



THE WYSIWYG



\$3.00

February 2016

Volume 28, Issue 2

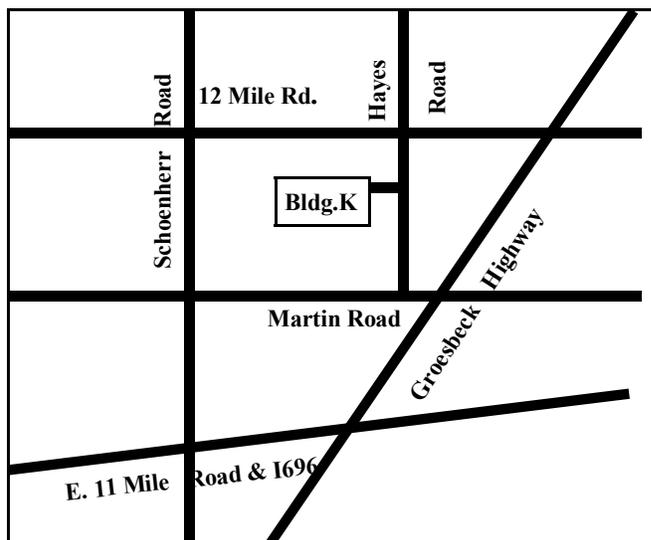
STERLING HEIGHTS COMPUTER CLUB

PO Box 385

Sterling Heights, MI 48311-0385

**MAIN MEETING: TUESDAY FEB 2
6:30 PM (changed from 7:30)**

Macomb Community College
South Campus
14500 E 12 Mile Road, Warren
John Lewis Community Center
(Building K)
(Enter from Hayes Road)



IN THIS ISSUE:	
About SHCC	2
The President's Pen	3
Door Prizes	3
The Internet OF Things - Or IOT - More Common But hackable	4
The Tip Corner	7
Field Experience With Google Fi Cell Phone Service	9
The AMD 710-7800 CPU	12
SHCC Emergency Cancellation Procedure	13
WYSIWYG Web Watch	14

This Month's Main Meeting Topic:

"The Latest in Video Surveillance"

presented by Member

Jack Vander-Schrier

PC SIG Meeting:

**Tuesday, February 16
starting at 6:45 at the
Sterling Heights
Public Library**

The SIG will plan to meet every other month, at this location, if people continue to attend.



**Sterling Heights
Public Library**

The Sterling Heights Public Library, at 40255 Dodge Park Road, is located just south of Utica Road. A large sign reading "City Center" marks the driveway to the library and parking. The Programming Center, where the meeting is held, is just inside the front door of the library.



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

DUES: \$25/YEAR

CLUB ADDRESS: PO Box 385, Sterling Heights, MI 48311-0385
CLUB E-MAIL ADDRESS: Info@SterlingHeightsComputerClub.org
CLUB WEB PAGE: http://www.SterlingHeightsComputerClub.org

Resource People:

Family Tree	Rick Schummer
Firefox	Don VanSyckel
FoxPro	Rick Schummer
General Computer Questions	Jack Vander-Schrier
Hardware	John Rady
MS Publisher	Rick Kucejko
MS Word	Rick Schummer
Spreadsheets	Rick Schummer

SHCC Coordinators:

Associate Editor	Rick Schummer
Door prizes	Don VanSyckel
Greeter for visitors	Jim Waldrop
Newsletter publisher	Rick Kucejko
Novice SIG	Paul Baecker
Program Coordinator	Mike Bader
Publicity	Patrick Little
Resource People	open
PC SIG	Jack Vander-Shrier
Welcome & check-in desk.	Jim Waldrop
Web Site	Don VanSyckel
Web Watch column	Paul Baecker

Contact Information:

Paul Baecker	586-286-2314	webwatch@sterlingheightscomputerclub.org
Mike Bader	586-447-6683	mbbader@flash.net
Rick Kucejko	248-879-6180	rick@kucejko.com
Patrick Little	586-264-1497	pblittle@wideopenwest.com
Rick Schummer	586-254-2530	rick@rickschummer.com
Don VanSyckel	586-731-9232	don@vansyckel.net
Jack Vander-Schrier	586-739-5952	jvanders@comcast.net

(Call Jack after noon)

2016 SHCC Officers

President: Don VanSyckel
 V. President: Mike Bader
 Secretary: Rick Kucejko
 Treasurer: Paul Baecker

Four Month Meeting Schedule:

FEBRUARY 2016

- 2 - SHCC – “The Latest in Video Surveillance” presented by Member **Jack Vander-Schrier**
- 3 - COMP meeting
- 7 - SEMCO meeting
- 16 - PC SIG

APRIL 2016

- 5 - SHCC – Main Meeting
- 6 - COMP meeting
- 3- SEMCO meeting
- ? - Novice SIG

MAY 2016

- 3 - SHCC – Main Meeting
- 4 - COMP meeting
- 8- SEMCO meeting
- ? - Novice SIG

MARCH 2016

- 1 - SHCC – Main Meeting
- 2 - COMP meeting
- 6 - SEMCO meeting
- 15 - Novice SIG

Other Computer Clubs:

As a member of SHCC, you can attend meetings of other clubs where we have reciprocating membership agreements, at no charge.

Computer Club of Marysville and Port Huron (COMP)

Time: 1st Wednesday, 7:00PM
 Place: Mackenzie Bldg, Room 201, St Clair Community College, Clara E McKenzie Library-Science Building, 323 Erie St. Port Huron, MI (810) 982-1187
 Web Page: http://www.bwcomp.org
 Reciprocating: Yes

South Eastern Michigan Computer Organization (SEMCO)

Time: 2nd Sunday at 1:30PM
 Place: Altair, 1820 E Big Beaver Road, Troy, MI 48083
 (248) 840-2400
 Web page: http://www.semco.org
 Reciprocating: Yes

Royal Oak Computer Club

Time: Every Wednesday at 12:30
 Place: Mahany/Meineger Senior Community Center 3500 Marais Ave. Royal Oak, MI 48073
 248-246-3900
 Reciprocating: No

Newsletter submissions are due 10 days before the club meeting, but the earlier the better. They should be sent to :
 WYSIWYG Publisher
 5069 Fedora, Troy, MI 48098
 OR at the e-mail addresses: newsletter@SterlingHeightsComputerClub.

© Unless stated otherwise, all materials contained in this newsletter are copyrighted by the Sterling Heights Computer Club. License is hereby granted to other clubs (non-profit) to reprint with credit.

The President's Pen

by Don VanSyckel



Last month I wrote about Windows 10 and Microsoft's issue that people are not flocking in droves to adopt Windows 10. We discussed this at last month's meeting and I've done more reading. I find more consensus to not load Windows 10 than I find to load it. I stand on my statement that Microsoft is in this to make money and if they're giving away Windows 10, there must be something else up their corporate sleeve. Someone suggested that possibly Microsoft is planning an 'app' store to sell Windows 10 applications. This could be but I don't see it unless Microsoft gets aggressive about not allowing applications to be loaded other ways.

