The Rochester Computer Society, Inc.
a computer club open to everyone

MONITOR

Next Meeting – Tuesday, November 8
Gifts & Gadgets and Black Friday Predictions
presented by Arpad Kovacs

* * * Upcoming Presentations – Tuesday, December 13 * * *
a presentation via Skype
Free, and Alternatives to Free, Software by John Kennedy
East-Central Ohio Technology Users Club

In This Issue

Member of
apcug
An International
Association of Technology
& Computer User Groups

Device Transparency (DT)

By Eric Moore, President
Computer Users' Group of Greeley, CO

As computer users increasingly have multiple devices—laptops, desktop computers, tablets, smartphones—on which they keep important data, being able to seamlessly access a file from any location or device becomes a challenge. Say if you are on a business trip with your laptop and smartphone, but realize you forgot to copy a report from your desktop computer to one of your mobile devices, you may find it a challenge to get what you need. Remote control software such as LogMeIn can allow you to remotely connect to the computer to download the file you need. Dropbox provides a means of sharing files with yourself and others through a cloud-based storage. VPNs and collaboration services such as Microsoft SharePoint are other possibilities for getting access to a file you need while away from home or the office.

The RCSI '**Monitor' newsletter** can be found in most public libraries in Monroe County. *Free* copies can also be found in the following computer stores; Microworx, Just Solutions, TSC Electronics, and Pod Computers. Digital copies may be obtained from **www.rcsi.org** or my cloud storage at
http://tinyurl.com/tonydel-rcsi-newsletters/.

Some Past Presentations:
Keeping Mobile Devices Secure
Mobile Payments
Flash Drives-Not Just for Storage
Features, Mac OS X & Windows
Tablets, the Programs and Uses
Preview of Windows 10
Personal Finance Software
Amazing Browser Tips
How Domain Name Sys Works
Linux is Like Cars
Close up Photography

Special **I**nterest **G**roup

Linux Sig

The workshop is the **third Saturday of each month**, at Interlock Rochester, 1115 East Main St.
www.interlockroc.org
Enter through door #7 on the end of building, near *Comics Etc* and Goodman St. Find 'Interlock' on the intercom directory to get buzzed in and go upstairs to suite #200. We have experts on hand to fix problems and answer questions about Linux and FOSS (**f**ree and **o**pen **s**ource **s**oftware). **Bring your system** in so we can help you get the most out of it. Hope to see you there.

"Device transparency" (DT) is a concept which could provide a seamless means of managing your files from any of your devices. Whether you need to transfer a photo from a smartphone to your laptop, play a music file residing on a Mac PowerBook on your Android device, or access a Word document from home on your tablet computer, device transparency would make this all possible. In a paper published at http://www.brynosaurus.compub/net/devtransp.pdf, researchers with MIT and the Max Planck Institute for Software Systems describe how such an ideal service would function. (At the time of the paper's writing, there was no service they were aware of that provided all of these features they propose.)

To summarize, the service would provide a means by which "metadata"— information about your files—would be shared between your devices. Such information would include the file types, names, and on which devices the files are stored. Without you needing to be consciously aware of where a particular file is located, you would be able to download the file from the device on which it is stored and open it on any other device you are using (provided it has sufficient storage space). The only requirement is that the device that has the file you need is "linked" into the file sharing service, is powered on, and has an active Internet connection.

Adobe DC to some extent has such features, although it is geared toward working with PDF documents. Services such as Dropbox are available for multiple devices and operating systems, so they can to some extent meet such needs, provided you carefully configure the software on each device to share the files you need. One downside to sharing your files through Dropbox is that they must be uploaded to the "cloud"—which is simply a server that the vendor provides for storing your files. This may be a privacy concern, depending on the contents of the files, and could be costly in terms of the amount of storage space required (especially if you have a large music or photo collection). DT would mitigate this issue, as the files would not be stored in the cloud. It would also alleviate the need of every one of your devices synchronizing copies of all your files. Instead, the sharing of metadata would enable every device to be "aware" of your complete collection of files, so you can download what you need when you need it. Although the metadata may require many megabytes of storage, it would not be nearly so great as the storage space for the files themselves—especially high-fidelity photos, movies, and music files—which could require hundreds or thousands of megabytes of storage.

Device transparency is an interesting concept which could revolutionize how we work without our multiple computing devices. I am interested in seeing if such a service is developed sometime in the future. Depending how

well-designed (easy-to-use) it is, and what measures are taken to protect users' privacy, I might consider using such a service for my laptop, desktop PC, and tablet computer.

From the May 2016 newsletter, Random Access, www.cugg.org, moore.e.s@att.net.

Voice Control: HEY CORTANA, OK GOOGLE, SIRI & ALEXA

By Phil Sorrentino, Contributing Writer
The Computer Club, Florida

Remember Dragon Naturally Speaking? It was, and still is, Voice Recognition software mostly used to control the operation of a word processor like Word. Certain words were used for very specific manipulation of the cursor and the text. Naturally Speaking came on the scene and became useful sometime around 1999 to 2003, depending on how much you needed to transcribe documents into the computer. Early versions had to be "trained" by the user to recognize their individual voice, and the speed and accuracy were sometimes acceptable, and sometimes not so much. Things have really improved since then; now the manufacturer, Nuance, claims in its advertising that "Dragon is 3x faster than typing and it's 99% accurate". So, Voice Recognition software has really come a long way.

(For those of you, who are not familiar with Naturally Speaking, it has three primary areas of functionality: dictation, text-to-speech, and command input. The user is able to dictate and have their speech transcribed as written text, or they can have a document synthesized as an audio stream, or they can issue commands that are recognized by the program.)

