

Look homeward, computer

How the computer revolution could be a profit angel for retailers

By Mark Andrews

The personal computer, born in 1975 in a garage in California, has become the little prince of the consumer electronics industry. Last year, annual sales of personal computers in this country hit the 1 million unit mark, and retail prices paid for personal computers totaled \$2.4 billion. This year, industry analysts predict 1.5 million personal computers will be sold in the United States, and gross retail revenues will reach the \$4 billion level.

And not all of that money will be spent in computer specialty stores. Small computers designed for home use are now being sold by hi-fi dealers, video retailers, mail-order houses and department stores. Dick Cavett is endorsing Apple on the radio and TV, Bill Cosby is hawking Texas Instruments computers on television, and Atari has launched a multimillion-dollar TV and print ad campaign to spread the word that it manufactures home computers as well as games. The computer revolution has moved into the American home, and smart electronics dealers are discovering that they can now start cashing in on the fast-growing personal computer market.

If that sounds a little intimidating to you, you are not alone. Most Americans have spent the past two decades feeling intimidated by computers, mainly because they didn't understand them. Back in the early 1960s, the average computer was a fearsome electromechanical giant that took up hundreds of square feet of floor space and cost more than \$1 million. But now, thanks to incredible advances in microtechnology, a personal computer with as much brain power as any of those early behemoths can be housed



A dozen new game cartridges, including the popular Pac Man, are being developed for the Atari Video Computer System in 1982.

inside a typewriter-sized keyboard module and can be purchased for as little as \$300.

Over the past couple of years, personal computers have also become remarkably easy to use. As recently as two years ago, it took a real expert to install, to operate—or to sell—a personal computer system. Today, with the help of prepackaged programs and simple, plug-in accessories, any electronics dealer can quickly learn to operate a home computer—and to bedazzle his customers with elegant demonstrations of what home computers can do.

And just what can a personal computer do? That depends on the kind of computer you have, the kinds of accessories you buy, and the kinds of programs you want to use.

Basics, plus . . .

Most home computers are built around one basic type of module: a typewriter-like keyboard with a built-

in Central Processing Unit (CPU). The keyboard is the computer's primary input device, and the CPU is the brain of the machine. With add-ons, you can:

- Connect a personal computer to a television set, insert a cartridge, and you're ready to play computer games—far more sophisticated contests than the action games that can be played on simple video game systems.

- Plug a cassette tape drive into your computer keyboard, slip in a learning cassette, and you have a sophisticated, interactive educational tool—a machine that can help the user learn such subjects as touch typing, foreign languages, math, literature and science.

- Add a disk drive and a line printer to a home computer, "boot up" a word processing disk, and presto! You've got a word processor—an extraordinarily handy system for writing and editing text, maintaining mailing lists, and printing out perfect copies of documents, manuscripts, and personal

and business correspondence.

- Using a telephone modem, a personal computer can be hooked up to a fast-growing variety of computer data banks—or can be used to communicate with other computer owners across the nation and around the globe.

Home computers have so many other kinds of potential uses that their number is limited only by the imagination of the user. A home computer can be used as a typewriter, a calculator, a filing system, or any of the above. A computer can help a family budget its income, balance its checkbook, and figure out its taxes. It can help a student or an author write and research term papers, magazine articles, or the great American novel. It can even be used to file addresses and telephone numbers, financial records, and favorite recipes.

The astute reader may have noticed by now, however, that certain kinds of accessories are needed to make a home computer do many of the things that computers are supposed to do. And that means that the retailer who sells computers can also earn a considerable amount of profit selling computer accessories.

Profitable accessories

The market for computer accessories is growing even faster, in fact, than the market for personal computers. In 1978, according to estimates by analysts at Perspective Research in New York, the value of the average personal computer system in use in the United States was \$1,950. By 1981, the prices of computers had declined but the estimated value of a typical system had risen to \$2,340. And by the end of this year, says Perspective Research, the value of the average personal computer system is expected to rise to \$2,600—because computer owners are continuing to buy more peripherals.

