History and Highlights of a Computer Museum

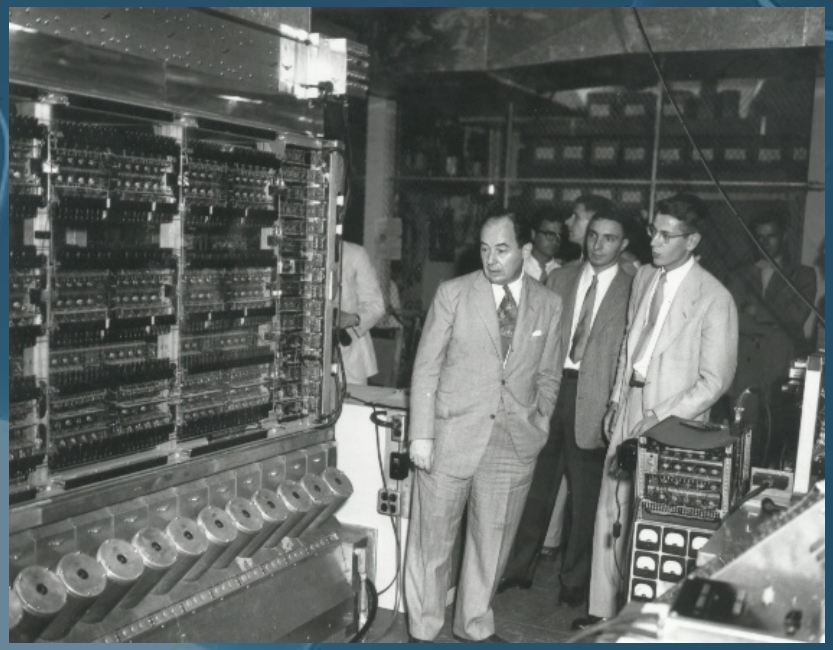
8th IT STAR Workshop on the History of Computing

István Alföldi, NJSZT CEO
Dániel Muszka, Mihály Bohus, Gábor Miltényi

The past of the future

Less than 100 years ago who would have thought among the pioneers that they were making history?

