



Midland Michigan

# BITS AND BYTES

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## **GENERAL CLUB MEETING**

Midland Public Schools Administration Building  
600 E Carpenter Street - Room D

**Wednesday, January 23, 2019**  
**6:00 P.M.**

## Block calls on your phones and other options

By Bart Koslow, Review Editor, Channel Islands PCUG, CA  
April 2018 issue, The Outer Edge -- [www.cipcug.org](http://www.cipcug.org) -- bart (at) koslow.net

Whether cell phone or landline phone, we all receive many nuisance calls daily. It is a simple matter to block unwanted calls on most phones once you know how.

Let's begin with your home landline phone. I receive numerous junk calls every day. I use a Panasonic smart home phone system. Like most smart home phones, it permits you to enter your phonebook. You can also set the number of rings before the answering machine kicks in. The LCD on my phone will show me the name of anyone calling who is in my phonebook. Conversely, any name not in my phonebook will also show. The first time I receive a nuisance call I ignore it. My phone will record the name and number of all calls made and keep this information until I erase it. How do I block an unwanted number? I have choices.

My Panasonic will block up to 250 phone numbers. In my case, I use Spectrum (Time Warner) for my landline. You may go to the Spectrum website and block selected calls. You may also check the box that tells Spectrum to use Nomorobo.com. Nomorobo is a large database of nuisance calls. You will hear one ring, and the call will be blocked. For those of you who use other phone providers, you still may use Nomorobo provided the provider has a Simultaneous Ring feature that will ring your phone and Nomorobo at the same time. Furthermore, you may request Nomorobo to add phone numbers to its database by going to its website. Your provider, like mine, may also have a way to block calls on its website.

What about my cell phone? It is even easier to block unwanted calls. If you have an Android phone, just go to Recent Calls, select the phone number and then Details. Under Details you will see a choice to block the call. Depending on the Android version finding the Recent Calls Details varies.

What about you iPhone? Basically, it works the same way if you have IOS 7 or later. Open the phone app. Select the Recents tab at the bottom. Click the 'i' symbol next to the unwanted number, scroll down and tap Block this Caller. Confirm your decision. Microsoft cell phones work in a similar manner. Tap the phone app on the start screen, swipe to history, tap and hold the caller you want to block, and tap block number.

I also have one other option using my Panasonic phone system. You may link two cell phones to the Panasonic phone system. When linked via Bluetooth, the main Panasonic phone unit will show a lighted LED, one for each linked cell phone. When a cell phone call comes in, it will ring on your Panasonic landline system as well as your cell phone. Likewise, you may use the Panasonic system to call out on either of your cell phones. When you finally drop your landline system, the Panasonic Phone system, in my case with five phones around the house, will be a godsend. With unlimited cell phone service becoming extremely cheap, this is an option. Now you can answer or call over your cell phone network from any phone in the house. Even more, the Panasonic system has much better sound.

Hopefully, when you have activated some of the above features, you will have some peace and quiet.

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Kretchmar's Korner

### Don't Buy Identity Theft Insurance

By David Kretchmar, Computer Hardware Technician, Sun City Summerlin Computer Club NV  
July 2018 issue, The Gigabyte Gazette -- [www.scscclb.com](http://www.scscclb.com) -- tomburt89134 (at) cox.net

Equifax It was almost a year ago when Equifax announced that a data breach exposed the sensitive personal information of 143 million Americans. As a part of its mitigation, Equifax offered consumers a year of free credit monitoring. This offer ended in January 2018, but not to worry, for just \$12.95 a month you can pay Equifax to monitor your credit reports.

This is a breathtaking bit of corporate chutzpah; first Equifax fails to secure many millions of individual's data files (including probably yours) and now that they have proven to be untrustworthy they want to charge a monthly fee to assure you your data has not been compromised. I would just say NO!

### LifeLock

LifeLock is the most heavily advertised consumer data protection service that is offered by Symantec, a cyber security company that also provides the Norton Security Suite.



LifeLock premiered in 2005; you might remember the commercials at that time featuring LifeLock CEO Todd Davis revealing his Social Security number to the public. LifeLock failed to disclose that Davis' identity was stolen at least 13 times during the advertising campaign. LifeLock brushed off critics, claiming that LifeLock prevented Davis' identification from being stolen many other times, thereby proving the value of LifeLock.

LifeLock attempts to frighten consumers by saying: "Considering everything you do online, data breaches and companies that sell your information, it's easier than ever for criminals to steal your identity. They

can open accounts, buy properties, and even file tax returns in your name. There's a new victim every two seconds, so don't wait to get protection!"

But, of course, LifeLock has the answer: Note that LifeLock does not offer a family plan; LifeLock coverage for a married couple is well over \$50 a month. LifeLock does offer a 11% discount when a couple enrolls.



So, What Do You Get for Your Money? Sadly, very little, except for a false sense of security. If you are the victim of identity theft, most institutions will absorb the cost and charge you nothing. The few consumers who do suffer monetary damages rarely lose more than \$200.

Go to LifeLock's website and you will notice that "Not all transactions at all

accounts monitored" is written everywhere - on the website, as the signature to their emails, at the bottom of their site next to any disclaimer asterisk - basically giving them an out in case anything ever happens to one of your accounts.

