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Newsletter of the Potomac Area Technology and Computer Society

April 2025, Volume 3 Page 1

My turn……

It's been quite a six weeks since the previous newsletter.

First, I got an angry response from one of the authors from the last issue. I had added a graphic that she didn't appreciate *and* the table in the article somehow got mis-formatted. Unfortunately, that's how the article came to me. The corrected version of the article (without my addition) starts on page 2.

Second, I went to Norway on a photo trip, and I did something really, really stupid… something I've never done before while on international travel: I put my passport on a table in my hotel room. NEVER, EVER do that. If you don't keep it with you—which is what I've always done—put it in the room's safe. The room's housekeeper stole it AND I didn't recognize it was gone until I started packing to change hotels two days later. The first thing I did was get in touch with the US Embassy in Oslo. Did you know you can't reenter the US without a valid passport? Neither did I. Bottom line: I had to cancel my return flight and stay in Oslo an extra 2½ days to get an emergency passport.

See page 14 for why I went to Norway in the first place!

It could have been worse. I was in a first-world country where most of the young people speak English. The old ones—like us—probably only speak their native language. I walked around a lot and Oslo is a beautiful city. (All *for hire* transportation is electric and the air is clean!) I stayed in 2 Radisson Blu hotels—one near the airport and one in downtown. The staff at the airport hotel was very helpful, but it was still a *very* stressful time for me.

I was supposed to return home on the 29th of March, but had to stay long enough to get a new, passport (good for one year). The Consulate turned my new passport around in five (5) hours!

About the only good thing that happened was that because my initial reservation was cancelled, the new one's first (of two) return flights departed at 1 PM, *not* 06:30 AM as the initial schedule called for. Going though Norway's airport security is just not fun. They make the traveler take everything out—including camera bodies (two, when I usually only have one), and unzip my backpack so they could see the lenses, and then there's the computer and all of one's electronics. It took nearly an hour. Fortunately, I had planned for that time. The actual flights were a piece of cake.

The one almost problem occurred when I got to German passport control in Frankfurt: I didn't have an *entry* stamp in my passport, and the agent wanted to know how I got into the EU. She accepted my email of my reservation to fly t*o* the EU, which I had in my phone. Once I produced that, it was smooth sailing.

Next printed issue: June, 2025

Contents

Table of Contents: Bruce Rosen; Proofreaders: Doris Bloch, Barry DeMaio, Steve Kalin, Paul Howard

###

Printing your photos

By Lynda Buske
Ottawa PC Users' Group, Ontario, Canada https://opcug.ca
(**Note**: This article is being reprinted from Volume 2 to fix the formatting of included table and remove an-editor-added graphic.)

Despite our digital world, it is really nice sometimes to print a photo that you can stick on your fridge, display on your wall, or even frame and give as a gift. The main thing to remember is that the print size for a digital image may be limited.

All digital cameras and cell phones have sufficient megapixels to provide the resolution for a 4" x 6" or 5" x 7" photo enlargement. Many would have enough for much larger prints (e.g., 8" x 10" or 11" x 14"). However, cropping in post-production will reduce your image dimensions.

The best starting point is determining what a good quality home or commercial printer will provide. In most instances, the gold standard is 300 dpi (dots per inch), which you can equate to 300 pixels. That means if you want to print an 8" x 10", the long side of your image would ideally be at least 3000 pixels (10" x 300). For 16" x 20", you would probably like the long side to have around 6000 pixels.

The table below provides a rough guideline for the maximum print size of good quality that you can expect based on the number of megapixels your camera has.

Camera resolution	File size at high resolution (pixels)	Max print size in inches at 330 dpi
2 megapixels 3 megapixels	1200 x 1600 1536 x 2048	4 x 5 5 x 7

Ed's note: the table was not split intentionally. It's just how Word did it.