For instance, currently I use Open Office, Thunderbird, Firefox, Truecrypt, Defraggler, ActiveState Perl, MySQL, and VIM. All excellent open source software available at no cost. Other software I use includes Kaspersky Security and Power Archiver. These I purchase from the manufacturer. I don't purchase any software applications from a re-seller. I purchase computers and the OS that comes on them from Micro Center. Note, Micro Center supports SHCC with presentations so we should support them. An app store just does not fit in to my methods.

In the meantime, I was sent an email by a club member that had two interesting items in it. The first was an article about Windows 10 and the second was a link to software that can turn off the annoying Windows 10 pop up advertisements.

First about the article, it appears in InfoWorld in an issue of their "Deep Dive Series". Go to www.infoworld.com, click on "Deep Dives" in the top bar, then scroll down several articles to "Everything you need to know about Windows 10". There are five sections:

- * Windows 10: The "last" version of Windows
- * Hold off if you use Windows 7
- * The good, the bad, and the missing
- * 10 reasons you should upgrade to Windows 10
- * 10 reasons you shouldn't upgrade to Windows 10

The article's bottom line is if it ain't broke, don't fix it. "If you're using Windows 7, and it's properly patched up and working for you, and you've stopped using Internet Explorer, you really have to consider whether it's worth the effort to upgrade to Windows 10."

Second, the software that the link points to is free to download and use. http://www.majorgeeks.com/mg/get/gwx_control_panel,1.html

This software allows you to disable and/or remove the annoying advertisement that Microsoft placed on your PC without your permission. I'm sure this advertisement was included in an update that you agreed to but we only agreed to updates and this advertisement is not an update. I had to run through the application's control panel a couple times to get everything turned off and removed.

This month promises to be another great meeting. SHCC member Jack Vander-Schrier will present "The Latest in Video Surveillance". Come see what can be done to help secure your safety and property.



Member Ads

Ads are available free to SHCC members, and are limited to computer related items for non-commercial purposes. Any ad shall be a maximum of twelve newsletter lines of text.



Last Month's Meeting

Last month SHCC member Paul Baecker presented "Switching from Windows to Linux 2, the Rest of the Story". Many tips and reference web sites to ease the use of Linux were presented. Many alternatives to Windows programs were also demonstrated.



Attend A SIG

If you do not attend the SIG meeting, you are missing out on important club benefits available to you. These small group get into more detail and question and answer sessions than is possible at the main meeting.



Door Prizes

Door prize drawings are held at regular club meetings. The winner's circle for January included:

Pat Little won a flashlight

Louise Manning won a light

Bill Appleberry won backups

Bernard DeFazio won air spray for computers

Ken Belbot won multiuse paper

Sharon Patrick won a mini surge protector

Rick Monk won air spray for computers

Tom Miller won sir spray for computers



The Internet Of Things - Or IoT - More Common But Hackable

by Ira Wilsker

WEBSITES:

<http://www.cnet.com/news/internet-connected-homes-open-the-door-to-hackers>

<https://www.cesweb.org>

<https://www.cta.tech/Blog/Articles/2015/December/VIDEO-The-Wearables-Making-Us-Smarter-More-Fit-an>

https://en.wikipedia.org/wiki/Internet_of_Things

<https://nest.com>

<http://www.forbes.com/sites/josephsteinberg/2014/01/27/these-devices-may-be-spying-on-you-even-in-your-own-home>

<https://www.shodan.io>

A few years ago at the Consumer Electronics Show (CES) in Las Vegas, I was intrigued by the numbers of both prototype and production items that were evolving into what is now known as "the Internet of Things", or "IoT". For the majority of us, when we think of the internet, we think of our internet connected computers, tablets, and smart phones. What many of us are not well aware of is that the Internet of Things is beginning to be much more common, and the IoT is already around us in a big way.

When I was last at CES, I was amazed at how internet connections had already made their way into household appliances, and other electronic devices. At CES I saw products being introduced by major appliance manufacturers that had connected intelligence built into them.

Among some of the most impressive items that I saw demonstrated were what appeared to be conventional residential kitchen refrigerators that had what appeared to be a flat screen tablet on the front of the door, as well as other types of sensors and readers built into the appliance. The tablet on the front door could be connected to the internet via Wi-Fi and used to order groceries from participating supermarkets, display recipes, and create shopping lists. A small bar code reader was installed on the door that could read the UPC codes on products, adding those items to a digital shopping list that could be remotely printed, or sent directly to the chosen supermarket. The tablet on the refrigerator door would also display digital coupons and other promotions, enabling the owner to instantly add the promoted item to the grocery list.

This internet connected refrigerator, as well as IoT connected washers,

condition, suggest repairs and maintenance, provide or order a list of replacement parts, display do-it-yourself repair instructions, or contact a repair service if necessary. Most of these devices would actually send an email or text message to the appliance owner alerting him of the issues.

Many auto manufacturers currently offer "OnStar", "BlueLink", or other types of cellular or internet connected monitoring systems that can report on maintenance issues, service reminders, and other issues, as well as providing a method of emergency communications. My wife's car periodically sends her an email listing the mechanical condition of each of the major components on her car. We are seeing much more of our homes being controlled or secured by the IoT under the general topic of "Building and home automation". Most modern home security systems can be remotely accessed and controlled by cell phone; security cameras can display their images on remote devices anywhere. Lamps can be remotely controlled to turn on or off by remote command. Even our utility

The brighter way to save energy.

Meet the 3rd gen Nest Learning Thermostat

[Watch the video](#)

[BUY NOW](#)

Find rebates in your area >

dryers, dishwashers, air conditioners, stoves, ovens, microwaves, and other major appliances also incorporated a "service connection" which monitored the physical operating condition of the appliances. These appliances utilizing their internet connection, typically Wi-Fi, would report their operating

usage and thermostats can be accessed remotely. The very popular Nest thermostat, along with an increasing number of competitors, offers internet connected control of household temperatures, as well as smoke detectors and remote cameras. My new "smart TV" is connected to my home data network

which allows me to use my smart phone as a fully functional remote to not just control the TV, but to also search through dozens of streaming media services to watch countless movies, TV shows, videos, and other content, all connected by my home Wi-Fi network.

A review of local industry, health care facilities, public utilities, transportation systems, and other commercial enterprises are rapidly becoming more involved with the IoT. Look at your water, gas, and electric meters; many are already internet connected in order to speed automate "meter reading" saving time and money. In the medical field, health monitoring and diagnostic equipment is becoming more connected to the internet. According to Wikipedia, "These health monitoring devices can range from blood pressure and heart rate monitors to advanced devices capable of monitoring specialized implants, such as pacemakers or advanced hearing aids. ... Other consumer devices to encourage healthy living, such as, connected scales or wearable heart monitors, are also a possibility with the IoT. ... Doctors can monitor the health of their patients on their smart phones after the patient gets discharged from the hospital."

