Jan. 28th

William Seward Burroughs

Born: Jan. 28, 1857;

Rochester, New York
Died: Sept. 15, 1898

While toiling away as a bank clerk, Burroughs became convinced that banks needed a machine that could add figures accurately and print the results. After moving to St. Louis, he took a job in a machine shop, and on August 25 (or 21??) 1888 received a patent for his first calculating machine.

Successive versions became more reliable, resulting in the "Burroughs Class 1", a best-selling adding machine well into the 1930's. It was an imposing device, weighing a hefty 67 pounds, with its own sturdy metal stand. Its most striking feature was the beveled glass front which showed off the intricate gears inside.

A Burroughs Class 1. Photo by Royalbroil. CC BY-SA 3.0.

In 1906, Ford Motors produced the “Burroughs Special”, a car equipped with a special rack large enough to carry one of these machines.

The company became the Burroughs Adding Machine Company in 1904, then the Burroughs Corporation in 1953. It was second only to IBM in the mainframe market in the mid-1960's, and one of the larger dwarfs in the group known as “Snow White and the Seven Dwarfs” [Dec 21]. In 1986, it merged with Sperry [Jan 25] to become Unisys [Nov 11].

William Seward Burroughs shouldn't be confused with William Seward Burroughs II (his grandson), a central figure of the Beat Generation and author of “Naked Lunch”. A collection of his essays is called “The Adding Machine”.

First Commercial US Telephone Exchange

Jan. 28, 1878

The Boardman Building in New Haven became the site of the US’s first commercial telephone exchange. It was the brainchild of Civil War veteran and telegraph office manager George Coy, in partnership with Herrick Frost and Walter Lewis; Coy had been inspired by a lecture given by Alexander Graham Bell [March 7].

The exchange’s switchboard was not particularly hi-tech, constructed from parts that included teapot lid handles and wires from ladies’ bustles; it also became known as “Coy’s chicken” because of the squawking noises it made during operation. It could masterfully handle up to two simultaneous conversations. The first customer was a Rev. John Todd; who he was calling is unknown.

On [Feb 21] 1878, Coy’s company printed the first-ever telephone directory. It listed a grand total of 50 individuals and businesses in New Haven, and consisted of a single sheet of paper.

Schoolboys were employed as switchboard operators until Sept. 1, 1878 when Emma Nutt was hired; she eventually worked for the company for 37 years. A manager commented that girls were superior workers: “They are steadier, do not drink beer, and are always on hand.”

There’s some debate over the rightful owner of the “first telephone exchange” title. Other possibilities are the experimental exchange built by Bell Telephone in Boston in 1877. Also, the world’s first state-administered exchange (as opposed to a commercial venture) opened in Friedrichsberg, close to Berlin, on Nov. 12, 1877.

Coy's company, which became the Southern New England Telephone Company (SNET) in 1882, was also responsible for the world’s first telephone booth (1878), the first pay phone (1879), and the nation’s first school for training telephone operators (1907).

ERMA Prototype Finished

Jan. 28, 1952

The ERMA (Electronic Recording Machine, Accounting) project aimed to automate bank bookkeeping. It was set up by Alfred R. Zipf [Oct 13] at the Bank of America, with Jerre Noe leading the technology side of the team at the Stanford Research Institute (SRI).

SRI's prototype proved that manual record-keeping could be replaced by automatic processing. However, the project's most important contribution was probably magnetic ink character recognition (MICR), which is still the industry standard for automated check processing. Patrick J. Hanratty [March 5] devised the machine-readable characters used in the MICR readers.

The General Electric GE-100 (1959) was the first production ERMA device [Sept 14]. It was an important coup for GE who had outbid IBM for the contract by promising a machine that

utilized the latest transistorized technology and magnetic core memory.

Over the next two years, 32 systems were installed around the country, and by 1966 twelve regional ERMA centers were serving almost 900 Bank of America branches, handling more than 750 million checks a year.

Automation proved so effective that it let Bank of America become the first bank to offer credit cards attached to a user's account.

