

FPCUG Notes for May 2019

Editor: Frank Fota (fotafm@gmail.com)

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

- **Tues, May 7: Board of Directors (BoD) Meeting (Patty Davis, Presiding)**
- **Thu, May 9: General Meeting.** Deputy Jim Hamilton, Stafford County Sheriff's Office will discuss tactics and techniques used to commit internet/email fraud, specifically, fraud targeting senior citizens. The public is invited and refreshments will be served.
- **Thu, May 16: Experimac Workshop** 1865-106 Carl D. Silver Parkway
- **Tues, May 21: Windows 10 Workshop (Ed Alexander)**
- **Thu, May 23: Windows All Workshop (Jim Hopkins)**

APRIL GENERAL MEETING RECAP



Sarah Parry, Executive Director of [Downtown Greens](#) informed the FPCUG about this beautiful, public, greenspace located at the southern entrance to historic downtown Fredericksburg (i.e., at the intersection of Charles and Dixon Streets, just three blocks south of the train station). The garden is open daily to the public from sunrise to sunset. Children are taught about sustainable gardening methods through a weekly Garden Club, and about raising bees with the Urban Bees program.

REMINDER – FPCUG MEMBERSHIP DUES ARE OVERDUE

Annual membership is for the period April 1 through March 31, 2020. If you haven't already done so, please provide Rick Neil a check for \$25 made out to the "FPCUG." Checks can also be mailed to: FPCUG, P.O. Box 276, Fredericksburg, VA 22404.

APCUG VIRTUAL TECHNOLOGY CONFERENCE (VTC)



When: Saturday, May 4, 1:00 pm – 4:00 pm ET / Cost: **FREE !**

Attend using your computer, tablet or phone. You will need the [Zoom app](#).

Sessions are 50 minutes with time for Q&A. Register once via [Eventbrite](#).

Note: You do not need an Eventbrite account to attend the conference.

You will receive an email with directions/links for both conference tracks.

The day of the conference: After connecting via Zoom, sign-in to each presentation you attend via the Chat Box. Use the first and last name you used to register at

Eventbrite. Why? If all of the questions aren't answered during the session, the rest of

the answers will be sent to you. Or, there may be a handout that will be emailed to you.

TRACK 1

1:00 PM - **WordPress Introduction - Creating Websites.** Mark Zinzow, Rochester WordPress Users Meetup

2:00 PM - **Are Your Bits Flipped?** Joe Kissell, Author and Publisher, Take Control Books

3:00 PM - **Windows 7 Sunset.** Greg Skalka, President, Under the Computer Hood User Group

TRACK 2

1:00 PM - **Google Photos: 7 favorite features.** Chris and Jim Guld, Geeks on Tour

2:00 PM - **Youth and Technology.** Bill Crowe, 1st Vice President, Sarasota Technology Users Group

3:00 PM - **What's an App?** Jim Glass, President, Glendora's Computer Club

4:00 PM - **Roundtable Discussion**

A PREVIEW OF THE WINDOWS 10 VERSION 1903 UPDATE

About Windows



Windows 10 version 1903 update will soon be coming

to a computer near you 😊 Based on the insider preview release, contributing writer for [ZDNet](#), Ed Bott, and technology writer for [Pureinfotech](#), Mauro Hukulak, anticipate the following new features:

1. Right-click to remove most desktop icons/folders
2. Windows search has less clutter and moves Cortana to a separate location
3. Establish a Microsoft account based on a phone number – no email address required
4. A new Windows (Light) theme changes the black taskbar to a light shade, lightens background colors, and introduces a new default wallpaper
5. Fonts can be dragged-and-dropped via the Settings > Personalization > Fonts page
6. Set a Default Tab for the Task Manager

