Garden of ADAM™

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The *Original Full-Service* Association of ADAM™ Computer Owners™

Publisher's Branch: Thank you! 2

Member Tips — Valuable Ideas From Your Fellow Members 3

Review: SmartLogo™

LogoMotion™ Monthly Logo Lesson 4

EXCLUSIVE INTERVIEW: Charles Winterble
PART 1: Coleco V.P. Computer Products 6

THE DISK DRIVE ARRIVES : WARNING!

USER GROUP NEWS : List of Leaders 7

AUA's Computer Bulletin Board System: ACCESS

The art of making Sounds with adam 8

FREEWARE: Telephone Directory 11

David Hennedy's Book Bytes.. 15 Titles Reviewed and Rated by AUA's Senior Editor 12

Reviews: SmartFiler™ (Mailer), Smart Letters & Forms™ 13

Corrections to *ADAM™'s Companion* 14

Members Only Discount Mail Order Catalogue 15

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Computer Learning Month OCTOBER 1984

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Welcome to Computer Learning Month

Publisher's Branch

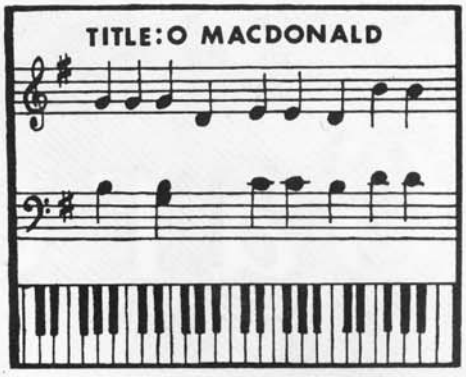
Many of you were beginning to wonder if this was ever going to arrive. Well as you can see by the graphics, we thought it would be to you by early October. So we were a month off. But the extra time spent honing the aesthetics of this periodical was worth it to deliver you a journal you can be proud to show other ADAM™ owners who have yet to join AUA. A few hundred of you responded positively to our August Family Computing ad (p.98) that many others missed due to the lack of an ad index listing. Many more of you responded to our direct mailing that we were able to execute thanks to the cooperation of, the now defunct Smart Magazine's would-have-been publisher, Hershel Abelman in Chicago. Many more of you did respond to his July Family Computing ad which he tried to stop just as it was going to press. We spent the months of July, August and early September scrambling for members through direct mail via Smart's response after discovering that Scholastic had not sent out the 55 thousand extra copies of the August issue to warranty registrants in July as they had promised they would and they had listed my last name in the advertisers index instead of AUA.

In mid-September Coleco invited Senior Editor David Kennedy and me to West Hartford for a pow-wow about user group policy. I hope to have some very positive news soon regarding that subject and AUA with regard to Coleco.

We were given the modem then and a preliminary review is included below. We are very happy to be able to provide an ADAM™ specific computerized bulletin board system (CBBS) that you may access during off prime time hours and weekends with your ADAM™Link™. Details of how to register as a user follow this column.

You members have by now discovered the **SBS SKYLINE** sign-up post card that was stapled to your issue when it arrived. I obtained them for you to help you cut your long distance phone bills when you choose to call the order line or the CBBS.

All of the items you see on page 15 will be in our on-line catalogue which you may use in concert with your credit card to speed placing orders. ☞ page 7



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I called today because I was planning on joining your user group. Needless to say, I was just checking to see if I could get my software cheaper before ordering some.

When I explained that I was having a problem with my machine, you came to bat for me. You gave me a lesson in self-assertion and a means to go about remedying the problem. All this you did before I was even a member.

If more people knew what you did for me, they wouldn't hesitate to join your organization. All I keep thinking is that if you did all this *before* I was a member, it can only be bigger and better things *after* I'm a member. Thank you for your time and trouble in this matter. *Suzan J. Storie*
Rensselaer Falls, NY

What ever happened to the *ADAM™ Magazine* by Scholastic? ☞page 11

Advertisers Index

Computer Bargain Info	5
Expandable Computer News	12
FutureVision™	2
Jacoby, Steve	7
Martin Consulting	16
Micro 2	2
Sunrise Software	10

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Member Tips

PLEA FOR LETTERS

I would encourage all who would like to see more software, to **write** your favorite software company (including Coleco). This is the only way to let them know that you are out there, money in hand, willing to buy software. When companies see a demand, they create product. Now that the new disk drive is available we may see more third-party companies begin development of software for ADAM™ on floppies. A lot of programs, especially adventure programs, would have been too slow using tape to access text randomly.

