



# THE WYSIWYG



January 2021

Volume 33 Issue 1

**STERLING HEIGHTS COMPUTER CLUB**

PO Box 385

Sterling Heights, Michigan 48311-0385

**MAIN MEETING: TUESDAY JANUARY 5  
7:00 PM**

Same day/time as usual  
Location: Your house,  
Video conference

*(Please use your real name when you log in, just as we all do  
when we attend our in-person meetings.)*

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## This Month's Main Meeting Topic:

### **“How Do I Make My Own Custom Maps”**

will be presented online by  
APCUG Speakers Bureau members

### **Jim and Chris Gold of ‘Geeks On Tour’**



Guests and visitors are welcome. People can attend any SHCC meetings during two consecutive months before deciding whether to become a member or not. July and August don't count since there is no main meeting in those months. Membership includes admission to all SHCC functions and the newsletter. Membership is open to anyone. It is not limited to the residents of Sterling Heights.

**DUES: \$30/YEAR**

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**CLUB E-MAIL ADDRESS:** [Info@SterlingHeightsComputerClub.org](mailto:Info@SterlingHeightsComputerClub.org)  
**CLUB WEB PAGE:** <http://www.SterlingHeightsComputerClub.org>

## 2021 SHCC Officers – Thanks for all your hard work!!!

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Hardware	(open)
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MS Word	Rick Schummer
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### SHCC Coordinators

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Door prizes	Don VanSyckel
Greeter for visitors	Jim Waldrop
Newsletter Publisher/Editor	Paul Baecker
Program Coordinator	Mike Bader
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### Club Dues Amounts

The club dues were increased to \$30 per year at the November 2018 meeting.

This includes a digital version of the newsletter sent monthly, except for July and August, when the club does not meet.

A paper version of the newsletter is available in place of the digital newsletter, for an additional \$31 per year. (increased at March 2019 meeting)

Associate memberships, for a second member of a household, remain at an additional \$15 per year.

### Two-Month Meeting Schedule

**FEBRUARY 2021**  
 2 - SHCC Main Meeting  
 14 - SEMCO meeting

**MARCH 2021**  
 2 - SHCC Main Meeting  
 14 - SEMCO meeting

Newsletter submissions are due 10 days before the club meeting, but the earlier the better. They should be sent to : [newsletter@SterlingHeightsComputerClub.org](mailto:newsletter@SterlingHeightsComputerClub.org)

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## The President's Pen

by Don VanSyckel



I have stayed away from the pandemic subject, but this month I want to touch on a related subject: that being *social isolation*, particularly for seniors, that the pandemic has created. I believe many SHCC members are in the "senior" category, however social isolation can impact people of any age.

My wife and I have no underlying medical conditions and act responsibly when in public. We continue to socialize with our friends who also act responsibly. I understand and sympathize with people who do have underlying medical conditions and must take extra precautions to isolate themselves

I'm sure everyone reading this has heard of Zoom and other remote meeting applications. As with most software programs there are a few features you need to "use" the program; but there can be more features that can enhance your usage of a program that are not quite so obvious. Remote meeting applications are no exception.

I live in Sterling Heights and recently received an email from the Sterling Heights Parks and Recreation Department for the first time. This email advertised a link to the "Fifty Plus Post" PDF which I downloaded. As one might guess from the name this newsletter is for seniors. While most of the notifications are about Sterling Heights programs, there are some that are regional or state-wide. There were several items in this newsletter that I'd like to share here.

I searched for a link to offer here to register for the newsletter and could not find one. You can go to <http://www.myshpr.net> and check it out. If interested, the only contact number in the email I received is 586-446-2755; possibly calling can register you for the newsletter. Also use this site to register for events.

The first item is a web service that appears to be purchased by the state of Michigan, entitled "**Virtual Classes for Michigan's Older Adults**" at <https://www.getsetup.io/michigan>. From looking at the URL I assume this site might be offered by other states as well but that's for another article.

The majority of classes are free. If you see a class that has a fee, you can enter the coupon code **MICHIGAN-HEALTH** to waive the fee for most classes. It is recommended that you start out with the "**New Member Orientation**" at this web address: [getsetup.io/details/new-member-orientation](https://www.getsetup.io/details/new-member-orientation) If you have any questions, email [support@getsetup.io](mailto:support@getsetup.io) or call toll-free 888-559-1614. Among the topics offered are Zoom, various cell

(Continued on page 6.....*PrezPen*)

## Disable Macros to Avoid Macro-Hackers

News and/or Opinion from the Editor

The following web page (dated 11/23/20) has some interesting info about Windows 10 Feature Updates and MS Office protection:

### A pre-Thanksgiving all-clear to install patches

<https://www.computerworld.com/article/3597902/a-pre-thanksgiving-all-clear-to-install-patches.html>

This author ("The Microsoft Patch Lady") writes articles about cautions regarding Microsoft Windows updates. Her opinions are worth taking seriously. In addition to talking about Feature Updates (including the reminder that users with only the ver.1903 Feature Update should update to the current ver.20H2 now, because it expired on December 8!!), there is a very useful segment about a caution for all MS Office users (who have Office products installed on their computers, not those who access MS Office online) to disable the *macro* option in each product (Word, Excel, PowerPoint, Publisher, etc.). See the segment titled "*Proactive Office recommendations*" for the easy steps to protect your PC from macro-hackers, especially if you are using an expired Office Suite (Office 2010 or earlier versions).

But what, you may ask, is a "macro"? Basically it is programming that the user can create to automate tasks within an application. There are programs in addition to Office applications that use macros. For casual users of Office applications, macros are usually advanced features and if you don't know what a macro is, then you are probably not using any. So, until you decide to use or create a macro, it's probably wise to heed the advice in that article to disable macros completely. The steps are the same for each Office application -- I disabled macros in each MS Office Suite application on my PCs.

This is just one web page that explains the use of macros:

### What is a Macro?

<https://www.free-power-point-templates.com/articles/what-is-a-macro/>

If someone sends you a document that has a macro baked into it, you will probably see a message like "This document contains macros. Macros may contain viruses." when you open the document. If you've disabled macros, the file may not perform as it was designed to. You then have the choice to re-enable macros (reversing the steps you did above), or just to not use the macro capabilities that are in the document. But for the time being, it's wise to disable macros for each MS Office application.



## What is Binary and Why Do Computers Use it?

By Anthony Heddings  
<https://www.howtogeek.com>

Computers don't understand words or numbers the way humans do. Modern software allows the end user to ignore this, but at the lowest levels of your computer, everything is represented by a binary electrical signal that registers in one of two states: on or off. To make sense of complicated data, your computer has to encode it in binary.

