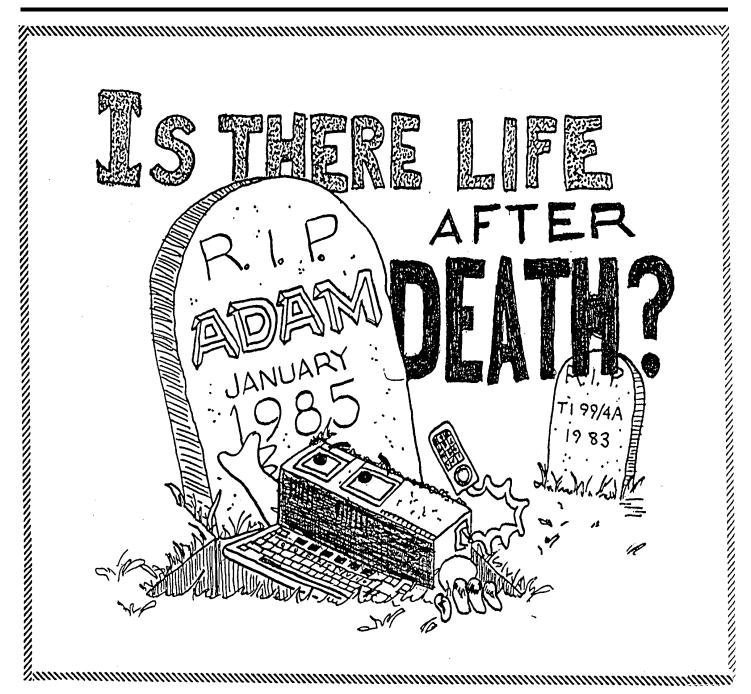
EXPANDABLE COMPUTER NEWS

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ECN

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ISSUE 7

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Sage Enterprises has available for sale a number of products for the ADAM Family Computer System as listed below. To order any of these products send check or money order payable to Sage Enterprises in U.S. Funds to the address listed above. Missouri residents please add sales tax. All prices include shipping and handling.

<u>ITEM</u>	<u>Foreign Price</u>	U.S. & Canadian Price
Ribbon for ADAM printer	\$9.05 US	\$6.56 US
Blank Data Pack (Victory software)	\$8.00 US	\$5.52 US
PACKCOPY software copier	\$45.50	\$41.50
Program Library I (see previous issue for description)	\$13.30 US	\$9.95 US
Program Library II (see previous issue for description)	\$13.30 US	\$9.95 US

Ramblings From The Ridge by D. Sage

This issue begins a new year for ECN. We have managed to survive the first 6 issues and a tumultuous period for the home computer industry and ADAM in particular. To celebrate this momentous occasion we threw a party. I wish all of you could have



been there. Maybe next year. We welcome the many new subscribers who have managed to find out that we do exist; and mourn the loss of all those who decided not to renew for another year. All of our contributors deserve a special round of applause for making ECN the success that it has been. Your articles, programs and ideas have been invaluable to us all. Those of you who have not submitted materials to us are encouraged to do so.

This issue's cover art was provided by Harry Silva and accompanied the article by Jeff Silva, one of our regular contributors. Thanks guys. Our mail continues to increase in volume. If you haven't received an answer to you question be patient, I will get caught up eventually. If I only had more time... REPRINTS of issues 1, 2, and 3 are now available. Ordering information is included elsewhere in this issue.

Remember we don't send out renewal notices. If your mailing label has an 8503 on it then this is your last issue and you need to renew as soon as possible so that we can update our records and insure that you don't miss any issues.

We are looking for someone who is willing to contribute a regular column on LOGO. I have tried to get to this myself, but just can't work it in. If anyone wants to do this, send me an article for the next issue. I also could use some help with the Telecommunications column. If anyone out there would like to help with this on a regular basis, let me know.

I have been promising you a sprite editor for some time and although the one I was developing is still a little buggy, David Berent has contributed a very fine editor that appears in this issue. This program is a little long, so if you don't want to type it all in, it will be available on Program Library 3. PL 3 should be ready to go by the next issue.

This issue is already growing long and I have been forced to cut a number of things out to make space. If you notice that a particular column is missing, look for it to be back next time.

The response to our request for hardware and software products you would like to see was overwhelming. Obviously the number one hardware choice was the universal printer interface (RS-232)

and Centronics parallel); for software I was surprised to see an improved word processor heading the list. Those of you who offered to help with hardware or software will be hearing from me eventually with suggestions on how we should proceed with these items.

Other hardware products you suggested were an 80 column card, tractor feed, speech synthesizer and external power supply. The software list was less definitive, but included programs to download cartridges to data pack or disk; an assembler; improved Basic with sound, sprites, and access to the memory expander; simulation games; bulletin board software; graphics tablet and software; accounting programs; board games and more educational software.

It already appears that many of your requests will be met in the months to come. The Adam Depot has indicated that a third party company will be producing a tractor feed. This will not be an adjustable tractor feed so it won't be able to use forms narrower than standard paper. The universal interface is almost certain to begin appearing. In fact we are in the process of testing and developing software for such a product now. What we do with this product depends in part on whether or not any of the other companies that have promised the interface actually come through with it.

The 80 column card may present a more difficult problem although it is not out of the question. Coleco already has an improved SmartBasic, we just need to convince them to put it on the market. Some of the software products simply take time. In order to produce the software we first must make available some development tools that will greatly expedite this process. I hope to begin work on those soon and will be contacting some of you who have expressed an interest in developing software so that you will also have access to these tools.

Back Issues of ECN

Back issues of ECN are now available. Issue 1, 2 and 3 have been reprinted and can be obtained by sending a check or money order to us at the usual address. The cost of each issue is \$3.00. The supply is limited, so if you want to complete your set, send us your order before the supply is exhausted.

West Hartford Happenings by D. Sage

Things seem to have quieted down at Coleco since our last issue. Rumors have been on the decline. All we can do is watch, listen and try to pass on what we can find out.

Coleco continues to insist that the ADAM will be

supported with additional software through the rest of this year. The updated Modem software that allows upload-download will probably not be shipped before March. My guess is that most of us won't see this product before April. The good news is that there is definitely an improved modem software package that Coleco does intend to make available as promised.

Coleco has been shipping CP/M on a somewhat limited basis. It looks like they may have underestimated the demand. 64K memory expanders are becoming available again. We suspect the demand for this product was so high the Coleco may have been forced to make another production run. The 64K memory expander will be of use if you plan on getting CP/M. In addition if SmartBasic II is ever released, it will be able to access the memory expander. If you want the enhanced SmartBasic, I suggest that you keep writing Coleco until they are forced to go with it. The new version includes easier use of sound and graphics.

ADAM products appear to be generally selling well. Some items are already becoming scarce as current retailers unload their inventory. Many of them will not be restocking ADAM products. Real bargains are available on Colecovision cartridges and controllers. If you don't have the Super Action Controllers or the TracBall, now is the time to get them. Both of these items have been selling at some stores for less than \$20.00.

We have had confirmation from some KayBee Toy Stores that they will be carrying the discounted ADAM inventory. In some areas these products will also show up at Odd Lot and the larger Revco Drug Stores. We expect to see the stand-alone ADAM begin selling at \$300.00. Unless the remaining ADAMs sell extremely well look for the price to drop to under \$150 by Christmas. I doubt if they last that long. Dont' expect to find disk drives or modems at these discounted prices. Both products are in relatively short supply and may become extremely difficult to obtain soon.

The best way you have of guaranteeing support for the ADAM is to buy ADAM products, especially those offered by third party companies. We can write letters to these companies forever, but if we don't buy the products, all the letters in the world can't convince them to produce new software or hardware.

Elsewhere in this issue there is an ad for the Best of B.C. Sierra has indicated that if this product sells well they will release additional products they have already developed and will likely continue to produce new products. Their success could very well be enough to trigger release of products from other companies such as Electronic Arts, Infocom, and Epyx who are rumored to have already developed

ADAM software. I don't care what anyone says, 250,000 Adam owners (eventually 400,000) is a good market for software. A number of our subscribers have been busy writing software companies. I hope those of you who haven't will get busy. James Turner, Jr. of Madera, California, suggests that you may want to encourage companies to also produce cartridge software, since those products will also reach a large installed base of Colecovision owners. Mr. Turner sent me a copy of the replies he has received and I will try to summarize those here and provide a list of addresses for those of you who have asked for them.

Yes - Fisher Price, P.O. Box 1327, Cambridge, MA 02238.

No - Mindscape, 3444 Dundee Rd., Northbrook, IL 60062.

Yes - Victory Software, Star-Byte, 2564 Industry Lane, Norristown, PA 19403.

No - Strategic Simulations, Darla Bunker, 883 Stierlin Rd., Bldg. A-200, Mountain View, CA 94043.

Yes - International Computing, see ad this issue.

No - Broderbund, 17 Paul Drive, San Rafael, CA 94903.

Maybe - CBS software, Maryanne Piazza, One Fawcett Place, Greenwich, CT 06836.

No - Datamost, 20660 Nordhoff St., Chatsworth, CA 91311.

Maybe - Designware, Virginia Buama, 185 Berry St., San Francisco, CA 94107.

No - Electronic Arts, 2755 Campus Drive, San Mateo, CA 94403.

Gamestar, Keith Orr, 1302 State St., Santa Barbara, CA 93101.

No - Hayden, David Devine, 600 Suffolk St., Lowell, MA 10853.

Yes - Spinnaker, 215 First Street, Cambridge, MA 02142.

No - Sublogic Corp., Holly Alkire, 713 Edgebrook Drive, Champaign, IL 61820.

No - Synapse Software, 5521 Central Ave., #200, Richmond, CA 94804.

Yes - Imagic, Kathleen Booth, 981 University Ave., Los Gatos, CA 95030.

Yes - Interphase Technologies, 6391 F. Westminster Hwy., Richmond, B.C., Canada V7C 4V4

No - Koala Technologies, Lisa Byrne, 3100 Patrick Henry Drive, Santa Clara, CA 95052.

Yes - Micro Fun/Micro Lab, Susan Goldberg, 2699 Skokie Valley Rd., Highland Park, IL 60035.

No - Muse Software, David Collins, 347 N. Charles St., Baltimore, MD 21201.

No - Origin Systems, Jeffrey Hillhouse, P.O. Box 99, No. Andover, MA 01845.

Maybe - Scarborough Systems, Inc., Dee Dee

Lynn, 25 No. Broadway, Tarrytown, NY 10591.

No - Scholastic Software, 730 Broadway, NT, NY 10003.

Maybe - Screenplay, Kristi Jo Day, 1095 Airport Rd., Minden, NV 89423.

No - Batteries Included, 3302 Harbor Blvd., #C9, Costa Mesa, CA 92626.

Yes - Parker Bros., P.O. Box 1012, Beverly, MA 01915.