Naturally Speaking is an example of a local computer application or App. All the computing needed for it to operate is on the computer that runs it. Naturally Speaking doesn't take advantage of Client-Server technology. If you attended one of our classes, you will recall that when an application is implemented with Client-Server technology, the heavy lifting (computer processing) is not done locally, but rather at a Server that is very powerful and very fast, but remote from the Client. The remote Server is connected to the Client by the internet, which allows rapid movement of data between the Client and the Server. So the Client App runs on the local computer and is connected to the Server Software, running in the cloud, via the internet. This combination provides the total Voice Recognition & Control System. The client collects input from the user and sends it to the Server where all the really complex computing is accomplished. The Server analyzes the input and develops the responses and sends them to the Client where the results are presented to the user in audio and/or display formats.

Naturally Speaking is certainly a useful product, but the voice recognition and control that has really gotten the attention of the public lately, are the intelligent personal assistants that are provided by some of the leading computer companies, Apple, Microsoft, Google, and Amazon. Apple was first on the scene with "Siri", followed by Google's "OK Google", then, with Windows 10, came Microsoft's "Hey Cortana", and finally Amazon's "Alexa".

All of these are Client-Server implementations. The Servers are somewhere in the cloud and the Client resides on your smartphone, in the case of Siri and "OK Google", or on your laptop (or desktop, or tablet) in the case of "Hey Cortana", or on a special device that is placed centrally located in your home, in the case of "Alexa".

All of these assistants use a Natural Language User Interface to answer questions. You'll need a microphone on your device to take advantage of this capability. The Client app, on the device, uses the microphone to listen for a "Wake Phrase". After this phrase is recognized, the following intercepted speech is then sent to the Server where it is analyzed via speech recognition software, and converted to commands. The Server then uses these commands to gather answers to the original spoken inquiry. All of these assistants can make recommendations and perform various actions via their Server capabilities. (For example, a verbal request for the "weather" might yield various audible statements about the weather in your location. Or, a request for "traffic" might yield audible indications of the traffic in your location, or possibly maps indicating traffic problems. Or, a request for the best restaurant might yield a list of restaurants near your location. Or, if you have things set up, the statement "Add eggs to my shopping list" will yield an updated shopping list including eggs.)

Here are some descriptions (and advertisements) found for each of these Voice Recognition & Control Apps.

1. Siri (Speech Interpretation and Recognition Interface) is a computer program that works as an "intelligent personal assistant" and "knowledge navigator", according to Wikipedia. "The software adapts to the user's individual language usage and individual searches with continuing use, and returns results that are

individualized", also from Wikipedia. "Hey Siri" is the wake phrase, which can be turned on or off.

2. OK Google lets you do things like search, get directions, and create reminders. For example "OK Google do I need an umbrella" to see if there is rain in the weather forecast. To use "OK Google", make sure you have the latest Google Search App and turn on "OK Google detection" in Settings.

3. Cortana is an App with which you can use your voice to make a call, send a text message, search the web, or open another App. Cortana can help you: schedule a meeting, set a reminder, get up-to-date weather or traffic. (Note: you need a Microsoft account to use Cortana.) "Hey Cortana" seems to be tied to the "Notebook", and thus is set up in the Notebook-Settings, which may not be obvious. (You get to the Notebook-Settings by clicking in the search bar on the Taskbar, then selecting Notebook [the square icon under the home icon], and finally Settings.)

4. Alexa is the name of Amazon's assistant that comes with the Amazon Echo. Echo is a wireless speaker and voice command device. The device consists of a 9.25-inch tall cylinder speaker with a seven-piece microphone array. "Alexa", the "wake word", is always on and can be changed by the user to either "Amazon" or "Echo". The device is capable of voice interaction, music playback, making to-do lists, setting alarms, streaming podcasts, playing audio books, and providing weather, traffic and other real time information. It can also control several smart devices. Echo requires a Wi-Fi internet connection in order to work. The Echo must be plugged in to operate since it has no internal battery.

If these personal digital assistants are successful, many more may show up. I just read that the company that brought us the SoundHound App also has a personal assistant called Hound that they hope to embed in other applications so that those Apps can be voice controlled. Imagine setting up an Uber ride by voice. (If you will recall, SoundHound is like the Shazam App, just hum a tune and it will tell you the tune's name.) With all these personal assistants around, we certainly will never have to feel lonely.

From the http://scccomputerclub.org / Philsorr.wordpress.com, philsorr@yahoo.com.

Back to Basics

Changing to another Email Service
By Jim Cerny, Chairman, Forums Committee
Sarasota Technology UG, Florida

Almost all computer users use email – and you are one of them, right? Have you ever had to change your email address or change to another email provider? Recently here in Florida (and I hear in Texas and California as well) our internet provider Verizon has been taken over by Frontier. As a result of this, EVERYONE had to change from Verizon to AOL for their email. Fortunately their Verizon email address will continue to be accepted by AOL (for now). The purpose of this article is to help you understand what steps are needed to change to another email. I do recommend Gmail because it comes with several other tools provided by Google and you most likely will never have to change to another email address.

Your first task is to go to the website and establish a new email account -- that is get your new email address and password. Please write it down and do not lose it! Once you have your new email ID your major concerns are forwarding your old emails to your new email address, getting your address book (or contact list) to your new email and to notify everyone of your new address. Some emails (such as Gmail) may ask you what your other email address is and automatically bring your contact list and forward any emails from your old address to your new address. They want your email business. But if your address book is not copied over for you then you will have to do it yourself. By all means "ask Google" how to do it. For example, ask Google "How do I get my AOL address book to my Gmail contacts?" What you will most likely have to do is to create a file of your address book by "exporting" it and giving it a file name, then copying that file by "importing" it into your new email. After you do this you need to examine your entire address book, name by name, to see that all the data was copied correctly. You will probably have some editing to do to straighten things out. For example, some phone numbers may not have been copied over or a nickname may have been placed as the last name, etc.

