FPCUG Notes for February 2018

Editor: Frank Fota (fotafm@gmail.com)

Helping Computer Users
FPCUG
& Our Community

SCHEDULE OF EVENTS (7:00 PM -- Falmouth Fire House, Butler Road):

-- Tues, Feb 6: **BoD Meeting (Patty Davis, Presiding)**

-- Thu, Feb 8: **General Meeting.** Do you wonder what technology awaits us in the future? Elon Musk will discuss his new project, digging tunnels under LA, the latest from Tesla and SpaceX, and his motivation for building a future on Mars in a conversation with TED's Head Curator, Chris Anderson. Following this recorded TED Talk, FPCUG's Newsletter Editor, Frank Fota, will facilitate discussion with those who attend. **The public is invited and refreshments will be served.**

-- Thu, Feb 15: **Experimac Workshop - 1865-106 Carl D. Silver Parkway**

-- Tues, Feb 20: **Windows 10 Workshop (Ed Alexander)**

-- Thu, Feb 22: **Windows All Workshop (Jim Hopkins)**

JANUARY GENERAL MEETING RECAP

The FPCUG was pleased again to host Donna Creasy who presented information on a new form of neurotherapy (i.e., photobio-modulation low-level light therapy). Donna demonstrated how easy the VieLight device is to use at home. Photobiomodulation (PBM) shows promise for breaking up the plaques associated with Alzheimer's. PBM is also useful for other forms of cognitive decline, healing traumatic brain injuries, and other health issues. Donna's presentation was well attended with many inquiring about the application of PBM for various maladies and the purchase of PBM devices.

Photos coutesy of Cliff Dalseide

Donna Creasy is semi-retired from Prince William Community Services Board and provides neurofeedback training and mentoring throughout the state. She is a Licensed Professional Counselor, Licensed Marriage and Family Therapist, and is Board Certified in Neurofeedback.

DANGEROUS WINDOWS 10 APPS AND PROGRAMS?

I was surprised to read from a trusted source, MakeUseOf.com, that I should avoid using some Windows 10 apps and programs. Apps and programs to avoid included: CCleaner, iTunes, Norton Anti-Virus, WhatsApp, Flash Player and Internet Explorer. The reasons to avoid these apps and programs vary from security flaws to actually slowing down your computer. Check out the linked article above and judge for yourself.

THE BEST OF CES 2018

There was plenty of hype leading up to the annual Consumer Electronics Show (CES) and CES 2018 was no exception. Less hype typically follows the show and depending on the source, you will find that opinions of the best products tend to differ. I liked the selections offered by NEWATLAS.com. Samsung demonstrated the 146" Wall which uses new MicroLED technology with super-small LED lights for improved brightness, contrast, color volume, and color gamut. Nvidia demonstrated its first (65") Big Format Gaming Display (BFGD). This Nvidia BFGD sports 4K resolution, 65 inches of screen space, support for HDR, a 120 Hz refresh rate, and ultra-low latency. LG demonstrated a 65-inch rollable OLED TV. The need for a television that rolls down into its base at the push of a button is dubious but this gee-whiz television is certain to impress. HTC produced a virtual reality (VR) headset dubbed the HTC Vive Pro. This VR headset boasts a resolution of 2,880 x 1,600 pixels across both eyes, or 1,440 x 1,600 per eye at 615 ppi. The Vive also incorporates headphones, dual microphones with active noise cancellation and dual front-facing cameras. The German Volocopter is not new to the CES but impressed the crowd by actually taking flight at CES 2018. Writing for NEW ATLAS, David Nield said, "The aircraft can be run in autonomous and semi-autonomous modes, and uses the same flight controllers that Intel has put inside other, smaller drones." Remember the futuristic "The Jetsons" cartoon show? I've been asking myself, "Where's my flying car?" I think that predicted reality is getting closer. Lenovo demonstrated a more practical device, the Smart Display. The Smart Display is designed to compete with Amazon's Echo Show (i.e., a speaker with a screen). It uses the Google Assistant and offers full HD resolution in 8-inch or 10-inch models. Project Linda from Razor uses the Razer Phone as its brain, and its trackpad. David Nield says, "The Razer Phone plugs right into where the laptop's trackpad should be, and then actually acts as the trackpad, as well as providing the brains and apps for the whole device." The screen measures 13.3 inches, with a Quad HD (2,560 x 1,440 pixel) display. Another practical device is the Blocks modular smartwatch. Production of this Kickstarter product has been delayed several times but orders are now shipping. The Blocks smartwatch has components that can be varied to suit your needs (e.g., a flashlight, GPS unit, or a heart rate monitor). Twenty-five watch faces can be configured for the smartwatch that features a 1.39-inch AMOLED display with a 400 x 400 pixel resolution, Android Oreo 8.0 for smartwatches and a 350 mAh battery that Blocks claims to last for about 36-hours. Augmented reality (AR) was on display at CES 2018. The DeepFrame One AR screen can place objects in a room that are not physically there or create a backdrop that extends for miles. The $30,000 Sony LSPX-A1 4K projector is capable of throwing up a 120-inch projection from just 9.6 inches away from the wall! David Nield says, "The 49.5 x 22 x 18.5 in (1,255 x 559 x 470 mm), 165 lb (75 kg) projection unit has a Z-Phosphor laser beaming out up to 2,500 lumens, and makes use of three SXRD panels for a 2.5 millisecond response rate that should keep motion blur to a minimum, and means that primary colors can be displayed simultaneously. Sony's Triluminos color tech is cooked in for the promise of life-like colors, there's up to 4,096 x 2,160 of native resolution on tap – which Sony points out is the same resolution defined by Digital Cinema Initiatives for cinema distribution – along with HDR technology, powered lens shift for keystone image correction, powered zoom, high dynamic contrast and up to 12-bit color depth via HDMI."

