

EXPANDABLE COMPUTER NEWS

Issue #9

July/August 1985

\$3.00

ECN

An Independent Publication for users of the Adam Computer
COPYRIGHT 1985 - SAGE ENTERPRISES

CES



OMNIBOT (left) and OMNIBOT 2000 (right), the ultimate in high tech home entertainment robots - from Tomy Toys

ISSUE 9

COPYRIGHT 1985 SAGE ENTERPRISES

\$3.00

Table of Contents

| | | | |
|-----------------------------------|-----------|-------------------------------------|-----------|
| Summer CES 1985 | 3 | User Group News | 14 |
| Ramblings From the Ridge | 7 | High Scores | 15 |
| West Hartford Endings | 8 | CP/M & ADAM | 16 |
| What About the Competition | 9 | CP/M Information and Sources | 16 |
| | | Patching CP/M for ADAM | 17 |
| REVIEWS | | Telecommunications | 18 |
| ADAM World Software | 10 | Inside Adam | 18 |
| Smart Speller | 11 | File Handling Hints | 19 |
| SP-1 Interface | 11 | CP/M to ADAM File Conversion | 20 |
| The Secretary | 12 | Curves & More | 21 |
| Education Library | 12 | Logo Music | 23 |
| Basic Game Library | 13 | Bulletin Board | 24 |
| Household II Library | 13 | Afterthoughts | 25 |

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 on Saturdays from 9 am to noon.

Staff: Editor - Darrell R. Sage Associate: Shirley I. Sage Cover by Ted Gocal

NOTE: The views expressed by contributors to ECN are not necessarily those of the publisher. ECN and Sage Enterprises are not in any way affiliated with Coleco Industries, Inc. We welcome contributions of original articles, programs, reviews, comments, questions, etc. We are unable to pay for such contributions at this time. Please include a signed statement giving us authorization to use your contribution. We would like to thank all of our subscribers for their assistance—without them this publication would not be possible.

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.

| ITEM | Foreign Price | U.S. & Canadian Price |
|---|----------------------|----------------------------------|
| Blank Data Pack (Loranger) | \$8.00 US | \$5.52 US |
| PACKCOPY software copier | \$45.50 US | \$41.50 US |
| 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 |
| Program Library III | \$13.30 US | \$9.95 US |

ALL SOFTWARE NOW AVAILABLE ON DISK OR DDP



**Summer Consumer
Electronics Show - 1985
by D. Sage**

The trip to the Summer CES has become something akin to a religious pilgrimage to those of us who follow the home entertainment market. With the press it may be even more like the salmon swimming upstream to spawn, they're in a big rush to

get there and already have their minds made up as to what to do when they arrive. Too bad, this is the last major opportunity for manufacturers of home entertainment products to display their wares before the Christmas season.

Like everyone else my wife and I made the trek. We traveled by car again. No lost gas caps and we even stayed in Illinois this year. Since I am originally from Illinois, I have traveled to Chicago many times and am well aware of why it is called the "Windy City", but Chicago is usually warm in June. Away from the lake it is often hot this time of the year. Well this year it was cold and windy. Our last day at the show the temperature finally rose to a high of 70.

The cool outdoor temperatures were only equaled by the cool attitude of the press to this show. This year's events went largely unnoticed.

The general tone of the show as less flamboyant and few companies were plying the press with food and drink. Let's hope that it doesn't take an elaborate party for the press to cover something, but I wonder.

The Wall Street Journal typically covers this show with a number of columns, but even they failed to do more than print a rehash of old news about Commodore and Atari. In any case, I noticed that the reporters did a lot of talking but little listening.

I always thought the purpose of the press was to collect information rather than create it. One would usually expect that in an interview, the interviewee would be doing most of the talking. If this is the way most of the periodical press conducts itself, it is no wonder much of the information they print is inaccurate and misleading. More on the press and the reasons for my negative attitudes later.

Oh yes, Atari was at CES after all. They had earlier canceled their large display space, but were back in a modest room with tables and computers scattered around the walls. They were showing the new versions of the old 64k 800 and the new 128k version as well as a revamped 130ST.

The 130ST is no longer a 128K version but a 256k one that cannot be upgraded to the level of the 512K machine. Earlier the 130ST had been canceled when Atari decided to primarily market their 512k

Macintosh-like machine through computer stores. The revamped 130ST, now designated the 260ST, was redesigned for sale through mass merchandisers.

I have doubts whether this machine will ever appear anywhere other than at a trade show. Producing a machine that is not upgradeable is a mistake. Who would buy one, when for a few dollars more they could get the super machine with twice the memory. Oh well, the machines seemed to be performing quite well and drawing a lot of interest from the people crowded into the room.

You will probably be hearing more about the Atari machines as the time approaches for them to begin appearing in stores. Atari was also demonstrating a laser disk add-on using the standard size audio disk. The demonstration disk contained an encyclopedia data base that could be searched by subject at high speed. The player will also be capable of playing audio disks as well as data disks. It is a read only device that will provide computer users with access to data bases that require mass storage in excess of normal hard disks.

Commodore was at CES in force with one of the larger displays in McCormick West (most of the computer and software displays are located in McCormick West, rather than in the main exhibition hall). The Commodore display was divided between products for the U.S. and the international market.

The international display included the Unix machine and the IBM PC look alike. The U.S. display concentrated on the new 128 with a few 64's scattered around. For Commodore this must be the year of the 128.

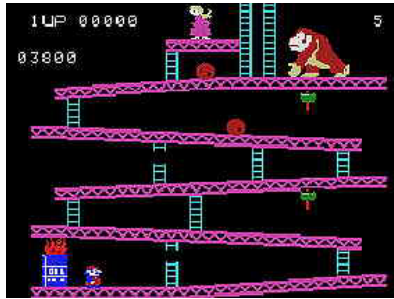
The Amiga Lorraine was not visible and rumors indicate that it has been delayed again. There are also indications that the Lorraine will be priced over \$2000. So much for the home market. I may be wrong, but I get the impression that the new management of Commodore is moving the company away from the home market and that the 128 may be the last such product they introduce at the lower end for some time to come.

For some reason everyone seems to be terrified of the home market. If the 128 had been introduced a year earlier, it would have been a success, now I am not so sure. The new disk drive is super, but may still have some problems. It was not slated to start shipping until a couple of months after the 128 shipped. What good is a new machine without the disk drive necessary to show off its capabilities?

Maybe Commodore is hoping they will be able to unload the rest of their cludgy 1541's. If I buy a 128, I think I will wait until both it and the new drives are fairly clean. I still remember my experiences with the

64 and the many 1541 drives I have had. I always recommend people be cautious about buying the first computers off the assembly line, regardless of the manufacturer. From what I have read about the IBM AT, no one seems to be exempt from problems with early machines. Of course, if you want to be among the first to own a new machine, then be prepared for the worst.

Nintendo was showing off their new high resolution video game machine and its new robot accessory. If the video game industry is still alive, then this machine should do well.



If you will remember, Nintendo is the company that gave us "Donkey Kong" in the arcades. There should be a lot of write ups on this product, since Nintendo threw a big evening press party with lots of food and prizes. Unfortunately, I didn't read my press packet until after the party was over, so we missed out on the goodies.

The Nintendo Entertainment system includes the main console, the interactive robot, one robot game, and two controllers, all for a suggested retail price of less than \$130. The robot interacts with the video images on your television and is designed to play a variety of games. The graphics are superior and at this price the system is a bargain. A number of games have already been developed for the product and new introductions are slated at two-to-four each quarter. A light gun for use with shooting games was also on display.

The system itself has a visually appealing design. Some games include a limited editing feature, where players may modify game play. Unfortunately for those of us in other parts of the country, this product is slated to be introduced first in the New York area around September. No one ever introduces anything in the midwest. It's always either the east or west coasts. Fortunately, I have a number of contacts in the New York area and will have them on the look out for this product. My biggest problem is figuring out when I would get the time to play with this machine. Outside of reviews, most of my games simply collect dust. Maybe when I retire...

Speaking of robots, I think one would make a nice addition to our family (my wife will probably kill me when she reads this). TOMY had robots again, including the new Omnibot 2000. In addition to the 2000 and the line of products introduced last year, TOMY was also showing Chatbot, Hootbot, Spotbot

and Flipbot. These latter products are smaller robots similar to the venerable Dingbot and Verbot introduced last year. The 2000 includes a fully articulated arm and grasping hand. Although not in the class with Hero, these products are much more affordable. Somehow I failed to get the actual price for the 2000. Look for it to appear in the Christmas catalogs for Sears and Wards. Robots are the coming thing. A number of companies had interfaces to allow you to program robots, with one company specializing in an interface for the Omnibot 2000 using a Commodore 64, Apple, IBM or Atari computer.

The company, Computer Magic, also plans to introduce a number of games for the smaller Verbot robot. If the kids want a pet, this may be an easy solution. No feeding or paper training required.

Casio had a large display of their marvelous keyboards. A number of these can be interfaced easily to a home computer (sorry, not the ADAM). Casio was also showing their line of hand held computers, calculators, televisions and watches.

Yamaha had a smaller display of their keyboards in one of the side rooms at the main exhibition hall. Although they did not have their MSX computer on display, it has been rumored that they will be introducing that machine in September. It is expected the computer will be sold through music stores initially, largely as an accessory to their keyboard and midi systems.

One of the MSX software vendors at the show confirmed that two MSX machines would be introduced in the U.S. in September. The machines they named were the Yamaha system and Bondwell's revamped Spectravideo system. Although other Japanese companies such as Daewoo had MSX machines on display, no one seemed willing to say if or when these machines would be introduced here.

I had a rather interesting discussion with a Daewoo representative about which joystick port should be used with a one-player game. Unfortunately he spoke little English and I never added Japanese as a second language.

Another Japanese representative of Daewoo tried to intervene but his English was not much better. I tried to ask about introduction dates, but they only laughed. When I left, the first gentleman was still trying to play a game with the joystick plugged into the wrong port.

Bondwell was much better organized and somewhat easier to communicate with. Their PC compatibles seemed to be the main focus of their display although they did have two MSX systems set up. The MSX attracted few members of the press, but seemed to be drawing a number of buyers and



Nintendo's Video Robot pictured here with the Nintendo Entertainment System and Light Gun accessory.



AMSTRAD'S COMPUTER
CPC6128



retailers.

The MSX computer on display was named the Express. I assume this is a reworked version of the earlier MSX computer that was introduced by Spectravideo, before Bondwell bought them out. At least the new computer has a somewhat different appearance. The new machine now comes with a built-in 3 1/2 inch disk drive. It is fully MSX compatible and includes the standard I/O ports and cartridge slots. The Express comes with a carrying case and has the overall appearance of portability. A variety of peripherals were announced, including 64k expander, 80 column card, external 3 1/2 in. drive, data cassette, and a network interface card that allows connection to a 10 megabyte hard disk. The system supports CP/M software as well as all MSX software.

One of the sales representatives indicated that they would be shipping the product in September, but that we probably could obtain a review model. By next issue, I hope to have one of these machines in my hands. A lot of people do not seem to be impressed by the MSX, but they have generally done quite well overseas. These are good solid machines, backed by a large number of reliable Japanese companies. I expect that once Bondwell and Yamaha have broken the ice, the other companies will soon follow. These machines are excellent for game playing, small business and home applications. The main unit should be priced around \$200. Since these computers were introduced elsewhere, there is already a large software base that will make them a more attractive buy when introduced here. I particularly like the portability feature of the Express when combined with a small portable TV or monitor. You could even use one of the small LCD TVs. The MSX's could have a big impact, but if they don't enter the US market this year, I doubt if they will have a major impact.

A Dutch software company, AAKOSOFT, had an interesting software display. They had a number of MSX machines all running their software. A lot of their game software is of the flight simulator variety. A new game to be introduced this year will allow two MSX computers to be hooked together. Why would anyone want to do that you ask? So that two people can play a flight simulation combat game at the same time, is the answer. Each player's screen would give a first person perspective and the object would be to evade the other player and shoot him/her down. Sounds very interesting.

