Abstract

Binary division is the basic operation performed by arithmetic circuit. It is simpler than the decimal division because the result always produced in either 1 or 0. All the values of dividend, divisor, quotient and remainder are in 1's or o's form. There are number of binary division algorithms are available as restoring method, non restoring method, division by XOR logic operation and SRT division and comparison method. This paper presents a new concept of the comparison division method. The comparison division algorithm provides high speed computation work and increases' the system performance.

References

- Arithmetic operations in a binary computer by Robert F. Shaw
- An algorithm for non-restoring algorithm by S. Sonycl, Tata Institute of Fundamental Research Bombay, India
- Fast 32-bit Division on the DSP56800E Minimized non restoring division algorithm by David Baca
- Improved Algorithms for Non-restoring Division and Square Root by Kihwan Jun, B. S. E. E., M. S. E. M. S. E.
- A Division Algorithm Using Bisection Method Residue Number System by Chin-Chen Chang and Jen-Ho Yang
- Binary division and square-rooting using Gray code by CK Yuen
- VHDL Implementation of Non Restoring Division Algorithm Using High Speed Adder/Subtractor Sukhmeet Kaur

Index Terms

Computer Science

Algorithms

Keywords

Binary division
Restoring concept
Comparison method and Non restoring method
Magnitude comparator