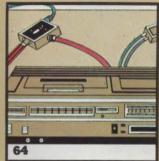


THE WORLD AUTHORITY ON CONSUMER VIDEO

Fige Heren

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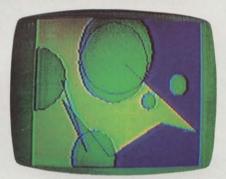




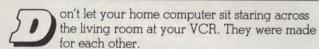
GREAT COMPUTERING TO STORY TO COMPUTERING T







By Garret Condon and David Treff



A lot of people with both machines are getting the best of both worlds by connecting them—and creating a whole slew of new applications only the computer-VCR combo can handle. The advantages of connecting the two machines into a single system are clear: The computer can produce volumes of printed words, figures and a world of color graphics; the VCR can record and package them.

The top home-computer lines offer a variety of programs for producing color graphics. Typical of the available home-computer software are Atari's "Graphid" program and Apple's "sigGraph" program. They allow creation of multicolored bar and pie graphs and charts. Both computers also offer a "VisiCalc" program (Heathkit offers a similar "SuperCalc" program) designed to create video financial statements.

For use with VCRs, new home computers by Atari, Apple and Texas Instruments include special VCR jacks. Users simply connect this jack with the "video-in" jack on the VCR.

Other color computers, such as those sold by Radio Shack, Heathkit and Texas Instruments, can be con-

Combining a computer and a VCR drastically broadens the potential of both machines. The hookup is simple, and the results are a versatile mix of colorful video images and information-packed text.

nected using a standard "loop" method. This means running the signal from the home computer, through the VCR, to the television screen. A cable runs from the "VHF" connection on the computer to the "video-in" terminal on the VCR. A second cable connects the "video-out" jack on the computer to the "VHF" antenna connection on the TV. Since each system is slightly different, make sure to check the owner's manual before attempting a hookup.

Here's a selection of the best and most practical home and business applications for the videocassette recordercomputer system.

INSURANCE AND FINANCIAL RECORDS

For years, conscientious homeowners have kept photographs of valuable possessions with written records for insurance and tax purposes. But a single videocassette can replace a drawer of papers and photographs if the home computer is linked to the VCR. The method is simple: Shoot an item with the videocamera; stop the VCR; type information about the item on your computer keyboard; record this text on the videotape. The finished product is a catalogue of personal belongings that's both easy to refer to and easy to store.

FAMILY ALBUM The lifelike images captured by a videocamera can be combined with the home computer's text-producing talents to create a video alternative to the dog-eared family photograph album.

The technique is identical to the procedure described above, except the subjects are family members and the word displays created on the computer can be vital statistics: age, weight, height, favorite food and famous sayings. This gives you a living, moving record of children as they grow, that both you and they will treasure.

RECIPES Julia Child is proof: Video is a great way to get things cooking. A single cassette can replace dozens of food-splattered index cards when it comes to sharing recipes with friends. In addition, the recipe can be complete with specific cooking instructions, captured with videocamera in hand. The visual instructions should be interspersed with written data—recipe amounts, times and temperatures.

VIDEO GAMES One of the big reasons the home computer is catching on is the home video game. Leading models include programs for youngsters' games and challenging adult mind-benders. By adding the VCR to the home computer, you can increase the sophistication of a video game and improve your skills by replaying matches.

INSTRUCTION Busy parents may produce a videotape which will show children how to use the home computer. The keyboard produces the written instructions; the camera shoots the "how-to" part. It is all recorded by the VCR. The tape allows children to learn basic computer skills at their own paces.

Although there are packaged educational programs for both home computers and VCRs, parents may create custom videotapes to help their children with school subjects. To make the VCR-computer link purely academic, record a written problem as a computer display, followed by a graphic representation (three apples minus two apples) created with the videocamera.

The taped format provides one big advantage for teaching children: The repetition kids often need can be automatic. They just replay the cassette as often as they like.

BUSINESS Business presentations have traditionally involved the time-consuming process of preparing slides,

charts and photographs. For a fraction of the time and money, you can team up your VCR and small computer to produce a presentation that looks like a million—and can be easily transported from one meeting to the next.

Even at home, dramatic camera work may be combined with computer graphics for a colorful and authoritative production.

