

Describe a milestone in the History of ICT. Include a date of the milestone; describe the milestone, and why it was important. Include at least one reference.

4004 Microprocessor – 1971 ICT Milestone

The invention and advances of the Microprocessor the brain of every computer system has allowed rapid advancements in ICT. With all the Information technology products and services we now enjoy and take for granted this may be one of the most important inventions in our life time. Computer technology is now a huge part of our everyday lives and the microprocessor was an integral part of making it all possible. In January of 1971, Federico Faggin at Intel completed the first complex instruction set computer (CISC) microprocessor. The 4004 was a 4 bit processor that was intended for Nippon Calculating Machine Corporation new Busicom 141-PF printing calculator. The 4004 CPU processed data in 4 bits which was appropriate for calculators of that era but for today's modern systems and applications 64 bit processors are at the high end of today's ICT technologies.

Texas Instruments (1972) and Motorola (1974) followed with their processor versions soon after Intel and the race to technology had begun. IBM also invented the first "Reduced Instruction Set Computer". RISC based processor in 1975 and AMD is now also a major player in RISC based processor technology.

If you have ever used a phone, rode in a car, bus train or plane, used a computer, accessed the internet or used a programmable house hold appliance you have benefited from microprocessor technology. This year Intel announced its first Atom processors for smart phones and tablet PC's. It seems that from simple task such as using a phone to complex Space exploration the microprocessor has been a part of the growth of ICT.

REFERENCES

Faggin F., Hoff Jr., Marcian E., Mazor, S. and Shima, M. (1996 December 20). The history of the 4004.

IEEE Micro, 10-20. Retrieved on September 24, 2010, from Internet Archive database

http://www.archive.org/stream/HistoryOfThe4004/history_of_4004_djvu.txt

Howard, C. E. (2007, February 1). Military microprocessor technology expands, but requires less

silicon space. *Military Aerospace Electronics*. Retrieved on September 24, 2010, from

<http://www.militaryaerospace.com/index/display/article-display/284232/articles/military-aerospace-electronics/volume-18/issue-2/departments/product-intelligence/military-microprocessor-technology-expands-but-requires-less-silicon-space.html>

Shimpi, A. L. (2010, May 4). Unveils Moorestown and the Atom Z600, the Fastest Smartphone

Platform. *Anandtech*. Retrieved on September 24, 2010, from

www.anandtech.com/.../intel-unveils-moorestown-and-the-atom-z600-series-the-fastest-smartphone-processor/