PATACS Posts

Newsletter of the Potomac Area Technology and Computer Society

My turn......

Remind me when Thanksgiving was and what we did? Oh yeah. Just about four weeks ago. My wife and I flew to the Detroit Airport (DTW), rented a car, and drove to Ann Arbor, MI. It's only a 20-minute drive. For reasons I can't explain, I thought it was 45 minutes *one way*. My son Joe and his family are living there temporarily. Normally they live in Brooklyn. This year they are in Ann Arbor—a *small* college town—because Joe's wife has a fellowship at the University of Michigan. We spent 8 days there and had quite a nice time.

I'm ashamed to admit that I haven't used my camera much since we came home. I haven't even been out taking photos. My camera has an external GPS that mounts on the flash shoe. It's supposed to geotag every image and usually, it works great. I am able to ID my images by location. I've had a bit of trouble with it twice this year—about six months apart—in both instances, it utterly failed to sync, even though it had a full view of almost the entire sky. To me that's unacceptable, so I sent it in for repair. The repair depot ordered a replacement unit—but like so many things these days, they don't repair them, they just order a new one. They couldn't tell me when it would be in, and six weeks later it still hadn't arrived. After three tries, I was finally able to get them to send the old unit back so I could use it until the new one arrives. As I said, it works most of the time. I'd rather have a flaky unit that works most of the time, than nothing.

But I have been *printing*. I am a big believer that photographs are to be printed, and the bigger the better. My printer is an Epson P5000 inkjet. It is specifically designed to print photos. It can take sheets or rolls up to 17" across. It sits on its dolly in its own purpose-built space in my office. It's big: 13" tall, 30" deep, and nearly 36" wide. It weighs about 110 lbs. (You're probably saying "*a printer*???" 😊) Mostly the paper I use are rolls that are 17" by 100 feet long. My nominal print size is 12" x 17". It sounds expensive but in the long run, buying rolls is much more economical than sheets. It can also use sheets, which I keep loaded in the paper tray. I buy my sheet paper at Costco when it's available—but I don't use it much these days—because well, it's too small. But make no mistake, the Costco glossy paper is as good as Epson's glossy and much less expensive, to boot!

<u>NOTE:</u> January & February General MEETINGS (3rd Saturday) via ZOOM only!

I wish you a safe and happy holiday season.

Next printed issue: February 2023.

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Right-Click Your Mouse, Best Shortcut Ever!

By Jim Cerny, Forums Coordinator, and Class Instructor
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If you are not familiar with the power of RIGHT-clicking your mouse, you are in for a great Windows tip to help you in almost every place on your computer. First, of course, everyone should be familiar with LEFT-clicking the mouse to select things and options. Computer instructions say "click on" this or that, and it is understood that they mean LEFT click. But the RIGHT mouse button is a big help also, and instructions should always specify "RIGHT-click" when you are to use that button.

So, what does "right-clicking" your mouse do in Windows? Well—and this is the core of this article—**right-clicking your mouse on anything makes a menu of options appear for that item.** This works for almost anything you can see on your screen. So, let's look at a few examples for you to try to show you what a helpful shortcut this can be for you.

Place your mouse arrow (cursor) anywhere on your desktop screen (on an empty area, not an icon). Now right-click your mouse, and you will see a menu appear of choices or commands for what you can do with your desktop. For example, you will see choices such as "View," which allows you to change how you view your desktop. Or "Sort by," which gives you options for sorting what is on your desktop. If you don't know what a command or option does, ask your favorite search engine.

For another example, place your mouse arrow on a BLANK area on your Taskbar. Now right-click, and you will see options of what you can do with your Taskbar – such as locking or unlocking the Taskbar, arranging open windows on your screen, and more. You can even LEFT click on "Taskbar settings" to go directly to the Taskbar settings options. So have fun

and TRY something! (Remember always to use a LEFT mouse click to select a menu option).

For a third example, let's say you are editing text in a document. First, drag your mouse over some text to highlight it (this is "selecting" the text you want to work with). Now right-click on the highlighted text, and viola, you see options of what you can do with that text. You can select "cut," "copy," or "paste," for example, or change the font or make it a new paragraph.