8 megapixels	2448 x 3264	8x 10
10 megapixels	2592 x 3888	8 x 14
12 megapixels	2800 x 4000	8 x 14
16 megapixels	3264 x 4920	11 x 14
21 megapixels	3744 x 5616	12 x 18
24 megapixels	4000 x 6000	16 x 20

If you have a 24MP camera, your images will probably be 6000 x 4000 pixels. This means you can do a lot of cropping before going under the 3000-pixel threshold. If you shoot with a 12 MP camera and then crop your images significantly, you may not be able to print an 8" x 10". However, if your cropped image dimension is still around 1200 x 1600, based on the chart above, you could print a 4" x 6". Some older cell phones have only 5 or 6 megapixels, so be careful when deciding what size to print. Unfortunately, many family pictures we want to treasure are taken at social events with cell phones, so get close to minimize the need to crop. Unless you are sure your cell phone has an optical zoom on the camera, don't "zoom" with the finger spread as that is just cropping and hence losing resolution. Even if cell phones tout 20MP or 100MPs, almost all only output 12MP due to pixel binning (https://en.wikipedia.org/wiki/Pixel_binning).

One final consideration when making prints is the viewing distance. If you print a 4" x 6", there is a good chance it will be held in your hand or an album and, hence, very close to your discerning eye. If, on the other hand, you make an 11" x 14" print for your wall, it may never be viewed at less than a few feet, and therefore the resolution does not have to be as good.

You may have to experiment as to which image dimensions produce an adequate enlargement for your viewing needs and which printing service provides the quality you want. I recommend printing one 8" x 10" as a test before committing to a company. When submitting digital photos online, many services will warn you if the resolution is not adequate for the print size you requested.

I have found the quality of prints at Shutterfly and Photobook Canada to be very good, but there are significant delivery fees. On the other hand, Staples has the quality but no delivery fees if you pick it up at the store. However, it takes five business days. If you want a quick turnaround of 4x6 prints, a place like Walmart is probably all you need.

###

Smartphone Re-Connect To Cell Tower

By John Krout, © All Rights Reserved
Washington Area Technology And Computer Society (www.patacs.org)

One day in March 2025, my daughter's smartphone was unable to connect to our nearby cell tower. A call to our smartphone carrier customer service led us to a solution. Read on to learn the details.

Introduction

No computer is perfect. That includes mainframes, servers, desktops, laptops, tablets and smartphones. For many of us, the smartphone is the one computer we keep turned on all the time.

In March 2025, my daughter brought a problem to me I had not only never experienced during my 15 years of smartphone use, but also never heard of. Her Samsung Galaxy A15 smartphone was unable to use the local cell tower, which was only about 100 yards from our home.

My first reaction when I encounter any unwanted computer behavior is to restart it. She had already restarted her smartphone. That step did not clear up the problem.

We called our carrier company, which is Verizon. We called on my phone, and the customer service staffer patiently led us through a procedure that did re-establish the connection of my daughter's smartphone to the cell tower. The customer service staffer called this a "resync".

The resync steps

1. **Turn off Wi-Fi access** on the smartphone.

On my Samsung Galaxy S20 FE smartphone, running Android 13, the Wi-fi on/off switch is found in **Settings►Connections**. You can see that screen with the on/off switch circled in **illustration 1**. The switch there, circled, is in the On position. Tap the switch to move it to the Off position.

Illustration 1

An alternative way to turn Wi-fi on and off is available in the Shade menu, that gray screen which can be dragged down from the top of any screen on Android. You can see a depiction of that menu with the Wi-Fi on/off button circled in **illustration 2**. The switch is shown in the On state. Tap to turn it off or back on.

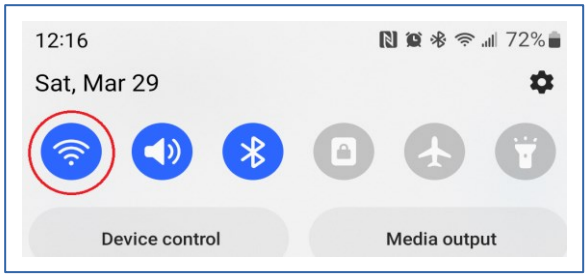

Illustration 2

2. Second, in Settings, **reset the mobile connection**.

This reset does ***not*** erase any photos, videos, apps, files or other data on the smartphone.