Some of the press who attended CES must have gone to the wrong place. I realize Chicago is large, but McCormick place is hard to miss. Anyway, one newspaper reported that the MSX computers were not going to be introduced in the U.S. I wonder who

they talked to, must have been one of those investigative reporters.

While the Japanese may be preparing to mount an invasion via the west coast, the real news is -- THE BRITISH ARE COMING!!!

Amstrad, a manufacturer of one of the more popular home computers in England and Europe, has announced that they will be entering the U.S. market in September. Let me tell you, I talked to representatives of this company, they are serious.



The machine they have been successfully marketing overseas is the CPC464, a 64K cassette based, Z-80 system. That system runs CP/M software as well as software using Amstrad's own operating

system. The product they are introducing in the U.S. is a similar machine that is disk based and includes 128K. The machine is designated the CPC6128. The disk drive is built in and the computer comes with either a monochrome or color monitor. An 80 column display is supported by the system and it includes Digital Research's GSX graphics enhancement as well as BASIC and LOGO languages. Word processing software is also included. The disks are 3 inch and although the drives are single-sided, the disks are reversible so that both sides can be used for storing data. Like the CPC464 this machine is also a Z-80 and comes with CP/M 3.1 and the AMSDOS operating system.

Initially this product will be sold in two configurations: 128K computer with monochrome monitor and Wordstar for a suggested retail price of \$699 and the computer with a high resolution color monitor and Amstword word processor for \$799. Both machines are backed by a full one-year warranty. Yes, a full one-year warranty. Service will be provided through our good old Honeywell Service Centers that many of you have visited with your beloved ADAMS.

The computer includes standard interfaces, so you may connect the printer or modem of your choice. An external disk drive may also be added.

Amstrad has chosen a sound strategy for marketing this computer. They are in no rush to get rich and are taking a long term approach to building this product into a successful competitor. A great deal of high quality software has already been produced for the CPC464 and that software will run on the CPC6128. The company indicated that they expect initial sales of the system to be small and are willing to take their time in establishing the product in the U.S. because they feel that over the long term the

U.S. can become their biggest market. They have analyzed the reasons other companies have succeeded and failed. I believe they are serious and have a good chance of succeeding. We will be following this company very closely in the months to come.

I spent quite a bit of time at the Amstrad display looking at the machines and software. I also talked to a number of the company's representatives including the President of their U.S. operations. I found these people to be quite helpful and cooperative. They were willing to talk without continually handing out a bunch of hype. One of the games that was running, was a robot arcade type game involving a large number of screens. The graphics were crisp and detailed. Images were three-dimensional and game play seemed quite interesting. The initial offering of software in this country will be around 200 titles. These exist, they are not planned. I have seen some of the British computer publications and Amstrad titles are plentiful.

We hope to have a more detailed review of this machine in our next issue. We were promised a review machine and hope to have it in the next couple of weeks. Generally, I liked the keyboard and overall design. My only concern at this point has to do with the 3 inch disk drive. The 3 inch drives are common in Europe and not in the U.S. The company will have to make sure that disks are plentiful and easy to obtain, unlike ADAM's digital data packs. If they can get disks and products to the consumer then that should not be a serious problem.

To announce the CPC6128, Amstrad held a press conference that included a small champagne luncheon. Naturally, where there is free food and booze, you will find the press. Unfortunately, I was not impressed by the conduct of some members of the press that attended. The Amstrad representatives had some difficulty in getting the attention of their guests when it as time for the press conference to begin. A number of these people continued to talk among themselves during the presentation. Some even walked off before the presentation was over; they apparently had already gotten what they had come for--food and booze. A question and answer period was held following the formal presentation.

The only intelligent questions were posed by representatives of the British press. Most of the other questions were generally irrelevant and indicated a lack of interest. Needless to say, the question and answer period did not last long. My guess is that you will not be seeing much on this machine in other U.S. publications. If you do I will be surprised and will expect it to be largely a rehash of materials presented in the company's press kit.

Most of the software displays were for the Commodore 64 & 128, the Macintosh, Apple or IBM with a few Ataris thrown in. If you were hoping for something on the ADAM, forget it. Coleco was not there and as far as we could tell they did not even send a representative. We did talk to representatives from M.W. Ruth, Extended Software, and IMAGE Microcorp, all of whom still seemed to be quite positive about the ADAM. Rumors about an MSX operating system still exist, but if it comes it will probably be too late to make much of a difference.

Overall this year's show was quite enjoyable. There were no breakdancers or much else in the way of commercial entertainment offered by exhibitors. McCormick West was no longer completely dedicated to computers and software. The adult video entertainment displays had taken over a portion of one floor. Many small companies simply cannot afford to spend the money it costs to have a formal exhibit.

The absence of these companies contributed greatly to the reduced space occupied by the home computer displays. In spite of all this and the level of competition existing today, the general attitude of most companies' representatives as well as those of retailers remains quite positive. I think most of us still recognize that this industry is a long way from maturation and still has plenty of room for growth. For now all we can do is wait and watch.

Ramblings From The Ridge by D. Sage

Hard to believe it's that time again. Another issue of ECN and I'm still running behind. I have been hard at work on some software projects for the ADAM, one of which has been extremely time consuming. What is it? Well, if it gets finished by the time we go to press, you will see an ad in this issue. Otherwise, I have to guard my secrets well or some of my competition that seems to be short on creative ideas will jump on the bandwagon. Between piracy of our software and copycats, it is getting harder and harder to remain profitable.

In addition to our software projects and ECN, we have a number of projects in the formative stages. We will keep you posted, but unfortunately most of this stuff we have to keep the lid on until it is more finalized.

Summer has arrived on the ridge along with heat and thunder storms, two denizens that computers don't need. Some day we hope to have a better cooling system and a back up power supply, so that these conditions don't require us to shut down.

Remember even spike and surge protectors may not be able to save you from a direct lightning strike.

Sometimes the only safe action is to actually unplug your system. When it gets hot either keep your ADAM cool or don't operate it for extended periods.

Heat can cause a computer to develop a variety of mental ailments from loss of memory to schizophrenia. Since we are located on a high ridge we are a regular target during lightning storms. During those times I am forced to shut down and relax. One evening recently we were subjected to heavy rains accompanied by high winds and a brilliant lightning display.

The next day when I sat down at one of my computers, I found little puddles of water on the keys of the keyboard. Surprise, surprise. Fortunately, I was able to shut everything off and dry it out with no apparent damage.

This is issue nine of ECN and we continue to get a substantial number of new subscribers. So far the new subscriptions have exceeded those who have failed to renew. This issue includes a number of excellent contributions from our readers. We really appreciate this type of support. As new product introductions decline, the number of reviews will also decline. Our response will be to publish more program listings. However, we continue to receive printed listings of programs without software on either disk or data pack. Please remember to send the software on disk or data pack and it will be returned.

If we fail to print something you sent us, don't be disappointed. We can't print everything and we can't print anything that someone else may hold a copyright on such as a program from a magazine. Even though you modify the program to run on ADAM, you must obtain the consent of the owner of the original program before we can use it. In a couple of cases the materials you sent did not include your name and address. Always put your name and address on any review, program, article, etc., not just on the correspondence accompanying it. Sometimes these do get separated.

For those of you who provided information on Davasan, SmartSpeller, and other products, we appreciate your help. If you hear of a new product for the ADAM, pass the word on to us. If you obtain the product, drop us a note. A review would be helpful, but we will take what we can get. Usually any information is better than nothing.

A commercial printer interface now exists for the ADAM. Information on that and other products will be covered in reviews and other portions of ECN.

Issue 3 of ECN is no longer available. I doubt that we will have it reprinted unless there is substantial demand. Issues 4, 5, and 6 are in short supply and will not be available much longer. Since most of you

seem to have found sources for ribbons, we will no longer be carrying those for sale.

Revisions of PACKCOPY have been completed and all owners have been notified. The revisions include: the ability to create a disk version of BASIC that includes the program autoboot; a single disk drive copy; copy from one data pack to two disks; improvements in the copy routine to increase the reliability of copying Super Games; and a special feature for copying the short tapes (Donkey Kong & Donkey Kong Jr.).

Software using data pack blocks above 159 still will not run from disk. All orders for the update will be filled as quickly as possible, but please be patient. If your version of PACKCOPY does everything you want it to, you may not even want the update. It's up to you.

Our latest software, CONVERT (see ad), is in the testing stages and should be ready for shipment by the first of August, but I learned a long time ago that when you start setting deadlines you are asking for trouble. Nevertheless, I do feel that we will be on time with this project. However, if it is delayed we will hold all orders and checks until it is ready to ship. If the delay becomes too great, orders will be returned.

West Hartford Endings by D. Sage

By the title change, you should be able to tell that this column is on its last legs. There seems to be little purpose in continuing a column with no news. The computer electronics division at Coleco appears to have ceased its existence. Sources have told us that the division is now down to four employees and we are aware of a number of people who are no longer with the company. The consumer support operation is still in existence, taking orders for products and



trying to answer questions. It appears that a number of the more experienced personnel who used to handle calls or, the Coleco hot line are no longer with the company. We would like to thank Coleco's staff for finally beginning to refer some of you to us for support. Too bad Coleco did not recognize the importance of ECN a long time ago.

We also would like to thank the many Honeywell Service Centers that have advised ADAM owners that we are alive and well. Although we seldom received any support from top management at Coleco, I would like to thank those still with the company and those that have departed, that were kind enough to spare their valuable time to answer our questions and that recognized the importance of

organizations such as ours to the success of home entertainment products.

If you are expecting new products from Coleco, don't hold your breath. Everything that was in the pipeline, is pretty much now in production. When such items as Jeopardy, Family Feud, Best of Electronic Arts, and 2010 (text adventure) ship that will probably be the end. We are unaware of any other products on ddp, disk or cartridge that were in the works. Other items are no longer listed on Coleco's order forms or in their catalogue sent to ADAM owners. There won't be a SmartBasic II. A total of only nine of the Super Game packs will have been produced at the close of business. Does anyone remember how many titles were originally announced?

All this means that we are now pretty much on our own, except for maintenance support through the Honeywell Service Centers. No the world hasn't ended. A few companies like Martin Consulting, International Computing, Image Microcorp, Sage Enterprises, and others whose ads appear in these pages continue to work for you, by developing new products. Time remains our greatest enemy. The development of software takes time, sometimes months. As time passes more and more ADAM owners will put their ADAMs aside for another system, sell the ADAM, or lose touch with sources that advertise ADAM products. As that happens, software sales will gradually decline until it is no longer profitable for these companies to produce products. This does not have to happen. The ADAM can be a useful machine for years to come. A lot of school assignments have been completed on these machines along with an awful lot of correspondence.

Many ADAMS will perform relatively flawlessly for years to come. The printers may require some cleaning and maintenance from time to time, but thanks to their simplistic design, major breakdowns should be relatively infrequent. Now that alternate printer interfaces are becoming available even this will be less of a problem.

An excellent library of Colecovision game cartridges already exists that has been supplemented to a limited extent by the ADAM library of games and educational software. Many of these games are timeless and can hold the interest of young and old alike. In addition to Coleco's offerings of productivity software, more and more independents are producing products to fill the gaps in those areas. Use your ADAM until it gives up the ghost. There is hardly any reason to throw away the investment you have made.

Yes, there will be other computers that you will probably buy if you are like me. But, I still go back to the ADAM when I want to play a high quality arcade

game. No I'm not a cheerleader for this product, we picked the ADAM to support because it had the potential to be the home computer of the future. I still believe that if Coleco had given the product the support it deserved, it would have achieved that goal.

If you remember, we reported some time ago that Lazer Microsystems was the company that developed SmartBasic. You remember SmartBasic and the mysterious spaces that appear in REM and DATA statements. Well I have recently learned that Lazer is supposed to have been involved in adapting CP/M for the ADAM. Now I wonder who was responsible for not including a commented copy of the BIOS for the ADAM on the distribution media. Developing patches for CP/M without a commented BIOS is truly a nightmare. Just another example of the kind of things that guaranteed ADAM's failure.