Next it is helpful to have all your old email "forwarded" to your new email address. This way you do not have to hurry to notify everyone on your list that you have a new email. If this is not possible, you may have to go into your old email and actually forward those important emails to your new email. From now on, only use your new email

address.

Finally, send a nice email to everyone telling them your new email address. It also is essential that you read the "help" or "options" for your new email so that you are aware of how to create new email folders, sort your emails, find emails, etc. Although every email can do these basic functions, how it is done may be different on different emails. And if you are converting to Gmail, be sure to check out the many apps that are available to you with your Gmail account ID. Now you are ready to enjoy using your new email.

One word of caution -- what if you have used your email address to establish accounts with various on-line businesses or services? Movie channels, banking, club memberships, etc. maybe using your OLD email address as your account ID. Unfortunately, all of these accounts must be changed to your new email ID. This may entail you having to enter all new passwords for all these accounts as well. This can be a real pain if you have many accounts, but there is really no other way around this, sorry. Be sure to write down ALL your IDs and passwords for EVERY service or app which requires an account.

From the June 2016 issue, Sarasota Technology Monitor
www.thestug.org, jimcerny123@gmail.com.

Can I Tell If Email I Sent Has Been Read by the Recipient?

I sent an email to a friend and he claims never to have gotten it.   I don't believe him; things he's said lead me to believe that he did   get it and that he did read it. Is there a way I can tell for sure?

I'm fairly amazed at the number of questions I get that boil down to people just not trusting each other. Not that there isn't cause, I suppose, with spam, phishing, and viruses running all over the place. But this seems like the simplest case of all – was your email read or not? The answer to your question is no, there is no way to tell – *for sure* – that your email has been delivered, or that it's been read. I always get a lot of pushback on that.

It's all about certainty

There are plenty of solutions that work sometimes, or in some situations, or if the stars are aligned just right. When they work, they can tell you that an email was delivered, or even that it was opened. But they cannot tell you *for certain* that an email was *not* delivered or *not* opened. In other words, if you hear that it's been opened, great, you know it's been opened. But if you hear nothing … you know nothing. It could have been opened or read … or not. And hearing nothing is the norm.

Delivery confirmation

Delivery confirmation is a feature that requests an automated return email when a message is delivered.

Almost all email clients now ignore those requests for privacy reasons. In other words, they may occasionally work, but most often do not. If you get no confirmation in reply, it means absolutely nothing.

Read receipt

Like delivery confirmation, a read receipt is a request to the recipient's email client: "Please email me when this

message has been opened." Again, almost all email clients ignore those requests, also for privacy reasons. On occasion they may work, but generally don't. If you get no read receipt, it means absolutely nothing one way or the other.

Images in messages

One approach to see if email has been opened is to include a picture, and then notice when that picture is fetched. I might create an HTML email that includes a picture of my dog, with that image file stored on my server. When you open the mail, the picture is fetched from the server, and I can use server logs to see that you opened the mail. This technique has been so misused by spammers that almost all email clients now *don't* display images unless you explicitly ask for them. If the pictures aren't displayed, the server isn't notified, and there's no way to tell that the email was opened. While this might work more often than other techniques, hearing nothing (once again) tells you nothing.

For the record: every service that claims to tell you whether an email has or has not been opened with 100% accuracy uses this technique or something similar, and is thus *at least* misleading you about their accuracy. There's simply no way to be 100% accurate. If they require additional infrastructure, like a special mail viewing program, or if they send people to a website to read your message, *then it's no longer email*. Those techniques also act as an obvious disincentive to getting your message read, as they're also used by spammers, phishers, and hackers.

Opened is not read

So, all our techniques thus far to see if email was delivered or opened fail most of the time. There's simply no *100% accurate* way to tell if an email has been delivered or opened. Let's say for a moment there was. Let's say we could tell that email was delivered and opened. Even then, how could you possibly tell that a person actually *read* it? You can't. Even if the person has it open on their computer, there's no way to tell that they've *actually read it*. Unless, of course, they take the time to reply to you and tell you that they did. (Though even then, they could be lying.)

* * * SOFTWARE & COMPUTER TIPS * * *

Adobe Document Cloud

Eric Moore, President
Greely Computer User Group, CO

In Adobe's words, Adobe Document Cloud is "a set of integrated services that use a consistent online profile and personal document hub." The goal behind Document Cloud (DC for short) is to provide a means for users to create, review, sign, and track Adobe PDF documents. Documents may be stored on a desktop or mobile device, or uploaded to a cloud service provided by Adobe. The cloud service enables the user to access PDF documents from any device with an Internet connection and the Adobe Acrobat DC software. The cloud service is available for a 30-day trial, after which the user must pay for a subscription or a one-time fee.

The Adobe Acrobat DC program functions as Acrobat Reader in terms of opening and printing PDF documents and is free to use without the DC service, but it also includes support for DC services. Documents may be uploaded to the cloud for easy access from any other device with the Acrobat DC. An eSign service is provided with every subscription to Adobe DC. Users may electronically send and sign documents from any device. A feature called Fill & Sign makes signing anything fast and easy and includes autofill across devices. The autofill feature allows you to pre-enter commonly entered information such as your name, address, and phone number, so you can quickly enter the information into a form without typing. You may also synchronize your electronic signature across the web.

The Mobile Link feature allows the user to move between desktop and mobile device, picking up where something was left off.

A mobile app allows for creating, editing, commenting, and signing documents directly from a mobile device. It can also scan documents captured with camera and convert them to digital, editable forms that may be signed.

Lastly, a document management and control service allows the user to manage, track, and control documents. Visibility is provided as to where critical documents are along their process, including who has opened them and when. Lastly, sensitive information may be protected inside and outside the firewall for business or personal use.

From the May 2016 newsletter, Random Access, www.cugg.org, moore.e.s@att.net.