To do this in Samsung Galaxy Android smartphones, the tap path is:
Settings►General Management►Reset►Reset Network Settings.

That sequence of screen taps is depicted in **illustration 3**, from left to right. The leftmost screen is the **Settings** app main screen, scrolled down to reveal the **General Management** button.

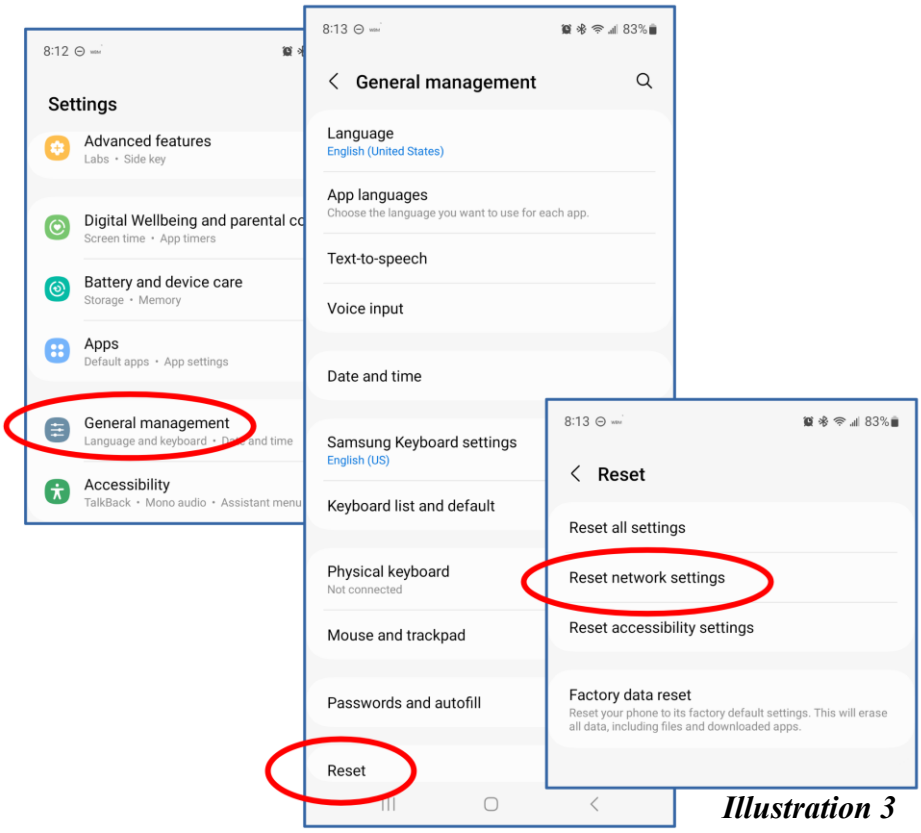

Illustration 3

In Android 14, the final screen is a bit more elaborate but still includes the same **Reset network settings** button.

3. Power down the smartphone for two minutes.

4. Power up the smartphone. When the smartphone operating system is up and running, the connection to the cell tower should be re-established. It was re-established in our case.

Don't forget to turn on the Wi-fi switch.

Why power down the smartphone for two minutes?

I believe this is to ensure that the cell tower has purged its record of the smartphone connection status. Apparently, all such records in the cell tower computer are either updated or purged on a two-minute basis. I say this because, while powered down, the smartphone is not doing anything, so the timeout and purge must happen in the cell tower.

Prior Android phones

I checked my Samsung Galaxy S10, running Android 12. The tap path for the Wi-Fi switch and for resetting the Network connection is the same as those shown above for Android 13. I checked my Samsung Galaxy S7, running Android 8. The tap path for the Wi-Fi switch and for resetting the Network Connection is the same as those shown above for Android 13.

iPhones

On my iPhone 10 running iOS 16.7, the Wi-fi on/off switch is found in **Settings►Wi-Fi**.

