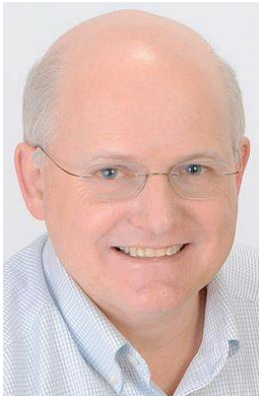
Nov. 10th

Charles Eric Leiserson

Born: Nov. 10, 1953;

Oslo, Norway

Leiserson developed the Cilk multithreaded language based on C extended with parallel loops and fork–join, and co-founded Cilk Arts, which was acquired by Intel in Aug. 2009. Cilk has been called “the language of choice for discriminating hackers.”



Charles E. Leiserson (2011). Photo by Cleiserson. CC BY-SA 4.0.

Leiserson is also responsible for the fat-tree interconnection network, used by many supercomputers. A fat-tree has “fatter” branches near the top, which can transfer more data to the more numerous thinner branches below.

He and H. T. Kung developed systolic arrays used in VLSI. A systolic array consists of a general network of computing nodes which can be configured in different ways for specific applications.

Leiserson co-authored the standard algorithms textbook, “Introduction to Algorithms” with Thomas H. Cormen, Ronald L. Rivest [May 6], and Clifford Stein (also known as CLRS). The much beloved text has sold over 500,000 copies, and is the second most cited publication in computer science ("The Nature of Statistical Learning Theory" by Vladimir N. Vapnik is first).

Leiserson also found time to co-author the parallel chess programs: StarTech, Star Socrates, and Cilkchess.

FORTRAN Preliminaries

Nov. 10, 1954

Prev: [Dec 00] Next: [Feb 26]

The IBM team led by John Backus [Dec 3] released a 29-page paper, ”Preliminary Report: Specifications for the IBM Mathematical FORmula TRANslating System."

FORTRAN’s raison d'être was to simplify the coding process by allowing a programmer to use simple algebra-like expressions, while ensuring that the resulting compiled code remained comparable in efficiency to hand-written assembly. Reconciling these two goals was deemed impossible by many hardened assembly programmers.

The first FORTRAN manual would appear two years later, followed by the first compiler in 1957. The compiler took so long because of the many novel techniques invented to make it execute expeditiously. Indeed it held one record for optimizing code for nearly 20 years after its release.

An important factor behind the compiler's speed was that Backus was also the co-designer of the first computer that ran the software, the IBM 704 [May 7].

Robert “Rob” Charles Pike

Born: Nov. 10, 1956;

Canada

Pike co-authored two excellent books on UNIX [Oct 15] and C – “The UNIX Programming Environment” (1983) and “The Practice of Programming” (1999), both with Brian Kernighan [Jan 1].

He wrote the first windowing system for UNIX in 1981, co-developed the Blit graphical terminal with Bart Locanthi, and was the developer of a backing store patent that became part of X Windows [June 19]. He also has a liking for text editors, having written several over the years, including jim, sam, and acme.

In the mid-1980's he was closely involved in the Plan 9 [July 16] project at Bell Labs, which applied the UNIX model to a distributed multi-user environment.

More recently at Google, he was one of the developers of the Go language [Nov 10].

In May 1990, Pike appeared on “Late Night with David Letterman”, acting as a technical assistant to the comedy/magic duo Penn and Teller. He also claims to have won the 1980 Olympic silver medal in archery (Boris Isachenko would disagree). Pike is a close friend of Mark V. Shaney [Sept 12].

Some quotes: “Object-oriented design is the roman numerals of computing.”

“Such is modern computing: everything simple is made too complicated because it’s easy to fiddle with; everything complicated stays complicated because it’s hard to fix.”

Richard Reeves Brodie

Born: Nov. 10, 1959;

Newton, Massachusetts

Brodie helped Charles Simonyi [Sept 10] develop the Bravo X word processor [Oct 00] for the Alto [March 1] in Xerox’s Advanced Systems Division (ASD).

Brodie teamed up with Simonyi again when he moved to Microsoft in 1981, this time to create the first version of Microsoft Word in less than seven months [Sept 29]. He also

wrote Microsoft's first C compiler, the original version of Notepad, and ported Word to the ill-fated IBM PCJr [Nov 1]. He was lead developer of the Omega project, which became Microsoft Access [Nov 13].

After leaving Microsoft, Brodie became a motivational speaker and author, and later a professional poker player.

Futures Day
Nov. 10, 1977

Xerox management attended "Futures Day" organized by John Ellenby (manager of the Alto [March 1] project) during the annual Xerox World Conference in Florida.

The PARC team [July 1] demoed how to send and receive e-mail, collaborate on projects, write memos in Japanese, and draw engineering schematics on the Alto's bitmapped screen. Secretaries typed letters using Bravo [Oct 00] and posted them via an Ethernet network [May 22] to other computers and printed them on a laser printer [Jan 21].

This event marked the debut of the Xerox 9700 printer [April 15], based on work by Gary Starkweather [Jan 21], but the 9700 was outshone by the Pimlico, a prototype three-color laser printer knocked together quickly for the occasion by Bob Sproull and Ronald Rider.

