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THE AWAUG NEWSLETTER

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ADAM WASHINGTON AREA USER'S GROUP

Vol. 5, No. 5 October 1989

The Presidents Corner

We are all anxiously awaiting word on the new hardware and software that (we hope) will be unveiled at the ADAM Convention in Orlando, Florida. As I write this, the Convention is in it's third day of a four-day run. Mark Gordon and Shon McCallum of AWAUG are in attendance.

In the meantime, I want to provide updated information on the use of a long distance telecommunications service called Starlink. As previously reported, AWAUG and many other ADAM User Groups are using the Starlink service to exchange messages between ADAM users and to share "Bulletin" information. The service uses TYMNET data lines and offers discount prices to personal computer users who have telephone modems. Their rate is $10.00 per month plus $1.50 per hour of use between the hours of 8 pm and 6 am. Calls outside of those hours are billed at substantially higher rates. The service is working well and has enabled us to create the ADAM BBS Network that we wrote about in the last Newsletter. On a larger scale it makes available to us "home computer users", an emerging nationwide communications media which has been growing steadily during the 1980's among business and government institutions.

Don't get me wrong. This is not for every computer user (or for voice transmission for that matter). But if you are interested in expanding the use of your ADAM and would like to contact other ADAM users, download public domain software for your ADAM and/or keep up with whats new and what is for sale and where, call Starlink on 505-881-6988. If you need a modem, AWAUG has a special project that provides members with a 1200 Baud modem, including serial interface and the cable and software to operate it on your ADAM, all for $60.00 plus shipping (it does require you to have the CP/M 2.2 operating system - which is available from Shon McCallum of AWAUG). Call or write to me if you are interested: Bob Blair, 703-971-6465, 7814 Worthing Court, Alexandria, VA. 22310

Now some bad news: We were using the PC Pursuit service (TELENET, with a flat fee of $30.00 per month for up to 30 hours) before cancelling to switch to Starlink in early July,

1989. Since then, despite repeated telephone calls and broken promises, they have been charging our credit card account $30.00 per month. Other former users report the same. Forewarned is forearmed.

Bob Blair

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Editor's Note

This edition of our newsletter contains a lot of good and interesting information. Our club president, Bob Blair, suggested that the inclusion of the bulletin from the AWAUG BBS would be worthwhile. After giving the matter some thought, I decided he was right. Although our BBS is very active (see Bob's article on page 20), a large number of our members are not users of our BBS (or any BBS, for that matter). The information contained in the bulletin is for all, not just BBS users, so I decided to publish the entire bulletin.

The second installment of the JKL series from Tom Keene of the Inland Empire Adam User's Group is included. The JKL Utilities are one of the most useful utilities available for our Adam and Tom's articles wil help us get the most from them.

We've got inputs from Ron Collins and BJ who always write informative, easy-to-read articles. Jay Bolton came through with an easy procedure for setting timing on the Falco terminals and even retyped Appendix D of the Falco manual so it could be included for easy reference.

I was particularly interested in Mark Gordon's description of how Powermate got started. His article was orginally a file he had posted on the BBS in response to several questions about his efforts with Powermate. I liked it and decided to publish it (I'm always on the lookout for publishable material). JM

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ADVERTISE

IN THE AWAUG

NEWSLETTER!

The AWAUG newsletter accepts advertising for publication. We believe that advertisements help ADAM owners to know what is available and, therefore, that they are a good service. In keeping with this notion, our rates are very competitive. Because it is to everyone's advantage to encourage enrollment in our club, we offer a discount to members who wish to advertise.

At present, our membership stands at just under 100 ADAM owners, so your advertising will reach a significant number of very interested people. Rates are as follows:

SIZE	Non-member	Member
Full page	$9.50	$6.35
Half page	$6.00	$4.00
Quarter page	$3.00	$2.00
Column inch	$1.00	$ .65

A column inch is 38 characters wide and 5 lines high. For each consecutive column inch, add one line.

Advertising may be for any legal goods or services. Material may be submitted in any intelligible form, from camera ready artwork to telephone orders voice, or by data transmission via the club's BBS, telephone (703) 922-5497.

To make inquiries or place an ad, call or write:

Jack MacKenn (703) 371-7548
415 Camden Drive
Falmouth, VA 22405

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LATE FLASH!!!

See Mark Gordon's fantastic article about the first Adam convention starting on page twelve.

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MEMORY, MEMORY and MORE MEMORY!!!

A review of the state of the art in ADAM capabilities.

By Ron Collins President N.O.A.H.

Well, I guess it's evident by now that our little computer isn't quite so "little" after all! So many have referred to it as an "orphan" (with limited days to it's demise) that some may have given up on the ADAM and moved on to other systems! Jim Clements of CANADA has proposed a new identifier for our system that I find more flattering. He points out that we are now in possession of, not an "orphan" but a "classic"! With this in mind, let me review a bit more of our current "state of the art" in memory and program storage hardware. I think you'll find our ADAM is a match for the "big boys" now.

MEMORY EXPANSON BOARD: A device used for storing programs or expanding available workspace. -Generally a temporary facility.-

There are 3 types of memory expansion units currently available. The original Coleco 64K memory expander, the Orphanware/ CL Digital 64K to 1024K memory expansion units and the new E.& T. 256K to 1024K memory expansion units. All are quite usefull considering the high powered software currently available to ADAM owners. Many programs require at least the 64K expander in order to operate at all. Programs such as PowerPaint, Go-Dos and SpeedyWrite 2.0 fall into this category. Programs such as Smart-Disk, SwiftDisk, Quickopy 4.0 and others use it as an expanded copy buffer. Quickopy 4.0 and RAMDISK, a package created by Glen Gabarik will also use it as a high speed RAMDISK to allow programs to be copied to the memory expander and then booted or copied from it.

All three types of expander work toward the same goal and are therefore software compatible. They are, however, different in the technology that makes them operate. The original Coleco boards were limited to 64K and could never be increased to a larger size. John Lingrel of Orphanware first addressed this problem by creating, first a 64K design with replaceable memory chips, and then later by adapting his design to allow plug in memory expansion. Just by adding a few more chips to the board, your MXE unit could be boosted up to 256K of memory/storage! If you wanted 512K or more, you could send the board back to John for a hardware modification. Now that the cost of the 4464 memory chips are back to an affordable cost level, this is still far and away the most cost effective version of the memory device.

The easiest to upgrade and most "state of the art" memory expander currently available is the E.& T. memory expander. It's use of "sims" (a plug in curcuit board containing 256K RAM) makes upgrading from smaller to larger sizes as simple as plugging in a new module. The boards are distributed as 256K expanders but can be increased in capacity by simply plugging in another 256K "sim" for 512K of storage. Two more "sims" will put you at 1024K! There are only two drawbacks to the new board. One is the availability of "sims" at a competitive price (1 256K sim is priced at about $80. The 8 4464's needed to accomplish the same on an Orphanware board would be about $60 at current rates). The second drawback is that to get anything larger than 64K on either the Orphanware or the E.& T. boards require the use of an addresser or PIA2 board to furnish the extra signal line required by our ADAM. These are only available from Orphanware at this time, but E.& T. has announced plans on releasing their own in the near future.

BATTERY BACKED UP RAM!: An addition to the memory boards to make near permanent program storage

possible on the RAMDISK!

Both John Lingrel and Ed Jenkins have announced plans on a hardware modification to these memory expansion cards to allow you to store software to the memory card, turn off your ADAM and then, later, to power up the unit and still have your programs in memory...waiting for you to use them! That's really a usefull idea if you think about it. Just imagine storing your favorite SmartBASIC programs or utilities on the RAMDISK, and have them always available for instant access! No more the long minutes of waiting for them to copy from disk..only to loose them when the power goes off. Let's face it... power failures DO occur occasionally.....and this could well save you HOURS of work!