Here is the sequence of screen taps for resetting the cell tower network connection:
Settings►General►Transfer or Reset Phone►Reset►Reset Network Settings
You can see a depiction of the tap sequence in **illustration 4**, from left to right. The leftmost screen is the **Settings** app main screen, scrolled down to reveal the **General** button.

This reset also does ***not*** erase any photos, videos, apps, files or other data on the iPhone.

Since that smartphone is retired and has no carrier, I was not able to test a reset of its network connection to a cell tower.

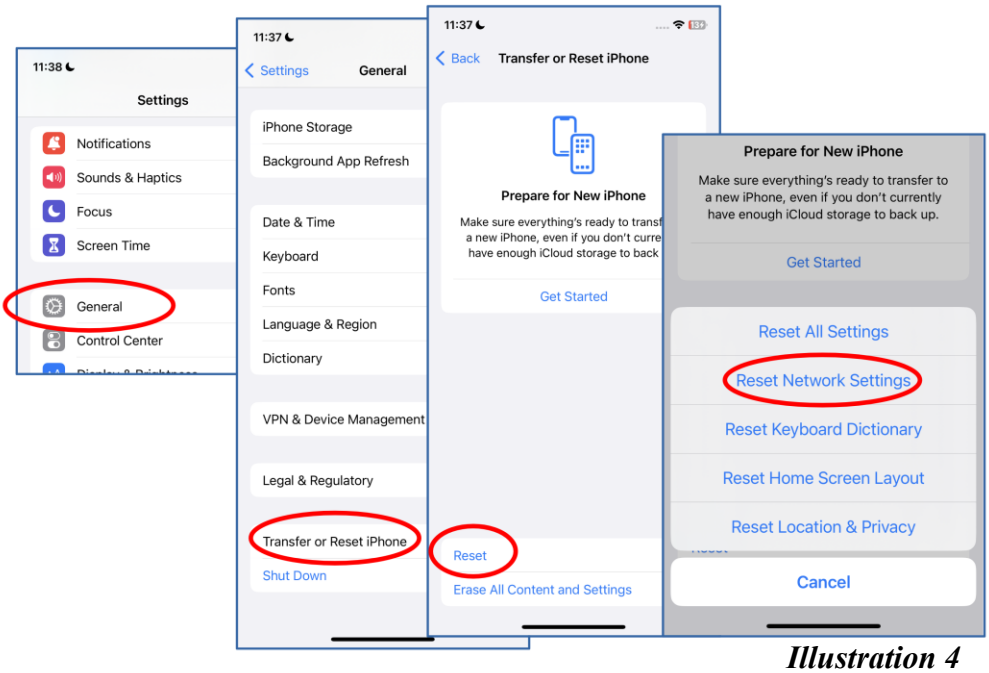

Illustration 4

###

Two-Factor Authorization Fiasco

Greg Skalka, President, Under the Computer Hood Users Group (www.uchug.org)
1editor101@uchug.org

If you are accessing a personal account or app on the web, you should be concerned about that account's security. Bad actors (and I don't mean those who can't get a job in Hollywood) constantly search for our login credentials, hoping to access our accounts and steal money or personal information. The best ways to protect online accounts include using strong passwords and protecting them, resisting attempts by others to gain access to those accounts through scams and phishing communications, and using two-factor authentication or 2FA, on those accounts.

Two-factor authentication, requires at least two identification items of different types to log into an account. It is a subset of multi-factor authentication (MFA). This can be enabled for most online accounts; some account providers now require it. It typically requires providing two or more identifying items from three categories for account access. These categories are something you know (like a password, birthdate, or the answer to a security question), something you have (could be a specific phone, computer, or email account, or a security key, fob, or dongle), and something you are (a biometric like a fingerprint).

To get money from an ATM (assuming you are not trying the big truck with a chain approach), you must provide something you have (an ATM card) and something you know (a PIN). With a 2FA-enabled online account, to gain access, you would typically need something you know (a password) and something you have (either a smartphone or computer that can receive a security code through text message or email). Entering the correct code sent to the device that presumably only you have validates your identity in a second way (in addition to the password).

