Bits of Bytes

Newsletter of the Pikes Peak Computer Application Society, Colorado Springs, CO

Volume XL | October 2020 | Issue 10

The Prez Sez

by John Pearce, President, P*PCompAS

I was very pleased with the conversation at the September breakfast gathering. I think we had more computer and tablet related discussions than we have had during Around the Room in recent monthly meetings.

It is time to form the nominating committee for our election in December. Would someone please volunteer? Since we only meet virtually, it is hard to strong arm someone for the nominating committee.

The option to meet at the church is suspended until there are more people interested in meeting there.

The program for October is a presentation on security by Bob Gostischa. You may remember Bob from the presentation he gave to us last year.

Stay safe and take care of yourself. ☺

Meeting Minutes

by Greg Lenihan, for the P*PCompAS Secretary

President John Pearce began the 5 September 2020 Membership Meeting via Zoom at 9 am. Joe Nuvolini was with Bob Kotz at the church. A motion was made to approve the August meeting minutes and the minutes were approved.

Next P*PCompAS meeting: Saturday, 3 October 2020
Bob Gotischa from APCUG will give a presenatation on "Staying Safe and Secure" via Zoom. Watch for a Zoom link as the meeting time approaches.

OFFICER REPORTS

Vice-President Cary Quinn said Bob Gostischa from APCUG will give a presentation on cybersecurity in October.

Treasurer Chuck Harris reported we have $3224.14 in savings and $71.29 in checking. There was $10 given to Joe Nuvolini for a state fee.

Newsletter Editor Greg Lenihan announced the next deadline as 19 September.

Membership Chair Ann Titus had nothing to report.

Librarian Paul Godfrey had nothing to report.

Hospitality Chair Ilene Steinkruger had nothing to report.

APCUG Rep Joe Nuvolini announced Mike Smith, our Region 9 APCUG Rep, was attending our Zoom meeting.

Board of Directors Chair was not present. Paul Godfrey was given warning that we will take over the Board next year.

OLD BUSINESS

John Pearce is still looking for someone to assume the duties for the Nominating Committee to solicit for officers next year.

NEW BUSINESS

Joe Nuvolini reported that Bob Kotz was having an Android issue with a hand up during the Zoom meeting, and his mic and video were not working.

ANNOUNCEMENTS

The next social breakfast Zoom meeting will be 19 September at 9 am.

Our next membership meeting is on 3 October.

PRESENTATION

Ann Titus showed a video on voice typing with Google. Cary showed videos on the "5 Best All-in-One" printers, a Colorado State Fair announcement from KOAA, a video about the Colorado Springs Labor Day Balloon Lift-Off, a commercial about Acronis True Image 2021, along with an Acronis review by Britec, and a video on how to configure Windows 10 privacy settings. ☺

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P*PCompAS

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Editor: Greg Lenihan
Librarian: Paul Godfrey
Membership: Ann Titus

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Hospitality: Ilene Steinkruger
Programs: Cary Quinn
Publicity: Cary Quinn
Nominating: Vacant