Binary is a base 2 number system. Base 2 means there are only two digits — 1 and 0 — which correspond to the on and off states your computer can understand. You're probably familiar with base 10 — the decimal system. Decimal makes use of ten digits that range from 0 to 9, and then wraps around to form two-digit numbers, with each digit being worth ten times more than the last (1, 10, 100, etc.). Binary is similar, with each digit being worth two times more than the last.

### Counting in Binary

0	1	0	1	1	1	1
+0	+0	+1	+1	+1	+1	+1
00	01	01	10	11	100	100
			↙	↑	↘	↘
			carried bit			

In binary, the first digit is worth 1 in decimal. The second digit is worth 2, the third worth 4, the fourth worth 8, and so on—doubling each time. Adding these all up gives you

the number in decimal. So,

$$1111 \text{ (in binary)} = 8 + 4 + 2 + 1 = 15 \text{ (in decimal)}$$

Accounting for 0, this gives us 16 possible values for four binary bits. Move to 8 bits, and you have 256 possible values. This takes up a lot more space to represent, as four digits in decimal give us 10,000 possible values. It may seem like we're going through all this trouble of reinventing our counting system just to make it clunkier, but computers understand binary much better than they understand decimal. Sure, binary takes up more space, but we're held back by the hardware. And for some things, like logic processing, binary is better than decimal.

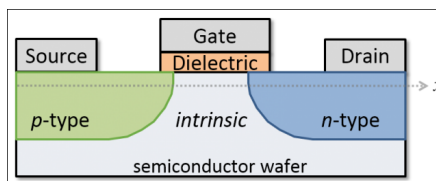
There's another base system that's also used in programming: hexadecimal. Although computers don't run on hexadecimal, programmers use it to represent binary addresses in a human-readable format when writing code. This is because two digits of hexadecimal can represent a whole byte, eight digits in binary. Hexadecimal uses 0-9 like decimal, and also the letters A through F to represent the additional six digits.

### So Why Do Computers Use Binary?

The short answer: hardware and the laws of physics.

Every number in your computer is an electrical signal, and in the early days of computing, electrical signals were much harder to measure and control very precisely. It made more sense to only distinguish between an "on" state—represented by negative charge—and an "off" state—represented by a positive charge. For those unsure of why the "off" is represented by a positive charge, it's because electrons have a negative charge—more electrons mean more current with a negative charge.

So, the early room-sized computers used binary to build their systems, and even though they used much older, bulkier hardware, we've kept the same fundamental principles. Modern computers use what's known as a transistor to perform calculations with binary. Here's a diagram of what a field-effect transistor (FET) looks like:



Essentially, it only allows current to flow from the source to the drain if there is a current in the gate. This forms a binary

switch. Manufacturers can build these transistors incredibly small—all the way down to 5 nanometers, or about the size of two strands of DNA. This is how modern CPUs operate, and even they can suffer from problems differentiating between on and off states (though that's mostly due to their unreal molecular size, being subject to the weirdness of quantum mechanics).

### But Why Only Base 2?

So you may be thinking, "why only 0 and 1? Couldn't you just add another digit?" While some of it comes down to tradition in how computers are built, to add another digit would mean we'd have to distinguish between different levels of current—not just "off" and "on," but also states like "on a little bit" and "on a lot."

The problem here is if you wanted to use multiple levels of voltage, you'd need a way to easily perform calculations with them, and the hardware for that isn't viable as a replacement for binary computing. It indeed does exist; it's called a ternary computer, and it's been around since the 1950s, but that's pretty much where development on it stopped. Ternary logic is way more efficient than binary, but as of yet, nobody has an effective replacement for the binary transistor, or at the very least, no work's been done on developing them at the same tiny scales as binary.

The reason we can't use ternary logic comes down to the way transistors are stacked in a computer—something called "gates"—and how they're used to per-

(Continued on page 13.....**Binary**)

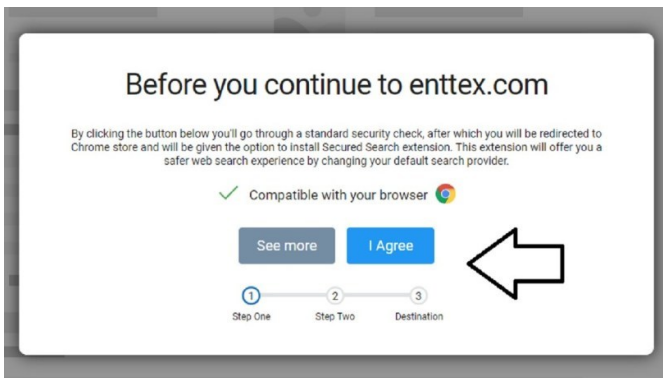
## Is This Site a Scam?

By Cyn Mackley  
<https://cynmackley.com>

A reader has some suspicions about a site she's attempting to visit.

*"Hi Cyn, I've got a problem for you to solve. I was recently diagnosed with Meniere's Disease. It has no cure and very little in the way of treatments. Understandably, I am desperately grasping at anything to stop the debilitating vertigo attacks and/or keep what little hearing I have left. There is a device called the P100 that was made by a company named Enttrex.*

*At the bottom of the article is the web address for Enttrex. The problem is when I try to go to the website, I am met with a popup that tells me to click a button so I can go through a standard security check and then be directed to where I can install a Secured Search extension compatible with my browser (Chrome) and change my default search provider. When I go to close that tab, another popup tells me I'm almost there, only 3 more easy steps to add "Securify" to Chrome. What's up with this? A scam? I'd really like to get to this website, but I'm beginning to think it's not what I think/want it to be. Could you check it out for me? I'd sure appreciate it!"*



You are absolutely right. You encountered an attempt to install a **search engine hijacker** {also known as a "browser hijacker"} which would have directed all of your searches through another website which may or may not be malicious. And who knows what kind of information the installed extension might have gleaned from your browser.

Checking out the site you shared, it appears to be a type of classified site where people can post sales pitches in the form of articles. If you look to the far-right of the article, you'll see that it says 'advertisement' in the fine print.

In this case, it looks like the folks behind the search engine add-on put up an article about an issue that affects many people to lure you into installing their soft-

ware. It's an absolutely despicable attempt to prey on folks with a medical condition.

However, I did some research about the type of device they're describing, which uses pressure pulse therapy to treat symptoms of Meniere's Disease and found a legitimate site for the maker of a device which I forwarded to you. You'll need a prescription to get the device, so talk it over with your doctor.

Be extremely careful of advertisements for medical devices and don't trust any site that asks you to download or install anything before you're allowed to access it. Good catch!