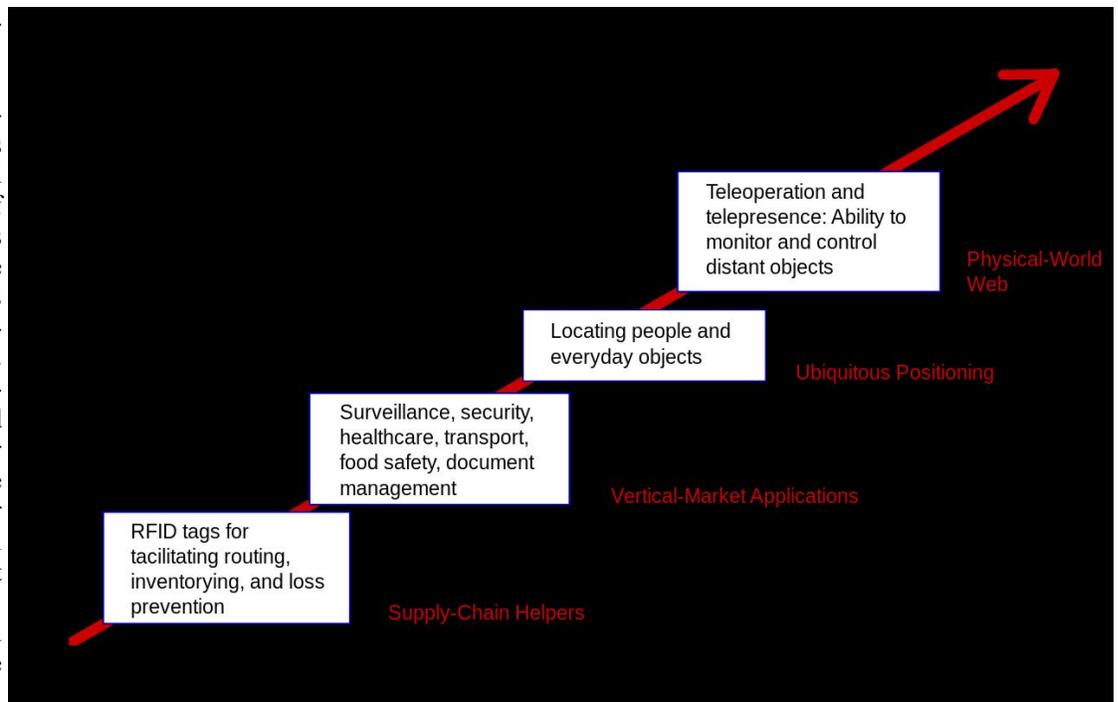
While much of this current IoT technology is infringing on what used to be in the realm of science fiction, there is also a dark side to the IoT. Already hackers are breaking into internet connected devices other than the traditional computers and data networks in order to illicitly control these IoT devices, alter or steal data and personal information, or shut them down on demand. In terms of connected medical devices, there

have been some serious concerns expressed about complying with HIPAA and other privacy and security rules and regulations.

It has been well documented that some common household smart devices, most notably smart TVs, have actually spied on their owners. This was reported about two years ago in Forbes magazine by Joseph Steinberg, in his expose' "These Devices May Be Spying On You (Even In Your Own Home)" On January 27, 2014, this article in Forbes said, Televisions may track what you watch. Some LG televisions were found to spy on not only what channels were being watched, but even transmitted back to LG the names of files on USB drives connected to the television. Hackers have also demonstrated that they can hack some models of Samsung TVs and use them as vehicles to capture data from networks to which they are attached, and even watch whatever the cameras built in to the televisions see." Internet connected coffee makers, which can be remotely programmed to make morning coffee may disclose to hackers when you may be waking up, and even what time you might be returning home, valuable information for

residential burglars. The smart refrigerator may be selling your shopping information to third parties. In an unexpected and unusual case, Joseph Steinberg reported that a smart refrigerator was used to send out spam emails, "... (P)otential vulnerabilities have been reported in smart kitchen devices for quite some time, and less than a month ago a smart refrigerator was found to have been used by hackers in a malicious email attack. You read that correctly – hackers successfully used a refrigerator to send out malicious emails." Also in that Forbes article, companies providing DVR, satellite, and cable service have been alleged to have sold information of shows and other content watched in the household in order for advertisers to better target their advertising. It is also widely known that many internet service providers compile lists of websites visited; since many people get their TV and internet from the same provider, these companies could combine that information, which Forbes warns, "a single party may know a lot more about you than you might think."

Another popular target for hackers and other miscreants is common



household video capture equipment, such as a webcam or a home security camera; remote baby monitors are similarly targeted. Forbes disclosed that malware on a computer can remotely turn on and off the internet connected cameras. In one notable case referenced in the Forbes article was how a Miss Teen USA was allegedly blackmailed by a hacker who controlled her laptop's integral webcam, "... and photographed her naked when she thought the camera was not on." The images of home security cameras, often transmitted unencrypted over the internet, can be captured by burglars, informing them that not just is the home currently unoccupied, but also the location of the potentially incriminating cameras!

Information about specific items connected to the internet is readily available, and even searchable as easily as any other internet data. The Shanghai based website Shodan (shodan.io) describes itself as, "Shodan is the world's first search engine for Internet-connected devices." On the front page of Shodan is a self aggrandizing statement that says, "Explore the Internet of Things. Use Shodan to discover which of your devices are connected to the Internet, where they are located and who is using them.", followed by, "See the Big Picture - Websites are just one part of the Internet. There are power plants, Smart TVs, refrigerators and much more that can be found with Shodan!" Just as an experiment, I registered on Shodan with a disposable email address, and did a quick search of my neighborhood; I found nine potentially vulnerable IoT connected devices within a small radius of my house. I also found that some local service stations monitor their gasoline inventory in real time, transmitting their data in real time over an unencrypted internet connection. For example, when searched, one particular major refiner branded station reported, "IN-TANK INVENTORY Regular 7263 (gallons), Temperature 51.74 degrees" as well as other inventory information. This was one of 45 "Automated Tank

Gauges" reported by Shodan in this area. This gasoline tank information was just a very small snippet of the millions of such internet connected devices that most of us have no idea even exists.

In a December 28, 2015 article published by Cnet, "Internet-connected homes open the door to hackers", with the subtitle, "Baby monitors, thermostats, kitchen gadgets and other "smart" devices add convenience to our daily lives. What are manufacturers doing to make sure they don't make life easier for criminals too?", the author, Laura Hautala, explained the vulnerabilities of our household IoT. In the opening of the article, employees of a Sunnyvale, California cybersecurity company, Fortinet, used the Shodan search engine to find a video stream in Saudi Arabia, 8100 miles away. Using the too common factory default username and password of "admin", they were able to view the streaming video. According to Fortinet engineer, Aamir Lakhani, the Shodan search engine can display, "... a huge trove of Internet-connected devices, from baby monitors to cars, cameras and even traffic lights." Sadly, many of these devices still use factory default usernames and passwords, and transmit their data over unencrypted internet links. The Cnet article goes on to state, " Billions of sensors will soon be built into appliances, security systems, health monitors, door locks, cars and city streets to help manage energy use, control traffic, monitor air quality and even warn physicians when a patient is about to have a stroke."