Growing numbers of computer users are also buying prepackaged programs—disks, tapes and cartridges that they can use to operate their systems without having to become expert programmers. Most manufacturers of home computers now offer packaged programs for word processing, financial management, education, and games. And, for computer novices who want to learn to be programmers,



TI-99/4 peripheral expansion system for TI-99/4A home computer.



"The Great Wall Street Fortune Hunt" is a new Master Strategy Series Odyssey² video game from N.A.P. Consumer Electronics Corp.

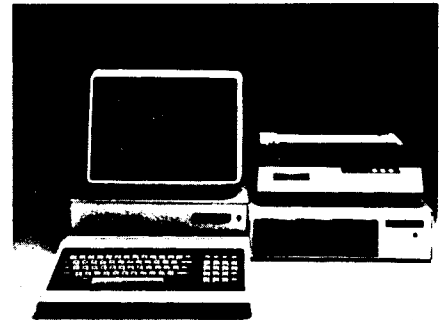
prepackaged programs designed to teach programming are even available!

Today, the biggest manufacturers of home computers are Atari, Commodore, Radio Shack and Texas Instruments. Sinclair now offers an ultra-miniature home computer that is available in kit form for as little as \$99. Osborne has introduced a \$1,795 model that comes complete with disk drive and word processor and can be folded up to fit under a plane seat. And computers almost small enough to be slipped into a pocket are now being manufactured by Sharp, Panasonic, and Tandy.

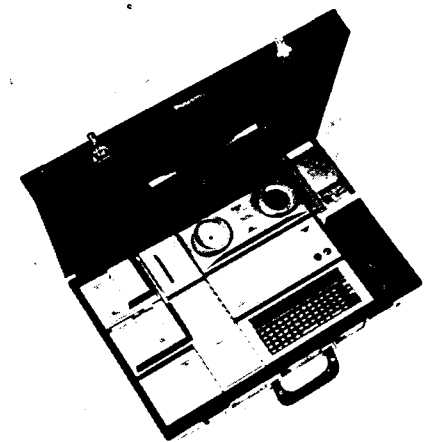
Apple, the company that built the first successful home computer, has now dropped out of the home market and is aiming its sights at the business and professional user. IBM has also aimed its new personal computer pri-



The IBM Personal Computer



The first widely marketed color word processing system with an exclusive self-teach program and 12,000 word dictionary is now available from NEC Home Electronics USA.



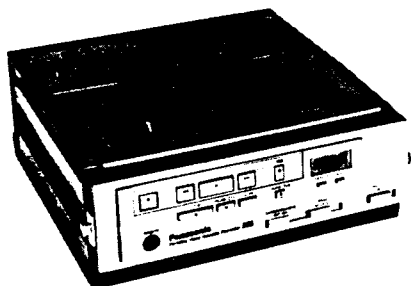
Panasonic HHC computer system includes a hand-held computer processor, six peripheral devices and a peripheral adapter, all in an attache case.

marily at the small-business market, but does not plan to turn up its nose at the home consumer. Other manufacturers primarily interested in the commercial and professional sectors of the market include Hewlett-Packard, Ohio Scientific, Xerox, and NEC.

Mattel and Astrovision, on the other hand, are making concerted efforts to get into the home computer market by

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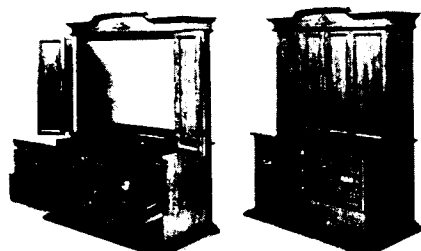


pable with T-160 tape; audio/video dubbing capability; 12-function wired remote control includes variable slow motion from 1/4 to 1/30 speed and still frame/frame advance in SLP mode; channel 3 or 4 RF out for play through TV; LCD tape counter has several-hour back-up memory when unit is disconnected; powered by LCS-2012P battery with built-in connectors; comes with PV-A110 supply unit which can recharge battery in 6 hours; suggested retail: \$995.