As good as it sounds, their is a problem with this concept. The ADAM EOS is operated from what are known as "system ROM's". These ROMs tell our ADAM to do certain things and to look certain places when the computer is first powered up. One of these things is to have the system query each of the devices connected to the ADAM net. An initialization process is carried out and then the system comes up recognizing your many hardware devices. This process is what makes it necessary for you to remove your disks or data packs from the computer at start up. Failure to do so could easily wipe out essential data on the media. Guess what that same routine would do to your carefully copied files on a battery backed up RAMDISK? You guessed it! BY BY to software! The programs really would be saved and protected by the battery backup device only if those system ROMs were replaced. John Lingrel's device will work on ANY expander of the normal variety and is installable by the consumer on even the original Coleco boards. Ed Jenkins's device will work on this new variety of memory expander so you won't loose the ability once you get it working....no mater WHO's board you own. The big obstacle here is that the system ROM will go out, find the big RAMDISK and INITIALIZE it! The only way to overcome this is to rewrite the system ROM so that this won't happen...but how many are willing to tear into the CPU to replace a chip and then put it back together? My system uses this now and isn't effected by the init process because my system ROM has already been replaced by one designed by Tony Morehen.

From the standpoint of the hard core ADAM user, I would say the best size device would be dependent upon your disk drive size. I use my Hard Disk for program storage, so a really large memory expander just isn't needed for most things. The time when I get the MOST use out of it is in the creation of backup disks for my 720K disk drives. I have a 512K device, so to copy 720K takes me two passes using Quickopy 4.0. Using the 768K E.& T. option would save me a great deal of time. The copy could be made in one pass on each disk. This should give you an idea of what I was telling you about. On a similar note, if you only have 160K disk drives, then you only need the 256K options. Anything more would really be a waste of money. If an increase in program storage is what you require, let me recommend a hard disk. They are now available for use on an ADAM and are the most cost effective method of storage currently available. The hard disk can be added to your ADAM in sizes ranging from 5 Meg up to 80 Meg with special software. The nice thing about the device is that it cost's little more than a 720K disk drive! The cost will of course vary depending upon what size device you choose. The operating speed is almost equal to the RAMDISK and is truly a form of permanent data storage.

Overall, I think the various vendors are making our little "classic" an even better machine than Coleco

engineers ever thought possible. We owe it to ourselves to distribute news of any and all hardware or software items available regardless of who carries or creates it. User's groups are here to help the uninformed learn of what they can get for or from the ADAM. To limit that information in any capacity is a disservice to the membership the group represents. Please pass the word! If you read this article and don't see similar information in YOUR local user's group newsletter, please give them a call and ask them to explain WHY they are not doing their job and are restricting news of what is available!

* Ron *

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POWERMATE
Background & Information
by Mark Gordon

I developed the hard disk interface in response to the urging of my teenage son. He bought an Adam computer several years ago when he decided that he wasn't satisfied using our PC computer for his purposes - it didn't have enough games for him. After using the Adam for a while, he concluded that the tape system wasn't fast enough for him and bought a floppy disk. It didn't take him long after that to realize that there were faster storage peripherals available for other computers - so why not for the Adam?

He had been briefly involved with AWAUG several years ago but didn't join because he didn't drive and I wasn't crazy about driving him. Finally, after a significant amount of coercing from him, I agreed to develop a hard disk drive add-on product for the Adam. I began designing the hard disk interface for him this last spring. We didn't know about any other hard disk interfaces until just recently when we discovered that BJ (Big John Lingrel) was developing one. By that time, I had the wire wrap version up and running. When I found out about it, I felt that I had too much time and effort invested to abandon the project. So we decided to proceed.

One of the things that Scott didn't like about the design I had developed was that it occupied the center expansion slot in the Adam. He had a parallel printer interface in that slot and didn't want to give it up. So I agreed to put a printer interface on the board so he wouldn't have to. He was also not enthralled with the underwhelming performance of his internal 300 baud Adam modem and asked for an RS-232 port to control an external modem. Okay, I said, I'll see if I can fit a serial port on the interface board also. We had all of that up and running in wire-wrap form when we went to the AWAUG meeting that BJ attended. Not knowing how BJ would respond to a potential competitor, we decided not to mention the product to him.

However, at that meeting we discovered that most of the Adam hackers were connecting both an RS-232 80 column terminal and an external modem to the Adam. Knowing of a dual UART chip, we decided that we would further expand the interface board to handle two RS-232 ports, a parallel printer port, and a hard disk interface.

About the same time, I discoverd a source of hard disk controllers that also had a floppy disk controller port on them. It took a while but I finally got both the hard and floppy disk controller ports working. We can now attach IBM-style floppy disk drives (360K/720K) to the controller as well as two hard disk drives.

So much for the history. Now let me try to satisfactorily answer the questions that have been asked.

1. Can memory expanders be used with the hard drive interface, since they also need to occupy expansion slot #2 to function?

I was not aware of the memory expander products when I designed the Powermate products. Obviously, if they need to occupy the center expansion slot at the same time the user wants to run the Powermate, we have a basic conflict - both can't occupy the same physical space simultaneously. The Powermate interface board can function in either the first or the second slot - all of the signals that it needs are available at either connector. However, since Scott did not want to give up his internal modem, we decided on the middle slot. I could redesign the board for the first slot (and will investi- gate the possibility), but I would need some significant amount of user feedback as to which slot is preferable. This would also delay delivery of the product about two months.

2a. Are we using a PC or PC-XT type of controller?

We are not using a PC-type controller. I considered it but did not want to attempt to write drivers for one. There was also no good place to mount it and I did not want to extend the bus by the several feet it would take to mount it in an external enclosure.

2b. Will the serial and parallel ports be compatible with existing Adam add-on products such that Adam software designed for those products will be useable with our board?

I assigned the Powermate ports so that they would not interfere with any existing Adam products. That way the Powermate could be added to whatever the owner had already. I provided drivers in the Powermate BIOS to handle communi- cations with all of the ports on the board. I do plan, however, to make bit and address assignments known so that existing software can be patched to work. I also would consider developing specific drivers or patches for a few key programs that need to know how to drive the ports.

3. Are we using surplus boards or custom designed boards to achieve the low price?

The Powermate design consists of three circuit boards. The interface board that plugs into the Adam (in expansion slot #2) was designed completely by me and contains the 2 serial ports, a parallel printer port, and a hard disk controller interface port.

An interface converter board (which I also designed) is installed inside the external disk chassis and allows the Adam board to interface with the disk controller board, also installed inside the external chassis. The interface converter board provides two benefits - it allows me to use a 25 pin ribbon cable to connect the external chassis to the Adam, and it allows the external chassis' power supply to send plus and minus 12 volts to the interface board inside the Adam to run the serial ports.

The disk controller board is a commercially manufactured product made by a large reputable hard disk controller manufacturer. It has the ability to control 2 hard disk drives and 2 IBM-style floppy disk drives. I buy the controller boards in quantity from a reputable perveyor of new and used computer parts. Some batches are made up of entirely new boards. Other batches consist of a mixture of new and used products while others are entirely used. However, no matter what the status of the boards are, they all come tested and guaranteed to work. I then add a new product warantee to the overall Powermate product such that the user need not worry about a malfunction in the first 90 days.

I have tried to price the Powermate products as aggressively as I can so that it is not outside the reach of the serious Adam computer buff. I make a modest profit on each sale and probably cannot go any lower on price or I won't make anything at all.

The most important aspect of the product, I believe, is that it is a complete turnkey system for about the same total price that you would pay for the hard disk components. It also does not require any modifications to the Adam computer to install it. Bundle that with all of its functionality (two serial ports, a parallel printer port, and a hard disk) and expandability (up to 2 hard disk drives and 2 floppy disk drives) and I don't see how you can beat its' bang per buck with anything else available.