I hate to end this column on a down note, but we have been advised that Westico, the primary supplier of commercial CP/M software for the ADAM, has gone belly up. We ere advised that they had stopped taking orders and had filled those on hand, but have not been able to verify that information. Commercial CP/M software will be available from another source and this is covered in one of our CP/M articles in this issue.

In an effort to overcome the negative information in this column, I should report that Sydney Software is supposed to be shipping WIZTYPE. Sounds like the BEST OF BC may have been successful enough to justify additional products from that company. Well, let's hope so. Maybe they will release some more products that are not already available in cartridge form.

The news that normally appeared in this column about third party companies will be moved to Ramblings in the future. See you there.

What About The Competition?

by D. Sage

If you read our lead article, you already have some idea of what has been going on in the home computer industry. Of course companies like Apple and IBM never show at CES. They are afraid of having their products labeled as consumer products. Might tarnish their business image. I mean what company would want to buy a computer that was shown at CES? A number of other companies did not show at CES and these included Sinclair and some of the IBM look alikes.

Sinclair has been experiencing financial troubles of late. The lack of sales of the QL have not helped them any. Here is an example of a high powered computer with a relatively low price, being blown out of the water by such products as the Amstrad,

Commodore 64, and some machines you probably never heard of, most of which are running either a Z80 or some version of the 6502 CPU. Much of the problem with the QL may be its nonstandard interfaces and video. The fact that it has an 85 column screen in high resolution mode just doesn't help. On top of this their parallel interface has been having problems. Many parallel printers don't work with it. The QL is now selling in the U.S. I should say the QL is now for sale in the U.S. If you want one you are going to have to buy a special monitor to handle the 85 columns.

External disk drives are now available, so that you don't have to rely on the built in wafer tapes. Where do these engineers come up with these ideas? A continuous tape to store data on makes little sense with the new smaller disk drives that hold several times the information. I admit that the ADAM's digital data drives were a real engineering feat, but with bare disk drives wholesaling for around \$39.00, this doesn't make much sense. I think I would have given the guy with that idea the boot a long time ago.

My suggestion is don't rush out and buy a QL. It may have a 68000 processor, but it supposedly only uses 8 address lines. Even the QL User (an independent publication) doesn't seem to be overly enthusiastic about all these problems.

IBM has been busy slashing prices of the Jr., but with all of its promos no one seems interested in stocking them. IBM is either going to have to really cut prices or pull and trash them.

I was checking the stock market the other day and lo and behold Coleco's stock had climbed above Apple's. Who would ever have dreamed? Don't worry about Apple, they are going to recover and somebody will clean up when they do. Now that Steve Jobs has been slid to the side the company may return to promoting the concepts that made them rich. I can't imagine why anyone would try to kill the most profitable product line (2e). My suggestion to them is that if you have a good product concept, build on it. I suspect that is exactly what the man from Pepsi will do. Now that Jobs has been kicked upstairs maybe the Woz will return with some more super ideas.

Speaking of stock prices. If you want to buy a computer company cheap, you might consider picking up Commodore. If I had the coins I'd buy a big chunk of stock, fire top management and replace them with almost anyone and get rich. Everyone associated with the Plus-4 and the Commodore 16 would go out the door. The net thing I would do is add at least one standard interface to the 128, either an RS-232 or Centronics. I have heard rumors that there will soon be an interface to allow you to connect a hard disk to the 64 or 128.

C.O.M.B. is selling 64's for \$110 and the C64 Executive portable packaged with a dot matrix printer, EasyScript, and the Manager for only \$488. If you need a cheap portable system you may want to consider this buy. C.O.M.B. is a liquidator that advertises in the Wall Street Journal. One warning about the 64 portable, I've heard it is pretty flaky if you try to hook up a second disk drive. Of course every 64 I've owned has been flaky with two drives and a printer hooked up. Nothing like watching your computer go off into never-never land because you failed to turn off the printer when using both disk drives. Will the 128 have the same problem? Oh yes, the 128s are shipping now without disk drives. Sears has the 128 and disk drive listed. If I had the room, I might buy one just to test it out.

Atari has begun shipping the 512K ST overseas (520ST) and has promised established Atari user groups in the U.S. first crack at initial U.S. shipments.

So far the 520ST has not been licensed by the FCC. Shades of the problems encountered by the ADAM. Why can you sell a computer anywhere else in the world without passing FCC licensing requirements and not here in the U.S.? We have some of the strangest laws and regulations of anyone outside of the U.S.S.R. Large computers produce all sorts of garbage interference yet they do not have to have FCC approval. Does this make sense? Without the FCC, many computer products would ship on time. Often failure to meet FCC standards requires major redesign to solve a minor interference problem.

The Commodore 64 went through tons of changes to limit this kind of interference. The ADAM was reported to have been delayed as much as 6 months because it couldn't meet FCC standards. My toaster and fluorescent lights cause more interference with radios and TVs in my house. Why aren't they licensed. I can see it now. GE announces new toaster - introduction delayed by FCC. Come on give us a break.

Speaking of GE. Still no announcement on their newest product. Can't get FCC approval? Huh!!

Enough. Enough. More news next time. My fingers are developing blisters and the temperature is rising in my computer room. Plus I think all this equipment is emitting strange radiation that may be affecting my sanityityityity..... or could it be the Jack Daniels?

Product Review: ADAM World Software by John Busby II

Product: SmartSpeller, DataCalc, Adam Filer

SmartSpeller: This is a condensed version of a dictionary. To use the program you must first format a disk/ddp with the program so you can use it in the word processor mode. Then switch to the W/P mode

and type your text in (500 word limit) to each file.

Then you reload BASIC, load SmartSpeller and start to use the program. There is a lot of changing disks/ddps to make the program work. This is the only way that the dictionary can check your words. The program loads your data into memory along with the dictionary. Then you can see every word of text. The program asks you if you want to look up spelling or go to the next word. At the end of checking the program then takes all your work and puts the corrected file into a separate file that you name. Then you can print it out using the word processor mode. It operates much like search in SmartWriter.

DataCalc: This program does not have all of the tools as does AdamCalc. The screen has all the commands at the top. Single letter driven, it also uses the Smart Keys to move the working grid on the screen. It has all the functions of a large spread sheet. It's easy to use.

Adam Filer: This is a great filer. It prints out labels right on the money. It also prints out columns and has features with totals and averages. The best part of all is you can store more than one file to a disk/ddp.

All and all I have to say that the programs work well. I had trouble with one program, called up the company and one of the programmers talked me through changing the program to work. The programs come with instructions that are easy to read. I had no problems with any of their software.

Product Note: SmartSpeller by Al Taylor

I just received SmartSpeller from Adam World. It's a series of Basic programs. The DDP version must be very slow. I got the disk version which requires numerous switching of disks. I also encountered many misspelled words in the dictionary!! More on this later.

Product Review: Eve Sp-1 Interface by Joe Blenkle

Product: RS-232/Centronics Interface
Manufacturer: Eve Electronics Systems, 2 Vernon St., Suite 404, Framingham, MA 01701. Phone: (617) 653-3003

Requirements: ADAM, Disk Drive

Media: Software on Disk/Hardware

Warranty: 90 day

Price: \$139.00 plus \$6.00 shipping from Eve Electronics

Rating: 10

I can find no faults with using an EPSON printer that prints 10 times faster than Adam's own printer.

That's what the SP-1 Interface from Eve

Electronics allows you to do.

With it, you can hook up any parallel or even serial printer or modem to ADAM, eliminating the need for Adam's own noisy and slow (but lovable) printer.

The SP-1 hooks into the side expansion port of ADAM and is housed in a plastic box about 3 inches wide, by 6 inches long and two inches high. A printer cable runs from the box to your printer and plugs into its parallel or serial port.

Included with the SP-1 is a diskette with a number of utility programs on it. There are CP/M programs to initialize both the serial and parallel ports for modem and printer use and there are several Basic and machine language programs to allow you to use your "new" printer in Basic and with Smartwriter files.

The Basic initialization activates PR#2 and PR#3 with PR#2 being a parallel printer and PR#3 a serial printer. PR#1 remains Adam's printer, so conceivably you could have three printers hooked up at once and use them all.

SmartWriter files are printed through another Basic routine which prompts you for the name of the file, maximum number of characters on a line, lines per page, etc... The only drawback is that this routine won't recognize some of the printer codes used (underlining, super/subscripts, etc..) and leaves them out in printing.

Eve Electronics will specially configure your software for you to match your printer so that these features can be accommodated.

Needless to say, for the serious ADAMite, the SP-1 is a "must buy" item. It's really a pleasure to be able to print at 100 cps rather than Adam's 10.5 cps and I think the SP-1 rates a perfect 10.

Product Review: Eve Sp-1 Interface (9-2) by D. Sage

I wish I could share Joe's enthusiasm about this product. We all want to see such a product available and I like to see small companies such as Eve be successful. Unfortunately, we have had two SP-1's and have yet to get them to work with any of our printers. Hopefully, the people at EVE will be able to resolve this problem.

We tried the product with both an Expansion Model and a stand-alone ADAM. The SP-1 interfered with the video chip on the Expansion Model, causing it to produce random graphic characters rather than the normal screen. With the stand-alone ADAM, about all it did was to lock up the machine and leave a series of blinking characters mixed with the Basic text on the screen.

I am hoping to have all of these problems solved real soon. The Eve staff have been cooperative, but

I would suggest that you inform them of the printer you own and make sure that the SP-1 works with that printer before ordering one.

Since we don't have any serial printers, we were not able to test the serial interface on the SP-1. By next issue I hope to be able to make a recommendation on this product, one way or the other.

Product Review: The Secretary

by David Pelletier

Product: Word Processor

Manufacturer: Elliam Associates, 24000 Bessemer St., Woodland Hills, CA 91367. Phone: (818) 348- 4278

Media: Disk

Requirements: ADAM/Disk Drive, CP/M 2.2

Price: \$12.00 + shipping/handling from Elliam Assoc.

Rating: 10

The Secretary (public domain CP/M 2.2 program - SIG/M VOLUME 109) is a 'simple' word processing program that will give you features that SmartWriter can't for a very low price.

The User Manual is included on the disks that come from Elliam and can be printed out with the word processor or the Control P function.

The Secretary will: automatically center text, automatically underline, justify the right margin. The program allows you to 'chain' files together. In other words, it's possible to print a letter and have the program automatically get another file to print without you having to load it.

For the money, you can't beat it with a stick. I'd give it a 10 for ease of use and capabilities! The User Manual includes a section for the CP/M version and is very extensive. Definitely worth looking into for anyone who has need for a more complete word processor at a cheap price.

Product Review: Education Library

by Al Hill

Product: Education programs

Manufacturer: Davasan Software

Media: DDP

Requirements: ADAM

Warranty: 90 days

Price: \$39.95

Rating: 1

I ordered the data pack the first week of October 1984 and received it about six weeks later with a letter apologizing for the delay. Included was a coupon good for a 25% discount on any product ordered in the future.

The initial setup and loading instructions are adequate and easy to understand as are the instructions for the 15 individual programs. After loading Basic I tried inserting the Davasan tape, but the drive door would not close. I turned the tape over putting the blank side out and typed RUN MENU. The tape ran to the end and stopped. After several tries I decided that it must have been bulk loaded and inserted backwards.

I took the cassette apart, reversed the tape and tried again. It loaded. Luckily the tape was a Sony LNX90 that is screwed together. I wrote to Davasan explaining what I found and can only assume they started watching these problems as I did not receive a reply.

All fifteen programs were written for other computers and rewritten for ADAM. The programs are written into a larger program that allows one to return to the main menu by pressing CONTROL-C then RETURN. I will give a brief description of each.

Three Dimension Plotter plots graphs from formulas that can be modified or replaced by the operator. There is no provision in the program to return to the main menu.