***This article is republished, with permission, from the Cyn Mackley's Tech Tips web site.***



## Can You Identify a Scam, Before You Become a Victim?

News and/or Opinion from the Editor

**H**ave you been scammed? Have you been the recipient of an email containing an invoice for a product that you supposedly bought, but really didn't? Has someone called you on the phone, notifying you that your credit account has been compromised, or that (of all possible nonsense) your Windows license has expired?

Did you heart skip a beat or two? Did you let your guard down and fall for the scam? I know several people who have, and stopped to think about it, but only afterwards. Folks who contacted the scammers to challenge the false information, or entered into a conversation with the scammers when they were first contacted. And now that the scammers have found a *live fish*, they just keep pounding their new victim with more scams. And they share their new-found victim with other fellow scammers (in trade or for sale).

If this isn't you, you probably know someone who has been caught up in such a situation, and which turned out uncomfortably, to say the least.

In this month's WYSIWYG, you will find several videos in the WPR (WebPageReviews) section (on page 14), describing various scams, spying on a scam center, and breaking up an active phone scam. In my opinion, these videos should be required viewing for all users of digital and communication devices (computers, tablets, phones). This includes you — and me!

Take the time to watch the 4-part video set "**Spying on the Scammers**", as well as the two additional videos titled "**Destroying a Scam Call Center**" and "**Dismantling a Scam**". They are intense exposés about how some scammers perform their talents, and the kinds of monetary returns that they earn. Watch how this affects your ability to identify scams in your email and in your phone calls. You'll be glad you did. Tell your friends to watch them, too.



## Hyperlinks Are Cool

By Jim Cerny, Help Desk Host  
The Saratoga Users Group  
jimcerny123@gmail.com

One of the really fun and easy things technology has brought us is hyperlinks. You probably use them all the time and don't even realize how cool they really are. Click on a hyperlink and PRESTO you are instantly somewhere else – tele-transported like Star Trek to another planet.

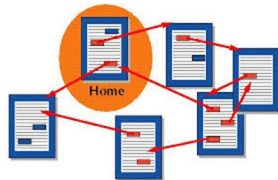
You may know hyperlinks by other names such as "hotlinks", "hypertext", or simply as a "link". Most often a hyperlink text is in blue and underlined, but not always. Let's see how they work when we are using our web browser (Firefox, Microsoft Edge, Safari, or whatever internet browser you use) to explore the internet. On almost every web page you will see some words underlined and in blue – if you click on them with your mouse (or touch them on a touchscreen) you will go to another web page. (The web page address will change in the address bar at the top of your web browser window). This is real magic. The people who have created that first web page put in a hyperlink that will take you someplace else. On your web browser, if you click on the backward arrow at the top you will return to the previous web page where you started. As you explore the web you are creating a "chain" of web pages you have viewed in this session one web-page link after another. You can go backward or forwards along this chain by clicking the left or right arrows at the top.

Here are some helpful things about hyperlinks:

A hyperlink can be text, an icon, or a photo. It can be indicated as a link by a different color (such as blue), underline, highlight, or by nothing at all. If you "hover" your mouse over a hyperlink without clicking on it, it may change color or be highlighted, and your mouse pointer may change to a hand.

Hyperlinks are used to instantly take you to another web page but they also have many other uses. They can, for example, take you to a different place on the same web page, document, or spreadsheet. Or they may just open a small box or window on your screen, such as when using menus. It is up to the person who created the web page to put in any hyperlinks and to determine what happens when you click on them. Almost anything is possible.

Sometimes clicking on a hyperlink will create a new "tab" on your web browser and keep your previous web page on a previous "tab." Each "tab" may have its own chain of web pages you have visited.



Yes, you can create your own "hyperlinks" in your documents or spreadsheets. Ask Google how to do this and watch some good videos on how to do it. It is not difficult. It is, basically, assigning a web page address to a word or photo in your document.

If a web page (or any file such as a document or spreadsheet) contains hyperlinks and you COPY it, the hyperlinks will go with it. Sometimes you may get a text box asking if you want the active hyperlinks to be there or to copy "just the text" without any links associated with them.

## What is a Hyperlink?

*A link from an image, button, or hypertext to another part of the same web page or another web page*

**HYPERLINK**

Click on 'Kittens' and it takes you to another page with an image of kittens.



Kittens are not toys. They have needs and feelings. Do not give them as presents.



One web page

Another web page

**'Link' or 'Hotlink' mean the same as 'Hyperlink'**

But most of the time we don't care how hyperlinks work or who put them in there – we just explore all we want by just clicking on whatever strikes our fancy. Think of a hyperlink as a free ticket to someplace else!

Enjoy your surfin' safari, dude!

*This article has been obtained from APCUG with the author's permission for publication by APCUG member groups.*



*(PrezPen.....Continued from page 3)*

phones and tablets, and social hours centered on various sports.

Another item is "Connecting & Caring" for seniors to have someone to talk to. To sign up email [seniorcenter@sterling-heights.net](mailto:seniorcenter@sterling-heights.net) and mention the program name.

"Zoom Practice" on Friday, January 22 at 10 A.M. Free but registration is required. Registration opens on 01/06 for Sterling Hts residents and on 01/07 for non-residents.

"Fraud prevention" on Thursday, January 21 at 2:30 P.M. Minimal fee and registration required.

Other non-technical topics in the newsletter this month include:

- Grief support

*(Continued on page 12.....PrezPen)*

## Where's the Clipboard? — Still a Good Question

By Phil Sorrentino, Contributing Writer  
Sun City Center Computer Club  
[www.scccomputerclub.org](http://www.scccomputerclub.org)

The clipboard has been an integral part of Windows for as long as Windows has been around. And the question of its location has been around almost equally as long. (It was probably the first thought after we realized that the clipboard existed.)



We, the users, really don't have to know where the clipboard is located to use it, though I bet some very technical individuals could give you a pretty good dissertation on its location. We just need to know how to use it to our benefit. Well, we still don't know where the clipboard is, but we now can put more than one item onto it. As of the Windows 1809 build (the current version is 2004), Windows supports a clipboard that will hold more than one item, but more on that in a few minutes.

Even without knowing the location of the clipboard, we can still discuss how it works and how we can use it to our advantage. The clipboard is a buffer, (an area in memory that is used to temporarily hold data while it is being moved from one place to another within a computer), that the operating system provides for short-term storage and transfer within and between application programs. Its contents reside in the computer's RAM (random access memory). And remember, RAM is "volatile" memory so when the power is turned off, the RAM contents are lost. (By the way, a cache, which is similarly a storage area in memory, is slightly different; it is an area in memory that is used to decrease the access time of data that is repeatedly accessed.)