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The IN and OUTS of Printer Hardware
by John R. Lingrel

With the demise of ORPHANWARE, there is talk of new hardware on the horizon. The first that I have heard of is in the latest issue of NIAD. They are going to be selling the a "multi-port" parallel interface. If you already have an SP-1 or an SP-1P or a PIA2, don't buy one of these just because it is new. It will do no more for your printer and actually has the potential for problems due to having "filler" parts which really have no real function.

Multi-port Port only means that through the use of DIP SWITCHES you can select a different I/O port setting than the 40H that is used by the PIA2 and the EVE SP-1 or SP-1P interfaces. When you think about that, all software for parallel printer ports have been written for this port. It is highly unlikely that software authors are going to start to write software for another port address since this would be of no use to 90% of the users that are going to use a parallel printer. And if you do use lets say POWER-PAINT at 40H and then you do by some slim chance come up with a piece of software that runs from another port, you will have to turn the computer off, remove the top, remove the printer interface and change the switch settings. Then you must reinstall the interface and reverse the whole thing. Once done with the odd ball software, to go back to the hundreds of programs that use the 40H address, you will have to go through it all over again.

You ask, how do I know these things? I reviewed this interface in an issue of Nibbles and Bits a few months ago. The interface worked as advertised, but was of extremely poor construction quality and had parts that could not be identified. And since it is imported from another country, good luck if it breaks.

You might also note, IT WILL NOT DO ANYTHING that the other 3 mentioned interfaces will not do. Centronics is Centronics is Centronics.

I am not suggesting that you not buy this interface, but I would suggest that you not buy it based on claims that it will do something new and you are going to abandon your current printer port. You will only waste your money.

To insure the usefulness of your current printer port, I will convert any piece of software that is written for a port other than 40H for you for free. (This includes owners of EVE or Orphanware interfaces or any other interface that uses 40H). That includes CP/M or EOS and copy protected software. That should keep costs to the ADAM user with in reason. If I convert copy protected software, it will be returned copy protected to protect the author of the software.

Since I have already reviewed this device, I will not dwell on it much more. I will, however, purchase all new hardware that becomes available and test it and report the performance to our readers here. This includes hardware from any source.

My reports will be done from the engineers stand point with a look at reliability and maintainability as well as over all usefulness. Watch here as this new hardware becomes available.

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AWAUG MEMBERSHIP INFORMATION

AWAUG is an organization dedicated to the support of the ADAM computer system and the furthering of computer literacy. Membership in AWAUG costs $15 per year. Members receive a bi-monthly newsletter and are entitled to purchase items offered by the club such as public domain software, WordStar 3.0, formatted tapes, and some hardware. Members receive free technical support through the AWAUG hotline support system. Our volunteers can help to answer your questions.

Hardware Hotline:
Volunteer(s) Needed

Software Hotline:
Volunteer(s) Needed

Meetings are held on the third Saturday of each month at the Tyson's Pimmit Regional Library. The address is 7584 Leesburg Pike, Falls Church, VA (1/2 mile inside the beltway on Route 7).

Meeting are free. For more information about the meetings or the club, contact Bob Blair at (703) 971-6465 or check in on the AWAUG BBS at (703) 922-5497 (2400/1200/300 8-N-1).

Your club officers are:

Robert Blair	President BBS SYSOP
Peter Hartzler	Vice President
Manfred Patterson	Membership Chair.
Jack MacKenn	Tape Librarian & **Editor**
Steve Sandoe	Disk Librarian
Cliff Sinopoli	Procurements

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** **AWAUG BULLETINS** **
** **UPDATED 9/21/89** **
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THE MOST RECENT AWAUG MEETING:
9/16/89

WOW!!! That was the reaction of the large audience to the knock-out demonstration by Mark Gordon. His "plug-in" hard drive interface was a smashing success. He received the largest and longest applause ever given to a presenter in an AWAUG meeting.

The AWAUG members were very impressed with a single device that includes an interface for hard drive, two serial interfaces, a parallel interface and connectors for standard IBM disk drives!!! He used an IBM disk drive in the demonstraton and his own software. We were also impressed with his case for the hard drive with a build-in power unit. His complete "turn-key" package (including the hard drive/case/power unit/interface/ software and support) is available at just under $400.00.

For those who have not met Mark Gordon, be advised that he is a professional computer builder who has focused his talents on the ADAM because is son asked him to build a hard drive interface for him. As his project developed he has made a larger and larger investment in the effort.

Mark says that he now intends to continue to expand his ADAM product and plans to build similar devices for other types of computers as well.

And, Oh yes - Blair had another one of his auctions at the meeting. He's not ready to turn pro yet, for sure!

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* MEETING FOLLOW-UP *
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Mark advised me tonight (9/21) that he will be attending the ADAM Convention on October 7 and 8 (Sat & Sun) and that he will be demonstrating his interface (et al) on the afternoon of the 8th.

He has also set up a special phone line for orders and questions. His number is (703) 620-1372.

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AWAUG MEMBER OF THE MONTH
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Mr. **Jim Howard** was recognized as AWAUG member of the Month.

Jim is one of the original members of AWAUG from it's eginning in March of 1984. He has been active continuously during the full life of the club. During that period he has participated in almost every club activity. His speciality is hardware assistance and his leadership has brought us the 80 column terminals, 1200 baud modems, many hardware repairs, inexpensive power units, game paddles and ribbons. For years he made tapes, kept the accounting records, transported people to and from meetings and is always available to help with the tough problems (terminals that stop working) and the boring tasks (Newsletter labeling, etc).

All of us have benefitted from Jim's never-ending willingness to help other ADAM owners.

We are proud to have Jim as AWAUG Member of the month!!!!

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BUT WHAT HAS BJ BEEN UP TO???

The guy is busy attaching more hard drives to his ADAM. Yes - First it was three disk drives and two tape drives, then it was four, then eight (stacked on on top of the other). Then it was a 20 meg disk drive, now a 40 meg disk rive with plans for up to four of them. (I wonder if he still has those tape drives buried somewhere in there?)

Not only that he is running the hands-down best BBS going. Just look in the NET section at his latest messages and bulletins. He calls his place ADAM, GROUND ZERO and it is a deserving title.

BJ - More power to ya!! You make the ADAM world a more interesting and exciting place.

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SPECIAL SPECIAL SPECIAL!!!

AWAUG NOW HAS 1200 BAUD MODEMS, WITH SERIAL INTERFACE AND SOFTWARE FOR $59.95. This is not a typo, these modems will store up to 9 phone numbers, auto dial any of the numbers, auto answer and much more!!! Modems are $20.00 each sold separately. They are (as always) only available for AWAUG members since we are a non-profit organization.

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SPECIAL
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* **AWAUG REPAIR SERVICE** *
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Any hardware item: Minh Ta

(Yes, you read it right - Minh is now available to help you with your hardware problems!).

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FOR SALE
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The following items are for sale by AWAUG or by AWAUG MEMBERS. Leave a message for the SYSOP or the owner if you are interested in purchasing something:

PITFALL AND ZAXXON game cartridges: $5.00 each. Contact Mike McGrath

64K Expander, New - $45.00
Contact Bob Blair.

Game paddles: $1.50 each, Jim Howard

ADAM Printer Power Units: New, $12.50, Jim Howard

Printer SWITCH BOX.
Switch between two printers or switch one printer between two computers. $20.00

Cable for above (gold tipped pins, with molded RS 232 connectors) $10.00 each: SYSOP

Plus we still have a few 80 column terminals with serial interface and cable/software for $80.00.

Contact Bob Blair.

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Dave Tidman's
Laws of Parking in DC

#2. Any open place of two or more car lengths **WILL** have a construction crew there by 7 AM the next day.

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JUST FUN

The above witticism from Dave Tidman is an example of some of the goodies to be found in the "JUST FUN" section of the AWAUG BBS. Since Bob instituted that section on our board, there have been some very humorous messages left as well as a puzzle or two. Next time you're on the board. check it out and perhaps leave a little gem of your own.