If you have not realized the power of right-clicking your mouse, then you should be saying a big "WOW, this is so cool!" Now you can have some fun trying right-clicks anywhere and everywhere. Try right-clicking on an icon, a cell in a spreadsheet, a file or folder name in File Explorer, or a photo on the internet. You do not have to select an option on the menu that appears; left-click somewhere else (ED: or hit ESC), and the menu will disappear, and nothing will happen. So, you won't change a thing when you look and explore. Right-clicking is a great shortcut that will save you time searching for many options or choices. Most apps (applications, programs, etc.) will also provide right-click menus. So why not give it a try? You have nothing to lose but a click!

###

Using NAS Beyond Your LAN

By John Krout, Potomac Area Technology and Computer Society (www.patacs.org)

Your router may make your router-connected NAS available on the internet as well as inside your Local Area Network (LAN). That creates a private cloud storage capability, usable anywhere. Adding NAS security is important.

Introduction

This is an article about advanced network administration related to Network Attached Storage (NAS) devices connected to a home router. You will learn how to identify your router's internet IP address, how to test access to a router-connected NAS from the internet

by using that router's internet IP address, and how to put NAS username and password security on your NAS, so bad guys on the internet cannot access your NAS.

To secure your NAS you should do three things:

1. Find your router's internet IP address.

2. Using that address, test to see if your router does allow connection to your NAS.

3. If the router does permit the NAS to connect through the router's internet IP address, add NAS username and password security, using the router's administrative Web page.

When a NAS device is connected to the router, the router itself acts as a server, providing access to the NAS. Other devices connected to a Local Area Network (LAN) can make use of the NAS by sending a connection request. This is an example of the classic client/server paradigm. The client always initiates the two-way communication. The NAS client devices include any computing device connected to the router.

At the time I set up my NAS I thought that the router blocks any connection request arriving from **outside** my LAN, meaning through the internet to reach any application behaving as a server inside my LAN.

I began investigating ways to make that NAS attached to my router accessible via the Internet. There are good reasons to do that. Essentially I would create my own private cloud storage.

In the final months of 2022, I found that my assumption was incorrect. Rather than blocking connection requests from the internet, my router *enables* connection to my NAS via the internet, simply because I connected the NAS to the router. I use a Linksys MR8300 router. Without testing other makes and models, I cannot say for certain that this happens on all consumer routers, but it did happen on mine.

It is up to you to perform the same test for yourself.

A router has two IP addresses, one visible to the Internet, known as the **router internet IP address**, and another one visible to the LAN, which is known as the **router LAN IP address**. A synonym for **router internet IP address** is **router Wide Area Network (WAN) IP address**.

I knew that, within the boundary of my LAN, the router LAN IP address makes the router-attached NAS available on router port 445, a standard well-known port number for Server Message Block (SMB) communications used by the NAS.

Find your router's internet IP address

Establishing a NAS connection from a device on the LAN requires you to know the router's LAN IP address. For most home router brands, that LAN IP address is 192.168.1.1. Likewise, connection from a device on the internet requires you to know the router's internet IP address.

As it happens, when you use a computer or a portable device to access a Web page, email, or any other server-based service, your router attaches its internet IP address to the outbound request. That enables the server to send the response. Your router has the smarts to keep track of those requests and send the response back to your device.

Because of that universal router behavior, there are websites that echo your router's internet IP address to you. Call it an IP address echo service.

One website that provides an IP address echo service is:

https://www.whatismyip.com/

Test access router-attached NAS while outside the LAN

My router opens port 445 on its WAN IP address. Any attempt, by me or anyone else, to connect through port 445 on my router's external internet Protocol (IP) address will succeed. I had no idea! I found out by accident.

Although I want to access my NAS from outside my LAN, I am worried that using the standard port 445 for NAS access, especially without router-imposed NAS username and password security, invites attack and harmful mischief by unknown bad guys.

Some, like myself, might consider that well-known open port number to be a security issue. I want to prevent any bad apple from changing my files, posting a massive useless file, deleting my files, or demanding a ransom for a password to access files encrypted by the bad apple. Those are just the attack variations I imagined in the space of a few minutes. There could be other types of attacks too.

The Remedy: router-imposed NAS security

Set a username and password for access to the NAS. I found this was easily done through the router's administrative web page interface, in particular the portion devoted to attached storage devices.