Teacher asks a series of questions to which yes or no can be answered to determine the identity of an animal. Animals can be added to the file and the program can be changed to include different subjects.

Binary Search is a simple program that produces a random number between 1 and 100. You are given six chances to find it by setting lower and upper limits and adjusting them in response to program feedback. There was a typographical error in line 330 that doesn't affect the running of the program.

Bull-Cow allows you to select a five digit number and the computer also selects a number. You type in a five digit number and the response is the number of bulls (correct number, correct position) and cows (correct number). The program then prints a number and you enter it's score. Both myself and my daughter have written down the program's numbers and our responses numerous times and end up with the same response from the computer after it "thinks" long enough for us to eat-breakfast. It then responds: "YOU GAVE ME IMPOSSIBLE SCORES."

Civil War allows you to fight the major battles of the war all over again. It has been many years since I have studied the Civil War, so I cannot attest to the accuracy of the program. My daughter and her friends lost interest in the game quickly.

Depth Charge allows you to sink an enemy sub using three-dimensional coordinates. It is of passing interest.

Hamurabi gives you a chance to run a town and has 'cute' little statements in response to your inputs. I'm not sure how this ended up in an educational program.

Monster Speller presents a series of blanks for which you are to guess the word. A monster starts out of hiding as you miss letters. It doesn't look much like a monster and just about any version of hangman is much more educational and exciting. The only way to adjust for age levels is by changing data statements.

Math Dice shows two dice and you use the keyboard to input the correct number.

Cash Register asks for the cost of the item and the amount tendered and then lists the change due and the denominations. It is more educational to sit down with your child, some items, fake bills and some change and go through the process.

Adam's Newspaper asks for adjectives, adverbs, nouns, names, locations, liquids and items and creates a senseless story. The program won't tell you if your adjectives, adverbs or nouns are correct.

Rocket Pilot gives you control of fuel burn to safely land a damaged rocket. There are no graphics or need for a joystick. One would have to graph out each response to determine if the program works properly, but it does not hold the child's attention long enough to make it worth the effort.

Synonyms gives you a word and you type a word that you think means the same.

Trivia Quiz is exactly that.

Math Battle allows you to enter a number which the program changes to a new number. You enter a math function and you battle the computer to reach the number or a derivative of it.

I rated this a 1 for the following reasons: 1) A number of the programs are of little educational value without extensive modification. 2) There are a variety of programs in the public domain that are similar. 3) I have one data drive that is used exclusively and about six weeks ago this tape came partially off it's reel while loading a program. No other tape has done this before or since.

Product Review: Basic Game Library

by Donald Zimmerman

Product: Basic Programs

Manufacturer: Davasan

Media: Data Pack

Requirements: ADAM

Price: \$39.95 each

Rating: 6

The contents of this data pack are: Bowling, Star Trek, Hi-Q, Computer Stories, Escape, Tank Attack,

Empire, Checkers, Golf, Blackjack, Le Man's Road Race, Lunar Lander, Russian Roulette, Football and Poker.

None of these games uses high or low resolution graphics, but rather they display X's and O's to the text screen. If one were to take the time to add color to these programs, the graphics would look very nice.

Most of the games will ask text questions such as "A tank is approaching at 145 yards; what is the angle of your fire?" and respond something like "You missed by 50 yards; what is the angle of your fire?"

The football game has a nice "graphic" screen and you have many plays that you can choose from.

I rate Basic Game Library a "6" because I usually don't play computer games, but at \$1.77 per game these programs are a worthwhile addition to your library and are a must if you enjoy playing against ADAM.

Product Review: Household II Library

by Donald Zimmerman

Product: Basic Programs

Manufacturer: Davasan

Media: Data Pack

Requirements: ADAM

Price: See previous review

The contents of this data pack are: Sign Printer, Diamonds, Diet Minder, Your Birthday, Check Writer, Day of the Week, Days between Dates, Liquidity Ratio, Future Projections, Sort-A-List, Envelope Addresser, Program Merge, Earned Interest Table, Graph Plotter, and Federal Withholding Taxes.

What you use your ADAM for determines how you would rate each of Davasan's tapes, nevertheless there is enough on each of these two tapes (see proceeding review) to make them worthwhile for most ADAM users. I find Household II fits my needs more than Basic Games and would rate it higher based on my own needs.

I like the Sign Printer because it prints signs lengthwise on the paper and will produce large signs. It is slow because the printer prints in only one direction. The Check Printer and the Envelope Addresser have provisions for user modifications and have a real nice feature that will center the printhead to make it easy to put the check or envelope in the printer.

The Program Merge is a nice utility program that allows up to ten programs to be merged and allows the device to be selected for each merging program. The programs to be merged must have different line numbers. This must be done first using EBU or some other renumbering utility program. Some of Household II programs are amusing and most of

them are useful. I must rate it a 10 considering the number of programs on it and at a price of \$26.63.

While it is my opinion that neither of these tapes are worth \$39.95 by themselves, they are worthwhile when one considers they offer a third tape free with the purchase of two. This brings the cost of each tape down to \$26.63 each. When you consider that there are fifteen programs on each tape and the cost per program is \$1.77 each. If one buys these two tapes and chooses Writer's Assistant as the third free choice, the entire package must rate a 10 if Writer's Assistant can do one half as much as Davasan claims. I am glad Davasan is supporting the ADAM.

User Group News

I would like to thank all of the groups that have been sending us copies of their newsletters. We appreciate it and will try to provide more coverage of your activities in the future.

NATIONAL GROUPS

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

Adam Users Group, Inc.
P.O. Box P
Lynbrook, NY 11563

LOCAL GROUPS

Omaha Adam Users Club
Norman Castro
809 West 33rd Ave.
Bellevue, NE 68005
phone 402/291-4405

Metro Adam User's Group
Russell Williams
414 W. 149th St.
New York, NY 10031
ph. 212/208-0645

Bill & Nancy Rahn
12426-15th St. S.
Afton, MN 55001
ph. 612/436-6577

Adam Users of El Paso - Dick Lewin
6308 Falling Star
El Paso, TX 79912

Robert R. Marentes
9425 N. 38th Ave.
Phoenix, AZ 85021

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

The (717) Adam Users - Steve Chamberlain
120 E. 4th St.
Bloonsburg, PA 17815

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

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

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

Alan L. Taylor
612 7th Ave. NE
Stewartville, MN 55976
ph. 507/533-8415 after 6pm

Danny Levitt
4525 S. White Pine
Tucson, AZ 85730
ph. 602/790-9678

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

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

East Texas Adam Users
Jerry Pritchard
4105 Forrest Trail
Marshall, TX 75670

Robert Dunstan
95 Harland Crescent, Ajax, Ontario, Can.
L1S 1K2 - Compuserve ID#75026,3435

Dennis A. Jurewicz
4553 Forest Hill Dr.
Pekin, IL 61554

Derek Townsend
Box 820
Claresholm, Alberta, Canada T0L 0T0

Richard Bains
7210 Bulen Drive
Anchorage, AK 99507

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

Dave Sandahl
USNH, Box 2844
FPO Seattle, WA 98778

H.A.A.U.G. c/o Thomas Rutan
1805 14th Ave. N.
Texas City, TX 77590

Downtown Minneapolis AUG - Tom C. Gilmore
1424 West 33rd St.
Minneapolis, MN 55408

J.A. Girard
1420 Ave. Langevin Sud, Alma,
Quebec, Canada G8B 6B1

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

Mike Laurier
7350 Roi Rene
Anjou, Quebec, Canada H1K 3G6

Russell M. Clinton
Houston Users Group
8954 Shoreview Ln.
Humble, TX 77346

Al Roginski
4327 Thorndale Pl.
Las Vegas, NV 89103

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

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

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

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

Mr. G. Hibbert
P.O. Box 10
Mistatim, Saskatchewan, Canada S0E 1B0

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

Winnipeg ADAM Users Group
David Fordyce, Secretary
729 Government Avenue
Winnipeg, Manitoba R2K 1X5

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

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

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. My number is 70247,2466. Due to the ever growing number of games, we are now limiting the list to newer releases. A complete list can be obtained by sending a SASE to the above address.

| <u>GAME</u> | <u>PLAYER</u> | <u>LEVEL</u> | <u>SCORE</u> |
|--------------------|---------------|--------------|--------------|
| A.E. | Joe Blenkle | 1 | 60,400 |
| Antartic Adv. | Jeff Platt | - | 176,750 |
| B.C.'s Quest | Jeff Platt | 1 | 39,490 |
| Buck Rogers, Super | Jeff Platt | 4 | 10,167,642 |
| Centipede | Raymond So | 1 | 204,142 |

| <u>GAME</u> | <u>PLAYER</u> | <u>LEVEL</u> | <u>SCORE</u> |
|--------------------|-----------------|--------------|--------------|
| Choplifter | Joe Blenkle | 1 | 32 |
| Congo Bongo | Raymond So | 1 | 9,960 |
| Defender | Jeff Platt | - | 1,005,200 |
| Destructor | Jeff Platt | 1 | 316,620 |
| Diablo | Joe Blenkle | - | 452 |
| Donkey Kong, Super | Jeff Platt | 1 | 1,201,800 |
| DK Jr., Super | Jeff Platt | 4 | 481,300 |
| Dragonfire | Jeff Platt | - | 24,900 |
| Dragon's Lair | Alan Neeley | 4 | 87,000 |
| Dukes of Hazzard | Jeff Platt | 4 | 83,570 |
| Galaxian | Joe Blenkle | 1 | 9,950 |
| Gateway to Asphai | Wm. Summerville | - | 1,304,535 |
| Grog's Revenge | Joe Blenkle | 1 | 5,960 |
| Gust Buster | Jeff Platt | 4 | 122,090 |
| Gyruss | Wm. Summerville | 1 | 241,400 |
| Illusions | Joe Blenkle | 1 | 46,590 |
| James Bond 007 | Joe Blenkle | 1 | 57,550 |
| Jumpman Jr. | Jeff Platt | 3 | 1,055,175 |
| Montezuma's Rev. | Jeff Platt | - | 1,045,900 |
| Mountain King | Joe Blenkle | 3 | 125,360 |
| Oil's Well | Don Lager | - | 169,250 |
| Pitfall | Jeff Platt | - | 113,458 |
| Pitfall II | Joe Blenkle | - | 195,665 |
| Popeye | Jeff Platt | 1 | 166,540 |
| Q*Bert's Qubes | Joe Blenkle | 1 | 126,100 |
| Rock 'N Rope | Ms. Leclerc | 1 | 3,000,080 |
| Rolloverture | Jeff Platt | 1 | 42,300 |
| Sewer Sam | Scott Swenson | - | 15,799 |
| Slither | Don Lager | 1 | 164,895 |
| Spy Hunter | Raymond So | 1 | 153,935 |
| Squish 'Em | Jeff Platt | - | 53,620 |
| Star Trek | Alan Samuels | - | 287,925 |
| Tapper | Joe Blenkle | 1 | 182,375 |
| Tarzan | Joe Blenkle | 1 | 162,250 |
| War Games | Joe Blenkle | 6 | 274,260,000 |
| Wing War | Jeff Platt | - | 150,200 |
| Zaxxon, Super | Raymond So | 2 | 308,600 |

CP/M & ADAM

by D. Sage

This month's column consists of some excellent material submitted by two of our subscribers. John Moore sent in an article on patching CP/M and Dr. Jeffrey King sent in some general information about CP/M and sources of software. We really appreciate their support and hope you find the information they have provided useful.

