

Coleco's ADAM

THE VIDEO GAME MAKER
COMES OUT WITH A COMPLETE COMPUTER-IN-A-BOX

BY CHARLES H. GAJEWAY



The ADAM is a complete computer system (including a daisy-wheel printer) that sells for around \$750. All you need to start computing is a TV.

ADAM FACTS

MEMORY: 80K RAM, expandable to 144K
 USER-AVAILABLE MEMORY IN BASIC MODE: 26K
 (for unexpanded model)
 VIDEO OUTPUT: TV or monitor
 TEXT DISPLAY: 36 char × 24 lines; 80 char
 × 24 lines with 80-column adapter
 and monitor
 GRAPHICS: 16 colors, 256 × 192 (maxi-
 mum resolution)
 SOUND: 3 voices, 5-octave range
 KEYBOARD: Typewriter-style, 75 keys, 6
 multifunction "smart" keys
 SUGGESTED RETAIL PRICE: \$750, includes
 printer (80 columns, 10 char per sec-
 ond), 2 joysticks with numeric key-
 pads, keyboard, memory console

Most computers are assembled from components bought separately. Consumers attracted by the low price of the Central Processing Unit, or keyboard unit, often find that they have to spend a considerable amount of time and money to put together a working system. Not so with Coleco's ADAM. The whole system comes lock, stock, and barrel in one box. If you have a TV, you're ready to start computing.

The major part of ADAM is the popular ColecoVision video game system; and if you already have a ColecoVision, you can turn it into an ADAM with an expansion module (for about \$500). Because Coleco believes that playing games and word processing are the two most popular applications for home computerists, the ADAM is geared for both and has a built-in word-processing program.

Packaging all these features into a computer that works well and sells for \$750 is an ambitious task, one that many didn't think was possible. Did Coleco do it?

OPENING THE BOX

The box the ADAM system comes packed in is impressively large, complete with all the necessary cables and connectors, several instruction manuals, and three of Coleco's special "data packs," which are a cross between cassettes and floppy disks (SmartBASIC, Buck Rogers, and a

blank disk for storage). The system includes a keyboard, a memory console with a data-pack drive, two joysticks with numeric keypads, and a daisy-wheel printer. In the future, a disk drive and modem will be available.

The set-up guide gives clear, explicit assembly instructions, and the system sets up easily. The cables and connectors are sturdy, fitting with a reassuring precision. While ADAM is constructed largely of plastic, the unit, with the exception of the printer, looks and feels solid, with no gaps or sharp edges.

THE COMPONENTS

Keyboard. The keyboard is superb. Key spacing and "action" are professional. There's a set of dedicated keys (PRINT, STORE, etc.) for the built-in word processing, and six function keys. ADAM rates an A-plus here; both experienced computer users and novices tried it out, and all were impressed.

Memory Console. The memory console, which connects to the keyboard with a cable, is also very good. It has a low, sleek profile, yet the data-pack drive and ColecoVision cartridge port are easily accessible. My only complaints are that the data-pack drive door opens with a jarring clunk, and the unit is not big enough to be tucked under a monitor to create a compact grouping.

Digital Data Packs. The data-pack drive, which accepts digital data packs (they look much like cassettes), is a cost-effective compromise between audio-cassette storage and a floppy disk drive, and stores a sizable 256K. While not as fast as a disk drive, particularly when saving a file, data packs are not as painfully slow as an audio cassette. [See "Buyers' Guide to Mass-Storage Devices, p. 86.] Reliability was good and ease of use acceptable, but the thin tape is fragile and more prone to accidental damage than a disk, particularly from younger family members. The BASIC tape, in fact, would not load after just two days of use.

Screen Display. The screen image is on a par with that of the Commodore 64—good but not exceptional. The 36-character screen display is stable, but ghosting and interference detract from sharpness, which can be annoying when word processing.

Printer. The printer is the only part of the system where cost cutting is obvious and detrimental. It is a letter-quality daisy-wheel printer, but is extremely slow (10 characters per second), and has a flimsy, toy-like

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feel, particularly in the paper-handling mechanism. The printer's design seems susceptible to breakdowns, a problem made worse because the power supply for the entire system is in the printer. If the printer has to be repaired, the computer is unusable. Coleco should have located the central power supply in the memory console; a computer temporarily without a printer is a lesser evil than a family temporarily without a computer.

While the reliability of the printer is a question mark, the noise it makes in operation is very real. Several people remarked that the shocking clatter would give them serious reservations about purchasing an ADAM system. I would have to agree, since the printer woke my daughter from a sound sleep twice while I was testing the machine. A user could rig a foam-lined box to absorb some of the racket, but Coleco needs to revisit the drawing board on this one.