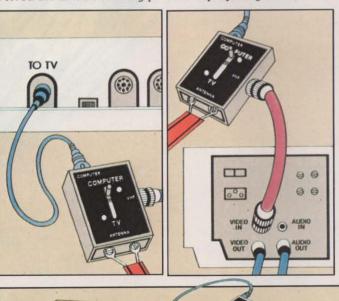
You might also combine a videocamera and computer keyboard to provide employee-training tapes geared to specific jobs in small departments.

COMPUTER ART Most leading home computers can be programmed for a random display of colored patterns. These changing shapes and hues can be controlled by the user, and recorded for replay on the VCR. (The illustrations on page 64 show patterns created by Joseph Weintraub of New York with a program he wrote for his Radio Shack color computer.)

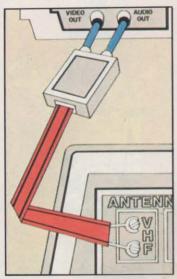
Since color programming capabilities vary with different home systems, users should review computer manuals before turning their video screens into electronic canvases. These are ways to combine the text and graphics powers of the home computer with video images. But the computer industry has begun to create a more direct link. "We have a new device—a video controller," explained James Muller of Texas Instruments Inc. in Dallas. "It offers the option to control the VCR—to actually turn it on and off."

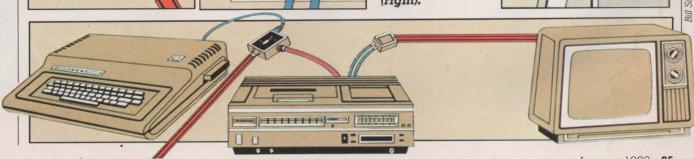
Other firms are ready with similar products which will make it possible to control the VCR—and videodisc player—through the computer. Although still expensive for home use (the Texas Instruments device is about \$700), competition and advances in technology are expected to bring the price down.

(For more on the subject of personal computers, see "What Kind of Computer Is Right for You?" following on page 68.)□



The computer connection made easy: Just attach the computer's TV cable to a standard computer switch (far left), connect the switch's VHF cable to the video recorder's video-input jack (left) and attach the video- and audio-output cables to your television set (right).





January, 1982 65

WHATKIND OF COMPUHER ISRICH FOR

By Randi Hacker

here are 14 million kinds of personal computers available today—or so it seems if you're in the market for one and, consequently, are faced with the baffling task of having to choose the one that best suits your needs.

For most video fans, the principal things to consider are each computer's features, functions, memory capacity and language capability. Yet how do you even know where to begin comparison shopping if your knowledge of computers, to date, has consisted of acknowledging that they exist and can, more than likely, beat you at tic-tac-toe?

To help you begin to find your way through the maze of personal computerland, here is a series of questions designed to simplify your shopping choices and illuminate your personal tastes. They do not make an all-encompassing guidebook to every feature that everyone might want in a computer, of course. But the interpretations that follow should at least start you well on your way to choosing the kind of computer that's right for you.



1. With which of the following would you most like to curl up in front of a fire?

- a. Goethe's Faust in the original Middle High German
- b. The Dead Sea Scrolls in the original Aramaic
- c. Dick and Jane Play Sandbox in the original near-English
- d. a picture book without words

2. Which of the following best describes you?

- a. a polyglot
- b. bilingual
- c. fairly proficient in your native tongue
- e. able to make yourself understood using grunts

3. Select the response that best corresponds to how you feel about the statement, "My memory is excellent."

- a. I strongly agree d. I strongly disagree
- b. I agree
- e. What was the question again?
- c. I disagree
- 4. Do you have difficulty remembering
 - a. everything?
- c. your name?
- b. some things?
- d. the previous question?

5. Which of the following do you prefer most?

- a. running
- a. traveling
- a. camping
- b. sitting
 - b. sitting
- b. sitting

- 6. Of the following popular songs, which do you prefer?
 - a. King of the Road
 - b. Home Sweet Home

7. If The Millionaire came out of TV reruns and gave you a check for \$1 million, which of the following would you be most likely to have by sundown?

