



Midland Michigan

# BITS AND BYTES

January 2015

<http://mcc.apcug.org/>

## President Piper's Ponderings



Your Board has decided it is time to get off our digital butt and upgrade our meetings. Three items are under consideration: use of Skype, buy a new projector and get a sound system.

The Skype capabilities have been discussed and tried before. Microsoft, who now owns Skype, is going to allow free, multiple contacts, which opens the door for the use of Skype for our General Meetings. This opens the door for both shut-in members and outside speakers. It may be necessary to purchase a good camera and speaker system.

Your Board also feels it is time to replace our antiquated projector. Newer models will give better resolution, more flexibility in connections, lighter weight and cheaper price. We also will be adding appropriate speakers to this arrangement.

January's meeting is titled "What is in your tool bag?" The idea is to consider what you need to fix a PC. Topics will include both hardware and software.

Also for the January meeting plan on a discussion about the CES show: what you liked, what you might consider buying, what was far out.

Bring your new Christmas gifts to show off to the membership.

The February Meeting, as of right now, will be about Skype. We want to test that all our members can use Skype, and that the Community Center bandwidth, along with a new camera and sound system will support everyone.

I have a number of inkjet printers that will be part of our giveaways in January. Some of these are All-In-One models, and all have ink cartridges.

I have some fun thoughts to throw at you for January, so bring an open mind. Also, try to read the article in Bits and Bytes about learning to use a computer at age 90. (page 3)

*(The above comments are the opinion of the author and do not necessarily reflect the views of the Midland Computer Club.)*

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## GENERAL CLUB MEETING

7:00 P.M.

4th Wednesday of the month at the  
Midland Community Center  
2001 George St., Midland, MI

**This month's date:**  
**January 28, 2015**

**2015 BOARD MEMBERS**

**MCC OFFICERS**

President Larry Piper larryp56@chartermi.net  
 Treasurer Jan Ensing btiger6@juno.com  
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**AT-LARGE BOARD MEMBER**

Joe Lykowski joseph@lykowski.com

**PROGRAM COORDINATORS**

Howard Lewis lewis3ha@chartermi.net  
 Bill Tower tower.w@gmail.com

Please let Howard or Bill know of topics you would like covered at future meetings.

**PUBLICITY**

Al Adams aladams12@yahoo.com

**Useful, useless and strange (in no particular order) Web Sites:**

<http://tinyurl.com/69qffs8>

If you receive a phone call, purporting to be from Microsoft or a tech firm working with Microsoft, you should hang up the phone and report the call to Microsoft. This page on the Microsoft site provides information on how to avoid these scams and a link to their webpage to report the scam call.

<http://glacierworks.org/>

Discover Mt. Everest. When David Breashears first climbed Mt. Everest, he was in awe of the majesty of this mountain. Now years later, he is trying to make Mt. Everest available to the average human being. Watch the video and explore some of the panoramic shots of the "roof of the world".

<http://tinyurl.com/oodlccs>

What happens when a snowman suddenly moves on it's own?

<http://tinyurl.com/d36u88b>

This YouTube video shows a washing machine that is determined to accomplish its task, no matter what you put in it.

<http://holidayleds.com/>

Whether you need new lights for Christmas or have some old ones that need to be retired, this site will help you. You can buy new lights or recycle your old ones.

**Board Meeting**

First Thursday of the month  
 7:00 PM

Chapel Lane Presbyterian Church,  
 5501 Jefferson Ave., Midland MI

**Membership Enrollment Form**

NAME \_\_\_\_\_ PHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZIP \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

Membership dues FAMILY (\$20) STUDENT (\$15) New Member \_\_\_\_ Renewal \_\_\_\_

Please fill out the above form and mail it along with payment of check or money order to :

**MIDLAND COMPUTER CLUB**  
 1816 Bauss Ct  
 Midland, MI 48642-4023

**Attn: Membership Chairman**

You may also pay for membership at a regular club meeting

## A Christmas Story

This story is about the use of computers by older people, something computer user groups deal with all the time. It was written on Christmas Eve which makes the message all the more appropriate. You can read about the credits at end.

“If I were not handicapped, I would be spending less time on this Facebook, but, it is what it is.

I got my first computer almost exactly 5 years ago. (Editor’s note: he was 90 at the time.) My Grandson, son and daughter-in-law insisted a computer would be perfect for me. I, on the other hand, saw it as a gigantic electronics gadget that would take me forever to learn how to operate, etc, and I was too old to start up such an activity.

But, after refusal after refusal, I was bound, gagged and drugged screaming to Best Buy (well, not quite that dramatic but you get the point); there I was outfitted with computer, printer and set up with Geek Squad. I spent one hour with a Geek and from thereon left on my own to make progress.

One hour isn’t enough but amazingly as I look back it wasn’t all that difficult to capture most of the basics thru a trial and error period. Now, 5 years later, I may not have my “Master’s” but I do think I have my degree.

All of the above was unnecessary but it establishes a base for me to say the computer and Facebook may have added time to my life. It has been so enjoyable; reduced what otherwise would have been boredom and best of all allowed me to make new friends even though we have never met in person.

So, on the Christmas Eve, 2014 – may I wish each one of you Happiness and Joy throughout the coming year. Please know, that’s what I have received from you all during these past few years.

Ed Tharp, Moderator

Facebook page: You Know You Grew up in Danville, Indiana...”

Written by: Larry Piper, President, Midland Computer Club, Midland, MI. This story was reprinted verbatim from Ed’s posting on Dec 24, 2014, and printed with his permission. Larry also grew up in Danville, and is one of more than 1,500 active members of the above Facebook page.

