EXPANDABLE COMPUTER NEWS

Issue #13 *March/April 1986* $3.00

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I GOT ARTIFICIAL INTELLIGENCE

ISSUE 13

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Expandable Computer News (ECN) is published bi-monthly by Sage Enterprises. Subscription rates are $12.00 per year (6 issues) U.S. and Canada; $18.00 foreign. All subscriptions payable to Sage Enterprises in U.S. funds only. Send all correspondence (subscriptions, ads, reviews, orders, articles and products) to: Sage Enterprises, Expandable Computer News, Rt. 2, Box 211, Scrivner Rd., Russellville, MO 65074. Telephone 314/782-3448 from 9 am to 4p m CT Monday, Tuesday, Thursday, Friday.

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ITEM	Foreign Price	U.S. & Canadian Price
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PACKCOPY software copier	$45.50 US	$41.50 US
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Program Library I, II, III (price each)	$13.30 US	$9.95 US
Program Library 4 (ddp)	$10.00 US	$7.00 US
Program Library 4 (disk)	$7.00 US	$5.00 US

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Ramblings From The Ridge
by D. Sage

This issue begins our third year of publishing ECN, making us the oldest ADAM only publication in the business. Back in the spring of 1984, when we were all ready to go to press with our first issue, a number of other publications were rushing to jump on the bandwagon. It was obvious that at least some of these were interested in only one thing, a quick buck. Few of them were willing to take on the risk of a publication for a new computer, unless they were assured of a substantial volume. The ADAM only glossies never got off the ground. Garden of ADAM published one issue and then disappeared with a great deal of money. Others continue to come and go. In the meantime, ECN continues to plod on, nothing flashy but at least we are reliable.

Your support has made this possible. We hope that more of you will make contributions during the coming year. We enjoy working for you and want to do so for years to come. You can help us, by sending in your renewals and by sharing your questions, answers and programs with others through contributions to ECN.

I have heard rumors that some organizations are selling unreleased copyrighted software. This practice cannot be condoned. I recognize that there has been disappointment because some promised titles have not been released by Coleco, yet it remains wrong for an unauthorized party to make a profit on this software. Please don't encourage such activities.

A lot has happened since the last issue. We have been in contact with two new companies that are planning on releasing software for the ADAM and have heard rumors of others. At least two companies are considering the possibility of producing disk drives for the ADAM.

Orphanware, 5665 Myers Road, Akron, OH 44319, is now producing a Centronics interface. We plan on carrying a review of this product in the next issue. Orphanware also has a 64K memory expander and is planning on releasing an 80 column card. They also have some software available. In addition, I have been notified that they are now in the disk drive repair business. Their basic charge for working on ADAM disk drives is $39.95 plus parts. They have indicated that if they can't fix your drive, they will return it and refund your money. For more information on Orphanware, send a SASE to the above address.

Dave Smith of Strategic Software has indicated that Multi-Write is again under way and is likely to be finished in the near future.

John F. Busby, II, 6634 SW 41st Street, Davie, FL 33314, sent me a T-Shirt with a transfer of an ADAM computer and the words "I got artificial intelligence" (see cover). John is selling the transfers (No T-Shirts) for $5. John also has available a number of keyboard overlays for use with various ADAM software. Send an SASE for more information.

A number of companies are selling discounted ADAM accessories. This list grows daily so I will not attempt to list them all. Even Radio Shack is selling ADAM keyboards. The only company selling these products that we have dealt with is American Design Components, 62 Joseph Street, Moonachie, NJ 07074. They are now offering data drives ($9.95), logic board ($9.95), ADAM computer kit (2 data drives, controllers, power supply, CPU and memory boards, diagram, without case-$99.00), a similar Colecovision kit is available for $19.95.

Eve Electronics Systems is now offering a kit to add composite video and audio to the ADAM expansion module.

Marathon Computer Press, P.O. Box 68503, Virginia Beach, VA 23455, had advised us that they have available a number of ADAM products including software developed by them. These include "The Investment Analyst", a stock analyzer, and "Codevisor", an encoding system for protecting programs and data.

Spectre Technologies, 22458 Ventura Blvd., Suite E, Woodland Hills, CA 91364, ph. 818/716-1655, has announced PRESTO, a series of pop-up resident utilities (similar to SideKick) for CP/M systems. The program will be made available for "popular" CP/M systems. One of our subscribers, A.K. Michaud, suggests that anyone interested contact the company in the hopes that they might produce an ADAM version of this program.

Elsewhere in this issue you will note that there is now available another Program Library as well as some additional CP/M public domain packages. We hope to have a chess program, as well as a version of Pascal available in the near future for our CP/M public domain offerings.

We were recently advised by Loranger that the ADAM digital data packs are back in production and will continue to be available for the forseeable future. We are pleased that Loranger has been able to resolve problems that could have forced the shutdown of this production. We will continue to offer their data packs individually for $5.50 and will offer them in quantities of 10 or more for $5 each.

We have recently completed work on a package of software utilities. These utilities are designed to aid in the recovery of files on disks or data packs that are

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producing I/O errors and can no longer be accessed through either SmartBasic or SmartWriter. The package includes a block editor, directory editor, the recovery program itself, a utility to compare the contents of disks or data packs, a utility to remove deleted files from the directory, and additional features. Information on ordering this product is listed elsewhere.

This issue contains a variety of articles, including our normal columns. In addition we are including a LOGO program and a number of short Basic programs. I hope you will enjoy it.

Industry Observations
by D. Sage

Up until this issue this column has carried the title, "What About the Competition?" As ECN has grown and matured, we have made changes in the publication that reflect this maturity and will continue to do so. Many of you have expressed an interest in this column and I will continue to write it and use it to share my views on the "home computer" industry in the U.S. and Canada, since that is our primary audience.

In addition to providing continuing coverage of developments in the home computer industry, I will continue to editorialize on these developments and other related subjects. I seldom hesitate to give my opinion here or when asked about computer hardware and software and do so from the vantage point of someone who has worked with these machines for many years, from a variety of perspectives. Nevertheless, these are my opinions. You should understand, of course, that others would probably disagree with my opinions and analysis, but they are probably not any more right than I am.

I subscribe to many "computer" and industry publications, and it is my firm conclusion that these publications carry an inherent bias towards computers such as the dreaded IBM PC. It is true that many of these publications also provide coverage to Apple, Commodore, Atari, and, of course, the PC clones. Any other computer introduced in the U.S. is likely to be totally ignored by these "me too" publications.

The free press in the U.S. is certainly a biased one. In Britain and Europe the situation is quite different. Over there new products are given a much fairer opportunity at receiving coverage. At least European publications review such products on their merits and do not cast them aside if they can't pass the "is it IBM compatible" hurdle. To carry this issue to an endless extreme, based upon the U.S. computer press, one might have the opinion that the Europeans are less sophisticated when it comes to computers. They must be less sophisticated if they can't see the importance of IBM compatibility. This situation is even found among European software companies. Why these software companies actually write software for more than one or two computers.

Apparently these software developers have skills that are lacking in the U.S. Why is it they can write software for computers with different operating systems, when U.S. developers can only comprehend one or maybe two systems? The difference seems to be largely the level of greed of U.S. versus foreign software companies. The big U.S. companies won't touch a computer unless it has sold at least a million units, while the foreign companies recognize that profits can be made with a smaller sales volume. Maybe they use a different accounting system than we do.

It is largely this approach to the home computer industry that has led me to be the champion of those systems that are denied the magazine coverage and support that they would receive. This won't keep me from calling a lemon a lemon. It simply means that I will at least give other companies a chance. My concern is that many people are interested in home computers, even though many have proclaimed this market to be nonexistent or dying in the U.S. I regularly get telephone calls and get asked, "What computer would you recommend?" Most of these people are not interest-ed in spending the amount of money that it would take to get even a PC-Clone up and running. Does this mean that they want a "home computer." Well maybe. My first response is to ask them how much are they willing to spend, what do they expect to get for their money, and what do they want to do with the computer once they get it. If what they really need is a full fledged business system, then I am not ashamed to say that I will recommend a PC compatible, usually a Zenith or Leading Edge, if it is necessary to meet their needs and it still fits their pocketbook.

Over the years, I have recommended Zenith 100s, Zenith PCs, Macintoshes, Leading Edge PCs, Apple IIe's, ADAMs, Commodore 64s, Atari 800s, Atari 520STs, CP/M machines like Kaypro, development systems like the Stride and Compupro, and Amstrad CPC6128s. As you can see I am really not that biased. I generally recommend PC

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compatibles rather than the IBM PC and its derivatives, because the compatibles offer more for your money than IBM. My recommendations are determined by the answers to the above questions. I no longer recommend Commodore products, largely because of my experience with them and their high failure rate. My opinion is not inflexible and I will continue to look at Commodore products and reevaluate my position.

My view of what the home computer should be has not been developed in a void, but has been tempered by the large amount of feedback I have received from you my readers and by my technical knowledge of what is required to meet those needs.

Many of you have expressed an interest in computers that can handle at least 128K of memory. I am not sure why this is the case. In the old days I programmed on a mini-computer that was limited to 16K of programming space. Later, we moved to a system that allowed 28K. My first experience with a micro was with the VIC-20 that had less than 5K of memory for programming. You could write very elaborate code on all of those machines, but the code had to be tight. There was no room for sloppiness. Tighter code is also faster code. Nevertheless, I must agree. 128K of memory adds a great deal of flexibility and speed in manipulating data.