Open Source Lab, LibreOffice 5.1

By Cal Esneault, former President of CCCC
leader of many Open Source Workshops & SIGs

LibreOffice, open-source office productivity software from The Document Foundation, is available for download at no cost for Windows, Mac OS, or Linux. It is an alternative to Microsoft Office (can read/write MS Office files) that started as a fork of OpenOffice.org in 2011. LibreOffice has a major "point release" every 6 months. I have previously reviewed versions 4.2 (June 2014) and 4.4 (April 2015) in the newsletter. Version 5.1 was released on 2/10/16, and I installed it on a PC running Windows 7.

Many changes from versions 4.0 to 5.0 have focused on modernizing the user interface including: thumbnails of recently used documents on the start screen, addition of a "sidebar" as a redesigned command feature, improved icon grouping, addition of new icon and theme sets, etc. While users get a choice among menus, icons, and panels to activate features, this leaves the editing space crowded. In this new version, a new main menu item has been added that seems to collect more common actions into a simpler group. Previous, is the new "styles" menu for the Writer
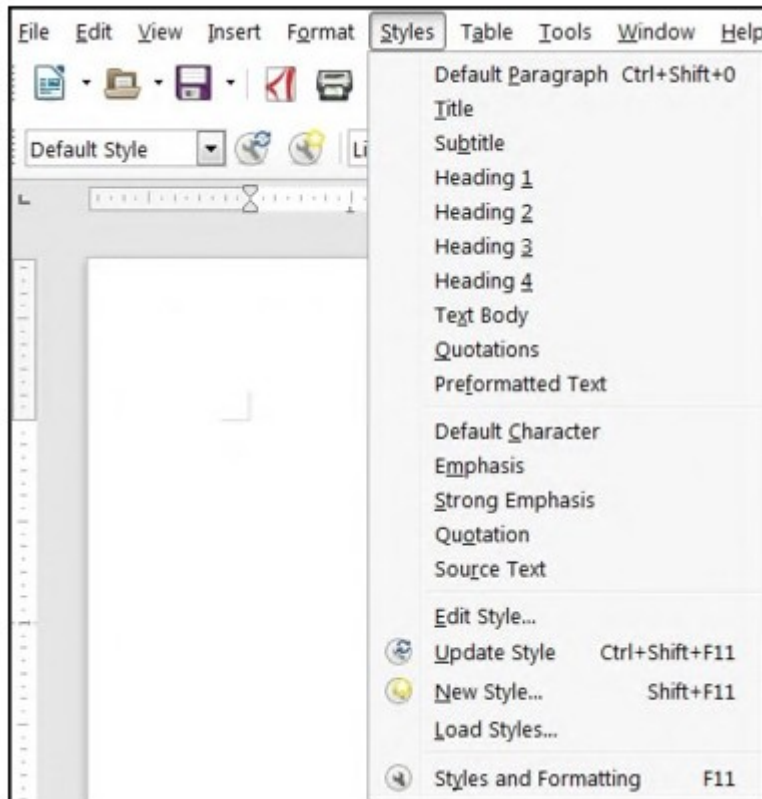
word processor. This selection is much simpler from the previous long lists shown when "styles" were selected. Similarly, a new "Sheet" menu has been added for the Calc spreadsheet programs and a new "Slide" menu has been added for the Impress presentation program (see examples of these menus below).

"Sheet" menu in Calc   "Slide" menu in Impress
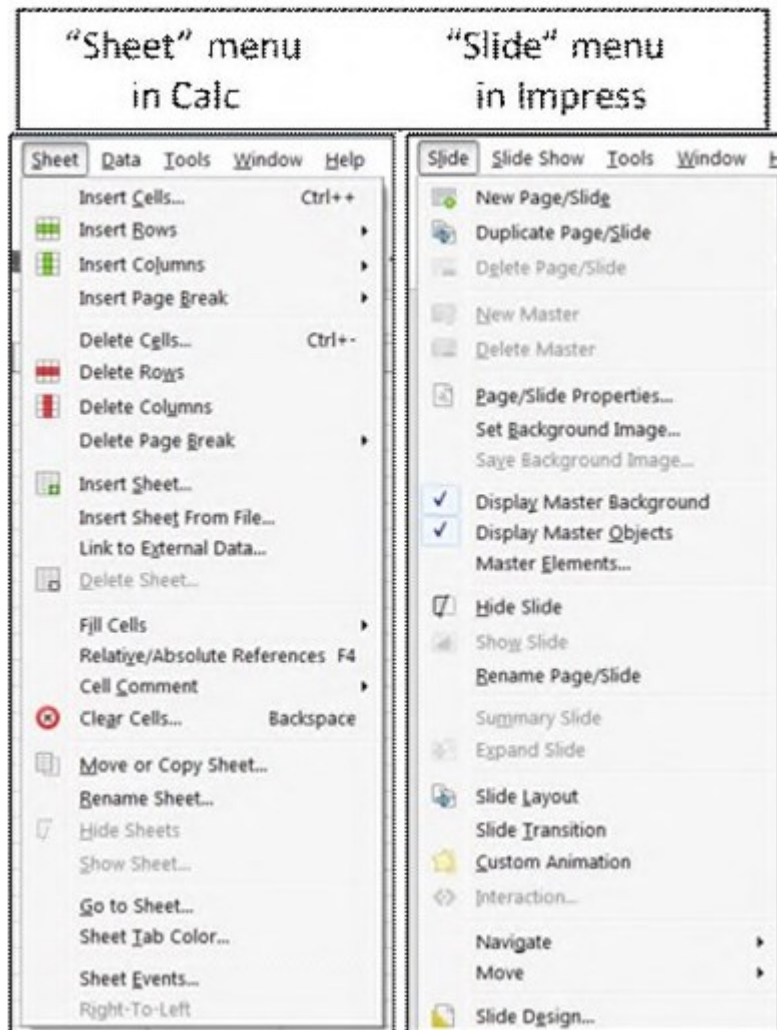
As a person who uses menus and sidebars much more than icons, I find these additional menu groupings to be a big improvement.