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## **ARTICLE INDEX**

### **The Tip Corner – September 2014 -- Page 4**

Bill Sheff, Lehigh Valley Computer Group, Pennsylvania

### **17 Tips to Extend your iPhone/iPad Battery Life, Part 1 -- Page 6**

Bill Crowe, 2nd Vice President, Sarasota TUG, FL

### **Computing in the Cloud: MS OneDrive -- Page 8**

*Part 1 of a 2-Part Series*

Nancy DeMarte, 1st Vice President, Sarasota Technical User Group, FL

### **Sort A List Of Names In Microsoft Word -- Page 9**

Howard Lewis, Midland Computer Club, Midland MI

### **Helium Backup, a review -- Page 12**

Frank Ramsey, Editor, ACPCUG, Akron Canton PC Users Group, Ohio

*Articles in this Newsletter have been obtained from APCUG with the authors’ permission for publication by APCUG member groups. The Midland Computer Club has not verified the information contained in the articles nor tested procedures or hardware/software. Articles do not necessarily reflect the views of the Midland Computer Club.*

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## The Tip Corner – September 2014

By Bill Sheff, Lehigh Valley Computer Group, Pennsylvania

September 2014 issue, The LVCG Journal - [www.lvcg.org](http://www.lvcg.org) - [nsheff \(at\)aol.com](mailto:nsheff@att.net)

### File Extensions

We all know that file extensions tell us what program can be used to open up a specific type of file. In Windows Explorer some of you might notice that files are listed without the file extension. This is usually the default. However in today's world it might be a good idea to see what the file extension is which could help in determining whether or not some files might be malicious. The easiest way to show file extensions on all files is to go to Control Panel>Folder Options and click on View at the top of the window that opened. Scroll down to where you see "Hide Extensions for known file types" and unclick the box to the left. This will now show all file extensions. While there you might want to investigate the many other options available such as showing all hidden system files that are usually hidden from view. Just clear the Hide protected operating system files check box, and then click OK.

### Customize Your Folders

You can customize your folders to go from a plain folder icon to something that can represent what is inside the folder. It used to be easier, but now you have to go to Computers and click on the C: drive, then go to users and then documents. Right click on any folder and click Options (or Properties) and then click on Customize>Change Icon. A new pane opens up with lots of icons. Select the one you want, click Apply and then OK. The icon will now replace the old basic vanilla folder icon. If you don't like the icon go back and click "restore original icon." You can also select "choose a file to show as the icon."

Check the box next to "Choose A Background Picture" and click NEXT. From here you can choose from many different backgrounds, or pick one that you have stashed on your computer somewhere. You can also change the color of the text.

### Display

If you click on Display in the Control Panel you can change the look of your computer; altering colors, fonts, backgrounds, screen savers, etc. And if you want to check what's going on inside of a file or program just click "Properties." You can do this by right clicking a file and select Properties from the menu, or you can hold down your ALT key and doubling clicking the file.

### What Does the Print Screen button do?

If you hold down Ctrl + Print Scrn keys you capture your entire screen. To capture a copy of only the open window, hold down the Alt + Print Scrn keys. Although you do not see anything happen, the picture is now on your Windows Clipboard, and you can paste it into any program that will allow you to view a picture. There are also a lot of free screen capture programs. I use Gadwin Print Screen 4.7. It allows you to drag a diagonal on the screen so you can copy just what you want. But another one is ScreenHunter 5 and it is also free. They both take the pain out of grabbing screen captures and makes it easy to determine the area of the screen you want to capture. You can then save to BMP or JPG format. Hotkeys are also available.

### Another Way to View the Contents of the C: drive

On your keyboard, hit WINDOWS KEY + R. No Windows key? Get a new computer – Joke. Just click on Start and in the text area type a backslash, ( \ ), and hit enter.

### Searching Files

You know that the FIND utility allows you to search for files on your computer. But you can also search the inside of your files to search for text.

This option was hidden in Windows 95 but is visible in Windows 98 and above. Just click on Find>Files or Folders. In the text area labeled "Containing Text" type the text you're looking for.

### **Taskbar and START Menu**

Right click on your taskbar and choose PROPERTIES. You can adjust many items on the Taskbar or Start menus or Toolbars. Changing the size of icons and many other options are available.

### **Restart Your System Without Rebooting**

To restart Windows without restarting your whole system, hold down your left SHIFT key and keep it pressed throughout this process.

Click START | SHUT DOWN. Choose "Restart." Click "OK." You may now release the SHIFT key.

### **Registry Defrag 2.35**

By this time most of us have been using CCleaner to clean up our computer and registry. But I don't know if CCleaner also closes up the gaps in the registry caused by scattered data. That's where Free Registry Defrag comes in. It compacts and optimizes your Registry (though it doesn't remove invalid entries), and it even runs on Windows Vista.

### **Quick Startup 2.3**

Lots of applications take the opportunity to load themselves when you start your PC, whether you want them to or are even aware of them. Quick Startup shows you all those programs that start at startup and allows you to disable the ones you don't really need to launch at startup.

### **Revo Uninstaller 1.5**

After using Quick Startup 2.3, you may find apps on your system that you no longer need (or never wanted in the first place). Revo Uninstaller goes beyond what Windows does with its Add/Remove Programs function, cleaning up any remnants of a removed app (like Registry entries) that Windows might otherwise miss. It also gathers files related to broken applications so you can clean them off your system.

### **What Is Under the Hood**

Two programs that can help you see what your computer is all about are Belarc Advisor 7.2 and CPU-Z 1.43. Belarc Advisor offers PC users the convenience of a full-system scan and a handy hardware and software diagnostic report. It identifies the components in your PC—CPU, motherboard, RAM, hard drives, etc.—and detects weaknesses in your system's security. Advisor can also tell if you have Windows vulnerabilities that require running a patch, whether your antivirus software is up to date, and which Microsoft hotfixes your system is missing. It will then create an HTML file of its report so you can easily view it in your Web browser.

CPU-Z can also tell you everything about your PC's core components, from basic specs like processor name and RAM amount to overclocking essentials such as clock multiplier and voltage settings. If you want to find out what's going on under the hood of your machine, CPU-Z can do it. Some people also call it a tweaker's godsend

### **Recover Files 2**

At some of our meetings we mentioned that there are various programs that will recover files even if the drive has been reformatted. Well, this is not it. But if you have ever deleted a file from the recycle bin, Windows Explorer or even a thumb drive by accident here is a free utility that will get it back for you. The caveat is that you could not have rewritten over any part of the file. So when it happens recover right away before you start filing stuff.