Cut



Copy



Paste

Cut, Copy, & Paste is part of the Windows Operating System but these commands also function in many software applications, because Windows provides an API (Applications Programming Interface) by which applications can specify Cut, Copy, & Paste operations, which can be executed by key commands or menu operations. Fortunately, most professional software adheres to the now-standard key controls, Ctrl-X for Cut, Ctrl-C for Copy, and Ctrl-V for Paste. Hold down the Control key and simply tap the appropriate key for the corresponding action. (At this point in the development of software applications, I think any deviation from those definitions would be catastrophic, or at least foolish.)

That's the "what it is"; now for a short review of how to use it. Some technical references may call the clipboard a "paste buffer" because we typically put items into the clipboard for eventual use when we "paste" the item into its

final destination. Paste is the final action, as in "Cut & Paste," or "Copy and Paste." The Cut or Copy action puts an item into the clipboard (or Paste buffer), and the Paste action copies the item to its desired location. (Remember, Cut deletes the item you have selected, Copy does not.) The Paste action does not empty the clipboard, it only copies the contents, so you can paste the same clipboard contents over and over again until a new item is placed into the clipboard with a Cut or Copy. If the clipboard can only contain one item, then when the second item is put onto it, the first item is lost. It can be very frustrating if the item in the clipboard is a list of many items, and then another item is placed in the clipboard before the original collection had been pasted into all the places where it was needed.

Now if you've noticed, I use the term "item" to describe what is put onto the clipboard. The item can be anything that is currently selected, so it can be a single character like "A," or a highlighted sentence, or a highlighted paragraph, or a picture, or a collection of pictures, or a document, or a collection of pictures and documents, or a folder, or a collection of folders, or even a collection of folders and pictures and documents. All of these items will go onto the clipboard when a Cut or Copy action is performed. The type or size is not important, anything selected goes onto the clipboard. So, here's a quick review if you want to select many items to be Cut or Copied and finally Pasted. If the items are contiguous (items #3, #4, #5, and #6) in a list, select the first one, then hold down the Shift key and select the last item ... all items in between will be selected. Then treat any item selected as if it were alone and all selected items will follow. If you want items in a list that are not contiguous (items #3, #5, and #8), select the first item, then hold down the Ctrl key and select all of the other items. Then treat any item selected as if it were alone and all selected items will follow.

As indicated way back in the first paragraph the current Windows 10 Clipboard can hold more than one item, although as installed, the clipboard defaults to only one item. To take advantage of this feature, go to Settings-System-Clipboard and turn on "Clipboard History." This will allow multiple items to be placed on the clipboard and allow you to access these items by a simple "Windows key & V-key" combination. Pressing this key combination displays the Clipboard History in a window. With the Clipboard History window shown, you can choose and paste any item in the list. Another feature of the new clipboard is "Sync across devices," which allows you to "Paste text on your other devices when you sign in with a Microsoft account or work account," probably a useful feature in a work environment. Also provided here is "Clear Clipboard data" for those who like to keep a neat clipboard.

So finally, we can put more than one item on the clipboard (without third party software), but sometimes I still wonder where the clipboard is.

***This article has been obtained from APCUG with the author's permission for publication by APCUG member groups.***



## Wi-Fi 6 – What Happened to B, G, N, AC?

By Phil Sorrentino, Contributing Writer  
Sun City Center Computer Club  
[www.scccomputerclub.org](http://www.scccomputerclub.org)  
[philsorr@yahoo.com](mailto:philsorr@yahoo.com)

Ever since Wi-Fi appeared way back around 2005, the Wi-Fi version has been described by a letter because of the letter reference used in the 802.11 Local Area Network standard. Initially, there were 802.11a and 802.11b. Most of us became familiar with the “b” version because this version used the 2.4 GHz frequency band which had better coverage than the “a” version that used the 5 GHz frequency band. (Today many Wi-Fi routers provide networks at both 2.4GHz and 5 GHz.) So, until recently the version of the standard has been used as the version for the Wi-Fi router product. When there was only a and b, that was easy enough, but as time went on, faster and more capable standards were developed and each had a new designation, and now the standards are using multiple letters for the designation like ac, and ax (the latest).



To simplify the designation for products, the Wi-Fi Alliance (the group responsible for certifying Wi-Fi products) decided to use numbers to designate the version. The newest standard 802.11ax is to be known as Wi-Fi 6. Earlier versions will be called Wi-Fi 5 (previously ac) and Wi-Fi 4 (previously n), but you will probably never see those designations in practice. This may initially cause some confusion but eventually, it should be a simpler way of determining Wi-Fi product capabilities. Eventually, we’ll all know exactly what the 6 in Wi-Fi 6 indicates; well, at least as well as we know what the “n” indicates in the n version of Wi-Fi.

Unlike many of the earlier Wi-Fi updates, Wi-Fi 6 is not just an increase in speed, it also provides the groundwork for future improvements that will ensure that Wi-Fi speeds continue to increase in the future. Wi-Fi 6 is just starting to arrive this year. There is a good possibility that it will be in your next smartphone or laptop. At some time in 2021, new Wi-Fi 6 routers will start to include 6E which will be the use of a new 6 GHz frequency band (I guess the E indicates an extension into the 6 GHz band).



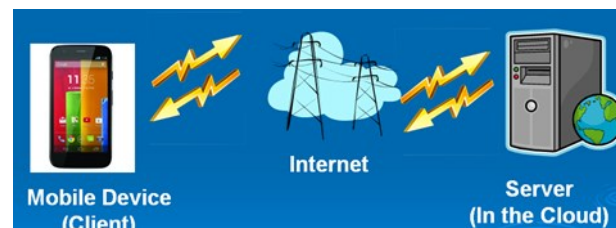
So, what is Wi-Fi 6? Wi-Fi 6 is just the next generation of the Local Area Network standard that will do the same thing past Wi-Fi standards have done - it will connect your many devices to the internet, but it will do that at faster speeds, and it will introduce new, faster and more efficient technologies into the router. Wi-Fi provides the critical link between our Client Apps and the internet Servers (remember Client-Server Technology?).

Much of the improvements with Wi-Fi 6 are aimed at handling the demands of the Internet of Things (IoT). (In fact, very small networks might not even notice much of an improvement. A single Wi-Fi 6 device connected to a Wi-Fi 6 router may only be slightly faster than a single Wi-Fi 5 device connected to a Wi-Fi 5 router.) Another benefit of Wi-Fi 6 will be the fact that all Wi-Fi 6 certified devices will include WPA3, a new, stronger, Security Protocol that improves on WPA2 making it harder for hackers to infiltrate a network.