VOYAGER 1 FIRES THRUSTERS FOR THE FIRST TIME IN 37 YEARS

The Voyager 1 spacecraft launched ~40 years ago and is now some 13 billion miles from the Earth. NASA describes the spacecraft as, "Voyager 1, NASA's farthest and fastest spacecraft, is the only human-made object in interstellar space, the environment between the stars." NASA hopes to continue retrieving data from the spacecraft until the nuclear batteries fail in ~2025. It is essential, however, that the main antenna remains pointed at the Earth. According to NASA, "…engineers have noticed that the thrusters Voyager 1 has been using to orient the spacecraft, called "attitude control thrusters," have been degrading. Over time, the thrusters require more puffs to give off the same amount of energy." With no means to repair these thrusters, NASA decided to try using the long dormant Trajectory Control Maneuver (TCM) thrusters for attitude control. The TCM thrusters were used in long bursts to adjust Voyager's flight path and point instruments at Jupiter, Saturn and many of their moons; they had never been used in the microsecond bursts needed to orient the spacecraft's main antenna. To test the TCM thruster's ability to perform this task, NASA engineers had to examine decades-old data and software that was coded in an outdated assembler language. They then sent instructions for a test maneuver and waited some 19 hours and 35 minutes for the resuls to reach an antenna in Goldstone, California, that is part of NASA's Deep Space Network. To the delite of NASA engineers, the TCMs worked perfectly and NASA will begin using them in January 2018. NASA intends to test the TCM thrusters on the twin Voyager 2 spacecraft and use them when the attitude control thrusters become degraded.

TWEAKING.COM WINDOWS REPAIR TOOL

Jim Hopkins led the Windows All workshop on January 25 and discussed the free version of the Windows Repair tool at Tweaking.com. The developer says Windows Repair can:

Reset Registry Permissions
Reset File Permissions
Register System Files
Repair WMI
Repair Windows Firewall
Repair Internet Explorer
Repair MDAC & MS Jet
Repair Hosts File
Remove Policies Set By Infections

Repair Icons
Repair Winsock & DNS Cache
Remove Temp Files
Repair Proxy Settings
Unhide Non System Files
Repair Windows Updates
Repair CD/DVD Missing/Not Working
and more…

Most of these repairs can be performed using commands built into Windows. The convenience in having them run from Graphical User Interface (GUI) rather than using text via the command prompt is worth placing this tool in your chest. I have experienced mixed results using the Windows Repair tool to repair Windows updates. However, I recently restored updates on a couple old desktops using Windows Vista.