Robert X. Cringely

Born: Jan. 28, 1953;

Apple Creek, Ohio

"Robert X. Cringely" was the pen name of Mark Stephens who wrote the "Notes from the Field" column in *InfoWorld* magazine between 1987 and 1995. However, it was later employed by several other writers at *InfoWorld*.

In 1992, Cringely/Stephens published "Accidental Empires: How the Boys of Silicon Valley Make Their Millions, Battle Foreign Competition and Still Can't Get a Date," which included an amusing anecdote about Bill Gates [Oct 28]:

> Billionaire Bill had stopped off at a local convenience store to purchase a tub of butter pecan ice cream. At the checkout, he was unable to find a 50-cents-off coupon that he had dutifully saved for this purpose. After Gates had searched his pockets for many minutes, a frustrated customer farther back in line tossed him two quarters, and called out, 'Pay me back when you earn your first million.'

Gates later informed Stephens that the story couldn't be true because such coupons are only printed in daily newspapers, and he didn't get a daily.

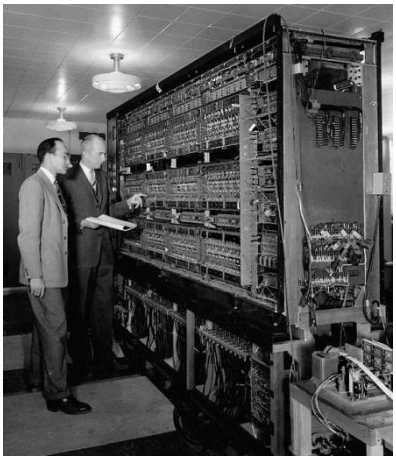
Stephens has also appeared as Cringely in two amusing documentaries based on his writings: "Triumph of the Nerds: The Rise of Accidental Empires" (1996) and "Nerds 2.0.1: A Brief History of the Internet" (1998).

AVIDAC Operational

Jan. 28, 1953

The AVIDAC (Argonne Version of the Institute's Digital Automatic Computer) was the first computer built at the Argonne National Lab in Illinois.

It was designed by Jeffrey Chu [June 14], based on John von Neumann's [Dec 28] IAS architecture [June 10], and was said to operate "approximately 100,000 times as fast as a trained computer [a person] using a desktype electric calculating machine."



The AVIDAC (1953). Photo by the Argonne National Lab. CC BY-SA 2.0.

The machine contained 2,500 vacuum tubes, about 8,000 resistors, and more than 3.5 miles of wire.

After AVIDAC, Chu's team moved onto ORACLE (Oak Ridge Automatic Computer Logical Engine), which was twice as fast and briefly (in 1953) the world's fastest computer.

Vinod Khosla

Born: Jan. 28, 1955;

Delhi, India

Khosla co-founded Sun Microsystems with Andy Bechtolsheim [Sept 30] and Scott McNealy [Nov 13] on [Feb 24] 1982, becoming its first chairman and CEO.

In 1986, he joined Kleiner Perkins [May 12], one of the firms that funded Sun, and formed his own venture capital firm, Khosla Ventures, in 2004.

Sadly, Khosla is probably best known for a long-lived (over ten years and counting) legal dispute about public access to a beach adjacent to his property. The bad press began when his legal team used the little-known Treaty of Guadalupe Hidalgo (1848), which ended the Mexican-American war, to score a win in the courts.

Khosla is known to be something of a perfectionist. For example, he designed the penholders in the Khosla Ventures' conference rooms, the door handles, and the paper towel dispensers in the bathrooms.

Jane Jensen

(born Jane Elizabeth Smith)

Born: Jan. 28, 1963;

Palmerton, Pennsylvania

Jensen was the creator of the "Gabriel Knight" series of adventure games published by Sierra On-Line [Oct 30]. They helped begin the trend towards darker, more mature supernatural game titles.

"Gabriel Knight: Sins of the Fathers" was released in 1993, followed by two sequels: "The Beast Within: A Gabriel Knight Mystery" (1995) and "Gabriel Knight 3: Blood of the Sacred, Blood of the Damned" (1999).