7. Synchronize your system clock on the Date & Time page in Settings
8. The “Cloud Clipboard” used to copy text between PCs has been tweaked to make it easier to see the contents of clips that include text
9. A “Tamper Protection” setting has been added to the Security Center that alerts you when a person or program tries to change security settings
10. An automatic rule is added to Focus Assist – run the current app in Full Screen mode. Full screen mode puts up a virtual "Do not disturb" sign to eliminate distractions.
11. Control what's searchable with Search indexing options
12. Set IP address and DNS settings for a wired adapter via Settings > Network & Internet > Ethernet. Manual options are added for IPv4 and IPv6
13. Capture windows rather than a full screen or rectangle with the Snip & Sketch app
14. Fix critical problems on your device automatically with Recommended troubleshooting
15. Adjust active hours based on device activity automatically
16. Windows Home – Pause updates from downloading and installing automatically for up to seven days via Settings > Windows Update
17. Find and insert symbols and kaomoji (face characters) via the emoji panel (Windows key + ;)
18. Customize the pointer with any color and size you feel is appropriate
19. Precisely adjust brightness with the slider added to the Action Center
20. Version 4.8 of the .NET Framework is bundled with this update

[TRAIN YOUR BRAIN, CHANGE YOUR BRAIN](#)

The FPCUG has been interested in neurofeedback research since [July 2005](#). Donna Creasy, CPC, MFT, and Certified Neurofeedback Specialist has presented to the FPCUG on several occasions. The linked article above discusses findings from a study conducted at D’Or Institute for Research and Education (IDOR), published in [Neuroimage](#). Magnetic resonance images of study participants brains showed changes in the white matter responsible for brain communication (i.e., functional connectivity) after as little as one hour of neurofeedback. The goal of the research (i.e., the neurofeedback) was to reinforce brain activity patterns associated with hand movements. The research holds promise for victims of stroke, Parkinson’s disease and depression.

THE WAY WE STORE DATA HAS CHANGED

Writing for [tom'sHARDWARE](#), Nathaniel Mott says that he learned from a [Trendfocus](#) report that hard disk drive sales "...fell nearly 13 percent in the first quarter of 2019."

Mr. Mott and others suggest that the decline can be attributed to a number of factors including: seasonal buying patterns, a growing

Vendor	HDDs in million	Q/Q growth	Y/Y growth	Market share
Seagate	31.40 – 31.80	-14.5% / -13.4%	-14.4% / -13.4%	41.0% – 40.9%
Toshiba	18.30 – 18.70	-13.3% / -11.4%	-11.3% / -9.3%	23.9% – 24.0%
WDC	26.90 – 27.30	-10.8% / -9.5%	-26.1% / -25.0%	35.1% – 35.1%
TOTAL	76.60 – 77.80	-12.9% / -11.6%	-18.3% / -17.0%	100% – 100%

preference for solid state drives (SSDs), and cloud storage. [ZDNet's](#) Robin Harris, Chief Analyst at the storage research and consulting firm TechnoQWAN LLC, recently attended the National Association of Broadcasters show (i.e., NAB '19). The show now encompasses all aspects of audio and video content creation and distribution. Since video production is storage intensive, the NAB has become a "must-see" storage show. Mr. Harris reports that the cloud storage vendors were out in force but the enterprise storage vendors were notably absent. He suspects that "...cloud vendors are sucking up much of the new storage business."

WINDOWS UPDATE MINITOOL

Want to control Windows Update? The Windows Update MiniTool is a free alternative to the standard Windows Update. This tool is available from [MAJOR GEEKS](#), a computer support forum that I visit quite often. It allows you to: search, install, and block Windows updates as you please. The software claims to:

- Check for updates
- Download updates
- Install Updates
- Delete installed updates
- Hide unwanted updates
- Provide direct links to *.cab / *.Exe / *.Psf update files
- View update history
- Configure Automatic Updates
- This tool is like the external powershell module PSWindowsUpdate, but has much more advanced and user-friendly features
- The tool relies and use same Windows Update infrastructure, all downloading is through Windows Update – it's not a downloader