- a. more than \$1 million
- b. less than \$1 million
- c. a bus token
- d. to borrow five bucks to get home

8. In your experience, money is:

b. for spending a. for saving c. for other people 9. In which of the following positions are you most

- a. full lotus with one leg tucked behind your ear
 - b. full attention
 - c. prone
 - d. compromising

10. Choose the best definition for the following word: monopoly

- a. a game
- b. a cornering of a market
- c. a train that runs on only one track

Before we take up the details of scoring the quiz, a few computer parameters need to be outlined:

ROM stands for Read-Only Memory, the computer memorystorage system in which information is stored once and cannot be changed.

RAM stands for Rapid-Access Memory, the main memory of a computer, which can be drawn from and added to or changed. Software refers to programs and operating systems used by a

computer, be they cassette, disc or ROM.

Hardware refers to the main equipment (console, monitor, etc.) that makes up a computer system.

A byte is a unit of information made up of eight bits of data, and is generally treated as a single unit used to represent an alphanumeric character.

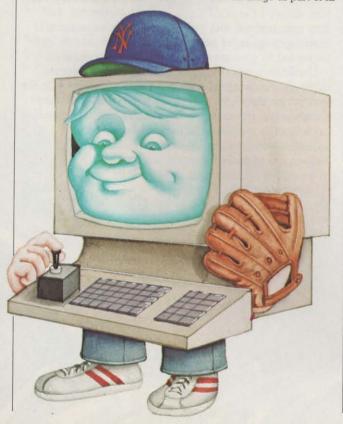
A floppy disc is a thin, pliable plastic square for storing computer data.

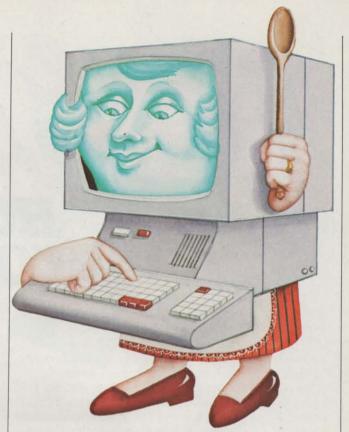
HOW TO SCORE

Questions 1 and 2 relate to language. Computers, like human beings, can only be commanded in "languages" they know. It would be pointless to order someone who didn't speak German, for example, to "Steigen Sie bitte ein und schnell!" People have been shot for less. It's the same with computers, except that they don't carry guns. For instance, if a computer knows only the language called BASIC, giving it an order in, say, FORTRAN, would be an exercise in futility.

So, if you answered "a" or "b" for either question, you clearly have a facility for some languages, and might be comfortable learning some of the more technical kind. In that case, an Apple II or an Apple II Plus or the new IBM Personal Computer would all be good choices for you. The Apple computers offer the programmer the ability to program in any of a wide range of languages—BASIC, PILOT, PASCAL, FORTRAN and others. Similarly, the IBM Personal Computer offers three operating systems compatible with a great deal of software, affording you the ability to command in BASIC, PASCAL and CP/M languages, among others.

If you chose "c" in either question, you might be best off buying a computer with a simple, built-in BASIC language such as the Atari 800. It offers a BASIC 8K ROM cartridge as part of its





basic configuration. There's also the APF Imagination Machine, which is user-programmable in BASIC.

If you answered "d" for question 1 and either "d" or "e" for question 2, congratulations for getting through this much of this article, but you might not be happy with any home computer.

Questions 3 and 4 relate to memory, obviously. Those who answered "a" or "b" to either question probably value recall, and would consequently be likely to be interested in computers with good memories, meaning models best able to perform more advanced computations. On the other hand, those who answered "c," "d" or "e" would probably prefer to buy computers with less effective memories, if they remember to bring money to the store.

The home computer that currently offers the greatest memory is the new IBM, which offers a whopping 256K bytes of RAM. Next come the Atari 800, the Apple II and Apple II Plus, which all offer up to 48K bytes of RAM.

Questions 5 and 6 deal primarily with size and portability. If you chose all three "a"s, you'd probably be interested in something small and compact, because you seem like a relatively mobile, active person.

The smallest and most compact and thus most portable of personal computers is the Sinclair model ZX80. Weighing only 12 ounces, it fits easily into a briefcase or tote bag yet still packs plenty of features and a broad range of software programs.