MELTDOWN & SPECTRE FLAWS AFFECT INTEL, AMD & ARM CPUs

Kelly Jackson Higgins, Executive Editor at **DARK**Reading, says, "Researchers from Google's Project Zero Team, Cyberus Technology, Graz University of Technology, University of Pennsylvania and the University of Maryland, Rambus, and University of Adelaide and Data61, all discovered critical flaws in a method used by most modern processors for performance optimization that could allow an attacker to read sensitive system memory, which could contain passwords, encryption keys, and emails, for example." Although exploitation of these flaws cannot be confirmed, Intel began distributing patches for its CPUs. The patches caused some Broadwell and Haswell CPUs to spontaneously reboot and Intel asked customers and Original Equipment Manufacturers (OEMs) to cease applying them. Intel plans to issue a fix for the Meltdown-Spectre vulnerabilites.

Editor's Note: I thought I'd revisit Chromebooks because they are misunderstood and often meet the needs of the typical computer user and cost significantly less (see Rich Davis' article below).

CHROMEBOOKS FOR SENIORS
by Rich Davis, Communications Director, Computer Booters of Sun Lakes, AZ
October 2017 issue, The Computer Booter, www.computerbooters.org

Chromebooks are laptops that use Google's operating system. They are quite inexpensive as compared to a Windows or Apple machine. My newest Chromebook is 15" and was $129.00 as a refurbished item.

I had a back injury some years ago when I heard about Chromebooks as they had just been rolled out. The critics slammed them as being quite useless. I seemed to be drawn to them after reading a lot about how they work. This looked like a good computer to me. I decided to challenge the critics and make this my main machine if I could. I would be able to spend some time learning as I was laid up.

One drawback that the critics named was storage. My first Chromebook had only 18gb of hard drive. I had a Gmail account and found that I had 15gb of space for free. I could also add an SD card to give me much more. Also, when you buy a Chromebook you get an extra 100gb of online storage for free for a couple of years. Another, or maybe equal to the first was that you had to be online to use your Chromebook. I always am so that didn't bother me. Improvements have made the Chromebook useful offline as of now. The third obstacle was that you couldn't load software.

True, but instead we use apps that are downloaded. In my opinion, they are better than software. Some of the apps are not as robust as a complete software suite. But, hey, I have slowed down with work and the apps work fine for me. Also, Google sets up a drive in the cloud, which means on their servers, for the user. Included is a software suite almost as good at Microsoft Office and compatible with it.

Once I got the knack of using my Chromebook I never looked back. Updates take a few seconds. The laptop starts in 7 seconds. The battery life is about 10 hours. I can watch Netflix movies, Skype, Email, create documents and slideshows, and much more. There is no need for antivirus software.

It is perfect for me. Did you know that 70 percent of schools use Chromebooks because of their price and functionality eclipsing iPads and Windows machines for students? So, the critics were dead wrong. They didn't give something new a fair chance. A couple of years ago my grandson, 14, told me how cool my Chromebook was. I sure was proud of my decision to go with my gut and try something new.

4

ONE LINE OF COMPUTER CODE PUT THOUSANDS OF INNOCENT TURKS IN JAIL

Turkish President Recep Tayyip Erdogan conducted a purge against Fethullah Gulen loyalists following a failed coupe (July 15, 2016). For some Turks, in Orwellian fashion, the possession of a single pixel cost them their livelihood and/or freedom. Writing for CBC news Canada, Nil Köksal says that users of the Bylock messaging app were rounded up and jailed, "…for using a messaging app the government deems seditious." The underlying technology (i.e., 1x1 transparent pixels) is used by most web sites to track visitors. Those using the Bylock app were identified, hunted down, and jailed by the Turkish government. Long-time Slashdot reader kbahey writes, "The long legal proceedings caused a digital forensic expert to challenge those cases, because [the pixel using] the servers for Bylock was also being used by other applications for music streaming, and prayer times/direction of Mecca." In other words, those who never downloaded Bylock or used it may have received the 1x1 transparent pixel and …you know the rest of the story. As many as 30,000 innocent Turks may have been swept up in the purge. Slashdot reports that, "The government eventually exonerated 11,480 of the wrongly accused, but some had already spent months in prison, and reportedly some even committed suicide." It would be easy for any government to deem a website treasonous, sediticious, or subversive; and track its visitors, hunt them, and jail them.


MALWARE LOADED APPS?