Go to the release notes to see the many minor changes. For example, LibreOffice can now open Gnumeric, Write, and Keynote 6 documents. As always, there is better compatibility with Microsoft Office files. If you have not updated for a while, I think this is worth the effort. You can check out the new LibreOffice at www.libreoffice.org to get a free download. Linux users may have to wait until the new version is in their repository.

From the Cajun Clickers Computer Club News, March 2016, www.clickers.org, tsa70785@gmail.com.

7 Quick Tips for Windows and Office

By Nancy DeMarte, 1st Vice President
Sarasota Technology User Group, FL

1. Most of us use the **Print Layout** view when composing multi-page documents in Word because it lets us see all four edges of the virtual piece of paper. But every now and then, the top and bottom edges lose their space and look glued together. Although this view won't affect the printed copy, you can return the space between the pages simply by double clicking the   line between any two of them.
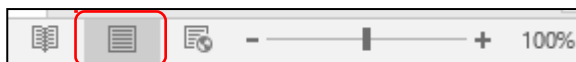

2. Everyone knows that   holding down the **Shift key** while pressing a letter on the keyboard will make it upper case. But the Shift key has other important functions. To select (highlight) a large group of contiguous text, click at the beginning of the group, hold down Shift, and click at

the end of the group. This same process works for selecting a long list of items, like emails or photo thumbnails. Do you have noncontiguous items to select? Press the Control (Ctrl) key instead and click the desired items in the group.
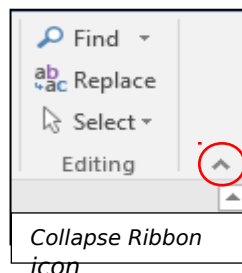
3. A few other popular **keystroke combos** can save a lot of time and aggravation. Hold down the Control key (bottom left on the keyboard) while you press the A key (Ctrl+A) to select the whole document. Use (Ctrl+Z) when you need to undo your last change. In Windows 8.1 and 10, the Windows key between the Function (Fn) and Alternate (Alt) keys will open the Start screen or menu. (Ctrl+P) is handy when you need to print from a place like the Internet, and no Print button is visible.

4. **Arrow keys** can be helpful, too. They provide the best way to move around in a document without changing anything. Let's say you want to add a word which begins at the left margin of a document. It can be difficult to click between the margin and the word. You can click a short distance inside the margin and press the left arrow on the keyboard to move the insertion point back to the margin without disturbing the text. In PowerPoint, if you have trouble dragging an object on a slide, try holding down the Ctrl key while pressing one or more of the arrow keys a few times to nudge the object slowly to the exact spot you want it.

5. New tricks with **Tables**: In Word 2013 and 2016, if you have added a table to a document and want to add a column between existing columns, position your mouse pointer over the line between the columns until it becomes two lines with a bulb on top. Click and a column will appear in that spot. Do the same for adding rows. Or, if you need more rows at the bottom of a table, click in the bottom right cell and press the Tab key to get another row.
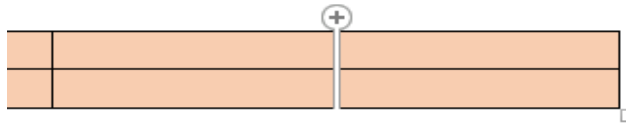
6. Windows has added a tool "**ribbon**" across the top of most Windows application windows now. Convenient as it is, some people complain that if covers too much of the work space. Fortunately, Office 2013 and 2016 make it easy to hide the ribbon. To hide the ribbon but leave the tabs visible, click the tiny caret in the top right corner of the screen directly above the scroll bar. This works with any tab selected.

Collapse Ribbon icon

If you change your mind, click the Ribbon Display options box near the right end of the title bar which has an upward-pointing arrow inside. Here you can choose to Auto-hide the ribbon, show just the Tabs above the ribbon, or show both Tabs and Commands.
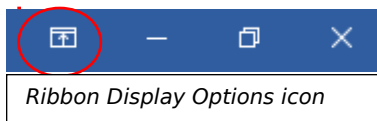
Ribbon Display Options icon

7. One of the new and overdue tools in Word 2013 and 2016 is the **Clear All Formatting** tool located in the top right corner of the Home Tab – Font group. It lets you remove the bold, italics, glow, shadow, and all the other effects that you can apply to text. Select the portion of the document where you want to remove the formatting or press Ctrl+A to select a whole document, then click the icon to return the text to the default font and font size with no special formatting. I use it when I'm combining multiple documents into one or when a word gets stuck with certain formatting and needs to be unformatted.

Snipping Tool Update: For Windows 10 users, here is an addendum to my article in December about the Snipping Tool. I mentioned that it had been upgraded in Windows 10. Here is how: If you want to capture a screen shot of a menu or other temporarily visible item, you can save time by using the new Delay feature. Open the Snipping tool, then click Delay and choose a number of seconds from 1 – 5. Then click New, which makes the Snipping tool disappear. Open the menu or item you want to snip. When the time is up, the Snipping tool reappears so you can complete the snip.

From the March 2016 issue, Sarasota Technology Monitor, www.thestug.org, ndemarte@verizon.net.

How to Take Better Photos with Your Smartphone

By Stu Gershon, Digital Photo SIG
Sun City Summerlin Computer Club, Nevada

1. Hold camera HORIZONTALLY (Landscape). If you take a photo horizontally, you get a wider field of view. This "fills the screen". When you see cell phone photos on TV, they have large blank bars on the side because a phone photo has a different aspect ratio than your TV (or computer screen). If you take a landscape photo, you can always zoom in or crop to make the picture vertical and closer. You cannot do that if you've taken the photo vertically.
 2. Hold the camera firmly which will keep the photo steady. Most pictures are blurry because people naturally seem to push downward when they press the shutter button, and this movement causes blur. Also, just lightly tap the shutter button - the less the movement the steadier the shot and the clearer the final photo.