On my routers for the past two decades, that administrative interface begins at a web page accessible through the router LAN IP address. Essentially, the router has a mini web server built in. For instance, if the router's LAN IP address is 192.168.1.1, then the web page URL is http://192.168.1.1.

After entering the router administrative password, which I hope you changed from whatever the default was, the primary user interface page appears, including a top-level menu.

The administrative web pages call a router-connected NAS **"External Storage"**.

In the top-level menu of the router administrative web page, I clicked **External Storage**. A dialog window appeared including the option to set a NAS username and password (the longer, the better).

After I used that web interface to apply a username and password for the router-attached NAS, I had to enter that username and password info in the NAS-connected application on each of the devices connected to my router.

Fortunately, all those apps can remember the NAS ID and password and use that info whenever I choose to access the router-attached NAS. So I do not have to provide that info more than once per app.

Bad guys on the outside who discover your router's internet IP address and that open port 445 will not know the username and password applied to the NAS, so their intended mischief is prevented.

Internet Address Leasing

The router's internet IP address is assigned to your router by your Internet Service Provider (ISP). The internet IP address has a limited life, typically 24 hours. That is called the IP address **lease term**. Renewal is automatic, but renewal does **not** guarantee that the same IP address will be assigned at every renewal time.

As it happens, my router internet IP address had not changed in more than two years. Then, in late November 2022 and again in early December, my ISP was down for a period of a few hours. When it came back up, my router internet IP was changed. Twice in two weeks!

A possible problem in the future

As a hypothetical, let's assume your ISP *does* change your router's internet IP address at some point after you have connected to your NAS from the Internet.

As a result of that router internet IP address change, when you try to access your NAS from the Internet, the applications you use to connect to your NAS from the internet will fail to connect. That failure is a big hint that you need to re-check your router's internet IP address. If that IP address has indeed changed, then you need to delete the NAS connection from your app and then re-create each connection using the new router internet IP address.

A permanent solution may be available.

It may be that your ISP can give your router a **static** internet IP address. **Static** means the address will not change. But you may find the price of a static internet IP address prohibitive.

If your router does NOT allow access your NAS via the Internet

I cannot offer you an alternative method to make that happen. I tried port forwarding to the router's own LAN IP address, and some more complex alternatives. None worked.

About the Author:

John Krout has been writing about the creative uses of personal computers since the early 1980s. He is a now-retired software engineer and writes about technology in general but specializes in smartphones, tablets, and digital cameras. He is a member of the APCUG Speakers Bureau.

<center>###</center>

Inkjet Printer Ink Cartridges

by Jeff Wilkinson, President, Sun City Summerlin Computer Club
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There are two methods of ink deposition that are widely used in household inkjet printers: thermal bubble and piezoelectric.

Thermal Bubble Printing

Inkjet printing technology was proposed as early as 1960 and became commercially available in the early 1980s in the Canon Bubblejet and the HP Digital Printer. In March 1993, Epson entered the inkjet printer market with Micro Piezo inkjet technology using a piezoelectric crystal in each ink nozzle.

With bubblejet technology, the current is passed through a resistor in the nozzle path, heating the ink, vaporizing it, and depositing a small amount of ink on the media. As a result, a slight vacuum is created, drawing more ink into the nozzle for the next cycle. This happens as often as 36,000 times per second.
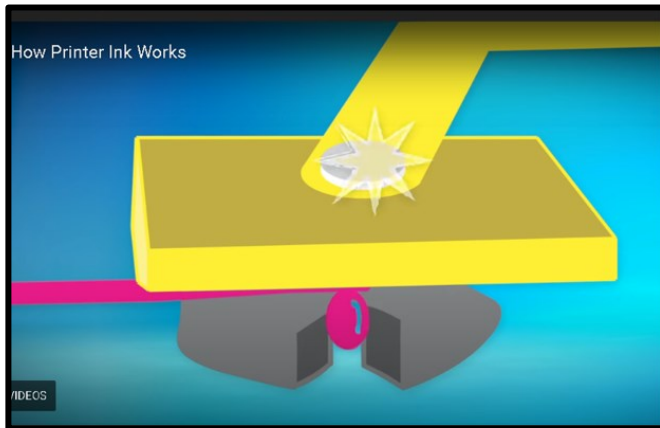
Using "bubblejet" technology, the typical ink cartridge has hundreds of tiny holes or nozzles, about 15 microns in size. The precision digital manufacturing process ensures the nozzles are correctly sized and placed on the printhead for correct placement of the ejected drops. As small as 4-picoliters, the tiny ink drops are launched through these precision nozzles. A picolitre is a millionth of a millionth (1 trillionth) of a liter! As many as 32 drops of ink are used to produce each color dot, and images may contain thousands upon thousands of dots. Therefore, the chemical formulation of the ink is very important, and poorly formulated inks may cause clogging or oxidation on the printhead nozzle.