In the first game, Knight, a New Orleans writer, investigates a series of ritualistic voodoo murders, and incidentally discovers that he's the descendant of a long line of monster hunters.

The third game is known for its similarities to Dan Brown's "The DaVinci Code", which was published four years later in 2003. But, as Salman Rushdie

declared, “Do not start me on The Da Vinci Code. A novel so bad that it gives bad novels a bad name.”

Jensen first gained recognition as the co-designer of 1992’s “King’s Quest VI: Heir Today, Gone Tomorrow” [Aug 16] alongside Sierra On-Line’s co-founder Roberta Williams.

Tim McVey Day

Jan. 28, 1984

This was the first, and currently only, civic day in honor of an arcade game player. The holiday was organized by the town of Ottumwa in Iowa, McVey’s home and the location of the Twin Galaxies arcade [May 14] where he created video game history.

Tim McVey Day (c) Twin Galaxies.

On Jan. 17, 17-year old McVey scored 1,000,042,270 points on the game “Nibbler” - a hybrid of Pac-Man [Oct 26] and Centipede. This was only possible because Nibbler was the first arcade game to feature a nine-digit scoring system. McVey played continuously for 44 hours.

Aside from a holiday in his honor, McVey also received the keys to the city, and his own Nibbler machine.

On Sept. 27, 1984, Italian maestro Enrico Zanetti topped McVey with 1,001,0**73,840**, but it wasn't officially recognized. In fact, McVey’s score stood for nearly three decades, but Rick Carter finally claimed the crown with a score of 1,00**2,222,360** on July 31, 2011. But plucky McVey regained the title on Dec. 25, 2011 with a new score of 1,0**41,767,060**.

In 2016, Andrew Seklir and Tim Kinzy released a documentary about McVey and Nibbler, entitled “Man vs. Snake: The Long and Twisted Tale of Nibbler”; it won several awards.

For more game documentaries, see [May 14].

The RSA Data Security Challenge

Jan. 28, 1997

Ian Goldberg, a Berkeley graduate student, took part in the first RSA [Feb 00] Data Security challenge: crack a 40-bit key for a message encoded using the Data Encryption Standard (DES [Jan 15]).

It took him just 3½ hours to decode the message, which read, rather appropriately, “This is why you should use a longer key.” He had used relatively simple brute force methods, which were viable because he had linked 250 workstations together. This configuration let him test one hundred billion keys per hour.

Subsequent RSA Data Security challenges increased the key lengths to 48-bits and then to 56-bits, which were cracked in 13 and 210 days respectively. This led to a series of *distributed* DES challenges during the next year [Feb 23].

RadioShack and Compaq

Jan. 28, 1998

Compaq [Feb 14] extended its reach into the consumer computer market by signing an agreement with RadioShack [Feb 2] to be that chain’s exclusive provider of computers. At the time, RadioShack operated nearly 7,000 stores in the US, Mexico, UK, Australia, and Canada. The deal also ousted rival IBM from the chain, which had been a partner since 1995. The loss of the account came at a challenging time for IBM when its retail sales were already lagging [Dec 8].

RadioShack’s parent company, Tandy, had withdrawn from the IBM PC compatible market at the start of the 1990's, beaten by price-competitive rivals like Dell [May 3].

Snooper Bowl

Jan. 28, 2001

During Super Bowl XXXV [Jan 22; April 6; Nov 7], Tampa city officials secretly deployed state-of-the-art surveillance equipment at the Raymond James stadium.

The system, positioned at entrance turnstiles, acquired facial scans of attendees and compared them against a database of 1,700 “known felons, terrorists and con-artists provided by multiple local, state and federal agencies”.

The facial recognition system was marketed under the name Facefinder by Viisage Technology, and was already being used in casinos and some US airports.

The fact that attendees weren’t notified of the scans raised a few inconsequential privacy concerns, and the event was quickly dubbed the “Snooper Bowl”.

Police said the technology helped them identify 19 individuals who had outstanding warrants. Also, they argued that the system was simply an innocent extension of their previous use of high-powered binoculars to scan the crowds at similar events .