A close reading of all of LifeLock's service and reimbursement "guarantees" discloses so many exceptions and conditions that they are essentially worthless.

### LifeLock's Legal Woes

The Federal Trade Commission in 2015 asserted that LifeLock violated a 2010 settlement by continuing to make deceptive claims about its identity theft protection services, and by failing to take steps required to protect its users' data. In late 2016 LifeLock paid consumer damages of over \$100,000,000.00.

In documents filed with the U.S. District Court for the District of Arizona, the FTC charged that LifeLock failed to live up to its obligations under the 2010 settlement and asked the court to impose an order requiring LifeLock to provide full redress to all consumers affected by the company's order violations.

The 2010 settlement stemmed from previous FTC allegations that LifeLock used false claims to promote its identity theft protection services. The settlement barred the company and its principals from making any further deceptive claims. It required LifeLock effectively safeguard personal data it collected from customers and required LifeLock to pay \$12 million in consumer refunds.

### How Can I Protect Myself?

The Equifax and LifeLock primary service is nothing you can't do much better yourself. If you think someone has stolen your identity, you can contact each of the four major credit bureaus, TransUnion, Experian, Equifax, and the newer Innovis, and place an electronic security freeze on your credit. The freeze is good until you lift it and should prevent any new accounts from being opened. A security freeze prohibits, with certain specific exceptions, the consumer reporting agency from releasing the consumer's credit report or any information from it without the express authorization of the consumer. You can temporarily lift the freeze if you want to open new accounts.

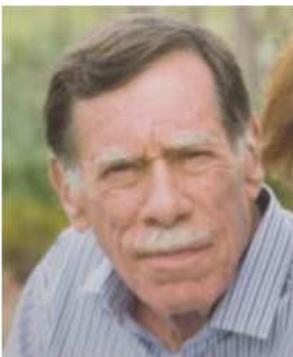


There is no charge for a security freeze if you are a victim of identity theft. To get a free security freeze you should first file a police report or (much more easily) create an Identity Theft Report at: [www.identitytheft.gov/Assistant#what-to-do-right-away](http://www.identitytheft.gov/Assistant#what-to-do-right-away)

This FTC site is easy to navigate and has some good information on what to do after an identity theft.

### Conclusions and Recommendations

Don't buy identity theft insurance from Equifax, LifeLock, or any of the other outfits selling this "protection". The best way to protect yourself against loss is to keep an eye on your own bank, credit card and brokerage accounts and statements. Download your annual free credit reports yourself, safeguard your passwords, and skip the fees.



## LibreOffice – a Free Office Suite

By Joel Ewing, President, Bella Vista Computer Club, AR

April 2018 issue, Bits & Bytes -- <http://www.bvcompclub.org/> -- president (at) bvcompclub.org

Almost everyone today that is computer savvy has heard of, or is even a user of, one or more of the classic components of the Microsoft Office Suite: Word, Excel, PowerPoint, & Access. Although there are competing products, the MS Office products are still the purchase choice for many businesses.

For occasional personal use, the purchase cost of MS Office is more than some care to spend on a software package. Microsoft is now trying to attract new users by moving MS Office Suite users from a purchase model to a leasing model under Office365, providing access to local computer and cloud-based Office products for a monthly fee (around \$70 to \$150 annually). This makes for a lower up-front cost and includes automatic upgrades to new versions, but in the long run that approach will be more expensive for the user than a one-time purchase of software if you plan to use it for many years.

Over the last several decades there has been an evolution in the availability of free, open-source alternatives to the components of MS Office. What started as just a free word processing application, Star Writer, evolved into StarOffice, and then later into OpenOffice, which then fractured into two projects, Apache OpenOffice and LibreOffice, that have evolved somewhat differently from the same initial code. Both OpenOffice and LibreOffice are currently available and still have much in common, but they are distributed under different “public” software licenses, which makes LibreOffice easier to enhance and thus slightly more attractive. Yes, even free software must have a license, to ensure that the freely accessible source code people have donated to the project continues to be free and is not exploited for profit in ways the donors did not intend. The main components of LibreOffice are Writer (the word processing counterpart to MS Word), Calc (the spreadsheet counterpart to MS Excel), Impress (the presentation counterpart to MS PowerPoint), Base (partial database counterpart to MS Access), and Draw (similar to MS Paint?).



There are also some significant sub-components, Math for writing mathematical equations, and Chart, which is used to generate charts for documents and spreadsheets. Base is not a complete database application, because it is designed to interface with other free database systems, like MySQL or mariadb, that provide the actual database storage and query support. Base provides an interface to manage an external database, or to use a spreadsheet as if it were a database, and to allow the other LibreOffice components to access information from a database (for example, in a mail merge operation).