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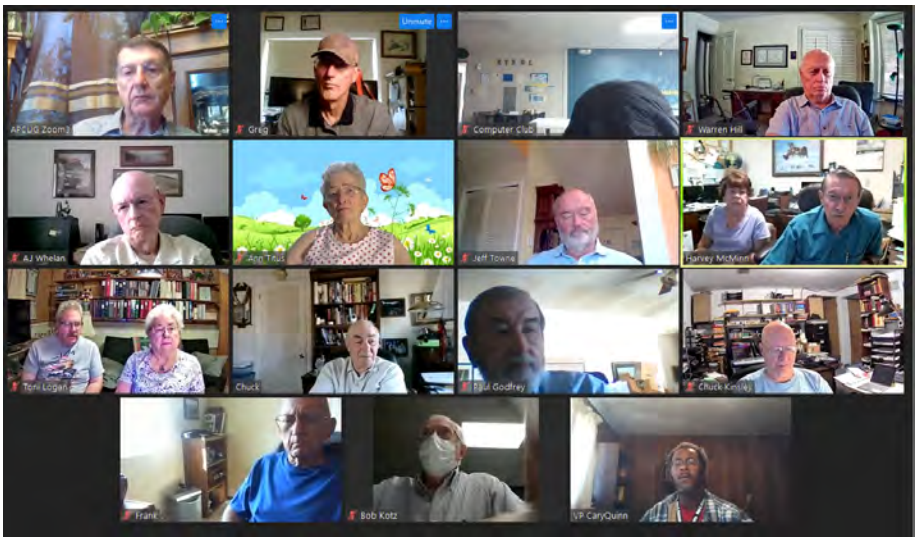
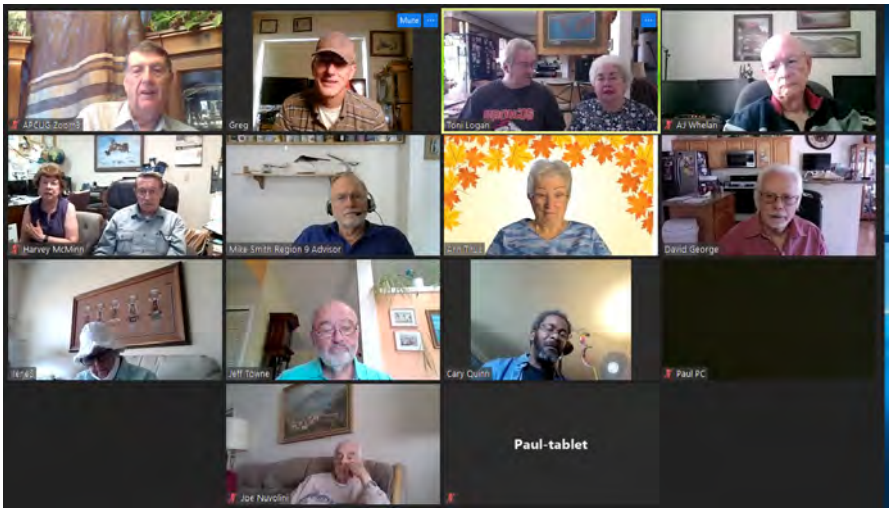
Peter Rallis
Paul Godfrey
Ann Titus
Harvey McMinn
Jeff Towne



Zoom screenshot of the 5 September membership meeting.



Zoom screenshot of the 19 September breakfast meeting. Notice that Mike Smith, our Region 9 APCUG Rep, joined our digerati.

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How to Check the Air Quality Near You (or Almost Anywhere)

By Chris Hoffman, reprinted with permission from HowToGeek.com

Original article at: https://www.howtogeek.com/690591/how-to-check-the-air-quality-near-you-or-anywhere/

How unhealthy is the air outside right now? You don't need your own sensor to find out. Here's how to find out how bad the smoke and pollution in your local area—or anywhere else.

Understanding Air Quality Index (AQI) Numbers

These services all show Air Quality Index numbers. The higher the number, the more pollution in the air right now.

Note that different countries use different Air Quality Index systems. If you're not in the USA, you will have to look up your country's Air Quality Index standard.

In the USA, here's what the numbers mean:

Color	Air Quality Index (AQI)	Level of Health Concern
Green	0 to 50	Good
Yellow	51 to 100	Moderate
Orange	101 to 150	Unhealthy for Sensitive Groups
Red	151 to 200	Unhealthy
Purple	201 to 300	Very Unhealthy
Maroon	301 to 500	Hazardous

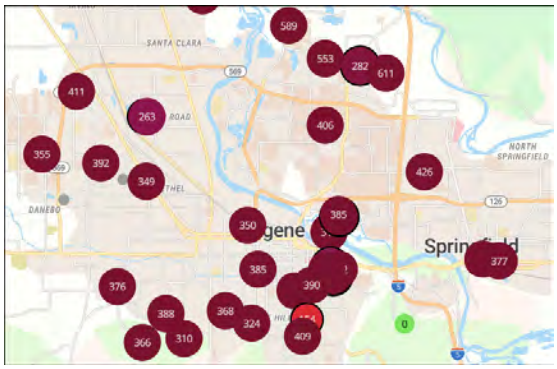
Timely Crowd-Sourced Reports: PurpleAir

While there are a number of ways to get official numbers from standardized government sensors—and we'll explain those in a bit—there's one way to get more timely results.