The Cnet article stated that a well respected market forecaster, Gartner, predicted that in 2016 there will be 6.4 billion internet connected devices in use. Many new IoT devices will be displayed and demonstrated at this year's CES in Las Vegas. Among some of the risks of an insecure IoT could be a variety of malicious vandalism, as well as outright identity theft, terrorism, and crimes of oppor-

tunity. Tanuj Mohan, co-founder of Enlighted, gave one such potential example of vandalism. He was quoted in Cnet as saying, " That connected coffee maker in the office -- it wouldn't be much of a stretch for a hacker to put it into a continuous loop and brew coffee throughout the weekend, flooding the office. ... When computers hold the reins, criminals can grab control in unexpected ways." At present, there is no coordination or uniform standard for IoT security, and many manufactures of IoT devices do not incorporate adequate default security into their devices, making the aggregate vulnerability of the devices potentially catastrophic. Mohan warned that manufacturers are not paying attention to the potential security vulnerabilities of many of their products. "They're not yet aware of how everything they build can be exploited. Safety last."

We, as users of IoT products need to take some personal responsibility for the use of our connected products. We should never use any default usernames and passwords such as the "admin" used to give total access to video link mentioned above, but instead use difficult to guess passwords. Since many of the devices offer some form of encryption as an optional setting, it would be wise for all users to engage that option, and set a complex pass phrase for a decryption key.

The Cnet article closes with a very prophetic statement. "Baby monitors, thermostats, kitchen gadgets and other "smart" devices add convenience to our daily lives. What are manufacturers doing to make sure they don't make life easier for criminals too?"

This article was reprinted with permission of the author, Ira Wilsker.



**If your e-mail or mail address changes, please e-mail:
secretary@SterlingHeights
ComputerClub.org**

The Tip Corner

by Bill Sheff, Lehigh Valley (PA) Computer Group, Pennsylvania
www.lvcg.org nsheff@aol.com

Deleting .EXE files

There is no problem with deleting any .exe files that you have in your download folder. Most of these files are setup files for programs. With unlimited storage, keeping them is not that big a problem, in case you ever want to reinstall a program that might be misbehaving. However, let me offer a word of caution. While some setup programs have the name of the program, many don't and just say "setup file.exe, so you have no way to know one from the other. What I do is set up a folder (within my download folder) with the name of the program. I then save the setup file in that folder. This is also a good idea since some setup files come in .zip format. Remember once the program has been installed the setup file is not really needed unless you plan to reinstall the program. If you end up with a lot of them, including some large downloaded files, you might consider saving them to a CD or DVD, possibly by year.

SD Card Class – What Does It Mean?

We all know that SD cards come in various capacities, these cards, no larger than a finger nail go from a meager 32MB up to a whooping 128GB and maybe more. Most tablets today limit the capacity of an SD to a max of 32GB. But not all SDs are created equal, and that is where class comes in.

Basically it all comes down to transfer speed. Manufacturers use different types of flash memory to make the card. The class rating is designed to indicate the minimum writing performance to ensure smooth transfer of streaming content like videos. There are basically two kinds of speed designation. Speed class is a number surrounded by a large C and Ultra High Speed Class is a number enclosed by a large U. The defined classes are 2, 4,

6 and 10 and apply to regular mini and micro cards.

Ultra high speed class only works on specific devices designed to record video at this level. They are not interchangeable with other cards. The USH Speed Classes are U1 and U2.

All speeds can transfer photos and documents. Class 2 is good enough for recording in standard definition but class 4 and 6 would be needed for full HD video recording. Class 10 would enable you to record full HD video and also grab HD-quality stills from that video.

If the tablet manufacturer states a specific or minimum class requirement you cannot use a card with a lower class. For example, a class speed requirement of 4 will work with 4, 6 or 10 but not 2.

As a point of information, the higher the class the less fragmentation, and would have an increase in speed.

It wasn't too many years ago that a hard disk in our computer didn't even come up to the 128 GB size. And think of the weight savings in cameras.

Finally, if you aren't sure what type of card your device works with, make sure you check the documentation or the manufacturer's website before you purchase a memory card.

XP and Banking

I usually don't profess to follow some of the paranoid warnings of some people, however, I have to suggest that the very last thing you should be doing with a Windows XP computer is banking on-line. Security support for Windows XP ended April 2014, and it's even worse if you happen to be using Internet Explorer. The highest version of IE supported in XP is 8 and

that browser is also without any security support. You're slightly safer using Firefox or Chrome, but with XP receiving no security support from Microsoft, your system could be a prime target.

You should definitely stop banking online until you have another operating system.

Printing Coupons from Tablet

We know that using Drop Box or some other cloud storage makes it a snap to get things from one device to another, but what if you do not have a desktop computer?

Well, you do have to have a wireless printer. It doesn't have to be yours, but you would have to be signed in to the network. For some of the newer printers there might even be an app available. Check out the Google Play store or the Android store and search for printing. You'll find a lot of apps.

Google Cloud Print allows you to print from any printer that you've connected to the Google Cloud. You can even use a printer with a USB connection to a computer in many cases.

While browsing the store check for coupon apps as well. You may not need to print them at all. An App like RetailMeNot give you access to thousands of coupons that you can redeem straight from your tablet or smartphone just by showing at the checkout. Many retailers also offer their own apps that gives you coupons that can be redeemed straight from your device. So shop around and you might find ways to have your tablet save you money at the checkout counter.

Will This Cord Fit My iPhone?

Most Android and Windows tablets and phones these days use what's called a micro-USB connection. You'll also find the micro-USB port on some cameras and MP3 players. The most common cord you'll see is one with a USB to micro-USB connection. The same applies to the newer mini USB on some newer tab-

lets.

This would allow you to plug your device into a computer to transfer files and charge. You can also plug this cord into a USB wall charger or even a car charger. Today the car chargers are starting to appear with both mini and micro USB ports.

Apple devices use a proprietary connector that only works with Apple devices, but can also be attached to wall and car chargers as long as you have the correct cable. The current Apple cable is called Lightning which used to be a 30-pin dock connector. Certified Apple connectors will generally cost significantly more than the low-priced cables and chargers available for the Android and Windows devices.

When Apple introduced iOS 7, many people found that cheaper non-Apple certified cables would no longer work with their devices and it's widely believed that Apple purposely prevents these cheaper cables from working with their devices.

All In the Family – Apple & Amazon To Allow Sharing

Apple and Amazon have both announced plans to allow members of the same family to share digital media content. Amazon's plan is called the Family Library while Apple's is named Family Sharing.

With Kindle's Family Library two adults and up to four children can share e-books. Adults can control which books children can access. Families will also be able to share apps, audiobooks and programming from Amazon Prime Instant Video. Family Library became available in October.