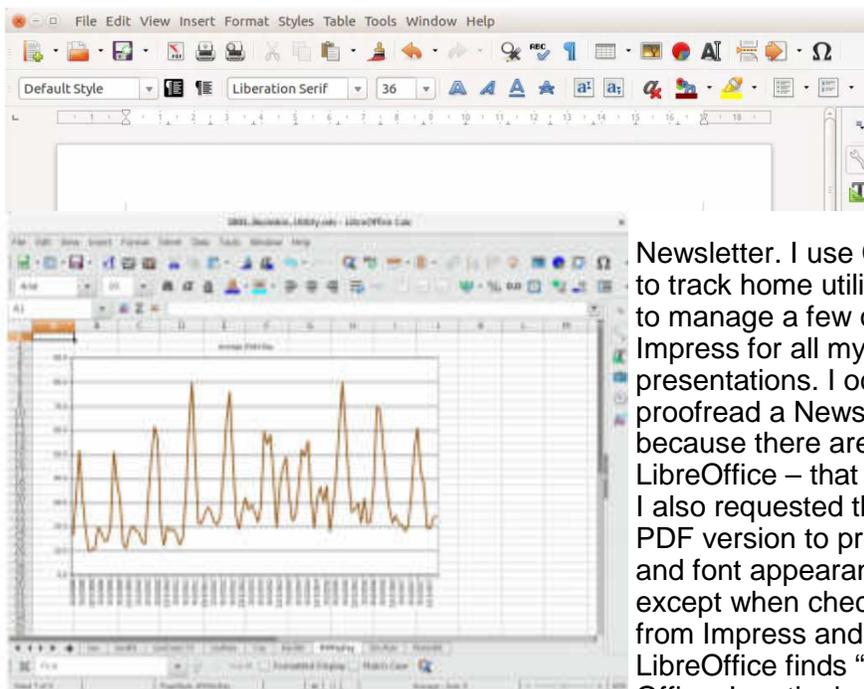
LibreOffice is available for MS Windows, Mac OS, and Unix/Linux platforms. The look, feel, and functionality of the applications are the same (within limitations of desktop differences) across all platforms. This gives LibreOffice (and OpenOffice) an advantage over MS Office, as there is no native-Unix version of MS Office. There are ways the Windows version of MS Office can be run under Unix/Linux, but they are a little kludgy and the simplest method for running MS Office on Linux (wine) frequently has some compatibility issues with the newest versions of MS Office.

The LibreOffice applications have their own native file formats (ODP, ODT, ODS), but can also read and write files in MS Office formats (PPTX, DOCX, XLSX, etc.) as well as other formats. The current MS Office products also contain support for the LibreOffice file formats, support that was lacking in some of the older MS Office versions. This means you can probably generate files from LibreOffice (in either native or MS Office formats) that can be successfully viewed by someone with a later version of MS Office, but if you suspect they may have an older version of MS Office, you may need to save it in an appropriate older MS Office file format. The later MS Office versions have similar cross application

support with the Open Source formats used by LibreOffice. Be aware, however, that while there is pretty good compatibility, it is not 100%. There are some features in LibreOffice that have no counterparts in MS Office, and vice versa. You will generally end up with a document that is readable, but there may be some subtle and sometimes not so subtle differences in appearance that might require additional editing to get a polished result. Past experience suggests the MS Office applications may do a more accurate conversion to/from LibreOffice file formats than LibreOffice does converting to/from MS Office formats – quite possibly because MS formats are proprietary and public documentation is lacking. Also, the proprietary fonts available in MS Office do not have exact matches in LibreOffice, and subtle differences in character sizes may change where line splits, column splits, or page splits occur in text.

This means that if you have carefully formatted a document for a formal presentation, and you know the document will be used under a different office suite than was used to create it, you really want to test the document under the targeted office suite to see if any format changes are required. Positioning of images within a document may shift, which in turn will affect how text flows around the image. I have seen cases going between Impress and PowerPoint where images covered up text or font size changed to the point that text ended up outside the normal slide viewing area. A presentation might convert OK, but then in other cases you could have some marginally viewable slides. This is particularly true if the target display system only has the old free PowerPoint viewer, which hasn't been updated for several years and only claims to support files from PowerPoint 2010 and earlier versions. Similar caveats apply whenever you intend to “publish” a polished, formal document: the final editing should be done on the office suite on which the document will be published or presented.

Note that all these issues of formatting compatibility disappear if your goal is not to distribute an editable version of the document but just a PDF (Portable Document Format) version of the document. Both MS Office and LibreOffice will export documents as a PDF file that accurately reflects the way that office suite displays the document, including consistent positioning of text and objects on each page.



I use LibreOffice Writer and Calc extensively, probably multiple times every day; and Impress multiple times monthly.

This article was composed using Writer, as was the entire BVCC

Newsletter. I use Calc to manipulate membership rosters, to track home utility usage patterns and utility rates, and to manage a few other tables of various types. I use Impress for all my class and general meeting presentations. I occasionally use MS Word, primarily to proofread a Newsletter for another organization, precisely because there are fonts used that have issues with LibreOffice – that need could probably even be avoided if I also requested the document as a PDF file and used the PDF version to proofread the line/column/page breaks and font appearance. I rarely use PowerPoint or Excel except when checking out how their capabilities differ from Impress and Calc, or to confirm that a file that LibreOffice finds “broken” has similar problems with MS Office. I routinely use LibreOffice to read and update MS

Word and Excel file formats that are shared with others, and only rarely do I encounter issues where I find it expedient to resort to using MS Office (like the Newsletter font issue mentioned earlier).