Partially because of the complexity and development costs and a somewhat captive market, the price of inkjet cartridges was initially quite high. This spawned a compatible cartridge market in which vendors, big and small, qualified and not so qualified, began offering replacement inkjet cartridges. However, their only option was to refill inkjet cartridges with the existing patents since a replacement could not be legally manufactured. This created a secondary market for empty inkjet cartridges with various recycling and collection schemes used to get cartridges to refill.

As the compatible market matured, the OEM manufacturers added protection in the form of a semiconductor chip used to prohibit non-OEM cartridges. Of course, workarounds appeared almost immediately, and the back-and-forth battle has been going on for many years. There is no question the best quality comes from OEM ink cartridges. Still, many users feel that the cost/quality ratio is too high for everyday printing and opt for compatible cartridges. Furthermore, since the printing functionality comes almost entirely from the cartridge, a faulty cartridge can be replaced and renew the entire imaging system.

Piezoelectric Printing

Epson inkjet printers use the piezoelectric process in their printers. With this process, the printer contains the printheads rather than the printheads being part of the cartridge. Printheads have a piezoelectric element in the printer that contracts when a voltage is applied. The element and vibration plate move, much like the loudspeaker's cone, and force out a precise amount of ink out of the nozzle.
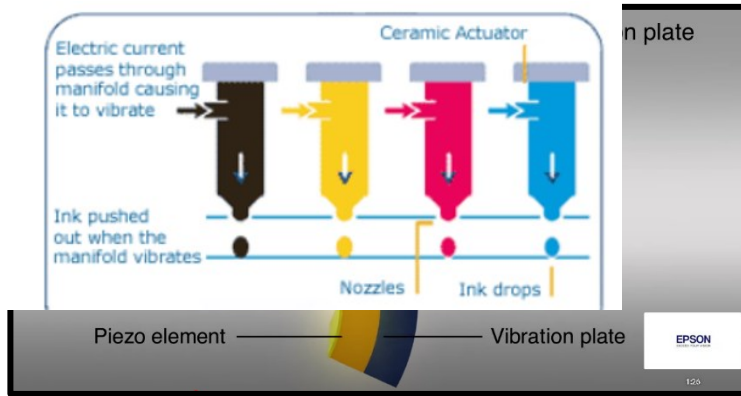
This eliminates the need to heat the ink to create a bubble, reducing the complexity of the ink formulation. Printheads with 128 black nozzles and 192 color nozzles (64 for each color) produce a resolution of 720 dpi, for example.

Since the ink does not need to be heated, it can be tailored to the media to which it is applied, in many cases giving more flexibility to the ink formulation.
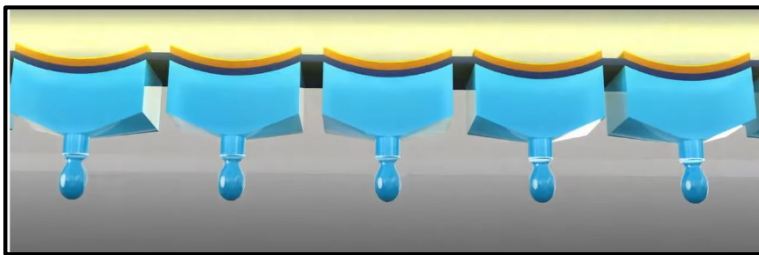
The internal printheads contain rows of these elements, which fire at precisely the right time, releasing the correct amount of ink as many as 40,000 times per second!

Since the ink cartridges for these printers do not contain the printhead, they are easier to duplicate, and many compatible cartridges are available. However, once again, the manufacturer has countered these efforts with onboard chips which warn you about the use of third-party inks.

Printer manufacturers have made numerous attempts to use firmware and onboard chips that won't allow the use of third-party inks and multiple corresponding class-action lawsuits against these actions.