Apple's Family Sharing is part of iOS 8 and allows families to share music, videos, books and apps and to also share photo albums in the iCloud as well as a family calendar.

Malicious Advertising Targets Popular Websites

Visitors to several popular websites found their computers under attack thanks to malware distributed by two of the largest providers of ads on the Internet.

Among the sites affected were The Jerusalem Post, and music streaming site last.fm. But many more sites may also be inadvertently distributing the malware.

This malware has hitched a ride in ads distributed by doubleclick.net (which is a part of Google) and ad agency Zedo. These companies place ads on websites and the sites are paid by the number of people who click. The individual sites don't select the ads. The ads are provided by the ad placement companies. Websites trust that legitimate companies like doubleclick.net will screen the advertisers appropriately. But sometimes ads containing malware can get through. According to the folks at Malwarebytes, they "rarely see attacks on a large scale like this."

In this case, the actual websites don't have malware infections. These bad ads send people who click on them to sites that infect their computer with an exploit kit that searches the computer for vulnerabilities and then installs a bot that will then begin to download other malware to the infected computer. So, this is pretty bad news if you get infected.

This particular toolkit is called Zemot and Microsoft updated their Malicious Software Removal Tool to detect it recently.

So be diligent. Do your best to avoid those little ads that pop up on web pages, but how many times have you accidentally clicked on one? The best thing is to make sure you have adequate anti-malware protection such as Malwarebytes in place.

Beware eBook Malware

Security experts are warning eBook users to beware of malware attacks

attached to eBooks. Bad code contained in the e-book data could infect your computer or tablet and even steal your credit card information from your Amazon, Nook or other account. Most of this bad data would most likely come attached to pirated books or books side-loaded from stores besides official Kindle, Nook or Google stores.

Pirated books are especially vulnerable to these kinds of attacks (It's not like you'd expect someone who sells stolen books to be honest in other areas of life, is it?) So if you see an eBook that's selling for \$10 everywhere else for \$1 somewhere, beware. You're probably much safer getting your books from the official store of your eReader or through legitimate library apps like OverDrive.

Also be cautious of sites promising you free eBooks. Many of these pirate sites contain malware that could compromise your PC.

Hundreds of Art Books You Can Download for Free

Speaking of books, here is an interesting site. The Getty Museum in Los Angeles houses a vast collection of amazing art and has also published an extensive library of books about art. Now they are making 250 of those publications available for you to download absolutely free at home.

To get a look see and get started, go to the Getty Publications Virtual Library. You can search for publications by Title, Author or Keyword. Or you can narrow the search by the Getty program, publication type, category or series.

You can also choose to browse the available publications from the J. Paul Getty Museum, Getty Conservation Institute and Getty Research Institute.

You can choose to read it online or download it as a PDF. If you choose to read online, Google Books will open it for you to read in a browser. If

you download it, any PDF reader will open and you can then click the icon to download and save the file. Some of these files are quite large because of the amount of images, so they could take a while downloading. If you have a PDF reader, you should be able to read these books on a PC, tablet or even a smartphone.

These books feature the works of many artists, many of which you may be familiar with.

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



First Experiences With Google Project Fi Cell Phone Service

by Ira Wilsker

WEBSITES:

<http://www.androidcentral.com/project-fi>

<http://www.androidcentral.com/project-fi-introduces-data-only-sim-cards-limited-set-tablets>

<http://www.theglobeandmail.com/technology/tech-news/google-expanding-into-us-cellphone-plans-with-project-fi/article27443197/>

<http://www.cnet.com/news/googles-experimental-wireless-service-will-work-with-tablets-too/>

<https://plus.google.com/communities/110194815823344386741/>

<http://www.thephenoninja.com/2015/12/project-fi-now-supports-data-only.html>

<http://www.androidpolice.com/2015/12/15/project-fi-now-supports-tablets-and-internet-only-devices-wont-charge-a-bogus-per-month-device-fee/>

<https://play.google.com/store/apps/details?id=com.google.android.apps.tycho>

<https://play.google.com/store/apps/details?id=com.novvia.fispy>

<https://play.google.com/store/apps/details?id=net.simplyadvanced.ltediscovery>

<https://plus.google.com/communities/105811578223666094844>

Some of you might remember a past column where I wrote about the newly available Google Project Fi cellular

phone service. For those who may not be aware, Project Fi is a cell phone service created and promoted by Google that is intended to offer cell phone voice and data service that seamlessly combines the networks of multiple carriers (currently Sprint and T-Mobile) along with secured Wi-Fi service consisting of over a million Google approved hotspots. Project Fi's service is generally priced below similar offerings from other cell phone companies, with unlimited talk and text for \$20 per month, and cellular data costing \$10 per month per gigabyte. The actual charge for cellular data used is prorated at only a penny per megabyte, with any unused data charges automatically credited to the following month's bill. There are no charges for data usage or calls made over Wi-Fi hotspots. There is no contract required in order to utilize Project Fi, and users can pause or cancel the plan at any time without any penalties.

At present, the only phones "officially" supported by Google on Project Fi are the newer Nexus models 6, 5X, and 6P,

because these phones can connect with virtually any and all of the transmission protocols currently utilized by the different cell phone companies, including GSM, CDMA, HSPA+, and LTE. Because of this universal compatibility, Google claims that phones connected with Project Fi will work without modification in over 120 countries (there may be some nationally imposed fees on foreign cell phone usage).

I closed my earlier column on Project Fi with the following statement, "A new Nexus phone compatible with Project Fi, as well as the Project Fi service, is available at very competitive, even potentially money saving, price points. The holidays are approaching. Maybe a new phone with Project Fi might mysteriously show up at my house." Fulfilling that prophecy, a new Nexus 6, the 64GB model in Midnight Blue strangely appeared at my house during the holidays. The day that I opened the box, I went online to claim my earlier "invite" from Project Fi to activate my phone on the Project Fi service. There were no activation charges, and Project Fi quickly sent me a new SIM card (free), which was dispatched to me by second day air.

Setting up and configuring the new phone on Project Fi was very simple and quick. I did commit one faux pas while setting up the new phone, which was totally my fault; I did not read the "Quick Start Guide" that was included, and had not downloaded the required Project Fi app from the Google Play Store prior to activating the phone. Even before being activated, the new Nexus 6 phone connected flawlessly to my secured home Wi-Fi system, allowing me to download the app. The Project Fi app was necessary to perform all of the required configurations and settings on the phone. I removed the SIM card, downloaded the app from the Play Store, reinserted the SIM card, and everything worked as advertised, despite my wasted two minutes. The Project Fi app said that it may take a



day or so to complete the activation process, and calls could not be made in that time, but the Wi-Fi service would be immediately available. Surprisingly, in less than 30 minutes, my new phone was fully activated, a fact confirmed by placing and receiving several calls with it. I also received an invite to join the official Project Fi community on Google+. While I could have ported (transferred) my existing cell phone number to the new phone, I decided not to port it, as I will continue to use my previous phone for a while.