Most of you also want access to a wide variety of software and want the computer to come packaged with a reasonable selection that will allow you to use the system immediately without any additional outlay of funds. This software should include as a necessity, a word processor, a programming language, and a data base program. Most of you want a version of Basic that is flexible and easy to use. It should provide for ease in programming graphics and sound. It would also be nice if a compiler was available so that the code could be executed faster.

You also want flexibility in what you can connect to your computer. Generally, you want a standard Centronics parallel interface and an RS-232 serial interface. In addition to support for RF output, to connect a TV, you would like to be able to connect a monitor. You also want 80 column support built in. A disk drive should be included in the original purchase of the computer and it should include the ability to add at least a second drive later.

Finally, you want adequate documentation and support. You want manuals that are easy to use and that are complete. You want a reasonable warranty on the product and the ability to have the computer repaired for a reasonable price. You want somewhere to turn for answers to your questions. You also want convenient access to supplies and additional products that you may need.

Yes, there are computers that meet these criteria, but unfortunately most of them are not in the home computer price range. Some have come close and eventually there will be systems that meet these needs more explicitly than is currently the case. In the meantime we must take the best of what is available and patiently wait for future developments.

It is for all these reasons that I will support through software and publications only products that I have confidence in and that are unlikely to receive support from the established media. Those are the reasons why I have supported the ADAM and have decided to support the Amstrad CPC6128. Both of these computers are "home computers" as were the Commodore 64 and the Atari 400/800.

The replacement Atari 65XE/130XE and the Commodore 128 are also "home computers." At this point, I am not aware of any other computer that is being sold in the U.S. that meets my requirements of price and functionality. I do not consider the Amiga and the Atari 520ST to really be home computers. Their initial cost and the cost of hardware and software is still too high for most people that are in the market for home computers.

I have been hesitant about recommending the Commodore 128, because of their past track record and the fact that according to my sources the system and its new disk drive still appear to have too many problems.

Commodore continues to have financial woes. In the latest quarter they had a $53.2 million loss and as a result their stock plummeted several points to around $6. They continue to have problems with their

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debt financing and continue to be in technical default of loans. Many of these problems can be traced to the overproduction of the Commodore 64 and the 1541 disk drive, introduction of the Commodore 16 and Plus 4 (products that have been dumped to discount houses), advertising associated with the introduction of the 128 and the Amiga. I doubt if Commodore's financial problems will go away soon.

The 128 is selling slowly and I doubt if the Amiga will ever be a volume seller. The Amiga may be a nice computer, but it is priced out of the market that it needs to be a success.

Shortly before the January CES, Jack Tramiel announced that the Atari 520ST will now be sold to discount houses and other mass merchandisers. Once again he has pulled the rug from under his dealers. For them he has offered the new 1040ST which will have 1 meg of memory and will sell at around $1000. Unfortunately, Atari has yet to find any mass merchandisers that are willing to take the 520ST, which is now being packaged separately from its monitor and will include a TV interface.

Although the 520ST has sold about 200,000 units, Tramiel knows that this is not enough. Will he be successful in making this move? I am not sure. I don't know if a system as complex as the ST can be successful without dealer support. Obviously, KMART isn't going to be able to answer your questions and Atari is relying totally on users groups for support. I guess I will have to give the ST a maybe and wait and see.

Atari has also introduced a redesigned and smaller 2600 Video Game System and announced plans for continued support of the video game market. They also surprised a lot of people by reintroducing their super 7800 game system that plays both the 2600 and 7800 game cartridges at a price of $79.95 retail. This move was probably prompted by the success in video game cart sales and the successful introduction of the Nintendo system. In addition, since large numbers of the 7800 had actually been manufactured prior to Tramiel's take over of Atari, it makes sense to sell them especially if you nez`ed additional cash. It has to be cheaper to sell something than continue to store it.

INTV, owners of the Intellivision, are pleased at their continued success in selling game cartridges and their System III. They have learned like others need to, that a cautious approach is best.

Rumors also persist that yet another game system of Japanese origin may be introduced in the U.S. as well as one of U.S. origin.

All in all, the January CES was somewhat a disappointment with regard to the home computer market. None of the new MSX-2 machines were shown, although a dutch vendor of MSX software repeated their Summer CES display of some super MSX software.

Compact disc players and the Grolier Encyclopedia were again being displayed, but the $1500 price tag will keep this product out of reach. Atari continues to promise the introduction of a lower priced unit for use with the ST.

In the robotics area, Heath has announced the introduction of the HERO 2000, an improved version of the original HERO. This model has a variety of enhancements including improved speech, improved arm, and a find recharger mode.

The recent Toy Fair in New York was featuring a variety of talking dolls and other toys using various advancements from the home computer and robotics industries. As computer component prices continue to fall, look for this industry to continue to introduce new and more complex products.

Finally, I want to thank those of you who continue to pass on various tidbits of news about the home computer market. While some of these turn out to be nothing more than rumors, they are a lot of help in trying to tie down what is actually going on and what will be coming tomorrow. I also want to give special thanks to Al Roginsky for covering the Winter CES on our behalf. His assistance is greatly appreciated.

Back Issues/Subscription Rates

The following issues of ECN are currently available for $3.00 each: #1, 2, 8, 9, 10, 11, 12. We will keep you posted when other issues become available. Our renewal and subscription rates are now $15.00 per year (6 issues).

Program Library 4

Program Library 4 has recently been completed. This collection contains the following programs submitted by our subscribers:

EVIL3 by David Jacksch - This is the third in a

series of games submitted by the author. You have to find a code and use it to erase memory in a computer.

8-BALL by David Reynolds - this is an electronic version of the magic 8-ball where you ask questions and are provided with predictions/answers.

FOOTBALL ANALYZER by Hector Sanchez - Predict the outcome of football games using stats that you have entered.

DUNGEONS/DRAGONS by Eric Peterson - This is an elaborate dungeons and dragons type game, where you select/design your own character and his powers. Then you must enter the dungeon in quest for treasure.

This volume of the program library is available for $5/disk and $7/ddp from Sage Enterprises. CAUTION: the dungeons/dragons game should be only used from a disk drive. It requires HEAVY disk I/O and is slow on data drive and because of the constant access to the drive could shorten the life of a data drive.

ADAM System Calls
by D. Sage

This is the third in a series of articles covering ADAM'S system calls. Refer to issue #11 and #12 for the proceeding two parts. Part 1 contains an explanation of how to use this information.

CALL FC60$ (64608) - sends 0F$ to port 3F$, wait 2ms, send 00$ to port 3F$. This is essentially a hard reset of the ADAM NET.

CALL FC63$ (64611) - send a string to the printer. The location of the string is stored in HL register and the string must be terminated by an ETX (this is simply the value 03). Any error code is returned in the A register.

CALL FC66$ (64614) - send one character to the printer. The character is stored in A register and any error code is returned in the A register.

CALL FC69$ (64617) - read a block from a block device. Register A is the device number, HL register contains the destination address of the data, register BCDE contains the block number to be read.

CALL FC6C$ (64620) - read a character from the keyboard and store it in the A register. If there is an error the error code is returned in the A register.

CALL FC6F$ (64623) - read DCB return codes (completion code) for keyboard. Code returned in A register.

CALL FC72$ (64626) - same as FC6F$ for printer.

CALL FC75$ (64629) - same as FC6F$ for device specified in A register.

CALL FC78$ (64632) - same as FC6F$ for tape device.

CALL FC7B$ (64635) - relocate current PCB (Proces-sor Control Block?). Register HL contains new address of PCB.

Using Smartwriter Effectively
by Robert Keefer

After using ADAM'S built-in word-processing functions for over a year now in an academic setting (I'm attempting to write my dissertation on my ADAM), I have a few tips that others may benefit from. If you have some for me, spill 'em!

The first thing anyone who is attempting to write and print out very long files notices is that using the arrow keys to page through a SmartWriter file is VERY time consuming. Unless you keep a good novel next to your computer and your right hand can run on neutral, you're going to get bored stiff waiting to get to the bottom of a file that is, say, 20 single-spaced pages long. But there IS a quicker way; when you need to get to the bottom (or close to the bottom) of a SmartWriter file, just use the

"SEARCH" function to look for some characters that you're sure AREN'T duplicated in your file. I use 'zzz', but you could certainly be more creative than that!

ADAM will diligently search your file looking for these characters, and when they can't be found, you will read a 'characters not found' message, and find yourself at the bottom of your file, ready to add to it, append another file or whatever. It's not an instant movement, but it's quicker than the arrow keys!

Another technique for moving through your text quicker, if you don't want to go all the way to the bottom, is to switch to ADAM's 'moving window' format (which is mostly annoying when you're trying to enter text) just for the search. This format gives you almost twice the number of lines on the screen, so when you hit the up or down key together with the home key, you're moving about twice as fast. Of course, if you know of a unique word that occurs

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ONLY where you want to be, you can 'SEARCH' your way there directly.

Moving up to the top of your text is more difficult. SmartWriter does not search above the cursor at any time. If you have a REALLY long file, it's sometimes actually quicker (if you're using a disk drive) to save your work, clear the workspace, and reload the just-saved file; you'll find yourself right at the top.