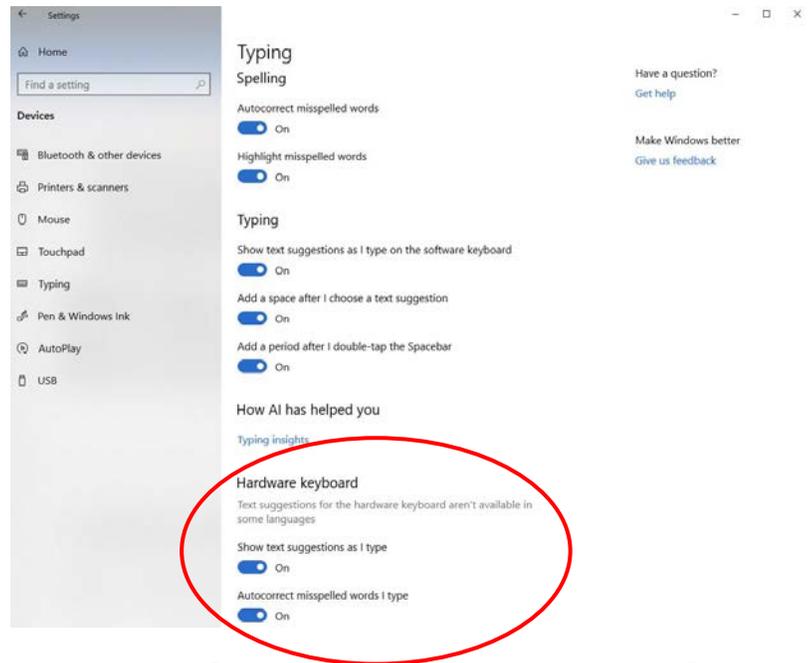
APPLE AND QUALCOM MAKE NICE

On April 16, Apple and Qualcomm agreed to end a long-running legal dispute. Key to this agreement is Apple's promise to use Qualcomm's 5G wireless chips in its iPhones for the next few years. Shortly after announcing the agreement, Intel announced that it was discontinuing development of 5G wireless chips. Qualcomm's competition, China's Huawei and South Korea's Samsung, do not provide chips for Apple iPhones. Writing for

the [Washington Post](#), technology reporter Brian Fung says, “That leaves Apple in a difficult position. Between its deal with Qualcomm and Intel’s exit from 5G chips, Apple is now beholden for the foreseeable future to a single 5G modem supplier.”

PREDICTIVE TEXT

There are many predictive text programs. You probably use one on your smart phone because it is built into the Operating System. The number of predictive text programs available for your desktop or notebook computer is limited. Most of the commercially available programs are aimed at schools and they can be expensive (e.g., [PhraseExpress](#) at \$50 - \$140). A freeware version called [Text Expander](#), however, is available. Text suggestions and autocorrections were added to Windows 10 with the 1809 update.



The feature is available for hardware keyboards as well. Open the Start Menu and select Settings > Devices > Typing. Simply scroll down to Hardware keyboard and turn on Show text suggestions. Writing for [The Guardian](#), Jack Schofield says, “It’s not going to be much use to you if you don’t have a touchscreen to work on, but a large proportion of Windows 10 laptops now have touchscreens.” I find it useful because I often type with one hand and I can click on the suggested text using my mouse with the other. I have found that the text suggestion feature works intermittently with some programs (e.g., MS Word 2016). I am hopeful that this feature will improve with subsequent builds of Windows 10.

PHOTOGRAPHIC HISTORY OF THE FPCUG ...INTERESTED?

Have you ever browsed our website at [FPCUG.org](#) in depth? An amazing history of Workshops, meeting notes, and presentations dates back to the advent of the Graphical User Interface and web browser (i.e., circa 1999!). This history is spread out over an untold number of gigabytes. What’s missing? ...photographs. Since our group has an avid interest in photography, I thought some of you would be willing to share hard copy and digital photos of the FPCUG over time. If I obtain a representative sample of photos spanning the history of our group, I intend to create a “*Photographic History of the FPCUG*” for distribution to our members. If the number of photos is excessive, I will post the group history on our Facebook site 😊 If submitting a few photos (<20 MB), feel free to email them to fotafm@gmail.com: >20 MB should be copied to a CD or DVD. Hard copy or digital photos can be brought to the Firehouse and given to a Board member.