Your account provider may be using 2FA, and you don't even realize it. Even if you only enter a password for access, the provider may look at the IP address or other identifying information from your device's connection to validate that it is really you (something you have). If you usually log in from one device and then suddenly use another, the account provider may ask for additional verifying information, like the answer to a security question.

It should be evident that trying to make it more difficult for others to access your accounts could also make it more difficult for you. Going through additional steps, like entering a six-digit code you were sent through a text message, takes time and opens up the possibility of being denied access. If you lose your phone, have phone communication problems, have a malfunction in your fingerprint scanner, or lose control of your email account, you may not be able to get timely access to your accounts.

I was a little apprehensive about 2FA at first due to concerns about my being denied access due to some problem outside of my control. I don't remember if I started using 2FA because I enabled it or if some account I already had started requiring it. I have used 2FA for several years on most of my critical accounts. Whenever I am asked to enable it, I look to enable it on some accounts (I have found some that did not support it then; I'm starting to think less of those companies). I typically use my phone as the second form (something I have); so I need to ensure I have my phone handy when I want account access on my computer. Receiving a code as a text on a phone is supposed to be more secure than receiving it in an email.

Recently, however, I have had a few instances of being denied access to accounts through 2FA. My first instance was when I was trying to access MyScripps online medical account on my computer to perform an electronic check-in for a medical appointment. Of course, I was in a hurry, trying to do this late at night, just before bed for an appointment the next day, and I would not have time to do it later.

After successfully entering my username and password on the MyScripps login page, a page was provided to select the method for sending a code: email or text. I have found that my phone usually receives the text in just a few seconds. This time, however, the text did not come right away as expected. I waited maybe 60 seconds (remember, I wanted to finish this and go to bed) and then clicked "Send code again." Again, I waited, this time a little longer. I checked my phone to see that it was on and not in airplane mode or something else that would turn off reception.

After waiting longer than I wanted, I finally selected email to deliver the code. Then, I had to start Thunderbird (my email program) to access my email. Fortunately, the email with the code was there, and I successfully logged into MyScripps and completed my task. At the time, I thought it was strange, but I didn't consider the problems I had any further. The following day, I found that the texts had come in at night.

A few days later, I tried to log into my bank online banking account from my computer; I again needed to check my account balance with some urgency. The bank's 2FA enter screen comes up right after entering a valid username and password; I may enable only texts to my phone for this. Again, I was used to having the text with the code pop up on my phone immediately, but I waited several minutes without receiving the text message. I remembered the MyScripps incident. There was no email delivery selection on the 2FA code entry screen on the bank's website, but there was a link to "verify another way." I had hoped it would lead to verification through an email, but instead, it asked me to enter my debit card PIN.

I don't use a debit card for any of my accounts; I may have been sent one by the bank years ago, but I never activated it and had no way to get its PIN. This lack of access to my account was beginning to make me angry.

I canceled out of that screen (the only option) and tried going into the login page to get another code sent, but no code text message came to my phone. Finally, the bank locked me out of online access for too many unsuccessful attempts. I would need to change my password to get access again, and the first step for that was to send me a code that I'd need to enter. Good grief! I searched their website and finally found a number to call for online access support (they don't make things like this very obvious on their site).

While still on their site, I called the number and started my way down their automated phone menu system. Suddenly, while listening to the next set of options, I heard the sound of text messages being received on my phone. I found a bunch of texts from my bank with 2FA codes that had just come through on my phone. I hung up the call and returned to the web page, but after entering the code from the last text, it said the code had expired, and a new one would be sent. Again, no code text was received. I called my bank's support number again and found that action again appeared to trigger the receiving of text messages on my phone. Again, I was too late to enter these codes, but I now saw a pattern.

I returned to the bank website and asked for a code to change my password. I then immediately called the bank's support number, and after a few entries in their audio menu, a text arrived on my phone. I could enter this code in time, change my password, and regain access to my online accounts.

I finally got the information I needed off the website, but I was concerned about what I had to go through to get it. Why were my texts not coming through right away? It seemed like making the phone call (or pressing phone keys) triggered the reception of texts that appeared stuck somewhere.