### **DoubleKiller 1.6.2**

There are many programs that search out and list duplicate files. Over time it seems that duplicates just crop into the computer. Invisible but there. The Windows search function doesn't really work well, give DoubleKiller 1.6.2 a try. As its name suggests, the utility quickly finds doubles in your file library so you can decide whether to delete the copy or not. DoubleKiller also lets you search by file type, which makes it easy if you just want to clean up your MP3 collection.

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## 17 Tips to Extend your iPhone/iPad Battery Life, Part 1

By Bill Crowe, 2nd Vice President, Sarasota TUG, FL

July 2014 issue, Sarasota Technology Monitor - [www.thestug.org](http://www.thestug.org) - presentations (at) thestug.org

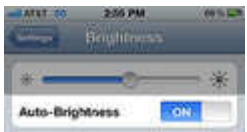
Anyone who's used an iPhone for even a few days has discovered that while these phones are more powerful, and more fun, than perhaps any other cell or smart phone, that fun comes with a price: battery use. Any halfway intensive iPhone user will recharge their phone almost every couple of days.

There are ways to conserve iPhone battery life, but many of them involve turning off services and features, which makes it a choice between all the cool things that the iPhone can do and having enough juice to do them.

Here are 17 tips to help you extend your iPhone's power, including new tips for iOS 7, which has features that can drain battery faster than earlier versions.

You don't need to follow all of them (what fun would that be?)—just use the ones that make sense for how you use your iPhone—but following some will help you conserve juice.

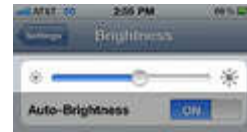
### 1. Turn on Auto-Brightness



The iPhone has an ambient light sensor that adjusts the brightness of the screen based on the light around it (darker in dark places, brighter when there's more ambient light) to both save battery and make it easier to see. Turn **Auto-Brightness** on and you'll save energy because your screen will need to use less power in dark places.

Find it in the Settings app -> **Brightness & Wallpaper** -> **Auto-Brightness On**

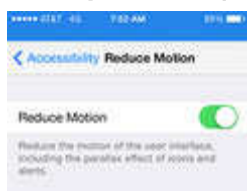
### 2. Reduce Screen Brightness



You can control the default brightness of your iPhone screen with this slider. Needless to say, the brighter the default setting for the screen, the more power it requires. Keep the screen dimmer to conserve more of your battery.

Find it in Settings -> **Brightness & Wallpaper**

### 3. Stop Motion (iOS 7)



One of the coolest features of iOS 7 is called Background Motion. It's subtle, but if you move your iPhone and watch the app icons and background image, you'll see them move slightly independently of each other, as if they're on different planes. This is called a parallax effect. It's really cool, but it also drains battery. You may want to leave it on to enjoy the effect, but if not, turn it off this way:

Settings -> **General** -> **Accessibility** -> **Reduce Motion** -> move slider to green/on

### 4. Disable Dynamic Backgrounds (iOS 7)



Another neat feature introduced in iOS 7 is animated wallpapers that move underneath your app icons. These dynamic backgrounds offer a cool interface flourish, but they also use more power than a simple static background image. Dynamic Backgrounds aren't a feature you have to turn on or off, just don't select the Dynamic Backgrounds in the **Wallpapers & Backgrounds** menu.

## 5. Turn Bluetooth Off



Bluetooth wireless networking is especially useful for cell phone users with wireless headsets or earpieces. But transmitting data wirelessly takes battery and leaving Bluetooth on to accept incoming data at all times requires even more juice. Turn off **Bluetooth** except when you're using it to squeeze more power from your battery.

**Find it in Settings -> Bluetooth -> Move Slider to Off**

## 6. Turn Off 3G/4G



The iPhone 3G and later models can take advantage the speedy 3G and 4G LTE cellular phone networks. Not surprisingly, using 3G, and especially 4G LTE, requires more energy to get the quicker data speeds and higher-quality calls. It's tough to go slower, but if you need more power, **turn off 3G/4G or LTE** and just use the older, slower networks. Your battery will last longer (though you'll need it when you're downloading websites more slowly!).

**Find it in Settings -> General -> Cellular -> Slide Enable 3G to Off on some models or Enable LTE to Off on the iPhone 5 or newer**

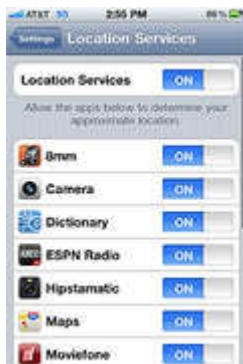
## 7. Keep Wi-Fi Off



The other kind of high-speed network that the iPhone can connect to is Wi-Fi. Wi-Fi is even faster than 3G or 4G, though it's only available where there's a hotspot (not virtually everywhere like 3G or 4G). Keeping Wi-Fi turned on at all times in hopes that an open hotspot will appear is a sure way to drain your battery life. So, unless you're using it right this second, **keep Wi-Fi turned off**.

**Find it in Settings -> WiFi -> Slide to Off**

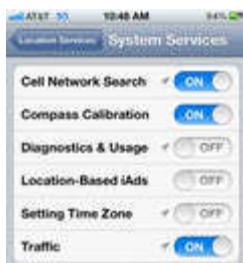
## 8. Turn Off Location Services



One of the coolest features of the iPhone is its built-in GPS. This allows your phone to know where you are and give you exact driving directions, give that information to apps that help you find restaurants, and more. But, like any service that sends data over a network, it needs battery power to work. If you're not using **Location Services**, and don't plan to right away, turn them off and save some power.

**Find it in Settings -> Privacy -> Location Services -> Slide to Off**

## 9. Turn Off Other Location Settings (iOS 5 and up)



Use this tip if your iPhone or other devices upgraded to iOS 5 are burning through battery life too quickly. It's probably a software bug, so Apple may fix it and this tip may go away, but in the meantime, here it is.

A number of additional location services introduced in iOS 5 seem to be draining too quickly. Turn them off and you should regain some battery life.

