March 31st

Harvard and IBM

March 31, 1939

Prev: [Jan 17] Next: [April 17]

Harvard and IBM signed an agreement to build Howard Aiken's [March 8] Automatic Sequence Controlled Calculator (ASCC) [April 17], later known as the Harvard Mark I [Aug 7].

Clair D. Lake was the project's chief engineer with assistance from Benjamin M. Durfee and Frank E. Hamilton. Aiken only had a small role in the machine's construction. The other engineers included the remarkable inventor James W. Bryce [Sept 5]. His positive opinion of Aiken's proposal was crucial to IBM President Thomas J. Watson Sr.'s [Feb 17] decision to support the project in the first place.

The work was delayed by WWII, but was completed at IBM's North Street Lab in Endicott, NY, and shipped to Harvard in Feb. 1944.

IBM wasn't Aiken's first choice to build his design; back in 1937 he'd approached the Monroe Calculating Machine Company [April 22], but they'd turned him down.

Edwin Earl Catmull

Born: March 31, 1945; Parkersburg, West Virginia

Catmull's pioneering work in computer graphics includes Z-buffering, texture mapping, spatial anti-aliasing, the Catmull-Rom spline, the Catmull-Clark subdivision surface [March 23], and image compositing.
In the mid-1970's he was the director of the influential Computer Graphics Lab at the New York Institute of Technology [Aug 3]), and he and Alvy Ray Smith [Sept 8] co-founded the Graphics division at Lucasfilm in 1979 [Sept 12]. It was purchased by Steve Jobs [Feb 24] in 1986 and turned into Pixar [Feb 3].

At Lucasfilm, Rob Cook, Loren Carpenter, and Catmull worked on REYES ("renders everything you ever saw"), which became Renderman, the first software product to be awarded an Oscar in 2001.

Ed Catmull (1989). Photo by Jeff Heusser. CC BY 2.0.

A digitized version of Catmull's left hand appeared in his 1972 experimental short, "A Computer Animated Hand", which he made with his grad school colleague Fred Park. The clip later appeared in the film "Futureworld" [July 28], and was added to the National Film Registry in Dec. 2011.

A quote: "If you give a good idea to a mediocre group, they'll screw it up. If you give a mediocre idea to a good group, they'll fix it."

Eckert and Mauchly Resign

March 31, 1946

Prev: [Feb 15] Next: [Dec 8]

J. Presper Eckert [April 9] and John Mauchly's [Aug 30] agreement with the University of Pennsylvania stipulated that they kept the patent rights to the ENIAC, but the university could license them to government and non-profit organizations. However, the university was pushing to change the agreement so it would also have commercial rights. Mauchly and Eckert weren't about to oblige, and resigned over the issue, effective from this day.

However, they were still under contract to present a series of talks at the Moore School [July 8] which kept them busy until Sept. They also signed a contract to build the EDVAC [April 12] since they'd already completed a detailed design for the machine. All this meant that they actually left the Moore school on Nov 22.

In the meantime, they drafted a business prospectus, "Outline of Plans for Development of Electronic Computers," (dated March 13), now considered a founding document of the computing industry.

In April 1946 they were awarded a crucial $300,000 contract from the US Census Bureau, which allowed them to found Electronic Controls Corporation [Dec 8].

First UNIVAC I

March 31, 1951

Prev: [Dec 8]

The sale of the first UNIVAC I (UNIVersal Automatic Computer) to the US Census Bureau was marked with a formal ceremony.

The UNIVAC I was the first general all-purpose business computer, developed by J. Presper Eckert [April 9] and John Mauchly [Aug 30] at their Eckert-Mauchly Computer Corporation (EMCC [Dec 8]), and it was set the task of tabulating the 1950 census.

It was a massive machine – eight feet high, seven and a half feet wide, and fourteen and a half feet long, weighing 14 tons, and using 5,200 vacuum tubes.

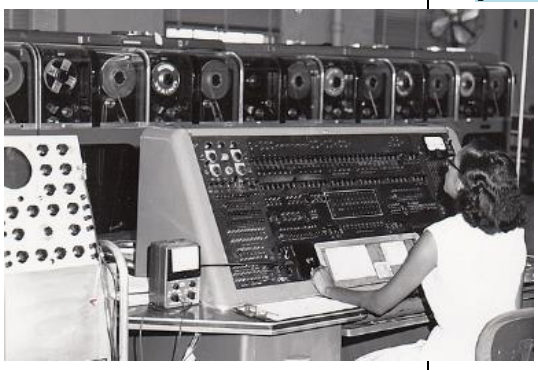
It was capable of completing 1,900 operations per second, mercury delay lines offered 1,000 words of storage, and magnetic tape units could store up to a million characters. The

UNIVAC UNISERVO tape drive was the first made for a commercial computer. It also employed a typewriter keyboard, an innovation suggested by Grace Hopper [Dec 9] who had joined EMCC in 1949.