PurpleAir shows more localized air quality numbers. They're much more current but are crowd-sourced from sensors set up by individuals. Individual sensors in an area may not be positioned accurately. But, if you look at an area with multiple sensors, the average will show you a fairly complete picture.

Just head to the PurpleAir map and search for your local area (or another area you want information about.)

If a particular sensor is too high or low compared to its surrounding ones, you should ignore it. That said, the sensors in your area should point to an average reading that's reasonably accurate in the moment. They may even suggest differences from neighborhood to neighborhood in your city.



PurpleAir sensors show US AQI numbers even when they're located in other countries, so you can look across the globe and compare readings in multiple countries, if you like.

Slower Official Numbers: AirNow and Smartphone Apps

You can also check the official numbers reported by your government. In the US, these numbers are provided by the EPA and its partners. They're updated hourly and come from a fewer number of more precisely accurate sensors.

That's convenient, but they won't show you the most timely air quality details if it's changing quickly or how the air quality differs from neighborhood to neighborhood in your city.

To find these numbers in the USA, Canada, and Mexico you can use the AirNow website. Plug in a location and you'll see the air quality in your area. (For other countries, you will need to find a website with data for your country.)

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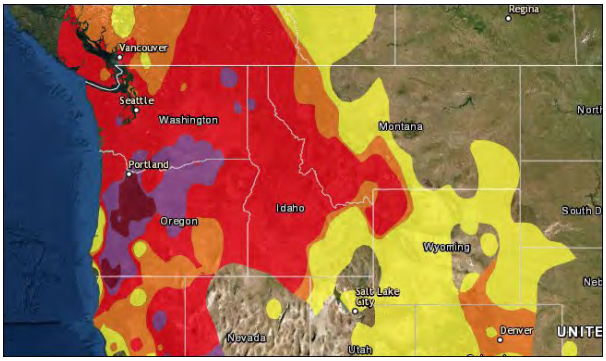
Air Quality (Cont. from page 3)

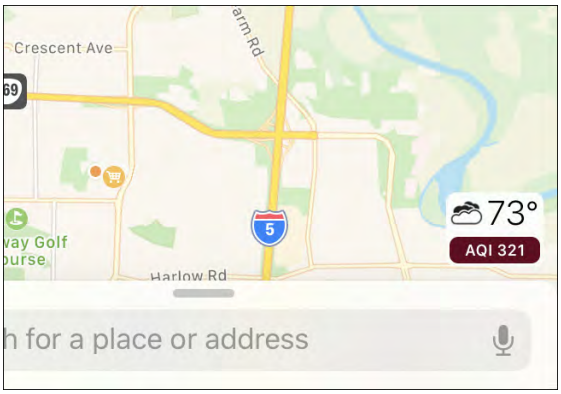
AirNow also offers a map that shows air quality across North America.



For convenience, you can quickly find these numbers via smartphone apps. On your iPhone, both the Maps and Weather apps show air quality information. You can see your local air quality information or view another area in the map and see its local air quality. (This is not available in all countries.)

On Android, you can ask Google Assistant about the air quality for your local area or another area. (Again, Google Assistant does not support this in every country.) You can also install a third-party app that displays this information.

Both Apple and Google's apps show the same official information you'd find on AirNow and on government websites. For crowd-sourced information, turn to PurpleAir.



RELATED: *How to Check Your Local Air Quality Index on iPhone or iPad*

If you'd like to learn more, *Wired* did a good job of explaining the difference between the numbers on PurpleAir and AirNow and how they're measured.

The numbers generated by the government are the canonical historical, official data for an area—but, with conditions changing quickly and varying from location to location even within a particular city, PurpleAir's numbers may be more useful in the moment. ☺

Passing of Pioneers

By Toni Logan, P*PCompAS

In the past month, two computer pioneers have passed away. The articles about them appeared in *The Gazette* computer section. One of them invented the pixel and the other was in a team that developed BASIC.