**Find it in Settings -> Privacy -> Location Services -> System Services -> Turn off Diagnostics & Usage, Location-Based iAds, and Setting Time Zone**

## Computing in the Cloud: MS OneDrive

*Part 1 of a 2-Part Series*

Nancy DeMarte, 1st Vice President, Sarasota Technical User Group, FL  
www.thestug.org -- ndemarte (at) Verizon.net

One problem with computer technology today is that the systems change before we learn how to use them. For example, storing documents and other files on the Internet has been around for many years, used mostly in the business world through paid services like Carbonite. In the past few years this concept, nicknamed the Cloud, has become more accessible to home users through free cloud storage services from companies like Apple (iCloud), Google (Google Drive), and Microsoft (OneDrive). Many home users, however, are not taking advantage of the convenience of being able to store documents and photos on the Internet because of the difficulty of learning a new process. Because I have Microsoft Office, I use Microsoft's OneDrive for cloud storage, which I find to be an easy and convenient option on both my Windows 7 and 8.1 computers.

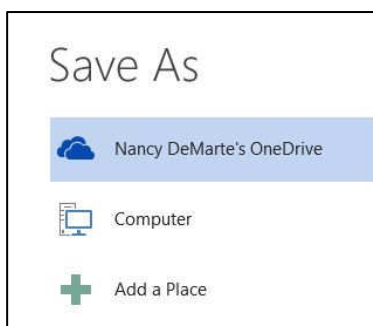
Why should you consider storing files in the cloud? If you travel often or have multiple computers or devices, the possibility of creating a document on one computer and saving it on the Internet where it can be accessed from any computer and most devices at any time is a huge benefit. Plus, if your computer fails, your files are safe in the Cloud. Before I began using OneDrive, I would create a document on my desktop computer, copy it to a flash drive or a CD, and copy it from there to my laptop. Now I just save an important document to OneDrive, making it easy to get to it on my other computer or any device which has the OneDrive app.



If you use Microsoft Office, OneDrive is an obvious choice. Let me introduce you to OneDrive in this two part series.

**The History:** Microsoft first introduced online storage outside the business world in 2007, when Windows Live SkyDrive was introduced. A person with a free Microsoft Live account could have 25 GB of free storage in a secure place on the Internet. At that time, though, it was a cumbersome process to learn and use. I tried it, but soon got frustrated and gave up. In the next few years, Microsoft made several improvements. In 2010 Web Apps were added to SkyDrive. These were simple versions of the Word, Excel, and PowerPoint applications which could be used online in SkyDrive to create and edit files. By 2012, the SkyDrive app was available for Apple and Android devices and was easier to use, although it only offered 7 GB of free storage space for home users. In February 2014, the name SkyDrive was changed to OneDrive as result of a copyright suit. Since then, the service is being upgraded and improved continuously. For instance, those users who purchase the subscription version of Office 2013, called Office 365, now get a total of 27GB of free storage space on OneDrive.

**How it Works:** OneDrive will not work with Windows XP; it comes already installed on Windows 8.1. In Windows 7, unless you have Office 2013, you must first establish a Microsoft account or have a Hotmail email address, Windows phone, or Xbox Live. Then you can download the OneDrive desktop app to your computer. As long as you don't move this OneDrive folder to a new location, all changes you make to files you have saved to OneDrive will be synced to the OneDrive cloud location and any other computers or devices on which you have set up the OneDrive app. To save a document to OneDrive, either drag it to the OneDrive icon in the Explorer window or save it directly from the Word program.



I don't save all my files to OneDrive, although in Office 2013, OneDrive is the default saving location. "Computer" is listed as well, as is "Add a Place," where you can add other online locations. You can change the default location back to the computer, if you wish, from any Office program by clicking the File tab – Options – Save – in the first group of options, and putting a checkmark next to "Save to computer by default." – OK.



**Managing Files in OneDrive:** Whether the OneDrive app came with your computer or was downloaded from Microsoft, it appears in the left pane of the Explorer window and the taskbar notification area. Clicking this icon will take you to OneDrive, where you can open, edit, copy, and share files. You can edit a file either on the web in OneDrive with Office Online (the new name for Web Apps), or download it to your computer and edit it with its full application. You can also upload other types of files to OneDrive, such as music and photos, as well as whole folders. Just drag the folder or file from your computer to the OneDrive icon. OneDrive works the same as any other folder on a computer. I can manage files (create sub-folders there, save files into them, sort, or delete) on OneDrive the same way I do in an Explorer window on my computer.

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*OneDrive works the same way as any other folder on your computer.*

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**Tablets, Smart Phones, and Office 365:** You can download the OneDrive app from the Microsoft website to your Apple or Android tablet or phone, which makes it easy to synchronize your files among devices. Plus, some Office 2013 apps (Word, Excel, and PowerPoint) are now available for iPad and Android devices. When I open the Word app on my iPad, I can view all my files and folders which I have saved in OneDrive. Because I have Office 365, I can edit an existing document or create a new document using the Word app, which I can save either to the iPad or OneDrive. Those with other Office versions can only open and view files with the Office apps, but this is handy when you receive an email attachment in Word or Excel.



Next month we'll explore two important topics regarding OneDrive: how to keep files safe on OneDrive and how to share OneDrive files with others.

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## Sort A List Of Names In Microsoft Word

Howard Lewis, Midland Computer Club, Midland MI

Lists of names are usually entered into Word, either in First Name Last Name (Tom Smith) or Last Name, First Name (Smith, Tom) order, with each name a separate paragraph (i.e. followed by pressing the Return key when entered).