The UNIVAC could process operations at around the same speed as the ENIAC [Feb 15], but its tape system and stored-program architecture made it a much faster machine overall. Also, the Census Bureau later said, ‘‘We never encountered an incorrect solution to a problem which we were sure resulted from an internal computer error.’’

However, the bureau didn’t receive the machine until Dec. 1952 because, as the only fully working UNIVAC, it was needed for demos. EMCC was also worried about dismantling, transporting, and reassembling it. In fact, the first UNIVAC to leave EMCC was the second one, installed at the Pentagon in June 1952.

The census bureau paid $225,000 for its UNIVAC, but the development costs were much larger, perhaps as much as $900,000. Also, the research phase, that had meant to take six months, lasted a year.



A UNIVAC I at the US Census Bureau (1960). US Census Bureau.

Despite the delays, once the machine went into service, favorable reviews persuaded other government agencies and companies to purchase UNIVACs. But the orders came too late; liquidity problems forced Eckert and Mauchly to sell EMCC to Remington Rand [Jan 25] on Feb. 15, 1950. Remington Rand eventually sold 46 UNIVAC I's, for more than $1 million a piece.

Kent Beck

Born: March 31, 1961; USA

Design patterns [Oct 21] first attracted wider attention in 1987 when Beck and Ward Cunningham [May 26] gave a talk about applying patterns to programming at the OOPSLA conference.

In 1996, Beck released his "extreme programming" software development methodology based around a collaborative and iterative design process with frequent releases. Extreme methods are closely associated with Test Driven Development (TDD), which relies on the repetition of a very short development cycle. Something very similar was proposed by Daniel McCracken [July 23] in his book, “Digital Computer Programming,” in 1957.

Beck was one of the 17 signatories of the "Manifesto for Agile Software Development" on [Feb 11] 2001.

Two quotes: “I’m not a great programmer; I’m just a good programmer with great habits.”

“Optimism is an occupational hazard of programming: testing is the treatment.”

OS/360 Released

March 31, 1966

OS/360 was a batch processing, multiprogramming OS developed by IBM for their System/360 family of mainframes [April 7]. It supported a wide array of machines, and even today most corporate and government computing on mainframes uses software descended from OS/360.

It was a very ambitious project which was very nearly a disaster, as recounted in “The Mythical Man-Month” (1975) by Fred Brooks [April 19]. One problem was what Brooks called the “second-system effect” – the tendency of engineers to abandon self-discipline the second time around. The OS/360 was the second system for most of its designers, and became extremely bloated.

The main reason for OS/360 not crashing and burning was Watts S. Humphrey who took over as IBM’s director of programming in Jan. 1966. Humphrey announced a series of staged releases for OS/360 spread over two years. The company met those deadlines one by one, but at a cost of roughly $500 million instead of the predicted $125 million. Humphrey is sometimes called the “father of software quality.”

Also, variants of OS/360 were released which better suited the limited memory in the smaller System/360 models. They were also employed as stop-gaps while problems with the full OS were worked out.

Another useful decision was to include “emulator” technology that let customers run legacy software that had been developed for the older IBM 7000 [April 26] and 1400. Indeed, the word “emulator” was coined at around this time by the IBM engineers, Larry Moss and Stuart Tucker.

QNX Founded

March 31, 1980

QNX Software Systems was founded by Dan Dodge and Gordon Bell after they had taken a course on real-time OSes at the University of Waterloo [March 7] in which they had constructed a basic real-time microkernel. Both were convinced that there was a commercial need for such a system.

The company started life as Quantum Software Systems, and released QUNIX in 1982 for the Intel 8088 [July 1]. In 1984, QUNIX became QNX in an effort to avoid trademark infringement problems.

The QNX kernel contained only CPU scheduling, interprocess communication, interrupt redirection, and timers. Everything else ran as a user process, including process creation and memory management.

One of the first widespread uses of QNX was in the non-embedded world when it was selected as the OS for the Ontario education system's Unisys ICON [Nov 11]. Indeed, its 44 KB kernel was too large to fit on the one-chip computers of the era.

The ICON (nicknamed the *bionic beaver*) was a networked PC based on the Intel 80186 and packaged as an all-in-one machine similar to the Commodore PET [April 15]. The standard version came with no local storage; when you booted the device, it downloaded QNX from a file server.

By the time the ICON got to market in 1984, there were several IBM-compatibles with more RAM, a more powerful 80286 [Feb 1], and local storage, for the same cost. Moreover, those systems could run MS-DOS [Aug 12] and had a massive library of applications as a result. All of this meant that the ICON was widely seen as a waste of public money.