Russell Kirsch died at the age of 91 in Portland, Oregon. He was with the National Bureau of Standards in which a team developed the U.S.'s first stored-program computer in 1950. They then developed a digital image scanner. Russell Kirsch invented the pixel and scanned the first digital photograph of his son. This work led to the foundation of satellite imagery, CT scans, virtual reality and Facebook.

The first square image was just 31,000 pixels as compared with the iPhone that captures 12 million pixels for each image. However, the square shape meant that the image could be blocky or chunky, or "pixelated." It is amazing to think how much came from so little and has so affected computer use.

The other pioneer was Arnold Spielberg, who by the way was Steven Spielberg's father. Arnold Spielberg died at the age of 103, so I say it is good to be in the computer business to have a nice long life.

Arnold Spielberg and Charles Propster designed the GE-225 mainframe computer in the late 1950's. This led to the development of BASIC, which then led to the personal computer, and this was a very good thing for all of us. Although Arnold tried to get Steven to get into engineering, I think we are all glad that he didn't succeed. ☺

Arnold Spielberg

Using Photo App in Microsoft to Trim a Video Clip

By Ann Titus, P*PCompAS

Where Did Windows Movie Maker Go?

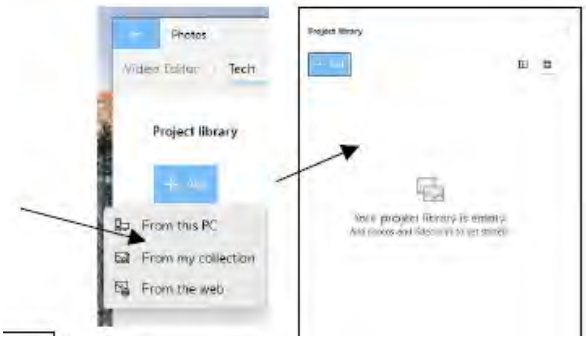
For a number of years I used Movie Maker to cut clips from videos for various uses. It is no longer available for download and use. For very simple video clips you can now accomplish this using the video editor in Windows 10 PHOTOS.

Video Editor in Windows 10 https://www.youtube.com/watch?v=edKDxJ7C8HE

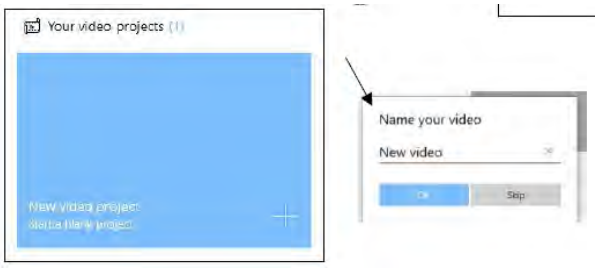
Here's the process for using Microsoft Photos to select and save a video clip:

1. Open Photos.
2. Click on Video Editor on top bar.

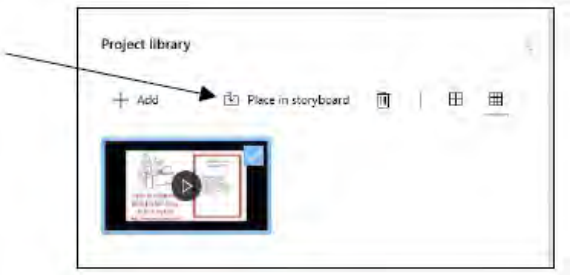
3. Click Add (From this PC; My collection; or The Web) and drag to Project Library .



4. Name the video



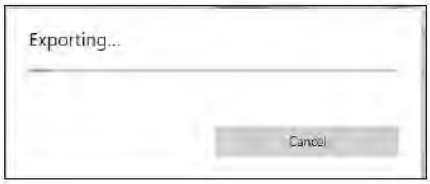
5. Click "Place in storyboard"



6. Click TRIM and move start point and end points by moving the selection tool at the bottom, and then click Done.

7. Click "Finish video."

8. Click "Export" to desktop or destination.



☺

Is it Illegal to Fix Your Own Gadgets?

