Charles Xavier Thomas (de Colmar)

Born: May 5, 1785;

Colmar, France
Died: March 12, 1870

Thomas's Arithmometer, or Arithmomètre, was the first mechanical calculator reliable enough to be used daily in an office environment. It could add and subtract directly, and perform long multiplications and divisions by using an accumulator to hold the result.

Thomas started work on his machine in 1818 while serving in the French Army and needing to perform a great number of calculations. He made use of principles from earlier calculators, such as the stepped reckoner of Gottfried Leibniz [July 1] and Blaise Pascal's [June 19] device. He patented his work on Nov. 18, 1820.

A Thomas de Colmar arithmometer from 1860.

Use of the arithmometer spread gradually: some 500 machines sold between 1825 and 1865, and 1000 from 1865 to 1878, but it marked the start of the mechanical calculator industry. The most popular early 20th century calculators were the simpler adding and subtracting Odhner arithmometer [Aug 10] and the comptometer [March 18]. For fast multiplication, Otto

Steiger's Millionaire [May 7] was most people's choice.

Jules Verne mentioned both Pascal and Thomas in his novel "Paris in the Twentieth Century" (1863) when describing huge mechanical calculators of the future, the size of pianos, that could deliver answers instantaneously to anyone that could play their keyboards expertly enough.

Nimrod at the Festival

May 5, 1951

The Nimrod Digital Computer was put on display at London's Science Museum [May 29; Nov 00] during the 1951 Festival of Britain. It played the game of Nim with three heaps of three, five, and six "matches" (actually light bulbs, that lit up when in use).

The player pressed buttons on a panel to specify how many "matches" he wanted to remove, and then the Nimrod took its turn.

The 12 x 9 x 5 foot machine was designed by John M. Bennett and built by Raymond Stuart-Williams at Ferranti [Feb 27]. It housed 480 valves and employed 120 relays to drive the display. Most of its components were soldered into place rather than being pluggable to increase the device's reliability.

A BBC radio journalist reported, "This looks like a tremendous grey refrigerator…. It's absolutely frightening…. I suppose at the next exhibition they'll even have real heaps of matches and awful steel arms will come out of the machine to pick them up."

Bennett was partly inspired by the electromechanical Nim-player, Nimatron [Sept 24], which had been displayed at the 1939-40 New York World's Fair.

The Nimrod also appeared at the Berlin Industrial Show in Oct. 1951. On the first day, it beat Ludwig Erhard, the German Federal Minister for Economic Affairs, three times in a row, causing much amusement.

To help explain Nimrod to the public, Ferranti published a pamphlet entitled "Faster than Thought. The Ferranti Nimrod Digital Computer." Nimrod was also discussed in Bertram Bowden's popular book on computers, "Faster than Thought" ([Jan 00] 1953). (I wonder where he got the title from?)

The chapter on games (Ch. 25) was written by Alan Turing [June 23] and Christopher Strachey [Nov 16]. Supposedly, Turing had played Nimrod at the festival, but there's no mention of that in the chapter. However, Turing and Strachey do relate how some 'investigators' from the Society for Psychical Research had set up in a nearby room to see if they could influence, or be influenced by, the machine.

The IC Concept

May 5 (or 7), 1952

Geoffrey W.A. Dummer, an English electrical engineer, presented a paper at the Electronic Components Symposium in Washington. It included the prediction:

"With the advent of the transistor and the work on semi-conductors generally, it now seems possible to envisage electronic equipment in a solid block with no connecting wires. The block may consist of layers of insulating, conducting, rectifying and amplifying materials, the electronic functions being connected directly by cutting out areas of the various layers".

This is generally accepted to be the first public description of an integrated circuit (IC), some six years before Texas Instruments' Jack Kilby [Nov 8] gave the first IC demo (on [Sept 12] 1958),

converting the idea into reality. As a result, Dummer has been called "The Prophet of the Integrated Circuit".

Geoffrey Dummer in the 1950s. Photo by Robert Cathles.

At another conference in Sept. 1957, Dummer presented a "flip-flop" model that illustrated the possibilities of solid-circuit techniques. It was not too different from the circuit developed the next year by Kilby. However, Dummer never claimed to be the inventor of the IC, a role he personally assigned to Robert Noyce [Dec 12] and Jean Hoerni [Sept 26].

Peter Molyneux
Born: May 5, 1959;
Guildford, Surrey

Molyneux is a leading UK video game designer who created the "God Sim" genre with his game "Populous" (1989).

The player assumes the role of a deity trying to further its influence by helping its followers. As the number of his followers increases, the player gains in power and influence over the game's world. The ultimate goal is to thwart rival deities by attacking their followers.

Populous stood out because it took place in real-time – as opposed to being turn-based – and also because the player never had direct control over his followers.

