Nov. 15th

Mostek MK6010L

mid Nov. 1970

In 1970, Busicom, a Japanese adding machine manufacturer, approached Intel and Mostek with a proposal to create a new calculator line.

Intel came up with an architecture centered on what was to become the 4004 microprocessor [next entry].

Mostek's response, around the middle of Nov. 1970, was the calculator-on-a-chip, the MK6010L. The 4.6 mm-square chip contained the logic for a four function 12-digit calculator.

Busicom went with the MK6010L, creating the Busicom LE-120A "HANDY-LE" calculator, which went on sale in Feb. 1971. It became the world's first pocket calculator (measuring 123mm x 64mm x 22mm), and the first with an LED display.

Intel 4004

Nov. 15, 1971

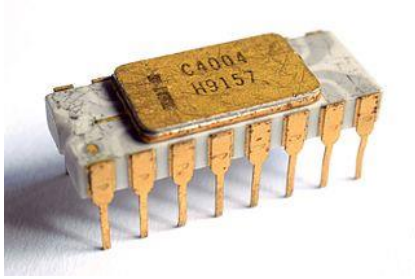
Intel [July 18] announced its 4004 processor through an advert in *Electronic News*, making it the first commercially available microprocessor.

The 4-bit 4004 held 2300 transistors, was the size of a fingernail, delivered the same computing power as the ENIAC [Feb 15], and cost around $200.

The 4004 was actually one of four chips constituting the MCS-4 set, which includes the 4001 ROM, 4002 RAM, and 4003 Shift Register.

Intel also marketed a SIM4-01 [Dec 00] printed circuit board to help with 4004 program development. Some people have called this the first microprocessor-based computer, but Intel preferred to call it a simulator at the time.

The development of the 4004 was triggered by a request from Busicom to help it design integrated circuits for its new line of programmable calculators [prev entry]. Four engineers: Federico Faggin [Dec 1], Ted Hoff [Oct 28], Stan Mazor [Oct 22], and Masatoshi Shima [Aug 22], designed and developed the chip. Faggin signed the corner of the die with his initials, "F.F." The manuals were written by Adam Osborne [March 6].



An Intel C4004. Photo by Thomas Nguyen. CC BY-SA 4.0.

In 2006, Intel commemorated the 4004's thirty-fifth anniversary by releasing the chip's schematics and user manual.

Three other claimants for first microprocessor are: Bob Booher's D200 [Dec 9], Ray Holt's MP944 [Dec 28] for the F-14 Tomcat fighter [Dec 21], and Lee Boysel's AL1 [Dec 31]. However, all of these required multiple chips to implement a fully functional CPU.

TV's Selfish Gene

Nov. 15, 1976

BBC TV aired a programme about Richard Dawkins' book, "The Selfish Gene" in which he presented a gene-centered view of evolution as opposed to one focused on the organism or group.

In computing, the book is perhaps best known for its introduction of the word "meme", a shortening of "mimeme", standing for the spread of an idea explained in terms of evolutionary principles. A key aspect of a meme is its capability to evolve and change, as in the case of "Crasher Squirrel", originally a selfie taken by Melissa and Jackson Brandts while visiting Canada's Lake Minnewanka in May 2009. A squirrel suddenly popped up in front of the camera, and so joined the Brandts' in the image. However, the squirrel 'meme' has since appeared in a variety of other pictures, including with Vladimir Putin, and on the Moon.

Another Dawkin's book, "The Blind Watchmaker", introduced the idea of a "biomorph" [Dec 00] to computing.

Although "meme" was coined by Dawkins, the concept of an Internet meme was first proposed by Mike Godwin [Oct 26] in the June 1993 issue of *Wired*. For examples of Internet memes, see [Jan 5], [April 21], [Aug 00], [May 31], [July 27].

Computer Shopper

Nov. 15, 1979

The US version of *Computer Shopper* magazine began as a tabloid-size publication printed on yellow newsprint that primarily contained ads for kits, parts, and software. It started focusing on the IBM PC compatible market in the 1980's, and also began running editorial content. Stan Veit [Dec 25] was the first editor-in-chief, from 1983 to 1989.

In Aug. 1984, it had a make-over to look more like a traditional magazine, albeit one that was 350 pages long. However, this was quite svelte; editions regularly topped the 800-page mark during the early 1990's.

Some have argued (including Veit) that the tremendous growth of the direct sales hardware market was in part due to the magazine.

The Lehigh Virus

Nov. 15, 1987

The first virus to directly damage a computer's data was discovered at Lehigh University.

"The Lehigh Virus" affected the COMMAND.COM program in MS-DOS [Aug 12] (its command-line interpreter). When COMMAND.COM had grown to contain four copies of the virus, it would start to overwrite the OSes boot and file system.