If the names are entered First Name Last Name and then sorted within Word, the list will sort based on the First Name:

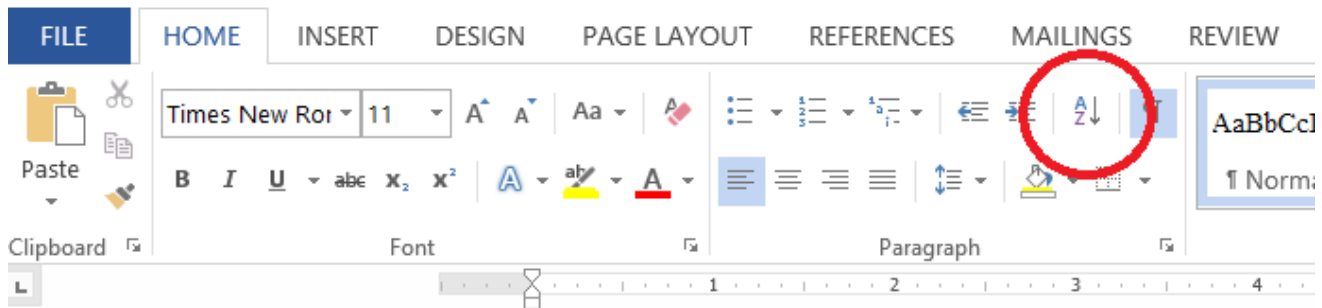
Before sorting:

Tom Smith  
Mary Brubaker  
Joe Adams  
Kara Jones  
Walter Allen  
Mary Ann Baker

After sorting:

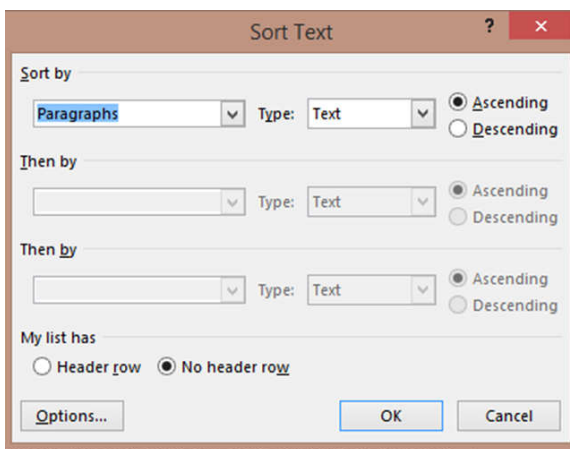
Joe Adams  
Kara Jones  
Mary Brubaker  
Mary Ann Baker  
Tom Smith  
Walter Allen

To accomplish this simple sort, simply *highlight the group of names*, click on the *Sort* icon within the **Paragraph** group on the Ribbon (**Figure 1**)



*Figure 1. Sort icon in Ribbon*

and set **Sort by** to *Paragraph*, **Type** to *Text*, and order *Ascending* (**Figure 2**)



*Figure 2. Sort Text Dialog Box*

Frequently though, we wish to sort the list based on the Last Name instead of First Name. In this case, the names can either be entered Last Name, First Name (so we would sort as above) or they can be entered as in the first case (First Name Last Name). If the names are entered First Name Last Name, we must handle the list somewhat differently. You still will *select* the list of names and click on the *Sort* icon on the Ribbon. Now you need to click on the *Options* button at the bottom of the dialog box (**Figure 3**).

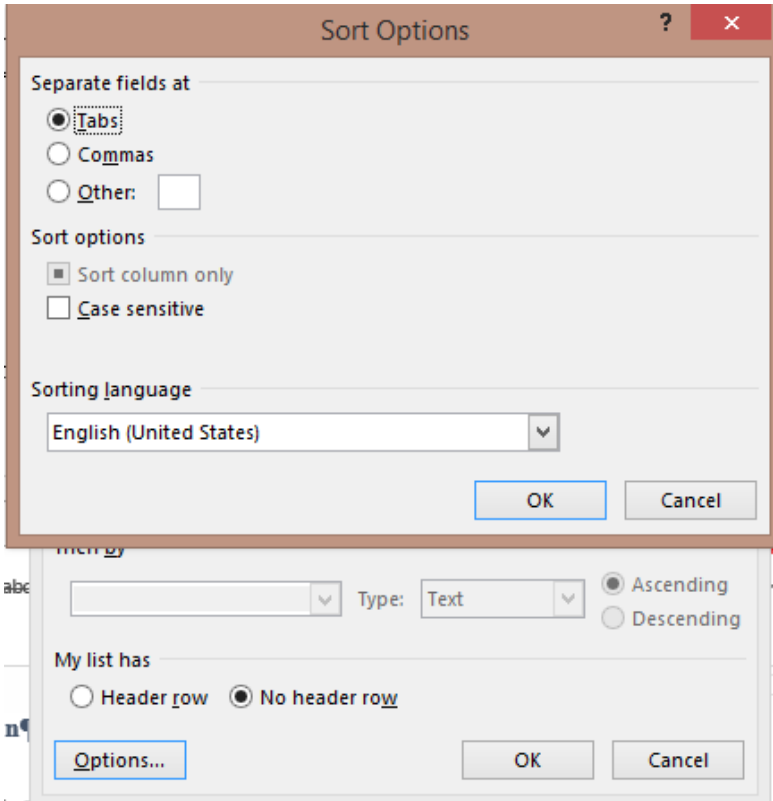


Figure 3. Sort Options Dialog Box

In the **Sort Options** box, you need to select *Other* and replace anything which may be in the following text box with a *Space* and then click *OK*. Now, in the **Sort Text** dialog box, click on the *drop-down arrow* under **Sort by** and select *Word 2*. (**Figure 4**) and click *OK*.

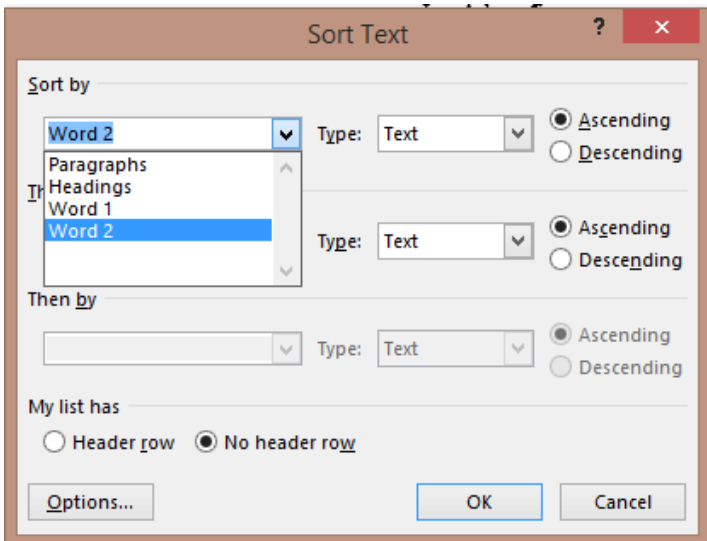


Figure 4. Sort Text Dialog Box

The following example shows the end results of sorting by Last Name. One more thing to note. We have a name that has more than two parts (Mary Ann Baker). Even though it looks like it is three words, a nonbreaking space (*Ctrl+Shift+Space*) has been inserted between Mary and Ann. This makes Mary Ann appear to be one word to Microsoft Word.