According to Cyn Mackley.com, Tech Whisperer & Mystery Writer, "Security researchers have identified 53 apps that came loaded with malware designed to steal people's Facebook credentials and bombard them with pop-up ads. These apps were downloaded more than 100,000 times by unsuspecting users." Cyn says the malware is called GhostTeam and it has defeated the Google Play store's safeguards. Affected apps include some: flashlight apps, matrix barcode (QR) readers, Facebook video downloaders, file cleaners, and performance boosters. Suspect a GhostTeam infection if your browser produces an unending stream of pop-up ads. Cyn suggests you check the reviews for apps and the number of downloads before installation.

HOSPITALS TARGETED FOR RANSOMWARE

Cyn Mackley ay CynMackley.com says that "2018 has kicked off with a string of ransomware attacks targeting hospitals, which is bad news for both medical professionals and patients." Cyn notes three recent attacks by a ransomware called SamSam at: Adams Memorial and Hancock Regional Hospitals in Indiana as well as the electronic prescription company Allscripts. Recovery, even from a backup, can be a tedious undertaking and for expediency, Hancock paid ~$55,000 in Bitcoin to unlock 1,400 files. Cyn advises us to have backups of our own medical records. She also recommends asking your healthcare provider what they are doing to prevent such attacks and whether they have a contingency plan in the event of data loss.

NANOROBOTIC PRODUCTION FACTORY

Scientists have been experimenting with nanorobotics for some time. According to the Kurzweil Network, "By powering a self-assembling DNA nanorobotic arm with electric fields, German scientists have achieved precise nanoscale movement that is at least five orders of magnitude (hundreds of thousands times) faster than previously reported DNA-driven robotic systems, they suggest today (Jan. 19) in the journal Science."
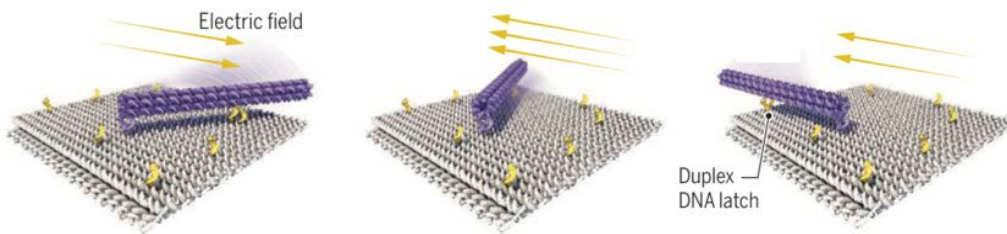
The nanorobotic arm resembles the gearshift lever of a car. Controlled by an electric field (comparable to the car driver), short, single-stranded DNA serves as "latches" (yellow) to momentarily grab and lock the 25-nanometer-long arm into predefined "gear" positions. (credit: Enzo Kopperger et al./Science)

This exciting advance in nanorobotics could one day be used to form molecular memory, to move nanoscale cargo, or perform the 3D printing of molecules.

NOTE… the FPCUG does not endorse products or services of any kind ☺.

EVENTS IN COMPUTER HISTORY

(paraphrase and additions to the Iceni Technology Blog by Iceni Technology Contributor Rebecca Coe and historical data from the websites http://www.computerhope.com/history/ and http://www.historyorb.com/)

EXPLORER I

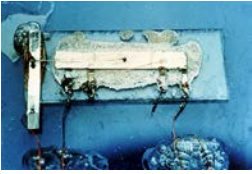-- Feb 1 –
1st US satellite (Explorer I) launched (1958).
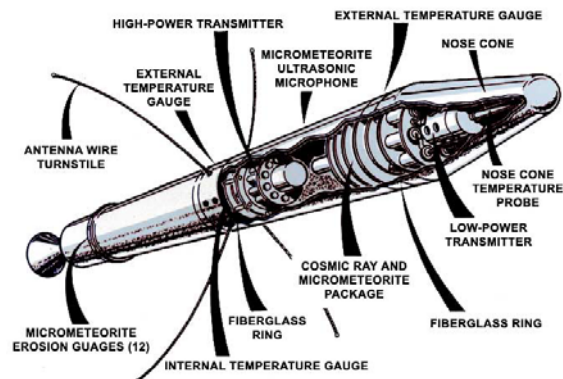
-- Feb 1 --

Perhaps marking the end of the slide rule, the 1st scientific hand-held calculator (HP-35) was introduced for $395 (1972).

