

MCM70 @ 50



Exhibit Catalog

we are MCM



The September 25th, 1973 announcement of the MCM/70 in Toronto's Royal York Hotel. From left: Mers Kutt, Gordon Ramer, Edward (Ted) Edwards, and Reg Rea, with a prototype of the MCM/70.

Photograph by Parkway Productions; courtesy of York University Computer Museum.

Fifty years ago, on September 25, 1973, members of the Canadian press gathered in a suite at the Royal York Hotel in downtown Toronto to witness the unveiling of a radically new type of computer. Sitting side-by-side at the conference table, four representatives of a Toronto-based company Micro Computer Machines (MCM) sat behind a small electronic device resembling a typewriter. That device was the MCM/70 – arguably the world's first PC built around the microprocessor and designed specifically for personal use. There is no audio record of the MCM/70's presentation but it could well have begun with these statements:

“We are MCM.”

“This is a computer.”

“This is how the future will look like.”

What MCM unveiled that day was not only its portable PC but also a new computing paradigm. At the time, the computing landscape was dominated by massive and expensive mainframe computers requiring the kind of space and financial resources that could only be mustered by large corporations. By contrast, the MCM/70 was designed to make widespread, personal information processing a reality. It was to:

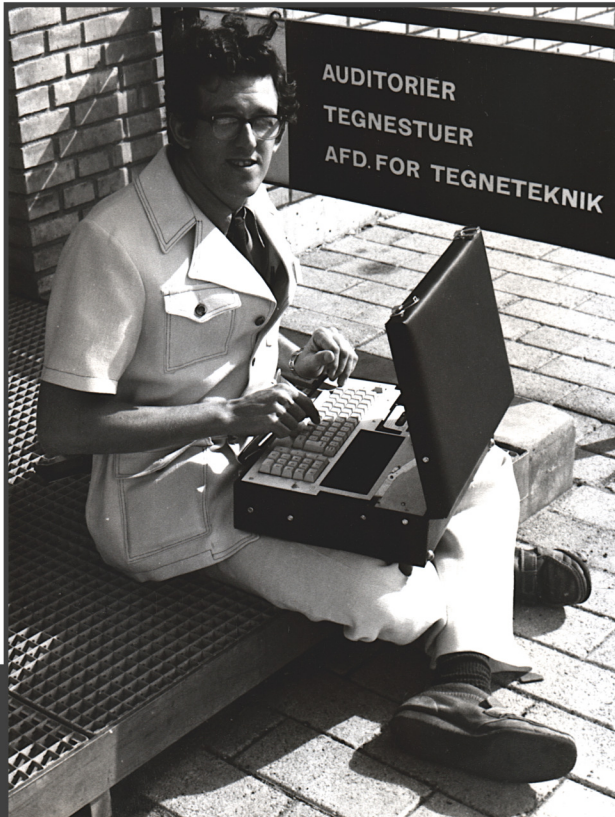
bridge the gap between the sophisticated calculators that offer simplicity of operation but fail to provide the information processing capability of the computer... and the large, complex computers that require such high degrees of training and experience as to place them beyond the operational capabilities of most people who want to use them. [MCM, 1973]

Mers Kutt, the inventor of the computer and MCM's first president painted computing's future landscape as one filled with millions of small computers, just like the MCM/70, and only a limited number of large ones.

Organized by the York University Computer Museum and York University Libraries, *MCM/70 @ 50* celebrates the momentous appearance of the MCM/70 computer – a technological marvel that offered an early glimpse of a new digital reality. It pays tribute to the makers of the MCM/70 for their contributions to personal computing.

The exhibit features a complete line of MCM computers from the museum's MCM collection, including an MCM/70 computer. Among the exhibited images are pictures taken during the unveiling of the computer in Toronto and those depicting former MCM engineers reunited with the MCM/70, reflecting on the creativity, enthusiasm, and dedication it took to realize their computer concept and deliver their creation into the new world of personal computing.

“sensational computer from Canada”



Ted Edwards demonstrates the MCM Executive during a computer congress in Denmark in August 1973. This photograph appeared on August 29th, 1973, in Danish daily *Politiken*.

Photograph by Couchi Consulting Co.; courtesy of York University Computer Museum.

