

Structured And Unstructured Programming

Rosanna Festa

Alumni NoiSapienza
Università La Sapienza, Roma

Abstract-In mathematics and mathematical logic, Boolean algebra is a branch of algebra. It differs from elementary algebra in two ways. First, the values of the variables are the truth values true and false, usually denoted 1 and 0, whereas in elementary algebra the values of the variables are numbers. From Poincaré to Turing mathematics is developed at the basis of the fundamental processes.

Keywords- Boolean algebra, branch of algebra

I. INTRODUCTION

From a qualitative point of view we have two divisions: autonomous systems and complementary systems. Computational physics develops on binary criteria, on Boolean logic and on the identification of half-integers (or even opposing values) (1). Autonomous systems are therefore developed on the basis of algebraic calculation, with the size of the computer set as a limit. Complementary systems take as their basis the main argument of the algorithm, posed as the assumption of a mathematical calculation in machine language.

The mechanism of these calculating machines compared to machines based on expected value (autopoiesis) presents informational transactional aspects which are both from a statistical and algebraic point of view considered finalistic. The summary is that the construction of the physical prospect portrays a microsystem through a machine with aspects very similar to the distributed computing environment (2). From this it can be deduced, through axiomatic and deductive characters, that Cartesian "mathematism" is a very modern method, because it is among the precursors of the complement method in complexity. (3)

"Turing's solution is still applied today and was born from the broader interpretation of the concept of a stored program machine: the instructions for managing the subroutine constituted a meta program that was applied to the main program, controlling the timing and addressing of the instructions. The strategy was based on the fact that instructions were written in numerical code and

could be processed as if they were data." For the purpose of λ -calculation, the functional programming underlying the structured one is based on the development of Lagrangian mathematics. The fixed TS that Turing talks about, at the basis of the processes of computational accumulation and IT recovery, is made up of instructions directly linked to the problems of calculating the register and the memory functions of the computer, so it is obvious that the λ calculation is an algebraic mathematics and it is necessary to resort to axioms such as those of Poincaré, for example, so that it is easy to distinguish between structured programming and unstructured programming. The differential analyzer, typical of ENAC machines for the organization of the machines and the programming methods, represents a symbol of commutability, also present in mechanics "vacuum tubes were used to implement the electronic memory of the machine (there were around 18,000 tubes), developed for use in an analogue way in radio and telephone communications since the 1930s.

II. PROGRAMMING CIRCUITS

Flip-flop circuits (bistable circuits, which have only two equilibrium states) were also used in large quantities in the ENIAC, although they were not yet too widespread. The truly courageous innovation of Eckert and Mauckly was therefore not in the architecture of the machine but in the confident gamble of putting together industrial quantities of electronic circuits, convinced that they would work while maintaining an acceptable level of failures". The programming methods therefore represent a standard, consisting of alphanumeric positive vectors

and electronic (or programming) negative vectors, so it is always better to isolate a certain type of circuit. The stored program process, therefore, is a transistor process, best represented by a mercury delay line. In binary calculus, basic arithmetic operations are added to procedural systems based on logical operations (A&B, AvB (inclusive OR), belonging to A, $A = B$), always carried out on two fixed TSs with a binary result (on a defined TS), underlying the arithmetic part (CA) of machine language translations while the operation of transferring memory to cards used for output and input and vice versa, based on synchronization, are translated in the same way as machines do not organized are based on binary processing and switching.

"We speak in terms of a philosophical and physicalist physicalism and mechanism [...] The unconditional jump, on the other hand, did not use a special register to redirect the instructions, but was governed directly by a succession of instructions that modified other instructions. The technique adopted was perhaps unnecessarily complicated, but we note that Turing, by adopting this procedure, took the notion of a stored program to its extreme consequences."

IV. NOTES

1. Computerscience, page144-150.
2. Computer science, page 239 and page. 78-85 for the second order, and pages 175-179 forthe distribution method.
3. See the main rules of the method on page. 72 of Descartes' Discourse on the Method.

REFERENCES

1. ENIAC (Electronic Numerical Integrator and Computer), c. 1946. Image: Courtesy of the Moore School of Electrical Engineering, University of Pennsylvania
2. JOURNAL ARTICLE Bibliography of Coding Procedure, Mathematical Tables and Other Aids to Computation Vol. 8, No. 46 (Apr. 1954), pp. 105-110 (6 pages) Published By: American Mathematical Society
3. Lagrange, MecaniqueAnalytique, Desaint, Paris, 1788.
- 1.Lagrange, Theorie de FonctionsAnalytiques, Imprimerie de la Republique, Paris, 1797.

- 2.Lagrange, Lettres Inedites de Joseph-Louis Lagrange a Leonard Euler, B. Boncompagni, St. Petesburg, 1877.
- 3.Lagrange, Lectures on Elementary Mathematics, The Open Court Publishing Company, Chicago, 1898, (translated by Thomas J. McCormack).
- 4.Lagrange, Oeuvres de Lagrange, Volumes III, IX, X and XI, Publiees par les Soins de M.J.-A.Serret, Paris: Gauthier-Villars, 1867-1892. The content is as follows:
 - Volume III: Material Printed in the publications of the Berlin Academy.
 - Volume IX: Theorie des FonctionsAnalytiques (reprinted from second edition, 1813).
 - Volume X: Lecons Sur le Calcul des Fonctions (reprinted from second edition, 1806).
 - Volume XI: M<ecaniqueAnalytique (reprinted from second edition, 1811-1815).
- 5.Grabiner, The Calculus as ALgebra, J.-L. Lagrange, 1736-1813, Garland Publishing, Inc., New york and London, 1990.
- 6.Katz, A History of Mathematics: An Introduction, Addison-Wesley, United States, 1998.
- 7.Anton, Calculus with Analytic Geometry, John Wiley and Sons, New York, 1992.
- 8.Gillipsie, Dictionary of Scientific Biography, Charles Scribner's Sons, New York, 1980.