-- Feb 1 –
Sun Microsystems began development of Java Technology (1991).

-- Feb 2 --
Radio Shack officially started production of TRS-80 computers (1977).

Jack Kilby of Texas Instruments filed a patent for the integrated circuit (1959). Kilby's patent application was titled "miniaturized electronic circuits." The patent was one of 60 that Kilby holds. While Kilby has the earliest patent on the "integrated circuit," it was Robert Noyce, later co-founder of Intel, whose parallel work resulted in a practical device.

-- Feb 8 --

C.D Lake, H.H. Aiken, F.E. Hamilton, and B.M. Durfee filed a calculator patent for the Automatic Sequence Control Calculator, commonly known as the Harvard Mark I on February 8, 1945. The Mark I was a large automatic digital computer that could perform the four basic arithmetic functions and handle 23 decimal places. A multiplication took about five seconds.
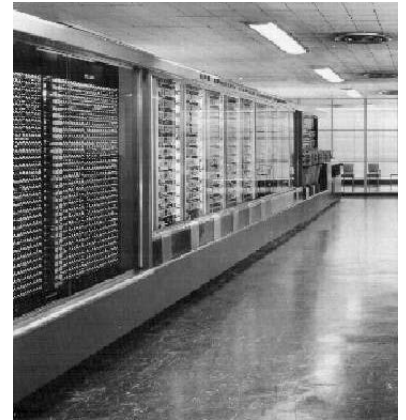

-- Feb 10 --

IBM computer Deep Blue became the first computer to win a game of chess against a reigning (human) chess champion, Gary Kasparov (1996). In the first game of a six game match, IBM's Deep Blue chess computer defeated the world champion. Kasparov would eventually win the series 4-2, but would lose to Deep Blue in a re-match a year later.

-- Feb 12 --

Jonathan Rotenberg founded the Boston Computer Society on February 12, 1977. Four people attended the first meeting of this group, whose membership eventually reached several thousand. Early topics of discussion for the society included Community Use of Personal Computers and The Minicomputer Goes to the Racetrack.
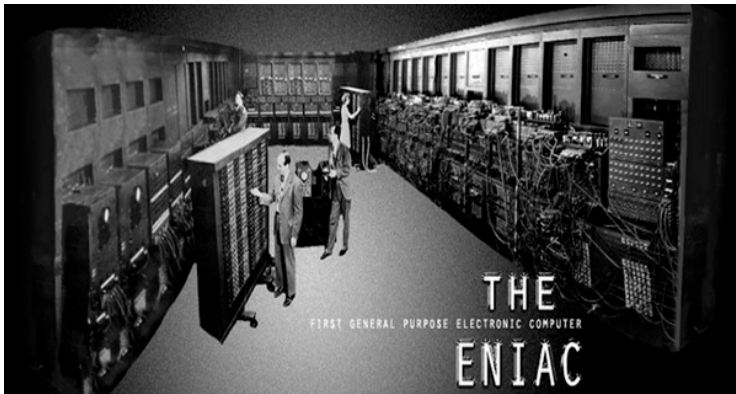

-- Feb 13 --
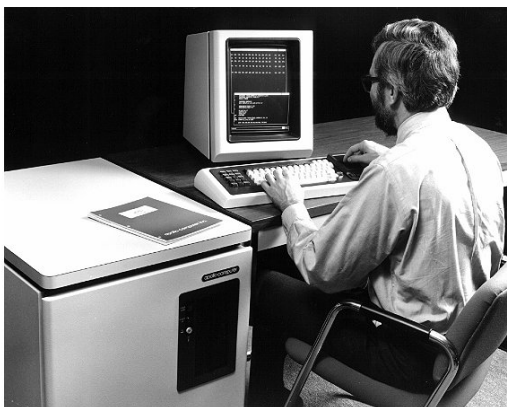
Apollo Computer was incorporated in Chelmsford, Massachusetts (1980). Apollo helped create the original workstations, small but powerful computers mostly used for engineering. In 1989, Hewlett-Packard Company acquired Apollo for $476 million.

