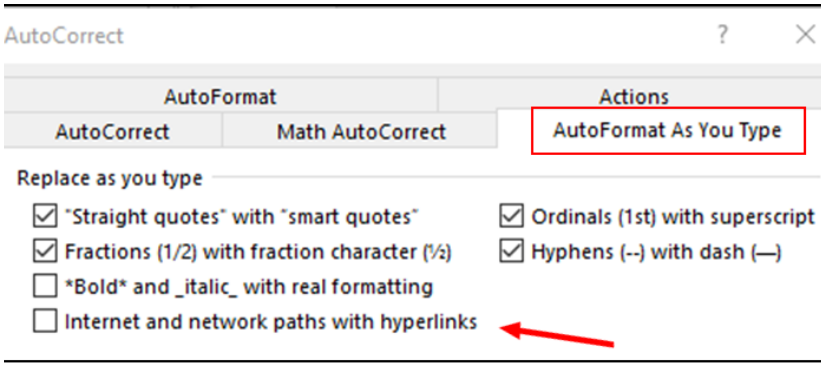


5. When you enter an email or web address in a document, by default Word automatically adds a hyperlink to the address. You can identify a hyperlink by its blue text and underline. Many times, you don't want the hyperlink included.

Solution: There is a way to change the setting to stop the automatic hyperlink from being added. Click the File tab (top left of the ribbon), then click Options (last item on the menu). Click Proofing > AutoCorrect options > Autoformat and uncheck the last item on the Replace list, "Internet and network paths with hyperlinks," then click OK.

Just to be safe, also click "Auto Format As You Type" and uncheck the same box there, followed by OK. While you are in the Word AutoCorrect area, check to see if you are being bothered by any other automatic action. If so, uncheck it and click OK. While you are in the Word AutoCorrect area, check to see if you are being bothered by any other automatic action. If so, uncheck it and click OK. If you change your mind, return to this screen and re-check the boxes.



6. You have typed a long list of items, such as book titles, taking up several pages of a Word document. Each title is on a separate line. You would like to find out how many items there are in the list, but counting them would be tedious.

Solution: Select the entire list using Ctrl+A. Then on the Home tab - Paragraph group, click the numbering tool (top row, second from left) to place a number in front of each item. Then press Ctrl+End to jump to the end of the list, where you can view the last number. If you wish, then press Ctrl+Z or Undo to remove the numbering.

Association of Personal Computer User Groups

SD Card Readers

Review of presentation by Susan Malloy, Secretary,
Northern Neck Computer User Group, NY
Review by George Cadmus The Computer Link
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At a recent NNCUG meeting, Susan showed and explained an SD card reader that she uses.

A memory card reader is a device that can read flash memory cards and transfer their contents to a computer. Flash memory cards come in various types and formats, providing removable storage for digital equipment like camcorders, cameras, MP3 players and cell phones. There are single and multiple card readers, and while the former can only read a single memory card type, the latter can read a variety of formats.

Without a memory card reader, a person has to directly connect the physical device that uses memory cards to the computer. This is usually done with a Universal Serial Bus (USB) or Firewire cable. The advantage of a reader is that memory cards can be read directly on the computer without attaching the device. This greatly simplifies using, storing and organizing the cards. It also saves batteries and wear and tear on the camcorder or other digital device.

It is common for people to own more than one device that uses flash memory cards, with each device using a different type of card. A multiple card reader will accept a variety of formats, making it useful for all of your memory card needs. These readers commonly feature two or more slots to accept different sized cards. Some memory card readers are extremely compact, barely larger than the cards they read. These plug directly into the USB port and are about the size of a memory stick. Others are designed to be internally installed into a free bay on desktop computers, with an array of choices between these two models. One advantage of the external model is that it is portable, able to be used with multiple computers and/or laptops in the household.

Many newer computers, including many laptops and notebooks, have a card reader built-in by default. Printers and even some monitors may have them as well, so that the information on the cards can easily be printed or displayed. Anyone who has been thinking about replacing an aging desktop, laptop, printer or monitor, might look into these options first.

When buying a reader, consumers should be sure it supports the type of card(s) required. This includes the card's capacity in addition to the format. Some models might not read flash memory cards larger than 1 GB, for example. Shoppers should also bear in mind too that a more flexible card reader that supports additional formats might make the device a little more future proof in the event that hey acquire more digital devices later or replace the ones they already own.

Memory card readers are typically extremely affordable, and they can be found at many online retailers and local suppliers of computers and digital equipment.