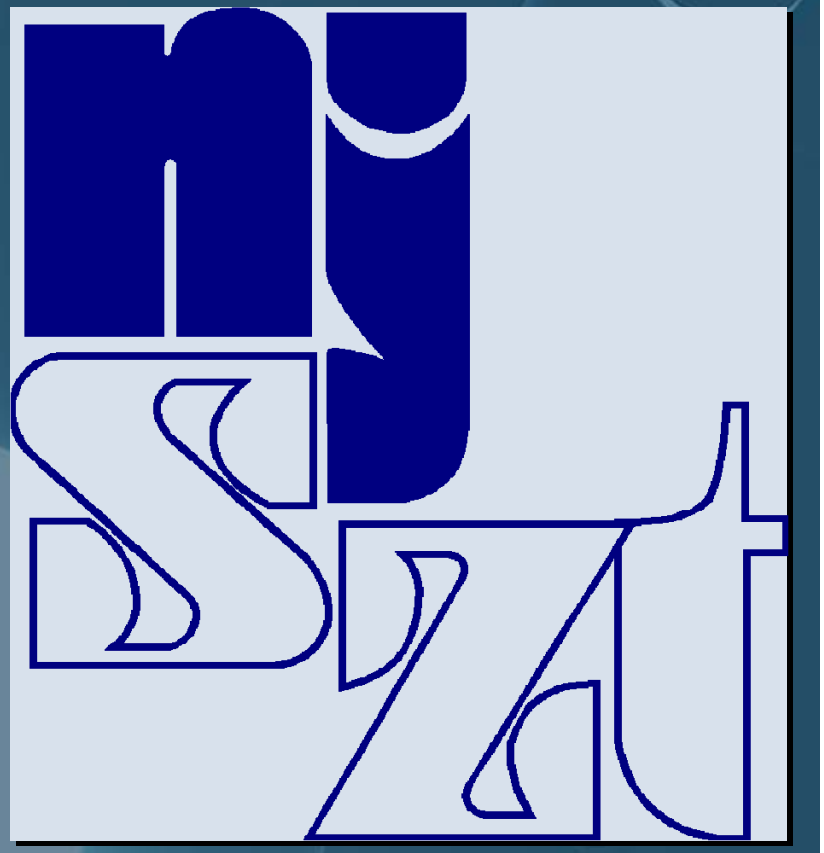
History: the past of the future



A genious from Hungary: John von Neumann

Mission: Saving cultural heritage, developing current values, influencing the future

- Preserving and disseminating the cultural heritage of our profession is one of the priorities of NJSZT.
- The Exhibition introduces an internationally relevant collection in ICT history



The dream and the dreamers

Győző Kovács

Dániel Muszka

The beginning...

In the mid-70s of the past century, the John von Neumann Computer Society initiated the collection of various objects of computational technology and written documents. The objective was to establish a collection which preserves and exhibits the international and national appearance and applications of objects and written memories of this technological development.

Foundation of Informatics History Museum

In 1991 the Foundation of Informatics History Museum was established by the John von Neumann Computer Society, by the Hungarian Museum of Sciences, Technology and Transport and by the State Computational Services.

The year of 1991 brought a decisive turn in the history of the collection. The University of Szeged provided a place for all the collected items.

Foundation of Informatics History Museum

The John von Neumann Computer Society provided the most significant financial and administrative help for the development of the collection. The collection obtained the official „museum collection” status in 2007.

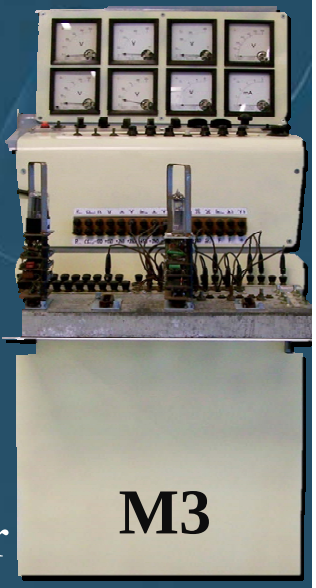
The past of the future

On the 25th of June 2013, a computer exhibition, unique all over Europe with its great number of objects, was opened to the public on 1300 square meters in the Szeged Agora.

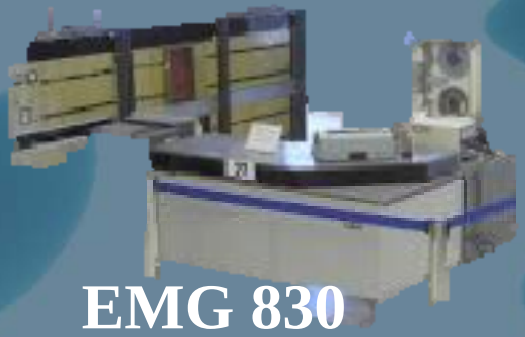
The collection


IBM 360

The collection includes exhibits from cardpunch data preparation machines to „big monsters” (Razdan-3, Minsk-22, Minsk-32, ICT, Elliot, Siemens, IBM, Honeywell, etc.), from the first PCs to the beginning of internet and, of course, the Hungarian products, which we are very proud of, such as M-3, drum-memories, Kalmar-type logical machines, KFKI, EMG, GAMMA, SZTAKI, BME, VILATI, VIDEOTON, SZKI and other locally constructed machines.


M3


MINSZK 22


EMG 830


RAZDAN 3

The collection

The machines and related objects show a great deal of multi-variance. This is the consequence of the international political situation in the past since import was usually allowed from countries belonging to the „socialist bloc” (e.g. Soviet Union, German Democratic Republic or East Germany, Czechoslovakia, Bulgaria, Poland). Only privileged Institutes with special requirements and special dollar- budget allocated to them were allowed to import hardware from countries in the „West”.