1. To delete text fast, use the **CLEAR** key, then the **CLEAR SCREEN** function key. To delete less than a screen quickly use **DELETE** key, **HI-LITE** function key, and press the **HOME** key and the **LEFT** or **RIGHT ARROW** keys simultaneously to **HI-LIGHT** complete lines instantly. The cursor will zip across the screen underlining everything in red with those single keystrokes. You have to be patient for the computer to keep up with you. By starting at the top of the text you want to delete, you can rapidly **HI-LIGHT** across, use the **DOWN ARROW** to reach the next line and zip across again etc.
2. You can use SmartWriter™ to edit and make mass changes to your SmartBASIC™ programs. Just **GET** your program from the tape. But beware - you may make a syntax error and not find out until you run your program.
3. SmartFiler™ & SmartLetters and Forms™ are integrated programs that work with each other *and* SmartWriter™.
4. There is a bug in SmartWriter™ R80, which explains why the **FAN-FOLD** and **AUTO-PAGE** function key options of the **PRINT** command key do not work properly. It is simply because when the **RETURN** key is used to indicate a required return, it vertically spaces 1 1/2 lines instead of one. If you add all these extra half lines up, you will find that's how many lines of extra space are printed before your first line prints on the next "page". There is really no solution to this other than to try adjusting the verticle bottom margin up to compensate for all those extra half lines.

George M. Knochel, Lakewood, Colorado

TEXT EDITING WITH *MOVING WINDOW*

1. If your use of the **MOVING WINDOW** option is nil, try this: When you first power up, press function keys **I**, then **II**, then **IV**. Use your arrow key to reduce the right margin to **44** then press function keys **VI**, **II**, and **VI**. Now you are in a 36 character-wide MOVING WINDOW. As you type, the word wrap function will keep all of your type on the screen with none of the annoying screen scrolling. Cursor and home keys function much better in this mode. Simply remember to reset the right margin to between 70 and 80 just before printing.
2. **Diablo HiType I** ribbons are ADAM™ compatible and may be purchased by the box at office supply stores for a much lower price than individual Coleco ribbons.
3. Need a LARGE TYPE FONT for printing out speeches? Buy a **Qume 82057 WP ORATOR** daisy wheel.

Hal Warfield, Memphis, Tennessee

DELETING *"DELETED FILES"*

You are sitting in front of the monitor while the tape drive is acting wierd. You dare not touch the drive because you know it will destroy the tape. Finally, the monitor displays "**NO MORE SPACE**" or something similar. This is because when you think you are deleting a file, the SmartBASIC™ **DOES NOT** actually delete it. It just *erases the filename out of the directory*, causing it to display simething like "200 blocks left" when actually **there is no space!** The following program will completely and really delete the file:

```
1 D$=CHR$(4)
2 PRINT D$;"OPEN <FILENAME>"
3 PRINT D$;"WRITE <FILENAME>"
4 PRINT
5 PRINT D$;"CLOSE<FILENAME>"
```

After running this program, type: DELETE <FILENAME> and press return. *Young S. Bae, Westminster, CA*

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Computer Learning Month OCTOBER 1984

Review: SmartLogo™

by David Kennedy & Wayne Motel

**** LOGO COMPUTER SYSTEMS' version of Logo for ADAM™ is outstanding when compared to other versions. Logo is an educational programming language based on graphics in the world of geometric principles. Originally designed for young children by Seymour Papert at MIT, it has recently become popular with adults as well. Logo's secret lies in its simplicity to program and in its power.

There are different versions of Logo available for each of the most popular home computer systems. I have prepared this chart to show you how powerful SmartLogo™ is among the available variations. As you can see, SmartLOGO™ has among the most features for the money of any Logo on the market. And SmartLogo™'s documentation is supurb.

Sprites and the text/graphics printout are the two most popular features of SmartLogo™. This language has 62 defined shapes, 30 "turtles" and 32 predetermined shapes. You can reshape any shape you want with the special Editshape feature. You can download text and graphics to a printer. We ADAM™ owners are fortunate to have a letter quality printer so we can get a text printout. To print graphics we will have to patiently wait for the RS-232 interface that Coleco has ready but has decided to not market yet. D.K.

The package is a cardboard storage box, and a 7.5 by 9 inch hard binder containing the digital data pack and documentation which consists of a quick reference card, a 66 page "**Turtle Talk**" tutorial manual, and a 300 page reference manual. Both manuals are very well written and organized. Most text is accompanied by very good examples with green text for your typed input and black text to denote computer responses. The manuals have a professional, polished look to them. The Reference Manual organizes its chapters by logically related instructions and topics.

The DDP contains:

1. A LOGO™ Compiler.
2. A tutorial which lets you go through various topics on ADAM™ interactively.
3. Demonstration Programs to help you appreciate the many powers of LOGO™:

POETRY shows list processing and computer generated verse
HANGMAN spelling game
SIMON musical memory sequencing
CASTLE graphics/sound showcase
CURVES recursive processing

4. **EASY SHAPE** allows you to create your own set of unique shapes which you can store for future use.
5. **EASY TYPE** teaches you command sequences by requiring you to correctly type predefined LOGO™ instructions.
6. **TOOLS** provides useful math and graphics shortcuts for your programs.