Many of our homes now have many devices that need to be connected to the internet. Think about it, there are smart bulbs, smart plugs, smart assistants (Alexa comes to mind), indoor and outdoor cameras (Ring doorbell camera comes to mind), door or garage locks, smart thermostats, door or garage door magnetic sensors, as well as laptops, desktops, smartphones, streaming devices (Amazon fire stick comes to mind), and tablets. The last time I had to change the password on my router, I had to change it in 23 devices before I was finished, though the number for an average house today is about nine. (I have seen predictions that the average home in the future may have up to 50 devices.)

Wi-Fi 6 introduces some new technologies to help mitigate the issues that come from putting tens of Wi-Fi devices on a single network router. Wi-Fi 6 has been designed to handle many devices efficiently, by splitting up the available bandwidth so that many devices can be serviced simultaneously. Without getting into any technical detail, Wi-Fi 6 will let routers communicate with more devices at one time, let routers send data to multiple devices in the same broadcast, and let devices schedule check-ins with the router, all features that will allow more devices to be serviced. Where current routers might start to get overwhelmed by requests from a multitude of devices, Wi-Fi 6 routers will keep all those devices up to date with the data they need.

Without the improvements that Wi-Fi 6 will bring, the performance of your future network would slow down as you increased the number of devices on a given network. You may even want to use the fact that things may slow down with your old router to your benefit and wait till you notice your internet connection “seems to be a little slow” before you take the plunge into Wi-Fi 6.



To get Wi-Fi 6, you’ll need to purchase a new Wi-Fi 6 router. Without a Wi-Fi 6 router, all the devices that may be Wi-Fi 6 compliant will not have any advantage. To take full advantage of Wi-Fi 6, all the devices connected

to your Wi-Fi 6 router will have to be Wi-Fi 6 compliant. So, the improvements we get from having Wi-Fi 6 will probably only slowly be incorporated into our internet experience, but it eventually will be worthwhile. New devices will slowly appear with Wi-Fi 6 incorporated, but it will probably take a few years to get to the point where your whole network is compliant with the Wi-Fi 6 standard (and by that time we'll probably be talking about Wi-Fi 7).

Just a brief review of the new technologies. Two technologies are helping speed up Wi-Fi 6. One is "Multi-user, Multiple-input, Multiple-output" (MU-MIMO), which is already in use in some high-end routers and devices, which allows the router to communicate with multiple devices at the same time, rather than broadcasting to one device, and then the next, and then the next, etc. Current high-end MU-MIMO routers can communicate with four devices at a time, Wi-Fi 6 will increase this to 8. (You have probably seen routers that incorporate MIMO because it involves multiple antennas, which let the router talk to multiple devices at one time.)

The second technology is "Orthogonal Frequency Division Multiple Access" (OFDMA) which allows one transmission to deliver data to multiple devices at once. Both of these technologies are used to get more out of each transmission from your router to your devices. Most of the details of these technologies will probably never become too apparent to most of us, but we all will benefit from them in that we will be able to attach more and more devices to our router, without slowing it down, so we can enjoy the benefit of all the features provided by all of those wonderful Internet servers.

***This article has been obtained from APCUG with the author's permission for publication by APCUG member groups.***



*(Ben Franklin.....Continued from page 10)*

of you who can remember that far back). All you need is a library card and you can get an account. Once you have an account, you can borrow movies, TV shows, music CDs, eBooks, audible books, and comics (cartoons). When you borrow these items, like borrowing items from any library, there are some restrictions. Libraries have different limits, so check with your particular library system. Libraries may limit the number of items borrowed per month, or the amount of time you may have access to the item. My HCPLC allows you to borrow 20 movies per month. When you borrow a movie, you can have it for up to 3 days. CDs borrowed via Hoopla are good for 7 days and audiobooks are good for 21 days. A quick look at HCPLC revealed over 12 thousand movie titles, over 2 thousand TV show episodes, over 45 thousand CD titles, over 180 thousand eBooks, over 51 thousand audible book titles, and over 10 thousand comics (cartoons) listed. With that much

free streaming from the library, you may not need all those costly streaming subscriptions, though I doubt if Hoopla will replace any of the popular streaming sites like Netflix or Amazon.

It is probably just a free adjunct, but if funds are tight it may just be a good free alternative.

***This article has been obtained from APCUG with the author's permission for publication by APCUG member groups.***



## Last Days of Flash Player

### News and/or Opinion from the Editor

Adobe's **Flash Player** utility has run its course after so many years. Adobe is sending out pop-up notices to users of this product, directing users to uninstall it from their computers. In case your PC does not receive their notice, read all about it on their **EOL (End of Life) General Information Page** (link below).

In part, it states "*Since Adobe will no longer be supporting Flash Player after December 31, 2020 and Adobe will block Flash content from running in Flash Player beginning January 12, 2021, Adobe strongly recommends all users immediately uninstall Flash Player to help protect their systems.*"

The web page includes instructions for uninstalling Flash Player. Flash Player will not uninstall by itself, but leaving it on your PC presents a potential security risk, since Adobe will no longer support it with any updates, including security updates.

I uninstalled it from my computers. Adobe's removal process left no 'bread crumbs' behind, so the use of an uninstaller tool (such as **IObit's Uninstaller** or **Revo Uninstaller**) is not necessary.

A common method of uninstalling software from your Windows PC is by accessing it in the *Control Panel*, and selecting *Programs and Features* and selecting the product that you want to remove. However, in the case of Adobe Flash Player, this is not a complete removal. There are other files and folders that are not deleted from your PC in this manner. Be sure to follow the instructions in the web link below. Reference item #5 — "**How Do I Uninstall Adobe Flash Player?**" — to complete the process.

Note that there might be two instances of Adobe Flash Player installed on your PC — uninstall each of them separately. Double-check the *Control Panel* to confirm that you have no instances of Flash Player left.

<https://www.adobe.com/products/flashplayer/end-of-life.html>



## Thank Ben Franklin — For the Library, That Is

By Phil Sorrentino, Contributing Writer  
Sun City Summerlin Computer Club  
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**B**en Franklin is remembered for many things political and technical. I'll leave the politics to the history buffs, but on the technical side, he invented the lightning rod, bifocal glasses, the Franklin Stove for home heating, and the odometer. And most important to us lately, he laid the groundwork for the public library system.