The user interfaces of MS Office and LibreOffice are significantly different. MS Office has many more different action icons and has “ribbons” of icons. LibreOffice relies more on traditional menu and sub-menu selections. Which approach is easier to use is a matter of personal preference. Both have context-sensitive menus in response to a right-click within a document. In most cases there is identical

functionality in MS Office and LibreOffice, but the place and manner of invoking the functionality differs. There are some areas where the MS Office applications are better and others where LibreOffice is better. I have yet to find something I wanted to do that I couldn't do with LibreOffice, but in some cases on-line research was necessary, and in other cases a change in approach was required.

MS Office by default provides more templates and "cute" backgrounds – if you like that sort of thing – to use for creating documents. LibreOffice has fewer built-in backgrounds, but if you have other image manipulation tools, you can create your own custom backgrounds and add them. There are also some LibreOffice addons that can be downloaded and installed that I haven't yet tested.

My impression is that there may be more "bugs" in LibreOffice than in MS Office, but that could be because I use it more. I've always been able to find ways to work around them. For example, the documentation implies that in a Writer document you should be able to format some pages as multi-column and other pages as single-column; but it doesn't work as documented – it always changes the number of columns globally for all pages. One circumvention I've used is to just use single column format for the entire document, define a large "frame" within the pages you want to be multi-column, and then define the internal structure of text within that frame as multicolumn. Moving images within a document sometimes does strange things – it's sometimes necessary to delete it from the original location and re-insert it at the desired location. There always seems to be a way to get the desired effect, it sometimes just requires on-line research (and as a less frequent user of MS Office, I find I also must do similar research to find how to do some things in MS Office).

LibreOffice is an incredibly useful suite of applications, and you can't beat the price. It can be downloaded from <https://www.libreoffice.org/>

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## Online Music Radio Stations

By Len Nasman, Editor, Bristol Village Computer Club, OH

April-May 2018 issue, BVCC Newsletter -- <http://bvres.org/bvcchome.html> -- webmaster (at) bvres.org

If you have a computer connected to the Internet there are thousands of radio stations to choose from. Here are some examples.

### Classical Music Stations

<https://www.internet-radio.com/stations/classical/>



The scroll down list will change from time to time. Observe the Genres note for each listing. Just click on the play button to start the music. Once the music is playing, the play button becomes a pause button. You can keep the music playing while you open other program windows.



## Organize Your Pictures – Don't just save them

By Phil Sorrentino, Contributing Writer, The Computer Club, Florida  
Technical Thoughts, Sarasota Technology Users Group, Florida  
<http://sccccomputerclub.org> / [www.thestug.org](http://www.thestug.org) -- [philsorr \(at\) yahoo.com](mailto:philsorr@yahoo.com)

How to organize your pictures has been a question since we have had pictures to organize. Before computers, the choices were: put them in an album, or leave them in the packet they came in, or maybe just put them into an old shoe box with all the other pictures. I'm sure many of you have looked through a shoe box of old photos; you might even have inherited a box or two. Many of the pictures in albums or shoe boxes were very precious because there were very few of them. Film was not cheap, and every roll of film had to be sent away for costly processing. With the advent of digital cameras, our picture taking habits have been greatly changed. The job of organizing our pictures has been turned over to the computer, well... sort of. About a year ago I wrote an article discussing Picture Management. In it I mentioned that picture management software does not move your pictures; it only lets you view your pictures in a particular way by acting as a lens into your picture collection. The files stay in their place, but the User Interface accesses them in the way that was asked for, like by date, or activity or even by person, and then presents them to you.

As you may know, Google Photos is a picture management App and a cloud picture storage service. If you upload all your pictures to Google Photos, you can get some very interesting organizations of pictures in what they call "albums." Google stores the pictures in whatever way they want and returns them to you in any fashion that you select. Google Photos uses some sophisticated software and facial recognition software to put together albums of a person that you select. It is amazing that they can even pick out side views of a person.

But back to Organizing Your Pictures. One way, that fits into the way that many software Apps work, is to keep "event" folders in chronological order. (Many Apps import your pictures into folders that you can name.) You might then put all the "event" folders for a particular year into a "Year" folder. And to continue that idea, you would put the "Year" folders into the appropriate decade folder. So, in a hierarchical scheme you would have in your "Pictures" folder, a folder for each decade, and in the decade folder you would have a folder for each year, and in the year folder you would have event folders for the pictures taken at that event. An organization might look like:

### PicturesPS

1980s      would contain 1980 thru 1989  
1990s      would contain 1990 thru 1999  
2000s      would contain 2000 thru 2009  
2010s      would contain 2010 thru 2019

2010  
2011  
2012

... And so on to 2018.

I called the Pictures folder "PicturesPS" just to separate it from "Pictures," the folder that comes with the Operating System. "PicturesPS" could be in "Pictures" or in another folder of your choice.

