

Second generation computers essay sample

[Technology](#), [Computer](#)



The computers built in the 1950s and 1960s are considered the 2nd generation computers. These computers make use of the transistors invented by Bell Telephone laboratories and they had many of the same components as the modern-day computer. For instance, 2nd generation computers typically had a printer, some sort of tape or disk storage, operating systems, stored programs, as well as some sort of memory. These computers were also generally more reliable and were solid in design. 1957: FORTRAN

FORTRAN, an acronym for Formula Translator was the first successful programming language. This language used words and sentences instead of the binary machine codes that had been commonplace in computers prior to the 1950s. FORTRAN could be read by ordinary people with no previous programming experience or knowledge, and it made it easier for computers to be programmed. FORTRAN was extremely useful in that given a single statement, many instructions would be produced. FORTRAN created programs that were just as good as those produced by human programmers. Not only was it one of the most successful programming languages ever, but it also dominated many other languages for years.

1959: COBOL

COBOL, the Common Business Oriented Language, was invented in 1959. This is a business programming language that allowed for computer programs to be easily read.

1960: PDP-1

DEC, or the Digital Equipment Corporation was founded by Kenneth Olsen

and Harland Anderson in 1957. In 1960, DEC introduced the Programmed Data Processor, or PDP-1. The PDP-1 was a mainframe computer famous for its low costs. Compared to other computers that generally cost more than \$1 million dollars, at “ only” about \$120, 000 the PDP-1 was considered really cheap! The PDP-1 could be sold at such a low price because it did not contain many advanced peripherals and software. In other computers, these advanced systems amounted to nearly 80% of the computers’ cost.

1961: IBM 1400 Series

The IBM 1400 Series were a major breakthrough for IBM. The first computer in this series is the IBM 1401. The 1401 was a computer system that used transistors instead of the vacuum tubes found in previous IBM computers. The system contained many peripherals, which included, among others, a new high-speed printer. This printer could print 600 lines per minute! The total cost of an IBM 1401 was \$150, 000. 12, 000 of these computers were produced.

1962: SpaceWar!

Space War is the first interactive computer game. It was developed by MIT students Slug Russell, Shag Graetz, and Alan Kotok for the PDP-1 computer. In this game, players must battle against enemy spaceships and face obstacles like the gravity of the sun. The players used primitive joysticks to maneuver their ships. SpaceWar has helped to inspired future video games.

Late 1960s: Integrated Circuit

Introduced in the 1960s simultaneously by Texas Instruments and by Fairchild Semi-Conductor, the integrated circuit combines many tiny

transistors and other electrical components onto a small silicon chip. It replaced the need for individual transistors. Later, these integrated circuits were refined so that one small chip could contain thousands of transistors, as well as other similar components. As more and more components were squeezed into a small silicon chip, the size of computers gradually decreased.