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Thoughts on POWERMATE
by Jack MacKenn

Earlier in this newsletter, you've read some fairly high praise for Mark Gordon's creation called POWERMATE. Undoubtably, Mark has put together a fantastic piece of equipment that has most options we want with our Adams, i.e., hard drive(s), double-sided floppy drive(s), parallel port and 2 serial ports. The installation requires placing ONE board in expansion slot #2 and hooking up the cables. Obviously, very easy!

POWERMATE was designed so it wouldn't interfere with existing I/O port numbers. Mark used different port addresses for his I/O devices which will, unfortunately, require patches for our favorite programs to run. I would have preferred POWERMATE to be completely compatible with existing software so you just plug it in and go. Mark has stated that he will provide patches for the most commonly used programs and that's a plus. Mark also hopes to provide a a boot device either in a ROM or a cartridge. No more booting from a floppy or a tape!

For a person who has few or no add-on devices on their Adam, POWERMATE will definitely provide just about anything you'd ever need or want. For those who already may have a serial & parallel port and perhaps a double-sided floppy, POWERMATE may be overkill.

The above is not intended to be an in-depth review of POWERMATE; it is strictly some thoughts that have been running through my mind. One other thought that keeps popping up... WOULDN'T IT HAVE BEEN NICE IF POWERMATE WAS AVAILABLE TWO YEARS AGO??

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OTHER BBS LISTINGS
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The following Are Local BBS' which support CP/M:

ZEPHYR
620 5418
24 hours

Data Manager
292 9420
Mon - Thu 5pm-6am
Fri-Sun 24 hours

OSBORNE
292 7955
24 hours

Arlington Software Exchange
532-5568
24 hours

ECCO
971-5757
24 hours

You are encouraged to contact the above BBS'. All are in the DC area and operate at 300, 1200 or 2400 baud. Tell them where you read this if you leave a message there.

ADAM BBS' around the country include: (if you don't see your favorite leave me a message and I'll post it here).

AKRON BBS (**Big John's**)
216-882-4720
Starlink Node: 8740
24 hours

SO.CAL ADAM USERS
Run By Larry Overman
714-775-1603
Starlink Node: 9184
24 hours

Up An ADAM
Run By Bart Lynch
1200 Baud, 24 hours
206-859-2018
Starlink Node: 9170

ADAM LINK of UTAH
Run by Alan Neely
801 484 5114
Starlink Node: 534

THE CONNECTION
Run by Steve Major
518 298-8193

TRADING POST
Run by Herman Mason
216 791 4022 24 hrs
Starlink Node: 4222

SLAUG BBS
Run by Al Fitzgerald
314 773-1551
Starlink Node: 8978

MOST IMPORTANT!!! Perhaps the longest-standing BBS supporter of the ADAM has been COMPUSERVE. If you are not a member - maybe you should be? Call 1-800-555-1212 and ask for the COMPUSERVE number for your area! They are the major commercial BBS that offers full service for ADAM users. Please address questions about Compuserve services to Rob Friedman on the AWAUG BBS (he is the Compuserve SYSOP).

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AKRON BBS NOTE

I just want to throw in a few laudatory remarks about the Akron BBS, perhaps the finest ADAM BBS in existence. The Akron board was made possible by Big John Lingrel's superior hardware expertise and the software genius of Tony Morehan. As I recall, the Akron board started out with several BJ-modified floppy drives and a large expansion RAM card. Then, as BJ developed his hard interface, the board grew tremendously. Now, BJ is talking multiple hard drives....boggles the mind! Tony has kept pace with more powerful hard disk drivers (although his version 2.3 EOS driver still won't access my hard drive) and BBS software that just keeps getting better and better.

Ron Collins is one of the principal SYSOPS and a veritable warehouse of practical information. He has helped many people solve their problems. JM

ADAMCON #1
by Mark Gordon

I arrived at the hotel with great anticipation. The first ever Adam computer convention! It was 12:30 pm. My plane was on time and the limo trip uneventful. I presented myself at the front desk for checkin. I was looking forward to a couple of hours of nap before submitting myself to the rigors of the convention. I had been up til 3 am getting the new Powermate product ready to show and had gotten up again at 6:30. However, it was not fated to be. It seemed that the hotel had a strict policy of requiring check-out by noon but not letting anyone check in until 3 pm.

I checked at the convention registration table but no one was there yet. So I decided to retire to the bar, sip a beer, and finish the Piers Anthony book I was heavily wrapped up in. But the bar didn't open until 5:00 and it was only just before 1:00! Okay, how about the restaurant? That worked. I got a table, ordered my beer, and opened my briefcase to get out my book. But, no book. It appeared that I left it on the shuttle. No Piers Anthony? Nope. Okay, what else can I do for 2 hours? So I reviewed the Powermate BIOS listing, trying to figure out why the patch that corrected the deblocker bug worked in the standalone version of the BIOS but caused a BDOS error in the autoinstall version. After chasing my tail for an hour, and having drank my beer but not having made any progress on solving the problem, I gave up.

Was this an omen of how the convention would go? I hoped not. This was to be the first time that the new Powermate product would be demonstrated outside of the comfort zone made up of friends and associates. There would be other competitors here, one with a hard disk product already. How would they receive the new kid on the block? Would I get enough time to adequately demonstate the product? I could only spend two days at Adamcon. I had taken off the previously week to try to locate and fix the deblocker bug. Would it be enough time to win over the likes of competitors, newsletter editors, BBS Sysops, and the users? Well, I would find out in a few short hours.

I checked back at the registration table and lo and behold - people! I introduced myself and met several other early arrivals, none of which had hotel rooms yet either. Then Monte Neece and his lovely wife Lydia arrived, with a thousand things to do and only two pairs of hands to do them with. So I spent the next several hours helping to set up the main talk room, the reception room and the three session rooms. My fingers got awful sore from tying blue and white balloons.

At last all was ready, and with a whole half hour to spare! Monte worked like a coolie directing and working to get it all ready. Well done, Monte! It looked good.

In the main talk room, we set up an Adam computer with 3 color monitors, to be able to demonstrate programs to the large audience. In the middle of the front table on which sat the computer and the three monitors, we placed the speaker's podium. We made an arch out of alternating white and blue baloons which highlighted the front table. There were chairs in the room for about 75 people. We placed three sets of Adam computers around the sides of the room for the vendor demos, which would take place on Sunday afternoon.

In the reception room, Monte conceptualized a centerpiece for the oers d'houevres which used two back to back Adam computer boxes mounted on a 6 inch platform. On top of the boxes, we placed Pat Herrington's Adam computer. Monte added the various accessories around the base

of the platform and made it into a really professional-looking display. We blew up lots of balloons and placed them in clusters around the room. It did look good!

Monte also assigned Shon McCallum and I to set up computers in the session rooms. It was at that point that I discovered that I was scheduled to give a talk on Advanced Computer Hardware. Okay, what did he have in mind? Well, whatever I wanted. I guess that Monte figured that since I designed computers for a living and had successfully completed the Powermate design, that I should be able to put together a fairly meaningful talk. Well, he was right. I certainly could and I believe that I did. More on that later.

So we all went to our rooms to change. At 6:30, the keynote speaker, Jay Forman was to open Adamcon 1. We arrived at the main room at around 6:30, but Monte didn't start the proceedings immediately. Perhaps the keynote speaker was late? People started appearing out of the woodwork. Soon the room was close to full. A few minutes later, Monte opened Adamcon 1. After a few opening remarks, he turned the podium over to Jay Forman, president of MW Ruth. Jay talked about the history of the Adam, about his involvement with Coleco over the years, and about how they had gotten in financial straits with the development of the Adam. He had several interesting anecdotes and revealed some interesting "facts". For instance, he had a paper showing that Hewlett-Packard was involved in the development of the Adam. He also had many documents salvaged from Coleco during the last moments, including listings, schematics, and memos.