So, once you have the basic chronological folder structure set up, all you must do is create the "event" folders. If you are getting pictures from a camera, there are software Apps that help in organizing the pictures into "event" folders. Microsoft Photo Gallery lets you import pictures from your camera into a folder that you can name. You can set it up to use the current date, like yyyy-mm, and you can add a description, so you have something like "2018-02-Billy's Birthday" as the event folder and then each of the pictures imported will be named 2018-02Billy's Birthday-nnnn" where "nnnn" will start with 0001 for the first picture and increment for each following picture. Photo Gallery is very helpful in organizing your imported pictures and provides a lot of picture editing tools. (After importing a set of pictures, I always seem to need the "red-eye reduction" tool for a few pictures.) Unfortunately, Microsoft does not support Picture Gallery any longer, but if you can get it, it would be a good tool to use to help keep your pictures organized as the size of your picture collection increases.

There are other picture Apps that help in importing your pictures. Faststone Image Viewer provides the ability to import your pictures from a camera but is not as flexible in naming the folder. Faststone also provides basic picture editing tools. XnView, Irfanview, and GIMP are software Apps that provide picture editing tools and may provide some of the tools you need for keeping your pictures organized. (XnView also allows for importing pictures.)

Importing your pictures from your smartphone may not be as easy as importing them from your camera. But, by one means or another you can probably get the pictures into event folders on the computer. If the method you use allows you to name the picture files, you're ahead of the game, but my experience has been that the pictures remain named something like "IMGxxxxxx," where the xx's may or may not represent the date the picture was taken. If you do end up with these cryptic names, once you get the pictures into the appropriate event folders you can use an old File Explorer trick to change the picture name of all the pictures in the folder in one operation. Many of you probably remember this from the File Explorer class. With all the pictures in a folder, select the first picture and then Shift-click the last picture. Then, on the first picture do a right-click and select "Rename" in the menu. Next, name the first picture such as "2018-02-15Billy's Birthday." All the pictures will be renamed with this name and a number indicating the number of the picture in the selection. Pretty cool.

Now that you have all the pictures in event folders named and the event folders with appropriate names in the year folder, and the year folder in the decade folder, in your Pictures folder, you're all ready to go out and collect a lot more pictures.

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Freshly Squeezed Reviews

## **Your Cloudy Computer**

By Frank Petrie, YMP Now - July 2018 - <https://ympnow.com/category/welcome/> - TMC-NLC (at) yahoo.com

Note from Judy: It's now available for Windows.

Running out of hard drive space on your laptop or iMac? Here's a way to increase your capacity seamlessly.

You have need for more storage space but are stuck with the meager drive that Apple placed in your laptop. That's where cloud services come into the picture.

In fact, you probably already have multiple cloud services to provide you with more storage space. Suppose you could place only one icon in your MenuBar to access all your cloud accounts. Or open a Finder window, click on your iMac under Devices in the sidebar, and find them amongst your list of local drives.

That's the premise of CloudMounter (<https://cloudmounter.net>).

CloudMounter is a solid system utility for mounting cloud storages and web servers as local disks to your Mac. Connect to Dropbox, Google Drive, Amazon S3, Microsoft OneDrive, (S)FTP, WebDAV and OpenStack Swift servers in Finder, as if they are all hosted on your computer.

It makes working with remote hosts as easy as if the data was stored on your computer by letting you communicate with the clouds and remote servers from the comfort of Finder.

Mounting is painless.

Launch CloudMounter's Connections pane and hit the '+' button in the sidebar. Choose from 12 options and give CloudMounter permission to log in using your credentials for that cloud. Conversely, within the same pane you can remove any of your cloud services.

Unfortunately, iCloud and Evernote aren't amongst the current selections. The developers are trying to get more cloud services onboard, but I was able to mount Dropbox and Google Drive for testing.

Access is what CloudMounter is all about. One way is to open your Finder pane. Click on your device (i.e., iMac) and all your connected cloud services are listed with your local drives. Simply click on the chosen cloud service and you are presented with that cloud's icon as any other drive.

You can also access any of your cloud services directly from the MenuBar icon.

Naturally, you can customize your workflow as you would like. I set CloudMounter to start automatically when I logged in. You have the ability to make all your drives visible to all users of your Mac. Or you can disable this option and make the drives visible only to the user who launched the app. There are a host of other preferences to choose from.

I found the responsiveness as good as using a local drive. Click on one of the cloud disks and there are all your folders and files at the ready. You can mount your drives on your network if you desire.

Privacy is very important to CloudMounter's developers.

You can encrypt your personal data stored on your cloud disks and remote servers, protecting it from any unwanted access. When this feature is enabled, CloudMounter uses the Advanced Encryption Standard (AES) with a 256-bit key length to translate data into a different form, so that only people who know the password (decryption key) can read and manage it from CloudMounter.

One oddity that I did notice was that not only did the mounted services appear under Devices>iMac>local drives but they also appeared under Favorites. Not sure as to why. I would prefer it if they would be listed under devices in the Finder's sidebar, to keep things uniform.

At one point, CloudMounter disappeared from my MenuBar, leaving me with no access to the preferences, et al. Since it was already open, repeatedly clicking on the icon proved fruitless. A restart met with the same result. But when I shut off and restarted the iMac, all was well, and my cloud drives were still connected.

(Also, I was brought face-to-face with my lack of organization. I thought that I had only one Dropbox account. When I hooked up with CloudMounter, I found that I had a second account. I am the Oscar Madison of computing.)