Being aware that the Nexus 6 was "last year's phone", being released by Google in late 2014, it was available at a better price than the newly released (late 2015) phones, as well as having a larger screen (6") than the newer phones. The specifications and reviews of this particular Nexus 6 model known as "XT1103" (the latest build) were generally in the very good to excellent range. This Nexus 6 is widely available from a variety of local and online resources, but I found the best prices online. Amazon had this model available deeply discounted on Cyber Monday (\$199 for the 32GB model, and \$249 for the 64GB model), but by the time I saw the email with the sale listing, they were totally sold out. About 10 days after Cyber Monday, Amazon again had them in stock, but they were \$299 (32GB) and \$349 (64GB). In recent days, Amazon has lowered the price to \$249 and \$299 respectively. One warning to those who may be shopping for this (and other) cell phones online. Prior to purchase, verify that they are compatible with American cell phone networks, and have U.S. warranties. I did find several third party sellers on Amazon, eBay, and other websites offering these phones at better prices, but they were often either "gray market" foreign phones, or older builds of the phones; several of the "deals" on these other sites were for the Nexus 6 "model XT1100" (for non-US markets) which does not have the newer multi spectrum cellular radio compatible with Project Fi. Pub-

lished reviews of the XT1100 were often not as positive as the updated XT1103 build that I purchased. When in doubt, ask the seller.

I have now used my Nexus 6 on Project Fi for about a week, and have been favorably impressed. Locally, I had no problem connecting to both my secured home Wi-Fi and public "hotspots" around town. One of the features touted by Project Fi is the "over 1.1 million" tested and verified Wi-Fi hotspots that use an encrypted VPN (Virtual Private Network) to connect securely to the internet without the risks of connecting to the "open" Wi-Fi available in coffee shops, hotels, restaurants, and other locations. Many of these same locations have been certified by Project Fi, providing the encrypted VPN connections in addition to their open and public Wi-Fi. When connected to one of these secured Wi-Fi connections, a "key" appears on the top of the screen indicating that the connection is secured and meets Project Fi's strict encryption and security standards. As stated previously, Project Fi does not charge for data or calls made over domestic Wi-Fi connections, but in some foreign countries there may be local fees assessed for Wi-Fi calling and data.

One of the reasons why I was personally interested in Project Fi was the problems I had when travelling, using cellular connections with my Google Maps or Waze (my personal favorite) road routing apps, when driving through extended dead spots without a decent data connection. While I also have some of the "no internet required" road routing apps on my phone, with their included huge files of digital maps, I still prefer Waze or Google Maps while travelling. Since Project Fi currently utilizes two major cellular carriers for data, Sprint and T-Mobile, I have found fewer dead spots than I had using just my single carrier on my other phone. Project Fi instantly and seamlessly "hands over" the call or data connection to whichever carrier offers the best signal, with

a configurable priority (set by default) to utilize a secured Wi-Fi connection (with its free data) whenever possible.

I installed two other free apps on my new phone to help identify the carriers that I was connected to in real time, as well as their "channels" or frequency. I found the Signal Spy app to be invaluable displaying detailed and comprehensive information on both an available Wi-Fi connection as well as the cellular connection with the best signal. Signal Spy (formerly called Fi Spy) is free, but offers a voluntary and optional Pro version without ads (and includes future additional features as they become available) for a "contribution" of 99 cents to \$3.99. The other free app that I have been using to display even more information about cellular connections, including distance and direction (bearing) to the tower, signal strength, radio channel or frequency, map showing the tower location, and several other features is "LTE Discovery". Since I was curious to know what carrier I was connected to, (with my wife driving!), I simultaneously monitored the signal strength and carrier information of both my original single carrier phone and my new Nexus 6 on Project Fi.

Having just returned from a round trip from home to very rural western Louisiana, I had the ability to put the two phones to the test; my original phone was on T-Mobile only. While the phones were of different makes and models, both are from the same technological generation, and very similar in specifications, other than the newer Nexus 6 being capable of receiving cellular signals from multiple carriers and automatically switching to secured Wi-Fi when available. On Interstate 10 driving through Texas and into Louisiana, I primarily had a T-Mobile signal of varying strength on both phones, but there were some spots with weak or non-existent T-Mobile coverage; in several of these locations, my Nexus phone instantly switched to a better signal from a nearby Sprint tower when available,

keeping my map programs running on the Nexus phone while the same apps on my T-Mobile phone indicated that they were looking for a network connection. Once off the interstate, and driving through sparsely populated rural Louisiana, while there were still a few dead spots with no decent data coverage on either Sprint or T-Mobile, I did often get a decent T-Mobile data signal from their newer "Channel 12" transceivers, which T-Mobile has been installing in rural (and some densely populated urban) areas. Running on a much lower frequency (700 MHz) than most of the other carriers, T-Mobile's Channel 12 has a longer range providing better coverage in rural areas. When we stopped for lunch at a restaurant in rural Louisiana, the restaurant did not have Wi-Fi, but I had a very strong Sprint signal on the Nexus phone, while the T-Mobile phone displayed no signal. It appears to be very synergistic to have a single phone that can interchangeably receive signals from multiple carriers, rather than just receiving signal from a single carrier. This is what may make Project Fi successful when compared to individual cell phone carriers.

While purely anecdotal, in the official Project Fi forum on Google+ (Google Plus), several users have posted screen captures where their Nexus phones on Project Fi had successfully connected to AT&T and Verizon towers, even though there is no (current) formal relationship between Project Fi and those carriers. Also in that official Project Fi forum are "unsubstantiated rumors", reposted from other sources, that Google is in talks with AT&T and Verizon to include their towers in the Project Fi service. If such a union were to occur in the future, that would really strengthen the coverage options for Project Fi users. Since the Project Fi compatible phones can natively connect to virtually any cell service, there would be no major technological impediment to such an availability. For the naysayers who have publicly belittled such (rumored) increased availability from AT&T and Verizon,

all they need to do is look at the Walmart branded cell phone services, where Walmart purchases huge numbers of bulk minutes and terabytes of data from the likes of AT&T, Verizon, and T-Mobile, and resells them under its own (SmartTalk) label, where Walmart handles the billing and support. With the economic power of Google, and the establishment of Project Fi, there is no reason why Google cannot do the same.

A few other changes since I wrote my original Project Fi article a few months ago. In recent weeks, Project Fi announced a new, low cost, "Data Only" service for T-Mobile compatible tablets that have cellular connection (not "Wi-Fi only") capabilities. With no contract, and no activation fee, Project Fi will send the tablet owner a free SIM card, enabling the tablet user to access cellular data for the same penny per megabyte, \$10 per month per gigabyte, fully prorated based on actual cellular data usage. As with the phones, if the user only uses 750 MB in a month, the unused portion, or \$2.50, will be credited to the next month's fee. Users can purchase as many "gigs" per month as they desire, but end up only paying for what they actually use. While only having been available for a few weeks (as I type this), the reviews posted on the official Project Fi community on Google+ have been very positive. Many of the reviewers commented on the faster speeds and lower data costs of their Project Fi connected tablets. No invitation is required to get a "data only" tablet SIM card from Project Fi. Users have connected tablets running both Android and iOS to this new service.