A good trick to speed your typing also uses the "SEARCH" function and the "REPLACE" option. In my dissertation, I rely strongly on a man named (no jokes please) Csikszentmihalyi. Rather than type that rather long string of characters over and over, I just typed 'csik', lower case and all. When I had entered all of that portion of the text, I went to the top of the file, "SEARCHed" for 'csik' and "REPLACEd ALL" with the correct name (so I only had to get it right once!). Using this technique imaginatively can save lots of time! However, be sure that the string you will eventually "SEARCH" for is unique, that is, that that particular string of characters is absolutely NOT found anywhere else in your text (or it will ALSO get replaced).

Those of us using long files eventually want to use SmartWriter's continuous printing functions, and discover, to our dismay, the famous SmartWriter bug that inserts extra blank lines between every page. Horrors! Within one page, everything is messed up and you find yourself printing on the page breaks. Sorry, but I can't help you here. But, I can mention that if you are doing long, long printouts, fanfold paper can save you time, because you don't have to turn one sheet of paper out and then attempt to align the next. With fanfold, you just turn to the next sheet and hit PRINT again. Not a completely satisfactory solution, but every little bit helps (watch for specials on fanfold, especially if you attend a college or university. I got a box of 2700 sheets for $15.00, a deal! See an earlier issue of ECN for plans for a cheap PVC printer stand; it works, but be sure to glue it together).

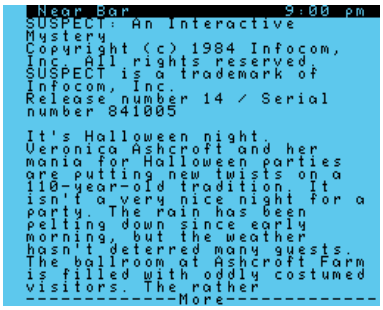
Be sure to save your work often! I know that you've heard this before, but it's difficult to emphasize it enough. My wife spent four hours one night working on a paper, only to have ADAM 'hiccup' and destroy the whole thing (to this day, I have no idea what happened; the printer started going right in the middle of a sentence she was typing and the results looked like a core-dump). Believe me, NOW she saves her work every page or so!!!

With long files, it is sometimes difficult to get SmartWriter to store them properly. If possible, break your work into sections and store each section as a separate file. This also means that each file is less of a burden to search through and modify. When printing time comes, append all your files in order and get your earmuffs on! For correct pagination (page numbers), you'll want the very first page of your text in a separate file all by itself; you can print this out with no page number and then start the rest of the print out at page two.

Well, I hope these tips can be helpful to some of you. If you have any other ideas, or questions, send them in.

CP/M Games On ADAM
by John Moore

I have read several references to using a "screenchop" program with text games such as those produced by INFOCOM. Possibly some users have purchased this software "second-hand" and do not have it properly installed for ADAM. The correct installation makes for more enjoyable play, and since the programs themselves contain the necessary subroutines, I find it more elegant to activate them than to use an "outboard" program.



The following installation values have worked well for me on PLANETFALL (c), SORCERER(c), and DEADLINE(c). They will quite possibly work with any INFOCOM CP/M game. Please follow the conservative procedure of making the indicated changes only on a backup copy of your software.

You will need to make changes on the game file in hex using DDT. Review the proper operation of this program first, particularly how to get the number of pages to save from the "NEXT PC" output of DDT. Basically the method is this: ADAM shows you a four-digit number under "NEXT", let's say WXYZ. Multiply W X 16 and add X to this. If Y and Z are both zero, you subtract one from the total. This is the number you use with the SAVE command.

Command DDT (gamename).COM [ret] and when DDT loads the program file, type in these numbers and commands exactly as given: (Enter the RETURN immediately after the numbers, DO NOT enter a space before the RETURN).

S110 [ret]
OF [ret]
16 [ret]
OC [ret]
1B [ret]
59 [ret]