Eltima (<https://www.eltima.com>) would appreciate it if you would anonymously send usage statistics to them to help them improve the app. For support, you can find their comprehensive User Guide (<https://www.eltima.com/wiki/user-guides/cloudmounter.html>) online.

All in all, I found CloudMounter to be a very valuable app. And its price is certainly cheaper than buying more physical drives.

CloudMounter is compatible with Mac OS 10.10+ and can be purchased for \$44.99 at either their site (<https://cloudmounter.net>) or at the App Store. Download their 15-day free trial and give it a bash.

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## Problems with Cryptocurrencies

By Joel Ewing, President, Bella Vista Computer Club, AR

June 2018 issue, Bits & Bytes -- [www.bvcompclub.org/](http://www.bvcompclub.org/) -- president (at) bvcompclub.org

There has been much hype about cryptocurrencies in general and Bitcoin in particular. Enough so, that BVCC had a recent presentation on the topic, with one of the conclusions being that as an investment Bitcoin is highly speculative and should be limited to what one can afford to lose. The price of 1 Bitcoin by design tends to increase, but there have been events that have also caused prices to drop rapidly. The block chain technology on which Bitcoin is built is finding many useful applications, but the long-term prospects for Bitcoin and other cryptocurrencies is less certain.



An article in the June 2018 edition of *Communications of the ACM*, a professional computer science publication of the Association of Computing Machinery, on “Risks of Cryptocurrencies” by Peter G. Neumann, gives a much more negative view of the future of cryptocurrencies. It points out several technical reasons why it is unlikely that cryptocurrencies will ever become a wide-spread payment system. This publication is probably not one widely available to those who are not ACM members: A research library at a major university should have access to it in either hard copy or digital form, but it is not a publication one would expect to find at a public library.

I will attempt to summarize the major points of that article.

The argument presented is that cryptocurrencies are simply not satisfactory as a substitute for conventional currencies: they are by design grossly inefficient and involve risks and costs that cannot be resolved. Most of these problems only impact users of Bitcoins, but some impact society as a whole.

### *Inefficiencies*

New Bitcoins are created by a computational process that requires a significant amount of computational time on a computer, which costs the creator in terms of computer hardware and power costs. The difficulty of the process is designed to keep the supply of Bitcoins less than the demand, so the tendency is for the value of 1 Bitcoin to increase over time. To keep things in balance, as the value of a Bitcoin increases, the difficulty of the generation algorithm also increases. The net effect is that the Bitcoin network currently is estimated to consume more power than the country of Ireland, and Bitcoin creators (called “miners”) spend about 1/3 of each Bitcoins produced just to pay for their power bills. This does not scale well in a world with serious energy-based environmental problems.

There are limits in the Bitcoin design on the size of transaction blocks and the rate at which transactions blocks can be processed. This imposes limits on the number of transactions per second that can be processed. When the transaction rates approach the global volume limits, only those willing to pay unreasonably high auction-based transaction fees will get their transactions processed. If the transaction processing rate could be increased enough for it to compete with credit card usage, then each node in the Bitcoin network would have to store many gigabytes of additional data per day, all of which would need to be searched to validate each new transaction, resulting in spiraling costs to process future transactions – yet another aspect of Bitcoin that does not scale well. Credit card systems easily support thousands of times the transaction rates of Bitcoin and have done so for years, because it is not necessary to potentially search all past transactions of all customers just to determine if a new transaction is valid.

### *Risk of Loss*

An owner of Bitcoins has two choices, to store his Bitcoins in a “wallet” on his own computer, or to store them on one of a relatively small number of Bitcoin Exchanges. Both choices have been subject to losses, even by computer savvy individuals, either lost through direct theft, lost as a side effect of hardware or software failures, lost because the encryption key that allows access has been lost, or lost by paying for fraudulent services in Bitcoin. If your Bitcoins are lost through an unwise transaction or by someone stealing your key, there is no recourse because unlike credit cards, Bitcoin transactions are irreversible. If lost because you lost your key or because your digital currency tokens were lost, you are

also out of luck. Major failures or thefts have occurred on Bitcoin exchanges. Typically, those types of events are also associated with loss of confidence and massive drops in the value of Bitcoin.

#### *Problems Using Bitcoin for Payments*

Legitimate businesses that offer goods and services for Bitcoin currency don't want to deal with the volatility of Bitcoin value, so they typically use some service to adjust their prices dynamically based on the current value of Bitcoin in some real currency, and as soon as they receive payment, convert the funds to real currency. This means that although the Bitcoin transactions themselves are outside of government control, all government must do to tax or restrict Bitcoin usage is to focus on the services that convert between official currency and Bitcoin.

The fact that Bitcoin transactions are by design irreversible makes them incompatible with all other forms of electronic payment. This means if you exchange Bitcoins for an electronic currency payment of some kind, even after verifying the electronic payment was credited you have no guarantee that the electronic payment won't be reversed later as fraudulent. If payment is reversed, you have lost the Bitcoins you sold because that transaction can't be reversed. Any service that allows electronic payment in exchange for Bitcoins is similarly at risk: either they must defer delivery of purchased Bitcoins for days, or risk being the victim of a massive fraud attack.