Both Spinnaker and MicroLab appear to have dropped their plans to produce non-cartridge software for the ADAM. While both plan to continue producing cartridge software for the ADAM/Colecovision game system we are disappointed with their decision not to support the ADAM.

MicroLab has recently introduced "One-on-One" the popular game available for other systems. At the same time they no longer list the game "Boulder Dash," "Dino Eggs" or any other new titles for the Colecovision/Adam.

In any event we suggest you continue to write these companies regardless of their response. You can suggest that they can sell their products through some of the mail order companies who advertise in ECN such as Alpha-1, MW Ruth, Adam Depot, International Computing, Video Takeout, etc.

Remember these companies will make products if they can sell them profitably. So keep up the pressure and we feel we will get some results.

What About The Competition? by D. Sage

The price wars are heating up. Atari has fired another shot with another round of price cuts and the wounded Commodore has returned fire by dropping the price of the 64 to \$150. Commodore not only cut the price of the 64, but that model has now been discontinued to make way for the 128. The infamous



1541 disk drive has also been dropped and will be replaced by a new drive that is much faster when used with the 128. The new drive also works with the 64 but at the same slow pace as the 1541 drive. Things have gotten so bad at Commodore that their stock is fluctuating around the

same price as Coleco's.

Had Commodore introduced the 128 last year instead of the Plus-4 and the 16, they could have maintained their lead over Atari. Now, however, Atari has been able to regain much of their competitive position through renewed support for the 800 and the newly announced series of Macintosh like systems as

well as an improved extension of the 800.

Commodore meanwhile has been struggling to get the much vaunted Amiga system ready to go. Atari surprised everyone by having their super system up and running at the Consumer Electronics Show. Rumors have it, however, that few production models exist and that many software developers are forced to do their work on the Apple Lisa. The Commodore 128 will have some advantage in the lower end of the market since it will run most software available for the 64

The future may become even more complex for these companies as they are faced with competition from Japan later this year and possibly new competition from American companies such as General Electric and even Sylvania. We expect to find a number of surprises at the June Consumer Electronics Show. A company such as General Electric, with its wide spread retail and repair network could make a serious dent in the competition if they can come up with the right system. Too bad they weren't the ones to introduce the ADAM. As June approaches the rumors should begin to increase. Look for more news here next issue.

Is There Life After Death? by Jeff Silva

The ADAM Family Computer System is dead. Coleco, after losing mass bucks (hundreds of millions!!) has decided to stick with what it knows best--toys and Cabbage Patch Dolls, even though ADAM has sold almost as well as Apple's Macintosh.

Like most other ADAM owners, I was both shocked and outraged at this news. After writing a couple of letters to Coleco President Arnold

Greenberg, expressing my initial dismay and confusion as to exactly what is going on with ADAM, I received a long and detailed letter answering many of my questions, from Ms. Barbara C. Wruck, Director of Corporate Communications for Coleco.



She was kind enough to let me know that I should inform the loyal ADAM owners who subscribe to EXPANDABLE COMPUTER NEWS that, "...while we have sold our ADAM inventory, we have not abandoned ADAM's loyal supporters."

Ms. Wruck was most helpful in supplying the following information to me, but I find that most of the news she has given doesn't seem to back up her claim of support beyond the next few months.

First of all, she wrote that during the last three

months of 1984, ADAM sales increased significantly. "Nevertheless," Ms. Wruck wrote, "current unstable conditions in the home computer marketplace and industry problems, including rapidly changing consumer preferences, frequent technological developments, overproduction, and significant and continuing price cutting, have created an unusually volatile business environment which is likely to continue for the near term. With particularly attractive business opportunities available at present in the Toy segment of our business, we believe it is no longer in the Company's best interests to continue to incur the significant costs and risks necessary to keep ADAM competitive."

Because of this, Ms. Wruck has informed me of the following details: Coleco has concluded an agreement with a U.S. retail chain (unnamed) to sell the entire inventory of ADAM products, consisting of hardware, peripherals and software, and because of this action and losses incurred, the company will report substantial losses for the fourth quarter and full year of 1984.

Further. Coleco has had to lay off about fifty people in ADAM related jobs at their Hartford Corporate Center, and expect similar layoffs at their New York manufacturing facilities. Colecovision and Rom cartridge software were NOT included in the sale, and Coleco plans to continue to market both the hardware and software. The reaction to education software for this video game system has been very good and they expect to develop more along this line as well as additional entertainment titles.

Coleco has not made public the total number of ADAM units produced or sold and they expect the retailer who bought the ADAM inventory to announce its retailing plans for ADAM by the end of March. The retailer did buy out all ADAM inventory, including disk drives, modems, etc.. but you can still purchase any of these items through Coleco by calling their service number.

Coleco will continue to develop and produce software for ADAM, "...as long as it is economically feasible." This software will be available in all three formats, disk, data pack, and ROM cartridge. However, Ms. Wruck stated that "...since our plans call for a strengthening of the Colecovision software library, one would expect a large amount of software being produced in the cartridge format."

Third party software companies have expressed an interest in producing software for ADAM. They recognize that present and future ADAM owners will continue to require software and that this situation could represent a lucrative business for them.

ADAM will continue to be serviced through Honeywell, both in and out of warranty, and these

locations will continue to sell ADAM accessories. At this point Coleco has no plans to introduce additional hardware, peripherals or accessories for ADAM, in particular an interface that would allow the use of currently incompatible software with ADAM. The possibility exists, however, that a third party may produce accordingly.

In terms of any company's interest in buying ADAM to manufacture, Coleco's contract and plans do not call for the sale of the ADAM name or technology. In other words, the rights for the production of ADAM have remained with Coleco.

Again, I am indebted to Ms. Wruck at Coleco for providing ECN readers with this important information.

When I called Coleco to ask them these same questions a few weeks ago, I was told that Coleco had only sold the ADAM consoles to the retailer and that Coleco still owned all peripherals, etc. and would continue to sell them at regular prices.

Previously Ms. Wruck stated that the retailer bough all ADAM software, hardware and peripherals, so if you can wait, the prices for these items should go down eventually to close out prices.

It is good, but not great news to hear that Colecovision support will still be strong. At least we are assured of cartridge support from Coleco. The news about data pack and disk support doesn't sound nearly as good. Since they dropped ADAM because it wasn't "... economically feasible," I can't



see them continuing to manufacture and design for ADAM much past their current already manufactured and planned titles, Furthermore, Coleco is already telling us that most of the software will be Colecovision cartridges. That is an ominous sign to me.

Also they have no current intentions of making any more peripherals or hardware for ADAM. So say bye, bye to the tractor feed, IBM emulator, 80 column card, etc ...

When I wrote to Coleco I expressed a strong interest in them producing an emulator to enable ADAM owners to run Commodore 64 hardware and software on the ADAM, similar to the system, that MIMIC Systems, Inc., has for Commodore owners to let them run Apple IIe hardware and software, I was hoping that if Coleco manufactured this final peripheral, ADAM owners could make a less painful transition to Commodore for current games and software. But no luck. Anyone else agree with me??

Perhaps we could start a letter writing campaign to Coleco about this. With ADAM's many expansion slots I'm sure a Commodore 64 emulator could be made cheaply, and would also allow us to use graphics printers, art tablets, etc., and give us access to one of the largest game software libraries available. It would also be cheaper than an Apple emulator for instance...Any suggestions??? Lastly, although Coleco states that third party software companies are interested in ADAM, I sincerely doubt we will ever get any major support beyond the small companies. Why? Simple, not nearly enough ADAMS were sold or made to warrant the big companies' interest. As proof, remember the TI 99/4a, Well, there are over two million TI owners, and software support for them outside their own support groups is practically non-existent. So if large software companies ignore two million Texas Instrument owners because the computer is no longer manufactured, how much will they support ADAM, with only 400,000 made total?

That is why I believe our only hope is for someone to manufacture a Commodore 64 emulator that would enable ADAM owners to run Commodore software and hardware on their computer. I also believe that a letter writing campaign to prove that most ADAM owners are interested in buying such a peripheral could convince Coleco or Mimic Systems or another third party to produce this for us. How about it? That's all the news I have for now. According to Darrell Sage's estimates, about 250,000 ADAM's have been sold. I recently read that so far, about 275,000 Apple Macintoshes have been sold in roughly the same amount of time. So why is Mac a hit and ADAM a dismal failure? Why are large third party software

companies scrambling to program for the Mac while ADAM is virtually ignored? Is this because Mac costs a fortune, while ADAM costs peanuts, or because Coleco is a toy company while Apple is a respected computer company? In any case, it looks like Coleco's many critics were right. We couldn't trust a toy company to make and support a complex computer like ADAM. If only we'd have known. Sigh...THE ADAM IS DEAD!!!! LONG LIVE THE ADAM!!!!!

Life After Death - Another View by D. Sage, Editor

Jeff Silva's article stirred a number of thoughts in my mind that I feel need to be addressed. This response is not intended to be critical of what Jeff had to say, but simply another viewpoint that may be shared by other software developers and publishers.

The home computer industry is an extremely risky business. To enter the hardware industry requires a

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PACKCOPY

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For use on the ADAM Computer

Single data drive
Dual data drive copy
Dual disk drive copy
Copy between data and disk drive

Make backup copies of Basic, SmartFiler, SmartFiler files and other commercial software. Copy almost anything on DDP or disk.

NOTE: PACKCOPY is intended for archival use ONLY. ANY other use may be a violation of copyright laws.

To order send check or money order for \$41.50 payable to: Sage Enterprises Rt. 2, Box 211, Scrivner Rd. Russellville, MO 65074

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commitment of major resources often involving millions of dollars. The software business is less costly to enter, but nevertheless: requires a personal and financial commitment. When someone enters either of these aspects of the industry they do so with some expectation that they will realize a return. While many of us who have done so, enjoy the work, we must nevertheless receive some financial gain from our efforts. Larger companies have employees who like to get paid regularly as well as creditors who must be repaid. While many of us who work in this field are somewhat idealistic and receive non-monetary rewards from being a part of all of this, we nevertheless must make a living. Few people are willing to put in from 40 to 60 hours a week on a business venture that losses money.

In 1983 Coleco borrowed enough money to buy enough parts to build or contract the construction of 400,000 ADAM computers. For a number of reasons almost two years later Coleco still had on hand enough parts to build another 150,000 ADAMS.

During this period the home computer market in the US was going through a period of drastic change. Texas Instruments pulled out of the market, dumping large numbers of TI 99/4a's at prices under \$100. Atari was in financial trouble and began cutting prices and dumping inventory. Commodore had cut the price of its 64 to \$200.00. By late 1984 when Coleco was still carrying large inventories on borrowed funds, the market was heating up even more. Signs indicated that another round of price cuts by Atari and Commodore were just around the corner. New computer introductions were being anticipated along with the possible entry of the Japanese home computer industry into the American market.

American buyers were turning to more expensive systems produced by companies such as Apple and IBM, partly because of their longevity and stability in the market place and partly because of Americans infatuation with brand names. If you owned Coleco, what would you do?