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```
37      [ret]
20      [ret]
1B      [ret]
62      [ret]
F5      [ret]
1B      [ret]
69      [ret]
1B      [ret]
00      [ret]
00      [ret]
00      [ret]
.       [ret]
S131    [ret]
04      [ret]
OC      [ret]
1B      [ret]
62      [ret]
17      [ret]
.       [ret]
S152    [ret]
06      [ret]
1B      [ret]
6A      [ret]
OE      [ret]
1B      [ret]
70      [ret]
00      [ret]
.       [ret]
S173    [ret]
03      [ret]
1D      [ret]
1B      [ret]
6B      [ret]
.       [ret]
S194    [ret]
00      [ret]
.       [ret]
S103    [ret]
1E      [ret]; Characters per line/may also use 1D
17      [ret]; Useable lines per screen
.       [ret]
```

Now type G0 [ret] to get you out of DDT and command SAVE (number) (gamename).COM to save the revised version of your game. Try it to be sure it works. You should get a status line at the top of the screen in inverse video, and never more than one screen of text at a time! You don't have to remember to run another program, either.

Telecommunications
by Joe Blenkle

The world of the ADAM computer never fails to amaze me. One day the system will seem on the verge of collapse, the next, there seems to be new life breathed into it.

With the somewhat limited quantity of communications software currently available, it has been somewhat of a challenge to come up with this column every issue. So this time I will explore a different area with some new developments on the ADAM telecommunications front.

First, Gordon Meyer of Do Not Stamp Software has uploaded two public domain telecommunications programs to the Family Computing forum on CompuServe (GO FAM-200). Both programs are written in BASIC...that's right! ADAM'S modem has finally been accessed in BASIC!

One program is called ADAMchat. It is a bare-bones communications program. Once it is run through BASIC, it will prompt you for the phone number, one digit at a time. Pressing return will put your computer on-line and you should connect with the computer or BBS on the other end. The current version doesn't seem to work well with CompuServe, but I have yet to experience problems with any other BBS.

You can toggle the filter on with the UNDO key and SmartKey VI changes the duplex. Future versions may include some sort of file transfer capability.

The second program is called DNS-Link. It is another bare-bones program that can be used as a model for setting up a bulletin board on your ADAM. Running the program will put you in the answer mode and when a call comes in, you press the space bar to answer. The program has only a few "bulletin board" features and was designed only as a model for further development. See below on how to get both these programs if you don't want to download them from CIS.

On somewhat of a dramatic note, Orphanware, founded by John Lingrel, is working on a modification to the ADAMlink modem which will turn it into a 300/1200 baud modem. The cost hadn't been set at this writing, but it was estimated at only $30 or so.

Besides selling low cost ADAM accessories, Orphanware will also repair computers, 64K expanders, modems, printer interfaces, data drives and hopefully in the future, disk drives.

A catalog can be obtained by sending a self-addressed stamped envelope to Orphanware, 5665 Myers Rd., Akron, OH 44319.

MORE DISKS: I'm offering the following public

domain disks at $5 each to cover duplicating and mailing (Canadian orders please send postal money orders or checks or money orders drawn on U.S. banks only). Disk #1 includes BASIC utilities, graphics and demos, including ADAMchat and DNS-Link. Disk #2 is BASIC games. Both disks are double sided with lots of programs. Disk #3 is a fully implemented version of MEX, including multiple SmartKeys and HELP file. Please note that you must have CP/M to run the MEX program.

All these programs are public domain and available on CompuServe should you prefer to download them yourself. If you'd prefer the easy way, send $5 per disk to: Joe Blenkle, P.O. Box 41746, Sacramento, CA 95841.

Using ADAM Software With The Eve SP-1
by Gary Woodruff

Eve Electronic Systems has for the last couple of months been shipping with their SP-1 interface a patch that allows direct printing with SmartWriter.

This patch you implement yourself onto a copy of your Disk Manager. Thereafter by booting this patched Disk Manager, then pushing the ESCAPE/WP key twice will allow you to print directly from SmartWriter through the SP-1. Even though EVE chose not to document it, this patch can also be used to run most other software using the regular print drivers or the PR1 command.

By pressing the correct option in the Disk Manager (Smart Key V-File Options then IV Run and VI Run File) you can run SmartBasic, SmartFiler and nearly all other Coleco software except the Super Game Packs. This is a lot simpler than running a separate program in SmartBasic and using the PR2 command and makes nearly all of the Coleco software available to your new printer easily.

Besides the Super Game Packs there are a few programs that give special problems. I haven't been able to get Smart Letters and Forms to print directly, but you can save your letter or form to disk or datapack, then print it out using the interface from SmartWriter. You cannot print out the practice drill from ExperType since it uses its own print drivers. ADAMCalc will not print directly, also because it uses its own print drivers not handled by the Eve patch.

You can use the STORE VALUES instead of the STORE SHEET command from ADAMCalc to put a file on your disk or ddp that can be accessed by SmartWriter and printed through the SP1 interface.

This version of the spreadsheet is not the same format as is printed by ADAMCalc with the ADAM printer. If you have a spreadsheet more than 60 characters wide, it shifts the right half one line down, then compresses the form to 60 characters. It will print all the information and is readable, though not as nice as the ADAMCalc version. The ADAMCalc manual discusses this option on page 35, and describes it as a way to include spreadsheet information in a SmartWriter report, etc. By deleting first the left half of a spreadsheet and storing it and then the right half, I came up with a good looking, easily read two part sheet.

I hear there are some people out there working on fixing this problem on ADAMCalc, and hope they do so in the near future.

Product Review: Amstrad CPC6128 Computer
by D. Sage
Product: Z80 computer
Manufacturer: Amstrad
Warranty: One year
Price: $500 w/monochrome monitor; $650 w/RGB monitor.

I first saw the CPC6128 at the 1985 Summer Consumer Electronics Show. This was also the first time that this British computer was shown in the U.S. I was impressed at the time of the showing, but have learned not to form opinions about a product until I have had time for some hands-on experience.

Finally, in December of 1985 I received two boxes via UPS that turned out to be the CPC6128 and monitor. I quickly unpacked everything and took out the one inch thick spiral bound manual. The manual

is rather impressive, although the current volumes are written in British English rather than American English (I have been advised that the manuals are currently under revision to correct this situation). The manual is easy to read and includes many examples and illustrations. Setting up the computer is extremely simple, involving the connection of three cables between the keyboard and the monitor. All you have to do then is to plug in the monitor and turn on the monitor and the keyboard. The initial screen comes up in 40 columns with yellow text on a blue background. The computer at this point is under the control of AMSDOS and their implementation of the Basic language. The computer has a built in 3 inch disk drive and comes with two system disks and two blank disks and a fifth disk with a collection of software. The system disks contain CP/M 3.0, CP/M 2.2, two versions of DRI LOGO, and the various

utilities that normally accompany the two versions of CP/M. The software collection disk contains AMSDRAW I, a graphics designer; the ANIMAL, VEGETABLE, MINERAL game; EASIAMSWORD, word processor; PUZZLE; ROLAND IN THE CAVES, a graphics game; and AMSFILE a data base, filing and mail label program.

The Amstrad disk drive is a single sided drive. However, both sides of the disk may be used since they are reversible. The capacity of the disks is from 160K to 180K depending on the format used. The

disks themselves are enclosed in a hard case and shutters protect the read/write window when the disk is removed from the computer. There is a write only movable tab that can be set to prevent accidental erasure of an important disk. The disk drives work well and are relatively fast.

When purchasing the CPC6128, you have a choice between an RGB monitor or a monochrome monitor. We ordered the RGB monitor and the picture quality is excellent in either the 40 column or 80 column modes. Obviously the screen is easier to read in 80 column mode with certain color combinations. Since I have not seen the monochrome monitor, I cannot comment on its quality at this time.

The keyboard is more typical of the layout used on many British computers and is similar to that found on the Commodore computers. The quote and double-quote keys are on the row with the number keys rather than next to the colon. The colon is in lower case and the asterisk is the upper case of the colon key. The semi-colon and plus key are located where the quote key is on most machines. Although I prefer the selectric layout, it took little time to get used to these changes. My one big complaint is the right hand return and shift keys. The return key is split in two with the shift key occupying part of the space where one normally finds the return key. In place of the shift key is the ENTER key, which is essentially the same as the RETURN key. I found myself hitting ENTER every time I meant to hit SHIFT. For a touch typist this can be quite a problem.

All of the various slots and ports are on the keyboard, either the left side or located on the rear. The disk drive is located on the right side of the keyboard with the opening to the front. A speaker is built into the keyboard, but the sound quality is relatively poor. Fortunately, there is a stereo jack on the side for connection to an amplifier. Also on the side is an Atari type joystick socket and a cassette connector. The rear of the unit contains the volume control, on/off switch, second disk drive connector, the monitor and power sockets, an expansion slot and the Centronics printer port.

While the Amstrad does not have a built in RS-232 connector, there is supposed to be an add-on expansion board that provides RS-232 support that will connect to the expansion slot. The Centronics port allows you to connect any Centronics parallel printer you wish.

The version of Basic that accompanies the CPC6128 is excellent and is the best implementation of the language that I have ever seen. Either 40 or 80 column mode can be used as well as a number of graphics and sound options. The second 64K of memory is addressable through Basic and can be used to store screen images, extension to the string array space, or as a RAM Disk. There are 167 KEY words available in Basic.

Basic also allows you to create various windows on the screen. These windows allow you to box off a portion of the screen in a different color. You can place a menu in the window and it won't be overwritten by any text that also appears on the screen.

Basic provides three methods for correcting errors. You can reenter the line. You can use the editing cursor method. By typing "edit" and the line number then edit the line that way by moving the cursor to the error and making the correction. Or you can use the copy cursor method which involves moving a second cursor directly to the line on screen and make the corrections. The correction will be echoed at the original cursor position. Also included is automatic line numbering and renumbering.

In reading the manual, it almost seems that the many features of Amstrad Basic never end. It is a delight to have the opportunity to work with a version of Basic that is powerful and flexible and still executes rapidly.

Overall, this is an excellent computer with a competitive price. The one year warranty and service through Honeywell adds to the value. Although AMSTRAD has not fully developed its marketing strategy for this product, it certainly has the potential

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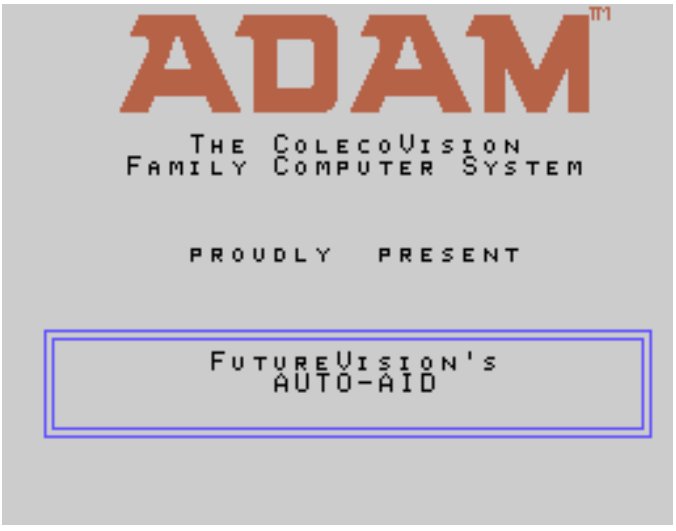
of making a substantial impact on the home computer market. Since the CPC6128 will run most software written for the CPC464 (an earlier 64K, cassette based version), there is already a wide selection of software available. This selection includes languages and development tools, business software, as well as a wide selection of arcade and text adventure games. Many of these products will be converted to disk format and will be available in the U.S. I hope to have more information on the availability of the CPC6128 and software in the next issue.

Product Review: Autoaid
by Dave Reynolds
Product: SmartBasic Utility
Manufacturer: FutureVision
Media: DDP
Price: $29.95
Rating: 10

After receiving this software and using it I now feel that FutureVision can do no wrong! If you are a so-so programmer in basic like me, this utility is a must. This is what SmartBasic should have built in it.

Autoaid makes use of the keyboard's function keys: CLEAR key = TEXT, INSERT = Control L, STORE/GET = Load/Save. The caps lock works except for the number keys and function keys. Also featured is key clicking, smart key functions for keywords, line statements, and last but not least, auto line numbering. When you press UNDO it produces a line number and a space. The only



complaint is that I wish the line numbering was like the TI99; automatic without having to push the undo key. But that is a trivial complaint.

There is also a lot more you can do with Autoaid. It has a built-in printer buffer which, with the 64K memory expansion works excellently, there are built-in routines for sound, which with a few pokes and calls, you can get sound. There is a better low res graphics (smaller squares) and they are squares, not rectangles. There is also greater ease in accessing sprites. However, I wish there was a better explanation of Sprites included with Autoaid. I guess if you write FutureVision, they will tell more about these routines if you want to use them in your programs. I recommend you have Autoaid as a HELLO program on your SmartBasic. It will ask you if you want to install Autoaid when the program is first loaded. You have the option if you do not wish to use Autoaid at that time.

Another thing that I should warn you about is any program that has a LOMEM setting should be set at 32500 or higher. I ran a program that had a sound routine and its LOMEM was set at 28000. After I exited the program, the computer locked up on me. I set the LOMEM of that program to 32500 and I had no problem. The reason is that Autoaid was already occupying that location. 5K of free memory space is lost when you install Autoaid, but it is worth it! I definitely recommend this software.

Product Review: Dawn
by Jim Hammack
Product: Data Base Program
Manufacturer: Magic Wand Enterprises
Requirements: ADAM
Media: DDP
Warranty: 60 days
Price: $29.95
Rating: 7

I received DAWN after about a five week wait and have had it now for about 6 months. I would have done an evaluation sooner, but I don't use DAWN that much. I'm also a procrastinator. I purchased DAWN directly from Magic Wand Enterprises, 349 Lincoln St., Building 63, Hingham, MA 02043.

This program allows you to design records and files by the use of interactive prompts, such as Design Records, Get & Store File, Use and Directory. This program is self-loading, but takes about 3 minutes to load. After loading, you will have the main menu on the screen with the above listed options. By pressing Smart Key II, you are ready to design your file. You then have the records menu displayed with these options: Enter, Insert, Correct, Delete, Display, Search, Sort and Sum/Average. You can make hardcopies if needed.

You are limited to 40 characters per item and 40 items (or 236 total characters) per record. The number of characters and items used in a record determines the number of records for any one file. Also, commas are not permitted in any items. These will cause I/O errors.

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The instruction manual is well written and easy to follow. The software does everything as stated. I do have one gripe, you can't list this or any other program after you quit DAWN. If you want to list the program, you must first load SmartBasic, then catalog and load/list the program you want. This is a good program for anyone wanting a household type data base. I rated this a 7 because of some minor limitations and slow loading time.

Product Review: Desk Master
by John Busby II
Product: Data Base/Finance
Manufacturer: Nickelodeon Graphics, 5640 W. Brown, Glendale, AZ 85303
Rating: 9

There are three desk sets: B-DESK includes client list, card file, address list, phone list, record of sales, purchases, data log and includes options for speed search, alphabetical listings, printouts, margin and spacing, mail list, multiple labels, change or add data to file, save, recover data, automatic readout of memory remaining, file number, number of files.

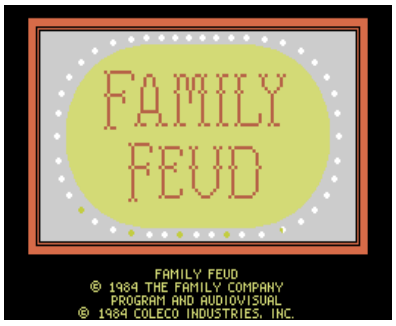
M-DESK includes expenses, income, pre-formatted categories, save, recover data, print-outs, summarized in a statistical readout of expenses, computes data related to expenses, search features, etc.

F-DESK allows you to create your own custom files, make and keep information as you like or use it as a scratch pad for a book report, also has statistics you can calculate using specified variables.

All of the programs are menu driven. M & B Desks are preformatted. You just enter the information. All desks allow calculations. The use of Smart Keys makes them easy to use. You will have to spend some time getting used to the programs because there are many options in each one. You can go from one desk set to another (save the information first) without rebooting basic. If you own a small business or you want to keep a close eye on your home finances, this is a good program to buy. It's the only all-in-one package I've seen for the ADAM in BASIC.

Product Review: Family Feud
by David Jacksch
Product: Graphic game
Manufacturer: Coleco
Media: DDP
Requirements: ADAM Warranty: 90 days
Price: $19.95 at Kay Bee Toys
Rating: 7

This is a great party game. It's based on the TV game show. It has music with harmony, animated graphic "contestants" and hundreds of questions. You



can play against ADAM, but it's better to play as two families (just grab someone who's not doing anything). The head of each family gets a joystick to face-off for the first question. The one who "buzzes" the fastest gets to answer first. Unlike the real Family Feud, you must enter the answers using the keyboard, while the clock ticks away.

The instructions say to pass it around and have each player type answers at their turn. However, it is easiest to have one Richard Dawson (host), who does all the typing (it's up to the player to spell the word, when necessary). The host must be an expert at typing and at operating ADAM. The computer makes its own judgement calls and is pretty good. For instance, if the answer is "Truck", and you type "Firetruck", it accepts the answer. It also works for some synonyms. I would like, though, to be able to make my own judgment calls, in some cases, but ADAM doesn't allow for this.

This game also needs an "undo" function for human errors. The data pack takes 2 1/2 minutes to load, before you can start the game (I just tell the other players that we're off camera and it must be one of those Time magazine commercials). The pack contains its own questions and I've played it 15 times now, and not one question has been repeated. People get excited playing this game. It was the life of our New Year's Eve party. It's worth a look. "Survey says..."

Product Review: SmartBest
by Lee Smith
Product: SmartBasic Utility
Manufacturer: Data Doctor, P.O. Box 776, Oak Hill, WV 25901
Media: Disk or DDP
Requirements: ADAM Warranty: 5 years and 30 day money back
Rating: 8
Price: $18.95

SmartBest is an enhancement for SmartBasic. The program loads from a HELLO file. The revised Basic includes routines to enhance text, backdrop, background colors. It also allows direct access to the

sound chip. There are 3 voices each having a range of 0 to 63. There is also a noise command. This will allow eight sounds ranging from phaser fire to motor pulsations.