Libraries have changed a lot since Franklin's time, but the idea of a source of information or entertainment to be loaned out for free, to members, has endured for almost 300 years. Initially, books were probably the only things being loaned out, but nowadays the library loans out eBooks and audible books, as well as movie DVDs, music CDs, and TV shows, and the always popular classically bound books, many of which are mercifully in Large Print. Although initially, and up to just a few years ago, a person had to visit the library to borrow an item, but today we have computers, tablets, and phones that allow us to borrow an item without ever having to show up at the library. (However, you probably have to go once just to join the library and get a library card, though that, recently, may have even migrated to online activity.)



Today, most public libraries subscribe to a service called OverDrive to catalog and manage their electronic offerings. When you borrow an electronic item, you download a license file to your computer. The license file is an .acsm file type, for those of you interested in the details. So, borrowing an electronic item entails downloading the item's license file to your device and then using the appropriate reader/viewer/player to read/view or play the electronic item. And don't worry about returning the item because after the borrowing period ends, the item will automatically be returned to the library (No Late Fees, pretty neat, don't you think?).

You can even return the item early if you finish it before the borrowing period ends; just look for a button to "Return" the book. Fortunately, all of the steps required to borrow and return an item are done for you by an app that you initially download to your device. Once it is downloaded, you then use it to borrow the electronic items. When you first use the app to connect you to your local Library system, you will establish an account with an account name (usually your library card number) and a password or PIN. This is now the account you will use

to borrow electronic items. Two of these apps are *Overdrive* and *Libby*, both of which are used to borrow eBooks and audible books. Overdrive has been around for a while and allows you to borrow eBooks and audible books so you can then read them with a reader like the Kindle reader. Libby is newer. Not surprisingly, Libby is made by the same company that makes OverDrive - the OverDrive Company. Libby not only helps you borrow the item, but it provides a reading environment, so you can borrow and read eBooks or listen to audible books, all within Libby. (So, you don't need the Kindle reader if you use Libby.)

eBooks and audible books are typically shown in a library-like view, and you will have an opportunity to borrow any available item, i.e. the book's license has not checked out. If you find a book that you are interested in, typically you can borrow the book just by clicking on "borrow." The book (license file) will be downloaded to your device and you will be able to read or play it with an appropriate reader or player, for the amount of time specified by your library. Just like physical books, these electronic books can only be borrowed by one person at a time. If an item is checked out by someone else, the item will show up as not available and you will see an option to place a hold on the item. Once you place a hold on an item, it will be added to the "hold" section of your account. When it becomes available, you will typically get a "book available" notification email. Just as an example, an eBook borrowed from the Hillsborough County library, using Overdrive can be kept for 14 days. Many of us may remember *Hoopla*, *Fran & Ollie* (or was that *Kookla, Fran & Ollie*?). (Well, that probably gives away the fact that I grew up in the 1950s near New York City.) But the important point here is that Hoopla is a new free Streaming service being offered by many library systems, in particular the Hillsborough County Public Library Cooperative. (HCPLC). Many of us are probably familiar with borrowing eBooks and audible books from the library using Overdrive or Libby on our mobile devices (phones and tablets), but Hoopla goes a step beyond and provides free streaming of much of the library's video inventory. Hoopla is a cloud-based digital media platform that enables users to instantly borrow entertainment and educational material using the Hoopla app on a tablet or smartphone. Think of Hoopla as pay-per-view or video streaming, where your public library is picking up the cost.

Hoopla is a website (Server) and app (Client for mobile devices) that allows you to borrow movies, TV (shows & episodes), and Music selections. The website is [hoopladigital.com](http://hoopladigital.com) and the App looks like this:



All streaming services are vying for your time and most are also after your money, but Hoopla is free. Hoopla is more like a library than a "blockbuster" store (for those

(Continued on page 9.....**Ben Franklin**)

## Why Can't Standards Be Standard?

By Greg Skalka, President  
Under the Computer Hood User Group  
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[president@uchug.org](mailto:president@uchug.org)

Part of what makes our technology work so well is that it follows standards. There are both rules established and items held up as an example in common use. All of our electronic means of communication are successful only because of standards. Without accepted rules for operation, cell phone calls wouldn't connect, and text messaging wouldn't work. Without established standards for interfaces like USB, Ethernet, Wi-Fi – even 120VAC power – we would not have the tech capabilities we enjoy today.

That does not mean that everything must be done in the same way. Innovation is often the result of new methods being introduced; if these prove beneficial and become popular, they can become the new “standard” for use. Sometimes multiple factions will solve the same problem or provide the same basic capability in different but incompatible ways. Remember the VHS vs. Betamax videotape war of the 1980s? Even though both followed standards, VHS eventually proved to be more popular and became the usage standard, forcing Sony to abandon the production of Betamax. These battles to become the popular standard can improve the technology available, but they also cause grief for the user that found their adopted version became the loser.



Unfortunately, while some tech changes have merit, others appear to be changed for the sake of change. Some changes to long-held ways of doing things seem to be for the benefit of tech companies (and their ability to market and sell new products), rather than tech users. User interfaces are especially susceptible to the change for marketing's sake syndrome. I am so tired of Microsoft Office changing their user interfaces while providing little substantive or beneficial change.

Sometimes it is the competition that forces there to be differences. Manufacturers need differentiating factors and features to be able to gain market share over something other than price. Companies will often litigate with competitors that “copy” their key attributes. This usually forces multiple standards on the marketplace, as with Microsoft's Windows and Apple's MAC, or Apple's iPhone and Android phones. This can also result in different

interchange formats between competing device families. Fortunately, in most cases, the basic governing standards within product types are still followed by all competing vendors. You may not be able to use Facetime on an Android phone, but at least it can call and text with an iPhone. It is bad enough that few accessories are interchangeable between Apple and Windows computers; imagine if you couldn't send an email between them?

The interchange of files between tech camps can be a tricky problem. Fortunately, there are some formats, like PDF (Portable Document Format) that are universally supported and recognized on all platforms, be they computers, tablets, or smartphones. Most Microsoft Office files are at least viewable on most platforms. Many image and video file formats are easily interchangeable, but unfortunately, there are quite a few that are not.

My wife and I recently went on a one-week driving vacation to a cabin in Idaho. Though we were kind of isolated from technology (off the power grid with solar/battery and no cell coverage), we brought along a lot of our tech devices. These included five image/video-capturing devices: a camera and smartphone each, plus my action cam. When we returned, I collected all the photo and video files on one USB Flash drive and sorted them chronologically. This was a bit of a task, as it amounted to 23GB of data in over 2000 files. The fact that there were different file formats and different hardware platforms involved didn't help.