CLUSTERED REGULARLY INTERSPACED SHORT PALINDROMIC REPEATS?

Unless you are a geneticist, you may not have heard about CRISPR. You have likely heard about the Chinese biophysicist He JianKui. Mr. JianKui announced last year that he had created the first gene edited babies with an intent of giving the twin girls immunity to HIV. The announcement resulted in global condemnation and a continuing ethical debate about genetic manipulation of human embryos. The announcement also resulted in Mr. JianKui being named one of the most influential people of 2019 by [Time Magazine](#). Professor Jennifer Doudna, a coinventor of CRISPER-Cas9, authored the article linked above. Professor Doudna says, "...He's fateful decision to ignore the basic medical mantra of "do no harm" and risk the unintended consequences will likely be remembered as one of the most shocking misapplications of any scientific tool in our history." On the other side of this debate is the potential to prevent disease in "defective" embryos. Dr. Paula Amato, who performed similar experimentation to edit human embryos, authored a profile for the Nov/Dec 2018 issue of [MIT Technology Review](#) where she recounts the story of one of her patients who carried the BRCA gene mutation associated with breast and ovarian cancer. The patient visited Dr. Amato for In-vitro fertilization and pre-implantation genetic testing to avoid passing on the defective gene to her children. Dr. Amato's patient, "...was conflicted—if her parents had made a similar choice, she wouldn't be here today. And she was right. They would have selected a different embryo. But what if instead, she (the very same person) could have been born, just without the BRCA mutation? That's what our research promises. That's why we're doing it."

THE APPLE WATCH NAGS YOU TO GET FIT AND LOSE WEIGHT

When you think of step counters and fitness gadgets, do you think of the [Fitbit](#). The product name recognition is likely associated with longevity. Fitbit started in 2007. The Apple Watch debuted in 2014. Cherlynn Low, Staff Writer at [tom's guide](#) provided the list at right in 2015. Number 10 is, of course, Siri. Siri is to Apple what Alexa is to Amazon. Depending on the model and age, an Apple Watch has a myriad of features that may or may not require you to accessorize with an expensive iPhone. The Apple Watch has improved in the past 5-years and it has become especially effective as a fitness and weight loss coach. Writing about the Apple Watch for [Appleinsider](#), Malcolm Owen says, "...its greatest weapons in getting users to move around more are not the monitoring, nor its rings, but the constant nagging and it fostering a compulsion to work out." Of course, the nagging can be tailored to your liking or tolerance level. But it serves a useful purpose for couch potatoes and procrastinators. Apple has created a game out of achieving fitness goals. No matter the level of fitness, a feeling of competition is created between the user and the Watch to achieve fitness goals. Repetitively achieving fitness goals is self-reinforcing. According to Aristotle, "Excellence is not an act, but a habit." If you are interested in becoming fit or losing weight, you might consider the Apple Watch. The other features are simply, "icing on the cake." 😊

Apple Watch: Top 10 Features

- 1) **Apple Pay**. ...
- 2) Hotel or Car Key Replacement. ...
- 3) Novel Digital Crown. ...
- 4) Fitness and Health Tracking. ...
- 5) Full-fledged **Apps**. ...
- 6) Actionable **Notifications** and Glances. ...
- 7) Remote Control Functions. ...
- 9) Digital **Touch Communication**.

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

EVENTS IN COMPUTER HISTORY

(paraphrase and additions to the [Iceni Technology Blog](http://www.iceni.com/technology-blog/) by Iceni Technology Contributor Rebecca Coe and historical data from the websites <http://www.computerhope.com/history/> and <http://www.historyorb.com/>)

-- May 1 --



The integrated circuit manufacturer AMD was founded by Jerry Sanders and seven former employees of Fairchild Semiconductor (1969).