For those of us who actually managed to make it to the convention, he had genuine Adam foil stickers, kind of like a small bumper sticker, that said "I love ADAM". He had an interesting story about the last consumer electronics show that Coleco attended with the Adam - something about a 100 by 100 foot 2 story booth that he had all to himself (with a dozen secretaries) because Coleco had rented it but had laid off all the people to staff it. Jay was pleased to have such a good booth from which to sell his "Classic Covers".

After the brief keynote address, Monte adjourned the conference to the welcoming reception. This was an all-social affair designed to allow the convention attendees to get to know one another. I didn't know too many people there - only Monte, Lydia, Shon, and those people I had met during the set-up activities. Unfortunately, I am not much of a talker without my beautiful wife with me. She can manage to discuss just about anything intelligently, and normally leaves me free to come in and out of the conversations at will. Without her running interference for me, I'm just not much of a socializer. However, I did manage to get into it.

While making the rounds of the tables, Howard Pines of Oscar's Computers stopped me and introduced himself. I told him who I was and mentioned the Powermate products. He was interested and took me back to his table where he introduced me to Faye Deere, who writes the Adam News column for Computer Shopper. Well, she had heard of the Powermate and was interested in it. It didn't take too long to get into a fairly involved conversation with her. She was a real pleasure to talk to - a very nice lady from Fort Walton Beach, Florida.

Then Pat Herrington joined us. I had met Pat earlier when we were setting up. She is the newsletter editor from MOAUG (the Metropolitan Orlando Adam User's Group). She had also heard of the Powermate. I had given her a press release earlier when we were setting up and she had apparently read it. She asked a lot of questions and added a pleasant new dimension to the conversation.

I believe it was at this time that Tony Morehen dropped by to join the conversation. It was fascinating to hear of the products that he had developed. I knew that he had developed the driver software for Big John Lingrel's hard disk and wasn't sure whether I was talking to a competitor or not. It turned out that we hit it off well together. Besides the hard disk drivers, he developed a new generation of the CPM operating system that he calls TDOS (Tony DOS?), the BBS software we are using for the ADAM, and a program called file manager. He also developed EOS drivers for the hard disk.

I apprehensively explained the nature of the Powermate product to him, not sure what reaction I would get. He brightened up immediately, saying that he had been waiting for a product like this for years - where had I been? What a relief! He didn't view the Powermate as competition for his software. It is Tony's nature to do all he can to foster the use of the Adam computer. He does a lot of development and support work virtually free of charge.

As he explained the capablilities of TDOS, I began realizing that it was a significantly superior product to CPM. It has subdirectories, direct change of user numbers, user 0 common , and path capabilities - some of the more useful features of MSDOS. He also integrated an EOS interface right into TDOS. I had developed a autoinstalling BIOS for CPM and had committed to develop EOS drivers (but didn't yet know anything about EOS). It didn't take too much heavy thinking to realize that I should use TDOS if at all possible.

At this point Syd Carter came over and borrowed Tony. They went over and joined a group of Canadian participants and began discussing various things. So I went to look for Jim Walters of Walters Software. I had telephoned him on Friday at Shon's urging and we had agreed to get together to discuss the possibility of them writing the EOS drivers for me. I found him in group of developers that also included Ed Jenkins of E & T Software. I introduced myself and was able to draw Jim aside for a few minutes. He indicated that he was very interested in the Powermate product but that he wanted to reserve judgement until he actually saw it. So I excused myself and rejoined Tony.

Syd Carter, with whom Tony was still talking, is a hardware developer from Canada. He wouldn't tell us what his product was. He was there to introduce it the next day. I did discover during the conversation that the guy who had the new high resolution video board for the Adam did not come to the convention because the product was not quite ready. It sounds pretty good and I certainly know how much effort it takes to bring a new product of that complexity into being. My sympathie to him and good luck.

As people started wandering off at the end of the reception, Tony invited me to have dinner with him, his wife, and her friend. His wife Theres (sp?) had brought a travelling companion along to keep her company while she went sightseeing. Obviously she has had a lot of experience with Tony at conventions and knew that if she wanted to get any touristing done, she was on her own. It was very interesting having a technical discussion with Tony over dinner while Theres and Lorraine discussed whatever interested them. It really was two separate discussions, as they were talking in French. My Spanish is pretty good but I speak no French. I couldn't tell if Tony could speak or understand French but he didn't respond to anything they said in French so I assumed that he didn't.

It was over dinner that Tony and I really got to know each other. I described in detail what the Powermate product looked like, how it was designed, and what I had to do to get it working. It seemed like he could relate to a lot of what I was saying, having gone through a similiar effort himself when he developed TDOS. He explained TDOS in detail and it was then I knew that TDOS was the right operating system to bundle with the Powermate. Tony offerred to incorporate a driver into TDOS for the Powermate products, based on his review of my BIOS source code for CPM. We agreed to discuss it more the next day.

The next morning, I took the Powermate down to the room I knew I would be using for my talk and connected it up. I hoped that it had survived to trip down. It plugged in and worked perfect the first time. What a relief! The last thing I needed was to get down there and find out I had no product to demo.

After breakfast, the convention opened with a joint one hour talk by Phil Kosowsky and Tony on upgrades to the ADAM. Phil runs an ADAM repair business and talked about common problems with the ADAM. He also talked about some of the products that Coleco developed but never released. He took 50 of the 60 minutes that he and Tony were supposed to share so Tony wound up with only 10 minutes. But Tony really surprised me, in more ways than one. He had a very organized talk on the various products that were introduced for the ADAM, both by Coleco and by third party organizations. He went about 10 minutes and did an excellent job of covering the territory. What surprised me was his brevity and the fact he covered so much in that time, and that he plugged the Powermate twice in that ten minutes with words to the effect "and a revolutionary new product for the ADAM will be described by Mark Gordon in the next session. Make sure you see it." Obviously I had done something right to capture his interest. I greatly appreciated having someone as well respected as Tony plug the product.

I gave my talk right after Tony finished. There were three simultaneous breakout sessions, mine and two others. The audience was split into three groups, and each briefer had to give his talk three times as the groups rotated through the sessions. I talked about the product development process, starting with identification of need, going through market survey, cost/benefit analysis, product design, product prototyping, circuit board layout, software development, and support planning and implementation. I described the process that I went through with the development of the Powermate products and shared some of the decision criteria with the audience. At the end of my session, I demonstrated the final result, showing how easy it is to install, and how well it performed. Response was overwhelmingly positive. I was now feeling a lot better about the way things were going. Remember the feelings I had the day before when things did not seems to be starting off so well?

Several questions came up during each session. The most common one was: What about EOS? So I explained that I had committed to do an EOS driver after the CPM product was finalized, but that discussions were occurring with Tony about the possibility of distributing TDOS instead of CPM and of Walter's Software doing the EOS. It turned out that the Walters were in the last session (Jim and his brother). When I gave the stock reply (because I wasn't sure where our discussions would lead us), Jim jumped up and emphatically committed to incorporate the hard disk into their new release of EOS. I guess I must have impressed him too.

After three times through the talk, my mouth was dry and I was hungry. I was one of the last people to leave

for the restaurant as I had to break down the equipment, pack it away, and take it to my room. So needless to say, I got one of the last seats. I sat at a table with a pair of Canadians I hadn't talked to much before. Their first question was: Well, what brings you to ADAMcon? I thought that everybody attended all of the breakout sessions - how could these guys not have gotten the word? It turned out that they were giving on of the other two sessions, the one on communications, and didn't get an opportunity to attend the other two sessions. I didn't either. I'm sure they were all good.

After lunch, we had a talk on Adam CALC. The talk was interesting. I had no idea that Adam CALC was such a high quality product. The presenter (whose name I don't remember - sorry) described how he went about developing a spreadsheet to handle his personal checkbook.