Slightly larger, at a weight of seven pounds including its power supply, is another particularly "personal" computer, the model VIC-20 from Commodore.

Other consumer computers vary in size from 11 pounds all the way up to the APF Imagination Machine's weight of 39 pounds, including a built-in cassette recorder and full-size typewriter-style keyboard. If you chose all "b"s for questions 5 and 6, the Imagination Machine may be perfect for you.

Questions 7 and 8 relate to pricing. If you answered "a" for either question, it indicates a certain frugality of nature, so the Sinclair ZX80 is probably a good model for you. Priced at only \$199.95, it's the least expensive computer in the country. Also priced relatively low is the Commodore VIC-20, which lists for under \$300.

If you answered "b" in question 7 or 8, you might mind

Continued on page 126

Low score for new book on games



Phil Wiswell

Most video game fans would probably agree that, with the enormous number of video games now around, there's a need for a comprehensive book on the subject. I was enthusiastic about New

American Library's recent release of The Complete Guide to Electronic Games by Howard Blumenthal—until I read it. Calling this book complete is like calling a pair of sevens a full house.

The first five chapters do an adequate job of covering handheld and tabletop electronic games, although you can be sure that some of the games are no longer available and that new games aren't included.

But it's Chapter Six—"Video Games"—that really interests us. Or does it? The author, Howard Blumenthal, mistakes the direction video games have taken lately by stating that "The field of marketers has thinned in the past few years." True: "dedicated" video games (the games that play only a single game) have died off owing to the advent of the programmable system, but several major companies—notably Mattel. Activision, and Astrovision-have now entered the field. But this is history, isn't it?

Numbers Game

Blumenthal appropriately enough begins a 70-page section on video games with Atari, which, he claims. has 40 cartridges (though that number should be greater than 50). He then reviews 28 of them, the most recent being "Space Invaders." This can be excused by the pressures of getting a book into print, but there is no mention of Activision, the company which has 12 cartridges on the market that fit the Atari VCS. Regrettably, readers new to the field will not be armed with this information when

trying to make a decision between one video game system and another.

After Atari comes a discussion of Mattel's Intellivision, with which Blumenthal is rightly impressed. Still. he only reviews eight of the nearly 30 Mattel cartridges, and the selection of those eight can be guestioned. In my mind, "Space Battle" is one of the best games Mattel offers, and it's been a leading seller for the company, but it isn't even mentioned.

Spaced 'Odyssey'

Odyssey² from Magnavox gets an even shorter shrift than Intellivision, with two pages devoted to the master console and no games reviews. True. it can't be converted into a home computer. But the system is still worth a close look in a book ostensibly about games, and many of the games themselves deserve full reviews.

The same is true of APF's Imagination Machine—two pages for the system, not a single page for the

game cartridges you can play on it.

Worst of all, the Bally Professional Arcade is not even acknowledged! And since Astrovision took over the system last year with a heavy remarketing campaign, this is a major oversight.

Does Not Compute

Finally, there is a section on games for personal computers, of which there must be thousands available for two dozen different systems. Yet Blumenthal reviews only four of them-all for the Atari 400/800 Personal Computer—in brief. (No. Atari did not publish the book.)

So there you have it. The Complete Guide to Electronic Games has been published, but a really complete guide to electronic games still does not exist.

The Complete Guide to Electronic Games, by Howard Blumenthal (New American Library, 1981, \$6.95)



In other words, you have a pain in the Asteroids."

JAILED ...

Continued from page 47

Act of 1976 to nationally legalize videotaping from TV for home use. Rep. Stan Parris (R., VA) is the chief backer of House of Representatives bill 4794 and John J. Duncan (R., TN) of bill 4783. In the Senate, Dennis DeConcini (D., AZ) introduced a companion bill. Rep. Parris termed the court decision "the latest example of idiocy in the federal judiciary." (Footnote to history: Congressman Parris owns a VCR and likes to watch sports events while taping TV movies and sitcoms.)