-- May 1 --



At approximately 4:00am, May 1, 1964, John Kemeny and Thomas Kurtz ran the first program written in BASIC (Beginner's All-purpose Symbolic Instruction Code), launching the Dartmouth Timesharing System (DTSS) at Dartmouth College in Hanover, New Hampshire on a General Electric 225 mainframe computer.

-- May 2 --

Microsoft Introduced the 2-Button Mouse on May 2, 1983.



-- May 2 --



Microsoft released the Microsoft Word word processor for personal computers (1983). Price: \$229

-- May 2 --

Perhaps the fastest moving and most widespread computer virus, "The Love Letter" infected 2.5 to 3 million of the approximately 55 million computers it encountered (2000). The virus was spread worldwide via electronic mail. Lost income from system downtime was estimated to have cost \$8.7 billion.



-- May 3 --



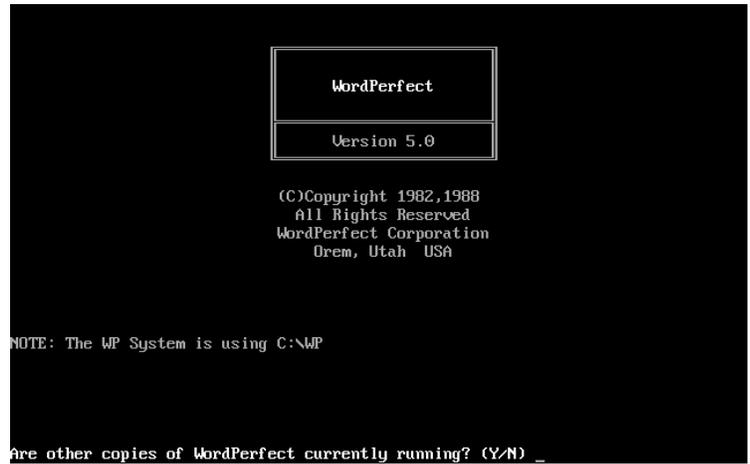
Garry Kasparov beat IBM's Deep Blue in the first of six matches in what many consider the ultimate test of artificial intelligence. Kasparov eventually lost the match along with the \$1.1 million purse to the IBM supercomputer, which he had previously claimed could never surpass a human's ability to play chess. The RS/6000 SP parallel processing computer could analyze 200 million chess positions per second.

-- May 5 --

English electrical engineer G. W. A. Dummer, predicted the fabrication of all electronic components of a circuit or system in a single block of semiconductor material (May 5, 1952). Several special-function devices were developed at Bell Labs and RCA before Jack Kilby at TI demonstrated a general-purpose concept "integrated circuit" in 1958.

-- May 5 --

WordPerfect shipped WordPerfect 5.0 for the PC (1988). Price: \$500



-- May 6 --



The EDSAC (Electronic Delay Storage Automatic Calculator) ran and completed its first calculation at the University of Cambridge Mathematical Laboratory, England on May 6, 1949. The EDSAC calculated a table of squares and a list of prime numbers.

-- May 7 --

Japanese multinational conglomerate Sony was founded by Akio Morita and Masaru Ibuka, in bomb damaged Tokyo (1946).



-- May 8 --



The New York Times announced on May 8, 1995 that it would join eight other newspaper publishers in the New Century Network, with the goal of linking local online news services into a national network on the World Wide Web. The popularity of online news has grown along with the Web itself.

-- May 10 --

Gordon Teal of Texas Instruments, Inc. refined methods to cheaply produce a silicon-based junction transistor that would replace vacuum tubes in computers and other electronic devices.



-- May 11 --

Jay Forrester patented computer core memory (1951).