To see a video on SD card readers, click on the link. https://binged.it/2C6fUDg

Kretchmar's Korner

How to Connect a Laptop PC or a Tablet to an iPhone Personal Hotspot

By David Kretchmar,
Computer Hardware Technician,
Sun City Summerlin Computer Club, NV
The Gigabyte Gazette
www.scscc.club tomburt89134 (at) cox.net

Most smart cellphones can connect to the Internet whereever they can find a 3G or 4G signal, but most PCs and tablets need a Wi-Fi connection to get online. Some tablets do have 3G and 4G connectivity, but those cost extra and aren't that common.

As a result, users with smartphones can usually get online in places other device users are stuck offline.

This article discusses a technique for using your iPhone as a personal hotspot, allowing your PC to connect to the Internet. My personal experience relates specifically to the iPhone, but similar techniques are applicable to most other 3G or 4G Android cell phones.

I only have an iPhone to play with, and a Windows 10 laptop PC to connect, so my experimentation was limited to these devices.

On the iPhone

You need to set a Wi-Fi password in order to set up a Personal Hotspot. **on your iPhone, if it's not on already.** You can do this through Control Center or the Settings app.

Choose a Wi-Fi password that's at least eight characters long and use ASCII characters. ASCII lowercase and uppercase and the digits 0 through 9. Many punctuation marks are ASCII, but most people avoid them in passwords.

Turn on Wi-Fi and Personal Hotspot on your iPhone, if it's not on already.

You can do this through Control Center or the Settings app.

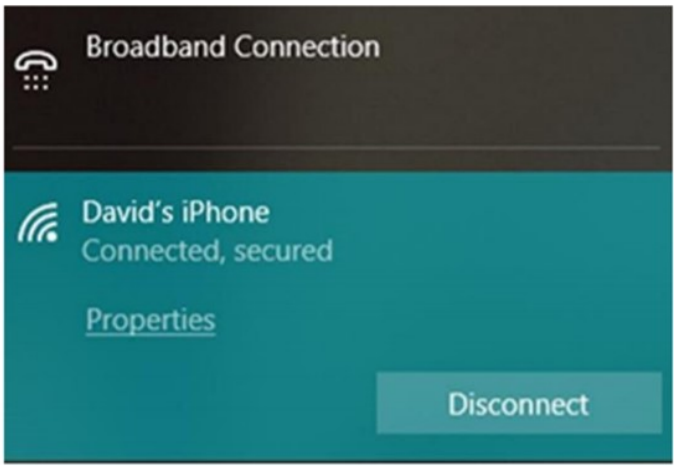
Tap Settings

Tap Wi-Fi

Tap Personal Hotspot, and then tap the slide button to turn it on. Note that the password you established now shows.

If you don't see the option for Personal Hotspot, contact your carrier to make sure you can use Personal Hotspot with your plan.

On the PC or other device you want to get online



Click on the wireless icon; on a Windows 10 PC this will appear near the right side of the Taskbar. This will reveal the wireless networks available.

In this example I saw the name I assigned to my iPhone, "David's iPhone." Click on your network and enter the network password. It's that easy!

When you connect a device to your iPhone Personal Hotspot, the status bar turns blue and shows how many devices have joined.

The number of devices that can join your Personal Hotspot at one time depends on your carrier and iPhone model.

If other devices have joined your Personal Hotspot using Wi-Fi, you can use only cellular data to connect to the Internet from the iPhone host.

Naturally, cellular data usage and possible charges (if you exceed your plan limit) will apply when you use your iPhone to connect any device to the Internet.

Kretchmar's Korner

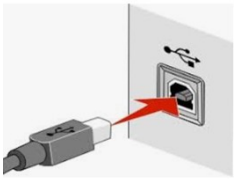
Printer Problems

By David Kretchmar,
Computer Hardware Technician,
Sun City Summerlin Computer Club, NV
The Gigabyte Gazette
www.scscc.club tomburt89134 (at) cox.net

Printers are the most problematic piece of computer equipment, next to the computers themselves. Just like computers, you can't live with them and you can't live without them. Even if you've decided you can live without a full computer and have moved to a tablet or maybe just your smartphone, there are still going to be occasions when you want to have a "hard copy" (printed copy) of a document. Also, with the multi-functionality of most printers today, most of us have gotten used to the convenience of having a photocopier, scanner, and maybe even a FAX machine in our homes.

It's easy to understand why printers are such a pain; there are so many moving parts and opportunities for something to go wrong. Fortunately, you can address many printer problems using the techniques I'm going to describe. If none of the following work, it is probably time to bite the bullet and invest in a new printer. If something mechanical is shot in a printer, the fix is often prohibitively expensive (just buying some new printer heads can cost over $100).