Except for the LOGO™ compiler, each can be printed out, copied, and used as an excellent source for learning this language's coding and organization.

LOGO™ consists of **primitives** which are similar to **instructions** in BASIC. A program consists of one or more **procedures** which are made up of these **primitives.** Unlike BASIC, you are not line number oriented, but module (procedure) oriented. LOGO™ is very flexible in that you can create your own primitives (procedures) to do just about anything you want. You start by organizing your program into simple easy-to-manage procedures which can each be tested on its own. These are then combined into more complex procedures to create your program.

Most **primitives** ahve a matching **reporter**. These make it very easy to change and keep track of various things. For example:

SETPC sets the drawing pen color
COLOR is the matching reporter which returns the current pen color
SETPC COLOR +1 when used in a loop will keep changing the pencolor to the next value

SmartLogo™ features:

***Turtle Graphics** - You can control up to 30 "turtles" (sprites). There are 60 shapes available (56 predefined), but you can define your own and use them instead. The shapes are easily created thru the use of the SHAPE EDITOR. Besides SHAPE, you can also control SPEED (forward & reverse), PRIORITY (which goes over/under when they encounter each other), COLOR (16 available), movement heading, position on screen, etc. You can create most any type of high resolution graphics you can imagine. Other options allow you to FILL sprites with color, STAMP an imprint of the sprite on the screen, or SHADE the sprite with the shape of itself.

* **DEMON** (collision) **DETECTION** allows you to alter program control based on the collision of two sprites. Up to ten DEMON criteria can be set up.

* **SCREEN CONTROL** lets you define your text and graphics windows.

* **MATH FUNCTIONS** have full capability for simple and advanced math processing and learning.

* **MUSIC/NOISE** have the ability through simple commands to generate up to 3 voices of music and 1 noise (sound effects) channel.

* **LIST PROCESSING** can handle and manipulate lists of words and/or numbers in various ways.

* **FILE** and **EXTERNAL DEVICE COMMANDS** allow one to access and use printers, keyboard, joysticks and tape/disk drives.

Overall, SmartLogo™ is an excellent package and well worth it's price. It is useful not only as an introductory learning tool, but also for more advanced creations and education. It's an excellent language for teaching structured-modular thinking. The language is simple yet flexible and open-ended to your own design.

The sprite graphics are easy to use and very useful for teaching geometric concepts.The shape drawing capabilities along with music/sound effects should satisfy most creative tastes. While touted as a teaching language for kids, LOGO™ is also an exciting challenge for adults and advanced programers. **W.M.**

LogoMotion™

by Ramsey J. Benson

Welcome to LogoMotion™ where you'll learn about SmartLOGO™, the computer language which allows you to write programs that fully utilize ADAM™'s exciting graphic and sound capabilities. Here each month we'll present interesting programs that demonstrate how to program in Logo. This month we'll briefly describe SmartLOGO™ and offer suggestions to help you learn it.

The Logo Language

Logo was developed to teach young children how to program computers, but it's really a powerful graphics language that's easy for everybody to learn and more fun to use than SmartBasic™. You'll find it ideal for creating pictures with moving figures, writing video game and educational programs, playing music, drawing pie and bar charts and many other imaginative things.

Logo commands consist of single words, like CLEARSCREEN, or a word followed by one or more numbers. For

COMPUTER SYSTEM	IBM PC/JR	APPLE IIe/c	ATARI 800XL	TRS-80 COLOR	TI 99/4A	CMDR 64	ADAM
LOGO NAME	IBM LOGO	APPLE LOGO	ATARI LOGO	COLOR LOGO	TI LOGO	CMDR LOGO	SMART LOGO
DEVELOPER	LOGO COMPUTER SYSTEMS	LCS	LCS	MICROPI INC.	MIT/TI	TERRAPIN INC.	LCS
PRICE	$175	$175	$100	$100 / $50	$100	$60	$70
FORMAT	DISK	DISK	CART	DISK / CARTRIDGE	CART	DISK	DDP & DISK
BACK-UP	UNPROTECTED	INCLUDED	NO	UNPROTECTED / NO	NO	$5	NO
FULL PRIMITIVE	YES	NO	NO	NO	NO	NO	YES
SET SPEED PRIMITIVE	NO	NO	YES	YES	NO	YES	YES
ARITHMETIC	YES	YES	YES	YES	YES	YES	YES
MATH FUNCTIONS	YES	YES	YES	NO	NO	YES	YES
LIST PROCESSING	YES	YES	YES	NO	YES	YES	YES
# SPRITES	NO	NO	4	256	32	8	32
SOUND	YES	NO	YES	NO	YES	YES	YES
SAVE/READ TEXT/GRAPHICS	YES	TEXT ONLY	TEXT ONLY	YES	TEXT ONLY	YES	YES
PRINTOUT TEXT/GRAPHICS	YES	TEXT ONLY	TEXT ONLY	TEXT ONLY	TEXT ONLY	YES	TEXT ONLY

example, FORWARD 25 tells the figure of turtle on your TV to take 25 steps up toward the top of the screen. The command RIGHT 90 tells the turtle to turn right 90 *degrees*.