Some of the commands may be abbreviated to their first one or two letters. The 27 enhancements replace a few of the commands that SmartBasic didn't use and also took away seven other commands. These are: HCOLOR, RESTORE, TRACE, NOTRACE, RESUME, SPEED, POP. You may still access these commands by poking or calling to the correct location.

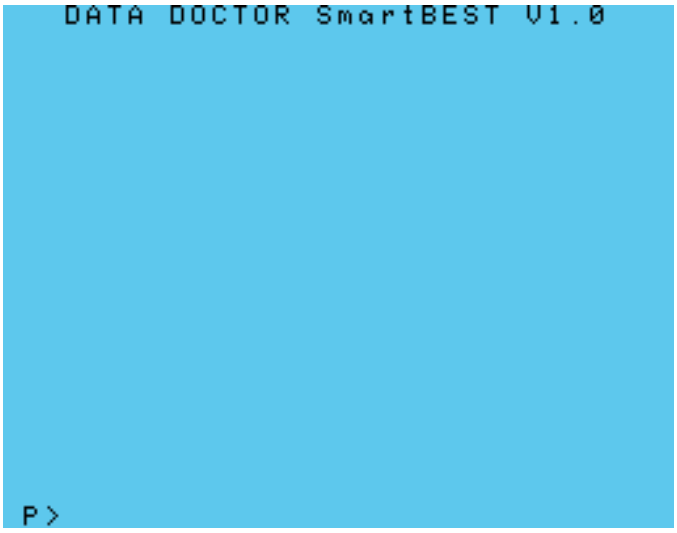
I found the program very good, but I do have some reservations about it, because it is not completely compatible with SmartBasic.

The manual is good, but doesn't tell you the notes for the values that are available.

Product Review: SmartBest
by Joe Blenkle
Rating: 10

SmartBEST by Data Doctor is what SmartBASIC 2.0 would have been had Coleco ever released it. A total of 27 enhancements have been added to SmartBasic, including easy to use ones for sound, screen and text colors.

SmartBEST gives you direct control over ADAM's sound chip with the simple commands of VOICE1,



VOICE2, VOICE3 and NOISE.

New commands include GOTOWPR (drops you out of Basic into the word processor), RESTORE (line number) and HUSH (turns all sound off).

My attitude about SmartBEST is that if I can use it, anyone can, although Data Doctor recommends some Basic programming knowledge. I have not spent much time in the past with Basic as I would have liked, but the instructions for SmartBEST seem very straight forward and understandable to me.

Data Doctor seems committed to supporting the ADAM with this program. A companion program called SmartTRIX is due out soon that will add even more versatility for the Basic programmer. SmartBEST is list-protected. Data Doctor even throws out a challenge to "hackers" to find the secret of DD's security system. The catalog says each program has a "back door" for easy listing...if you can discover the key and access code.

It's programs like this that will keep ADAM going for a long time to come and here's hoping that Data Doctor will continue to support the ADAM with quality software.

Product Review: Printshop/Printshop Extra
by John Busby II
Manufacturer: CME Software, P.O. Box 339, Eastlake, CO 80614
Rating: 4

You must load either of these programs right after you boot BASIC. For some reason both programs have a habit of putting extra characters on your printouts. The better of the two is Printshop, because it has less problems. These programs allow you to print out different letters and numbers and define LOGO (pictures).

The program is all menu driven and is easy to operate, but it is nowhere near what you think it should be. If you ever saw PRINTSHOP for the Commodore 64 or Apple you would know what I mean. The instructions give you no idea on how to get into the program to create your own graphics. You can call or write the company, IF you belong to their club ($18.00 membership - you get a card and your name appears in Family Computing magazine).

I've had these programs for about a year now and every time I take them out to use them, I can't find anything more to do with them than to put them away again. It would have been nice if you could use them to put a fancy border along the outside of a letter or use them for a letterhead layout. To use them just to print out the alphabet and numbers with some symbols, it's just not worth the money.

Product Review: 2010: Text Adventure
by Dave Reynolds
Product: Adventure game
Manufacturer: Coleco
Media: DDP
Price: $19.95 at Kay-Bee Toys
Rating: 2

One day I was at Kay-Bee Toys in Terre Haute looking through their cartridges and software. They didn't have much there, but lo and behold, stuck away towards the back was 2010: The Text

Adventure. I couldn't believe my luck! It was the only one that came in on the shipment and it was about to become my personal possession. This was the only 2010 available in an 80 mile radius and now it was mine! It made me feel important. Well, that is the only reason I am giving this product any rating at all. However, the intro graphics of the starchild are nice.

I could tell this was shipped out early just to make good on their software promise. When you get the package it looks like it's going to be very well done. You get a secret letter that comes in a gold sealed envelope marked "CONFIDENTIAL: DESTROY AFTER READING." But when you read the instruction manual you will find a slip of paper telling you to disregard the section in the manual on how to save future games. What that says to me is that they may not have finished the program, but hurried it out to be shipped.

The problem with the game is that everything is done with Smart Keys and the arrow keys. This would be fine if they had not limited you to only a few commands. The problem that I ran into was that I got into a circle that always ended with me drifting hoplessly in space till I ran out of oxygen. Since you could not type in different statements for experimentation, like most other adventure games, it was hard to try to come up with different strategies. You are limited to the Smart Keys which do not give you a variety. Since I just recently purchased the game, I may not have fully given it a chance. Maybe there is someone out there who has gotten further than I have.

Product Review: 2010: Text Adventure (13-2)
by Terry Garibay
Rating: 9

In this text adventure game, you are an astronaut that has arrived at the space ship Discovery. Your job is to board the ship, find out what is wrong, fix everything and send the ship back to Earth.

The arrow keys are used to move about the Discovery. Smart Keys and the Return key are used to examine rooms for items. There are many problems with the ship. As you fix one problem you discover two others that need to be corrected.

This is the first text game I have ever played, so I cannot compare it to others. I do know that it has held my interest for over a month now. I had trouble getting into the Discovery, I kept drifting off into space. The rooms are fairly detailed. The exterior has at least 17 rooms, or areas. The interior has 29 rooms. This does not include the many access panels that need to be removed and inspected.

You may save one game on the tape. Instructions say that other games may be saved on another tape, but an insert says that this is not possible. I cannot verify this since I have always played until the astronaut died of one of many causes; i.e. drifting into space, lack of air, food or water, or injuries.

I highly recommend this game. Something I enjoy about it is that it involves no fights to the death. I know some people do not want their children (or even themselves) playing games with such themes. A hint to anyone who has not played text adventure games before: take notes and draw a map of the rooms.

Product Review: 2010 Text Adventure (13-3)
by Joe Blenkle
Rating: 10

In what will probably be the last-ever release for the ADAM from Coleco, 2010: The Text Adventure has finally arrived. While not a text adventure in the traditional sense, where all answers are typed in through the keyboard, Coleco's 2010 makes use of ADAM'S SmartKeys.

The 2010 game may be the best ever released by Coleco. It's certainly different from anything they have ever done before and it makes me wonder what we may have missed had some of the other text adventures Coleco planned (Ulysses, etc...) ever made it past the drawing board stage.

The game is very complicated and any hopes I had of reaching the end of it before I wrote this review were dashed the first few times I played the game.

The game starts out with a fine rendition of the 2001/2010 theme and picture of the "star child" and you are taken to the "intro" where the scenario for 2010 is set up. It is about three screenfuls of text and you are told why you are there, "To save Discovery before it crashes into Io's fiery heart."

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Your first feat is to reach Discovery and board her. You must carry the right tools with you to repair the ship, as well as finding a way to recharge your own food, air and water supply. All through the game you hear your own breathing, as if in a space suit. It was quite disheartening to suddenly hear your breathing quicken and be told I was running out of air. As a notorious cheater at Infocom's text adventures (I always buy the clue books), I would have welcomed one of these for the 2010 game. I have a feeling that I'll be at this one awhile.

There is a saved game on the data pack that delivers you a little farther into the game, but I still wind up dying the same old death. I think 2010: Text is a must buy for ADAMites. This piece of software is so different from anything we've ever seen that its uniqueness will keep you entertained (or frustrated) for a long time.

Glitches, Bugs, Errata, Etc.

- In issue #12, I noticed that our daisy wheel that we use to print the newsletter does not print the correct characters in some cases. The problem showed up in the article on CONVERT and Turbo Pascal on p. 14. Where 1/2 was printed it should have been a 'backslash' and where the cent sign was printed should have been a 'caret.' I apologize if this error caused any inconvenience. (NOTE: These have been corrected in the PDF Issue #12).
- David Jacksch submits the following problem: SmartLOGO pauses during program execution. This, of course, is normal operation, called "Garbage Collection." Does anyone know how to prevent the pause? If not, how can I predict when it's about to happen?
- Kyle Alons would like to know if anyone out there has the solution for using the 40 column text mode in Basic. He can get into this mode but cannot get the screen formatted for the difference in the extra columns. It must still think there are only 32 columns and therefore the left margin is out of whack. Instead of every 40 columns, it puts the return at 32 and you can only use about the top 19 rows of the screen. Can anyone help?
- Wes White submits the following information: On the info front, I use the Sears 4084 monitor/TV and have had problems which I assumed were similar to the one presented in the Carlton Caldwell articles (4-17 & 6-9). My problems were that the top and bottom of the screen would vibrate hori-zontally and all characters in wordprocessing would ghost to the right. I have managed to correct the former by purchasing Radio Shack's 75-OHM TV-VCR Signal Overload Attenuator, part number 15-578. It is found in the TV antenna section and is a lot easier to hook up than the previously published solution, as it is an external connection. It is inserted between the console and the monitor and uses two "F" connectors. I only had to turn the control a hair to eliminate the vibration, but it has no effect on the ghosting, which I guess I have gotten used to.

Wes White would like to see an article on disassembling and repairing various problems that may arise in the future with the printer.

- Marc Shulman sends in the following: I am curious to know if any other ADAM user has noticed the following about the ADAMLink modem: It seems that the modem transmits a carrier on the line the moment it starts to dial a number, instead of waiting to receive a carrier from the host modem.

This occurs both with the ADAMLink software as well as Modem7. I would like to know if this is normal for this modem, as I suspect it is not. This situation does not cause any problems when trying to connect to another ADAM or CompuServe's number, but does seem to be causing a problem when trying to connect with DATAPAC.

One theory is that this immediate ADAMLink carrier is causing the DATAPAC Modem to shut down and ignore the incoming call. Any comments on this would be appreciated.

- Some of you have mentioned problems with transferring your CP/M system and files from data pack to disk. This can be done quite easily by using SYSGEN to put the system onto a disk. Then use PIP to copy the other programs to the disk.

Since the CP/M data packs seem to be prone to failure, I would suggest that you make several disk copies. When doing so be sure to log in the new disk before copying the system files with PIP.

- Jack Robinson advises that if you cannot find or do not wish to buy the driving module, you can play these games using a Super Action controller in port 1 and a standard controller in port 2.

Bulletin Board

- FOR SALE: ADAM Stand-Alone System complete, with 4 carts, 12 DDPs and a color TV, plus two free Cabbage Patch dolls-all for $550. Contact Shane Pessetto, 2433 Foxhunt Drive, Sandy, UT 84092, ph. 801/943-6900.
- WANTED: Spy Hunter, Dam Busters, Aquattack, and ADAMLink Modem & Software. Contact Stacy Lairmore, Rt. 2, Box 325, Lot #4, Fulton, MO 65251, ph. 314/ 642-9574.
- WANTED: Gary Witt, 510 S. University, Apt. 21, Carbondale, IL 62901, ph. 618/549-5888, would like to hear from other ADAM owners in his area.
- WANTED: Dam Busters game. Contact: John Gairdner, 1080 Muirlands Dr., La Jolla, CA 92037.

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- FOR SALE: Public Domain Basic programs for the ADAM. Disk #1 contains Basic Games. Disk #2 contains Utilities/Graphics. Each disk is double sided and has 20-30 programs runable from a menu. $5 for each disk. Contact: Joe Blenkle, P.O. Box 41746, Sacramento, CA 95841.
- FOR SALE: ADAM Books: Programming ADAM/Home Applications in the BASIC Language by Edward Claflin (Banbury Books); The First Book of ADAM the Computer by Arthur Dent (Tab Books); Coleco ADAM Users Handbook by WSI Staff (Weber Systems); $6 each. Cartridge Games: Antartic Adventure, Spy Hunter-$10 each; Galaxian, Pitfall, Subroc, Artillery Duel, Word Feud, Popeye, Star Wars, Nova Blast, Pitfall II and Buck Rogers-$5 each. Woodgrain Cartridge Holder-holds 16 cartridges-$10. RECIPE FILER (DDP or Disk, I have both) $10. Please write first for availability or send SASE with check so I may return it if the item is gone. Joe Blenkle, P.O. Box 41746, Sacramento, CA 95841.
- FOR SALE: Mint Used ADAM and Colecovision games and products. Send SASE for huge list to John Bonavita, P.O. Box 320 ST, Bonaventure, NY 14778.
- CORRESPONDENCE: Dave McIntosh, 7 Monsarrat Crescent, London, Ontario N5V 4Y7, ph. 1-519/ 679-0578 would like to hear from ADAM users, from anywhere.
- HELP: Bert Spangler, W9ZZI, 307 Dodge Street, Eau Claire, WI 54701, is interested in hearing from any ADAM owners who are amateur radio operators and use their ADAMs with their radio equipment. He is interested in finding out whether or not he can use his ADAM for AMTOR, RTTY or Packet Radio.
- WANTED: Dukes of Hazzard game cart. Contact: Mrs. G. H. Heinrich, Rt. 1, Box 204, Ringwood, OK 73768.
- FOR SALE: Complete ADAM computer system, two disk drives, Modem, Software, cartridges, controllers and the Coleco Technical Manual. Contact: Don Perlman, 620 Harmon Cove Towers, Secaucus, NJ 07094, ph. 201/867-7038.

User Group News

The list of users' groups continues to grow. If there isn't one in your area to join - start one!

NATIONAL GROUPS

#1 Adam User's Group
P.O. Box 3761 - Attn: Jay Forman
Cherry Hill, NJ 08034

ADAM User's Group
P.O. Box P
Lynbrook, NY 11563

LOCAL GROUPS

James E. Gilbert
4608 Lakeview Dr.
Huntsville, AL 35810

Victor L. Watford
P.O. Box 777
Russellville, AL 35653

Richard Bains
7210 Bulen Drive
Anchorage, AK 99507

Danny Levitt
4525 S. White Pine
Tucson, AZ 85730
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Robert R. Marentes
9425 N. 38th Ave.
Phoenix, AZ 85021

Brian Stranahan
So. California ADAM Users
8580 Buggy Whip Rd.
Alta Loma, CA 91701
ph. 714/989-1394

Frank Fleich
13381-19 Magnolia Ave.
Corona, CA 91719

Central Calif. Adam User's Group
James Turner, Jr.
20110 Ave. 19
Madera, CA 93637
ph. 299/ 661-8290

San Diego Adam Users Group
Dr. Harold Alexander
37 Catspaw Cape
Coronado, CA 92118
ph. 619/429-1844

AUG of San Diego County
Sue Askew
868 N. 2nd St. #242
El Cajon, CA 92021
ph. 619/445-2400

Bay Region ADAM Information Network
George Havach
550 27th St. #202
San Francisco, CA 94131
ph. 415/282-3056

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Inland Empire Users Group
Mike & Paula Smith
6644 Seine Ave.
Highland, CA 92346
ph. 714/862-5807

Denver ADAM User's Group
Jesse Thornhill, II
1416 Lipan St.
Denver, CO 80204

ADAM Users Group #305
John F. Busby, II
6634 SW 41st St.
Davie, FL 33314

Playground Area ADAM User's Group
Howard Pines
812 Pinedale Rd.
Ft. Walton Beach, FL 32548

Robert J. Niemeyer
292 Boca Ciega Point Blvd. N.
St. Petersburg, FL 33708

ADAM Support Group
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1870 Fisher Tr. NE
Atlanta, GA 30345

Hawaii AUG
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2335C Apollo Ave.
Honolulu, HI 96818
ph. 808/422-4019

Donald R. Lager
5415 N. 2nd St.
Rockford, IL 61111
ph. 815/877-7786

Kansas Adam Users Group
David E. Carmichael
1325 N. Meridian, Apt. 201
Wichita, KS 67203

KC Users Group - Joe Reardon
1513 Tauromee
Kansas City, KS 66102
913/371-7491

Greater Cincinatti Adam Users Group
c/o Keith Bowman
P.O. Box 434
Alexandria, KY 41001

ADAM Network
P.O. Box 85
East Detroit, MI 48021

Bill & Nancy Rahn
12426-15th St. S.
Afton, MN 55001
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Downtown Minneapolis AUG
Thomas C. Gilmore
1424 West 33rd St.
Minneapolis, MN 55408

Outsider's Users Group
Donald Viltiard
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Starkville, MS 39759

Omaha ADAM Users Club
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809 West 33rd Ave.
Bellevue, NE 68005
ph. 402/291-4405

Al Roginski
4327 Thorndale Pl.
Las Vegas, NV 89103

Metro Adam User's Group
Russell Williams
414 W. 149th St.
New York, NY 10031
ph. 212/208-0645 - (9am-5pm M-F)

Genesee Valley Adam Users
Donald K. Zimmermah
5132 Jordon Road
Silver Springs, NY 14550

ADAM-X-Change (New York & Canada)
Wade Rowley
12863 Washburn
Wolcott, NY 14590

Tri-Angle Adam Users
Gary E. Hill
L-5 Oak Grove
Chapel Hill, NC 27514
ph 919/968-0299

Mutual ADAM Users Group
Matt Esterak
412 Bettie Street
Akron, OH 44306

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Lake Erie Adam Users
Jonathan Fligner
2110 W. 36th Street
Lorain, OH 44503
ph. 216/282-8467 between 4:30pm & 8pm EST

Oregon Adam Users - Craig Frerichs
1928 W. Burnside #309
Portland, OR 97209

The (717) Adam Users
Steve Chamberlain
120 E. 4th ST.
Bloomsburg, PA 17815

Midsouth ADAM Users
Roger Burford, Lot 142 NAS MHP
Millington, TN 38053
ph. 901/872-7960

Adam Users of El Paso - Dick Lewin
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El Paso, TX 79912

Houston AAUG
c/o Thomas Rutan
1805 14th Ave. N
Texas City, TX 77590

Norfolk ADAM Group
Gerald M. Steen
1000 Rockbridge Ave. #144
Norfolk, VA 23508

ADAM Users Group of Central Virginia
Thomas J. Kelly
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Earlysville, VA 22936

ADAM Washington D.C. Users Group
Jim Tyson
1811 St. Roman Dr.
Vienna, VA 22180

Puget Sound Adam Network
Valorie Zimmerman
22607 SE 322nd
Kent, WA 98042
ph. 206/886-1167
or Barbara Duncan
ph. 206/938-5276 evenings

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Mistatim, Saskatchewan S0E 1B0

First Canadian Adam User's Group
P.O. Box 547 Victoria Station
Westmount, Quebec H3Z 2Y6

Winnipeg Adam Users Group
David Fordyce
729 Government Ave.
Winnipeg, Manitoba R2K 1X5

Metro-Toronto Adam Group
P.O. Box 123
260 Adelaide St. East
Toronto, Ontario M5A 1N0

AUSTRALIA
The Bendigo Colecovision Club
W.R. Oldacres-Dear
C1-2 Fenton St.
Bendigo, VIC 3550, Australia

ADAM Owner's & User's Group
Frank Ellis
4 Norman Street
Deakin, ACT 2600, Australia

High Scores
by Joe Blenkle

Anyone wishing to add their name to the high score list should send the game, score, and level to Joe Blenkle, P.O. Box 41746, Sacramento, CA 95841 or leave an EMAIL message on Compuserve at 70247,2466. Due to space limitations, all games may not be listed in every issue of ECN, entries may be

limited to only those scores for which new high scores have been achieved. For a complete list send a SASE to the above address.

GAME	PLAYER	LEVEL	SCORE
2010: Text	Joe Blenkle	-	6
Antartic Adventure	Graham Alig	-	184,570
Decathlon	Mike Degner	-	10,160
Defender	Bill Erskine	-	4,016,600
Donkey Kong Jr.	Kyle Alons	1	189,300
Frenzy	Manuel Miller	1	37,709
Gorf	Graham Alig	1	36,000
Keystone Kapers	Graham Alig	-	36,000
Ladybug	Michael Miller	1	2,234,390
Monkey Academy	Chris Rasmussen	1	113,790
Mr. Do	Manuel Miller	1	469,080
Sewer Sam	Royce Macrae	-	28,094
Sir Lancelot	Joe Blenkle	3	74,090
Smurf Rescue	Gabriel Koroluk	1	813,700
Space Panic	Michael Miller	1	40,610
Squish 'Em	Royce Macrae	-	77,200
Tapper	Royce Macrae	1	544,300
Venture	Theo Randall	1	4,000,345

High Scores as of Mar./Apr. 1986 Issue

Programs, Programs, Programs

We ended up with three programs for this issue. One is a LOGO program, FLITE, by David Jacksch. The other two are Basic programs by Dave Edwards. The first translates a decimal (denary) number into a hexidecimal and the second computes the least significant and most significant bytes. Remember you too can be famous, well relatively. Send in your programs and we will try to print them here. Remember, programs should be in LOGO or SmartBasic and not require any special utilities.

Decimal to Hexidecimal