The exhibition

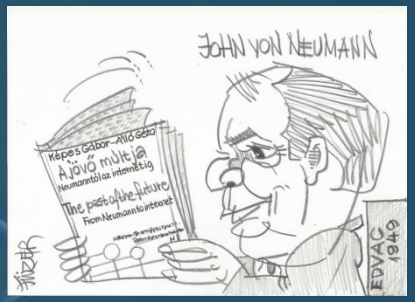
The book

The more than 200-page book, supplemented with several hundreds of references and a detailed bibliography, includes not only images, descriptions of objects and biographies, but also provides an overview of the development, main trends and prominent Hungarian figures in ICT.

Authors of the book: Gábor Képes & Géza Álló

Editor: István Alföldi

Copy editor: Bálint Dömölki



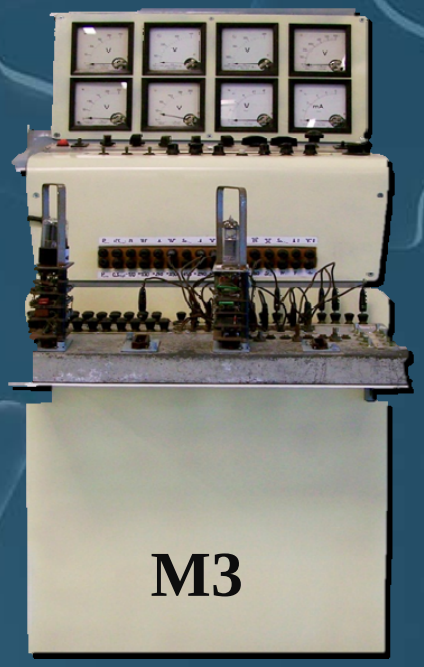
The outstanding values of our exhibition

Professor Kalmár and his co-workers started to build an electronic computer in the mid-1950s. But in the end, continuing the example of the Ferranti logical machine, he created a logical machine with a completely original design.

Kalmár's logical machine, the first messenger of the Hungarian information technology, was made in 1957, and, together with the Ladybird of Szeged, was introduced with great success at the Budapest Industrial Expo in 1960.

The outstanding values of our exhibition

The first computer built in Hungary, the M3 was put into operation on the 21st of January 1959. This opened a new era in the history of information technologies in Hungary. Unfortunately the machine wasn't preserved, it was disassembled in 1968, but we exhibit a few remaining partial units as the relics of computer history.



M3

The Ladybird

- Dániel Muszka built his Ladybird to model Pavlovian conditional reflexes.
- We chose the “Ladybird”, which can be regarded to be the "live" symbol of the idea of cybernetics , to be the symbol of our museum.

The Ladybird

The Ladybird is very popular even today.

It was VIP attraction even at the Robotville Festival in London in 2011.

The outstanding values of our exhibition

One of the treasured objects in our collection, also treasured for its rarity, is the transistor computer named **Razdan-3,** designed in the Research Institute of Mathematical Machines in Yerevan between 1958 and 65, and manufactured from 1966.

The outstanding values of our exhibition

The Minsk computer family manufactured in Minsk for 10 years is, practically speaking, the descendant of the vacuum tube M3 computers developed in Moscow. The first member of the family, the Minsk 2, was the first semiconductor computer of the Soviet Union, the **Minsk 22** is its corrected and updated version.

The outstanding values of our exhibition

The first computer originally designed in Hungary was the transistor computer named EMG 830, and its modern architecture really deserves recognition.

The **EMG 830** was a completely Hungarian-designed, middle category computer for digital administration applications, built from silicon based semiconductors. Its architecture is typified by the modularity and the buses; its modern architecture is greatly superior to similar middle category machines.