Jim Sterling, a games journalist, coined the phrase "Molyneux Cycle" to describe Molyneux's habit of hyping a new game, but later disparaging it when the sequel was due to be released.

Alphaville Released
May 5, 1965

"Alphaville: une étrange aventure de Lemmy Caution" (Alphaville: A Strange Adventure of Lemmy Caution) is a French New Wave sci-fi noir, directed by Jean-Luc Godard, and starring Eddie Constantine and Anna Karina.

The film was shot around Paris, without the trivializing distractions of special effects, futuristic sets, or props. The term "light years" is used as a measure of time.

Lemmy Caution is secret agent 003 from "the Outlands". His mission is to destroy the Alpha 60, a sentient computer in complete control of Alphaville. Caution battles the machine using his two most dangerous weapons – his handgun and poetry.

An Alpha 60 quote: "Once we know the number one, we believe that we know the number two, because one plus one equals two. We forget that first we must know the meaning of plus."

The ACS
May 5, 1966

The Amateur Computer Society (ACS), which was possibly the first personal computing club, was founded by Stephen B. Gray, an editor for *Electronics* magazine.

On this day, he sent a letter to seven electronics and computer trade magazines and three hobby publications inviting those readers who were building their own computers to join the society. More than 160 men (no woman) wrote in, and 110 became members.

The *Amateur Computer Society Newsletter*, was probably the first hobbyist computer publication, with the first issue appearing in Aug. 1966. It was discontinued in Dec. 1976 when Gray became editor-in-chief of *Creative Computing* magazine.

Other notable user groups, in chronological order of their foundation, include SHARE [Aug 22], DECUS [March 00], USENIX [May 15], the Amateur Computer Society (ACS), the Amateur Computer Club (ACC [Dec 13]), the Homebrew Computer Club [March 5], ACGNJ [June 13], A.P.P.L.E. [Feb 21], and the Chaos Computer Club (CCC) [Sept 12].

TCP Paper
May 5, 1974

Prev: [Sept 9] Next: [Nov 27]

Vint Cerf [June 23] and Robert Kahn [Dec 23] published "A Protocol for Packet Network Intercommunication." The core element was the Transmission Control Program (TCP), a network protocol that could be utilized to link disparate networks together. Indeed, Cerf and Kahn invented the term "Internet" [Oct 24] as an abbreviation for "inter-networking of networks."

A formal specification for TCP (RFC 675 [April 7]) was released in Dec. 1974, and testing began on a prototype in 1975 at Bolt Beranek and Newman (BBN [Oct 15]), Stanford, and University College London.

In 1978, TCP was divided into TCP and a User Datagram Protocol (UDP) [Jan 31] which rested atop an Internet Protocol (IP [Sept 1]) at the lowest network layer. These protocols, collectively known as TCP/IP, were specified in 1981 as RFC 793 and 791 [Sept 1].

Mystery House
May 5, 1980

"Mystery House" was the first graphical adventure game, and the first produced by On-Line Systems, the company which would later become Sierra On-Line [Oct 30]. It was designed, written, and illustrated by Roberta Williams, and programmed by her husband, Ken Williams, for the Apple II [June 5].

The player is locked inside a Victorian mansion with several other guests, who start to be murdered one by one. Roberta later admitted that the story was inspired by Agatha Christie's "And Then There Were None."

At the end of the 1970's, the couple had played "Colossal Cave Adventure" by Will Crowther [March 11], and had finished the game. Roberta enjoyed its textual adventure concept, but thought a player would have a more satisfying experience if images were included. "Mystery House" was the result.

Screenshot of the Apple II game Mystery House.

Originally the software was sold in a Ziploc bag containing a 5¼-inch disk and a brief printed description of the game. The couple sold it through local software shops in Los Angeles County. Eventually, more than 10,000 copies were sold, a record-breaking number for the time.

Roberta would go on to write the game she's probably best known for, "King's Quest" [Aug 16].

Although "Mystery House" was the first game with graphics, it lacked color, animation, and sound. Probably the first game with those elements was "Valhalla" (1983) by Richard Edwards, Graham Asher, Charles Goodwin, James Learmont and Andrew Owen, for the Sinclair Spectrum 48K [April 23].

BITNET Founded
May 5, 1981

BITNET was a university computer network founded by Ira Fuchs at the City University of New York and Greydon Freeman at Yale.

The name BITNET originally meant "Because It's There Network", but it came to have a much more sensible meaning: "Because It's Time Network".

A college wishing to join BITNET had to lease a phone line to an existing BITNET node, and buy modems for each end of the circuit. One of the modems was sent to the existing site, to allow other institutions to connect via that node to the new node free of charge.