```
10 PRINT "Type in denary number_" : PRINT: INPUT d
20 IF d>65535 THEN PRINT "Too large - limit 65535": GOTO 10
30 IF d<1 THEN PRINT "No numbers less than unity": GOTO 10
40  IF d<>INT(d) THEN PRINT "no fractions": GOTO 10
50  f=4096: h$=""
60  y=INT(d/f)
70  GOSUB 200
80  d=d-y*f: f=INT(f/16)
90  IF f<1 THEN GOTO 130
100  GOTO 60
130  PRINT "Hex number is " ; h$
140  GOTO 250
200  IF y<=9 THEN h$=h$+CHR$(y+48)
210  IF y>9 THEN h$=h$+CHR$ (y+55)
220  RETURN
250  END
```

Least Significant/most Significant

```
10   PRINT " Type  address - use 0 to stop": INPUT d
20   IF d=0 THEN GOTO 100
30   IF d>65535 THEN PRINT "too large - exceeds 65535": GOTO 10
40   msb=INT(d/256): lsb=INT(d-256*msb)
45   PRINT
50   PRINT "Bytes are - in DENARY "
53   PRINT
55   PRINT "   L S B  ";lsb; ", M S B  ";msb
57   PRINT
60   GOTO 10
100  END
```

Flite