CP/M Information & Sources

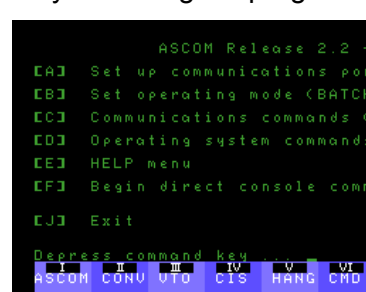
by Jeffrey King

For those of you interested in public domain CP/M software, there is already a source that carries such software in ADAM disk format. The best source for this is ELLIAM Associates, 24000 Besemer St., Woodland Hills, CA 91367. Their general catalog lists both proprietary and public domain CP/M software. All of their software is available in a wide variety of disk formats, including the ADAM SS/DD format. The general catalog is free but does not list the greater part of the public domain software that they have

available. A much more detailed catalog, listing thousands of programs on hundreds of disks is available for \$7.50. The cost per disk is fairly nominal. I think about \$10.00 per disk (their standard format is 8" disk, so a formula has to be applied to get the cost for a given size of 5 1/4" disk).

There are also a few CP/M programs available from Gordon Meyer's freeware exchange, "Do Not Stamp" Software, 2608 W. 6000 South, Roy, Utah 84067. These are only available on DDP.

Some further observations on ASCOM: this is a very well designed program that allows uploading and



downloading of files, as well as more advanced functions such as communicating with mainframe machines. There are some subtleties of using ASCOM that were not obvious from the manual. First, when

downloading files using the CPMUG protocol (equivalent to XMODEM or MODEM7), you must return to command mode after asking the system you are calling to download the file, and give the command "RECEIVE [filename]". This will initiate the downloading process and cause the file to be saved to disk under whatever filename you specify.

Another crucial peculiarity of ASCOM is what happens if you try to scroll across the screen while data is being received. If text is actively appearing on the screen when you use the control-arrow combination, the data will stop appearing on the screen, but will not stop being sent. The display will move back and forth and when you hit return it will dutifully begin writing out on the screen at whatever point the sending computer has reached in the meantime! Another case of "When will that 80-column card get here?" A way around this on most bulletin board systems is to halt transmission using Control-S, then use the arrow keys to scan back and forth. Then use Control-Q to restart transmission after you've read it all.

There are a couple of other tricks to using ASCOM that I have learned. The ADAM version of ASCOM has an "extra" command, "USER1", which will redial the last number dialed. Batch commands can also be used for automatic redial, but this provides a shortcut for less often used numbers. Another tip, which may not work on all BBS systems, is to use "Control-L" to do what "home" will do in ADAM-Link, i.e. clear the screen and return the cursor to the top.

Some general observations on ADAM CP/M: The

64K expander functions as an additional disk drive, which is designated as "M:". Of course, it will only hold 64K, but it is much faster than "real" disks. This may be useful when using a program or programs several times during the same session. By transferring a program to "M:", the loading time becomes essentially zero. For example the transient commands (PIP, STAT, SYSGEN, etc.) can be transferred to M: using PIP. When you want to run them, simply move to drive M:, and run the program. Programs that do a lot of read/write operations run a lot faster when residing in drive M, if the 64K allows enough working space. (Editor's note: Remember when you turn off ADAM anything stored in drive M will be lost, so you must copy anything you wish to save to another drive).

Rumors persist that the 80-column card will be out sometime this summer, along with an RS-232 port (see reviews and news elsewhere, ed.).

There is another source of public domain CP/M software that may be of interest. It is called the "Datacom Super System," and is located in Palm Harbor, Florida. The phone number is (813) 937-3608 or 937-6829. This is not a free system, but it promises to have a good and up-to-date selection of CP/M and MS-DOS software. As a non-member you can call to get a description of the system and an application form. They will also provide programs on disk, to avoid long distance charges.

There is a public domain BBS for CP/M software located in the Colton, California area. It is run by the Inland Empire Computer Group. The number is (714) 796-4745. It is a 300 or 1200 baud access, null parity, and access is free.

One last comment: It is really important to enter that Control-C every time you change disks in CP/M. Failure to do so can cause unpredictable damage to a disk when you next try to do any read/write operations. This can result in loss of files or damage to the directory.

Patching CP/M For ADAM by John Moore

The CP/M software for ADAM does not have a convenient way to patch the operating system. I don't know whether Coleco or Digital Research is responsible for this oversight, but since DR has provided the means to do this in every other implementation of CP/M I have seen, the evidence points to West Hartford!

This article will first show you how to modify the SYSGEN.COM file furnished with ADAM CP/M, to make other patches possible. As an example, I will provide instructions for inserting a patch which will



display the current user number immediately following the drive letter in the CP/M prompt.

For clarity, all output from the system will be capitalized. All of your

responses will be in lower case. [ret] means the RETURN key. Notice, you will ERASE your SYSGEN program during this example, as well as make changes to the Operating System itself. One typographical error can crash your system (or trash your disk or data pack). It is STRONGLY suggested that you perform these operations ONLY on a backup copy of CP/M!

```
A> ddt sysgen.com [ret]
DDT VERS 2.2
NEXT PC
0800 0100
-s125 [ret]
0125 C3 00 [ret]
0126 00 . [ret]
-s26d [ret]
026D 52 53 [ret]
026E 65 6b [ret]
026F 62 69 [ret]
0270 6F 70 [ret]
0271 6F 29 [ret]
0272 74 20 [ret]
0273 29 3f [ret]
0274 20 [ret]
0275 3F 20 [ret]
0276 20 . [ret]
-g0
A> era sysgen.com [ret]
A> save 8 sysgen.com [ret]
A>sysgen [ret]
SYSTEM GENERATOR
ENTER SOURCE DRIVE
(OR RETURN TO SKIP) ? a [ret]
```

(Notice that this line is what you have changed, adding the option to permit you to SKIP system generation - permitting the next section of SYSGEN to load whatever is in memory to the system tracks of your disk or datapack).

```
ENTER DESTINATION DRIVE
(OR RETURN TO REBOOT) ? [ret]
A>save 60 mycpm.com [ret]
A>ddt mycpm.com [ret]
```

```

DDT VERS 2.2
NEXT PC
3D00 0100
-s2a8e [ret]
2A8E 8C f0 [ret]
2A8F C4 d9 [ret]
2A90 3E . [ret]
-s3cf0 [ret]
3CF0 00 cd [ret]
3CF1 00 8c [ret]
3CF2 00 c4 [ret]
3CF3 00 cd [ret]
3CF4 00 13 [ret]
3CF5 00 c5 [ret]
3CF6 00 c6 [ret]
3CF7 00 90 [ret]
3CF8 00 27 [ret]
3CF9 00 ce [ret]
3CFA 00 40 [ret]
3CFB 00 27 [ret]
3CFC 00 c3 [ret]
3CFD 00 8c [ret]
3CFE 00 c4 [ret]
3CFF 00 . [ret]
-g0 [ret]
A>sysgen [ret]
SYSTEM GENERATOR
ENTER SOURCE DRIVE
(OR RETURN TO SKIP)? [ret]
ENTER DESTINATION DRIVE
(OR RETURN TO REBOOT)? a [ret]
ENTER DESTINATION DRIVE
(OR RETURN TO REBOOT)? [ret]

```

If you have typed the program in correctly ADAM will reboot and respond with the prompt "A0>" (assuming you are using the default drive in user area 0). Since there are 16 user areas, they will be displayed in hex (i.e. USER 15 would display as F).

What you have done is to use SYSGEN to read the operating system into memory. You then saved it and brought it back into memory under DDT, in order to modify it. You replaced a bit of code found 8C bits into the CCP which calls a routine which puts the prompt on the screen and substituted a call to a subroutine you placed in an unused part of high memory. Notice that the code you replaced in the system image in memory at 3CF1 is identical to the two bits you replaced starting at 2A8E. This means that the first thing that your subroutine does is to print the drive prompt. The extra code gets the user number, converts it to hex and prints it to the screen.

This is a small thing, but it means you will never have to run the STAT program to find out what user area you're in, and it demonstrates a method that can

be used for any patching you need to do to the operating system. It gets around a stumbling block deliberately placed in your way by some person or company unknown! (Editor's note: If only we had a commented listing of the bios).

Telecommunications by Joe Blenkle

Now that we've all explored CompuServe, it's time to move on to another aspect of using the ADAMLink modem with your ADAM.

There are probably a lot of local bulletin board systems in your area that you can access for free. The main question that comes to mind is, "How do I find them?" The answer is simple, visit a local computer shop.

Many computer shops have some kind of BBS list. All you need to obtain, in most cases, is one number, since most BBS' have lists of other BBS' in your area.

I started out this way, with one number, and now have a list of 20 or so BBS' I frequent on a regular basis in my area. A lot of BBS' have down/uploading capabilities, so if there are a number of ADAM users in your area this would be a convenient way of sharing programs.

If you're lucky and the BBS has the capability, you may be able to get the SYSOP to add an ADAM section. There are also a lot of CP/M oriented BBS' out there, so watch for these as a convenient source of downloadable CP/M programs.

OTHER NEWS: Hank Szretter of Eve Electronics says that his company can configure most CP/M programs to run on ADAM. This includes both public domain and commercial CP/M programs and communications programs such as MODEM7 and MITE. The cost depends on the program. For more information, call or write Eve Electronics, 2 Vernon St., Suite 404, Framingham, MA 01701, phone (617) 653-3003.

Inside ADAM by Derek Townsend

In this article I will try to tell you what the components are in ADAM. This will include a system layout and the specifications of some of the ROM chips.

The first part of the ADAM computer system is the Z80A microprocessor, the brain of the system. Also included are a "master" Motorola MC6801 single chip microcomputer as the network controller and three more of them for the digital data drive, keyboard and printer.

The MC6801's operate at a clock rate of 1 MHz. These chips are treated as separate self-contained

computer systems. The communicator is identified through the "master" controller in communication with each unit's National LM339 quad comparator used as a port controller. All of these microprocessors are controlled by the Z80A.

ADAM has 64K of user RAM plus 16K of video RAM. The word processor is contained on a 24K ROM chip and the operating system is 8K ROM. An extra 8K ROM is dedicated for peripheral control.

This all adds up to 80K RAM and 40K ROM. In addition you can add another 64K RAM in expansion slot number three inside of the memory console. Additional ROM can be added through the Colecovision cartridge port or one of the internal connectors.

The memory console contains the Z80A, two MC6801's, 80K RAM, and the word processor ROM as well as the operating system ROM. The ADAM actually has six expansion ports. The "ADAMNet", a 6-pin modular telephone plug; a sixty connector edge card expansion bus; three sockets inside the computer (one 44-pin and two 30 pin connectors) and the Colecovision cartridge slot.

File Handling Hints

by Daniel Uitti

One thing that seems to mystify many programmers is the physical process of storing and retrieving data from a disk or digital data pack. From an application's point of view, this should not be necessary to know. However, when it comes to applications that require access to data that is stored in a different format, this becomes most important.

On the ADAM computer, two file formats are made available to the most elementary users. These include files that are associated with SmartBasic and those of SmartWriter. These are designated in the catalog (or directory) listing of a data pack or disk as "A", "a", "H", or "h". The first two represent a SmartBasic file and it's immediate backup. Many programmers have noticed that both "A" and "H" files can be edited using SmartWriter, but that the "H" files are apparently inaccessible to SmartBasic programs. You may also have noticed that, if an "A" type file is edited in SmartWriter, it remains an "A" type file.

One technique to make data that originates from SmartWriter accessible to SmartBasic is to start with SmartBasic and create a dummy file. To create a file accessible to both, it must be an A type. You can create such a file using the following program:

```
10 REM A file creator
20 PRINT CHR$(4);"OPEN SAMPLE"
30 PRINT CHR$(4);"WRITE SAMPLE"
```

```
40 PRINT
50 PRINT CHR$(4);"CLOSE SAMPLE"
60 END
```

After running this program, the file name SAMPLE may be edited via SmartWriter to contain data readable by a SmartBasic program. If the sentences are too long, however, you cannot use the INPUT statement to input the data. In such a case you will have to use the GET statement.