By Bob Rankin, http://askbobrankin.com, published through the APCUG

If you try to fix, upgrade (or even dare to open the case of) your smartphone, tablet, laptop, or other gadgets, does that act violate any law or void the warranty? Read on to learn the truth about "warranty void if sticker removed" and other dire warnings you may see on the things you own…

The Big Lie Most Hardware Makers Tell You

Last year, my son dropped his expensive iPhone on the floor, shattering the screen into hundreds of tiny shards. He checked with the Apple Store, and found that the repair would cost about $279. We did a little digging, and found a variety of repair kits selling for $25 to $30 on Amazon. The kit arrived two days later, and with the help of a YouTube video, my son did the repair himself in about an hour.

But did that do-it-yourself repair void the warranty on his phone? The screw holes and case seams of many laptops, game consoles, and other devices are often covered by little stickers bearing the even littler warning: "Warranty void if removed." Additionally, large vendors like Sony, Microsoft, and Apple either explicitly state or strongly imply in their warranty agreements that your paltry years' worth of protection against manufacturer's defects is null and void if you try to fix the device yourself, or even if you have a third-party repair service do it.

Yes, that's right; vendors say you can't replace your smartphone's broken screen (a relatively trivial task that typically requires only a sharp knife, a hair dryer, a screwdriver, and a pair of tweezers). And you can't take it to a local repair shop and get it back the same afternoon. Otherwise, your manufacturer's warranty is void.

This situation is ideal for OEMs (Original Equipment Manufacturers). Repair work is very lucrative, especially when you have a monopoly on it. The only problem is, this whole "warranty void if sticker removed" business is entirely illegal. But OEMs are fighting hard to shut down small businesses that sell parts and make repairs.

So says The Repair Association, formerly known as The Digital Right to Repair Coalition. Whether you are a DIY hobbyist, a repair service business owner, or a recycler of obsolete electronics, The Repair Association claims to represent your interests in Washington DC and State legislatures; your main interest being the right to open up and fix what you own. And that includes more than just computers -- your right to repair extends to game consoles, cameras, household appliances, automobiles, medical devices, lab equipment, farm tractors and more.

Your Right to Repair and The Law

The claim that warranty terms which prohibit independent repairs are illegal rests upon a section of the 1975 Magnuson-Moss Warranty Act that forbids "tying" consumers to specific repair services or specific types of parts. The MMWA is what allows you to take your car to an independent repair shop instead of the ludicrously expensive dealership that sold you the car. Likewise, you have the right to take your PC to a local repair shop, or to fix it yourself.

But big OEMs tell big lies, and tell them so often and skillfully that "99.9 percent of consumers have no idea of their actual rights," according to Gay Gordon-Byrne, executive director of the Repair Association. "Apple and others have crafty attorneys that know darned well that Magnuson-Moss exists as do anti-trust laws against 'tying agreements.' The contracts are very clever and appear to be within the law—but are anything but in practice," he told the Motherboard tech news site in an interview.

Apple changed its policy on screen and battery replacement a couple years ago, so your warranty won't be voided if you replace a failing battery or cracked screen, but there's a caveat. Even slight damage caused by third-party repair shops will void Apple's warranty. Any other repairs performed by a repair shop that's not an Apple Authorized Service Provider will void your warranty.

Samsung warns that your warranty is void if you to crack open the case of your device, or even replace the factory-issued software by rooting your phone.

And some products are designed with such demanding standards for weight and thickness that they are almost impossible to repair. In a teardown of the latest Microsoft Duo, iFixit came to the conclusion that "the thin, premium, category-creating Duo is not something meant to be repaired, maybe not even by Microsoft." That seems to fly in the face of their recent public commitment to "Zero Waste."