ELECTRONIC TYPEWRITER

If a program data pack is not in the drive when the machine is powered up, the user is greeted with a screen titled ADAM'S ELECTRONIC TYPEWRITER. In this mode, whatever is typed at the keyboard immediately appears both on paper and on the



Coleco's digital tape drive, which runs programs stored on data packs, looks much like a cassette tape recorder. However, it is much faster, and can be operated under computer control. With data packs, which look much like cassettes, you can locate files or programs much faster than you can on cassettes.

screen. Just as with a typewriter, the only controls are margins, tabs, and margin release. Highly useful for short notes and letters, this built-in program eliminates the need for a typewriter in the house.

WORD PROCESSING

Coleco calls its built-in word-processing software *SmartWRITER*, referring to its reliance on the six variable function "smart keys" used to control many of the editing features. A reasonably powerful and complete word processor, it is very easy to use, with extensive on-screen prompting.

SmartWRITER is brought up by pressing the WP/ESC key. Editing

and system commands are controlled by clearly labeled command keys, as well as the six "smart keys." The current function of the smart keys is displayed at all times at the bottom of the screen display. The excellent feel of the keyboard is supplemented by some clever audio feedback, part or all of which can be turned off by the user. (Note: to get sound from a monitor, a special cable is required.) The user also has a choice of two screen displays: a static screen that shows all text as typed, and a "moving window" screen that scrolls across the text, so that you can see how your text will look when it's printed.

I had no problem learning the system rapidly, and my wife—who is not an experienced computer user—was up and running within a half hour. We feel that *SmartWRITER* would be useful from the junior-high level and up, perhaps for even younger children who have some keyboard and computer experience.

SOFTWARE

Since a major component of ADAM is the highly popular ColecoVision system, Coleco game cartridges will be one of its prime attractions. Games will also be available on data packs. Because data packs can store larger programs than cartridges, many existing games will come in expanded versions.

To make Coleco a true family computer, however, Coleco needs to include educational packages as part of its software line. It says such packages are coming, including *Smart-LOGO*, *ADAM Typing Tutorial*, the *Homework Helpers* series, and *Story Factory*. In addition, several home-management packages have been promised.

BASIC PROGRAMMING

Coleco calls its version of BASIC SmartBASIC. What's smart about it is that it is very closely compatible with Applesoft BASIC, right down to the graphics (although ADAM has more colors in high-resolution mode) and storage commands. Thus, most Applesoft programs can be typed directly into the ADAM with only minor changes.

In addition, since one of the most popular computers in schools is the Apple II, students will be able to transfer their computer skills from one machine to another with a minimum of relearning. This somewhat offsets the lack of commercial software currently available for the ADAM.

My tests revealed that SmartBASIC is a fine beginner's language. Unlike Applesoft, program lines are

scanned for errors before they are accepted as part of a program. Error messages are very descriptive, even trying to indicate the location of an error in the line. There is a price for this assistance, however. The ADAM has 64K of RAM available for computing (16K is devoted to the video display, bringing the system total to 80K), but once SmartBASIC is loaded, only 26K is left over for programs and data. Those families with ambitious programmers will be haunting the computer stores, eagerly awaiting Coleco's promised 64K expansion.

MANUALS

The manuals supplied with the ADAM are excellent introductory materials. They are not especially elegant, to be sure, but the contents are



ADAM's keyboard is perhaps its strongest component. It has 75 keys plus a numeric keypad, and is easy to learn your way around and use.

well-written, using clear, nontechnical terms. Computer jargon is avoided or explained, and the tone is friendly and helpful. One glaring omission is the lack of explanation on what is needed to hook up a monitor. Another problem is that the manuals stop at the introductory level; the BASIC manual, in particular, does not explain many of the commands available to the user. Some users, of course, will never need to go further. But many others, particularly teenagers, will want to. Coleco should make allowances for this audience, and provide a technical manual that deals with the finer points of the ADAM's operation, particularly graphics. The current set has a tendency to leave off just as things are getting interesting.

A GOOD DEAL BUT FOR THE ACHILLES' HEEL

The ADAM system truly does offer a lot of value for the money. It is generally well designed and thought out. But, as with many pioneering ventures, early production may have bugs to work out. The most obvious problem here is the printer, with its light construction and startling noise level. If the printer will receive only light usage, or if you already own a ColecoVision, ADAM is an excellent choice for a home machine. [E]