3. Light - the natural light (outdoors) should always be behind or to the side of the photographer. This will eliminate "backlight" which often causes your subject to be in silhouette or look like little black stick figures.

4. Rule of thirds - if you imagine a tic-tac-toe board (with nine boxes), try to keep your subject at one of the corners of the center box, NOT IN THE CENTER BOX. This gives the picture some "movement" with either more foreground (what's in front), or more background (what's behind).

Additional info, www.scscc.club, tomburt89134@cox.net.

Fall Blowout from October 1st to November 30th, 2016
Dell Core i5 laptop, Windows 10 pro installed, Win 7 available,
includes Word and Excel 2010, $169.99
7" Android tablets, great for everyday browsing, watching Netflix,
light gaming $69.99 + tax
Dell desktops with LCD monitor, $169.99

* * * HARDWARE, REVIEWS & MISC * * *

The AMD A8-7670 Processor: A Review

By Daniel Woodard, Member
The Dayton Microcomputer Association, OH

Would you consider yourself a gamer on a budget? If so, then AMD has a processor for you, the Godavari A8-7670K APU. Built using a 28nm process, the 95 Watt 7670K incorporates a Radeon R7 GPU (graphical processing unit) and fits in an FM2+ motherboard socket. The processor runs at a base speed of 3.6 GHz, and ramps up to 3.9 GHz as needed. The graphics portion of the chip runs at 757 MHz and has 384 stream processors.

The processor might appeal to those who already have an FM2+ based motherboard, or want something similar to a base line video card, but with the ability to upgrade easily. These processors have both the CPU and GPU combined into what AMD is calling an APU, or Accelerated Processing Unit. It might also appeal to those who want to minimize system fan noise, since there is no additional fan on a separate video card. A person who wants to keep total wattage under control (for example, to work with an existing system power supply) might also want one of these, since the combined CPU and graphics power usage is under 100 watts. Another plus is that the APU supports running DDR3 RAM at 2133 speeds, a jump up from some of the earlier models. The K at the end of the name also designates that this is a Black Edition, meaning that hobbyists can tinker around with the clock multiplier of both the CPU and GPU portions of the chip. I personally wanted to upgrade my A4-7300 based system,

which I had built in late 2014, mostly because there were a few games my kids play where it did not quite keep up with demands. Otherwise, the A4-7300 had been quite an excellent choice for casual games, multimedia and productivity software for about $45.

I first did some "everyday computing" type comparisons between an A4-7300 dual core processor running at 4 GHz and the A8-7670K. I started out running Hyper Pi, which is a multicore computation of Pi, out to 16 million digits. This took 11 minutes and 43 seconds on the A4, but only 9 minutes and 34 seconds on the A8-7670K.

Next, I took a folder containing a mix of files totaling 454 megabytes and used Winrar to do a compression. It took 4 minutes and 27 seconds on the A4, but 5 minutes and 25 seconds on the A8. The results were rather shocking at first—why would a processor with 4 cores take *longer* than one with 2 cores? Then I realized that I was using a very, very old version of Winrar—almost ten years old. It was very likely that this version only "saw" the first core on each processor, which would give the 4 GHz A4 an edge. However, as soon as I installed the latest version of Winrar and ran it using the A8, I saw the total time to compress the files drop to only 51 seconds! It was quite the *Aha!* moment for me—I had never before seen quite such a vivid example of why it is so important to upgrade software to more recent versions. Using the older versions of the software had been causing me to take about five times as long to accomplish the same task.

For the final part of the everyday computing benchmark test, I used Handbrake to compress a 44 minute 720p kid video to h.264/mpeg4. On the A4-7300, this took 28 minutes and 52 seconds, giving an average frame rate per second (fps) of 45.6. Using the A8-7670K, this took only 14 minutes and 40 seconds, giving an average fps of 89.6—converting the file in roughly half the time.

For 3D gaming comparisons, I used the 3DMark Sky Diver test, followed by the Geeks 3D GPU Test suite. The 3DMark Sky Diver test is exactly what it sounds like: a sky diver (glider, really—there are arm winglets like a flying squirrel) going through various scenes, putting the video card under strain to assess its capabilities, and giving an overall numerical score for comparison. For the Sky Diver test, final results for the A4 were 2,126 and for the A8 were 4,294—roughly double the ability. I also tested a Pentium G3220 based system I have with an actual Radeon R7 240 video card installed, and it finished the Sky Diver test with a score of 4,082. The Radeon R7 240 video card sells for about $60 retail. As you can see from the results, the A8-7670K has a slightly better 3D performance than a stand-alone $60 video card from about 24 months ago offers. That they have managed to build this into a processor and still stay under 100 Watts of power draw is an accomplishment.

I also ran the Geeks 3D GPUTest suite, which offers a batch of different tests. These include something called furmark, tessmark, GiMark, Pixmark, Plot3D, and others. Many of these are a lot of fun to watch, so I would recommend trying it if you like to watch animations, fractals and such. Rather than putting the number results from all of these here, I'll just summarize by saying that the tests show an average 110% video performance increase from the A4-7300 to the A8-7670K, again more than doubling.

For a real-world gaming test, I used a Steam game called BeamNG.drive which my oldest son has loved playing with for the past year. It is essentially a 3D car physics simulation where players can drive a variety of vehicles through many different environments. On the A8 I obtained roughly 33-35 frames per second in game, while on the A4 the game showed an average of just 17-18 fps. The slower frame rate was still playable, but seemed very jerky in comparison. A person would definitely not want to go back to the slower frame rate after getting used to the better play of the A8-7670K for a few hours.