Now, starting with the above list:

Tom Smith  
Mary Brubaker  
Joe Adams  
Kara Jones  
Walter Allen  
Mary Ann Baker

And sorting by the last name, we get:

Joe Adams  
Walter Allen  
Mary Ann Baker  
Mary Brubaker  
Kara Jones  
Tom Smith

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## Helium Backup, a review

By Frank Ramsey, Editor, ACPCUG, Akron Canton PC Users Group, Ohio  
[www.acpcug.org](http://www.acpcug.org) - [af Ramsey@yahoo.com](mailto:af Ramsey@yahoo.com)

The Helium of this review is a backup program for Android phones and tablets. It's available in the Google Play store, both free and paid editions.

Before continuing we must digress and discuss what does backup mean and what is included in a backup?

An android device can have multiple objects to backup. Phone history, phone contacts, SMS messages, system settings, customizations (Wi-Fi networks, etc.), applications and application data.

There are at least two types of applications: system, those that are installed on the device when it's purchased and those installed after the device is first turned on. Complicating the process is each application has application data (high scores for games, user ID and passwords for banking, etc.) that should be backed up for a restore to be complete.

Now some will remind me that when you first sign onto the Android device with your Google account you are offered the choice to backup and/or restore the device to the Google account. Yes, you can have the device backed up to your Google account. And Google does a great job of restoring settings like contacts and Wi-Fi networks.

If you've never used the device before Google can also install all non-system, non-private applications from every device that is backed up to the Google clouds. Unlike iTunes, you are not asked to select a backup to use. You get all the apps, no application data associated with each. Assuming you don't want every app you've ever purchased on the new device, Google backup is not a great option at least for new devices. All this points to the need for a 3rd party backup utility; perhaps two or more depending on the capabilities of the backup utility.

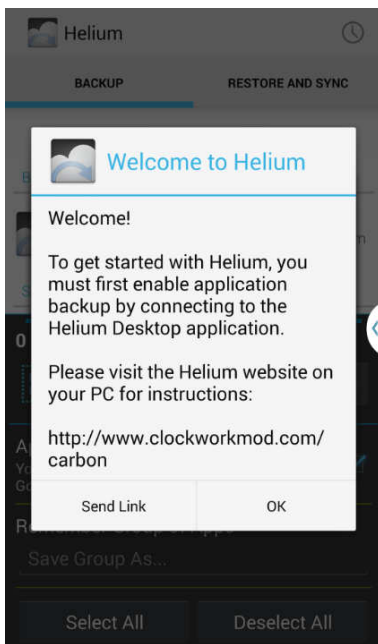
The first question you have to answer when you decide to backup a device "is (the device) to be backed up "rooted"? Rooting is the term used to indicate any privilege restrictions imposed by Google or the device manufacturer has been removed. It's basically running with administrator privilege on Windows devices. Unless the device is rooted, you are running as a user with no way of performing privileged tasks such as backing up application data.

Rooting is not for everyone. Root exploits areas not available for every device. You can brick (make the device unusable) a device. There are very few reasons to root your device, other than to say you've rooted it and watch the puzzled looks on the faces of those who don't know what this means. Basically DON'T ROOT your device.

Having said this, one exploit that rooting brings is the ability to backup application data. There are many backup tools that backup application data when the device is rooted, including My Backup, Titanium and others. Most cost \$5 or so. Some provide free editions. However if you've taken the risk to root the device spend the money and pay for a quality backup tool for it!

For non-rooted devices, there are many free and paid highly-rated backup tools. There is only one backup tool for non-rooted devices that also backs up application data. Helium. Period.

Now that we've covered backups and the types, let's look at Helium.

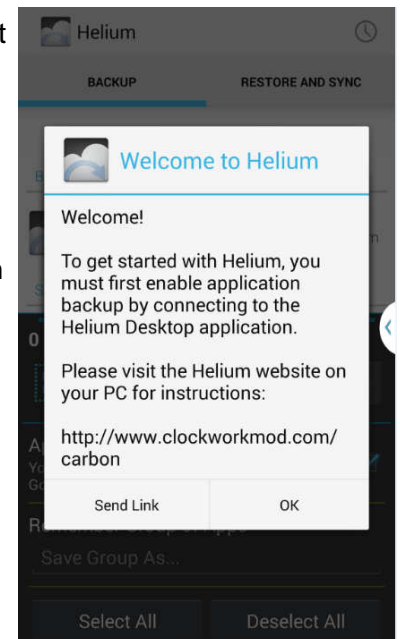


Helium is from ClockworkMod. It's unique in that there is a desktop component also required, at least to start the backup process. This is how the developers get around the non-root device application data backup dilemma.

To install Helium, search for it in Google Play and install it. Then Open it. You'll get the screen as shown at the right. Click OK.

You are requested to connect your Android to your PC or MAC.

Fire up your PC or MAC and go to the link shown at the right for the desktop application and drivers.



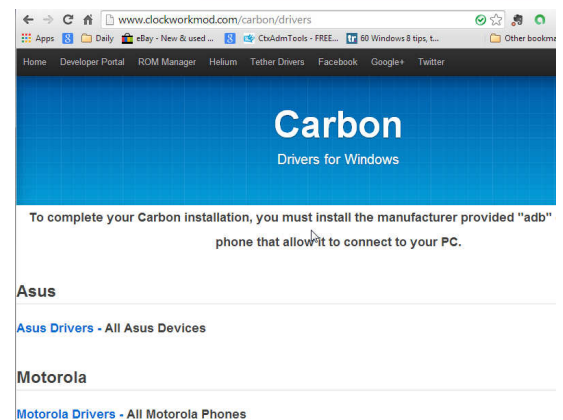
Download the appropriate Helium Desktop and install it.