Being on vacation, my wife and I both took a lot of photos, but I took the majority – over 90% of them. She has fancier equipment but takes fewer shots, often looking mostly at artistry and composition. I have more modest equipment, and I've always taken lots of photos. I am concerned about good composition, but also tend to think of my photography as an augmentation of my memory. I take a lot of photos and videos of trips and family events simply to help me remember them.

My photos and videos were pretty easy to compile and view. I have Panasonic Lumix “bridge” camera; this type of camera has the large body and lens of a DSLR (Digital Single-Lens Reflex) but with the smaller sensor (and lower price) of a point and shoot camera (it is a bridge between the point and shoot and DSLR). It also has a fixed (non-removable) lens like a point and shoot camera. My camera takes JPEG (Joint Photographic Experts Group) photos (.JPG file extension), which is a lossy file compression format and is probably the most popular photo image format. It takes MPEG-4 (Moving Picture Expert Group-4) videos (.MP4 file extension), which is probably the most widely-used video compression format. My Samsung Android smartphone takes photos and videos in these same formats. My small off-brand action camera also takes MP4 videos. All in all, they are pretty



standard and universally compatible.

My wife has the fancy (or at least more expensive) hardware – a Canon premium DSLR and an iPhone. She has the Canon set to save photos as both JPG and raw (.CR2 file extension). The raw file format consists of the unprocessed or minimally-processed camera sensor data (“raw” data) and is a much larger file. It is the highest quality format and is the best to use if photo editing will be done. I copied only her JPG files from our trip, as that’s all I wanted. Though I didn’t use them, I was impressed that the Windows 10 photo viewer (Microsoft Photos) could view them. CR2 files she had taken, as I’d never been able to see them on my Windows 7 laptop.

The iPhone proved to be the biggest challenge and the most incompatible with my computing infrastructure. My first difficulty was in getting the photo and video files off of the iPhone and onto my Win10 computer. You can’t just connect the two devices, and I would not know how to find the files I wanted on the iPhone if I could. Fortunately, I already had a solution to this problem. A few years ago I’d purchased a SanDisk iXpand 32GB Flash drive, which can act as an intermediary between the Apple and Windows worlds. This is a special Flash drive with both a USB type A connector and an Apple Lightning connector. It also contains an internal battery; this may be necessary because, unlike USB, Lightning peripheral devices can only provide power, and not receive it. Through the SanDisk app downloaded from the Apple Store, photo and video files can be located on the phone and then copied to the Flash drive from the iPhone, through the Lightning connector. The Flash drive can then be plugged into a Windows PC through the USB interface so that the files from the iPhone can be accessed and copied.

Even with the iPhone files on my Win10 computer, the compatibility battle was not over. The iPhone video files are .MOV (Apple QuickTime) compressed video files, which are compatible with Windows. The photo files, however, are HEIC extensions, not immediately recognized by Windows. These are High-Efficiency Image Format files, a new MPEG format that Apple has adopted. Microsoft did provide an ac solution, however. Double-clicking on one of these files on my Win10 PC brought up a message to download an app from the Microsoft Store. Once I had downloaded and installed the HEVC Video Extensions app (\$0.99), my computer could view these photos.

In addition to this new file format, new iPhones also take photos in a mode called “Live Photo”. In addition to the HEIC image, the phone also captures a video running 1.5 seconds before and after the image, so each photo was taken results in two files. Since now I could see both, I decided to keep both.

After a bit of manipulation, I finally had all of the trip photos and videos I wanted in one place, all visible in Win-

dows. Though Apple may keep changing up their file formats, it appears Microsoft is providing ways to keep up and view their files in Windows 10.

Now if only my Chromebook could open all these files. I’ve had poor luck with video files on my Samsung Chromebook, and none of the ones we took on the trip could be opened. It turned out the only thing it could see was the JPG files. It seems the Google Chrome OS needs to update its standards.

### **The Most Photographed Spot**



I’ve been ordering a lot from Amazon since the pandemic, and a lot of the time the email I get from Amazon asking how my package delivery was, includes a link to a photo of the delivered package sitting on my doorstep. Apparently, the delivery person now takes a “proof of delivery” photo. This may soon make my doorstep the most photographed location on my property.

***This article has been obtained from APCUG with the author’s permission for publication by APCUG member groups.***



*(PrezPen.....Continued from page 6)*

- **Veterans Issues**
- **Meals on Wheels**
- **Powerful Tools For Caregivers**

\* \* \* \* \*

Join us on January 5th for a remote presentation by Jim and Chris Gold of Geeks On Tour made available by the APCUG Speakers Bureau. The presentation is "**How Do I Make My Own Custom Maps**". It’s little known that some mapping sites allow you customize and download maps for your own needs. They have done many presentations and are known for lively and informative presentations.

\* \* \* \* \*

Last Month:

Last month’s SHCC meeting was a remote meeting at which Ray Baxter from Association of Personnel Computer User Groups presented "**How Technology Has Changed the Way We Listen to Music**". Great presentation on a timely topic.



## Virus-infected Minks Rise From Graves

By Joshua Bote, USA Today

{Ed. note: This article appeared in the Detroit Free Press on Nov. 27, 2020. If the subject matter were not as potentially serious, this story of 'zombie minks' could be viewed as comical.}

\* \* \*

### Local officials suggest burning corpses to prevent concerns

Minks infected with a mutated strain of COVID-19 in Denmark appear to be rising from the dead, igniting a national frenzy and calls from local officials to cremate mink carcasses.

While the sight itself is certainly terrifying for the residents of West Jutland, a region of the country grappling with confirmed COVID-19 cases connected to mink, there is likely a scientific explanation for the zombie-like re-emergence from their graves.

A Danish police spokesman, Thomas Kristensen, told a state broadcaster that gases form while the body decays underground, according to the Guardian.

"In this way, in the worst cases, the mink get pushed out of the ground," Kristensen said of the nightmarish sight.

The nation has planned to cull all 15 million minks in the country, which produce 40% of the world's mink fur.

Because of the rushed burial, the animals were placed in shallow graves - just over three feet deep. Now, officials plan to bury the creatures in graves nearly double the depth. The area will be also monitored nonstop until a fence can be set up, the Guardian reported.

But for some local officials, that may not suffice.

Some have also been concerned about the graves' proximity to rivers and other water sources, which may contaminate water supplies in the region. At least two mayors have suggested burning all the mink corpses in order to prevent further concerns, the Danish newspaper Jyllands-Posten reported.

About 3,000 mother minks and their cubs were killed at one fur farm in Denmark, where a mutated variation of COVID-19 has infected them.