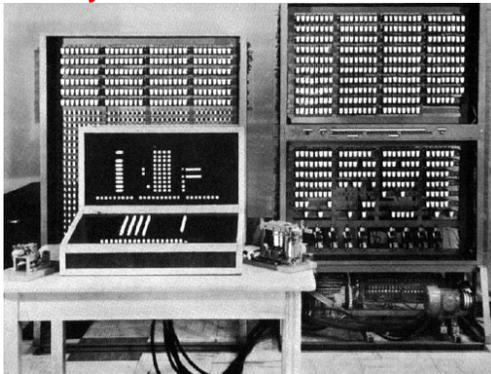


-- May 11 --

A	B	C	D
ITEM	NO.	UNIT	COST
MUCK RAKE	43	12.95	556.85
BUBBLES CUT	15	6.75	101.25
TONER	250	4.95	1247.50
EYE SNUFF	2	4.95	9.90
SUBTOTAL			13155.50
9.75% TAX			1282.66
TOTAL			14438.16

"VisiCalc" was demonstrated to the public (1979) by Harvard MBA candidate Daniel Bricklin and programmer Robert Frankston. The VisiCalc program transformed the Apple II into a business machine. VisiCalc (for visible calculator) automated the recalculation of spreadsheets. More than 100,000 copies were sold in the first year.

-- May 12 --



Konrad Zuse completed his Z3 computer on May 12, 1941. The Z3 was the first program-controlled electromechanical digital computer. It followed in the footsteps of the Z1 - the world's first binary digital computer - which Zuse developed in 1938. Much of Zuse's work was destroyed in World War II, although the Z4, his most sophisticated creation, survives.

-- May 13 --

Len Shustek and Harry Saal founded Network General Corporation on May 13, 1986. Network General Corp. was a major provider of management solutions for computer networks until its merger with McAfee Associates in 1997 to form Network Associates.



Headquartered in Menlo Park, California, the company's first product was "The Sniffer," a diagnostic tool for analyzing communications protocol problems in Local Area Networks.

-- May 14 --



Texas Instruments announced an advanced microprocessor that would compete with Intel's 486 chip (1992). Also called the 486, the chip was designed by the Texas company Cyrix Corp. Texas Instruments' move was not successful in weakening Intel's dominance of the microprocessor industry.

-- May 14 --

The second ever web browser, LMB (Line Mode Browser), was released (1991). Developed by W3C/CERN, the LMB worked with several different operating systems and computer terminals. Also known as just the www browser, the LMB was limited to rendering text and numbers and had problems with elements such as collapsing whitespace, frames and tables.



-- May 17 --



Greek archaeologist Valerios Stais discovered the Antikythera mechanism (replica and [link](#) right), an ancient mechanical analog computer (1902).

-- May 18 --

The US Department of Justice and twenty US states filed suit against Microsoft Corp. (1998). Bundling Internet Explorer with the operating systems it sold gave Microsoft an unfair advantage over its competitors (e.g., Netscape Navigator and Opera).

-- May 21 --

IBM announced its first electronic computer, the Model 701 (1952). The announcement signaled that IBM was transitioning from a punch card supply and equipment company and entering the computer business.



-- May 22 --



The popular arcade game, Pac-Man, was released in Japan. As long as one life remained, Pac-Man could be played through level 255. The game has a bug with the subroutine that draws the fruit on the screen and corrupts at level 256. The enemies in Pac-Man actually have characters and nicknames:

- o Red enemy – Shadow/"Blinky"
- o Pink enemy – Speedy/"Pinky"
- o Blue enemy – Bashful/"Inky"
- o Orange enemy – Pokey/"Clyde"

-- May 22 --

The presentation program Microsoft PowerPoint was officially launched as part of the Microsoft Office suite on May 22, 1990.



-- May 22 --

Windows[™] Version 3.0 Microsoft released the first successful version of Windows, Windows 3.0 (1990). The OS couldn't run in full color on 8086 machines as the EGA and VGA color drivers required a 286 card, something the 8086s didn't have. Windows 3.0 had 3 different memory modes: Real Mode, Standard Mode and 386 Enhanced Mode.