```
"FLITE

TO SING
IF ((RANDOM 5)=1) [MAKE "ON 9] [MAKE "ON 0]
REPEAT 5 [TOOT 0 ((RANDOM 1000)+900):ON 3]
END

TO MOVE
TELL 1 SETSP 20
TELL 2 SETSP 40
TELL 3 SETSP 50
TELL [1 2 3 4 5] ST
TELL 6 SETSH 4 SETPC 4 PD STAMP
MAKE  "OK RC
ERDS
END

TO TITLE
TELL ALL HOME SETH 0
TELL 1 SETSH 1
SETC 14 PD 20 SETH 270
TELL [2 3] SETSH 2
TELL 2 BK 30 SETH 34
SMC 13
TELL 3 LT 90 BK 20 SETH 100
SETC 8
TELL 4 SETSH 3 SETC 15
LT 45 PD 100
TELL 5 SETSH 5 SETC 14
END

TO SET
PUTSH 1 :SHUTTLE
PUTSH 2 :SATTELLITE
PUTSH 3 :MOON
PUTSH 5 :EARTH
WHEN 0 [SING]
END
```

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```
TO SKY
SETCURSOR [10 9]
PRINT [NIGHT FLITE]
SETCURSOR [9 14]
PRINT [BY D. JACKSCH]
TELL 0 PD
REPEAT 70 [SETPC (RANDOM 15)DOT SE
RANDOM 256 RANDOM 192]
TELL 0 PD
CT
WAIT 100
END

TO BEGIN
ERDS RECYCLE
THAW
WRAP
TELL ALL CS PU HT
SETBG 1
SKY
SET
TITLE
MOVE
END

MAKE "STARTUP [BEGIN]
MAKE "X 4
MAKE "NO 4
MAKE "NAMES [SHUTTLE SATTELLITE MOON
EARTH]
MAKE "OK "S
MAKE "EARTH [4 31 63 123 112 240 120 60 62 62
254 14 78 63 31 4 96 56 244 232 112 113 125 253
249 56 57 56 254
        252 248 32]
MAKE "MOON [3 15 63 63 127 124 248 248 248 248
252 127 127 63 31 7 240 192 192 0 0 0 0 0 0 0 0 0
192 192 240]
MAKE "SATTELLITE [0 8 6 6 9 1 3 3 5 8 16 0 0 0 0
0 0 0 0 0 32 64 128 1 28 64 32 16 8 0 0 0 0]
MAKE "SHUTTLE [0 0 0 0 0 0 127 255 63 1 0 0 0 0
0 0 0 0 0 6 14 30 255 255 254 240 240 112 0 0 0 0]
MAKE "ON 0
```