Don't expect to see a lot of large software companies rushing to support the ADAM regardless of the number of units that are out there. These companies will make software for the Macintosh and others because they can charge \$200.00 a package and get it. If they produced products for the ADAM they would have to sell them for under fifty dollars in order to move them.

Yes, greed is the reason in many cases at least. On the other hand, you don't need support from large companies to get high quality software. Let me give you a few examples. The music software put out by Steve Simpson's FutureVision is every bit as good as the same type of program put out by Electronic Arts

for the Commodore 64. Both International Computing and Victory Software are producing text adventure games as good as many of the early introductions for other systems. Many of these small companies had to do their work without access to Coleco's technical manual or advanced software development systems. Now that technical information is more readily available look to see more high quality software from these companies. But remember even these companies have to make money off of their products or they will be forced to turn to supporting other systems instead of the ADAM. Good software often takes months to develop.

Often the only means to sell products available to these companies is to sell direct or through the few mail order houses that still carry ADAM products. if you don't buy the software, it will soon dry up and there won't be anything new. So let's don't worry about whether or not we get big name support. Sure it would be rice to see these companies stay with the ADAM, but the real issue is getting high quality software support regardless of whether the company is big or small.

Software Piracy And Packcopy by D. Sage

An issue very much related to the preceeding article is software piracy. When I developed PACKCOPY, it was done for one reason only, to allow you to backup your data pack and disk software and data files. I am not naive enough to believe that it won't also be used to illegally COPY software. Let

me remind you that if you copy commercial copyrighted software and give or sell a copy to a friend, you are in violation of the law. You have stolen from the producer of that software just as much as if you had shoplifted the



product from a store. If you sell the original you purchased and retain any copies, that is illegal.

Everytime an illegal copy of a program is produced, you are shortening the life of ADAM support. if you are going to do this then be prepared for the consequences. Even if you don't get caught you are still guilty of a criminal act and have increased the likelihood that support for ADAM won't continue.

We all have an obligation to refuse to accept copies of such software and to refuse to loan copies of our software to persons who we know will illegally copy our purchased programs. Users groups must police themselves to insure that meetings are not used to illegally distribute such materials. A number of Commodore users groups were recently nailed by the FBI for such activities. I assure you that Compuserve and other bulletin boards are regularly monitored by such law enforcement agencies for any evidence of such activities.

PACKCOPY is an important program, because it enables you to protect your software investment. Please do not misuse it.

What ADAM Owners Want by Joe Blenkle

The past several weeks I have been taking a survey on CompuServe's Family Computing Forum. I've been asking ADAM users what kind of software and hardware they would like to see developed for the ADAM.

I think the biggest response that was received was the need for an RS-232 interface for the ADAM which would allow the use of other printers, etc., with the ADAM. I must agree that this is one item I would like to see appear, and I'm sure it will eventually from some source.

Several people voiced the opinion that there should be an 80-column card for the ADAM. As far as I know this will probably never come about because there is no software available that would use an 80 column display, although some CP/M programs might be able to utilize this.

Another enterprising soul would like to see an auto-answering system developed for ADAM, along with the software that would allow ADAM to be used as a computer bulletin board system.

Also on the wish list is some kind of software or hardware that would allow Apple software to be run on the ADAM, and an external power supply.

Several individuals expressed an interest in a tractor feed for the ADAM and others echoed my own desire for a program to dump the contents of a cartridge onto either a disk or DDP.

Closing out the list of hardware and software suggestions was a need for more business and accounting programs and/or applications for ADAMCalc, a clock-card and a version of the FORTH language for ADAM.

Making An Industry Standard: How To Sell The Public A Bill Of Goods by D. Sage

Once upon a time there was a strange land called Technoland and in that land lived the technocrats. The people of Techno idolized technology more than almost any other people in the world. in recent years the gizmo had become their favorite technological triumph. The gizmo promised to make life better for

everyone than had any previous technological development.

The gizmo was truly important and could be adapted to all kinds of uses; however, one of the most important of these was the personal gizmo. Almost every company involved in technology made their own brand of personal gizmo. One of the leaders in the development of the early personal gizmos was Worldwide Gizmo. Worldwide had produced some of the earliest gizmos in Technoland and had just recently began producing personal gizmos. Because personal gizmos were becoming cheaper and cheaper to manufacture many new companies began producing them. Some of the new personal gizmos were very fine indeed.

This growing competition disturbed the leaders of Worldwide Gizmo and so it came to pass that the big boss of Worldwide called a meeting of his technological wizards to find out what could be done about all of the competition. Soon the meeting room was crowded with wizards and the big boss began to speak. "We must sell more of our gizmos," he said. "The competition is stealing the market from us. Does anyone have any suggestions?" From the back of the room a voice called out, "We could lower our price." Everyone in the room shuddered and the boss yelled, "Seize that man. He must be a lunatic."

For a while the room was filled only with a rumbling as the wizards tried to think of an answer. Finally a marketing wizard said, "We will create an industry standard and we will be it." The big boss looked at him and said, "What are you talking about?"

The marketing wizard responded, "If we can make the press and the public believe that all personal gizrnos should be compatible and that our personal gizmo should be used as the standard for compatibility then we shall surely control the market." He proceeded, "No one will want a gizmo unless it is ours and because of our reputation we can easily convince the press to spread the word for us. All we need to do is point out to them how much better the public would be served if all personal gizmos were compatible and that we are adopting a standard that will be a model for all personal gizmo manufacturers. We can then license our standard to other manufacturers and charge them more than they can afford for the rights to use our standard. Because of our reputation we can easily convince the press of the need for such a standard."

And so it was. Soon the press throughout Technoland were criticizing personal gizmos made by other companies because they were not compatible with the industry standard.

As time passed the only personal gizmos produced in Technoland were either made by

Worldwide Gizmo or by companies who paid Worldwide for the right to use their standard. Soon everyone owned a personal gizmo made by Worldwide and sales began to rapidly decline because few people could use more than one or two personal gizmos.

The big boss decided it was time to call another meeting. So all of the wizards of Worldwide Gizmo once again gathered in the meeting room. The boss said, "Our sales are declining. Everyone owns a personal gizmo and we do not know how to make anythirg else. What will we do? Soon our sales will stop."

A voice in the back of the room called out, "Let's create a new super gizmo." "What good will that do", answered the big boss. "No one will buy a new personal gizmo when everyone already has one."

"But," a marketing wizard called out, "if we raise the maintenance charges on the old gizmo to the point that it is cheaper to buy the new one, then they will have to buy it." He continued, "And if that doesn't work we will simply quit fixing the old gizmo."

And so it was that about every five years Worldwide Gizmo was able to create a new industry standard and continue to sell personal gizmos.

If you don't know the moral of this story then you probably already own a super gizmo.

Printer Repairs by Dan Quibell

I just had and resolved a problem with my printer that I thought would be of interest to others. Everything was working fine, when, in the middle of typing a page of work, the ribbon stopped advancing and therefore, nothing would print out anymore. I changed ribbons and that did not help. I took the ribbon off and printed a little bit to see if the ribbon-advance key worked (the part that fits into the ribbon cartridge). It was as dead as a doornail;



however, when the ribbed wheel under the ribbon platform was advanced manually, the ribbon advanced very easily. This was the problem.

I called the 800 number and the friendly person on the other end

of the line suggested I try loosening the two flat-head screws on the platform under the ribbon cartridge one turn. That did nothing. I was told my printer needed a trip to Honeywell. Great! I decided I had nothing to lose, so I removed all the screws from the ribbon-cartridge holder. The black cloth covered thing

seen on the platform when the ribbon is removed is a solenoid type mechanism. It pulls in a bar that has a metal spring bar on it. Everytime the solenoid opens or closes this spring bar is pulled into a serrated plastic wheel and this, in turn, advances the ribbon. Apparently the bar on this solenoid can come out too far, so Coleco put a plastic square piece behind it to prevent this.

On my printer this piece came loose and the bar jammed, causing the ribbon to stop advancing and therefore stop printing. I took some plastic model glue and glued this little piece back in place behind the bar and I haven't had a problem since. It did not cost me any lost time or a check to Honeywell.

The cover is very easy to take off and put back on. The only thing to watch out for is the latch that holds the cartridge in. Don't take the cover off so fast or hard that the latch falls into the printer. There are six philips head



screws to remove--four round heads and two flat heads. The only one that is really hidden at all is the one behind the latch that holds the ribbon. Be sure to put the flat head screws back in the holes they came from. I think they act as tension adjusters for the ribbon cartridge. I saw no need for any special adjustment so I just tightened them as flat as I could without putting any undue torque on the screwdriver. Also make sure you unplug the unit from the outlet while doing this.

Since then my printer has been fine. I hope this will save someone else a bill and lost time. Why pay Honeywell to do something so simple?

Consumer Alert: Garden Of Adam Newsletter by D. Sage

We have been receiving a large number of complaints concerning Taylor Barcroft's Garden of Adam Newsletter and his affiliated buying service. In October of last year I notified Mr, Barcroft that we would not carry any further advertising for his organization until he provided evidence that he intended to fulfill his commitments to his subscribers and customers. Mr. Barcraft indicated that his first issue would be forthcoming and that he would be on schedule thereafter.

Although we did receive the first issue of his newsletter, there have been no subsequent issues and we have continued to receive complaints associated with non-delivery of the newsletter and various products that persons had ordered through

the newsletter. We have been advised by a large number of individuals that Mr. Barcroft has not responded to their written or telephone inquiries concerning non-delivery.

Many of his subscribers and customers have requested refunds but have received neither the products they ordered nor a refund. Such conduct by any business is deplorable. We have made every effort to treat Mr. Barcroft fairly and to give him the opportunity to meet his obligations. Since it appears that he has no intention of meeting his obligations, we feel it is our obligation to advise anyone who has ordered products and failed to receive them from him to contact the Postmaster General's office in their state and to write to the California State Attorney General's office concerning this situation.

If you placed an order with a charge card you should notify your credit card company that you have not received products you have ordered and ask them to remove any such charges from your account. For those of us who must do our business through the mail it is unfortunate that these situations occur. As ADAM owners we have had enough difficulties obtaining information and products. We don't need the added problem of companies that don't deliver promised products. We hope that those of you who subscribed to Mr. Barcroft's publication and also subscribe to ECN will let others know that ECN is a reputable publication. There are many reputable mail order businesses that supply ADAM products. If you have any questions about a particular company feel free to contact us and we will be happy to recommend companies that we know are reliable.

Product Review: Tutankham

by Jeff Silva

Product: Tutankham

Manufacturer: Parker Bros., Inc., P.O. Box 1012,

Beverly, MA 01915

Requirements: Colecovision/Adam, Joystick

Media: Cartridge Warranty: 180 days Price: \$9.95 at Toys R Us

Rating: 9

This cartridge is based on the original arcade game by Konami. You control Archie, the archaeologist, who wanders through four different burial chambers in search of the ultimate treasure, the Death Mask of Tutankham. Pursuing you at every turn are legions of different types of creatures, from Royal Cobra Snakes to Flying Cats. You are armed with a rapid fire laser gun and a limited supply of flash bombs which destroy everything on the screen. There is a timer for each of the four chambers; if it runs out your laser gun becomes useless.