#### *Limitations of a Distributed but Unregulated Cryptocurrency System*

In theory, having the Bitcoin ledger maintained on many different servers was supposed to make the system trustworthy by decentralizing the data with each site being validated by the others. In practice, the consolidation of mining into less than 10 entities, self-chosen by their willingness to consume electric power, means that only a majority of that small group effectively controls the Bitcoin system. The value of Bitcoin is simply what people are willing to pay, which makes it vulnerable to sudden collapse if there is a loss of confidence and a drop-in demand.

Because there is no regulation, there are many Bitcoin scams, both security schemes and Ponzi schemes, to entrap the unwary.

That fact that exchanges are totally unregulated means that it is not uncommon for one to collapse from theft, fraud, or incompetence with loss of many Bitcoins from the exchange.

Another obvious downside of cryptocurrency is that its apparent anonymity and irreversibility of transactions attracts those with criminal intent. If you are the victim of a fraud, you can't identify who defrauded you and can't get your Bitcoins back. If cryptocurrency makes it easier for criminals to launder money and harder to bring them to justice, that is bad for society as a whole.

#### *Anonymity is Not Absolute*

The perceptions that all Bitcoin transactions shield the identities of all parties to the transaction is not 100% true. While it is true that the actual names of the individuals involved in a single Bitcoin transaction are hidden, the fact that all transaction history is visible, and a unique code represents the same individual means that associations can be deduced. The transaction history also includes Internet IP addresses, which may significantly limit the possible real names associated with the transaction, especially since even non-fixed IP addresses from an Internet Service Provider may remain unchanged for months and narrow the search to a single street address. If Bitcoins are used to purchase physical goods from a vendor, the vendor must know a physical shipping address. Large transfers between Bitcoins and real currency may leave other currency audit trails that can be correlated to Bitcoin transactions. Those techniques may be sufficient to establish the actual names of parties to a Bitcoin transaction.



Tom's Tech-Notes

## Customizing Your Android Home Screen

By Tom Burt, Editor, Sun City Summerlin Computer Club, NV

July 2018 issue, The Gigabytes Gazette -- [www.scscc.club/](http://www.scscc.club/) -- [tomburt89134 \(at\) cox.net](mailto:tomburt89134@cox.net)

### Overview

I was recently working on the handouts for my "Android for Beginners" seminar and making quite a few screen shots on my Android Phone. As I got to the material about Display Settings, I got to thinking about what options were available to customize my Home Screen.

I had been using the LG default home screen background, which was a busy set of gray and black triangles, reminiscent of a backgammon board pattern. I went looking for a setting that would let me just have a plain color as my background. There was no such option on my LG Phoenix 3 with Android 7 (Nougat). What to do?

There WAS an option to use a picture/image of my choosing. So, I said to myself "Self? Can you make an image of a plain background color, or even better, a gradient that fades subtly from light to dark?" A milli-second or two later, I had determined exactly how to proceed.

I'll detail those steps for you in the following, along with a few other Home Screen settings that you might want to try. The screen shot at left shows the results.

Disclaimer: The screen shots and steps given here are for a LG Phoenix 3 running Android 7 (Nougat) with AT&T as my carrier. Your own Android phone may be slightly to wildly different.

### Making the Background Image

My favorite Windows tool for creating and editing images is the free Paint.Net. Among its palette of tools is a gradient tool that lets you create a canvas that lets you create a smooth fade from one color to another. I started Paint.net with a new, empty canvas. I set the canvas size to 480 wide by 792 tall, which is the size in pixels of my 5-inch LG Phoenix 3 phone's screen. Your phone's screen metrics may be different.

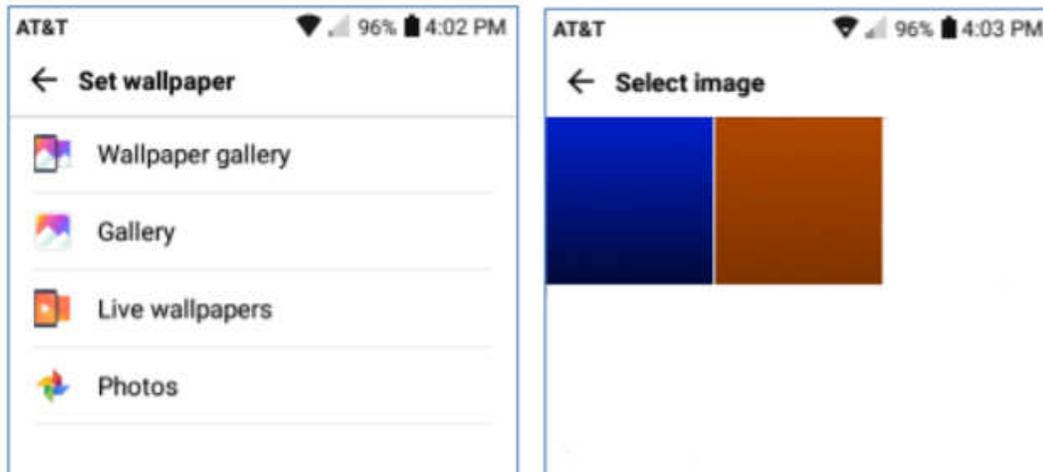
Next, I went to the Paint.Net color mixer and selected, for my primary color, a medium copper. I then selected, for my secondary color, a dark copper. You can select any two colors, but the more different they are, the more banded your gradient will look.