MCM's vision of personal computing had already generated an enthusiastic response during a promotional tour of Europe and North America in the summer of 1973. It was the Executive—a battery-powered model of the MCM/70 computer in a briefcase, a precursor to today's laptops—that generated the most excitement. The Executive was put together in a short time for a demonstration at a computer congress held at the Technical University of Denmark near Copenhagen in August 1973.

On August 29, the day after the Executive's demonstration, the Danish daily *Politiken* published a front-page article about a sensational computer from Canada. The article included two photographs depicting MCM employee Ted Edwards operating the Executive on the doorstep of the auditorium where the congress took place. The article describes the scene:

In all modesty, a real sensation occurred yesterday when the International APL Congress was about to begin at the Technical University of Denmark. When the buses with conference participants from 24 countries arrived from hotels in Copenhagen, he [Edwards] was sitting on the steps of an auditorium building solving complex problems on his data processing machine placed on his lap. Several experts who went by thought that the computer was a joke. Many stated that such a machine was impossible. But others who followed Ted Edwards' programming computations [...] admitted that the machine performed exactly as considerably larger IBM computers running APL [programming language] and connected to an electrical outlet. There just wasn't any power cord attached to Ted Edwards' briefcase.

Other Canadian as well as international publications followed suit and swiftly elevated MCM to the position of one of the most innovative high-technology companies.

There seems little doubt that Canada has stolen an early world lead in the new era of 'distributed processing' which will bring the dream of a computer in every home and office closer to reality.

wrote *Electronics Communicator* in October 1973.

**“children would not be relying
solely on teachers for education”**



MCM's first president Mers Kutt supervises Kim Edwards in her calculations during the September 25th, 1973 announcement of the MCM/70. The demonstration was arranged to back up MCM's claim that the MCM/70 computer was as easy to use as a desktop calculator.

Photograph by Keith Beaty; courtesy of Toronto Public Library.

The MCM/70 was designed for engineers, scientists, businessmen, teachers and students. The computer, it was hoped, would open up a new personal computer market and appeal to both experts and novices alike:

The simplicity of the MCM/70 and its associated computer language (known as APL) make personal computer use and ownership a reality... Enjoy the privilege of having your own personal computer – it's a privilege no computer user has ever had before the MCM/70... Good luck, and welcome to the computer age! [*MCM/70 User's Manual*, 1973]

The MCM/70 offered several novel features. The company maintained that society's direct and unrestricted access to computing resources could be accomplished with affordable personal computers bundled with user-friendly operating systems and powerful but simple programming languages. That's why the MCM/70 was offered with the built-in operating system and the MCM/APL computer language. The computer was also provided with innovative hardware solutions such as a power failure protection system. It allowed continuous operation under battery power in the event of power failure. For extended power loss, the computer initiated an orderly shutdown by automatically executing a system backup and copying the content of memory to a cassette. The system was automatically reinstated as though there was no interruption at all when the power was restored and the batteries were recharged.

From 1974, the MCM/70s were sold to corporations, organizations, and individuals in North America and Europe. However, the highly competitive computer market of the 1970s as well as corporate problems at MCM eventually pushed the company out into the outskirts of computing. By the early 1980s, dwarfed by the success of Apple Computer and IBM in the personal computer market, MCM was forgotten.

In 2003, the *IEEE Annals of the History of Computing* published a feature article on the MCM/70. Soon after, *The Globe and Mail* and *The Toronto Star* (which participated in the MCM/70's unveiling) celebrated the 30th anniversary of the computer's announcement with their front page stories. These articles brought the MCM/70 back to light and generated considerable worldwide attention. Fifty years after the MCM/70's announcement, as envisaged by MCM, computing power has become a commodity accessible to everyone, anytime, anywhere.



During his 2011 visit to York University, José Laraya, MCM's chief hardware engineer, was reunited with the first prototype of the MCM/70 that he constructed in 1972.

The *MCM/70 @ 50* exhibit is organized by the York University Computer Museum in collaboration with York University Libraries. It is made possible by the generosity of Lee Lau and support from the Department of Electrical Engineering and Computer Science. *MCM/70 @ 50* inaugurates the museum's LINK exhibit series.

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