This approach meant that BITNET differed from the Internet in that it was a point-to-point "store and forward" network. Email and files were transmitted in their entirety from one server to the next, until they reached their destination.

BITNET was joined by an European counterpart, EARN (European Academic and Research Network) in 1982, and BITNET soon grew into a worldwide network. At its peak in 1991, it encompassed almost 500 organizations and 3,000 nodes.

BITNET supported email and LISTSERV [July 16], with gateways for the lists so they could be reached from USENET [Jan 29].

In 1984, a text-based BITNET game called MAD became the first world-wide Multi-User Dungeon (MUD [April 6]), accessible via a server at the École Nationale Supérieure des Mines de Paris.

MAD was developed by Bruno Chabrier and Vincent Lextrait, two students at the school. Eventually, the game had to be banned after it overloaded BITNET on several occasions.

With the rapid growth of TCP/IP [May 5] and the Internet in the early 1990's, BITNET's use diminished, although various efforts have tried to maintain its protocol.

Wolfenstein 3D Released
May 5, 1992

Id Software's [Feb 1] "Wolfenstein 3D" was the first 3D FPS (First-Person Shooter) that could run on MS-DOS. A soldier (the player) must escape a Nazi stronghold filled with enemy fighters, crazed dogs, and a biomechanical Hitler.

Development had begin in mid-1991, with John Carmack's [Aug 20] efforts to build a fast 3D games engine. One of his 'tricks' was to restrict the user's viewpoint to a single plane.

John Romero [Oct 28] and Tom Hall [Sept 2] designed "Wolfenstein 3D" around Carmack's engine, and established many of today's FPS standards, including the first-person viewpoint, multiple weapons, and health packs.

Another novelty was the way in which the game was released – in two sets of three shareware episodes, but with the first episode available for free to drive interest in paying for the rest.

Due to its use of Nazi symbols, the game had to be withdrawn from Germany in 1994 following a court ruling, despite the fact

that the Nazis were clearly the bad guys.

The Super NES [Nov 21] version was subsequently modified to remove any Nazi references; in addition, blood was replaced with sweat to make the game less violent (but more sweaty), and the nasty attack dogs were replaced by much more cuddly giant mutant rats.

ILOVEYOU Worm
May 5, 2000

The ILOVEYOU worm, sometimes referred to as the Love Bug or Love Letter, originated in the Philippines.

It spread by e-mail, arriving with the subject line "ILOVEYOU" and an attachment, "LOVE-LETTER-FOR-YOU.txt.vbs". If the attachment was opened, a Visual Basic script [June 3] infected the computer. The script then e-mailed itself to everyone on the victim's contact list, the MS Windows Registry was edited to repeatedly execute the virus at startup, and copies were also hidden in multiple files, including in JPEGs [Sept 18] and Word documents [Sept 29].

Within ten days, the virus had infected 10% of all the world's networked computers, and subsequently cost $15 billion to remove in the US alone. It's thought to have been the fastest-moving and most widespread virus in history.

Its core code was basically the same as the Christmas Tree worm [Dec 9], although it was scripted in REXX [March 20].

The two developers were duly apprehended, but as there were no laws in the Philippines against writing malware, they had to be released without charge.

One of the duo had previously proposed the use of a Trojan virus to steal Internet passwords as the subject for his undergraduate thesis. He argued that this approach was a cost-effective way to pay for an Internet connection. The thesis proposal was rejected by the college board.

For more virus nasties, see [Jan 26; March 26; April 30; July 13; July 15; July 17; Sept 5; Oct 26; Nov 21].

Square Root Days
May 5, 2025

Square Root Day is an unofficial holiday celebrated when both the day of the month and the month are the square root of the last two digits of the year.

For example, the last Square Root Day was April 4, 2016 (4/4/16), and the next will be on this day (5/5/25).

In 1966, K. Takahashi and M. Sibuya were the first to use a computer to compute $\sqrt{2}$. They employed a Hitachi HIPAC-103 to run the iteration:

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x_{k+1} = x_k (3/2 - x_k^2)
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to find $\sqrt{2}$ to 14,000 places (this sequence approaches $\sqrt{2}/2$).

The HIPAC-103 was quite novel in that it employed Eiichi Goto's [Jan 26] parametrons as its main arithmetic logic element, but Hitachi abandoned this approach in later machines.

In 1967, M. Lal computed $\sqrt{2}$ first to 19,600 places, then to 39,000, and finally to 100,000. The first of his calculations, carried out on an IBM 1620 [Oct 21], utilized a method that generated one digit at a time. His second and third calculations were based on Newton's method for finding the $\sqrt{N}$:

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x_{k+1} = 1/2(x_k + (N/x_k))
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For more math constants, see [Jan 27], [March 14].