Circle No. 75 on reader service card

Mitsubishi VS-521UD

Features: 50" screen one piece projection TV with 105-station cable ready access, brightness of 120 foot-lamberts; full function infra-red wireless remote; quartz PLL synthesized random access tuning; two separate 10 watt per chan-

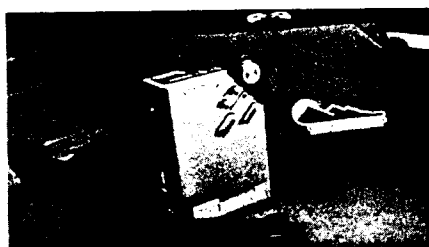


nel amplifiers with treble, bass and balance controls and audio enhancer circuit; external speaker outputs; suggested retail: \$4,300.

Circle No. 76 on reader service card

AV Accessories

Summit Sounds EG-2P

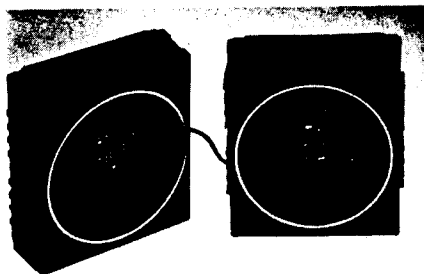


Features: Summit Pak chest or waist zipper case for personal stereo players; detachable straps; front storage pocket for tapes or headphones; velcro tabs; suggested retail: \$21.95.

Circle No. 77 on reader service card

Recoton SM-2

Features: Soundman extension speakers for interface with personal and portable stereo units; each speaker has 3



watt per channel amplifier; separate bass and treble and tone controls; carry strap; interlocking feature for speaker stacking; suggested retail: \$59.95/pair.

Circle No. 78 on reader service card

Phase Linear E51

Features: five-band parametric equalizer; 1 3/4" rack configuration design; switchable peak or shelf response on bands one and five; 0.14 to 0.15 octave bandwidth range; 9:1 frequency range



(continuous with center detent); automatic balanced/unbalanced XLR 1/4" phone inputs/outputs; +20dB system gain for low level sources; overall level control and bypass switch with LED; LEDs for signal present, power ready and system overload; suggested retail: \$549.

Circle No. 80 on reader service card

Bush CE-1240

Features: classically styled audio furniture piece; oak vinyl veneer; upper portion has dual glass doors and adjustable component shelves; lower cabinet for record storage; hidden casters; cre-

introducing keyboards that will expand their video game systems into full-scale home computers. Mattel is now test-marketing its keyboard Intellivision module in Seattle, New Orleans, Denver, Atlanta, and Columbus, Ohio; and hopes to have the unit on sale nationwide by the end of this year. Astrovision introduced its keyboard, the Z-Grass 32, to the industry in January at the 1982 WCES. And even without the keyboard, Astrovision's arcade game system is a miniature home computer. The game module has a built-in alphanumeric keypad, and Astrovision now offers a BASIC programming cartridge that can be used with the module to do math, create video art, compose electronic music, and program computer games.

Atari, Astrovision, Commodore, Mattel, and Texas Instruments are all actively recruiting electronics dealers who may be interested in handling their home computer lines. And, with five manufacturers zeroing in squarely on the home market, there has never been a better time for the electronics retailer to plunge into that market than right now.

And it is a market that is sure to grow. America is more computer-conscious than it has ever been. School children are becoming computer programmers; businessmen and professionals are buying computers for their homes; and home computer manufacturers are now spending millions of dollars a year advertising their products in print, on radio, and on television. Jack Tramiel, vice chairman of Commodore International, predicts that 50 million personal computers will be in use worldwide by 1985. And professional prognosticators such as Alvin Toffler, author of the best-seller *The Third Wave*, predict that the home computer will totally revolutionize all of our lives over the next decade.

Will you join that revolution, or would you rather just stand back and observe it? That may be a difficult choice to make in these troubled economic times. But it could be a very important choice for you.

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