The USB connection



Unless you're using a printer wirelessly, you need a working USB connection between your computer and your printer. Sometimes a wireless connection is necessary, such as when printing from a cell phone, tablet, or from a computer not proximate to the printer. But if you are printing from a computer adjacent to the printer, a wired USB connection is always more reliable and highly recommended. Most of us know how to connect the standard USB male connector to our computer, but there is more confusion with the other end of that USB cable that attaches into (usually) the back of the printer (see the picture above).

Unfortunately, the printer end of the USB cable also fits into the similar looking telephone line connection on the printer. Usually there is a pair of these female telephone line connectors on printers that include FAX capability; at least one will often be covered with a plastic cap.

One way to tell if you are using the USB connection on the printer is to listen for the USB "handshake" tone from the computer. If both your printer and computer are on, you should hear a couple of notes then you plug in or remove a USB device. If not, most likely you have missed that USB connection on the printer. Be especially aware of this possibility if you are setting up a printer new to your system, or if for some reason the cable has become disconnected from your printer. It is rare for the USB cable to go bad, but I have seen this on occasion.

Drivers can drive you crazy

The printer and the computer must be able to communicate with each other, and this is accomplished with specialized software known as drivers. Windows 10 has printing drivers for most of the newer printers available today, but I strongly suggest installing the drivers furnished by the computer's manufacturer.

This is especially true if you want to do more than print, i.e. if you want to scan a document into a file. A new printer will usually come with a CD that can be used to load the drivers appropriate for your operating system.

If you have a tablet or other device that does not include an optical drive you can go the printer manufacturer's website, i.e. hp.com/support, and download and install the appropriate drivers. If you have a choice between downloading the basic or full featured software package,

I suggest downloading the full featured package then doing a custom install, installing only the software you will be using. For whatever reason the full featured software package sometimes works when the basic package does not. Manufacturers will often keep their website drivers more up to date, fixing bugs that have appeared after the printer has been on the market for a while. So, if you are having issues with your printer it's a good idea to download drivers from their website.

Continued Page 12

When you do the custom install of your printer software, I suggest you deselect features such as the customer participation programs and supply ordering programs. I would also pass on the free optical character recognition (OCR) program, unless this is something you will use. OCR programs can be a real resource hog.

After the driver installation and a reboot see if any new programs are loading automatically by seeing if there are any new icons appearing on the right side of your taskbar. If so, you might want to open MSCONFIG and stop these programs from loading on startup. If you get a popup asking if you want low ink notifications immediately or "only when printing", select "only when printing", so this program will not be running constantly.If you are buying a printer to use with a wireless device such as a Kindle Fire, Smartphone or iPad, do some research and make sure you are getting a printer that is supported by your device.

As you might expect with the popularity of the iPad, many printers will support the iPad with a free download from Apple. I've noticed that especially newer Hewlett Packard wireless printers are made to be compatible with the iPad .

Lastly, Microsoft has suspended the rollout of the October update due to the disappearance of files, contact lists, and photos after the install. See https://support.microsoft.com/enus/help/4464619/windows-10-update-history So remember, ALWAYS do a complete backup of your system before doing these updates. GOES FOR MACS AS WELL!!

Are the headlines, describing one security breach on another, causing you to pay attention? As a result, this column has been added to the newsletter. Have you found a security-related link? Please send it to wpcug.d_shulman@yahoo.com for inclusion.

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

By Phil Sorrentino, Contributing Writer, The Computer Club, FL
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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 then 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 xprocessor. 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 lspace, 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 h**ardwa**re 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	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

Thoughts From a Clicker
FileMenu Review

By Tiny Ruisch, Member, Cajun Clickers Computer Club, LA
CCCC Computer News www.clickers.org tsa70785 (at) gmail.com

Computers make excellent and efficient servants, but I have no wish to serve under them. -----

Mr. Spock in the "Ultimate Computer" Mr. Spock was right. Computers can be really efficient if you have the proper programs to do the job.

I'd like to tell you about a really efficient utility program that I've been using for more than ten years.

FileMenu Tools lets you customize the right click menu of Windows Explorer. The program adds utilities to perform on files and folders and adds customized commands that let you run external applications, copy or move to a specific folder or delete specific file types.