I found Tutankham to be yet another very enjoyable game from Parker Bros. Graphics are very colorful, play action is superb, as are the sound effects. In almost every respect, Tutankham plays just



like the original arcade game. It is a very challenging game, yet not too hard. One really big thing in Tut's favor is the price. I don't know why the price was so low because this is a first rate cart. If I had paid the regular price for this I would have rated it a 9, but at this price it gets a 10.

Product Review: Gorf

by Joe Blenkle Product: Gorf

Manufacturer: Coleco

Requirements: Colecovision/Adam, Joystick

Media: Cartridge Warranty: 90 days

Price: \$17.97 at Kay-Bee Toys

Rating: 6

I have waited for some time to buy Gorf. not because of any misgivings about the game but because I was waiting for the Super Game Pack version. Having seen no mention of the SGP version for Gorf, I opted for the cartridge.

Gorf combines four games in one with gamers battling through a Space Invaders like game called Astro Battle, Laser Attack, Space Warp and finally the ultimate battle against the Gorfian Flagship. Gorf is a



fun game, but one tends to miss the taunting Gorfian voice that is found in its arcade counterpart. Its constant jabs at your ability to do battle adds to your determination to wipe the little sucker out. Still,

Coleco's adaptation to cartridge is otherwise complete.

Rating Gorf is difficult. I find myself slightly at odds over giving it a low rating because I consider it a classic. Yet, it doesn't have the qualities that make it a game that is interesting to play for extended periods. It is challenging and this partially makes up for that shortcoming.

Product Review: Mouse Trap

by Maureen Zabel Product: Mouse Trap Manufacturer: Coleco

Requirements: Colecovision/Adam, Joystick

Media: Cartridge Warranty: 90 days

Price: \$19.95 at Toys R Us

Rating: 9

Cats waiting at the outside perimeter of a maze are ready to jump in and pounce on your mouse as you run it through the maze eating cheese and collecting points. Get the big cheese for more points then try for the many bonuses that appear in different parts of the maze.

As your mouse travels it collects "dog biscuits." Cats too close? Press number 5 on your keypad and the mouse becomes a dog for a few seconds, biting as many cats as possible both for points and the



sheer joy of it. This sends the cats back to the outside of the maze for a time. You get to change your mouse to a dog for e a c h b i s c u i t collected. The maze is filled with "hinged," blue, red and yellow

sections. Press 1 on the keypad and all red sections swing to perhaps trap a cat or save your mouse from oblivion or if you're not careful, let a cat run right into your mouse.

Number 2 and 3 on the keypad control the yellow and blue sections of the maze. The standard maze is always the same but you can change it with those buttons. Higher skill levels offer more cats and birds that swoop in to attack your mouse, even when it is a dog.

Duck into the exit at the center of the maze and your mouse pops up in one of the four corners--and you'd better hope there isn't a cat there waiting on you. Graphics are excellent. The mouse only has a head, but the mouth continues to open and close while it eats all the cheeses. The cats have well-defined complete bodies, changing back and forth

from rear to frontal views and even have swinging tails. The birds look like real birds and the mouse says "woof woof" as it turns into a bulldog. head, collar and all.

This is a thoroughly delightful game for everybody. You'll hear as many grunts and groans and "phews" and see as much body english as with Buck Rogers. My kids love it and it has more than enough going for it to keep Mom and Dad entertained. The only way Mouse Trap could be improved would be if it did the housework or went off to the office every day.

Product Review: Decathlon

by Jason Hirsch Product: Decathlon Manufacturer: Activision

Requirements: Colecovision/Adam, Joystick

Media: Cartridge Warranty: 1 year

Price: \$29.97 at Toys R Us

Rating: 9

Decathlon is the new ADAM/Colecovision version of the popular video/computer game. This was a smash hit on the Atari 2600 and should be an even bigger hit here.

There are ten track and field events: the 100-meter dash, long jump. shot put, high jump, 400-meter race, 110 meter hurdles, discus, pole vault, javelin throw, and 1500 meter race. The events are controlled by moving the joystick left to right. The faster you move the joystick, the faster your on screen athlete runs. In the jumping events. you run up to the scratch line, building up as much speed as possible. then press the fire button to jump. The same is true for the

throwing events (shot put, discus, javelin) except pressing the fire button releases the projectile. To succeed in the pole vault, run as fast as you can towards the bar, plant your pole and release it at its peak.



There is a strength bar which shows your speed, a real time clock during races and a distance measure. After each event points are awarded based on speed, height, or distance. One or two players can compete in a decathlon or practice a particular event.

The graphics on Decathlon are nothing less than superb. The athletes are almost cartoon quality. Their animation is smooth and fluid. The Olympic Theme is played during an opening sequence and after the decathlon. If you score more than 1000 points on an event the crowd cheers and a short musical theme is

played.

There is a drawback to Decathlon. The constant left-right movement of the joystick appears that it may eventually break the stick. For this reason, it might be wise to buy a cheap joystick and an adaptor to connect a keypad.

Decathlon is supposed to represent a truly grueling physical event and because of this it is not easy on your hands. I strongly advise using a glove on your trigger hand, if not on both. Activision even acknowledges this fact by including an order form for an official Decathlon glove. You can also receive a gold, silver, or bronze patch from Activision if you score enough points. Just send them a dollar and a picture of your TV screen with your score.

Decathlon would receive a 10 if it did not cause such terrible hand fatigue. I strongly recommend it as a two player game. It requires a variety of skills and has enough events to keep almost any gamer contented for a long time.

Product Review: Star Trek

by Keith Devine Product: Star Trek Manufacturer: Coleco

Requirements: Colecovision/Adam, Joystick

Media: Cartridge Warranty: 90 days

Price: \$22.00 at Kiddie City

Rating: 5

Star Trek is a space shoot-em-up game. You are commander of the Starship Enterprise and must battle Klingon warships attacking you and your bases. You have two views of space, one from overhead and a view directly in front. The upper left portion of the screen displays your shield strength,



photon count, and warp drive level. I found the game very difficult to get used to. I play the game with my Super Action Controllers; you have the option of using them or the standard controllers. It took a great deal of time to

learn how to control the Enterprise, for it is very sluggish and lacks response. Once you get through several screens of combat, a NOMAD appears dropping mines all through space. You must avoid the and destroy the NOMAD.

I found the documentation typical with Coleco, including the ever present section titled "The Fun of Discovery." I must confess that I have never found

anything more in a game than what was described in the instruction booklet. I found the game typical of space shoot-em-ups and rate it a five.

Product Review: Star Trek (7-2)

by Joe Blenkle

Price: \$29.95 at Toys R Us

Rating: 8

This is Coleco's version of the arcade game from Sega. In play action the game is similar. You pilot the Enterprise, defending each sector's star base from enemy Klingon attacks. You have phaser and photon torpedoes as weapons and shields, warp and impulse power to protect and navigate your ship.

Each hit on your vessel reduces your shield, photon and warp indicators; when they are all used up the game is over. You can dock at star bases for partial repowering.

The Coleco version eliminates the asteroid fields and meteor showers from the original game.

This is a fun shoot-em-up, especially if you are a fan of Star Trek



and the USS Enterprise. The beginning sequence where the Enterprise hovers into the scene with the opening notes of the Star Trek theme really add to the feeling that you are taking the ship out for a spin.

The close up screen shows nice detail as the Klingon ships get closer and the explosions are fiery!!! My only negative comments are the lack of varied action. Mostly it's just shoot and dodge. I found play much smoother using the Super Action Controllers, because you don't have to use the joystick for thrusting like on the standard controllers.

All in all, I would strongly recommend it if you are a fan of Star Trek and the original arcade game. Welcome aboard Captain...

Product Review: ADAM Disk Drive

by Derrick Hall Product: Hardware Manufacturer: Coleco Requirements: ADAM

Media: Hardware and DOS disk

Warranty: 90 days Price: \$268.30 Rating: 10

At last the ADAM disk drive is here. It was worth the wait for such a solid product. This disk drive is in a class by itself. It outperforms one of the major selling home computer disk drives on the market. With most disk drives you get a rattling sound when in operation. The ADAM drive by far is not in this category. When in operation it makes a smooth humming sound. The loading and saving speed is by far much better than the Commodore 1541 disk drive. The air vents on the ADAM disk drive are well designed. I had mine running for about 5 hours and it did not overheat.



The disk drive uses the same operating commands as the digital data drives. The D.O.S. (Disk Operating System) is pretty fast compared to what I have used before on other home

micros, that is because the DOS was written in machine language, like most Coleco ADAM software. Like most DOS's it will format, rename and copy, etc. The only disadvantage is that you can't make backup copies of SrnartBasic, Flashcard Maker, SmartLogo and other copy protected programs.

The ADAM disk drive was made by a very reputable company called MPI (Micro Peripherals, Inc.). This company also makes disk drives for Hewlett Packard and other companies. Coleco was so considerate they even included in the disk drive package an RFI-1 kit. This kit is installed by the user to help prevent radio-tv interference problems. I highly recommend that ADAM owners add this hardware to their computer system. The reason why I rate the ADAM disk drive a 10 is because it is such a solid hardware product.

Product Review: ADAM Disk Drive

by Joe Blenkle

Price: \$279.97 at Toys R Us

Rating: 10

After using a digital data drive on my ADAM computer for a year, Coleco's new disk drive is going to spoil me fast.

The newly released drive is much faster and quieter than the standard digital tape drive that comes with ADAM. A test with a blank disk and data pack turned up the following results: the DDP saved a program in 1:17, the disk drive in only 10 seconds. The DDP loaded the same program in 47 seconds while the disk drive loaded in 18 seconds.

The advantages of the disk drive are not just its speed and quietness. Many software manufacturers unwilling to put out programs for ADAM on DDP will probably now jump on the bandwagon with the more conventional 5 1/4 floppy disk.

The disk drive comes with one blank disk and a special ADAM Disk Manager disk for running the disk

system. It allows you to copy directly from a DDP to disk or vice-versa and allows you to format blank disks into ADAM compatible ones. With disks selling for a few dollars apiece, this will be a more economical storage medium. You can even copy the formatting program onto another disk so you needn't load the DOS every time you use the system. ADAM can support two disk drives along with two data drives and the system allows easy switching among all of the drives. A display even tells you how many KBytes remain on the disk or data pack.

The disk drive plugs easily into the ADAMNet hook-up on the left side of the ADAM's memory console. A second drive would plug into the back of the first and each drive has a switch so you can designate it drive one or two. The drive has its own source of power, plugging into a standard wall outlet and a convenient on/off switch located on the front. It has two red operating lights. One indicates when the power is on, the other when the drive is operating.