Each user has to choose which ink cartridges to use but armed with some understanding of the printer ink systems you can add, make a more informed decision.

<div align="center">###</div>

It's time to learn more about your iPhone Clock

By Jim Cerny, Education Chair and Forums Coordinator
Sarasota Technology Users Group www.thestug.org   jimcerny123 (at) gmail.com

For those who have and use an iPhone, it comes with a great and straightforward app called "Clock." The app icon looks like an actual clock, and the app icon itself shows you the correct time. So, let's open the "clock" app and see what it can do for us.

You will notice it has four different options at the bottom of your screen – the "World Clock," "Alarm," "Stopwatch," and "Timer." These are really all easy to use and mostly self-explanatory. But let's look closely at each of these and see what fun we can have.

World Clock–will show you the time anyplace on the globe. You can ADD a new location (city) by touching the plus sign ("**+**"). You will get an alphabetical list of cities and a search area at the top where you can enter the city's name if you prefer. Not every city is listed, so you may have to pick a city near the location (that is, in the same time zone) you want. If in doubt, ask your favorite search engine what time zone a city/town is in. You can have several cities on this list, and the clock will tell you how many hours (plus or minus) the city is from your time, even if it is another day. So, add your "time" locations for your friends and relatives, and you'll never have to guess the time difference again.

Alarm–this will allow you to set one or many alarms to alert you at any time you choose. This simple function comes with several options which may be helpful. You can set and save several alarms. You can turn "on" any of them that you like. If an alarm is not "on" (by touching the round white circle to show a green patch), it will not go off. When you set a new alarm, or if you touch on an existing alarm time to edit it, you can set the following options: *Repeat* an alarm on certain days, *Label* an alarm to any name you want to give it, *Sound* the alarm with your chosen sound (or song!), and/or *Snooze* for a second chance in a few minutes. And you can "*Delete Alarm*" to remove it from your list. Quite a list of options for just alarms!

Stopwatch–will time anything. Do you like walking as I do? Or riding a bike? Or driving, doing chores, cooking, or whatever? Why not time what you do? This stopwatch has a digital display and an old-style classic stopwatch display. It only has two commands, the "Start" and "Stop" buttons and the "Lap" button. I bet you can figure out the start-and-stop button, but the Lap button can be fun. I have never timed a race around a track, but when I go for my walk, I hit the Lap button at each milestone on my route. This way, it will record a time for each leg of my walk without interrupting the overall time. I can tell if I am lagging behind and if I should walk faster to improve my time.

If I stop to talk to someone and still want to track my time, I just hit the Lap button at the start and end of my conversation. Then, I can subtract that time later. Of course, all this is unnecessary, but it is fun and makes my walks seem more enjoyable.

Timer–Use to time anything and sound an alarm when the time is expired. As far as I can figure out, you can only set one time on the timer to any number of hours, minutes, and seconds. You can, however, select the alarm sound you like from a long list.

Note that your alarms may only vibrate if your phone is in silent mode. If you have a "do not disturb" time at night (like I do), an alarm WILL still sound to wake you up!

My alarm just went off, so I know it's time to close this article. How long did it take you to read it?

###

Bluetooth Adapters – Do I need one?

By Phil Sorrentino, Secretary and APCUG Rep, Sun City Center Computer Club
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The short answer is no if all your devices have Bluetooth incorporated in them, but yes, if you have a non-Bluetooth device that you would like to use with other Bluetooth devices. A Bluetooth adapter allows a non-Bluetooth device to work with a Bluetooth device. The adapter does this by providing Bluetooth electronics for the non-Bluetooth device. Bluetooth is a wireless communications standard for interconnecting electronic devices. It allows devices to connect wirelessly over a short range (less than 35 ft). This wireless connection can be beneficial if devices are in separate rooms in a house. But that's the technical side of Bluetooth. Most of us know Bluetooth as how our smartphones connect to the radio system in our cars to provide "hands-free" phone conversations. This is probably one of the most extensive uses of Bluetooth today, but there are other uses. Two other uses of Bluetooth that come to mind involve listening to music; wireless headphones or earbuds and wireless (Bluetooth) speakers.