With the built-in commands you can:
• Run With Parameters - Runs a program with parameters you input in a dialog box.
• Command Line From Here - Opens a command line window.
• Copy/Move - No need to cut and paste. You can also use filters in file selection.
• Duplicate Files-Make a copy in the same folder.
• Pack to Folder - Moves all the selected elements to new subfolder in the current folder.
• Copy Path/Name/Content - Copies the selected item(s) to the clipboard.
• Attributes - You can view and change them without opening a properties dialog box.
• Find and Replace - Lets you find or replace a text for all the files in a selected folder.
• Advanced Rename - With lots of options.
• Change Icon - Quickly and easily change folder options.
• Advanced Delete - lets you delete specific file types in a folder.
• Synchronize Two Folders - Lets you synchronize two folders quickly and easily.
• Shred Files - Overwrites several times so it is impossible to recover the file in the future.
• Send to Mail Recipient - Lets you send an e-mail with selected elements as attachments.

These are about half of the FileMenu commands you can select from. In the configuration menu, a simple check mark will turn off the commands you don't want to use.

If you can't find the FileMenu function you need, then just add a customized command to run external applications, copy/move to a specific folder or delete specific file types.

FileMenu Tools lets you configure the "Send to" submenu. You can add new items, change the properties of the existing items or delete them. You also can disable existing "Send to" items in order to hide them from the menu.

FileMenu Tools will also let you enable/disable the commands which are added to the context menu of the Windows Explorer by other programs.

This is the only function that is not one hundred percent reliable. When it works, it works well, but it doesn't catch all of the programs that add to your right click.

FileMenu Tools is a 7.3MB download and runs on all Windows platforms. Did I mention the price? This program is freeware and costs nothing.

I'm pretty sure that Mr. Spock would say, "Fascinating is a word I use for the unexpected. In this case, I should think 'interesting' would suffice."

Download FileMenu and give it a test. I'm pretty sure that you'll like it. Keep on clicking and thanks for reading.

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Posts is an official publication of the Potomac Area Technology and Computer Society (PATACS), a Virginia membership corporation, a tax exempt organization under section 501(c)(3) of the Internal Revenue Code. Contributions are gratefully received and tax deductible. We encourage our members to organize small topic-specific meetings at your choice of time/place. For further information or suggestions chat with any officer or director. Tech clubs often have Special Interest Groups (SIGs) on topics such as photography,Windows, Apple products/services, genealogy, financial applications, and much more. SIGs offer members the opportunity to find others with similar interests and increase knowledge in specific areas. We are very fortunate to have members with many skills they generously share.

OPCUG / PATACS Saturday Meetings

12:30 – Social time in Coffee Room and Annex

1:00 – 1:05: TA-1: Meeting Start – Introductions, Announcements

Please silence phones.

1:05 – 1:19: Q&A – detailed responses may be deferred to post-meeting communication.

1:20 – 1:50: 'Learn in 30' Presentation

1:50 – 2:00: Break in Coffee Room / Annex

2:00 – 3:20: Featured Presentation

3:20 – Door Prize Drawings (usually 3) for each group. Eligibility - group members only.

3:30 – Adjourn (Expect some flexibility in scheduled times. Order may be varied to accommodate scheduling needs of our valued presenters.)

Meeting Information and Agenda

In June and December, a PC Clinic / Tech Help session is run concurrently with the meeting from 1 PM in the Annex.

See: https://www.patacs.org/clinicpat.html

With the concurrence of presenters, meeting sessions are webcast using the Zoom.us cloud meeting service.

Dues-paid members may 'attend' from remote locations, using the meeting number information provided on the PATACS website.

Please see:
https://www.patacs.org/mtgdetpat.html#3rdsat

Need more information about Zoom?
Contact: webinarhosts@patacs.org

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JUNE 2019 PATACS Event Calendar
Call (703) 370-7649 for Meeting Announcements
Visit Our Web Site: http://www.patacs.org Free Admission Bring a Friend!

Arlington: Carlin Hall Community Center
5711 4th Street South
Arlington, Virginia 22204

Fairfax: Osher Lifelong Learning Institute
4210 Roberts Road
Fairfax. Virginia 22032 +++

SUN	MON	TUE	WED	THUR	FRI	SAT
						1
2	3	4	5 **7 - 9 pm Arlington Program**	6	7	8
9	10	11	**12 7 - 9 pm Online Zoom Meeting**	13	14	15 **12:30-3:30 Fairfax General Meeting**
16	17 **7-9 pm Board Meeting Arlington**	18	19	20	21	22 **August Newsletter Articles Due**
23/30	24/31	25	26 **7-9 pm Arlington Tech &PC Help Desk**	27	28	29