Invasion of Sanctity

Upon introducing his bill, Rep. Duncan said: "This decision invades the sanctity of the home and serves only the interests of commercial parties without considering the individual. I believe it is the intent and the desire of Congress that citizens have a right to record programs for their entertainment value so long as these recordings are for their own private, non-commercial

According to a Parris legislative assistant, backers of home-taping bills in the House include Thomas S. Foley (D., WA; House whip) and Brian J. Donnelley (D., MA). "On the Senate side, Senator Strom Thurmond (R., SC) has also expressed interest in the bill," adds the aide. "His interest is very important because, as chairman of the Judiciary Committee, he can push the bill through and get it on the floor quickly."

Business As Usual

If Congress succeeds in passing the bills, then home taping of copyrighted material from TV would be legally kosher. If the law is passed before Disney/MCA vs. Sony et al. reaches the Supreme Court, the Court "would take the new law into consideration, in effect making the case a moot issue," says one Washington attorney.

So, where are we now? As Fleming said, in practice it's business as usual for video manufacturers, retailers and consumers until the Supreme Court or Congress acts. At present, videophiles residing in the Ninth Circuit tape at their own peril, though it's certainly highly

unlikely the video police will ever come knocking on their doors.

As in Puritan times, all eyes are directed at the city on the hill. \square

COMPUTER QUIZ...

Continued from page 69

—but probably won't mind—spending money, and can consider one of the more expensive home computers, such as the \$1,600 IBM or the \$1,000 Atari 800.

Question 9 gets into the area of flexibility. If you chose answer "a." it suggests that you are the type who likes a great deal of a certain kind of flexibility—and are probably double-jointed. So consider the IBM computer, which accepts a wide range of software including "Easywriter" for storing letters, manuscripts and other text for editing. Other versatile software such as "General Ledger," "Accounts Payable" and "Receivable" from Peachtree also work with the IBM, as does "VisiCalc" for a variety of computer games.

The Atari 800 is for those who are not interested so much in flexibility of functions, but who want a bit (of flexibility; not a bit as in a byte). It essentially is designed for non-technical types who do not want to sacrifice any options, and it offers a rich range of video games.

Question 10 helps pinpoint your primary interest in computer technology. If you answered "a," you probably like games. Therefore the Atari 800 or Mattel's Intellivision would be wise choices, as both offer a broad range of compatible game cartridges. They also have music and sound effects. The Intellivision is almost exclusively designed for games and is priced at \$700.

Answer "b" indicates an interest in finance and business. Therefore the IBM or, again, the Atari 800, might be best for you. They offer programming for accounts, budgeting, record keeping and professional applications as well as games.

Answer "c" indicates the need for an education, and Radio Shack's TRS-80 computer is designed primarily for educational purposes. A train that runs on one track, by the way, is a monorail. And speaking of being on the right track, now you're on your own.

CONFESSIONS...

Continued from page 71 his rather haphazard toilet habits, all the drapes are a foot and a half off the floor. This looks funny, but it keeps them dry. When you install video equipment there, you have to watch where you're walking.

Boa Tie-Up

At another animal-loving star's house, I remember reaching for a cable hookup without paying particular attention to what I was doing. When I closed my hand on the cable, I recall remarking to myself that it felt awfully thick. When it began to move by itself, however, I realized something was wrong. The cable was a boa constrictor—nine feet long. Now this is a good length for a cable, but I prefer my snakes either shorter or not at all.

Then there was the time I made the mistake of walking through the gates of one of the more palatial estates without first being announced. Suddenly I found myself flat on my back with a Doberman's face about two inches from mine. I like dogs, but I like them farther away. Fortunately, I calmed him down with a few soothing words. But when I walked into the house, his owner scolded the Doberman for not doing a better job of protecting the homestead. Remember, this was the man who called me in the first place.

Dying Dog

The oddest story for my tastes, though, is this one. A major TV star had a dog which was dying of canine leukemia. This woman ordered two VCRs-one for her home in a suburb of Los Angeles and another for her beach house. When I went to install them, I noticed a small, black casket in each house. As her secretary later explained, the two little caskets were for the dog. Since the star went virtually nowhere without him, it was conceivable he might die at either place, and she wanted to be prepared for either contingency.

I'm not sure if she planned to use her new video equipment to tape the dog's funeral procession, but I wouldn't be at all surprised, given the town and my experience installing video gear for much wilder reasons and stars.