As implied above, Bluetooth is included in Apple and Android smartphones. Bluetooth is a convenient way to connect a smartphone to a listening device like headphones or a speaker. (In fact, some smartphones like the Apple iPhone XS, the Google Pixel 3, and the Motorola Moto Z3 don't even have a 3.5 mm wired headphone jack, making Bluetooth the only way to connect these devices to headphones.) Headphones are a convenient way to take advantage of a smartphone being used as a music player. Start the phone's music app, put on the headphones, and enjoy the music. Apple wireless headphones are very noticeable. Apple AirPods are typically white and look like someone cut the wires going to each individual headphone. Besides Apple, many other wireless headphones are available from Sony, Bose, LG, Jaybird, Optoma, Beats, and others. Using Bluetooth headphones, you replace the wires needed with standard headphones with a wireless Bluetooth connection. That way, no wires are going from your head to your phone, which might be in your hand or in your pocket, and might get in your way. (With some of these wireless headphones, there is still a wire going from one headphone to the other that usually goes behind the head.)

Bluetooth Speakers—the other use for Bluetooth. Speakers that have Bluetooth included are sold as Bluetooth or Smart Speakers. There are many of these available from Sony, JBL, Sonos, Bose, and others. Most of these speakers are powered by batteries, so they are portable, and you can use them anywhere. Many are waterproof, encouraging their use at the beach or around the pool. These speakers contain Bluetooth electronics, which allow them to connect to a device such as a smartphone or a computer and be used in place of the speaker(s) on the device to provide the sound. So, if a Bluetooth speaker is connected to a smartphone and a music player app on the smartphone is started, the music will be heard on the Bluetooth speaker. A Bluetooth speaker is usually much more powerful than the small speaker on the smartphone, and the quality of the Bluetooth speaker is typically much better than that of the

smartphone speaker, so the listening experience may be more enjoyable. And if the Bluetooth speaker is powerful enough, it may even be used to fill a large room and entertain many people.

Wireless headphones and Bluetooth speakers are quite helpful when used with a smartphone or a computer with Bluetooth electronics embedded, but what about those devices that don't have Bluetooth electronics included, like an older stereo receiver or a radio? Well, this is where **Bluetooth adapters** come into play. Bluetooth adapters allow you to listen to your non-Bluetooth stereo or radio using your wireless headphones or Bluetooth speakers. The adapter provides the Bluetooth electronics needed to connect to other Bluetooth devices. Bluetooth adapters from Logitech, Taotronics, Trond, 1Mii, and others should cost less than $50. Except for the inexpensive items, most adapters can be used as a Bluetooth transmitter or a Bluetooth receiver. When the adapter is used with a non-Bluetooth source of audio (like a stereo), it is being used as a Transmitter. When the adapter is used with a non-Bluetooth device that receives the audio (like a powered speaker), it is being used as a Receiver. Adapters are powered by wall power or battery, or both. If your stereo is not portable, you probably don't need a portable adapter. (Be aware that some less expensive portable Bluetooth adapters cannot charge their battery and operate as a transmitter at the same time.)

Setting up the adapter to function as a transmitter is pretty straightforward. First, the audio output from your non-Bluetooth stereo gets connected to the adapter's input, typically with a 3.5 mm stereo cable. (Some more expensive adapters even support optical audio.) Then when you go through the pairing and connecting process, the audio from the non-Bluetooth stereo will be audible in the wireless Bluetooth headphones. (In the diagram, a Bluetooth speaker can be substituted for the headphones, and you would have audio as loud as the particular speaker could provide.)

Bluetooth Adapter used as a Transmitter:

Non-Bluetooth Stereo   Bluetooth Adapter   Bluetooth Headphones

Many adapters can also allow a non-Bluetooth device to operate with a Bluetooth audio device as the audio source. In this arrangement, the adapter is used as a Receiver. The non-Bluetooth device receives the audio from a Bluetooth device via the Bluetooth Adapter used in the Receive mode, as shown in the following.
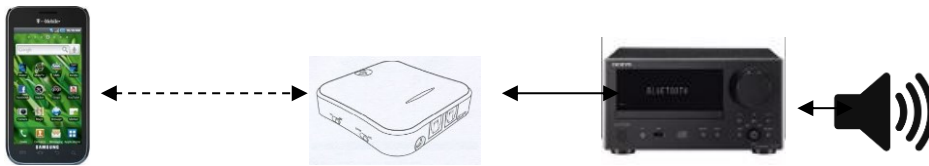
Bluetooth Device   Bluetooth Adapter   Non-Bluetooth Stereo

So now, do you need a Bluetooth Adapter?