The virus was easily stopped by setting COMMAND.COM to be read-only, and so the virus never spread beyond the university.

Good Times Virus

Nov. 15, 1994

Warnings about a virus called "Good Times" began circulating around the Internet. It was supposedly transmitted via an email bearing the subject line "Good Times", and the warnings recommended deleting any such email unread. In fact, the virus described didn't exist, but the warnings were, in effect, the virus.

In 1997 the "Cult of the Dead Cow" [Jan 27] hacker group announced that they had been responsible for the hoax as an exercise to "prove the gullibility of self-proclaimed 'experts' on the Internet."

ICQ

Nov. 15, 1996

The ICQ instant messaging client was released by Mirabilis; the name derived from the phrase "I Seek You".

Real-time chat wasn't new (IRC [Aug 16] and the first instant messaging system appeared on MIT's CTSS [May 3] in 1961), but ICQ's use of a centralized service with individual user accounts set the blueprint for later services.

At its peak in around 2001, ICQ had more than 100 million registered accounts. Its main competitors during that time were AIM [Feb 24], Yahoo! [March 2] Messenger and MSN Messenger [Aug 24].

Xbox

Nov. 15, 2001

Microsoft entered the console market with the release of the Xbox, the first American-made console in over a decade. It pitted Microsoft against Sony's PS2 [March 4] and Nintendo's GameCube [Sept 14].

Bill Gates [Oct 28] signed the first Xbox which was sold at 12:01am in NYC's Time Square to Edward Glucksman.

The Xbox (originally called the DirectX [Sept 30] Box) used standard PC parts, including a Intel Pentium III, an 8 GB hard drive (a first for consoles), a NVidia NV2A graphics processor, 64 MB of RAM, and an Ethernet port. The GPU gave it high-performance graphics, and the Pentium made it easier to port PC titles to the device.

An Xbox console. Photo by Evan-Amos.

The Xbox was seen as a major gamble for Microsoft, who were primarily a software company, but the system sold well thanks to the good selection of games, including "Halo: Combat Evolved" [next entry]. Another factor was the launch of Xbox Live in Nov. 2002, an online service that supported competitive gameplay and chat. Gamers only had to pay one subscription fee to play all the Xbox online games.

The second generation, Xbox 360, was released on [Nov 22], 2005.

Halo

Nov. 15, 2001

Microsoft Game Studios released the first-person shooter "Halo: Combat Evolved" for the Xbox [prev entry]. More than five million copies had been sold by Nov. 2005, and it has been called the Xbox's killer app [Sept 8].

The game introduced gameplay elements that have become almost universal across the action genre, such as a recharging shield meter, a two-weapon carry limit, grenade throwing, drivable vehicles, and a multiplayer mode.

At first, Halo wasn't intended to be the Xbox's flagship game, but Microsoft VP of game publishing Ed Fries saw its potential, and promoted it. It probably helped that the game's green color scheme matched the console's.

The release date of Halo 2 in May 2017 was delayed because Microsoft discovered that it featured partial nudity. ESRB [Sept 16] changed the game's rating, and all the boxed copies had to be relabeled. Although Microsoft admitted publically that Halo 2 contained some risqué content, it wouldn't be any more precise. It was left to intrepid game blogging websites to reveal the horrible truth: when a particular error occurred during the game, a photograph of someone's bare bum was displayed.

Kindle Fire

Nov. 15, 2011

The Amazon [July 16] Kindle Fire 7-inch tablet was an unusual hybrid in that it only ran some Android [Nov 5] apps (based on a customized version of Android 2.3.3), but offered free online storage at Amazon's data centers [Aug 25], and was less than half the price of the least-expensive iPad [April 3] .

Unlike the Kindle e-reader [Nov 19], the Fire employed a multi-touch color LCD screen, and supported a range of media through the Amazon Appstore.

The Fire subsequently went through several versions, losing the “Kindle” prefix in its fourth generation. The aim seems to be to sell digital content rather than make money off the hardware.

PlayStation 4 Released

Nov. 15, 2013

Sony’s PlayStation 4 (PS4) moved away from the complex Cell architecture of its predecessor [Nov 11], using AMD’s x86-64 [May 1] instead, as both a CPU and GPU. One motivation was to make it easier and less expensive for game studios to develop software for the device.

The PS4 placed an increased emphasis on integration with other devices and services, including with the "PlayStation Now" gaming service.

Its main competitors were Nintendo’s Wii U [Nov 18] and Switch, and Microsoft’s Xbox One [Nov 22].

The PlayStation 5 was released in Japan on Nov. 12, 2020.