This seemed like a problem, so I restarted my phone and then tried logging into my bank account. This time, the text message with the 2FA code was received right after my password was accepted, just as it had been.

Something in my phone went awry, and restarting fixed it. I try to remember to do that periodically; I need to be better at making that a part of my tech management routine.

I still understand that online security is essential, but I also know how it feels to be locked out due to some malfunction in the system. The lesson in resiliency to take away is not to decrease security to prevent being affected by such a failure. Still, instead, I plan so I'm not doing things at the last minute and making myself vulnerable to problems when something inevitably breaks down.

###

YouTube, an Online Video Sharing Service

By Ron Sherwood, Member, East-Central Ohio Technology Users Club
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According to the Wikipedia entry for YouTube, it is second only to Google Search as the most visited website. GCFGlobal says 100 hours of video are uploaded to YouTube every minute, so there is plenty to watch. Content covers the gamut from humor, to science, to my favorite, the how-to videos. Access is free; anyone with an account (any Google account will work) can have their own "channel" and upload content. As you might expect, this "anyone can upload" policy means the accuracy of the content varies from excellent to what I consider just plain junk. As you should with any Internet content, use caution and common sense when judging the accuracy of YouTube content.

To access YouTube, type www.youtube.com into your browser's address box. The opening page shows a variety of videos available for viewing. Keep scrolling down for more and more possibilities. To narrow the video choices, use the search box at the top of the page. I often search for "how to" videos. For example, I just replaced the weather stripping around some doors. I've done this before, but I thought I'd see if I could find any "secrets" from the pros to simplify the job. I viewed several videos, and the creators generally agreed on what to do. Some said to start at the top; others started with the sides, but otherwise, there was agreement.

One tip I picked up was mitering the corners for a better seal. I also learned when and where to install foam wedges.

Want to learn how to cook a particular dish? Type the name into the search box, and you will likely get hundreds of videos to view.

Some content creators post new videos as often as daily. Other channels change infrequently. If you find a channel you want to follow, click the "subscribe" button to begin

a list of channels for easy access. This is similar to "favorites" in other applications. You will need to sign in with a Google address to create a subscription list.

If you view YouTube videos, here is an introduction to some basic controls that you may find helpful. Let's start with the primary playback menu at the video's bottom.

At the far left is the **play-pause** control. This image appears as an arrow or triangle on its side because the video is paused. Click on the arrow, and the video starts playing. The arrow changes to two parallel bars. These symbols should look familiar since they are used on most audio and video playback devices.

Tapping the space bar, clicking on the video, or pressing the letter "k" will also stop and start playback. The next icon, the arrow with a vertical bar, another icon used on most playback devices, jumps to the end of the current playback and starts a new video.

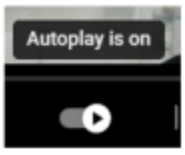
Next on the control bar is the **volume control**. Again, the symbol may be similar to other audio-video devices.

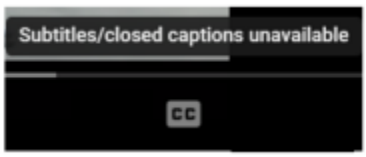
Placing the cursor over the "speaker" image brings up a slider control used to increase (slide to the right) or decrease (slide to the left) playback volume. This control differs from the Windows volume control, which affects the entire system. To quickly mute a video, click on the speaker or slide the control left. An "X" will appear over the speaker when playback is muted.

The numbers to the speaker's right indicate the current playback position in minutes and seconds and the total time for the video. For example, this video is at the 2-minute 48-second position of a 15-minute 20-second video. "Nitecore EDC27" is the title of this presentation. The greater than (>) character opens a list of chapters if the video is set up with them.