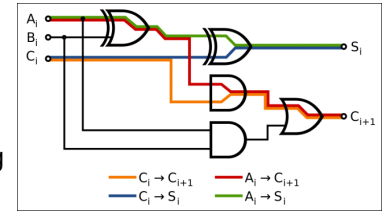
As of Wednesday {presumably 11/25/20}, Denmark has reported more than 74,000 COVID-19 cases and 800 deaths, according to Johns Hopkins.

**This article is borrowed from the Detroit Free Press as a PSA.**



(Binary.....Continued from page 4)

form math. Gates take two inputs, perform an operation on them, and return one output.



This brings us to the long answer: binary math is way easier for a computer than anything else. Boolean logic maps easily to binary systems, with True and False being represented by on and off. Gates in your computer operate on boolean logic: they take two inputs and perform an operation on them like AND, OR, XOR, and so on. Two inputs are easy to manage. If you were to graph the answers for each possible input, you would have what's known as a truth table:

A	B	A AND B	A OR B	NOT A
False	False	False	False	True
False	True	False	True	True
True	False	False	True	False
True	True	True	True	False

A binary truth table operating on boolean logic will have four possible outputs for each fundamental operation.

But because ternary gates take three inputs, a ternary truth table would have 9 or more. While a binary system has 16 possible operators (2<sup>2</sup>2<sup>2</sup>), a ternary system would have 19,683 (3<sup>3</sup>3<sup>3</sup>). Scaling becomes an issue because while ternary is more efficient, it's also exponentially more complex.

Who knows? In the future, we could begin to see ternary computers become a thing, as we push the limits of binary down to a molecular level. For now, though, the world will continue to run on binary.

**This article is republished, with permission, from the How-To Geek web site.**

{Ed. note: Did you ever notice that USB flash drives are available in storage sizes of 8GB, 16GB, 32GB, 64GB, 128GB, 256GB, and so on? Now you know why.}

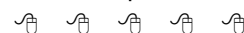


## Unmuting Your Mic on ZOOM

News and/or Opinion from the Editor

When using ZOOM to access an online event, you often have the choice of whether to mute or unmute your microphone. Muting your microphone restricts you from being heard during the event. The host of the event has the ultimate control as to whose mics are muted/unmuted.

But the ZOOM event host may allow speaking by the attendees. So, if your PC microphone is muted, and you wish to speak, a simple way is to hold down the space bar, speak, and then release the space bar to mute again.



## Web Page Reviews

by Paul Baecker — [webwatch@sterlingheightscomputerclub.org](mailto:webwatch@sterlingheightscomputerclub.org)



This column attempts to locate sites containing valuable, amusing, and free content, with no overbearing pressure to purchase anything.

***Our club members only*** are encouraged to submit favorite sites (a description is optional) to the e-

address noted above, for inclusion in a future WYSIWYG issue. Also check the SHCC web site (“Web Page Reviews”) for previous gems.

This **German factory** had been building the VW luxury model Phaeton car, but in 2016 they closed the facility in a cost-cutting effort after an emissions scandal. It has been repurposed and more recently has been building the electric Golf model. An older video, but interesting for it’s innovation in production methods. (7-min. video)

<https://www.youtube.com/embed/nd5WGLWNIIA?rel=0>

How to change **kerning** in Microsoft Word.

<https://www.howtogeek.com/695173/how-to-change-kerning-in-microsoft-word/>

Force Windows 10 to notify you before downloading any new **updates**. This puts you in *some* control of when updates are installed. (“Pro” owners use Group Policy Editor; “Home” owners need to make a registry edit — backup the registry first!!) <https://davescomputertips.com/force-windows-updates-to-notify-before-downloading/>

The **King of Military** Youtube channel is an independent, educational and military documentary channel devoted to the armed forces and military technology with dozens of high-quality ground/sea/air vehicle action video offerings.

<https://www.youtube.com/channel/UCFaihN6xnMTIt0jrcrSf5w>

How to **protect your eyes** when using a smartphone.

<https://www.maketecheasier.com/protect-eyes-when-using-smartphone>

Latest **Windows 10 update problems** caused by the ver.2004 Feature Update (Spring 2020) and how to fix them.

<https://www.maketecheasier.com/latest-windows-10-update-problems/>

In any Windows OS, there are often multiple ways to accomplish the same task. Here are a dozen ways to open **File Explorer**. You get to pick what works best for you.

<https://www.howtogeek.com/693474/12-ways-to-open-file-explorer-in-windows-10/>

**Windows 3.0** is 30 years old: Here’s what made it special.

<https://www.howtogeek.com/674574/windows-3.0-is-30-years-old-heres-what-made-it-special/>

How to get rid of **Bing in Windows Search**. This actually removes all web searches in the Search window — and solves a major complaint of Windows 10 users.

<https://askleo.com/getting-rid-of-bing-in-windows-search/>

Why does a Microsoft Excel **spreadsheet** end at row 1048576 and column XFD (that’s 16384 of them)?

[https://answers.microsoft.com/en-us/msoffice/forum/msoffice\\_excel-mso\\_windows8-mso\\_2013\\_release/why-does-an-excel-spreadsheet-end-at-1048576-and/0007c3c4-0785-45a4-ad63-78b930773a5e](https://answers.microsoft.com/en-us/msoffice/forum/msoffice_excel-mso_windows8-mso_2013_release/why-does-an-excel-spreadsheet-end-at-1048576-and/0007c3c4-0785-45a4-ad63-78b930773a5e)

“**Spying on the Scammers**” — 4-video set, parts 1 thru 4. (Each video ~16 mins)

<https://www.youtube.com/watch?v=le71yVPh4uk>

<https://www.youtube.com/watch?v=uV-qa9M-o4E>

<https://www.youtube.com/watch?v=jTXN9iTKHc8>

<https://www.youtube.com/watch?v=G15xjQM-rGc>

“**Destroying a Scam Call Center**”. (17-min. video)

<https://www.youtube.com/watch?v=RHHzoDqZL8M>

“**Dismantling a Scam**”. (17-min. video)

[https://www.youtube.com/watch?v=\\_drmu\\_2Ump4](https://www.youtube.com/watch?v=_drmu_2Ump4)

Windows 10 – **lifecycle and death**. What’s it all about?

<https://davescomputertips.com/windows-10-lifecycle-and-death/>

**NOTE: Many of the links in the digital newsletter connect to the Internet if clicked. For those that do not, copy and paste the link into your Internet browser.**

OH DEER



WHAT A YEAR!

## Web Watch Column on the Club Web Site

Check out the **WebPageReviews** section on the club’s web site. There you can see past web sites reviewed in this column. They are arranged into various **keyword** categories to help locate a specific topic or site.