Then came the first demonstration session. All of the computers were available for vendors to display their wares. I set up the Powermate again in the same room and spent 2 hours fielding questions. I did manage to sneak out for a few minutes at the end and see some of the other displays.

Tony took me down to Ron Collins' machine and demonstrated TDOS for me. It was extremely impressive - fast, comprehensive, and user friendly. He also showed me the EOS interface in operation - real slick.

Syd Carter was demonstrating his new product - an audio digitizer. It looked pretty good. He seems to have done a good job on it. He also described his no-slot clock for the Adam and his 304K tape formatter program.

Walters Software was demonstrating a new adventure game. There were a lot of people around them so I didn't get a very look at it. But it did seem to be extremely well done and fast. The graphics looked good and the background music was interesting.

There were other computers set up and running software but I didn't get a opportunity to look at them. Maybe Shon can describe those that I missed.

After the wrap-up session, Monte announced a developers meeting (to which I was invited). It was called by Ed Jenkins from E & T Software. The purpose of the meeting was to get the developers to co-operate in the development of their products. The software developers needed to know the port and bit assignments of the hardware in order to write programs for the hardware products. The hardware developers had to make sure that their hardware products did not interfere with other. Many topics were discussed, some of which were not taken through to conclusion. However, the overall thrust was to encourage communication among the developers. All participants embraced the idea of co-operative competition. We did agree that it would require continuous effort t maintain good relations with each other.

Another of the agreements that came out in the meeting was between Ed Jenkins and Jay Forman (M W Ruth). They agreed to put together a national ADAM newsletter using the 50,000 name owners list that Jay had gotten from Coleco. They are going to embark on a campaign to try to reach as many ADAM owners as possible to try to increase our sales opportunities and give more longivity to the ADAM. All the other developers were encouraged to submit inputs to Ed for inclusion in the newsletter. I volunteered my desktop publishing capabilities to assist in any way possible.

After the developers meeting, I again had dinner with Tony. We agreed on the specifics as to what he could do for the Powermate products, how soo he could have the results, and what

he needed to get the job done. Tony will incorporate hard disk drivers into TDOS and EOS for Powermate. He will also develop and cartridge boot PROM so that TDOS can be booted directly without a prior boot from floppy of tape. Since he has written overlays for the common communication programs (e.g. - MADAM7 and MEX), he will develop overlays for Powermate. It looks like he'll be able to complete most of the work within a month so I'm looking at an early November delivery date. We will now start taking orders for Powermate. Of course, I am sending him a Powermate unit to develop the code on. He will keep that unit after he finishes code development.

The next morning (Monday) I got up at 4:30 in the morning to catch my 7:00 am flight back to Washington D. C. There were still two more days of fun in Orlando that I can't report on. I hope that one of the other members (maybe Shon?) can fill you in on those days.

Since I have gotten back, I have prepared a copy of the Powermate source code for Tony and shipped it to him and sent him a Powermate 2/20. I will keep you informed on his progress through the BBS.

Overall, the convention was an extremely positive experience for me. The positive responses to Powermate did a lot to contribute to that overall impression but the attitudes and willingness of all participants to work together to keep the ADAM alive was obvious and encouraging. As Bob Blair says, "keep your Adam". It's a good machine and we're just now starting to make serious inroads on making it better.

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WOW!!! That was a terrific writeup about a terrific convention. Nice job, Mark, you make us all wish that we were there to participate directly. Sound like lots of good things coming down the pike for our Adams including some terrific software support for Powermate. JM

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Dave Tidman's
Laws of Parking in DC

#1 The first space you find...
is the last one there is.

****

It has come to light that a scientist has crossed a chicken with a silkworm. The hen lays eggs with pantyhose in them! (Can anyone tell your editor why Joanne Worley would object to this joke??)

****

Final thoughts from
your Editor

Thanks to Mark Gordon's last minute article on the ADAMCON convention, this edition is the largest newsletter this year. It would be nice if all our newsletters contained as much good information as this one but that can't happen without your help. All AWAUG activities require the participation of a substantial number of our members to be successful. One or two people can't do it all. Take a few minutes and write an article. Volunteer to help the club in some capacity. Right now, the club needs volunteers for the hardware and software hotline. Think about it; the club gives a lot, give a little back. JM

****

SETTING FALCO TIMING

by Jay Bolton

Every one that has a TS-1 Terminal can set the time indicator from the Falco keyboard by using the procedure from the operators manual, page 3-23:

1 Display the Examine Functions menu: [<9>= Press the number 9 key]
Press <FUNCTION>, then <EXAMINE F>

2 Select two unused Programmable Function Keys, for example, F10 and F11
First enter the hour increment escape sequence as follows:
Enter <1>, then <0>, then <ESCAPE>, then <h>, then <ESCAPE>, then <h>, then <2>, then <FUNCTION> and <SET F>

3 Enter the minute increment escape sequence as follows:
<1>, then <1>, then <ESCAPE>, then <ESCAPE>, then <h>, then <3>, then <FUNCTION> and <SET F>

The Time Indicator can then be set for hours and minutes by invoking the appropriate Programmable Function Keys. (F10 and F11) Holding the key down will engage auto-repeat, which will cycle through the hours or minutes to the appropriate value without having to continuously enter the appropriate escape sequence. There is additional data on page 1-3 of the Programmers Manual under:

Section 1-3 Status Line Programming

1-3.1 Time Indicator

The Time Indicator is software controlled and may or may not be displayed. The Time Indicator may also be updated incrementally, or updated to a desired given value. Use the following group of escape sequences to change the Time Indicator:

From the keyboard (TS-1): <ESCAPE>, then <h>, then <CODE>(from table below) [and then <VALUE> for codes 5-7 only]

From the computer (ADAM): <ESCAPE>, then <h>, then <CODE>(from table below [and then <VALUE> for codes 5-7 only]

CODE TABLE

Code	Command	Description
0	Time Indicator ON	Displays Time Indicator
1	Time Indicator OFF	Does not display Time Indicator
2	Increment Hour	Advances hour display 1 hour
3	Increment Minute	Advances minute display 1 minute
4	Real Time Indicator	Four bytes are sent to the host computer (ADAM) when this command is invoked. They represent hour, minute, second, and carriage return. The hour, minute, and second are actual values plus 20 hex.
5	Write Hour	The value entered is loaded into the hour display digit minus 20. (Refer to Appendix D).
6	Write Minute	The value entered is loaded into the minute display digit minus 20 (Refer to Appendix D).
7	Write Second	The value entered is loaded into the second display digit minus 20 (Refer to Appendix D).

****

APPENDIX D
TIME INDICATOR
HOUR, MINUTE, SECOND CODE CONVERSION

Hour Minute Second	ASCII	Hex	Hour Minute Second	ASCII	Hex
0	Space	20	31	?	3F
1	!	21	32	@	40
2	"	22	33	A	41
3	#	23	34	B	42
4	$	24	35	C	43
5	%	25	36	D	44
6	&	26	37	E	45
7	'	27	38	F	46
8	(	28	39	G	47
9	)	29	40	H	48
10	*	2A	41	I	49
11	+	2B	42	J	4A
12	,	2C	43	K	4B
13	-	2D	44	L	4C
14	.	2E	45	M	4D
15	/	2F	46	N	4E
16	0	30	47	O	4F
17	1	31	48	P	50
18	2	32	49	Q	51
19	3	33	50	R	52
20	4	34	51	S	53
21	5	35	52	T	54
22	6	36	53	U	55
23	7	37	54	V	56
24	8	38	55	W	57
25	9	39	56	X	58
26	:	3A	57	Y	59
27	;	3B	58	Z	5A
28	<	3C	59	[	5B
29	=	3D	60	not shown	5C
30	>	3E			

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FACILITIES FOR THE ADAM

JKL UTILITIES

Before one can use a new disc, it must be formatted and made ready for the intended use. The ADAM uses two operating systems, EOS and CP/M. The disc must be formatted in the appropriate system. The CP/M system came with a formatting program that will format a disc for CP/M. The Disk Manager that came with your disc drive has a formatting program for EOS. There is nothing lacking in this formatter; it is not particularly slow and it is very complete. The JKL Utilities has an EOS formatter which has a few advantages over the Coleco program. JKL also has a program to change the Volume name as well as an initializing program.

