Robert W. Mallary
Born: Dec. 2, 1917;

Toledo, Ohio
Died: Feb. 10, 1997

Mallary was a sculptor, and an early proponent of using computers for art.

In particular, he realized that a 3D shape could be viewed as a series of sliced, stacked 2D shapes. In 1968 he had Robert Weiss implemented TRAN2 in FORTRAN IV on an IBM 1130 [Feb 11]. Mallary used it to design a sculpture as cross sections, which he then traced out onto marble slabs. His Quad II and Quad III sculptures, designed with TRAN2, were exhibited at the "Cybernetic Serendipity" exhibition in London [Aug 1].

In 1974, Mallary developed SHAPE3/D for reorganizing 3D solids into different configurations. Thirty parameters affected attributes including size, spacing, height, color, and the ratio of empty-to-filled space, while a random number subroutine generated what Mallary called 'variety-within-specified-limits' .

NORC
Dec. 2, 1954

IBM's Naval Ordnance Research Calculator (NORC) was presented to the Naval Surface Weapons Center in Dahlgren, Virginia, making it the world's most powerful computer until around 1963. Indeed, the NORC's multiplication unit remains the fastest ever built with vacuum tube technology.

It was inaugurated with a keynote speech from John von Neumann [Dec 28] along with a demonstration of its abilities by calculating π [March 14] to 3,089 digits (a new record) in just 13 minutes.

The machine was constructed at IBM's Watson Scientific Computing Lab by a team led by Wallace Eckert [June 19], and its design influenced the IBM 701 [April 7] and other machines in the IBM 700 series.

There was a considerable political ruckus between various government and military organizations over who would get the computer. For example, Edward Teller [March 00] argued that the Lawrence Livermore National Lab's nuclear calculations were much more important than the navy's ballistic sums.

In 1956, astronomer Paul Herget, Director of the Cincinnati Observatory, named an asteroid after the NORC. (It orbits the Sun once every 5.6 years out between Mars and Jupiter.) Herget used the (earth-based) NORC to compute the orbits of celestial bodies.

Anders Hejlsberg
Born: Dec. 2, 1960;

Copenhagen, Denmark

In 1983 Hejlsberg was the author of Borland's enormously popular Turbo Pascal compiler [Nov 20], inspired by the "Tiny Pascal" compiler described in Niklaus Wirth's [Feb 15] 1976 classic textbook "Algorithms + Data Structures = Programs".

Anders Hejlsberg (2008). Photo by DBegley. CC BY 2.0.

Hejlsberg's first version of his compiler, for the Nascom-2 microcomputer, consisted of just 12 KB of machine code, including an on-screen editor and a runtime package. The final Turbo Pascal version was a 'huge' 32 KB.

In 1995 Hejlsberg was the chief architect of Borland's Delphi compiler and IDE [Feb 14], which utilized a variant of Pascal with object oriented features,. It was praised for its excellent code editor, integrated debugger, source code control, and support for third-party plugins. The compiler was also able to generate native code for several platforms.

In 1996, nefarious Microsoft stepped from the shadows, offering him a signing bonus of $500,000 and stock options to join their ~~cabal~~ company, which they doubled to a cool $1,000,000 after Borland made a counter-offer.

At Microsoft, Hejlsberg developed the J++ language [Oct 1] and the Windows Foundation Classes. In 2000, he became the lead architect of C# [July 15], part of Microsoft's .NET initiative [Feb 13].

In 2012 Hejlsberg announced TypeScript: a superset of JavaScript [July 4] that adds optional static typing. Two other languages that try to make JavaScript somewhat more respectable are Google's Dart [Oct 10] and Jeremy Ashkenas' CoffeeScript [Dec 24]).

TMS 1000
Dec. 2, 1974

TI released the first 4-bit microcontroller, the TMS 1000, designed by Gary Boone and Michael J. Cochran, and intended for embedded systems. It combined a 4-bit CPU, ROM, RAM, and I/O lines, making it a complete "computer on a chip".

The 1000 was manufactured in high volumes, and so could cost as little as $2. By 1979, about 26 million were being sold every year, and perhaps over 100

million were made during its lifetime.

The 1000 design built upon Boone and Cochran's experience with the TMS 0100 (a chip for a 4-function calculator) and Boone's 8-bit microprocessor prototype, the TMX 1795 [Aug 31]. They filed a patent for the 1000 design on Feb. 24, 1977 with today as the priority date.

QuickTime
Dec. 2, 1991

Apple released the first version of QuickTime, its multimedia framework for the System 6 OS [May 31]. It could handle various forms of digital video, pictures, sound and other time-related data. On a then-current Mac IIci [March 19], it could play a small-sized movie (160-by-120 pixels) at a very reasonable 10 frames per second.

Its lead developer, Bruce Leak, first demoed the software in May, at the Worldwide Developers Conference, where he used it to play Apple's famous 1984 ad [Jan 22].

QuickTime was preceded by Steve Perlman's QuickScan for Apple in the 1980's, but it required its own graphics chip, and so never became a product

As of Mac OS X Lion [March 24], the media framework underpinning QuickTime, QTKit, has been deprecated in favor of AV Foundation, a graphics library with a much less cool name.