The ADAM Disk Drive is a very welcome addition to the ADAM Family Computing System and should open up a lot of doors previously closed to "our" favorite computer.

Product Review: SmartBASIC Bonanza

by Derrick Hall

Product: Basic Program Assortment Manufacturer: Martin Consulting

Requirements: ADAM

Media: Diskette

Warranty: Replace defective disk

Price: \$35.00 from Extended Software Co., 11987 Cedarcreek Drive, Cincinnati, OH 45240. Phone: 513-825-6645

Rating: 8

I must give credit to Mr. Martin and his son for putting such a wonderful package together, The diskettes I received include a total of 15 programs written in Basic and short assembly language routines. In addition a 20 page booklet is included with the descriptions of each program. I must honestly say that this package could do with a little more in the way of instructions. The two programs I fell in love with were FILER and LABELS. FILER is one of the best database systems for the ADAM computer.

You can customize FILER to whatever kind of information you need to file. It comes with 10 unused categories to do all that. FILER can be used for mailing lists, labels, bills, and records. The operations include define fields, add files, print, edit, delete, select/sort and create files. I purchased an address filer from Micro 2 for \$25 and the only operations it had were read, save and print. Compare Micro 2 to

FILER and FILER would walk away a big winner in cost and features.

The program LABELS is used to generate particular entries from the FILER database, such as mailing addresses, etc. LABELS offer several different formats for your convenience, one of them is printing addresses in column format. A surprise gift is included on diskette #1. Just insert the diskette and press the computer reset switch. I would recommend the package for anyone who wants good programs to learn from and also as an excellent buy for their dollar.

Product Review: SmartFILER

by Jeff Silva

Product: Filing Program Manufacturer: Coleco Requirements: ADAM Media: Digital Data Pack

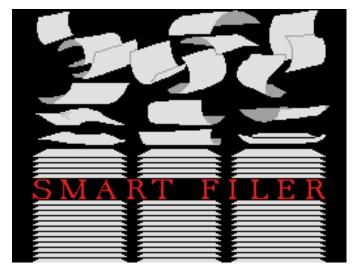
Warranty: 90 day

Price: \$22.00 at Toys R Us

Rating: 8

SmartFiler is here at last. This data pack is very easy to use and includes thorough documenation explaining every step of the way what can and can't be done. Adam sorts and searches alphabetically or numerically as needed, and can search several fields at a time.

You must use a blank tape or disk for each collection of files. I tested it out by making a record of my 45 rpm singles, using artist, title, year and music-type as the four searchable fields and added a text field for comments. It saves and stores data



reasonably fast though sometimes you do have to wait 30 seconds or so when adding records. This SmartFiler is very easy to use and does find and index records easily. It is fast, but I would have liked it to be even faster. Perhaps the disk will be. My one blank data pack has room for about 200 records,

which is a reasonable data base. My only negative comment would be that this program does put a real strain on your data drive so it can occasionally mess up. But it is reliable and worthwhile.

The price is great for a data base. I would also like to have had more searchable fields, but nevertheless it is recommended.

Product Review: SmartFILER

by Jim Minges Price: \$25.50 Rating: 7

The long awaited SmartFiler program is something of a mixed blessing with limitations that hinder productive use. SmartFiler appears to perform the tasks intended by Coleco very well.

Unfortunately, however, Coleco has aimed the program at the lowest possible level of user need and has not provided several important file management functions. As good as the program is. its limitations are a constant frustration.

First the good news. At \$25.50, SmartFiler is a bargain and its value for the dollar has to be a "10." The smart key operating system is a natural user

interface for the menu driven file management system, and allows the system to be learned and put to practical use very rapidly. The system allows records of up to 255 characters, with a very handy ability to



append a text block of up to two pages from a SmartWriter file at the end of each record.

In data entry, SmartFiler compares in user friendliness with any home file management program on the market. In a couple of hours, I was able to develop mailing list and budget files and print out data for offline reference. It was apparent that the program is at its best in the text oriented applications which can utilize SmartWriter files. While the program worked without a hitch in simple applications, its limitations became very apparent.

Actual performance problems included limited sort, retrieval and printing options, and the total lack of true report generation functions. In retrieving and printing data, the user must choose between retrieving a desired portion of the file sorted by the record's first field or retrieving the entire file sorted as the user wishes.

The user cannot, as will often be desired, retrieve data that is only a portion of the file and sorted as desired. Although the program allows fairly flexible sorting options it omits such common features as

simultaneous sorting by multiple fields (subsorts), and there is no way to modify which fields are searchable after the file is created.

The real problem with the program's performance is the lack of report writing functions. The user cannot produce a properly formatted tabular report and there are no math functions. Although merging files with SmartWriter documents to create form letters is emphasized in the manual, the user must go through a tedious process of generating letters one at a time. Development of a good report writing program to go with SmartFiler would answer many of my criticisms.

Another quirk is that the program retrieves and prints in sublists of no more than 25 records. While the process of going to additional sublists is simple enough, it should not be required. Anyone keeping files with less than 25 items does not need a computer program!

One major problem is probably due to limitations in the ADAM operating system but it is potentially serious. There is absolutely no way to back up files. If a data pack goes bad with 150 potentially irreplaceable records on it, you're out of luck. Finally, the documentation is rather sparse. The quick reference guide is quite handy, but the manual itself could be a little more detailed. In fact, just keeping track of this flimsy little folder may not be easy.

Despite its limitations this is a good program for the price. Anyone with any interest in home management functions should buy it, since there is really no other comparable program on the market for the ADAM. However, the buyer should realize that it is not a very powerful file management program, but a very cheap one that can be useful despite its limitations. I just wish Coleco had taken the user seriously enough to aim a bit higher in price and performance.

Product Review: Mountain King

by Jeff Silva Product: Game

Manufacturer: Sunrise Software Requirements: ADAM, joystick

Media: Digital Data Pack (or cartridge)

Warranty: 90 day Price: \$14.90

In this game, elements from other popular climbing games have been combined into a unique blend, with great atmospheric music, graphics and sound effects, as an explorer seeks to become crowned MOUNTAIN KING by running, jumping, collecting diamonds and the elusive flame spirit, from many levels, only some of which have ladders.

Once the explorer finds the flame spirit, he can use it to gain entrance to the temple by offering it to

the Skull Spirit. Then he enters and dons the Golden Crown! Wearing the crown he leaves the temple and it becomes an urgent race to the perpetual flame peak, as the cave bats try to steal the crown from his head. Only if he reaches the peak with the crown, will he become the MOUNTAIN KING.

This game's musical themes are enchanting. The Flame Spirit them (ANITRA's DANCE from Grieg's Peer Gynt Suite) plays louder as the explorer gets closer to it, and he can see the spirit if he shines his flashlight an it. Besides the pesky bats, there is also a cave spider that is quite lethal, as well as flames along some cavern walls which can block your path and are lethal if your explorer happens to jump into one. Once your explorer successfully grabs the crown



and exits the temple, Grieg's IN THE HALL OF THE MOUNTAIN KING theme plays quite urgently as you attempt to race for the peak, and was obviously the inspiration for the game's title.

The graphics are sparse, but very moody and effective for this game. The play is challenging and very fun, and the musical themes are exceptional. The data pack version loads in the normal loading time, and automatically rewinds to the beginning after it is loaded. This does make a jarring noise as it stops, which most other tapes don't do, but I don't think it causes undue wear on the tape, because after it is loaded you can remove it and put it away, since it is not a multi-load game. The tape wear should be less than a normal data pack game.

This is true of all of Sunrise's data pack games so far, and seems to be a cheaper way for ADAM owners to get the same great cartridge games in tape format. However, recent price reductions on all of Sunrise's game carts at Toys R Us have resulted in the same price for both.

MOUNTAIN KING is a real winner of a game. Atmospheric and addictive, it's a lot of fun. Recommended.

Product Review: ExperType

by Jeff Silva

Product: Typing instruction Manufacturer: Coleco Requirements: ADAM Media: Digital Data Pack

Warranty: 90 day

Price: \$44.95 at Jafco and Toys R Us

Rating: 8

This electronic typing tutor program can improve the performance of any typist, from beginner to professional by creating individualized exercises for speed and accuracy based on previous typing lessons. This program also offers you a choice of exercises including touch typing, character, word, free-style, and dictation.

After five lessons ADAM will give the typist a report card, which lists words per minute and indicates problem keys.

ExperType uses a cute glove cartoon character to introduce ExperType to the user and also snaps its fingers as the user switches from one type of lesson to another. During the performance review, snappy upbeat music plays. For the performance review to



be accurate, users must type as fast as they can at all times. Any pausing to think up words, for instance, will lower the review speed. I found this program to be very good for improving touch

typing skills on ADAM. While it isn't a game like TYPO-ATTACK, its purpose and goal is more serious. The glove cartoon character and music adds a lighter touch to the program, and using this program will improve your typing speed and accuracy considerably.

Negative comments would be the instruction isn't quite as personalized as one would think, at least not right away. I purposely goofed an entire lesson by hitting the wrong keys all the time, and while it does mark every mistake in red, ExperType still gave me the same "YOU'RE DOING GREAT!" prompt. However, I am sure that as you use ExperType more, it will adjust to your weaknesses and act accordingly. I also didn't like the fact that the performance review and trouble key screen came up all by themselves, sometimes when I was in the middle of lessons, and wanted to go on to the next one. I would have liked the performance review not to come up at all, unless the user wants it to come up or at sign-off time.

Still, these are minor complaints. Overall

ExperType is yet another very good Coleco ADAM software program. Recommended for anyone interested in improving their typing performance (and who isn't?).

Product Review: Galaxian

by Jeff Silva Product: Game

Manufacturer: Atarisoft

Requirements: Colecovision/ADAM

Media: Cartridge Warranty: 90 day

Price: \$14.95 at Toys R Us

Rating: 9

Your game objective in this Atarisoft arcade adaptation is simple, destroy the Galaxian fleets before they destroy you! The Galaxian fleet lines up in ranking order before individually plunging down, bombarding your ship and then flying back to the lineup, if you haven't shot them first.

You get points depending on which ship rank you destroy first. The joystick is used in this simple slide and shoot game. The longer you survive, the higher



the waves, and the more the ships' attack you. There is a pause button, as well as a colorful title screen. You can select three difficulty levels wi'th one or two players.

The Atarisoft graphics are top notch. No blockiness. Rich vibrant colors and smooth animation makes this game very true to the arcade original. Even the sound effects are just right. This game does get difficult fast and should keep both novice gamers and more experienced players entertained, as they try to finish one more wave. Further at the reduced price of \$14.95, this game is really worth the money. If a lot of ADAM and Colecovision owners buy this cart and other Atarisoft cartridges for Coleco/ADAM, perhaps the new owner of Atari, Jack Tramiel, will

perhaps the new owner of Atari, Jack Tramiel, will take notice and decide to make future Atarisoft products available. At the moment, no news is bad news, and these three carts may be all we will ever see from Atari.