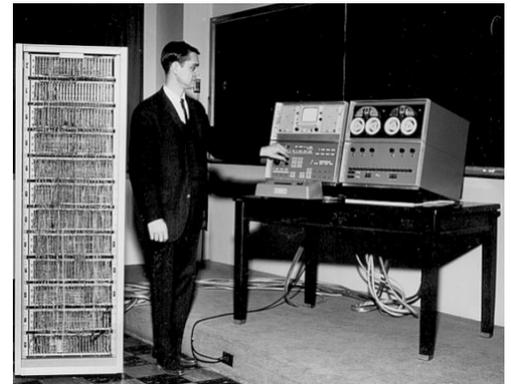
-- May 22 --



Robert Metcalfe, a researcher at the Xerox Palo Alto, CA Research Center, proposed an "Ethernet," a means of connecting computers together (1973). Metcalfe described the document, typed out on an IBM Selectric typewriter, as follows: "Ether Acquisition" ... heavy with handwritten annotations -- one of which was "ETHER!" -- and with hand-drawn diagrams -- one of which showed `boosters' interconnecting branched cable, telephone, and radio ethers in what we now call an internet.... If Ethernet was invented in any one memo, by any one person, or on any one day, this was it."

-- May 24 --

Wes Clark began work on a biomedical research Laboratory Instrument Computer (LINC), at MIT's Lincoln Laboratory (1961). His goal was to create a computer that was: easy to program/maintain, could be communicated with while it operated, and could process biotechnical signals directly. Building on previous experience (e.g., the Whirlwind, TX-0, etc.), Clark created one of the earliest examples of a "user friendly" machine -- setting the standard for personal computer design.



-- May 25-27 --



The first ever World Wide Web Conference (WWW1) was held in Geneva, Switzerland (1994). 380 participants discussed standardization and the impact of the internet on present day technologies, modern society and culture.

-- May 27 --

Wang Laboratories introduced the Wang Professional Computer, featuring Intel 16-bit processors (1982). Prices: \$2700-9000.



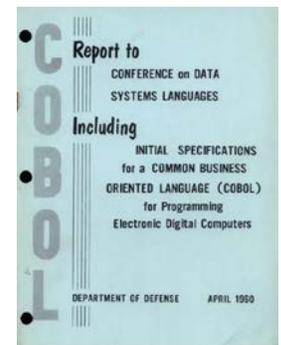
-- May 27 --



Microsoft released Windows 2.1x, the first version that required a hard disk drive (1988). Windows 2.1x was released less than a year after Windows 2.0 to take advantage of new features of both Intel 80286 and 80386 processors). The two versions were initially marketed as Windows/286 and Windows/386. Windows/386 protected mode kernel provided system access to enhanced features (e.g., virtual memory and paging).

-- May 28 --

A committee formed to develop COBOL, or the Common Business Oriented Language (1959). The group of researchers, drawn from several computer manufacturers and the Pentagon, designed a program for business use to be readable and compatible with as many machines as possible. Programmer Howard Bromberg feared the language had no future. However, COBOL is still in use in business today.



-- May 29 --



The Eastman Kodak Co. introduced an electronic publishing system called Ektaprint Electronic Publishing System on May 29, 1985. Ektaprint was designed to edit, print, and update text and graphics for publications. The \$50,000 system included parts designed by Sun Microsystems Inc., Canon Inc., and Interleaf Inc.

-- May 30 --

AT&T held a meeting to announce a video phone system that allowed personal computers to make and receive video phone calls over standard telephone lines (1996). In years of efforts by AT&T and others to find success in the technology, the AT&T system utilized Intel's Pentium processors and compression software to allow both video and audio information to share a phone line rather than a high-capacity ISDN, T-1, or T-3 line.



Who's Who in the FPCUG

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