In 2018 the U.S. Federal Trade Commission warned companies against using unlawful and

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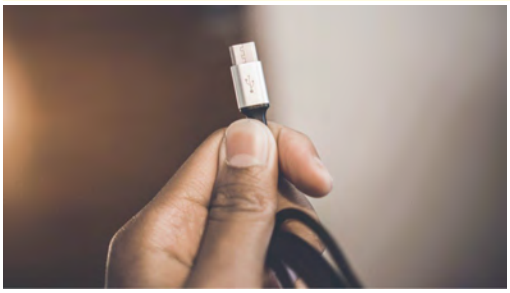
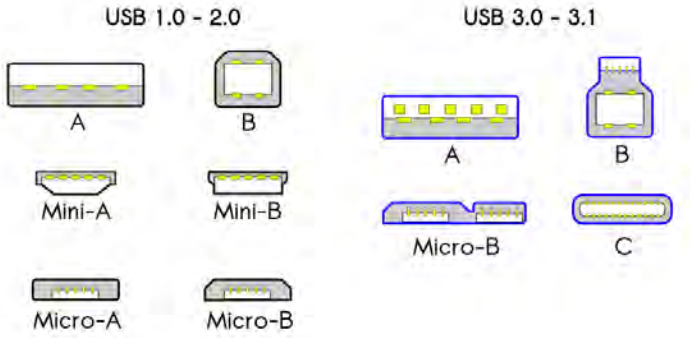
USB Explained: All the Different Types (and What They're Used For)

By Suzanne Humphries, reprinted with permission from ReviewGeek.com
Original article at: https://www.reviewgeek.com/53587/usb-explained-all-the-different-types-and-what-theyre-used-for/





USB, short for Universal Serial Bus, is a common type of computer port that makes it easy to charge a device or transfer data between two devices. Since it was first developed in the '90s, USB has continued to evolve alongside technology, progressively becoming smaller, faster, and more powerful. With so many devices that use USB, it's easy to get confused by the different connectors. But fear not—we're going to demystify all of that today.

When it comes to USB, there are really only four things that matter: form factor, transfer speeds, power delivery, and video delivery. Let's dig in.

There are multiple types of USB that have popped up over the years, each with a unique design and use case. The most common types are USB-A, Micro-USB, and USB-C, but we'll briefly discuss all of them.

USB-A

USB-A, or USB Type A, is the original flat and rectangular connector that no one could ever figure out how to plug in correctly the first time. These cables always have USB-A on one end with a different port type on the other, and

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Fix Your Devices (Cont. from page 7)

misleading statements in their warranty clauses. They specifically called out language like this:

"The use of [company name] parts is required to keep your ... manufacturer's warranties and any extended warranties intact." "This warranty shall not apply if this product . . . is used with products not sold or licensed by [company name]." "This warranty does not apply if this product . . . has had the warranty seal on the [product] altered, defaced, or removed."

For hundreds of years, consumers have been free to do whatever they wished with whatever they purchased. But in recent decades, manufacturers have imposed upon that right with contractual agreements that limit who can repair their products, which they presume remain "their products" forever. The Repair Association and other activist groups fight back against this arrogant threat, and they have won in a very big consumer product category.

Groups like iFixit.org are also advocating for the right to repair the things you own, and to unlock or "jailbreak" those devices if desired. They also underscore the importance of having the same manuals and diagnostic tools that the manufacturers use for repairs. Many of those companies claim that information is proprietary and have tried to shut down independent repair shops.

iFixit does give kudos to certain vendors for being more "repair friendly" than others. Their repair scorecard shows the best and worst smartphones, tablets and laptops for repair. Topping the phone list was the Fairphone 3 (2019 model) which scored a perfect 10 for repairability and upgrades. The reviewer mentioned that "Visual cues inside the phone help with disassembling and replacing its parts and modules." But sadly, no phone released in the past 5 years scored an 8 or 9. The 2017 OnePlus5 scored a 7, and several recent iPhone and Google Pixel models scored a 6.

The Repair Association, iFixit and other grass-roots organizations are fighting for your repair rights with electronics makers and their "authorized service centers." It's a battle well worth fighting, and supporting. ☺

USB Explained (Cont. from page 7)

can be used for device charging and data transfer. USB-A is still widely used and can be found on devices like computers, gaming consoles, TVs, and all kinds of peripherals.

USB-B

USB-B is pretty much only used on large devices, like scanners or printers. Visually, this connector looks almost square. Most of these are USB-B to USB-A cables, though some newer devices have moved on from USB-B to smaller options, like Micro-USB or Mini-USB.