My only negative comment about Galaxian would be that as a slide and shoot, it isn't too original now. although it was when the arcade game came out, and the action is fast and frantic but somewhat unvaried.

Still, if that is what you want in a slide and shoot, the price is right. The graphics and game play are top notch. Very recommended for slide and shoot and Atari fans.

Product Review: Star Wars: The Arcade Game

by Barbara Duncan **Product: Game**

Manufacturer: Parker Bros., Beverly, MA 01915 Requirements: Colecovision/ADAM, Joystick

Media: Cartridge Warranty: 180 days Price: \$34.95+

Rating: 7

Star Wars - The Arcade Game is a cartridge for either the Colecovision or the ADAM. The graphics are as close to vector as can be done on a pixel machine. The screens are approximately the same as the arcade version.

In the first screen you have to shoot Tie fighters to gain entrance into the Death Star. In the Death Star there are the same towers to be shot down and in the



next screen you dodge catwalks while being fired at. You still have 6 shields to protect yourself. With the standard controllers you don't have the same edge as you do with the arcade steering wheel type controllers. There just isn't the same type of control either. It is a rather good game if you like Star Wars enough to have it at home. As far as a vector translation, it is rather good. I found the Coleco version better than the Atari 5200 version.

Product Review: Time Pilot

by On C. Lam **Product: Game**

Manufacturer: Coleco

Requirements: Colecovision/ADAM, Joystick

Media: Cartridge Warranty: 90 days

Price: \$9.99 at Video Game Express

Rating: 8

Time Pilot is a copy of Konami's famous arcade game where your super fighter is trapped in a time warp. You must fight it out against various types of aircraft. There are biplanes from 1910, monoplanes from 1940, helicopters from 1970, and F-16s from 1985. The only thing missing from the arcade version are the space ships of 2001.

The graphics of the game are very good, especially the biplanes and the F-16s. The F-16s look and move like the real ones. Your mission is to destroy a specific number of planes. When you have



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done so, a mother ship appears and you must destroy it in order to go on to the next level. There are four levels and when they are completed you are given a set of wings. Then the game goes back to 1910 and the play action is faster.

The game does have an undesirable problem, it copies the arcade game too closely with the controls. A slight movement of your joystick can cause you to lose control of your ship. I like this game very much because of its price and maybe because of the difficulty in controlling your ship.

Product Review: Quest For Quintana Roo

by On C. Lam Product: Game

Manufacturer: Sunrise Software, 2829 W. Northwest Hwy., Suite 904, Dallas, TX 75220

Requirements: ADAM, Joystick

Media: Digital Data Pack

Price: \$14.95 Rating: 9

Sunrise Software sent my copy of Quest in only 7 days. They must have the best service next to Coleco. The object of the game is to guide Yucatan Sam to the ceremonial vault and acquire the riches inside. The game loads in 35 seconds and the data pack does not spin during the game. This reduces wear on the tape. You start at the bottom of the temples where you must guide Sam into one of the



50 rooms via chutes. The chutes do not connect with one another and going down one chute does not necessarily bring you to a certain room. Sam must gather up map rocks in his quest, while avoiding spiders and poisonous snakes. He has a limited supply of acid, bullets and air when he enters the temple. The game does get very long, because Sam must bring the rocks back to the ceremonial vault and place them in the right sequence and in the right

holes. A misplacement will cause the rock to disappear and Sam must find it again. When the puzzle is solved you will be given a secret code that can be typed in at the beginning of the game which will allow you to skip the levels you have already completed.

The game uses the keypad to throw acid, fire Sam's gun, use his chisel, and do various other things. The game does have many nice features, but Sam looks like Graham Crackers in the game, The Heist. The instructions were the only thing I didn't like and are the only reason I am giving it a 9. Otherwise I would rate it a 10.



Product Review: Pepper II by Tommy L. Earnest

Product: Game

Manufacturer: Coleco

Requirements: Colecovision/ADAM, Joystick

Media: Cartridge Warranty: 90 days

Rating: 8

The object of Pepper II is to guide your Pepper Angel around four mazes zipping up rooms. Pepper is chased by Roaming Eyes and in levels 2-4 a Zipper Ripper who unzips all the tracks that don't surround zipped up rooms.

If Pepper surrounds a room with a pitchfork in it the Roaming Eyes turn blue and Pepper becomes a Pepper Devil allowing him to run into the eyes for points and in the higher levels the Zipper Ripper stops for a few moments. After completing level one the mazes will disappear occasionally making it harder to zip up the rooms. Pepper can also score bonus points for zipping up a room with a bonus object inside. After Pepper completes a maze he gets a bonus of 7000 points. After completing all four mazes he gets a super bonus of 15000 points no matter how long it takes. There probably should be a

timer on the bonus points like in Donkey Kong. The sound and graphics are well done. Coleco did a good job on Pepper II.

Product Review: River Raid by Tommy L. Earnest

Product: Game

Manufacturer: Activision, Drawer No. 7287,

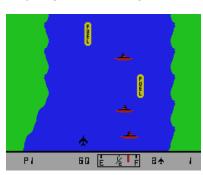
Mountain View, CA 94039

Requirements: Colecovision/ADAM, Joystick

Media: Cartridge Warranty: 1 year

Rating: 9

The object in River Raid is to destroy the bridges while shooting jets, ships, balloons, and helicopters, without running out of fuel. River Raid is a one or two player game with eight skill levels. There are three



more enemies in the Coleco version than in the Atari -- balloons, helicopter gunners, and tanks. I really like the objects on the banks of the river. I wish they could be activated in the game. Even if they don't shoot, it

would be nice if they could move. This would make the game more realistic. The graphics and sound are well done; both are sharp and clear.

Product Review: Best of Broderbund: A.E. and

Choplifter by D. Sage Product: Game

Manufacturer: Coleco

Requirements: ADAM, Joystick

Media: Digital Data Pack

Warranty: 90 days

Price: \$31.00 at Alpha-1, 1671 East 16th St., Suite 146, Brooklyn, NY 11229. Phone: (718) 336-7612. (This review copy was provided to ECN for no charge compliments of Alpha-1. Thanks guys.)

The Best of Broderbund is one of the new dual game digital data packs from Coleco. We hope to see



more of these in the future.

The game is loaded in the same manner as the Super Game data packs. After loading you are presented with a menu that lets you select either A.E. or Choplifter. Once a selection is made a title screen appears and the game loads. Each game includes a one or two player option and a number of levels of game play.

In A.E. the object is to blast the "A.E." with your anti-AE blaster as they enter view. These creatures Somewhat resemble, manta-rays.

Your blaster is restricted to horizontal movement. To move to the next screen you must eliminate all A.E. in each of three waves. There are a total of four game screens.

Although your blaster is limited in movement you have control over the altitude of your blasts. The longer you hold in your fire button the higher your missiles go before exploding. This adds a novel touch to an otherwise typical slide and shoot game.

You must avoid contact with the A.E. and their returning fire. Although level one is relatively easy,

the higher levels are fierce. If you like a game with fast action I suggest you try level 4.

Choplifter is a game of a different kind. The goal of this game is to rescue hostages by flying into enemy territory, collecting hostages



and returning them to your base camp. You must deal with enemy tanks and fighter jets. The enemy tries to shoot you down and kill the hostages before they can be rescued.

The goal is to return as many hostages to base camp as you can. When all the hostages have been saved or killed the game ends.

Your score is the number of lives saved. Although you can carry 16 hostages at a time that can be a bit risky should you get shot down.

This is an entertaining game and one of the few that has the goal of saving lives and not just blasting everything in sight.

Of the two games I like Choplifter better. A.E. is good but blasting games are not my favorite. Together I would rate the Best of Broderbund a solid 8.

Product Review: Decathlon (7-2) by D. Sage Rating: 2

In reference to the earlier review of this product, I must say using rapid movement of the joystick to control the speed of the athletes was a terrible idea.

This feature makes this game unbearable to play. It is hard to believe that a company like Activision

designed this game.

This game needed a trackball or speed roller. If you don't own Decathalon don't bother.

Product Review: Beamrider

by D. Sage Product: Game

Manufacturer: Activision

Requirements: Colecovision/ADAM, Joystick

Media: Cartridge Warranty: 90 days

Rating: 8

Now here is a game that's fun to play. Although this is essentially a slide and shoot game, it has a number of novel features. Your movement is restricted to a grid on which the various enemy craft also travel. The grid's movement gives the



appearance that you are traveling down it, although your craft remains at the bottom of the screen at all times. Your fire power, laser lariats and torpedoes, can only travel down the grid lines. To intercept an enemy craft you must

time your fire to reach them when they are on the same grid line.

You have unlimited laser fire but only three torpedoes a sector. Laser fire is effective against only certain enemy craft, while torpedoes are effective against all enemy craft. As you reach higher sectors, the number of, enemies you have to deal with increases and their mode of attack differs. This game has excellent graphics and game play. I definitely recommend it.

Product Review: Diablo by Steve Chamberlain

Product: Game

Manufacturer: Image Microcorp, P.O. Box 3761,

Cherry Hill, NJ 08034 Requirements: ADAM Media: Data Pack or Disk

Warranty: Replace defective product

Price: \$24.95 at M.W. Ruth

Rating: 10

Diablo is the newest release from Image Microcorp and it is the best by far. This game is written completely in machine language, and unlike the others it is all graphics. Once you hit computer reset an ADAM title screen appears. After the title screen you choose to play using the keyboard or

joystick and then give keyboard input to begin. The object of the game is to keep a moving ball safely rolling on a section of slidable track.

There are 232 tracks on 116 movable panels. You have to move the panels in such a way that you form a safe path for the ball. After the ball passes over a section of track that part of the track disappears, which is what makes the game progressively more challenging. If the ball runs out of track or into a wall

then you lose. If, however, the ball runs into a wall after you have removed 60 sections of track then the ball wraps around to the other side of the screen.



This is an incredible game, and I have nothing but good

things to say about it. This is the first third party arcade type game available and it is super. The graphics and sound are first rate, and would not look out of place with Coleco's own. This is the first "must have" game I've run into for the ADAM, and the only game I would be willing to pay more for. At the price you can't lose. Be sure not to pass this game up.



Product Review: Universal Telecomp Video

Printer by D. Sage

Product: Mitsubishi Screen Printer

Manufacturer: Mitsubishi

Requirements: Composite video source

Price: \$390.00 at Valiant-Universal Micro, P.O. Box 488, Hackensack, NJ 07602, phone (800)

631-0867 Rating: 10

Since our last issue, we have had a number of inquiries concerning the printer used to obtain our screen illustrations. The UT Video Printer produces an image using the video output. The image is reproduced using the standard thermal printing method. The image reproduced is 3 15/16 inches by 3 15/16 inches. Contrast of the image can be adjusted and a negative image can be produced.

At a push of the button the image on your screen is translated into a hard copy. The printer can be connected to a computer, video cassette recorder, or a television that has a composite video signal output. It only took about 5 minutes to connect and set up this gem. If you don't mind the small copy this is a terrific means to obtain hard copy graphics from your ADAM.

