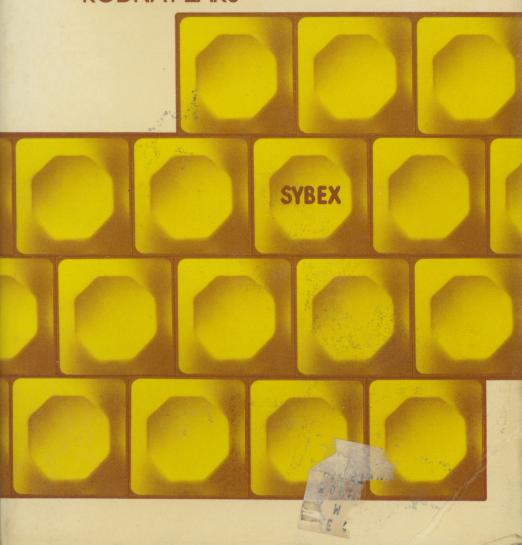# AN INTRODUCTION TO PERSONAL AND BUSINESS COMPUTING

RODNAY ZAKS

SYBEX

Umtech Videobrain

Characteristics
- *Microprocessor used: Fairchild "F8" (3870)*
- *Standard memory: 4K ROM, 1K RAM*
- *Keyboard: 36 keys, 71 characters*
- *I/O: Color TV output (RF). RS 232 and current-loop connections.*

Videobrain is an "integrated keyboard" computer designed as a step up from the video games. It uses "program cartridges," which provide up to 4K additional ROM, and comes with paddles, and an antenna switchbox for connection to a home color television.

It is currently distributed by Macy's, a chain of department stores, for $500.00.

This computer is designed exclusively for the user who does not want to program, and simply cares about plugging in a new program. The user is completely dependent on the manufacturer for the supply of new programs, and the computer cannot be readily expanded at the processor level.

However, because a majority of the users of home computers do not care to learn to program, it may find good acceptance if a sufficient number of program cartridges become available.

Typical uses: TV games, household cash management, loan analysis, math tutor, music tutor, touch typing course.

Bally Professional Arcade

Characteristics:
- *Microprocessor used: Zilog Z80*
- *Standard memory: 8K ROM, 4K RAM*
- *Keyboard: 24 keys, 70 characters*
- *I/O: color TV output (RF). Displays 11 lines x 27 characters.*
- *additional memory: 8K byte ROM cassettes. Expandable to 44K with expansion box featuring 16K ROM, 16K RAM, standard alphanumeric keyboard, IEEE 488 interface.*
- *Price: $300.00.*

Designed as a "super video game," this unit features a keyboard labeled in mini-BASIC, as well as ordinary characters. Programs are stored on ROM cassettes, and the unit includes storage for 15 cassettes. An expansion box has been announced, which would turn the unit

Fig. 10-4: Videobrain

into a full general purpose computer, with a standard alphanumeric keyboard.

Typical uses: TV games, math tutor, home finance.

Commodore PET

Characteristics:
- *Microprocessor used: 6502*
- *Standard memory: 8K RAM, 14K ROM (includes 8K BASIC)*
- *Keyboard: 73 keys, 128 characters*

Fig. 10-5:   Bally Arcade Uses Program Cartridges

•*CRT monitor: integrated 9", black and white, 25 lines x 40 characters, 8 x 8 dot matrix.*
•*Tape cassette: integrated*
•*I/O: standard IEEE 488 interface*
•*Special features: limited graphics capability (64 graphic characters)*
•*Price: $800.00 with 8K RAM*

PET stands for "Personal Electronic Transactor," and is a complete, integrated system, with its own display, and mass memory (a cassette recorder). Programs may be loaded from cassettes, or, in the future, from other peripherals, through the IEEE 488 interface. Except for the limited amount of internal RAM memory, which limits

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A comprehensive, yet simple introduction to the micro-computer world for the potential user. A detailed introduction to the concepts, the peripherals, the techniques.

This book has been designed as an educational text and should be of value both to the novice, and to the user seeking to expand his knowledge and understanding.

ABOUT THE AUTHOR

Rodnay Zaks holds his Ph.D. from the University of California Berkeley. He was involved in actual industrial application of microprocessors since their inception. He has taught seminars and classes to over 3000 persons internationally on microprocessor use and technology. He is the author of over 30 publications or research papers. This book, like others in the series, is a direct result of his technical and educational experience.

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