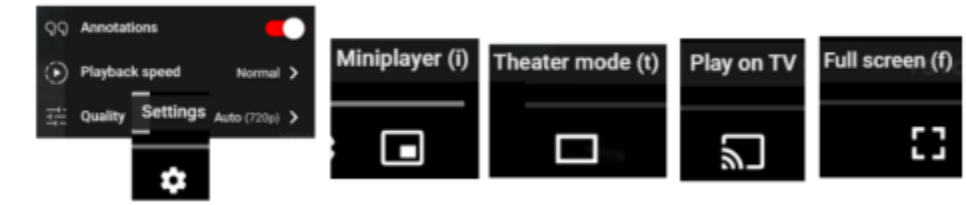
Skipping to the right, the following control turns **Autoplay** on or off. In the image above, with the button to the right, Autoplay is on. Moving the slider to the left turns off Autoplay. With Autoplay on, playback will go to a new video and start playing it when the current selection ends.

Moving further to the right, the **CC** icon turns closed captioning on and off. Generally, it works well, but I have seen some strange words pop up in the caption dialog. Tapping "c" also opens captioning. Not all videos have the closed caption option.





The **Settings** gear lets you choose **Annotations**, **Playback** speed, and **Video Quality**. Next, click on the open square of the screen. YouTube calls this the "**Miniplayer**." Again, we have a one-key shortcut. This time, it's the "I" key.



The shortcut key is a toggle: opening the picture-in-picture with a press, then reverting to the standard view with another touch of the "I" key.

The next icon, an open rectangle, controls "**theater**" mode. The standard view lists additional videos to the right of the one playing. Theater view toggles this list on and off. The shortcut key "t" does the same.

The **four corner brackets** that form an "**open square**" is the "**full screen**" icon. Click it to enlarge the current video to full screen. Pressing **Esc**(ape) returns to the standard view. The "f" key is a toggle for full screen and returns to the standard view.

We touched on the basic controls for viewing YouTube videos, but the site has many other features, such as sharing, clipping, saving, and transcripts. I encourage you to explore these features whether you are a YouTube regular or just an occasional user.

###

Clean Your Dirty Laptop

David Kretchmar, Hardware Technician, in care of tomburt89134@cox.net
Sun City Summerlin Computer Club https://www.scscc.club

After being used regularly for months or years, our laptops accumulate dust, grime, skin oils, sneezes, and who knows what else. Your laptop is most likely due for a cleaning, and I'm going to pass along some suggestions for how to do it effectively without harming this delicate piece of equipment.

You know your laptop is filthy. You can see the dirt and grime on your screen and keyboard. You might also be able to see grime accumulated on your trackpad. So, it's time for a cleaning.

A shiny, newly cleaned laptop should be a joy to use; the keys are clean, and the screen is free of smudges and splatters. These cleaning suggestions might also be helpful if you buy a used laptop since the previous owner doesn't always leave it in pristine condition.

Your Supplies

You don't need much to clean a computer: rubbing alcohol, a mild dish detergent, soft lint-free cloths (microfiber cloths are ideal), Q-tips, and canned air. Ninety percent or higher isopropyl alcohol is what you want since it won't damage the internal components. And if you have some particularly embedded dirt, a Mr. Clean Magic Eraser (or other melamine sponge) can also work wonders. However, it should be an absolute last resort since it's abrasive and can leave *permanent* scratches.

Don't waste your money on specialty cleaners you see at Amazon or big box electronics stores like Best Buy. They work just fine but no better than what you already have at home.

Start With the Inside

Starting with that dirt on the keyboard and screen might be tempting, but you should start with the internals. Canned air will blow dust and dirt everywhere, so if you start cleaning the screen, you'll have to clean it again after you've used canned air. Start by blowing out the dust, then move on to the outside.

You shouldn't have to open your laptop to clean the inside.

Turn the laptop off, unplug the power cable, and remove the battery if it pops out (removable batteries are becoming a thing of the past). Give it a quick burst with the canned air, away from the laptop to eliminate condensation, and then start blowing air into any cracks and crevices: the keyboard, the vents, and even the USB and other ports. Blow in short bursts since longer sprays can cause moisture to accumulate inside your computer. You can also damage the fans by making them spin too fast.