Product Review: Tomb by Tommy L. Earnest

Product: Text Adventure Game

Manufacturer: International Computing

Requirements: ADAM, keyboard Media: Digital Data Pack or Disk

Warranty: 60 days

Price: \$24.95 from International Computing

Rating: 8

TOMB is the second game in the INCO adventure series, written by Howard Cowles. As you play this all-text adventure, you find yourself in a somewhat vaguely familiar place. I have been playing TOMB for about four weeks. I haven't found out where you are, but I have found out what the mission is, to wake a

(C) 1984 HOHARD CONLES

sleeping princess and turn the stone statues back into living people.

Along the way you must feed a dog a bone, play a violin for a cow, and throw some water on an evil witch. I have discovered that there are snips of different fairy

tales inside the game, so remember your childhood as you play TOMB.

This game is different from the run of the mill

interaction games, well worth the price of \$24.95. The instruction booklet is adequate and even provides several clues to get you going. What this game lacks is a "SAVE" feature. It gets rather boring starting over each time you play. If you like text adventure games then you will love TOMB. I highly recommend it.

Product Review: CP/M 2.2 and Assembler

by D. Sage

Product: Operating System

Manufacturer: Coleco/Digital Research

Requirements: ADAM Media: Digital Data Pack

Warranty: 90 days

Price: \$64.95 at ADAM Depot

Rating: 10

Finally, ADAM owners have access to Digital Research's CP/M operating system. This product can open the doors to a wide variety of software available for other systems.

The ADAM translation of CP/M appears to be excellent. The manual is well written and provides adequate detail on most aspects of CP/M. The program itself is easy to use. Although some people do not care for the moving window format, this approach to utilizing a standard 80 column display may have significant, consequences for the future. First of all it should simplify the conversion of existing

CP/M software for the ADAM. Secondly it should make it easier to implement an 80 column card for the ADAM.

Many of you want to know what CP/M does. Well it really doesn't do a lot itself, although there are a number of



useful utilities that are included with CP/M. CP/M (Control Program for Microcomputers) is a standardized operating system that has been in use for some time on other systems. Generally any software that has been written on a CP/M 2.2 system can be transferred to another CP/M system and run with essentially no modification.

There are some catches to this. If the program is written in Basic then you must have the same CP/M Basic on ADAM to utilize it. Programs that have been compiled or assembled into machine language will generally run with little or no modification provided your system includes the necessary peripherals required by the program. The big differences come in the area of graphics. Because each computer handles graphics differently, such programs generally

require substantial modification. Because many of the programs available in CP/M format are designed for business or word processing applications this is generally not a problem.

The biggest problem ADAM owners will have is the fact that the disk format used on the ADAM is not standard CP/M and therefore you will either have to manually enter CP/M programs, find a source that supplies such programs in ADAM format, or download such programs from another computer.

If you have CP/M for the ADAM you already know that there is a company, Westico. that provides a wide variety of CP/M software in ADAM format. In addition we hope to be able to use one of these programs (ASCOM) to download public domain software and convert it to ADAM format.

Much of the software available from Westico is fairly expensive. Their prices are typical of those found for most commercial software.

On the other hand their is a great deal of free public domain CP/M software that is quite good. To use some of this software you may have to break down and obtain one of the programming languages available from Westico. Many of the public domain programs are written in Microsoft Basic. Enough on that for now, let's look at what you get when you buy CP/M.

ADAM CP/M 2.2 includes a number of utilities and an assembler. These utilities include an editor, a file transfer program, format, copy, backup utilities, an assembler, and a debugger. Included in the copy utilities are programs that allow you to transfer text and other files in standard ADAM format to ADAM CP/M format and vice versa.

The copy utilities will not let you copy any Coleco commercial software other than CP/M itself. Utilities such as PIP allow you to list files to the printer or screen as well as copy files from one device to another. The editor, assembler and debugger allow you to write assembly language programs, assemble and debug them.

This implementation of CP/M is almost identical to the one we have on our Zenith 100 development system. If you want to learn to program in assembly language or if you want access to a wide range of business software then I suggest you get CP/M as soon as possible.

Be prepared for some delay in obtaining this product. The demand has been so high that a number of companies have had difficulty in obtaining this product in any quantity at all. We will probably begin a column on CP/M to help keep you informed on what is available and so that you can exchange tips, programs and other information on this useful addition to the ADAM software library.

Bulletin Board

I am interested in obtaining some cartridge or other software for my library. If any of you have used software to sell, let me know. I am particularly interested in products from EPYX, Sunrise Software, Interphase Technologies, and MicroFun/Lab. If anyone has any of their products for sale please contact me. Darrell Sage.

Robert Giuliani, 50 East Street, Stratford, CT 06497, ph. (203) 377-7115, would like to hear from other ADAM owners.

FOR SALE: SmartFiler and SmartBasic, \$15 each, both unused and in unopened packages. Personal Checkbook Manager by Parallel Systems, \$10, and 32 Basic Programs (book and datapack) by Dilithium



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Press, \$15. Contact Jim Minges, 2815 South Street, Lincoln, NE 68502, ph. (402) 477-7614.

John Thompson, 160 Arlene Dr., Walnut Creek, CA 94595, would like to hear from other owners in his area. He also has for sale a 64k Memory Expander for \$135 or best offer. Phone: (415) 945-7744.

FOR SALE -- Bounty Hunter, Adventure Pack I and II. all from Victory Software, \$15 each and Tapeware Technologies' RIB data packs for \$23. Contact Steve Chamberlain, 120 E. 4th St., Bloomsburg, PA 17815.

Ralph A. Paine, Sr., 334 Barclay St., Coatesville, PA 19320, would like to hear from other ADAM owners in his area.

Robert Y. Whittemore, Jr., 2109 Raven Trail, West Columbia, SC 29169, is an amateur radio operator who would like to use his ADAM to transcieve code and RTTY. Are there any other hams out there that may be interested in helping him?

FREEWAREFREEWARE***

Gordon R. Meyer, 2608 West 6000 South, Roy, Utah 84067, ph. (801) 773-7766, recently notified us that he is now in the business of supplying freeware. If you are not familiar with the concept of freeware, let me try to explain.

Freeware programs are usually made available for the cost of distribution media only. Such programs are not copyrighted. The publisher makes the program available and asks that if you like it, you make a contribution to him. You are under no obligation to do so. Mr. Meyer has indicated that contributions need not be money, but can include contributions of programs as well. If you want more information write to Mr. Meyer and send him a Self-Addressed Stamped Return Envelope and he will send you a lift of software and a free listing of an ADAM Piano Program just for writing.

He currently has available a text adventure game entitled FUN HOUSE and plans to offer a number of titles in CP/M 2.2 format for the ADAM.

Programs are available only on a disk for \$3. If you want to supply your own disk or if you want the program on data pack, send your disk or data pack to him with \$1.50 and he will copy the program and send it to you.

This concept has been around for some time. Mr. Meyer is an experienced programmer and is to be congratulated for offering this service.

Remember if you like the programs he has to offer, send him a contribution that reflects the quality of his work.

Sprite Program

by David Berent

REM * SPRITEPGM *

15 REM ** by David Berent **

20 LOMEM: 34000

30 DIM sp%(16, 16)

40 TEXT: sp=1:ms=1

50 REM instructions

60 GOSUB 12000

70 REM load data

80 GOSUB 13000

90 REM main menu

100 HOME: HTAB **PRINT** "SPRITE (8):

PROGRAMMER": PRINT

110 PRINT: HTAB (4): PRINT "1-CREATE SPRITE

ON GRAPH"

120 PRINT: HTAB (4): PRINT "2-SAVE SPRITES

TO TAPE"

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130 PRINT: HTAB (4): PRINT "3-LOAD SPRITES FROM TAPE"

140 PRINT: HTAB (4): PRINT "4-COPY SPRITES TO GRAPH"

150 PRINT: HTAB (4): PRINT "5-CLEAR POINTS FROM GRAPH"

160 PRINT: HTAB (4): PRINT "6-EXIT PROGRAM AND KEEP"

170 PRINT: HTAB (6): PRINT "ALL SPRITES ACTIVE"

180 PRINT: HTAB (4): PRINT "7-EXIT PROGRAM AND ERASE"

190 PRINT: HTAB (6): PRINT "ALL SPRITES "

200 PRINT: PRINT "==>":

210 GET a\$: a=VAL(a\$): IF a<1 OR a>7 GOTO 210 220 ON a GOSUB 3000, 9000, 10000, 5300, 5700, 11030, 11000

230 IF a>2 THEN GOSUB 8000

240 IF a=2 GOTO 100

600 REM check next op

610 key=PEEK(64885)

620 IF PDL(5) <> 0 THEN GOSUB 1000

630 IF PDL(13) <> 15 THEN GOSUB 2000

640 IF key=27 THEN GOSUB 3000

650 IF key=128 THEN GOSUB 4000

660 IF key=149 THEN GOSUB 5000

670 IF key>159 THEN GOSUB 6000

680 IF key=0 GOTO 600

690 CALL 33500

700 GOTO 600

1000 REM move sprite

1010 vsp=33024+4*ms

1020 hsp=33025+4*ms

1030 pv=PEEK(33024+4*ms)

1040 ph=PEEK(33025+4*ms)

1050 IF PDL(5)=1 THEN pv=pv-2

1060 IF PDL(5)=2 THEN ph=ph+2

1070 IF PDL(5)=4 THEN pv=pv+2

1080 IF PDL(5)=8 THEN ph=ph-2

1090 IF pv<0 THEN pv=0

1100 IF ph<0 THEN ph=0

1110 IF pv>192 THEN pv=192

1120 IF ph>254 THEN ph=254

1130 POKE vsp, pv

1140 POKE hsp, ph

1150 CALL 30000

1160 RETURN

2000 cg moving sprite

2010 IF PDL(13)=ms OR PDL(13)<1 OR PDL(13)>7

THEN RETURN

2020 ms=PDL(13)

