

My Introduction to Computers

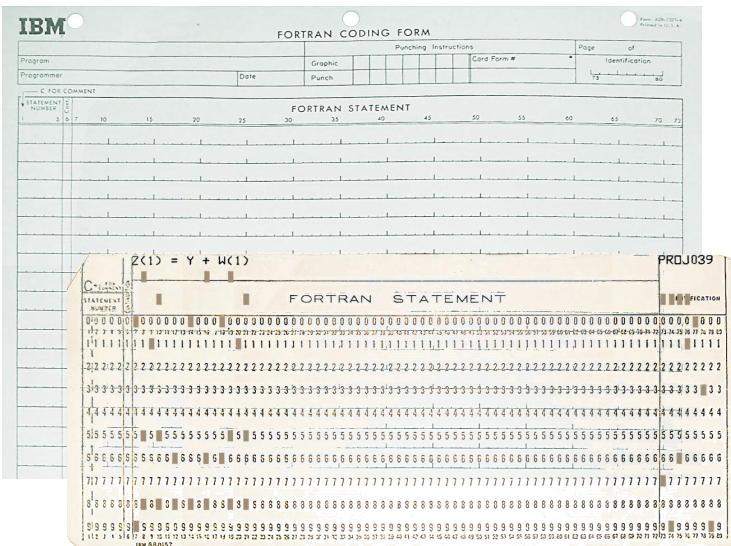
Murray Taylor, B.E. (Mech) 1967

After completion of third year Mechanical Engineering, at the University of Saskatchewan, in the spring 1966, I enrolled in a class called Programming Engineering Problems. We learned the basics of the Fortran IV computer language. It was my first introduction to computers.

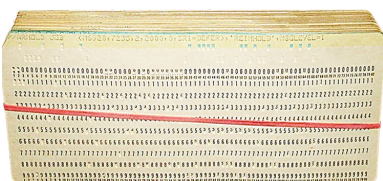
As I write this in 2023, I'm using my desktop computer where I immediately see the results of keys that I press; when I make a mistake, I simply hit the Backspace or Delete key and correct it. Furthermore, I can reach out in seconds, to almost anywhere on the planet, and access information that I would want. I use a variety of computer applications that have already been programmed for me.

What a contrast! Here's how the programming process went in the mid-1960s. Fortran code was planned and penciled on to a Fortran Coding Form, one character per space, one line of the program on each line of the form. Each space on a line of the form corresponded to a column on a punch card.

The coding form was taken to a keypunch machine, where the code was placed onto cards by punching holes. Each character was represented by its unique set of holes in a column that would be interpreted by the computer. Each line or statement of the program was punched onto a single card. The complete Fortran program was contained in a deck of cards.



A Fortran Coding Form
Arnold Reinhold, [FortranCodingForm](#), [CC BY-SA 3.0](#)
A Punch Card with a Line of Fortran Code
Arnold Reinhold, [FortranPunchCard](#), [CC BY-SA 2.5](#)



A Computer Program
On a Deck of Punched Cards
Arnold Reinhold
[Punched Card Deck](#), [CC BY-SA 3.0](#)

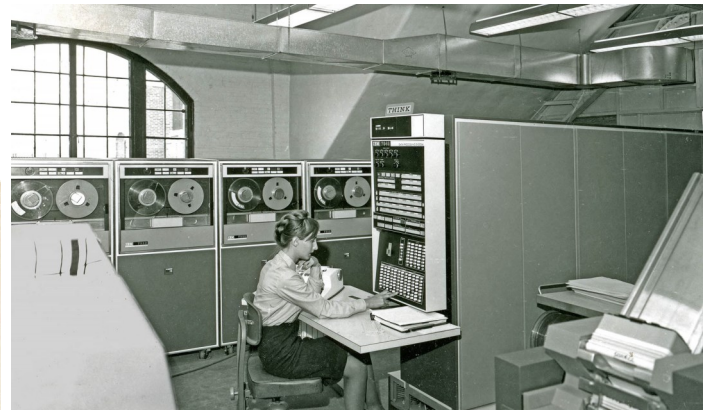


IBM Keypunch Machines
Department of Computational Science
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To run the program, the deck of cards was taken to the University's 'mainframe' computer. There was often a queue of programs to be run. I had to wait my turn, or possibly leave and come back later to pick up the results. The computing staff ran the cards through the card reader; the computer processed the program and provided a printout of the results.

Computers demand perfection, so when there was an error in the programing, I would find the offending card or cards, go back to the keypunch machine and punch out corrected cards, then return the deck to the computing staff to rerun the program.

That was 57 years ago; how technology has changed!



"The IBM 7040, the first 'Mainframe' used by the University, installed in the Engineering Building in 1965. The card reader is front right, and in the left foreground is the side of the line printer, where all output was obtained. Several tape drives are shown in the background." - Robert N. Kavanagh, Ph.D.

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