Micro-USB

Micro-USB was the standard a while back for certain portable devices, like Android tablets and smartphones because it can transfer data and provide charge. It comes in both Type-A Micro and Type-B Micro flavors, and is smaller than USB-A. Some manufacturers still opt for using Micro-USB parts for their devices, as they're less costly than those for USB-C.

Mini-USB

As its name suggests, Mini-USB is a smaller version of USB-B. It was the standard for charging or transferring data from devices like tablets before Micro-USB was. There are also Type-A and Type-B versions of this connector. It's uncommon to see many products using Mini-USB today, though you can still find them on older electronics like MP3 players or the PlayStation 3 controller.

USB-C

This is the current standard, and it marries power and data delivery with display connectivity. USB-C is what you'll see on most new devices like smartphones, game controllers, earbud cases, microphones, and laptops. Its form factor is small, oblong, and reversible, so it can be plugged in either way (take that, USB-A). The port's 100-watt connection makes it perfectly suited for fast charging and data transfers, even with larger devices.

USB-C can do more than other USB types can, and get it done faster. USB-C has the potential to replace all other cables, thanks to its diverse multi-tasking abilities. It has the ability to power even the most power-hungry devices, like laptops and TVs. It can also transfer 40 gigabits of data per second (Gbps), and can be used to deliver 4K video to external monitors.

While manufacturers continue to release new products with ports other than USB-C (looking at you, Apple), we aren't yet able to live in a single-cable society, but we're getting there, and we may eventually be freed from the burden of lugging around multiple cords.

Lightning

Technically, Lightning is not USB, but rather Apple's proprietary connector type that works similarly to USB. You'll see it on Apple's devices, like the iPad and iPhone. It's similar to USB-C in that it is reversible. It supports speeds similar to USB 3.0.

Data Transfer Speed

In addition to coming in a variety of shapes and sizes, USB types also have multiple speed standards. Keep in mind that some USB cables are data transfer only, and others are power delivery only, but also that there are options that can handle both tasks. Be sure to verify a cable's abilities before purchasing it.

The first, USB 1.x, is old and incredibly slow, and can only move 1.5 Mbps. Your odds of finding a device in the wild still on 1.0 are slim to none. The slightly less old (and comfortably slow) USB 2.0, however, is still relatively common, though you'll really only find it on older electronics. 2.0 has a full-speed option that can handle 12 Mbps, and a high-speed version that can handle 480 Mbps. SuperSpeed USB 3.x can transfer data between 5-20 Gbps.

The latest entries, USB 4.0, Thunderbolt 3, and Thunderbolt 4, are where you'll find the highest data transfer speeds: a maximum capable throughput of 40 Gbps. Thunderbolt is another transfer speed standard used in some USB-C cables—all Thunderbolt 3 and 4 cables are USB-C, but not all USB-C cables are Thunderbolt. So if Thunderbolt is what you're after, you'll need to make sure that's part of the cable you're buying.

These super-high transfer rates are impressive, but they don't matter much if you

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USB Explained (Cont. from page 8)

aren't regularly transferring hundreds of GB of data or doing something wild like editing video on an external hard drive. If you are, however, you'll want at least Thunderbolt 3.

Power Delivery

As we mentioned above, some USB cables are only capable of delivering power or transferring data, though most can do both. PD (power delivery) standards fall into one of three main categories: power only, slow charge, and fast charge.

USB 2.0 supports 2.5 W charging and USB 3.0 supports 4.5 W charging. To put things in perspective, 10 W is enough power to slow charge your phone, and 18 W is enough to fast charge your smartphone or power a Netbook or similar bare-bones laptops.

In contrast, USB PD can handle up to 100 W, which is powerful enough to power things like a MacBook Pro, monitors, docking stations, and most TVs. It can also fast-charge smaller compatible devices like your phone or Nintendo Switch. PD also only provides the necessary charge to your device but won't overcharge it. Newer battery banks are starting to support USB PD, which are more capable of keeping your power-hungry devices powered and fully charged.