You probably won't see a significant change after doing this. The goal is to prevent dust buildup over time, which can cause your laptop to overheat and possibly spontaneously shut down. If you can see dust bunnies in the vents, you've let it go too long without a cleaning. If you see dust stuck behind the vent that you can't dislodge by blasting it with compressed air, consult your user manual to open the case. Be sure you remember which screws went where for the reassembly. Snap a picture or two of your laptop for reference before opening the case, and be super-organized with the screws as you remove them.

Smokers and pet owners should take special care to clean the inside often since you'll likely experience a much quicker buildup of dust, smoke, hair, and other dirt. Computers exposed to smokers can have their useful life cut by as much as half.

Wipe Down the Outside

Remember, when cleaning a laptop (or desktop) computer, apply the cleaning product to the tool you're using to clean, NEVER directly onto the computer. So, grab your microfiber

cloth, pour a little alcohol onto it, wring it out so it isn't dripping wet, and wipe down the surface. Cotton swabs and alcohol are helpful for the keyboard keys and the small spaces between them. (If there are marks that won't come off, you can try rubbing them with a Mr. Clean Magic Eraser or other cleaner very lightly, but again, they're mildly abrasive, which can alter the surface's finish.)

It may take a few passes to get all that grime off, but you should notice a dramatic difference once you do. If your laptop is particularly old, you may not be able to get rid of the shine on the keys; some of us may have worn down the top layer of plastic and even the letters on the keys. There's not much you can do about that.

You should be able to wipe fingerprints off your screen with a dry microfiber or soft terry cloth. If you need more cleaning power, a slightly damp cloth that has been thoroughly wrung out first can help. Some manufacturers, including Dell and Lenovo, even say you can use a 50:50 mixture of isopropyl alcohol and water to remove tough dirt. Avoid household cleaners with harsher chemicals like ammonia or Windex on the screen.

Get Rid of Bad Smells

Let's say you have a particularly terrible case of a gross laptop, and even after the above steps, your laptop still carries the essence of whatever it has been exposed to. I've seen many laptops that smelled like smoke, and getting rid of that is challenging or impossible. Cleaning the surface can help, but many of those smells may also be inside the computer. For that, you can turn to a natural deodorizer: charcoal. Don't go digging through your grill for briquettes! Cooking charcoal is different from activated charcoal. Activated charcoal is made with much more (micro) surface area to be more absorbent. Another common household item is kitty litter. It's a great odor eliminator because most kitty litter formulas have activated charcoal to neutralize litter box smells.

Seal the laptop in a bag or closable bin with a cup or so of the activated charcoal or litter and leave it for at least 24 to 48 hours. If you don't have a cat, people also had good luck with diaper pail deodorizers, which are neat little packets of charcoal you can throw away when you're done. The longer you leave the computer in the bin, the better.

###

To use up some white space, here are some azaleas (by your editor) at the WSSC Water's Brighton Dam Azalea Garden, located across the river, in that foreign country—Maryland!

Canon R5 Mark II (aka R5M2 or R52), 1/640s, f/4, ISO 400, 105mm, RF 24-105 f/4 L IS USM.

Why your editor went to Norway:

My main reason for going to Norway, was 2-fold: the Lofoten Islands were on my non-bucket, bucket list, and to see the Aurora Borealis (Northern Lights). Fortunately for me, I succeeded in both!

The Northern Lights were taken on the beach at Vik Strand on 2025-03-22 at approximately 10 PM using a Canon R52. Shutter speed: 3.2 seconds, f/2.2, ISO 3200, using a Canon RF 24mm f/1.4 L VCM. Processed in Lightroom Classic and DxO's PhotoLab8 to get rid of the noise of shooting at ISO 3200.

From my extra time in Oslo (left), the Opera House.

Canon R52, 1/250s, f/11, ISO 160
Canon RF 24-105mm F/4 L IS USM, 24mm

PATACS Information

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Meeting schedule (Zoom=Online Only, Hybrid=Online/In-person)

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

Arlington Mtg: 5711 S. 4th St., Arl. VA **Fairfax Mtg: 4210 Roberts Rd., Fairfax, VA**

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