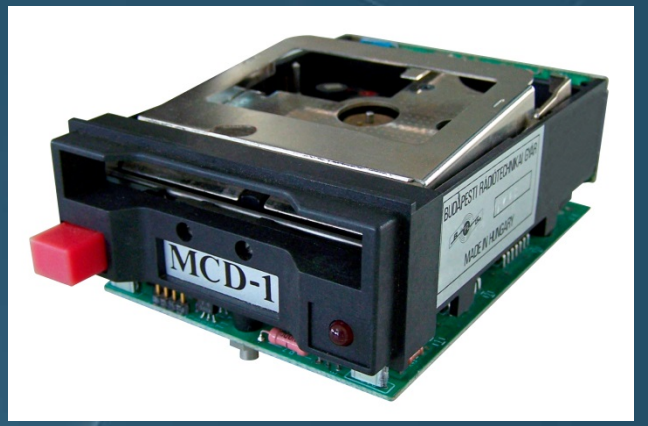
The outstanding values of our exhibition

The smallest member of the ES was the **R10** computer. The first version of this (1010B) , based on the license of a French machine (CII 10010), was developed at SzKI. The mass production of the R-10 version was accepted later in the official approbation process, and was started around 1973 at Videoton.

In the 1970s-80s the Videoton Computer Factory produced the central unit of the R10 computers (being part of the ES series), which was a microprogrammed minicomputer, built from TTL (Transistor-Transistor Logic).

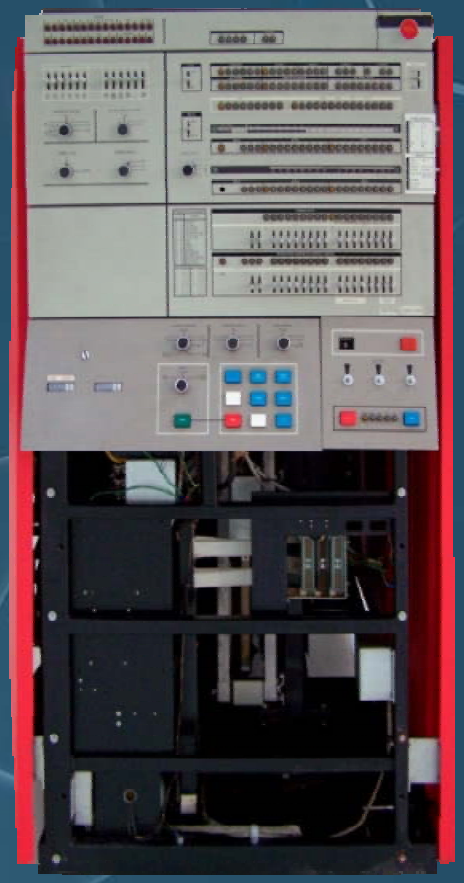
The outstanding values of our exhibition

In the beginning of the 1970s the flexible magnetic disc, the “floppy”, appeared worldwide as a comfortable data storage solution, first in paper envelopes with a large 8" diameter, later, in a less vulnerable plastic case, the “small” one with a diameter of 5,25".
Marcell Jánosi received the patent for the flexible disc placed in a cassette case, named **MCD-1,** already in 1974.



The outstanding values of our exhibition

Among the systems that hit the market in the 1960s, the **IBM 360** family unequivocally had the greatest impact on the history of computing.
300 patents were used for the development of the IBM 360 computer family, which was a universal system, so its members could be built to solve all sorts of tasks from scientific technical tasks through data processing and process control to remote data processing.



The outstanding values of our exhibition

The **Primo** , the first Hungarian-produced home computer available in shops, was put on the market in 1984.
Approximately 7000 copies were assembled until 1986; among these approximately 1000 copies were professional, push-button keyboard -equipped versions, the Primo-B.

The von Neumann Collection

- Personal objects
- The only available biographical film
- Certificates and awards

The Martian's Daughter

Marina von Neumann Whitman, John von Neumann's daughter, was the honorary guest of the „Past of the Future - From Punched Cards to Information Society" conference .

János Áder President of the Republic received her.

The interaction

The Past of the Future in Present:
The results of the 20th century, presented with the technology of the 21st century.

See You at the Exhibition!

www.njszt.hu, pastofthefuture.eu