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Adiós, Dashlane. Hello Keeper!

By Kurt Jefferson, Editor, CKCS Newsletter October 2022 Issue
https://ckcs.org/   lextown2 (at) gmail.com

After using Dashlane for many years, I stopped using the popular password manager. Why? The company decided to no longer support its desktop app on either Mac or Windows. Let me be clear.

I wish Dashlane well. Because Dashlane was one of the most expensive, secure, well–designed password managers, I would expect the company to continue providing both a desktop app that sits on the dock of my Mac along with a web extension for Safari, Firefox, Brave, Chrome, and other popular browsers.

Dashlane developers have decided to only provide a web browser extension on Mac and Windows machines.

This means there will no longer be any updates for the desktop app. Password manager apps are one of the most important apps on your computer – and they need to be updated to keep your data secure.

I rely on both tools – a desktop app that I can open at any time by simply clicking on the dock icon and a browser extension I can use when using Firefox or Safari (my two most–used browsers.) A January 2021 Dashlane blog announced the news: "Today, we're sharing an update that we plan to discontinue support for the Mac and Windows apps. We estimate we'll be sunsetting the app at the end of 2021, and in the meantime, you can continue to use the desktop apps; however, we'll no longer be updating their design, features, or functionality."

Why the change? Dashlane writes in its blog, "We made this decision because we believe it's the highest quality and most secure experience we can deliver to our customers, putting us closer in line with our principles. In addition to details in this post about this new web experience, we'll provide frequent updates between now and when we stop supporting the desktop apps—so there'll be no surprises."

Surprises? Dashlane might be surprised to discover that many long–time users may well abandon ship.

It seems to be a strange time for a major password manager developer to alienate its user base. But, with the Delta variant and other strains of Covid still raging in Kentucky, the U.S., and the world, a supply chain that is broken beyond belief, and entire industries pleading for workers to apply for jobs, is now the right time to kill a major part of your software package?

Anyway, since I had used other leading password managers, including LastPass and1Password, I opted for another top–tier product: Keeper.

In its 2021 review, PCMag.com rates Keeper "Outstanding." (The Only one of the bunch to receive the outstanding rating.)

Dashlane, LastPass, Bitwarden, LogMeOnce, and Password Boss all received the "Excellent" rating.

PCMag rates 1Password, NordPass, RoboForm, Sticky Password, McAfee True Key, and Zoho "Good."

PCMag writes, "Keeper Password Manager & Digital Vault delivers an excellent experience across a ton of platforms and browsers. It also offers top-notch features such as robust two-factor authentication support, good sharing capabilities, and full password histories. As a result, Keeper is an Editors' Choice password manager."

It adds, "Keeper offers apps for Windows, macOS, Android, iOS, Kindle, Windows Phone, and Linux, as well as browser extensions for Chrome, Edge, Firefox, Internet Explorer, Opera, and Safari. Keeper also maintains a Microsoft Store version."

As soon as I began using Keeper, I felt right at home. It works well. If I want to check a password, look up a secure note, or retrieve a credit card number, I can easily open the Mac app on my dock without opening a web browser. Isn't that how password managers should work?

###

This photo was taken by your editor from the Haycock RD overpass over I-66, looking towards Tysons Corner. Needless to say, I didn't use any support and in fact, moved the camera while the image was recorded.

Canon 5D Mark 4, 6", f/9, ISO 800, Canon EF 24-105 f/4L IS USM, at 35mm

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First Class

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Meeting schedule (See meeting schedule change below!)

1st Wednesday	7:00 – 9 PM	Arlington General Meeting	Hybrid
3rd Monday	7:00 – 9 PM	Board of Directors Meeting	Zoom
3rd Saturday	12:45 – 3:30 PM	Fairfax General Meeting	Zoom
4th Wednesday	7:00 – 9 PM	Technology & PC Help Desk	Hybrid

Arlington Meet: 5711 S. 4th ST., Arl. VA   Fairfax Meet: 4210 Roberts RD., Fairfax, VA

Meetings are Hybrid or Zoom (as above)
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