The exploding popularity of Project Fi has caught the attention of phone manufacturers in addition to the Nexus line sold by Google. Nexus phones are actually manufactured by major companies such as LG, Motorola (now a Lenovo subsidiary), Huawei, and others, then sold with Google's Nexus label. Recently Motorola started shipping its new "Moto

X Pure Edition", which is very similar to my Nexus 6 (also made by Motorola), including the multi carrier compatible cellular radio, and some other enhancements. The new Moto X Pure Edition has a 5.7" screen and 21 megapixel camera, while my Nexus 6 has a 6" (really 5.97") screen and 13 megapixel camera, but other than that, the two models are very similar. While not officially "approved" for Project Fi, several Moto X Pure Edition users have successfully activated their new phones on Project Fi, displaying their results in the official Project Fi community in Google+. In the "unsubstantiated rumor" category, according to posts in the Google+ community, other manufacturers may be developing phones to run on Project Fi; among those makers "rumored" to be developing such a phone is Apple, which may (or may not) be developing an iPhone to run on Project Fi.

While still in its infancy, but rapidly growing in popularity, Google's Project Fi could potentially be a cellular force to be reckoned with. If (that big word "IF") Google can work a deal to include access to additional carriers such as AT&T and Verizon, and additional makers start producing compatible phones (and tablets), Project Fi may possibly become unbeatable in terms of cellular coverage. For the time being, I am very satisfied with the increased coverage that I personally experienced using Project Fi on my recent trip; the availability of over a million (and increasing) secured and verified Wi-Fi hotspots is also a big plus.

My next project may very well be getting the rest of my family moved over to Project Fi. Better coverage, no contract, no activation fees, and lower monthly bills is a big attraction.

This article was reprinted with permission of the author, Ira Wilsker.



The AMD A10-7800 CPU

by Daniel Woodard, Dayton Microcomputer Association, OH
www.dma1.org dgw (at) dma1.org

Is your computer bogging down, perhaps not powerful enough to handle daily tasks or games? You've surely heard the old adage: "Take two aspirins and call me in the morning." In the same vein, folks often would upgrade both a video card and the processor to try to speed up their PC. Recently, processors began arriving that combined both a traditional CPU and video card (GPU) into one unit. The recently released AMD A10-7800 is one of these, called an APU, or accelerated processing unit.

Although my computer had a fairly competent processor (Phenom II x4), the motherboard's onboard graphics were very weak, to the point where I was seeing huge amounts of lag when I or my kids were playing some basic browser games. I'm one of those folks who like simplicity, so I've enjoyed watching as LAN cards, sound cards and even video cards have been integrated onto the motherboard. This was fine at first, but eventually I found myself wanting to upgrade the video capabilities, and I'd rather be able to do this without having to pull the motherboard or add a video card. I've had video cards in the past, but prefer the fanless variety since they don't add background noise, and there's no fan that can go bad. Silent video cards with huge heat sinks are more of a niche market today, so prices for better performers have climbed up between \$75 and \$100.

The AMD A10 range of processors offered exactly what I wanted, using the FM2+ socket (first released earlier this year). The A10-7800 has what is probably the best built-in graphics on a very competent but energy efficient processor. Since the graphics are built into the processor, there is no additional heat sink or fan required — it just uses the same heat sink fan that every CPU has anyway. Another advantage is that if I eventually decide

to upgrade in a year or two, I can simply and quickly upgrade both the CPU and video elements of my system just by pulling the CPU and inserting a new one — no muss, no fuss.

My prior CPU was the Phenom II X4, running at 2.8 GHz. It drew 95 watts and put out quite a bit of heat. The first thing I noticed about the new A10 CPU was that the heat sink was about half the size of that required for the old Phenom II. I hadn't expected it to be much smaller, considering that now there was also essentially a video card crammed in there as well!

AMD's press release mentions that the processor supports UltraHD (4K) monitor resolutions. The A10-7800 (formerly known as Kaveri) also is touted as having 12 compute cores — 4 CPU and 8 GPU. It runs at a base clock frequency of 3.5 GHz, activating a turbo frequency of 3.9 GHz if an application is demanding. It has 512 video shader cores and a listed 65 watts of drawn power. Also incorporated is AMD TrueAudio, a built in DSP processor that provides dedicated positional sound effects calculation (including echo, etc.) for games. At the time of this writing, the processor is available for around \$140.

As I had mentioned, my main reason for wanting an upgrade was extreme slowdown/lag when playing browser games. I had also noticed an occasional lockup once or twice a month, and decided it was time to install new components. I used Browsermark and PCMark 8 to compare my system before and after the upgrade. Originally I had the AMD Phenom II x4 925 CPU and onboard Radeon HD 4250 video.

Phenom II x4 925 (4 core, 2.8 GHz, 95 watt) A10-7800 (4 core, 3.9 GHz, 65 watt)

Winrar 156 Megabyte compress 109 seconds 114 seconds

Hyper Pi 8m calc., 22 iterations 5 min. 26 seconds 4 min. 26 seconds
142 Watts full load, 83 W at rest
115 Watts full load, 60 W at rest
of transistors: 758 million #
of transistors: 2.41 billion
PCMark 8 casual Gaming 7.8 fps 28 fps
Browsermark Score 1,888 3,758
(full load vs. at rest tested using Handbrake, h.264/mpeg4 video, doesn't include monitor)

I performed a variety of benchmarks, such as using Winrar to try to compress a 156 Megabyte video file. This may not have been the best choice of file, since they are already highly compressed, but the resulting times were very close, even though the newer CPU clearly uses a lot less power to do the same job. Hyper Pi, which calculates Pi using as many cores as the CPU possesses, showed a marked improvement over the old Phenom II.

If you'll refer to the chart above, you can see that the A10-7800 has roughly three times as many switches/transistors as the Phenom II 925 did. To put that in perspective, my first computer, a TI 99/4a from about 1982, had a CPU with 8,000 transistors, while my first IBM clone in around 1990 had 275,000. Put another way, let's say that each switch represents a person. In that case, my first PC had close to the equivalent of my home town's population toiling away in there, while today it is roughly the equivalent to the population of Asia. Clearly, it won't be too long before there are more switches in my computer's processor than there are people alive.

I was also able to borrow a "Kill A Watt" energy testing outlet device from my Dad to get some interesting readings. For example, now I know that my monitor uses up about 27 watts, with the PC using another 60W when the system is not doing much of

anything at the desktop. Without the monitor, the new A10 based system uses 115 watts when doing mpeg4/h.264 video file encoding, vs 142 watts on the old Phenom II system. With the side of the case cover off, I definitely could hear the APU fan become a bit noisier during the video encoding, (when the processor kicked into 3.9 GHz turbo mode) but it wasn't noticeable at all with the case closed. Considering the performance per Watt used, this would be a great choice for a power limited system — if you want to upgrade capabilities without having to upgrade a system's power supply, for example.