The formatting program in JKL is fast but does not have a block checking option. When it finishes formatting a disc or a datapack (the Disk Manager won't format a datapack) all of the tracks from 0 to 159 will be completely empty which, in some instances, is a very decided advantage. A freshly formatted disc will be filled with E5s. This will print out in ASCII as a lower case "e" but E5 is not an ASCII code for that letter. It is a machine language direction for empty. Empty is not the same as a null (00 Hex). In CP/M, if your directory is filled with nulls, a directory search (with SD.COM for example) will produce a file entry that has no name but it will show up as an empty file having 0K. It is merely an annoyance which doesn't seem to impair the use of the disc. But there is no way to delete this empty file. It cannot be erased.

In order to prepare this totally empty disc to receive files, the system must have a directory. JKL has a program that will perform this function as well as give the Volume a name of your choice. More than that, it will let you increase the directory size to several blocks.

The procedure to format and initialize a disc is menu driven and can hardly be done incorrectly. As an example, let's assume that you are using two disc drives. Put the disc with JKL on the A:Drive and the disc to be formatted on the B:Drive. Pull the reset switch and JKL loads into memory after which it can be removed, if desired. The JKL screen logo and the JKL prompt (U>) will appear. At the prompt just hit the letter F. The screen will change and the following menu appears at the bottom of the screen:

```
Select Drive for Format Disk_
DDP1:DDP1:DSK1:DSK2:     :
```

Since we plan to format a disc on drive #2 you will hit SMARTKEY IV. The bottom line changes and the screen will appear like this:

```
Select Drive for Format Disk
Enter No. of Sides (1/2): _
```

The only number you can legitimately enter here is 1 (one). Since this program was written way back when Coleco was still planning on some advanced equipment, they had plans for a double sided disc drive. Hence this provision for two sides. These plans were never implemented even in the WIZARD version of JKL. So just enter the number 1 and a carriage return here.

The next menu appears and the screen looks like this:

```
Select Drive for Format Disk
Enter No. of Sides (1/2): 1

Hit Y to Start Format Disk_
```

If you want to abort the format process at this point you may hit the carriage return or the ESCAPE key and it will return you to the JKL prompt. If you wish to proceed with the formatting just hit Y and it will format the disc. When it has finished formatting it will show the JKL prompt.

At this point, there is no data on the disc and, as I explained earlier, the disk will be filled with E5s.

Initializing the directory is also a menu driven procedure and very simple to do. With the same set up as above, at the JKL prompt type the letter "I" and a carriage return. The program will give you the following menu at the bottom of the screen:

```
Select Drive for Init Dir_
DDP1:DDP2:DSK1:DSK2:    :
```

Again you would select SMARTKEY IV.
The menu will now look like this:

```
Select Drive for Init Dir
Enter Volume Name: _
```

Here you enter the name you have chosen for the Volume Name. It may be in upper or lower case and the name may be up to

11 characters in length. As soon as you have typed the name, hit the carriage return (unless you have used all 11 characters, in which case an automatic carriage return is issued) The screen will now change to look like this:

```
Select Drive for Init Dir
Enter Volume Name: IEAUG
Enter Volume Size: _
```

The only appropriate number for a disc is A0 (hex). If you are initializing a datapack the number would be FF (hex). As soon as you enter the number, hit the carriage return. The screen will look like this:

```
Select Drive for Init Dir
Enter Volume Name: IEAUG
Enter Volume Size: A0
Enter Blocks in Dir: _
```

You may enter any number up to 4. If you enter 5 or more, it will accept it but the computer can't use anything larger than 4. After entering your choice hit the carriage return. The screen will now look like this:

```
Select Drive for Init Dir
Enter Volume Name: IEAUG
Enter Volume Size: A0
Enter Blocks in Dir: 1

Hit Y to Init Dir: _
```

As above, you may abort the procedure with either the ESCAPE key or the carriage return. But if you hit Y, the program will perform all of the functions we directed. It is, of course, possible to enter frivolous data in a number of these procedures. Some will be rejected and others will be accepted. For example, in formatting, if you enter 3 or more sides to be formatted, JKL will simply repeat the question until you enter either 1 or 2. I haven't found anything untoward happening if 2 is entered. It seems to go ahead and format one side only. But suppose that, during the initializing of the disc, you entered zero for the number of directory blocks. Well for one thing, it will enter that number in the appropriate location, but JKL uses that information at the conclusion of the initialization process and that's when you get into deep yoghurt. About the only way to stop its futile search for a directory is to pull the reset switch. If you then try to use the catalog program to check the status of this particular disc, it will embark on a futile directory search. As I explained in the last article, the catalog program gets all of its information

from the directory block(s). But if the directory has been eliminated by assigning zero blocks for the directory, you can see how it would paralyze the computer. So my advice is to play it straight.

Initializing a directory will not remove any stored data on a disc other than the data in the directory block(s). But if you initialize an older disc that has a lot of files on it, you would obliterate the directory and thus render the files on that disc virtually useless. The directory could be painfully reconstructed but that would be exceedingly difficult. If you are dissatisfied with the Volume name, there is a JKL program that will let you rename the Volume quite easily. That program is called Volume Name. You can execute it by hitting the letter "V". Suppose you want to change a volume named "TED CODY" to "IEAUG". After loading JKL into resident memory and hitting V, the screen will look like this:

```
Select Drive for Volume Name_
DDP1:DDP2:DSK1:DSK2:     :
```

As before, you select the drive by hitting the appropriate SMARTKEY. As soon as you have selected the drive, the bottom line is replaced and the screen looks like this:

```
Select Drive for Volume Name
Volume Name: TED CODY
Enter New Name : _
```

You type the new name and after hitting the carriage return, the screen will look like this:

```
Select Drive for Volume Name
Volume Name: TED CODY
Enter New Name : IEAUG

Hit Y to Rename_
```

That's all there is to it. The menu prompts are so clear that it is virtually impossible to make a mistake. Renaming a file on your disc is also very simple to do with JKL.

There is a very useful, fast and simple program is JKL called QUERY DEVICES. In the list of available commands it is called Query Dev's. To initiate this program, just hit Q at the U> prompt. That is all there is to do. JKL will display a list of devices that are hooked up to the network at the time of power up. It will tell you if a keyboard is connected, or whether or not tape drive 1 or tape drive 2 is connected. It will tell you if the printer is connected. It

will tell you what disc drives are connected. It will NOT tell you if a MODEM is a connected, nor an expansion module, because these are connected to the buss and not to the network. This is very useful if you have been experiencing difficulty with a disc drive that doesn't seem to read or write. If it is making a poor connection, it is possible that ADAM doesn't know that it is connected. The fastest way to find out is to use the Query command. I have located a bad cable connection by this method on several occasions. Apart from something like that, it is not a program you will use very often.

The Zero Blocks command is a somewhat mystifying name. It doesn't zero anything, really. But it is quite useful at times, especially later on when you become more involved with program manipulation and file management. To activate this program just hit the Z key. A menu will appear at the bottom of the screen that looks like this:

```
Select Drive for Fill Blocks_
DDP1:DDP2:DSK1:DSK2:    :
```

When you select the appropriate drive with the SMARTKEY, the bottom line changes and the screen will look like this:

```
Select Drive for Fill Blocks
Enter Starting Block: _
```

You are probably wondering what we are going to do. This program will make it very easy to fill a large number of blocks on the selected drive with a single byte. If desired, you may fill every block on the disc with a single value such as E5. This would make the disc have the same data configuration as it would have if you had formatted it with the JKL format utility. But it is also very block specific. You can fill any block or any contiguous blocks with a single value with just these simple commands.