Quite often a programmer wishes to get a nice printout of a long SmartBasic program. It would be great if you could get the printer to skip to the next page, instead of printing through the perforations of the fanfold paper. How about page numbering? The trick is to use SmartWriter. After you have SAVED the program, add the following lines. Be sure that these line numbers do not interfere with your program. Also, make sure that there is plenty of disk space.

```
1 GOTO 65000
65000 PRINT CHR$(4); "OPEN LISTFILE"
65010 PRINT CHR$(4); "WRITE LISTFILE"
65020 LIST 2, 64999
65030 PRINT CHR$(4); "CLOSE LISTFILE"
65040 END
```

Upon the successful completion of this program, the file named LISTFILE may be accessed for printing using SmartWRITER. I recommend the use of page numbering and setting the bottom of the page to 55, or some other length. One word of caution, however, do not attempt to load this printout version of your program. Long lines may be cutoff, causing them to not be loaded completely. Notice how much more disk or data pack space is taken up by this file. I usually keep an extra diskette around for this kind of temporary transfer. Deleted SmartBasic files often take up disk space, so an extra diskette or data pack containing only such temporary files may be re-initialized at any time. I also use this diskette when testing new creations.

The other file type is the binary data file, which is created through SmartBasic's BSAVE command. A fourth file type is the file that is loaded off of the primary drive when the computer is reset. For now, this file's format and access remains a mystery to me.

In my recent purchase of CP/M 2.2 for ADAM, I have found a new set of file types for the programmer to become accustomed to. The digital data pack and diskette format is completely different from that of the ADAM format. (Editor's note: Actually the formatting of ADAM CP/M and regular ADAM disks and data

packs is the same. The main difference lies in the location of the directory and the auto-boot locations). Special conversion programs are provided with CP/M to transfer files to and from this operating system.

CP/M To ADAM File Conversion

by Daniel A. Uitti

For those of you that have purchased CP/M for your ADAM computer system, I offer congratulations.

Your system has grown from a sophisticated toy to a professionally scaled computer program development tool. Many programmers will still desire a larger computer system for development, but now there are many tools available to the ADAM user.

Initially CP/M seems to cause ADAM users to become CP/M users. This is not an absolute. If you wish to use SmartWriter or SmartBasic to handle files that were created by a CP/M based program, the CPMADAM utility can transfer this data to an ADAM formatted digital data pack or diskette.

The ADAM utility will transfer data to CP/M from an ADAM format diskette or data pack. Two drives are highly desirable for this process, but are not absolutely necessary.

Several differences are encountered between CP/M files and ADAM files. In Appendix D of the CP/M manual is a program to filter files that have been transferred from the ADAM format. What are these fixes? The "H", or "h" files contain a header of control characters that are responsible for setting SmartWriter screen and text formatting characteristics. These are not needed for CP/M use, so these are deleted. ADAM format files do not contain a line-feed at the end of each line and these are inserted.

For those who wish to use SmartWriter, then transfer these files to CP/M, this filter program is a necessity. When transferring files from CP/M to ADAM, there is no filter program. The fixes required are as follows: Line-feed characters should be deleted. Tab characters should be converted to a specified column. A Control Z character indicates the end of file.

The following SmartBASIC program fixes a converted CP/M file to a SmartBasic or SmartWriter compatible file:

```

10  LOMEM :37550
15  base = 27500
20  PRINT "CP/M to Adam fix program"
30  PRINT "This program fixes files"
40  PRINT "transferred to ADAM from CP/M"
70  PRINT "Enter name of drive"
80  INPUT " Drive (d1,d5,d6)"; drive$

```

```

90  PRINT CHR$(4); "catalog,"; drive$
120 PRINT "Enter name of file just loaded"
130 PRINT "from CP/M"
140 INPUT " Filename: "; sfile$
150 PRINT "Enter name of new file"
160 INPUT " Filename: "; dfile$
170 maxln = 250
180 length = 10000
190 lastchr = 0
200 done = 0
210 bn = 0
220 GOSUB 2000
230 GOSUB 3000
235 PRINT "Block "; bn; " complete"
240 IF done <> 1 THEN 220
250 PRINT
260 PRINT "Conversion program is complete"
270 END
2000 REM read text block
2005 ONERR GOTO 2150
2010 adr = 0
2020 HTAB 1 : PRINT CHR$(4); "open "; sfile$
2030 HTAB 1: PRINT CHR$(4); "read "; sfile$
2040 GOSUB 7000
2050 GET a$
2060 IF a$ = CHR$(26) THEN done = 1
2070 POKE adr+base, ASC(a$)
2080 adr = adr+1
2085 If adr < length-maxln THEN 2090
2086 IF a$ = CHR$(13) THEN 2110
2090 If done = 1 THEN 2110
2100 IF adr <> length THEN 2050
2110 bn = bn+1
2120 lastchr = lastchr+adr
2125 blk = adr
2130 HTAB 1: PRINT CHR$(4); "close "; sfile$
2140 RETURN
2150 PRINT
2155 HTAB 1: PRINT CHR$(4); "close "; sfile$
2160 PRINT "Error occured accessing"
2170 PRINT " source file "; sfile$
2180 CLRERR
2190 END
3000 REM Write block routine
3005 ONERR GOTO 3200
3010 If bn <> 1 THEN 3050
3020 HTAB 1: PRINT CHR$(4); "open "; dfile$
3030 HTAB 1 : PRINT CHR$(4); "write "; dfile$
3040 GOTO 3060
3050 HTAB 1: PRINT CHR$(4); "append "; dfile$
3060 adr = 0
3070 a = PEEK(adr+base)
3080 IF a = 10 THEN count = 0: GOTO 3140
3090 IF a = 9 THEN GOSUB 6000: GOTO 3140

```

```

3100 IF a = 26 THEN 3160
3110 IF a = 13 THEN PRINT: count = 0: GOTO 3140
3120 PRINT CHR$(a);
3130 count = count+1
3140 adr = adr+1
3150 IF adr <> blk THEN 3070
3160 HTAB 1: PRINT CHR$(4); "close "; dfile$
3170 RETURN
3200 PRINT
3210 PRINT: PRINT CHR$(4); "close "; dfile$
3220 PRINT "Error occured accessing"
3230 PRINT " destination file "; dfile$
3240 CLRERR
3250 END
6000 PRINT " ";
6010 count = count+1
6020 IP count <> 8*INT(count/8) THEN 6000
6030 RETURN
7000 REM dump data block routine
7010 FOR db = lastchr TO 0 STEP -1
7020 GET a$
7030 NEXT db
7040 RETURN

```

Curves & More by Antoine Leclerc

I had been aware for some time that trigonometry was the approach to relatively easy programming of geometrical shapes. However, an old problem remained: math has always been like Chinese to me. I went back at it anyway and now tend to believe that if I had had a computer during my high school days, things might have been different and my marks in math higher.

To revive old memories for those who, like myself, have forgotten, SINE and COSINE are not only a way to plot curves, but they are basically a mathematical representation of the proportion of one side of a right triangle over another side. Look at a traditional round clock. Imagine that the longer hand of your clock is as long as the distance between the center of the dial and the dots marking the minutes. Imagine also that there always is a line reaching back from the end of that longer hand to touch at a right angle a vertical line traced between the center of the dial and the 12 hours mark. As the minutes pass, the end of the longer hand goes further and further apart from that vertical line and simultaneously lower and lower on the dial, drawing a perfect arc as it passes. Now picture that you are in fact looking at a right triangle standing up on an acute and created by the longer hand as hypotenuse, the vertical line between center and 12 hours as its basis and the imaginary perpendicular line between the end of the hand and

this vertical line as the third side of the triangle. If one can mark down for each minute the location of the end of this hypotenuse on the border of the dial, he can actually plot a circle. This is exactly what SINE and COSINE permit because they give you for each degree of the increasing angle between the base of the triangle and its hypotenuse, the proportion between the length of one of the other sides over that of the hypotenuse. Considering the hypotenuse here as the radius of the circle and knowing its length, we can thus measure for each angle, minute by minute, the length of the two other sides and so plot at their meeting end, a series of dots drawing a circle.

The following programs are based on this reasoning. "l" is the height of the vertical base of the triangle and identifies the row on the HGR grid; "c" is the length of the perpendicular side in relation to the right angle (or if you want the horizontal location of the end of the longer hand of the dock) and thus identifies the column on the HGR grid. "r" is the radius of the circle. A radius of 10 will give you a circle covering 20 frames high and wide. The programs thus allow for drawing a circle or dot of any desired size just by varying the radius. In theory, the only restriction comes from the video resolution and how frames are managed by the computer. As a result, any radius 10 or below will give you an imperfect circle.

The problem that remained was to find the right combination that would make ADAM plot the right number of dots on the screen. The number obviously had to grow according to the size of the circle if I wanted a full line marking on the screen or a full dot when the circle is filled (DOT program). This explains the strange looking line 45 which in fact goes for 6.30 radians (approx. $\pi * 2$) considering the fact the program actually plots 4 frames on each tap. This 4 plot technique allows for a much quicker drawing time.

The first two programs are almost the same. DOTS plots from one frame to the horizontal opposite. It draws simultaneously from the top down to the center and from the base up. The result is a filled circle. As for program 3, ELLIPSE (or flattened circle), you will notice that it is only a variation of the others based on the same principle, but using a different length for vertical and horizontal parameters, both still varying to the "curving" values of SINE and COSINE. By modifying this program the same way I did to go from CIRCLES to DOTS (bringing the coordinates from lines 85 and 97 to lines 80 and 86 respectively as in HPLOT ... TO ...), you obtain a filled ellipse or flattened dots.

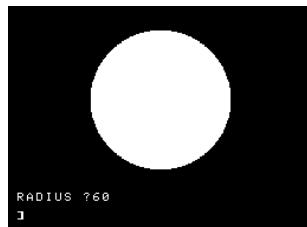
The fourth (TRUNCONES) program derives

directly from the third and draws cylinders as seen in perspective (or truncated cones) by drawing to a smaller ellipse, rows lower and proportionate to the main one (top of the cylinder) as measured by the length of the cylinder over the full length of a hypothetical cone that creates the illusion of perspective (lines 126-128). Lines 145 to 170 ensure that the computer will start drawing the lower ellipse only when it is far enough from the extreme sides of the rim of the main ellipse so as not to draw over its more centered portion.

In fact, there are but few limits to what can be done with this trigonometry approach and I gather that those who are more knowledgeable than I am could propose a lot more. Let's hear from them...the more technical or the more "romantique" as proposed by the fifth program (HEARTS).