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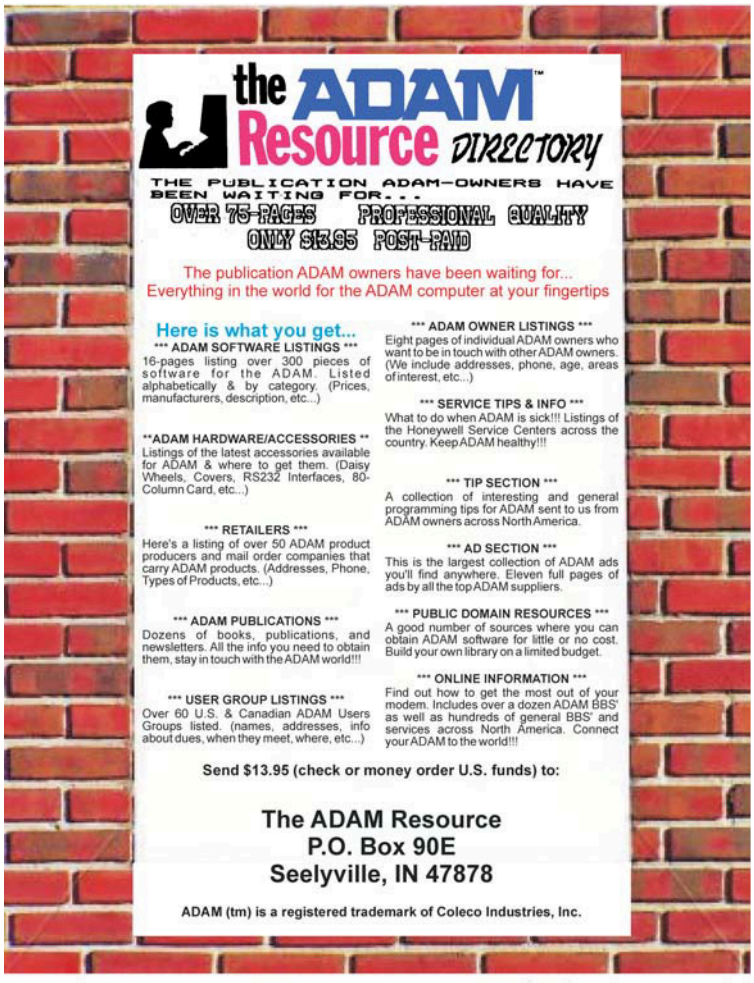

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CONVERT

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CONVERT is a utility program that allows you to transfer information from other CP/M single-sided double-density disk formats to the ADAM CP/M disk format. CONVERT allows you to read and write to disks that are in the following formats: Zenith 100 CP/M 85 SSDD; TRS-80 Model IV CP/M+ SSDD; and IBM CP/M-86 SS5DD.

Your ADAM can only run programs that are CP/M 2.2 compatible. These programs are commonly called generic CP/M 2.2 programs. ADAM cannot generally run programs that were written for other versions of CP/M or that have been specifically configured for another computer. Most dealers and suppliers of CP/M programs have the capability of supplying CP/M 2.2 software on a variety of disk formats. Unfortunately, few companies can supply such software In the ADAM format. Most companies can supply CP/M 2.2 software in the formats that CONVERT can read. When buying such software make sure that you get a generic CP/M 2.2 version copied to one of the formats listed above. DO NOT buy CP/M+, CP/M 85 or CP/M 86 software. You will probably need to tell the dealer that your computer is a Z80, 8 bit system, to help avoid any confusion.

CONVERT requires at least one disk drive and one data drive. The best arrangement is to have two disk drives, although this is not necessary.

In addition to copying programs from the three formats to the ADAM format, you can also transfer data files.

How does CONVERT work? CONVERT reads the necessary tracks of one disk and manipulates the information in order to put Into the format ADAM needs. CONVERT copies an entire disk. If you do not need all of the Information copied, you can use CP/M to delete that information.

CONVERT may be obtained directly from Sage Enterprises for $34.95 plus $2.00 for shipping/handling (Missouri customers should Include sales tax). To order send a check/money order to Sage Enterprises, Rt. 2, Box 211, Russellvlle, MO 65071. Sorry no COD's or charge cards. If you have additional questions please feel free to call us Monday, Tuesday, Thursday or Friday from 9:00 am to 4:00 pm CT at 314/782-3448.

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UNREAL SOFTWARE COMPANY PRESENTS

PACKCOPY

PACKCOPY Version 1.1

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PACKCOPY allows you to make backup copies of your ADAM software. Make backup copies of Basic (includes autoboot), SmartFiler, AdamCalc, SuperGames (EVEN the short SuperGames), and almost all other software on disk or digital data pack.
May be used with one or two data drives/disk drives.

To order send check or money order for $41.50 payable to Sage Enterprises, Rt. 2, Box 211, Russellville, MO 65074. Sorry no charges or COD orders.

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

CP/M PUBLIC DOMAIN FOR THE ADAM

Now many of the CP/M Public Domain programs and languages are being made available for the ADAM on ADAM disk or digital data pack. Included in this library is a wide selection of software including languages, games, utilities, text editors and formatters, and more. Each month additional software will be converted and made available to ADAM owners at a minimum cost. Because many ADAM owners do not have access to a high speed printer, we will provide the accompanying documentation in printed form when such documentation is extensive for an additional charge. While we have tested much of this software we cannot guarantee that it Is all bug free; however, most of this software has been around for some time and has gone through a number of revisions to eliminate any bugs that have appeared.

All prices are given in U.S. funds. Canadian orders should be in U.S. funds or equivalent. Orders for other foreign countries add $2 for disk and $3 for ddp per item to cover overseas shipping. Missouri residents must include sales tax.

Order No.	Contents	Disk	DDP
cpm1	ADVENTURE (version A02) - this is the original public domain game (1 disk or ddp, disk recommended) 126K, documentation limited, instructions in text adventure game.	$5	$7
cpm2	TINIDISK - this is a version of Tiny Basic. Includes documentation file, 6 pages long (include $1 for printed copy) Source file (ASM) is included. Includes STARTREK, a tinidisk version of the original trek game. (1 disk or ddp) 84K.	$5	$7
cpm3	PILOT & ZPILOT - two implementations of the PILOT language, includes source files and demo programs, but NO documentation. (1 disk or ddp) 93K.	$5	$7
cpm4	POW2 - Text formatter for use with the CP/M ED (editor), includes source and extensive documentation files - 20 pages (Include $3 for printed copy of documents) (1 disk or ddp) 76K.	$5	$7
cpm5	EBASIC package - this is a subset of the CBASIC compiled Basic language. It Includes several versions of the compiler and runtime Interpreter as well as the source files. It includes a HELP disk that contains documentation on CP/M, EBASIC and CBASIC in approximately 70 printed pages of material. Although some of the documentation is redundant it is extremely useful (include $10 for a printed copy of documents) Includes a version of Othello game (5 disks or 5 ddps).	$25	$35
cpm6	EBASIC games (REQUIRES cpm5 above) Poker. Gunner, Civil War, Golf, Football, Blackjack, Lunar1 - text games. (1 disk or ddp) 63K.	$5	$7
cpm7	EBASIC games (REQUIRES cpm5 above) Startrek (2 versions), Master, SNOOPY & TWEETY picture files ready to print (1 disk or ddp) 136K.	$5	$7
cpm8	EBASIC games (REQUIRES cpm5 above) 2 Startreks, craps, LEM, Bagels2, Poet, TicTacToe, Hangman, Cannons, Chomp, Amaze, Ace, Fit, Fib, Core, Hello, Loan, Euclid, Stars, Keno, Strike9, Lanes, Animal, Bioprint, Story, Combine, Lander, Chase, Wumpus, Bagels, Plot2, Coretest, Love--text games (2 disks or 2 ddps) 205K.	$10	$14
cpm9	EBASIC games (REQUIRES cpm5 above) Blackjack, Kingdom, 23match, Swarms, Rocket, Bagels, Trap, Bullseye, Wumpas, Chief, Convert, NFL, Dice, Russian, Checkers—text games (1 disk or ddp) 73K.	$5	$7
cpm10	MADAM7 and some utilities. An excellent telecommunications package for the ADAM.	$5	$7
cpm11	A collection of assemblers and disassemblers. (2 disks or ddps)	$10	$14

Some of this software will work with a screen chop program, some will not. You will have to experiment. To order these products send *i* check or money order to Sage Enterprises, Rt. 2, Box 211, Russellville, MO 65074. All prices Include shipping for U.S. and Canadian orders.

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UNREAL UTILITIES

Sage Enterprises was the FIRST to publish an ADAM ONLY newsletter, Expandable Computer News.

Sage Enterprises was the FIRST to produce a copy utility for the ADAM, PACKCOPY.

Sage Enterprises was the FIRST to produce a utility to read non-ADAM disks, CONVERT.

NOW we bring you UNREAL UTILITIES - a complete recovery and utility package.

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These utilities are especially useful to anyone who wants to develop software for the ADAM.

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