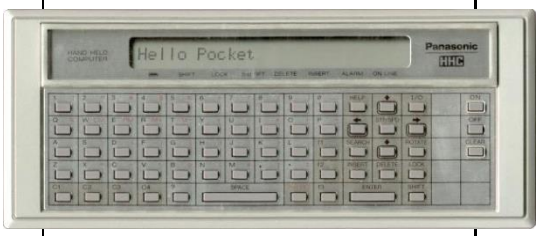
After the show-and-tell, during lunch, forklift trucks moved 30 Altos into a large room, where they would be accessible to Xerox's top brass for the rest of the day. However, their was no mad rush by the executives, and the reception for this glimpse of the future was actually quite luke-warm, perhaps because actual hands-on computer use was still seen as secretarial work.

Forty years later (in 2017), the Computer History Museum [Sept 24] brought together some of those same PARC researchers to put the Alto through its paces once again. Center-stage was an Alto that had been restored during the previous eight months. This time the gathering was altogether more exuberant.

Panasonic HHC
Nov. 10, 1981

Matsushita released the Panasonic HHC (short for HandHeld Computer), also known as the Panasonic Link and the Quasar HHC. It measured 9" by 4", so easily fit inside a briefcase, and weighed just 21 ounces. There was a tiny LCD, but it could also be hooked up to a TV.

The HHC used a 6502 processor [Sept 16] and ran a built-in SNAP interpreter (a variant of Forth [Nov 13]), but a Microsoft BASIC ROM could be installed if desired. There was also an optional thermal printer.



The Panasonic HHC. (c) The Pocket Museum (http://pocket.free.fr).

The basic price of the system was around $500. Software included: Portawriter, Portacalc, Portaflex (store management), Portabudget, and Portabroker (unfortunately, no Portaloo though).

The computer had been designed over three years by the small Franco-American company, Friends Amis, and predated better known hand-held devices, such as the Atari Portfolio and Poqet PC [Oct 00], released at the end of the 1980's.

About 70,000 systems were sold.

Windows 1.0 Announced
Nov. 10, 1983

Next: [Nov 20]

At the Helmsley Palace Hotel in NYC, Bill Gates [Oct 28] proudly announced Microsoft Windows 1.0. He promised an easy-to-use GUI with dropdown menus, tiled windows, mouse support, and the ability to run several applications at the same time.

He confidently predicted that it would be ready by April 1984, and that it would be fervently installed on 90% of all IBM-compatible computers by the end of that year. In fact, it wasn't released until [Nov 20] 1985, and was poorly received.

Microsoft had started working on the product, initially called "Interface Manager", in Sept. 1981. Fortunately, in the interim, Rowland Hanson (Microsoft's head of marketing) had convinced Gates to change the name to Windows.

The reason for Gates' somewhat premature proclamation may have been the upcoming release of VisiCorp's "Visi On" [Dec 16] , a sophisticated GUI running on top of MS-DOS. Also, the Apple Mac was due out on [Jan 24], and the Lisa had been on the market since [Jan 19] 1983.

Microsoft's GUI charm offensive continued at the Fall COMDEX show in Nov., during which Gates gave his first keynote speech. His father helped run the slide projector while Gates prophesized that the computer mouse would soon become a standard tool for users, and rapturously touted the importance of MS Windows 1.0.

During that COMDEX, Dan Bricklin [July 16] made a video of his walk through the conference hall, and visited the MS Windows display (you can find the video on YouTube). There was also an article about Windows published in the December issue of BYTE

magazine, which actually described a GUI somewhat different from the one on show at the COMDEX booth.

MSN Search Upgraded

Nov. 10, 2004

Microsoft launched MSN Search in the third quarter of 1998, basing it around the Inktomi [Feb 13] search engine.

On this day, Microsoft unveiled a beta version of the new, all improved version, designed to compete with Google [Sept 27] and Yahoo! [March 2]. It now produced its own search engine results, based on an index which was updated weekly and sometimes even daily. Microsoft claimed that it covered nearly five billion web pages, a full billion more than Google.

MSN Search was replaced by Windows Live Search on March 8, 2006, and Live Search was pronounced dead on [June 3], 2009, usurped by Bing.

Stinx Discovered

Nov. 10, 2005

Stinx was the first virus (really a trojan) known to exploit the Sony BMG rootkit [Oct 31] that the prestigious record label had decided to employ for digital rights management (DRM).

The virus (Stinx, not the rootkit) was transmitted as an attachment in spam. It created a local copy of "*sys*drv.exe" in the system directory, and installed an IRC backdoor [Aug 16]. Because the rootkit hid files with names beginning with "*sys*", the changes would go unnoticed by older antivirus software.

Anybody who neglected to download and run Sony's emergency rootkit uninstaller after playing a copy-protected CD was essentially leaving themselves defenseless against a Stinx attack. After a few days, on Nov 15, Sony issued a recall of all unsold CDs containing the rootkit.

Three men were arrested in connection with the virus in June 2006.

Go

Nov. 10, 2009

Go (often referred to as golang, especially when searching the Web) was announced by Google on this day, and version 1.0 was released in March 2012.

Go is a statically typed language in the grand tradition of ALGOL [Jan 11] and C, and so naturally its designers (Robert Griesemer, Rob Pike [Nov 10], and Ken Thompson [Feb 4]) have been accused of living in the 1970's. However, it also has more modern features, such as garbage collection, memory safety, and CSP-style [Jan 11] concurrent programming elements (i.e. channels and goroutines). However, the developer's well-known dislike of C++'s complexity means that the only object oriented concept in Go is the interface.

Perhaps the most obvious missing modern language ingredient are generic types, although the aforementioned interfaces support some of that functionality. Another language exemption are exceptions.

The Gopher mascot. CC BY-SA 3.0.

The Go mascot, a gopher [Feb 7], and its logo were designed by Renée French, who also created Glenda, the Plan 9 [June 16] bunny.