The A8-7670K is available for roughly $105 to $110, and sometimes under $99 during sales. From reports on line, it appears that overclocks of 4.5 GHz are easily accomplished with a decent heat sink. For folks who aren't interested in overclocking, this is definitely one of the first processors around the $100 price point that can competently allow 3D gaming at low to medium resolutions. If AMD continues to make advancements on their APU's, then we might actually see some folks doing budget gaming builds and returning to PC gaming (Steam, etc.) rather than buying game consoles.

Additional info, www.dma1.org , http://www.majorgeeks.com/ les/details/3dmark.html, http://www.geeks3d.com/gputest/, DGW@DMA1.org.

Open Source Software of the Month

By Geof Goodrum
Potomac Area Technology and Computer Society

Gargoyle – v2011.1. http://www.ifarchive.org/indexes/if-archiveXinterpreters-multiXgargoyle.html. Free GNU General Public License and others for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by Tor Andersson and Ben Cressey. Gargoyle is a cross-platform player for text and illustrated text games, also known as Interactive Fiction (IF) that supports all of the major formats, including Agility, Alan 2 and 3, Frotz (glk port), Glulxe, Hugo, Level 9, Magnetic, Scare, Tads 2 and 3. Gargoyle is based on the standard interpreters for the formats it supports, which are copyrighted and freely distributable under various open source licenses. The Gargoyle home page is at http://ccxvii.net/gargoyle/.

IF content is available for download at the Interactive Fiction Database (http://ifdb.tads.org/) and the Interactive Fiction Archive (http://www.ifarchive.org/).
[Screenshots at http://ccxvii.net/gargoyle/screenshots.html]

KeePass – v2.33. http://keepass.info/. Free GNU General Public License source code and executables for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by Dominik Reichl. KeePass is a password manager, which helps you to manage your passwords in a secure way. You can put all your passwords in one database, which is locked with one master key or a key file. So you only have to remember one single master password or select the key file to unlock the whole database. The databases are encrypted using the best and most secure encryption algorithms currently known (AES and Twofish). You can drag and drop passwords into most windows or use a hot key to type your login information into windows automatically. You can also quick copy user names and passwords to the clipboard with a double-click on a field in the password list. And KeePass can import data from a variety of formats like CSV, while the password list can be exported to formats such as TXT, HTML, XML, and CSV. KeePass also includes a strong password generator. [Screenshots at http://keepass.info/screenshots.html]

Kernel Source – v4.6.2. http://www.kernel.org/. Free GNU General Public License source code for all platforms by the Linux community.

Krita – v3.0. https://krita.org/. Free GNU General Public License source code and executables for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by the Krita Foundation. Krita is a 2D sketching and painting application designed for concept artists, illustrators, matte and texture artists, and the VFX industry. Krita has been in development for over 10 years and has had an explosion in growth recently. It offers many common and innovative features to help the amateur and professional alike. Krita 3.0, the Animation Release, includes animation support integrated into Krita's core with animatable raster layers and onion skinning, Instant Preview for better performance painting and drawing with big brushes on big canvases, an improved user interface, broader tablet support and more multilayer features. NOTE: OS X will support Instant Preview and Big Canvas scaling in the 3.1 release.
[Screenshot at https://1015253982.rsc.cdn77.org/wp-content/uploads/2016/05/krita-3.0.png]

Lua – v5.3.3. http://www.lua.org/. Free MIT License source code and executables for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by PUC-Rio. Lua is a powerful and fast programming language that is easy to learn and use and to embed into your application.

Lua is designed to be a lightweight embeddable scripting language and is used for all sorts of applications from games to web applications and image processing. It supports procedural programming, object-oriented programming, functional programming, data-driven programming, and data description.

Lua combines simple procedural syntax with powerful data description constructs based on associative arrays and extensible semantics. Lua is dynamically typed, runs by interpreting bytecode with a register-based virtual machine, and has automatic memory management with incremental garbage collection, making it ideal for configuration, scripting, and rapid prototyping.

Tesseract OCR – v3.0.4.01. https://github.com/tesseract-ocr/tesseract. Free Apache License source code and executables for Microsoft® Windows®, Apple® OS X® and GNU/Linux® by Ray Smith, Zdenko Podobny et al.

Tesseract is an Optical Character Recognition (OCR) engine and command line program to convert images of printed text (e.g., photos, scanner output) into plain text and HTML documents, or PDF images with searchable text. Hewlett-Packard originally developed Tesseract and released the software as Open Source in 2005. Google oversees current code development. Graphic interfaces are available (see https://github.com/tesseract-ocr/tesseract/wiki/3rdParty).

From the July 2016 Issue, PATACS Posts, www.patacs.org, linux@patacs.org.

Using Bluetooth on Your Smartphone and Tablet

By Julie Mahaffey
CON (Interactive Computer Owners Network) Member

The international symbol for Bluetooth.

Bluetooth is wireless and a way for   devices to communicate with each other over a small distance. Created in 1994 Bluetooth® technology is a wireless alternative to data cables. Data is shared through radio waves rather than hooking a cable to a device.
Bluetooth connects the Internet of Things (IoT), machine to machine, Ex. smartphones, tablets, headphones, speakers, etc. A Bluetooth product, like a headset or watch, contains a tiny computer chip with a Bluetooth radio and software that makes it easy to connect.
See more at: https://www.bluetooth.com/what-is-bluetooth-technology/bluetooth#sthash.BvuWBzJz.dpuf

Bluetooth Facts:
- Bluetooth is everywhere – Smartphones, tablets, headphones, speakers, TVs, computers, cars, medical devices, etc.
- Bluetooth is low power – Runs off of small button batteries.
- Bluetooth is easy to use – When two Bluetooth devices want to talk to each other, they need to pair.
- Go to settings, turn on Bluetooth on both devices, hit the pairing button and wait for Bluetooth to connect.
- Bluetooth is low cost – Today Bluetooth is included in most devices but it can be added for a small cost.