DOTS

```
5 REM DOTS
6 REM by A.LECLERC
10 HOME
15 HGR
20 INPUT "RADIUS ?"; r
30 HCOLOR = 3
45 FOR d = 0 TO 1.6 STEP 1/r
50 c = INT(SIN(d)*r)
60 l = INT(COS(d)*r)
80 HPLOT 128+c, 80-l TO 128-c, 80-l
86 HPLOT 128+c, 80+l TO 128-c, 80+l
90 NEXT
```



ELLYPSES

```
5 REM ELLYPSES
6 REM by A.LECLERC
10 HOME
15 HGR
20 INPUT "WIDTH ?"; w
25 INPUT "HEIGHT ?"; h
30 HCOLOR=3
45 FOR d=0 TO 1 .64 STEP 1/((w+h)/2)
50 c=INT(SIN(d)*w/2)
60 l=INT(COS(d)*h/2)
80 HPLOT 128+c, 80-l
85 HPLOT 128-c, 80-l
86 HPLOT 128+c, 80+l
87 HPLOT 128-c, 80+l
90 NEXT
100 END
```



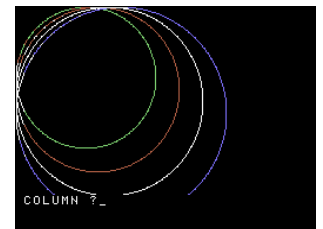
TRUNCONES

```
1 REM TRUNCONES
5 REM by A.Leclerc
10 HOME
```

```
20 HGR
30 INPUT "WIDTH ?"; w
33 VTAB 21 : HTAB 15
36 INPUT "HEIGHT ?"; h
40 VTAB 23
43 INPUT "COLUMN ?"; cl
48 VTAB 23: HTAB 15
50 INPUT "ROW ? "; li
60 HOME
70 INPUT "Length of cone ?"; hc
80 INPUT "Length of Trunc. Cone ?";ht
85 p=ht/hc
90 INPUT "COLOR ?";co
95 HCOLOR = co
96 HOME
100 FOR d=0 TO 1 .64 STEP 1/((w+h)/2)
110 c=INT(SIN(d)*w/2)
120 l=INT(COS(d)*h/2)
122 lc=hc+li
124 tc=ht+li
126 c2=INT(SIN(d)*((w/2)*(1-p)))
128 l2 =INT(COS(d)*((h/2)*(1-p)))
130 HPLOT cl+c, li-l
140 HPLOT cl-c, li-l
145 IF li+l>li+(h/2)-INT((h/(8*(h/lc)))) THEN 180
150 HPLOT cl+c, li+l
160 HPLOT cl-c, li+l
170 GOTO 200
180 HPLOT cl+c, li+l TO cl+c2, tc+l2
190 HPLOT cl-c, li+l TO cl-c2, tc+l2
200 NEXT
210 END
```

CIRCLES

```
5 REM CIRCLES
6 REM by A. LECLERC
10 HOME
15 HGR
16 FOR x=1 TO 8
17 INPUT "COLUMN ?"; co
18 INPUT "ROW ?";li
20 INPUT "RADIUS ?";r
25 INPUT "COLOR ?";y
30 HCOLOR=y
45 FOR d=0 TO 1.6 STEP 1/r
50 c=INT(SIN(d)*r)
60 l=INT(COS(d)*r)
70 HPLOT co+c, li-l
75 HPLOT co-c, li-l
80 HPLOT co+c, li+l
85 HPLOT co-c, li+l
90 NEXT
95 HOME
100 NEXT
```

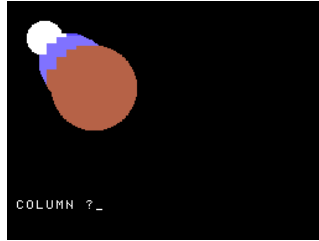


HEARTS

```

5  REM HEARTS
6  REM by A.LECLERC
10 HOME
15 HGR
16 FOR x = 1 TO 8
17 INPUT "COLUMN ?";
CO
18 INPUT "ROW?"; li
20 INPUT "SIZE ?"; s
25 INPUT "COLOR ?"; y
26 r = s/2
28 cr = r/2
30 HCOLOR = y
45 FOR d = 0 TO 1.65 STEP 1/r
50 c = INT(SIN(d)*r)
60 l = INT(COS(d)*r)
70 H PLOT co+c, li-l-(SIN(d)*cr) TO co+c,
li-(cr/4)+l-(SIN(d)*cr)
75 H PLOT co-c, li-l-(SIN(d)*cr) TO co-c,
li-(cr/4)+l-(SIN(d)*cr)
90 NEXT
95 HOME
100 NEXT
110 END

```



TO SAINT

```

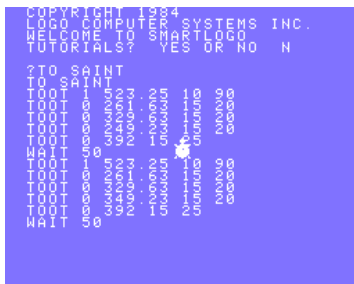
TO SAINT
TOOT 1 523.25 10 90
TOOT 0 261.63 15 20
TOOT 0 329.63 15 20
TOOT 0 349.23 15 20
TOOT 0 392 15 25
WAIT 50
TOOT 1 523.25 10 90
TOOT 0 261.63 15 20
TOOT 0 329.63 15 20
TOOT 0 349.23 15 20
TOOT 0 392 15 25
WAIT 50
TOOT 1 523.25 10 180
TOOT 0 261.63 15 20
TOOT 0 329.63 15 20
TOOT 0 349.23 15 20
TOOT 0 392 15 30
TOOT 0 329.63 15 30
TOOT 0 261.63 15 30
TOOT 0 329.63 15 30
TOOT 1 783.99 10 35
TOOT 0 293.66 15 35
WAIT 50
SAINT2
END

```

Logo Music by Steven Orr

I have recently discovered how easy it is to make music in LOGO. This article is accompanied by examples of two songs written in LOGO (When the Saints Go Marchin In and It's a Small World). Here is an example of a statement used to produce a middle 'c':

```
TOOT 0 523.25 15 100
```



The first number tells the computer which voice to use for the note. It can be 0, 1 or 2. The second number is the pitch. It can be input from 128 to 9999 (the LOGO manual gives you the numbers to use

for different notes). The third number is the volume. It can be entered from 0 to 15. The last number is the duration, which can range from 0 to 255. All three voices can be played at the same time, but a second TOOT command in the same voice will not start until the first one has finished. In my programs I use voice one for the background note and voice zero for each note.

TO SAINT2

```

TO SAINT2
TOOT 1 783.99 10 65
TOOT 0 329.63 15 20
WAIT 20
TOOT 0 329.63 15 20
TOOT 0 293.66 15 20
TOOT 1 523.25 10 110
TOOT 0 261.63 15 30
WAIT 30
TOOT 0 261.63 15 20
TOOT 0 329.63 15 30
TOOT 0 392 15 30
WAIT 30
TOOT 1 698.46 10 55
TOOT 0 392 15 20
TOOT 0 349.23 15 35
WAIT 50
TOOT 1 698.46 10 40
TOOT 0 329.63 15 20
TOOT 0 349.23 15 20
TOOT 1 523.25 10 105
TOOT 0 392 15 35
TOOT 0 329.63 15 35
TOOT 0 261.63 15 35
TOOT 1 783.99 10 35
TOOT 0 293.66 15 35
TOOT 1 523.25 10 40

```

TOOT 0 261 .63 15 40
END

TO WORLD

TOOT 0 329.63 15 22
TOOT 0 349.23 15 20
TOOT 1 261.63 10 150
TOOT 0 392 15 30
TOOT 0 659.26 15 30
TOOT 0 523.25 15 30
TOOT 0 587.33 15 20
TOOT 0 523.25 15 20
WAIT 20
TOOT 1 392 10 255
TOOT 0 523.25 15 30
TOOT 0 493.88 15 30
WAIT 30
TOOT 0 493.88 15 30
TOOT 0 293.66 15 20
TOOT 0 329.63 15 20
TOOT 0 349.23 15 30
TOOT 0 587.33 15 30
TOOT 0 493.88 15 30
TOOT 0 523.25 15 20
TOOT 0 493.88 15 20
WAIT 20
TOOT 1 261.63 10 90
TOOT 0 440 15 30
TOOT 0 392 15 30
WAIT 20
TOOT 0 392 15 30
TOOT 1 261.63 10 175
TOOT 0 329.63 15 20
TOOT 0 349.23 15 20
TOOT 0 392 15 30
TOOT 0 523.25 15 20
TOOT 0 587.33 15 20
TOOT 0 659.26 15 30
TOOT 0 587.33 15 20
TOOT 0 523.25 15 20
WAIT 20
TOOT 1 349.23 10 70
TOOT 0 440 15 30
TOOT 0 587.33 15 20
TOOT 0 659.26 15 20
WAIT 20
TOOT 1 293.66 10 70
TOOT 0 698.46 15 30
TOOT 0 659.26 15 20
TOOT 0 587.33 15 20
WAIT 20
TOOT 1 392 15 120
TOOT 0 392 15 30
TOOT 0 698.46 15 30

TOOT 0 659.26 15 30
TOOT 0 587.33 15 30
WAIT 20
TOOT 1 261.63 10 70
TOOT 0 523.25 15 70
END

Bulletin Board

■ The Toronto ADAM Net, Toronto's first BBS primarily for ADAM owners, is on the air. Phone 416/536-9381.

■ FlipTrack Learning Systems, 999 Main, Suite 200, Glen Ellyn, IL 60137, ph. 312/790-1117, has a computer learning course for the ADAM. Contact them for more information.

■ There is a new source of FREEWARE. The Holy City AUG is asking those interested in a low resolution graphics screen contest using their freeware program SCRIBBLEN to send a SASE and one dollar.

The SCRIBBLEN program has the ability to save a low resolution screen from any program. Get a copy with contest proposal rules and sample screens directly on data pack or disk.

Send a DDP or Disk and \$5.00 or send \$10.00 and specify the media to Holy City AUG. c/o Dan Pease, 12 Budds Ave., Charleston Heights, SC 29405.

■ R.A. Software/FREEWARE, Brentwood Baptist Church, Gordon at Peacock, Charleston Heights, SC 29405, has available programs and games with the element of religion either mentioned or as a main theme of the program. For info send a SASE.

■ Craig Emmitt wants to hear from other ADAM owners, Route 3, Box 215, Smiths Grove, KY 42171, ph. 502/678-4931, CompuServe ID #72257,2121.

■ Steve Orr, 7923 56th Drive NE, Marysville, WA 98270 wants to hear from other ADAM owners in his area.

■ There is a new ADAM SIG on a BBS in OHIO. Call 216/284-9081 and notify the Sysop and tell him you own an ADAM. Up/Download will be started if enough calls are received. Steel City BBS, Mike Mitock-Sysop, 7:00 pm to 7:00 am, seven days a week.

■ A tip from R. Olsen: when printing AdamCalc files in AdamCalc check out the third set of SmartKeys.

They are normally set to print Row & Column numbers. Try pressing them to make better documents.

■ Tips from Sharon McFarlane: all versions of SmartFiler up to and including Revision 21 are full of bugs. Revision 25 7/23/84 is the one that works correctly, but is hard to find.

Afterthoughts by D. Sage

Every issue I find myself forced to decide what to include and what to leave out. I wish I could include everything, but some materials are redundant. We still get programs adapted from other publications which we cannot use without consent of the publication and the original author. This is unfortunate since some of you have spent a great deal of time adapting these programs to run on the ADAM. Remember if it appears in print, it is copyrighted.

I have received a great deal of software to review and have not been able to get to it yet. Next issue we will catch up on reviews, both those you have written and those I have yet to do. This month's issue has had an emphasis on CP/M. Many of you seem to be interested in this area and we will continue to try to do justice to that subject.

Recent changes in my career will make it possible for me to spend more time on ECN and software development for the ADAM. Over the next two issues I plan on speeding up the publication schedule considerably. I also plan on finishing some of the

Join the leading ADAM users' group

#1 ADAM USERS' GROUP

Receive "SPRITE CHASER" newsletter. Advanced updating, evaluations on programs and hardware, technical information direct from Coleco.

Problem solving - program exchange - discount buying service - etc..

Send \$15 for membership to:

#1 ADAM USERS' GROUP

P.O. Box 3761 - Attn: Jay Forman
Cherry Hill, NJ 08034

(609) 667-2526 * VISA/MASTER-ADD \$1

software I have had in progress and hope to announce a number of items by the next issue.

The Glitches column was dropped this time, due to a lack of material. What we had was combined with the Bulletin Board.

Again I would like to apologize to those of you who have sent us software to review. We will get to it, but everything takes time.

Remember to check your renewal dates so you won't miss any issues.