If you are running Windows, click on the Android Windows Drivers and scroll through to select the manufacturer of your device. Download the drivers and either install (if the download is an .exe) or open (if the download is a .zip) and follow the instructions in the .zip file to complete the installs.

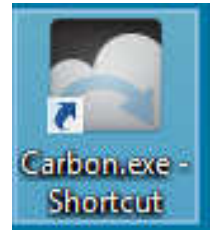
Plug in a USB cable into your phone and and plug in the USB cable to the PC/MAC and the phone. The phone should be recognized.

Once the required drivers are installed, Helium will ask you to enable USB debugging on the device. Press OK to go to developer Options and select USB debugging. If you are warned, click OK to continue.

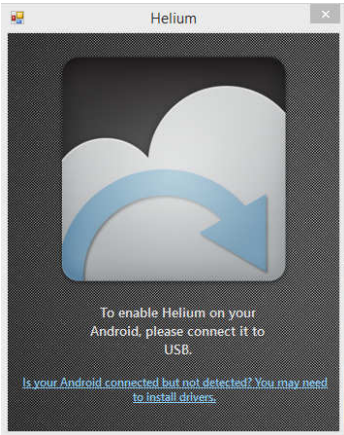
Now Helium will say mount the device in Photo sharing mode and takes you to the location to select this.



Finally, you are ready to run the Helium desktop. Click on the Carbon shortcut on the desktop.



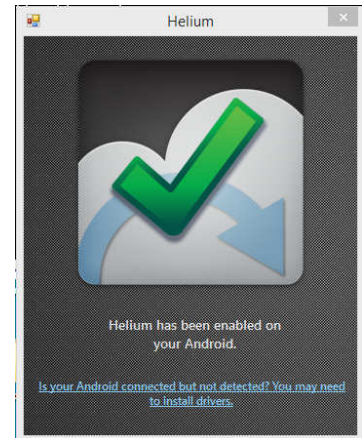
Yes, I know, the desktop portion of the tool is called Carbon and the Android part Helium. In fact, the backups made by Helium are stored in a folder called Carbon on the Android device. Once you launched, the Carbon shortcut title of the application is Helium.



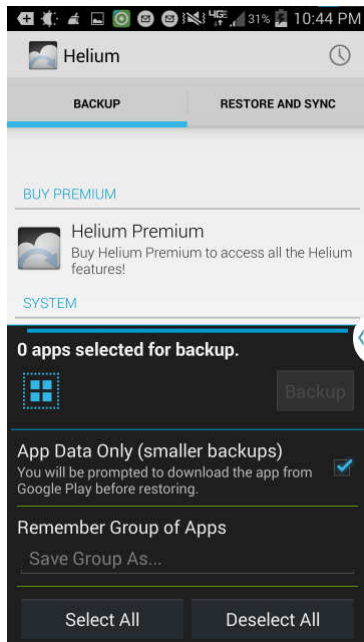
Once you've started Carbon, you get the Helium desktop

If your device is connected by USB and the device is running Helium, once the connection is made, the desktop will show the success Check.

During the connection process, the device will show a connection message. Click "Always allow this computer" and then OK. If you'd rather be prompted every time, don't click the "Always ..."; just click OK.



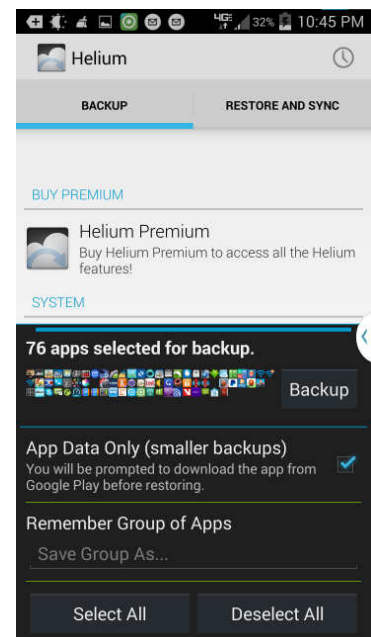
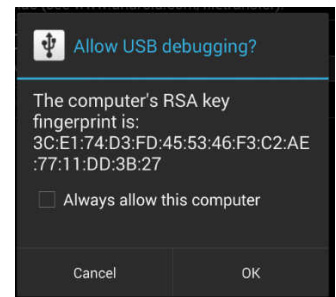
You can now disconnect the Android device from the PC/MAC. You have successfully enabled all Helium features on the Android device. Typically, you must go through activation process the first time Helium is started on the Android device following boot.