John Mauchly and J. Presper Eckert unveiled the ENIAC at the University of Pennsylvania (1946). The ENIAC calculated 5,000 operations per second -- 1,000 times faster than its contemporaries. Impressive in size as well as strength, the machine occupied over 1,500 square feet, weighed 30 tons, and used 18,000 vacuum tubes.

-- Feb 16 --

The first computer Bulletin Board System (Ward & Randy's CBBS, Chicago) became operational (1978).

-- Feb 16 --

The first 911 phone system in the U.S. became operational in Haleyville, AL (1968).

-- Feb 17 --

The retail launch of Windows 2000 occurred (2000).

-- Feb 18 --

Following successful sales of IMSAI 8080 computers by mail-order (IMS Associates, Inc.) and through independent dealers, IMSAI founder Bill Millard made the decision to launch a franchise operation of computer retail stores. Initially called Computer Shack, the first ComputerLand franchise store opened on South Street in Morristown, New Jersey (1977). The chain changed its name to avoid a lawsuit over similarities to the name Radio Shack. ComputerLand became the largest computer retailer by the mid-1980s, peaking at approximately 800 stores in the United States, Canada, Europe, and Japan.

-- Feb 19 --

The first warrant was issued to search a computer storage device (1978). Requirements were similar to the warrant obtained to search a home. However, the precedent this warrant set forced those seeking to protect their data from law enforcement to use increasingly sophisticated methods of encryption.

-- Feb 20 --

A bomb blamed on Unabomber Theodore John "Ted" Kaczynski exploded by a computer store in Salt Lake City (1987).

The Automatically Programmed Tools language was demonstrated (1959). APT is an English-like language that tells tools how to work and is mainly used in computer-assisted manufacturing. A New Yorker article from March 28 observed: "The Air Force announced today that it has a machine that can receive instructions in English - figure out how to make whatever is wanted- and teach other machines how to make it. An Air Force general said it will enable the United States to build a war machine that nobody would want to tackle. Today it made an ashtray."

-- Feb 27 --

Perhaps a visionary but failed attempt at the future iPad, Apple discontinued development of the Newton computer (1998).

-- Feb 27 --

Windows Server 2008 (sometimes abbreviated as "Win2K8" or "W2K8") was officially released on February 27, 2008.

-- Feb 27 --

The National Security Agency (NSA) retired the Harvest Computer February 27, 1976. The IBM 7950 (Harvest) ceased operating after 14 years of NSA service. The Harvest, delivered in 1962, was a one-of-a-kind adjunct to the Stretch computer. It was designed for cryptanalysis by James H. Pomerene. Its electronics, built from the same kind of discrete transistors used for Stretch, were about twice as big (physically). Harvest added a small number of instructions to the Stretch, was attached to it, and could not operate independently.

-- Feb 28 --

Jay Wright Forrester is issued a patent for computer core memory (i.e., coincident current magnetic core memory) on February 28, 1956. Forrester's invention for a "multicoordinate digital information storage device," became the standard memory device for digital computers until supplanted by solid state (semiconductor) RAM in the mid-1970s.

Who's Who in the FPCUG

Officers

Office	Name	Email Address
President	Patrice Davis	president@fpcug.org
1st Vice President	Roger Schirmer	vp1@fpcug.org
2nd Vice President	Ed Alexander	vp2@fpcug.org
Secretary	Frank Fota	secretary@fpcug.org
Treasurer	Rick Neil	treasurer@fpcug.org

Directors and Trustees

Office	Name	Email Address
Directors	Josh Cockey	directors@fpcug.org
	Cliff Dalseide	
	Robert Monroe	
Trustees	Johnny Creech	trustees_@fpcug.org
	Kay Pollock	
	Bill Williams *"Agent of Record"*	

Chairmen & Representatives

Office	Name	Email Address
APCUG Representative	Frank Fota	apcug_rep@fpcug.org
Newsletter Editor	Frank Fota	newsletter@fpcug.org
Webmaster	Josh Cockey	webmaster@fpcug.org

Special Interest Workshop Leaders

Office	Name	Email Address
Technology	Josh Cockey	technology_sig_leader@fpcug.org
Windows	Jim Hopkins	windows_sig_leader@fpcug.org
Windows 10	Ed Alexander	windows10_sig_leader@fpcug.org