COLECO ADAM OUTLET

Data Pack (Pre/Formatted Adam) \$3.95
Data Pack (Pre/Formatted) w/o label 10/\$37.50
Disks (blank for ADAM) 10/\$19.95
Disks (blank for ADAM) 30/\$49.50
Ribbon Cart. (ADAM Printer) \$5.50
Ribbon Cart. (ADAM Printer) 3/\$15.00
Daisy Wheel-Elite, Script etc. \$5.50
Covers (3) Key,CPU,Printer \$18.95
Labels T/F-F/F (Address) 1000/\$5.00
Labels T/F-F/F (Data Pack) 100/\$5.00
Printer Stand - Front ON/OFF switch \$22.95
Tractor Feed - For all fanfold paper & labels \$79.95

FREE CATALOG - everything for ADAM

PACKCOPY - Make backup copies of SmartBASIC, etc. \$29.95
POWERPRINT - Right justification-Auto center, etc. \$24.95
EBU - SmartBasic - Data or Disk. Sound, renumber \$21.95
THE STOCK MARKET GAME - A fun & educational \$24.95
BLACK GOLD - Look for oil. Survey-profits-fun \$24.95
DIABLO - Great mind challenge - All graphic \$24.95
MORSE CODE - Learn & practice \$19.95
BOUNTY HUNTER - Text adventure \$24.95
A HACKER'S GUIDE TO ADAM - Includes DP &book. Internal workings hardware & software programs. Cartridge copy. Sprite editor, Font editor & much more \$17.95
SmartSPELLER - Electronic dictionary locates & checks misspelled words & much more. Specific DP or disk \$39.95
FastFILER - Generate maillists, etc. Sorts & look up in seconds. This is a complete Data Base System. Printing either mailing lists or customized report format \$24.95
ADAM ENTERTAINER - Book (sound, graphics programs) \$12.95
ADAM'S COMPANION - Book (updated) \$9.95
LEARNING TOGETHER WITH ADAM - Book includes LOGO \$9.95
CHARTS & GRAPH ASSEMBLER - Auto-proportions input, Create pie charts, bar graphics, and line graphs, etc. \$24.95
BUSINESS - A complete set of 5 business programs \$89.00

Shipping & Handling \$2.50 US / \$4.50 CN
VISA/MASTERCARD
WE STOCK WHAT WE SELL
FOR FAST DELIVERY

M.W. Ruth Co. Dept. A85
510 Rhode Island Avenue
Cherry Hill, NJ 08002
(609) 667-2526



DISCOUNT HOME COMPUTER SUPPLIER
 1671 EAST 16th St., Suite 146 BROOKLYN, NY 11229

ALPHA-ONE is a leader in the supply of ADAM software and hardware. We carry a complete line of ADAM software and hardware at discounted prices. We would like the readers of ECN to try our mail-order service, and so we have decided to lower our prices even lower than our everyday low prices. We are making this limited time offer to ECN readers only, because we are sure that once you try our service you will become one of the many satisfied repeat customers of ALPHA-ONE. These prices are in effect till Sept. 1, 1985 and only to ECN members.

COMPUTER PERIPHERALS FOR THE ADAM

| | |
|-----------------------------------|-------|
| ADAM 5 1/4 DISK DRIVE | \$189 |
| ADAMLINK Modem | \$94 |
| ADAM 64K Memory Expander | \$99 |
| Extra Digital Data Drive | \$97 |
| Address Book & Autodialer | \$29 |
| Adjustable Tractor Feed | \$80 |
| (Available approximately July 15) | |

COMPUTER SUPPLIES FOR THE ADAM

| | |
|--|-------------|
| Daisy Wheels-Pica 10, Courier 10, Emphasis, Courier 72 | EACH \$5.00 |
| Loran Digital Data Pack | \$5.00 |
| Printer Ribbon for ADAM | \$5.00 |
| Dust Cover for ADAM | \$18.50 |
| (Vinyl brown 3 piece-CPU,KYBD,PRT) | |
| ADAM Accessory Kit | \$29.00 |
| Maxell 5 1/4 SS/DD Disks (10) | \$18.00 |
| Memorex 5 1/4 SS/DD Disks (10) | \$19.00 |
| ADAM Monitor Cable | \$8.50 |
| Compuserve Starter Kit | \$21.00 |
| Disk Storage holds 50 5 1/4 disks | \$11.00 |
| Disk Storage holds 10 5 1/4 disks | \$4.50 |

VICTORY SOFTWARE FOR THE ADAM

| | |
|--|------------|
| Adventure Pack I (DP, Disk) | \$21.00 |
| Adventure Pack II (DP, Disk) | \$21.00 |
| Bounty Hunter (DP, Disk) | \$21.00 |
| Savings & Loan (DP, Disk) | \$18.00 |
| TREK (DP, DISK) space adventure | \$21.00 |
| Strategy Pack I (DP, Disk) | \$15.00 |
| Games Pack I (DP, Disk) | \$15.00 |
| Compatible Pre-formatted Blank Data Packs by VICTORY. Special Sale Price | \$2.75 ea. |

COLECOVISION CARTRIDGES FOR ADAM

War Games, Tarzan, Star Trek, Brain Strainers, Smurf Paint & Play, Telly Turtle, Dr. Seuss Fix-Up Puzzler, Monkey Academy, Choplifter, Fortune Builder, Root Beer Tapper, Spy Hunter, 2010, Cabbage Patch Kids Picture Show, Illusions, Dam Busters (flight simulator). SPECIAL PRICE: \$19 ea. Antarctic Adventure, Burger Time, Sub Roc, Roc-N-Rope, Rocky, Gorf. SPECIAL PRICE: \$15 ea.

SUNRISE SOFTWARE FOR ADAM

| | |
|---|---------|
| Gust Buster (DP, Disk) arcade action | \$15.00 |
| Rolloverture (DP, Disk) music education | \$15.00 |
| Quest For Quintana Roo (DP, Disk) | \$15.00 |
| Mountain King (DP, Disk) sensory strat. | \$15.00 |

32 BASIC PROGRAMS FOR THE ADAM

| | |
|------------------------|---------|
| Book/Data Pack Package | \$36.00 |
| by Dilithium Press | |

COLECO SOFTWARE FOR THE ADAM

| | |
|--|------|
| CP/M 2.2 & assembler (DP, Disk) | \$47 |
| ADAMCALC (DP) spreadsheet program | \$39 |
| SMART LOGO (DP) | \$47 |
| SMART FILER (DP, Disk) | \$19 |
| EXPERTYPE (DP, Disk) | \$35 |
| SMART LETTERS & FORMS (DP, Disk) | \$25 |
| DONKEY KONG (DP) | \$18 |
| DONKEY KONG JR. (DP) | \$18 |
| SUPER ZAXXON (DP) | \$18 |
| DRAGON'S LAIR (DP, Disk) | \$19 |
| ELECTRONIC FLASHCARD MAKER (DP) | \$18 |
| * FLASH FACTS-TRIVIA (DP) | \$10 |
| * FLASH FACTS-VOCABULATOR (DP) | \$10 |
| * FLASH FACTS-AMER. HISTORY (DP) | \$10 |
| ELECTRONIC WORD BOOK (DP) | \$18 |
| RECIPE FILER (DP, DISK) | \$19 |
| WACKY WORD GAMES (DP) | \$17 |
| (Word Processing Game) | |
| BEST OF BRODERBUND (DP) | \$19 |
| (Choplifter, AE) | |
| FAMILY FEUD (DP) | \$19 |
| JEOPARDY (DP) | \$19 |
| BEST OF ELECTRONIC ARTS (DP) | \$19 |
| (Hard Hat Mack, Pinball Construction) | |
| 2010 (DP, Disk) | \$19 |
| (space text adventure) | |
| * NOTE: FLASH FACTS REQUIRES ELECTRONIC FLASHCARD MAKER. | |

PARALLEL SYSTEMS SOFTWARE

| |
|------------------------------|
| HOME BUDGET PLANNING (DP) |
| PERSONAL CHECKBOOK MGR. (DP) |

| |
|--------------------------------|
| HOME FILES MANAGER (DP) |
| STATES & CAPITALS GAME (DP) |
| WORLD CAPITALS GAME (DP) |
| GREAT INVENTIONS GAME (DP) |
| PARTY TRIVIA (DP) |
| SPECIAL SALE PRICE...\$10 EACH |

SUPER SKETCH by PERSONAL PERIPHERALS

Includes a Controller Pad and Sketch Master software cartridge compatible with ADAM. \$29.00

PERSONAL ACCOUNTANT by SOFTSYNC INC.

Compiles financial reports, large data base, breaks down expenses, amortization, payment schedules (DDP) \$29.00

MARTIN CONSULTIN SOFTWARE

SMARTBASIC BONANZA: 15 programs, including Othello, Design, Filer, Dissassembler, Labels, Miniassembler, Magic, Finance, Tennis etc. On Digital Data Pack \$29.00
 FANTASY GAMER: 3 big programs, 2 adventures with graphics plus Adventure Creator. On Data Pack \$29.00

STRATEGIC SOFTWARE

SmartSPELLER (DP, Disk) - SmartSPELLER has a built-in electronic dictionary containing many of the most commonly used words in the English language. It has an automatic spelling, typographical error detection and correction system for SmartWRITER documents.....\$39.00

DataCALC (DP) - An electronic spradsheet that also keeps track of names, addresses, phone #'s, expenses, inventories and investments. File may contain up to 21 columns and 60 rows giving you more than 1200 storage cells.....\$24.00

FastFILER (DP) - A complete file management system. Program is perfect for mail lists, inventory control and hundreds of other different tasks...\$24.00

POWERPRINT (DP) - (Available around August 15) This is the most powerful printing enhancement program developed for the ADAM. Write for more info!.....\$24.00

FOR MORE INFORMATION OR TO BE INCLUDED ON OUR MAILING LIST SEND A SELF-ADDRESSED STAMPED BUSINESS SIZE ENVELOPE TO THE ABOVE ADDRESS. THANK YOU!

ORDERING & TERMS: Send cashier's check, money order, personal or company check. Orders shipped within the continental USA add \$1.50 per order for shipping charges. All others add 5% of total order (minimum \$3.50) for shipping charges. NY State residents must add sales tax. COD orders phone 718-336-7612. Orders shipped in 48 hours if in stock.

UNREAL SOFTWARE COMPANY PRESENTS

PACKCOPY
Version 1.1

Copyright 1984-85 Sage Enterprises
All Rights Reserved

For use on the ADAM Computer

* * * * *

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

Make backup copies of Basic (now includes program autoboot from disk copies), SmartFiler files, Super Games (even the short Super Game tapes).

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

ADAM, SmartFiler, Super Game, and Coleco are all trademarks of Coleco Industries, Inc.

COMING SOON!

CONVERT

Copyright 1985 Sage Enterprises
All Rights Reserved

Unreal Software presents another breakthrough in
software for: the ADAM Family Computer System

NOW your ADAM can read non-ADAM CP/M formats

CONVERT allows you to copy non-ADAM CP/M disks to Adam format, giving
you access to data and programs that may not be available in Adam CP/M format.

Convert accesses: Zenith 100 CPM-85 SSDD disks
IBM PC CPM-86 SSDD disks
TRS80 CPM+ SSDD disks

AVAILABLE IN AUGUST

System Requirements: Adam with at least one digital data drive and at least one ADAM disk
drive, CPM 2.2 and SmartBASIC.

CONVERT will be available on disk or data pack for \$34.95 plus \$2.00 shipping from Sage
Enterprises, Rt. 2, Box 211, Russellville, MO 65074. Send check or money order ONLY - no
COD's or charges.

CP/M is a trademark of Digital Research; ADAM & SmartBasic are trademarks of Coleco
Industries; Zenith 100 is a trademark of Zenith Data Systems; IBM is a trademark of
International Business Machines; and TRS80 is a trademark of Tandy Corp.

* Not all CP/M programs are compatible with ADAM and some programs may require
modification to run with the ADAM.

ChALLENGE WARE™

ANY TWO PROGRAMS FOR THE PRICE OF ONE!!

CHOOSE FROM THESE EXCITING AND USEFUL PROGRAMS! ALL NEW!!

- RESUME - Instant personalized resume.
- DATAKEEPER - A versatile data base.
- CASTLE OF DOOM - Medieval adventure.
- DRAGON'S CAVERN - Fantasy graphics game using great sprinte characters!
- KEYMAN - (LOGO NEEDED) For kids (6-12)
- APPIAN WAY - (LOGO NEEDED) Keep your chariot on the road to adventure!

List your two selections and send check or money order for \$19.95 to:

CHALLENGE WARE™
1017 Brewster Court
Grafton, Ohio 44044
(216) 926-2671