Video Delivery

Being able to transfer data *and* power a device is already impressive. But you can also choose to use USB-C to connect to monitors in place of a bulky HDMI or VGA cable. USB-C also has support for 4K video delivery to a screen. Thunderbolt 4 cables can handle displaying 4K content on two monitors at a time, or 8K on a single monitor. Again, this isn't going to be the use case for most people, but as 4K and 8K video becomes more commonplace, you'll eventually need a cable that can keep up.

How to Know if You're Using a Safe USB Cable

The rule of thumb is that you should always use the cable that came with your device and that you should buy any replacements from the manufacturer as well. That cable is specifically engineered to be used with your phone, tablet, or computer.

However, if you want to purchase one from a third party, be sure to stick with trusted established brands like Anker, Aukey, or Belkin, or at least look to see if a different brand lists the cable's USB certification. Otherwise, you could end up with an inferior cable that lacks official USB-IF certification and could potentially damage your device. ☺

Tip: Need a password but can't find it? Check if you saved it

Losing a critical password can be a heart-stopping moment. And if you use your browser to save passwords, you know sometimes autofill fails or formatting issues with the websites you visit can prevent them from loading.

To check if your passwords are hidden on your computer, your best bet is to look at your web browser's list of saved passwords. Here's how:

Chrome:

1. Click the **three-dot** icon in the upper-right corner of your browser and click **Settings**
2. Click **Autofill** from the left-hand panel, followed by **Passwords.**
3. Scroll through your list of passwords until you find the one you're looking for. Click the **eye icon** to make it visible. You may be asked to enter your system password to verify your identity.

Firefox:

1. Click the **three-line icon** to open Firefox settings.
2. Click **Logins and Passwords.**
3. Scroll through your list of passwords until you find the entry you're looking for. Click the **eye icon** to make it visible. You may be asked to enter your system password to confirm your identity.

Safari:

1. Click **Safari** from the menu bar at the top of the screen and click **Preferences.**
2. Click **Passwords**.
3. You may be asked to enter your system password to confirm your identity.
4. Scroll through your list of passwords until you find the entry you're looking for. Click the **three-dot icon** to make it visible.

Edge:

1. Click the **three-dot icon** in the upper-right hand corner of the browser.
2. Click **Profiles** from the left-hand sidebar and click **Passwords**.
3. Scroll through your list of passwords until you find the entry you're looking for. Click the **eye icon** to make it visible. You may be asked to enter your system password to confirm your identity. ☺

P*PCompAS Newsletter
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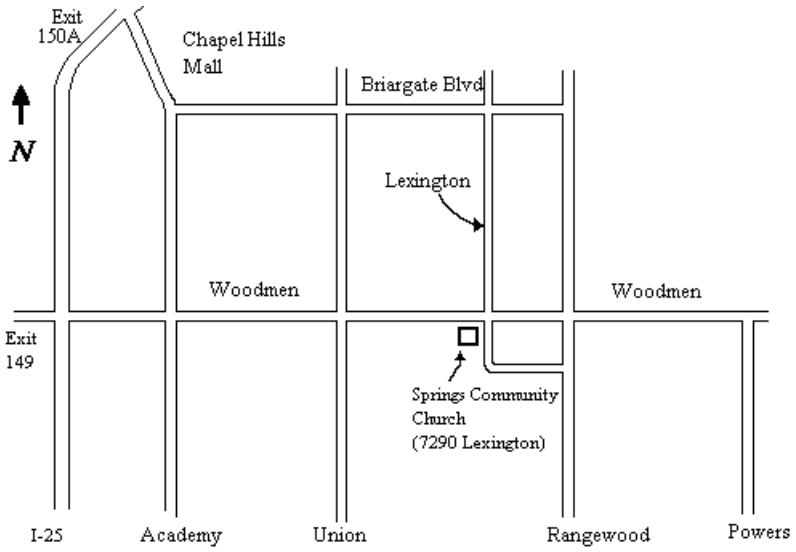
Coming Events:
Next Membership Meeting: 3 October @ 9 am, via Zoom
Next Breakfast Meeting: 17 October via Zoom
Newsletter Deadline: 24 October

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