In 2002, Dodge and Bell were acclaimed as "Heroes of Manufacturing" by *Fortune* magazine.

Spam

March 31, 1993

Richard Depew was working on adding retro-moderation to USENET posts [Jan 29] when his Automated Retroactive Minimal Moderation (ARMM) software developed a bug. By accident, two hundred copies of the same message were sent to the news.admin.policy newsgroup.

This incident was later described by Joel Furr, one of the newsgroup users, as "spamming". It was the first use of the term on USENET, although Furr later said that he had borrowed it from MUD [April 6] games where it was used as a way to fill a rival's email account with junk. In fact the term probably migrated to MUDs from chat systems. Rich Frueh believes the term originated on BITNET's [May 5] Relay Chat.

In any case, the use of the word "SPAM" is almost certainly due to its appearance on the TV show, "Monty Python's Flying Circus" [Oct 5].

SPAM, with 25% less sodium. Photo by Bodo Akdeniz (cypher789). CC BY-SA 3.0.

Today's mistake by Richard Depew wasn't the first "spam" USENET post, which is generally considered to be Dave Rhodes' "MAKE MONEY FAST" chain letter [Nov 13]. A possible alternative is Rob Noha's request for money sent out on [May 24] 1988.

The first "spam" email (as opposed to news post) was probably due to Gary Thuerk, a DEC marketer, which he posted on [May 3] 1978. An alternative might be the "PEACE IS THE WAY" message sent by CTSS MAIL [Dec 00] in 1971.

The first use of spam as a deliberate business practice occurred on [April 12] 1994.

The first can of 'real' SPAM (the luncheon meat) was produced by Hormel Foods on July 5, 1937. SPAM was derived from "SPiced hAM" (or perhaps "Something Posing As Meat").

Hormel was the winner of the 1992 Ig Nobel prize [Oct 3] for Nutrition, praised as "the utilizers of SPAM, courageous consumers of canned comestibles, for 54 years of undiscriminating digestion."

For even more spam, see [Jan 24], [Dec 16].

StarCraft Released

March 31, 1998

StarCraft is a sci-fi real-time military strategy game developed by Blizzard Entertainment. It's success spawned a franchise, eight novelizations, a board game, and numerous collectibles.

However, when the game debuted at the 1996 Electronic Entertainment Expo (E3 [May 11]), it was compared rather unfavorably to Blizzard's earlier Warcraft II [Nov 23]. One typical reaction was, 'Oh, that's like orcs in space.' As a result, the project was entirely overhauled and showcased again in early 1997, receiving a far more positive response.

The game revolves around three species fighting for dominance in a distant part of the Milky Way: the Terrans (humans); the Zerg (insectoid aliens); and the Protoss (humanoids with advanced technology and psionic abilities). The setting and storyline were created by Chris Metzen and James Phinney.

StarCraft became the best-selling PC game of 1998, selling over 1.5 million copies. By May 2007, in excess of 9.5 million copies had shipped, with 4.5 million of those to South Korea. Indeed, professional StarCraft gamers in South Korea became media celebrities, and games used to be broadcast on three TV channels dedicated to the gaming scene.

StarCraft also became part of the US Air Force's Air and Space Basic Course, where it was utilized to teach new officers about crisis planning and teamwork under stress. And how to kill the Zerg.

The Matrix is Released

March 31, 1999

"The Matrix" follows a bored, cubicle-working programmer named Neo (Keanu Reeves) who discovers reality is a complex computer simulation, run by intelligent machines who are using people as an energy source. (The original screenplay had humans employed as computing processors, but this was felt to be too hard to understand by the directors (The Wachowski Brothers)).

Neo joins forces with Morpheus and his gallant freedom fighters to battle the machines' domination, and becomes "The One". The company that Neo works for (is enslaved to) in the Matrix is called Metacortex, not Microsoft.

This was not Keanu Reeves' first dalliance with cyberspace [Sept 3]; that was the movie, "Johnny Mnemonic" ([May 26] 1995), based on a short story by William Gibson. Coincidentally, the film's use of the "Matrix" term is adopted from Gibson's "Neuromancer" (1984), although L. P. Davies had used the phrase fifteen years earlier in a similar way in his 1969 novel "The White Room".

The film's central idea is also reminiscent of the "Matrix" device in the 1976 "Doctor Who" [Nov 23] serial, "The Deadly Assassin". That story was by one of the great "Doctor Who" writers, Robert Holmes, who also wrote "The Talons of Weng-Chiang," among many others.

World Backup Day

March 31

In 2011, Ismail Jadun, a biology student at Youngstown State University began promoting today as "World Backup Day". Why today? Because tomorrow is [April 1], a day much favored by virus hackers.

"World Backup Month" had already been suggested back in August 2005 by Maxtor, a hard disk drive company (later acquired by Seagate [Nov 1]).