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SISTEME INTEGRATE DE PRELUCRARE A DATELOR ÎN CONDUCEREA ACTIVITĂȚILOR ECONOMICE

(Romanian translation of: Integrated Data Processing Systems)

Editura Tehnică, București, 1969

One of the paradoxes of the present revolution in the domain of electronic data processing is that while better and more sofisticated machines are made, the problem of finding talented people to handle them becomes ever more arduous. At the beginning of the revolution in the domain of data processing it was considered that electronic computers represented actual „brains" and that the mechanical part was more important than the programming or control by man. It has, however, been found, that the success of an application in electronic data processing depends to a higher extent on people than on the respective machines.

Modern computers have extraordinary possibilities for operating integrated systems much more efficiently if the yare intelligently used. They do not replace good management, but only represent an aid in increasing management capacity.

Starting from this, the authors have endeavoured to present an introductory work concerning integrated data processing systems, so that the reader can understand the necessity of data processing by means of the computer, become acquinted with the best known and most widely used computing machines and computers and assimilate their basic operating principles.

The entire material is presented so as to oblige the reader to study each chapter in natural order. The authors, to start with, deal with the necessity of economic information and of integrated systems, with the types of electric and electronic machines required to introduce an integrated system, as well as the flow charts used in analyzing economic systems.

In contrast with the expectations of some computer specialists, the authors begin by introducing the punched card equipment used in small, medium and even large installations. Thus, the processing techniques of data recorded on punched cards are analyzed — the mode of punching and sorting — and a series of applications, typical in the economic activity, are given as examples.

In data processing by means of punched card equipment, continuous intervention and supervision of the operator is necessary and the operations carried out must be checked at every stage.

The machines with stored program (computers) are able to carry out the corresponding processing, even in the case of intricate problems, within a single unit. Having introduced all the instructions and data

in the computer,this can process a problem without any other interference, at very high speed and with maximum efficiency.

The authors also present some technical details of computer systems and rightly insist on programming languages and particularly on the FORTRAN language.

Because the authors have given a series of typical examples in the technique of the utilization of punched card machines (daily stock reports, billing and shipping control, sales analysis, cashing accounts) and of the programming of computers (sales prediction, material planning stocks administration, supply organization), this book has acquired important theoretical value and particularly practical value, and the Editura Tehnică has taken a praiseworthy initiative by publishing this book which proves to be so useful to economists, engineers, enterprise managers and students.

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