Browsermark showed roughly a doubling of ability, while PCMark 8 showed nearly a quadrupling of casual gaming frames per second. Ultimately, I got what I wanted out of the upgrade — browser games are playable again, with no lag for detailed animations in games and such. The system now also has the capability of playing various games with 3D effects, such as *mrst* and third person shooters — something I definitely could not have done on my old system.

It wouldn't be fair to finish this review without at least trying a few games. The A10-7800 was able to handle a game called *King's Bounty* that needed a video card upgrade to play about three years ago, due to numerous rendered battle animations. For the past decade, many of the first and third person shooters and other 3D games have used the Unreal Engine. (UE) I downloaded game demos using the UE2, which was used to make many games from about 2003 to 2008, and the system worked flawlessly. I tried another game that was made with UE3, which was used from about 2009 to present, and again, it did a decent job, but not at the highest resolutions.

The next version of the Unreal Engine is UE4, which is currently being used by developers to make games that will

come out starting in 2015, and probably for the next 5 years or so. Using a recently released demo of UE4, I was only able to get frame rates of about nine to fourteen frames per second, which is not playable. However, it is still orders of magnitude above what I would have gotten with any motherboard's onboard graphics, and probably about 15% better than a stand-alone R7 240 video card.

To be fair, the UE4 development system is meant to push even high end video cards at this point — cards that probably cost more by themselves than this processor does. It makes sense for them to do this, because it usually takes at least a couple of years to develop the games. Also, today's \$350 Radeon R9 or Geforce GTX video cards will be equivalent to a middle of the road \$120 card 3 or so years from now.

APU's such as the A10-7800 are very unlikely to ever interest either of these two groups: overclockers or video card enthusiasts. AMD wasn't going after either of these markets, so it shouldn't be a surprise. What AMD wanted to do was to offer a relatively inexpensive option for people who like to have what you might consider some mid-range graphics built into the processor. Intel has also started doing this, with Intel graphics built in to a number of their processors now. At least for present, AMD definitely has the upper hand as far as video game framerate on these, however. Looking over numerous online benchmarks, I found that the Intel processors could crunch numbers a bit faster, but that the AMD APU's often had double the game framerates. I guess if you spend most of your time compressing files or doing intensive calculations, Intel might be a better choice. However, if anyone in your house plays games, the AMD APU would probably be a better investment.

In a nutshell: I give the A10-7800 a 9.5 out of 10 for energy efficiency and for being able to cram this much video

processing ability into an APU. It would probably play 95% of the games out there currently, and you could easily spend \$60 to \$70 on a stand-alone video card that would not outperform this. That said, this is probably a better choice for those who occasionally try first person shooters, considering that it is unlikely to perform well in graphics heavy titles coming out in 2015 and later. For those who leave their PC's on all the time, the savings on an electric bill alone would likely pay for the cost of the A10-7800 in one or two years. This is especially true if your current system has older (released 2010 or before) stand-alone video cards or processors that draw 90W or more.

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

☺ ☺ ☺ ☺ ☺

If your e-mail or mail address changes, please e-mail: secretary@SterlingHeightsComputerClub.org

SHCC Emergency Cancellation

Sterling Heights Computer Club meets at Macomb Community College (MCC). We will meet if MCC is open and will not if MCC is closed. MCC closure is announced with other school closings on many local TV and radio stations and on their web site. All members of SHCC have an email address. One of the SHCC officers will send an email to the addresses SHCC has on file alerting members to the event cancellation. If your email is broken, call an officer; don't leave a message, call another officer if you don't talk to someone live. It is your responsibility to keep the email address you have listed with SHCC current.

☺ ☺ ☺ ☺ ☺

WYSIWYG WEB WATCH (www)

by Paul Baecker webwatch@sterlingheightscomputerclub.org



This column attempts to locate sites containing valuable, amusing and free content, with no overbearing pressure to purchase anything. Send your favorite entertaining, helpful or just plain useless sites (a description is optional) to the e-address noted above, for inclusion in a future WYSIWYG.

"Preserving your Privacy in Windows 10" -- free document download.

<http://4dm7pi3anfms2bn7sk7u16h1.wpengine.netdna-cdn.com/wp-content/uploads/2015/10/Windows-10-Privacy.pdf>

List of open-source programs for MS Windows operating systems.

<https://help.ubuntu.com/community/ListOfOpenSourcePrograms>

Recently bought a Windows computer? Microsoft probably has your Encryption Key.

<https://theintercept.com/2015/12/28/recently-bought-a-windows-computer-microsoft-probably-has-your-encryption-key/>

World time maps, clocks, and directory.

<http://24timezones.com>

If you're fine with Microsoft's approach to privacy in Windows 10, you're out of touch.

<http://betanews.com/2016/01/08/if-youre-fine-with-microsofts-approach-to-privacy-in-windows-10-youre-out-of-touch/>

How to stop Windows 10 forcing itself onto PCs – your essential guide.

http://www.theregister.co.uk/2016/01/08/windows_10_upgrade_blocker/

Hundreds of videos on many topics, sponsored by GoProCameras.--- flight, surf, autos, music, animals, more.

<https://www.youtube.com/user/GoProCamera/playlists>

"W10Privacy" -- Windows 10 telemetry blocker.

<http://betanews.com/2015/12/28/w10privacy-is-a-smarter-windows-10-telemetry-blocker/>

How to reclaim your privacy in Windows 10, piece by piece.

<http://www.pcworld.com/article/2971725/windows/how-to-reclaim-your-privacy-in-windows-10-piece-by-piece.html>

Math is fun! Games, puzzles, math topics.

<http://www.mathsisfun.com>

How the police use Google to track your every move.

http://videos.komando.com/watch/9318/kims-news-updates-how-the-police-use-google-to-track-your-every-move?utm_medium=nl&utm_source=totd&utm_content=2015-12-20-rct-tvkim-b

9 useful browser shortcuts.

<http://www.eukhost.com/blog/webhosting/9-useful-browser-shorcuts-that-save-your-day-infographic/>

How To Troubleshoot Your Home Network.

<http://www.maximumpc.com/how-to-troubleshoot-your-home-network/>

Best hidden features of VLC, the excellent free media player for Windows and Linux.

www.lifehacker.com.au/2014/11/the-best-hidden-features-of-vlc

Language learning site which focuses on grammar and vocabulary, with free resources such as: lessons, grammar tips, vocabulary, phrases, language tools, and audio files to download.

<http://mylanguages.org>



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

World Wide Web Column on the Club Web Site

Check out the WebPageReviews section on the club's web site. You can see past web sites reviewed in this column on our club web page. They are arranged into various key word categories to help locate a specific site.