If we wanted to fill all of the blocks following the directory with nulls, then at the menu prompt above, we would enter 2 (or 02) and a carriage return. The screen would now look like this:

```
Select Drive for Fill Blocks
Enter Starting Block: 2
Enter Block count: _
```

If we are going to fill all of the blocks from 2 and above, then we would need to fill 158 blocks or 9E blocks in hex. So at the prompt above we enter 9E. The screen now adds another menu prompt and it looks like this:

```
Select Drive for Fill Blocks
Enter Starting Block: 2
Enter Block Count: 9E
Enter Byte Value: _
```

If we fill the blocks with E5 then ADAM will interpret this to mean that the data has been erased. But I proposed filling the blocks with nulls so we enter 00 at the prompt and the screen now adds another prompt:

```
Select Drive for Fill Blocks
Enter Starting Block: 2
Enter Block Count: 9E
Enter Byte Value: 00

Hit Y to Start Fill Blocks_
```

As soon as you hit Y the disc starts turning and the red light comes on and the disc will be filled with nulls starting with block 2 up to and including block 9F.

I have sort of implied in this discussion that we are using two disc drives. With JKL this is not at all necessary. Anything that you can do with two drives can also be accomplished with one drive (disc or datapack) only in some programs it may be complicated with a lot of disc switching. There can be an annoying situation arise when using a single disc drive. Suppose you have the disc being manipulated on disc drive number one. If you have NO disc in the second disc drive and you accidentally hit SMARTKEY IV at one of the prompts where a drive is selected, you will get hopelessly hung up. Nothing will happen and no keyboard command will extricate you from this situation. The only way out is to do a cold boot and start all over.

Thomas J. Keene

IEAUG

THE AWAUG BBS IS THRIVING

Begun in March, 1988, the AWAUG BBS now has over 150 active users and is averaging almost 200 calls per week. The "Bulletin Board System" consists of an ADAM operating with a 20 megabyte hard disk drive and an AVATEX 2400 baud modem. It also uses an Orphanware 80 column Video Control Unit and a monitor. A 3-1/2 disk drive is used to boot up the system and add programs. The ADAM runs off of an IBM XT power unit which also powers the hard drive.

Use your phone modem to dial (703) 922-5497. The opening screen asks for your ID number and password. If it is your first time, you simply type NEW and press return and it will prompt you to enter your name and address etc and you pick a password (7 characters or less). The BBS then assigns you an ID number.

There are four different areas to the BBS: A Main Command Menu, a Message Section, a File Library section and a Section for the user to change their password or screen width. They look like this:

MAIN COMMAND STRUCTURE -

```
****************************
*                          *
*    THE NEW AWAUG BBS     *
*                          *
****************************
     COMMAND STRUCTURE
B  - Display System Bulletin
C  - Page the SYSOP
F  - Leave SYSOP Feedback
H  - NETWORK Files
I  - Display System Activity
M  - Message Base
T  - Display Time
U  - Change User Setting
X  - Files Library
?  - DISPLAY THIS MENU
OFF or BYE SIGNOFF THE BOARD
MAIN>
```

* Author's Notes in this column *

-Scrolls text across screen (news/for sale)
-type back and forth live with SYSOP
-leave private message to Systems Operator
-Takes you to messages from other BBS'
-Shows number of calls to BBS by baud rate
-takes you to the AWAUG Message sections
-time of day & time remaining on hour limit
-takes you to User Setting Menu
-takes you to over 800 free ADAM programs
-helpful if you turned menu's off

-this is where you enter the above commands

MESSAGES MENU -

```
+--------------------+
|                    |
|   Messages Menu    |
|                    |
+--------------------+
C   - Change Message Base
P   - Post Message
PM  - Post Private Mail
S   - Scan Messages
R   - Read Messages
RN  - Read New Messages
RC  - Read Continuously
RCN - Read New Cont.
RP  - Read Private Mail
T   - Display Time
```

* Author's Notes in this column *

-this command moves to 5 Message Sections
-allows you to enter your message
-leave your msg for addressee's eyes only
-shows from/to/subject, optional read
-prompts for message number to start reading
-starts at the new messages only
-otherwise msgs stop at each screen-full
-same as above but for new msgs only
-read private mail to you (if any)
-time of day & how much of your hour limit left

```
X    - FILE LIBRARY            -takes you into the File Librarys
Q    - Quit Messages           -takes you back to the MAIN Command Menu
OFF or BYE SIGNOFF THE BOARD
GENERAL >                      -this is where you enter the above commands
```

There are five different message sections (use to C command to go from one to another): GENERAL (We keep about 100 of the most recent at all times)
FALCO (for those of us who have the Falco 80 column terminal)
JUST-FUN (for Jokes -and jokers- only)
AKRONBBS (about 100 of latest messages from the Akron BBS)
SOCABBS (recent messages from the Southern Calif BBS)
(Note: other BBS' messages are in File Library - NET section)

FILE LIBRARY MENU

```
+---------------------------+
|                           |
|     File Library Menu     |
|                           |
+---------------------------+
```

```
C  - Change File Sect          -Move from one file section to another
F  - Listing of Files          -shows name of all files in current section.
L  - Locate files(s)           -searches for a given file, gives Lib. Sect.
M  - Message Base              -takes you to Message Section
T  - Display Time              -time of day & time remaining on hour limit
S  - Show file with paging     -prints a text file on screen, page at time
SC - Show file without paging  -  "    "  "    "  "    "   , cont. scroll
D  - Download file YMODEM      -downloads 1024 characters at a time
DX - Download file XMODEM      -downloads 128 characters at a time
   - Upload file X/YMODEM      -you designate X or Y in your modem prog.
   - Upload YMODEM BATCH       -use IMP or ZMP to send two or more files
?  - Display this Menu         -lists this menu (you can turn off menu's)
Q  - Quit File Transfer        -returns you to MAIN command structure
OFF or BYE SIGNOFF THE BOARD
CPM1>                          -this is where you enter above commands
```

- Author's notes in this column -

Author's Note: There are 7 File Library Sections: Two for CP/M programs, (CPM1 and CPM2), an EOS section (for SmartBasic programs etc.), a section for TEXT files only, a RLE section (pictures - in color), an UPLOAD section (for new files), a section for AWAUG members only (has the best stuff of course) and a section of text files containing messages and bulletins from other ADAM BBS' around the country (called NET for NETWORK). (con't)

CHANGE USER PROFILE MENU

```
+---------------------------+
|                           |
|   CHANGE USER SETTINGS    |
|                           |
+---------------------------+
```

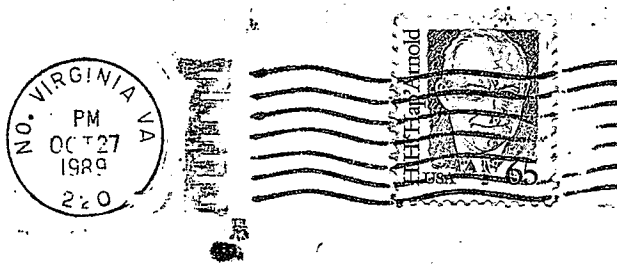
W - change screen Width -set screen display to 30/40/80 columns
M - toggle Menus on or off -turn off menu's once you know commands
P - change Password -change your password periodically
S - Save setting changes -after you change, store changes with S
Q - Quit -returns you to MAIN command menu
Note - Press S to make any setting changes permanent. However, ALL setting changes will remain in effect for the rest of the online session.
User> -this is where you enter above commands

Once you go through the BBS, you will see it is easy and FAST!!! Hope you use the AWAUG BBS often!!! Remember - 922-5497 in Northern VA (703)

by Bob Blair

****

AWAUG
c/o Bob Blair
7814 Worthing Ct.
Alexandria, VA 22310



*** FIRST CLASS MAIL ***