Bluetooth Devices:
- Headsets – fits over your ear to make phone calls or listen to music
- Speakers – connect to tablet or smartphone for music listening
- Home Deadbolt Door Lock – lock or unlock a deadbolt lock with a smartphone
- Smart Pen for iPad – write and draw
- Weight Scales – connects to smartphone
- Armband Sensor – sends pulse rate to smartphone
- Keyboard – connect to computer or tablet
- Bluetooth Car Kit – hands-free phone call

Works Cited:
"Bluetooth Technology Basics," *Bluetooth*. Bluetooth SIG, February 19, 2016.
https://www.bluetooth.com/what-is-bluetooth-technology/bluetooth- technology-basics

From the March 2016 issue, The ICON-Newsletter of the Interactive Computer Owners Network www.iconusersgroup.org, Cejmmahaffey@gmail.com.

THE JOKE'S ON YOU — by Phil Ryder & **YOU**

© 2004 Phil Ryder • www.thefunnypages.com

"User error...replace user."
- Martin Laursen • Hvidovre, Denmark

10 (+1) Tips for both those new to the internet (for school, work or elsewhere), and perhaps more importantly, reminders for the more experienced among us.

1. Don't hit "Reply All" (unless you mean it)
2. Be sure you mean it when you hit "Send" (There's no "un-send".)
3. DON'T TYPE IN ALL CAPS (all caps means shouting – it just does)
4. Don't buy from a stranger that contacts you (phone or email)
5. Assume EVERYTHING is being recorded (and act accordingly)
6. BACK UP!
7. When in doubt: reboot
8. Do the research! (It's more than the first link in a search result)
9. Give more than you take
10. Don't believe everything you read online

and a bonus:
- Be kind. – "Everyone is fighting a battle you know nothing about."

Leo Notenbaum

Rochester Computer Society

Helps Half Hour Notes   by Jan Rothfuss
October 11, 2016
St. John's Meadows

There were no questions from the members who were present. However, we were sorry to hear that Sally Springett passed away yesterday, 10/10/16. There were no further details available. It was suggested that members check the D&C obits where details will likely be published:
http://obits.democratandchronicle.com/obituaries/democratandchronicle/

October's Presentation of 'Technology From a Different Perspective', by Bob Gostischa (via Skype), started off with a humorous comparison of how technology is used today and in the past. We quickly progressed into the current trends that hackers and deceitful persons may use to try and steal our identity. A lot of material was covered, from phishing methods to hackers and their use of 'crypto' type programs to encrypt your hard drive and hold it until a ransom is paid.

Bob then took a more in depth look at some of the programs that he uses and recommends. I printed them below.

Programs to Help Keep You Safe.
01. Avast Free - To keep you safe on the internet and Protect your   Computer.
02. Malwarebytes Free - An excellent companion for avast!
03. MCShield - To protect you from infections on USB drives.
04. WinPatrol - To alert you of unexpected changes to your computer.
05. Unchecky - To help prevent installing unwanted add ons.
06. Ccleaner - To clean up leftovers when visiting the Web and using your   Programs
07. GlassWire Free - Protect your computer by monitoring your network
08. SlimComputer - Free - Helps identify software that comes pre-installed on a new computer.

Here is a link with this information, as well as, instructions on installing Avast anti-virus, http://goo.gl/5v4sIQ. Next month, I will print some excerpts from Bob's presentation and add a few more links.

RCSI Officers

Pres: Steve Staub 429-9877
    srstaub1@rochester.rr.com
VP: Mark S. Lawson . . . 544-5377
    mslawson51@peoplepc.com
Treas: Dennis P. McMahon
    denmac733@gmail.com
        235-1260
Secretary: www.rcsi.org

Board Members at Large

Sally Springett 442-3776
    sspringe@rochester.rr.com
                term ends 9/20
Jan Rothfuss 347-6020
    jan_rothfuss@hotmail.com, 9/19
Tony Dellelo 734-6149
    tonydel@techie.com, 9/18
Bob Avery 385-4491
    webmaster@rcsi.org, 9/17

Standing Committees

Webmaster: . . . . Bob Avery
Programs: . . . . Tony Dellelo
Membership: . . . . Steve Staub
Monitor editors: . . Sally Springett
                Tony Dellelo
Linux SIG: . . . Carl Schmidtmann
    unixgeek@faultline.com

Planning Meeting

Held on 1ˢᵗ Tuesday of each month
at 7 pm, at either Sally
Springett's or St. John's Meadows.

Newsletter Printing

The Sept newsletter was printed
at St John's/Chestnut Court by
Chuck Wells, Don Nichols and
Steve Staub, with the help of Don
Wilder (computer and printer
operator). *We will try and print on
the 1ˢᵗ or 2ⁿᵈ* **Thursday morning,**
following the monthly meeting.

Computer Recycling

Some Residential Drop off
Locations: **Call first**, to find out
what is accepted, especially for
'tube type' tvs or monitors.
Tech Source --(Rochester),
accepts electronic waste,
computers, printers, **no tube-
type tvs or monitors**. Located
at 696 North Winton Road,
Rochester, NY 14609, 789-1785,
www.rochtechsource.com

PC & Wireless –(Canandaigua),
585-412-2100
Geneseo Computers –
(Geneseo), 585-243-4870
Stereo Shop --(Webster), 585-
787-7467

**Certified Document
Destruction & Recycling**,
accepts electronic waste, but
charges 40 cents/pound for crt
type monitors. Located in
Rochester at 1133 Emerson St,
482-9400, www.cdd-r.com