2030 VTAB 24: HTAB 28

2040 PRINT ms:

2050 RETURN

3000 REM color/sprite menu

3010 TEXT: HTAB 4

3020 PRINT "SELECT COLOR AND SPRITE":

PRINT: PRINT

3030 PRINT " 0- SPRITE OFF"; " 8- MED RED "

3040 PRINT " 1- BLACK "; " 9- LT RED "

3050 PRINT " 2- MED GREEN "; "10- DK YELLOW"

3060 PRINT " 3- LT GREEN "; "11- LT YELLOW"

3070 PRINT " 4- DK BLUE "; "12- DK GREEN"

3080 PRINT " 5- LT BLUE "; "13- MAGENTA "

3090 PRINT " 6- DK RED ": "14- GRAY "

3100 PRINT " 7- CYAN "; "15- WHITE "

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3110 PRINT: PRINT 3120 PRINT "[RETURN] ONLY RETURNS MAIN MENU"; : PRINT 3130 PRINT "SELECT ANSWER THEN [RETURN]": PRINT: PRINT 3140 INPUT "YOUR COLOR SELECTION? 3150 IF c\$="" THEN POP: GOTO 100 3160 hc=VAL(c\$): IF hc<0 OR hc>15 GOTO 3000 3170 PRINT "LAST SPRITE WORKED ON WAS"; sp 3180 INPUT "DRAW SPRITE NUMBER (1-7)? ";s\$ 3190 IF s\$="" THEN POP: GOTO 100 3200 sp=VAL(s\$): IF sp<1 OR sp>7 GOTO 3180 3210 ms=sp 3220 POKE 33027+4*sp, hc 3230 GOSUB 8000 3240 RETURN 4000 REM load array 4010 vp=PEEK(33024) 4020 hp=PEEK(33025) 4030 va=(vp-2)/9 4040 ha=(hp-2)/9 4050 IF sp%(va, ha)>0 THEN sp%(va, ha)=0: GOSUB 7000: RETURN 4060 IF sp%(va, ha)=0 THEN sp%(va, ha)=1: GOSUB 7000: RETURN 5000 REM convert hex/dec 5010 VTAB 21: HTAB 22 5020 PRINT "WAIT!"; 5030 loc=32000+32*sp 5040 FOR i=1 TO 9 STEP 8 5050 FOR byte=1 TO 16 5060 dec=0: val=256 5070 FOR bit=i TO i+7 5080 val=val/2 5100 dec=dec+sp%(byte, bit)*val 5110 NEXT bit 5120 POKE loc, dec 5130 loc=loc+1 5140 NEXT byte 5150 NEXT i 5160 VTAB 21: HTAB 22 5170 PRINT " OK !"; 5180 CALL 30000 5190 RETURN 5300 REM convert dec/hex 5310 HOME: VTAB 12 5320 PRINT "[RETURN] ONLY TO RETURN MENU ": PRINT 5330 INPUT "WHICH SPRITE TO GRAPH (1-7)?"; s\$ 5340 IF s\$="" GOTO 90 5350 sp=VAL(s\$): IF sp<1 OR sp>7 GOTO 5300 5360 HOME 5370 VTAB 12: HTAB 3: INVERSE 5380 PRINT "GRAPHING SPRITE NUMBER"; sp;

" ": NORMAL 5390 loc=32000+32*sp 5400 FOR i=1 TO 9 STEP 8 5410 FOR byte=1 TO 16 5420 dec=PEEK(loc) 5430 val=128 5440 FOR bit=i TO i+7 5450 b=INT(dec/val) 5460 sp%(byte, bit)=b 5470 IF b=0 THEN t=0: GOTO 5490 5480 t=val 5490 dec=dec-t:val=val/2 5500 NEXT bit 5510 loc=loc+1 5520 NEXT byte 5530 NEXT i 5540 RETURN 5700 REM clear grid **5710 HOME** 5720 VTAB 12 5730 PRINT "[RETURN] ONLY RETURNS MENU": 5740 PRINT "REALLY CLEAR GRAPH (Y/N)? "; : GET a\$ 5750 IF a\$="y" OR a\$="Y" GOTO 5770 5760 POP: GOTO 100 5770 HOME: VTAB 12: HTAB 8 5780 INVERSE: PRINT " GRAPH ERASED ": NORMAL 5790 FOR i=1 TO 16 5800 FOR j=1 TO 16 5810 sp%(i, j)=05820 NEXT j: NEXT i

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5830 RETURN

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6000 REM move cursor 6010 vrt=33024: hoz=33025 6020 vp=PEEK(33024) 6030 hp=PEEK(33025) 6040 IF key=160 THEN vp=vp-9: IF vp<11 THEN vp=11 6050 IF key=161 THEN hp=hp+9: IF hp>146 THEN hp = 1466060 IF key=162 THEN vp=vp+9: IF vp>146 THEN 6070 IF key=163 THEN hp=hp-9: IF hp<11 THEN hp=11 6080 POKE vrt, vp 6090 POKE hoz. hp 6100 CALL 30000 6110 RETURN 7000 REM edit grid 7010 IF sp%(va, ha)=0 THEN HCOLOR=0 7020 FOR i=hp+1 TO hp+4: FOR j=vp+2 TO vp+5 7030 HPLOT i, j 7040 NEXT j: NEXT i 7050 HPLOT hp+3, vp+3 7060 HCOLOR=3 7070 RETURN 8000 REM plot 16x16 grid 8010 HGR: HCOLOR=3 8020 VTAB 21: HTAB 22: PRINT "WAIT!"; 8030 CALL 30000 8040 REM plot box 8050 HPLOT 9, 10 TO 9, 155 TO 154, 154 TO 154, 9 TO 9, 10 8060 REM plot hor lines 8070 f=10: l=151 8080 FOR V=1 TO 15 8090 x=v*9+10 8100 HPLOT f, x TO f+2, x 8110 FOR h=1 TO 15 8120 y=h*9+7 8130 HPLOT y, x TO y+5, x 8140 NEXT h 8150 HPLOT I, x TO I+2, x 8160 NEXT v 8170 REM plot vrt lines 8180 f=11: l=152 8190 FOR h=1 TO 15 8200 v=h*9+9 8210 HPLOT y, f TO y, f+2 8220 FOR v=1 TO 15 8230 x=v*9+8 8240 HPLOT y, x TO y, x+5 8250 NEXT v 8260 HPLOT y, I to y, I+2 8270 NEXT h 8280 REM refill graph 8290 FOR h=1 TO 16

8300 FOR v=1 TO 16 8310 IF sp%(v, h)=0 THEN GOTO 8340 8320 hp=h*9+2: vp=v*9+2 8330 GOSUB 7020 8340 NEXT v: NEXT h 8350 REM graph captions 8360 VTAB 21: HTAB 22: PRINT " OK !" 8370 VTAB 22: PRINT "[ESCAPE] RETURNS TO **MENUS"** 8380 VTAB 23: PRINT "[PRINT] UPDATES SPRITE # "; sp 8390 VTAB 24: PRINT "[KEY PAD] SPRITE TO MOVE # "; ms; 8400 RETURN 9000 REM save sprites 9010 VTAB 22: HTAB 8 9020 INVERSE: PRINT " SAVING SPRITES ": NORMAL 9030 d\$=CHR\$(4)

9040 PRINT d\$; "open SPRITES"

9050 PRINT d\$; "write SPRITES"

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CATALOG .25

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9060 FOR i=32000 TO 33152 9070 PRINT PEEK(i): NEXT i

9080 PRINT d\$; "close SPRITES"

9090 RETURN

10000 REM load sprites 10010 VTAB 22: HTAB 8

10020 INVERSE: PRINT "LOADING SPRITES ":

NORMAL

10030 d\$=CHR\$(4)

10040 PRINT d\$; "open SPRITES" 10050 PRINT d\$: "read SPRITES"

10060 FOR i=32000 TO 33152

10070 INPUT dec: PRINT CHR\$(8);

10080 POKE i, dec: next i

10090 PRINT d\$; "close SPRITES"

10100 RETURN

11000 REM turn off 8 sprite

11010 FOR i=33027 TO 33055 STEP 4

11020 POKE i, 0: NEXT i

11030 HGR: CALL 30000: TEXT

11040 VTAB 13: HTAB 9

11050 PRINT "END OF PROGRAM"

11060 END

12000 REM instructions

12010 HOME

12020 PRINT "INSTRUCTIONS FOR PROGRAM:"

12030 PRINT: PRINT "THERE ARE 7 SPRITES TO CHOOSE"

12040 PRINT "FROM. NUMBER 1 WILL BE ON TOP"

12050 PRINT: PRINT "PICK THE COLOR AND THE SPRITE"

12060 PRINT "TO WORK ON FROM THE MENU" 12070 PRINT: PRINT "USING THE 16 X 16 GRAPH. THE"

12080 PRINT: PRINT "ARROW KEYS MOVE THE CURSOR"

12090 PRINT: PRINT "HOME KEY WILL FILL/UNFILL BOX"

12100 PRINT: PRINT "PRINT KEY MAKES GRAPH A SPRITE"

12110 PRINT: PRINT "JOYSTICK MOVES THE SPRITES"

12120 PRINT: PRINT "KEY PAD PICKS SPRITE TO MOVE"

12130 PRINT: PRINT "ESCAPE KEY RETURNS TO THE MENUS"

12140 PRINT: PRINT "ANY KEY TO CONTINUE";

12150 GET a\$: RETURN

13000 REM poke all data

13010 REM load reset pgm

13020 FOR i=33500 TO 33506

13030 READ a

13040 POKE i. a: NEXT i

13050 REM load sprite ml

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13060	c=0: ml=30000	14040	REM sprite ml pgm
13070	READ a: IF a=256 GOTO 13100	14050	DATA 14,226,6,1
13080	POKE 30000+c, a	14060	REM 226 is 1x sprite
13090	c=c+1: GOTO 13070	14070	DATA 205,32,253
13100	REM cursor sprites	14080	DATA 58,24,252
13110	FOR i=32000 TO 32007	14090	DATA 253,33,32,0
13120	READ a	14100	REM 32 bytes (32*8bit)
13130	POKE i, a: NEXT i	14110	DATA 33,0,125
13140	FOR i=32008 TO 32031	14120	REM locate sprite data
13150	POKE i, 0: NEXT i	14130	DATA 17,0,0
13160	IF PEEK(33027)=15 THEN RETURN	14140	DATA 205,44,253
13170	REM load sprites	14150	DATA 58,23,252
13180	FOR i=32032 TO 32255	14160	DATA 253,33,8,0
13190	POKE i, 255: NEXT	14170	REM # of sprites/data
13200	REM load attributes	14180	DATA 17,0,0
13210	FOR i=33024 TO 33055	14190	DATA 33,00,129
13220	READ a	14200	REM loc of attributes
13230	POKE i, a: NEXT i	14210	DATA 205,44,253
13240	RETURN	14220	DATA 201,256
14000	REM ALL DATA	14230	REM end ml pgm
14010	REM reset reg 64885	14240	REM cursor shape
14020	DATA 58,255,255,50	14250	DATA 252,132,180,180
14030	DATA 117,253,201	14260	DATA 132,252,0,0



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14270	REM attributes
14280	DATA 11,11,00,15
14290	DATA 10,230,04,4
14300	DATA 30,230,08,6
14310	DATA 50,230,12,7
14320	DATA 70,230,16,10
14330	DATA 90,230,20,12
14340	DATA 110,230,24,13
14350	DATA 130,230,28,14
65535	REM * spritepgm "

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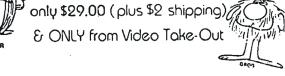
Due to a shortage of space the following columns were deleted from this issue and will appear next Glitches, Bugs, Errata, Telecommunicating; Logo; and High Scores. I apologize for this situation, but with rising postal charges we are limited to the number of pages in an issue.

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