

98[Z].—IVAN FLORES, *Computer Logic: The Functional Design of Digital Computers*, Prentice-Hall, Inc., New Jersey, 1960, xii + 458 p., 24 cm. Price \$12.00.

The author has attempted to write an all embracing book on computers for the reader who has some scientific training, but little engineering or mathematical training. In the reviewer's opinion, the author "talks down" to his reader and interlaces his discourse with many irrelevant comments; e.g., "The concept of the individual is one of far reaching consequences. Would you expect this idea to have ramifications in biology, law and ethics? . . ." (from section 7.1 of Chapter 7, Number Systems and Counting).

The author's style is unfortunate in another respect: he often uses a term or an expression before he has defined it. In some cases the definition can only be found in the glossary at the end of the book. The reader is not helped by the fact that certain terms used in the text and partially defined therein are not listed in the index; e.g., the term "overflow".

It is unfortunate that the book is not error free. Thus the unwary reader will have difficulty with the following passage from page 100 where the base 12 numbers are being discussed: "To represent the quantity thirty-two, we would count out our bundle of a dozen twice and have seven (sic) units left over. Thus thirty-two will be represented . . . (by) . . .  $(27)_{12}$ ."

The first half of the book is intended to give "a bird's-eye view from the air . . . to see how the computer fits into the over-all system of scientific investigation and business enterprise." The second half discusses the logical design of various basic units of a computer and the synthesis of larger functional units of such a machine.

The sequence in which the author takes up various topics seems somewhat strange. Thus the chapter on Number Systems and Counting follows the one on Machine Arithmetic. In the latter chapter, addition is done by use of addition tables but the reasons for using these instead of counting techniques is never discussed.

The list of chapter headings follows:

Chapter One	Introduction
Chapter Two	First Principles and Definitions
Chapter Three	Specifying the Computer For the Problem
Chapter Four	The Flow and Control of Information
Chapter Five	Coding
Chapter Six	Machine Arithmetic
Chapter Seven	Number Systems and Counting
Chapter Eight	Machine Languages
Chapter Nine	Logic
Chapter Ten	Logical Construction
Chapter Eleven	Functional Units
Chapter Twelve	The Logic of Arithmetic
Chapter Thirteen	Memory Devices and Their Logic
Chapter Fourteen	The Control Unit
Chapter Fifteen	Input and Output Equipment
Chapter Sixteen	A Problem