Next, I selected the gradient tool and, on the toolbar, chose "linear". I positioned my cursor at the top of the canvas in the exact center and then dragged down to the bottom of the canvas. The canvas filled with the medium copper to dark copper gradient. I then saved the canvas (image) as TomWallPaperCopper.jpg.

Moving the Image to the Android Cell Phone I used a USB cable to connect my cell phone to my Windows PC. The phone must be powered on and you will likely have to use the swipe down settings menu to change the USB connection from charging to MTP (data) mode. On your Windows PC, the phone will appear in "This PC" as a new attached device. You can then use Windows file management functions to copy files to / from your Android device. I copied my new gradient image (TomWallPaperCopper.jpg) to the DCIM\Camera folder on my LG smart phone. This folder is part of the Android Gallery.



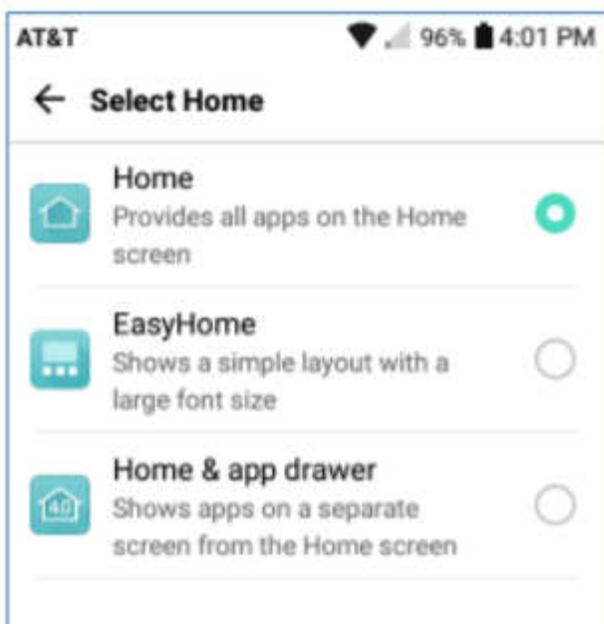
Setting the new image as the Wallpaper for the Home Screen I returned to the smart phone and selected Settings>Display>Home screen>Wallpaper. I then tapped Gallery as my source. Within the Gallery, I navigated to and tapped the image of the copper gradient.



I then tapped OK and finally, on the confirm prompt, tapped Set. I did not check the checkbox to use the same image as my lock screen background. This made my copper gradient image the background for the home screen. Note in the screen shot above that I had also made a medium blue to black gradient. I used that image as the background for my phone's lock screen.

You can create any number of similar background images or use favorite pictures (properly cropped and sized) as backgrounds. Let your imagination go wild.

### Choosing Your Home Screen Style



Select Settings>Display>Home screen>Select Home and you will have a choice of three basic Home Screen styles. The default is Home.

If you don't like endless swiping to find App icons, you may want to try EasyHome or Home & app drawer as alternatives.

The App Drawer is an icon that, when tapped, shows all the App icons on a separate screen.

Summary Your Android Home Screen, much like your Windows Desktop, is a place you spend a lot of time on when using your smart phone. It's worth taking a little time to get it set up in a way that makes it easy and comfortable for you to use.

There are many other settings you may choose to tweak. If, during experimenting, you get off into the weeds, you can always go back and revert to the original factory defaults.

Have fun



## APCUG VIRTUAL TECHNOLOGY CONFERENCES

The next Virtual Technology Conference is scheduled for February 9, 2019. Information should be available soon at: <https://apcug2.org/>

YouTube videos of the November 2018 presentations are currently available.

### **If it's Connected, it needs to be Protected!**

**Bob Gostischa, Avast Evangelist**

<https://www.youtube.com/watch?v=JliveK2E3I4&feature=youtu.be>

### **Cut the Cord, Things to Consider Before Firing Your Cable Company”**

**Hewie Poplock, Central Florida Computer Society Windows SIG leader; APCUG Representative**

<https://www.youtube.com/watch?v=a843JQh2mjl&feature=youtu.be>

### **Excel Magic**

**Alan Salmon, ASc, FCPB, PHF, President, Alan Salmon & Associates Inc.  
Founder, K2E Canada Inc.**

<https://www.youtube.com/watch?v=KHL3Chj92us&feature=youtu.be>

### **Take Control of Your Passwords**

**Joe Kissell, Publisher, Take Control Books**

<https://www.youtube.com/watch?v=V6WxeqEPAW0&feature=youtu.be>

### **Hands-on Demo – Windows 10, October Release**

**Bill James, Vice President, Computer Club of Oklahoma City; Advisor, Region 8**

<https://www.youtube.com/watch?v=Nzv0Phu5KwA&feature=youtu.be>

### **Digital Literacy with TechBoomers**

**Kay Fleury, TechBoomers.com Content Manager & SEO Specialist**

<https://www.youtube.com/watch?v=hwIPZiPYvEU&feature=youtu.be>

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