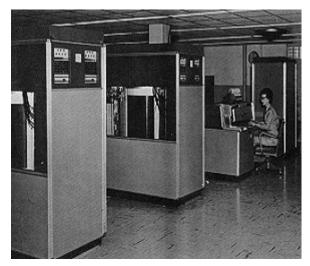# IBM intros 1st computer disk storage unit, September 13, 1956

Suzanne Deffree - September 13, 2017

Weighing in at more than a ton and storing 5MB of data, the IBM 305 RAMAC was the first supercomputer with a hard disk drive (HDD).

Introduced by IBM on September 13, 1956, RAMAC stood for "Random Access Method of Accounting and Control" and used a moving head HDD (magnetic disk storage) for secondary storage.

So large that it had to be moved by forklift and transported by plane, the original 305 RAMAC computer system could be housed in a room of about 9×15 meters. The 350 disk storage unit, itself, measured around 1.5 square meters.

The machine stored 5 million 8-bit (7 data bits plus 1 parity bit) characters, the equivalent of 64,000 punch cards, on 50 24-inch magnetic disks. Two independent access arms under servo control moved up and down to select a disk and in and out to select a recording track. The average time to locate a single record was 600 milliseconds.

It has been said that in the years IBM produced RAMAC machines, the storage could have been increased, but Big Blue's marketing department was against doing so because they did not see how such an amount of storage could be marketed.

IBM leased the RAMAC 305 system with 350 disk storage for $3,200 per month – a pretty penny in the 1950s but well worth it to companies investing hours and resources in archaic punch card systems. The first RAMAC to be used was in the US auto industry, installed at Chrysler's MOPAR division in 1957.

More than 1,000 systems were built before production ended in 1961. The RAMAC became obsolete one year later when the IBM 1405 disk storage unit for the IBM 1401 was introduced. The 305 was withdrawn in 1969.

See the below RAMAC promotional video for more history.

Also see:

- [1956 hard disk drive](#)
- [Storage relies on DRAM](#)
- [IBM dedicates Harvard Mark I, August 7, 1944](#)
- [IBM retires 7030 "STRETCH" computer, June 21, 1981](#)
- [The top 5 fastest supercomputers and their power management challenges](#)
- [IBM's SyNAPSE carves out neural network simulation the company insists FPGAs can't follow](#)

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Editor's note*: This article was originally posted on September 13, 2012 and edited on September 13, 2017.*