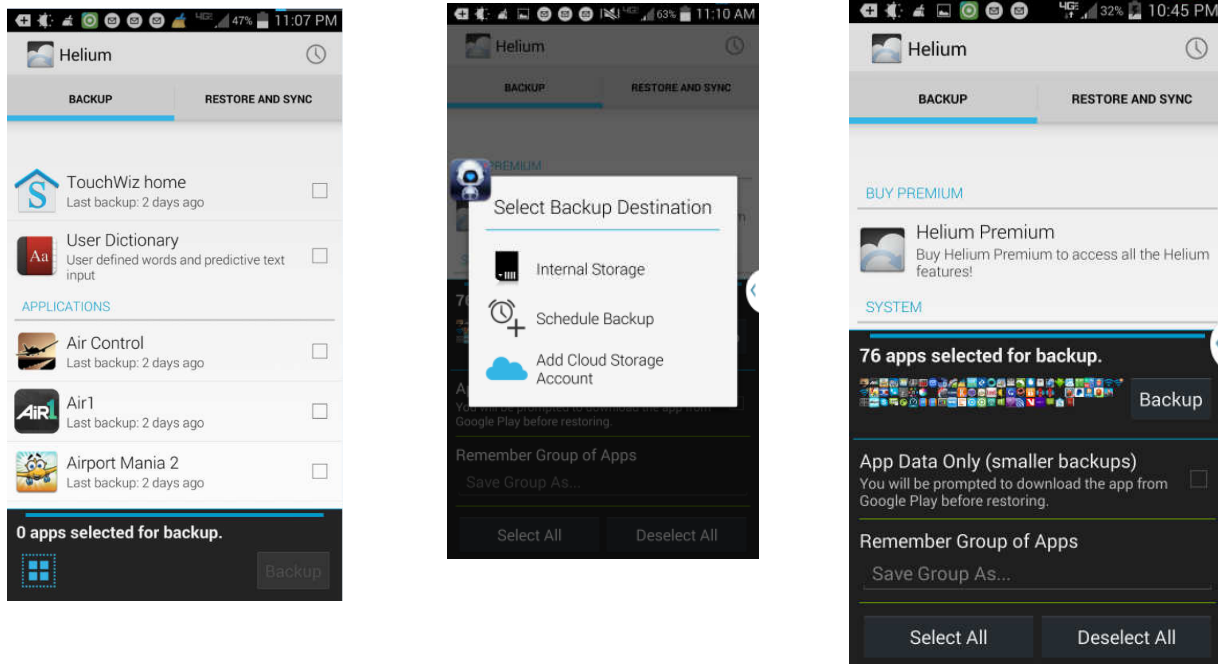
From now on, we will be referring to Helium on the Android device.

Notice the activated Helium screen shows 0 apps selected and the App Data Only box is checked.

To select all applications to backup, press the Select All dialog box. Icons for the apps to be backed up will be displayed and the apps will be counted.



To select individual applications, swipe up in the Helium Premium window. A list of applications and system settings to backup is displayed.



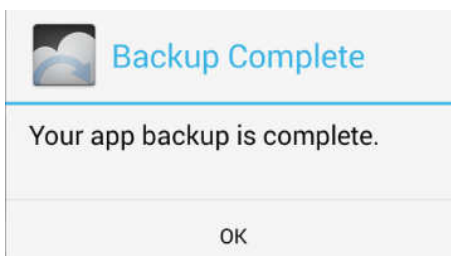
You are ready to continue. NOTE: if the App Data Only box is checked, you will backup ONLY the application data for each application and not the actual applications. While this does make for smaller and faster backups, restoring is a pain as you must first get the app installed before you can restore the apps application data. Read my article on restoring my phone from scratch and make your own decision.

To start the Backup, click the Backup button next to the Icons for the applications.

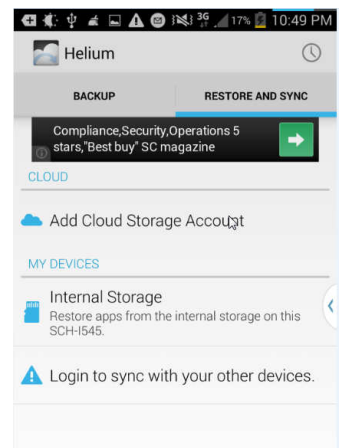
Select where to put the backup. I've only used the Internal Storage option and not tried the Add Cloud or Schedule Backup.

You will be given the chance to encrypt the backup by specifying a password. I suggest NOT using a password. The dialog is displayed very quickly, so if you want to specify a password, make it quick!

Once you select the location, the backup starts. Various dialogs are displayed showing the app currently being backed up and the backup progress. Eventually you get a successful backup message. Click OK to return to the Helium main screen.



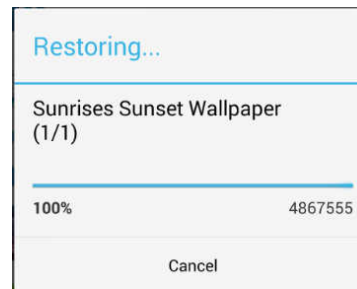
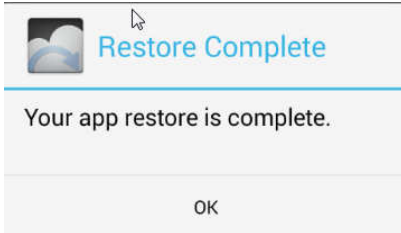
Now that you have the backup, your device is protected.



To restore from Helium, open the Helium desktop, activate it with the desktop if prompted, then click on the RESTORE and SYNC tab. Select the location of the backup. The backups available are displayed.

The list of applications backed up shows the Not Installed apps first, then the installed ones.

Select the app for restore and click the restore button.



After the restore completes, you will get a restore success message.

If you selected multiple apps to restore, you may get various dialogs asking you to confirm the installation of each app. Follow the install of each app, press the Done button, if prompted. DO NOT press the Open button as restores will stop.

Reboot the device to active the new applications and data. And enjoy.

That's the story of Helium, an Android backup and restore tool that can backup application data without requiring "rooting" of the device.

You may wonder how to protect the backup you just made, especially if the backup is on the Android device of interest. There are a couple of ways. One is to store the backup in the Cloud, Dropbox, or other backup destinations.

Another is to copy the resulting backup to another device. If the backup is stored in the storage of the Android device, the storage location is a folder called Carbon. All that's required is copying the Carbon folder to another location, either using an OTG (On-the-Go) cable and USB flash drive or connecting the device to a PC/MAC and dragging the folder from the device to the PC/MAC.

If you are using Helium to switch devices, back up the old device. Copy the Carbon folder to external storage. Turn off the old device. I suggest actually wiping the old device after you've verified all the stuff you want has been successfully moved.

Install Helium and activate it with the desktop on the new device. Copy the Carbon folder from external storage to the new device. Then use the Restore tab in Helium to restore your applications and application data.

A final note. There are a few applications that do not allow Helium to backup application data. You can find these by scrolling down in the backup window to the BACKUP DISALLOWED group.

For these applications, Helium will backup and restore the application but cannot backup or restore the application data. This is the choice of the application developer, not a problem with Helium.

Typically, applications that do not allow application data backup store their information in the Cloud and require you to login by a userid and password. Therefore the application data is stored in the Cloud and retrieved by the application when you authenticate it.