The classic Logo demonstration programs draws a square on the TV screen. It shows the simplicity of the language but just hints at its ability to do so much with so few instructions. Imagine a turtle in the middle of you're TV screen with a pen under its belly so it draws lines as it moves. If you draw a square yourself, you'll quickly identify the instructions the turtle must follow. The Logo instructions to draw a square 25 steps on each side are simply:

FORWARD 25, RIGHT 90, FORWARD 25, RIGHT 90, FORWARD 25, RIGHT 90, FORWARD 25, RIGHT 90.

SmartLOGO™ allows you to abbreviate command words. FORWARD becomes FD and RIGHT becomes RT. Instead of writing the same instructions over and over again, SmartLOGO™ provides a REPEAT command. Using the REPEAT commmand, the square program above becomes:

REPEAT 4 [FD 25 RT 90]

The instructions inside the brackets are repeated 4 times.

The real power of the language comes from the ability to teach the turtle by *grouping instructions into procedures*. By putting the above REPEAT statement into a procedure named SQUARE, you stored the instruction in the turtle's memory. And turtles never forget. Anytime you want the turtle to draw a square, simply type SQUARE and the turtle will draw it.

SmartLOGO™ has many more powerful commands that change the turtle's color, shape, speed and visibility. A turtle can have one of 16 colors. It can assume anyone of 60 pre-defined shapes that include a star, diamond, heart, flower, dog, truck, airplane and rocketship. SmartLOGO™ has a built in shape editor for creating your own shapes as well as a full screen text editor for creating procedures. You can have 30 turtles all moving around the screen at once and you can detect when they collide.

In addition to turtle control, SmartLOGO™ provides commands for making sounds, doing arithmetic, performing mathematical functions, creating and deleting files, and manipulating words.

You can list or print entire procedures or just the names of procedures. You can run large programs by loading a few procedures and then erasing them from memory when they are done to make room for the rest of the program.

Using SmartLOGO™ for the First Time

After SmartLOGO™ loads, the STARTUP file asks whether or not you want to do the tutorial. The first time you run SmartLOGO™ try the demonstration programs so you can see the kinds of things possible with SmartLOGO™. Appendix B explains how to run them.

Then I recommend parents and children take the EXPLORE tutorial together and learn from each other. Each lesson should take about a half an hour. The lesson titles are:

1. Meet the Turtles
2. Making Procedures
3. Polygons
4. Spirals
5. Using Color
6. Many Turtles
7. Multiploy + Multispi
8. Color Shape and Speed

After the first few lessons, you may want to run the EASYTYPE drill which lets you practice the Logo commands.

The manual provides another tutorial with different examples and more explanation. Take the time to do this tutorial, as it teaches you about shapes and animation.

Serious Logo programing requires you to read the reference chapters and work through the many examples.

I've written many SmartBasic™ programs, but know that as I've learned SmartLOGO™ it's become my favorite language. If you really want to "discover the *POWERS* of ADAM™", buy and learn SmartLOGO™. Then for more ideas about what programs you can write in SmartLOGO™, read this column each month. Next month we'll learn to draw the American Flag and in December we'll learn to play Jingle Bells.

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Exclusive Interview:
Charles Winterble part 1

On February 24, 1984, Coleco announced the appointment of Charles Winterble to the position of Group Vice President, Computer Products. He was vested with full responsibility for all phases of electronic product development, including computer hardware and software and completing the engineering of products for manufacturing readiness.

Mr. Winterble had been employed at Commodore International since 1978 where he led a team of engineers in the development of the VIC-20 and C-64 until his departure in mid '82. Here is part 1 of an exclusive interview he gave AUA on July 11, 1984 at the National Computer Conference in Las Vegas.

AUA: What did you find when you arrived at Coleco at the beginning of March?

Winterble: I saw a team of people who had been working extreemly hard for a long period of time, a very dedicated group. They were looking for some consolidation of the efforts and a little direction. As far as the problems go, what I saw was a computer that was in technically pretty good shape by then.

AUA: Were you involved in the revision of the digital data drive and printer?

Winterble: The data drive is from a new manufacturer now. That was taken care of before I arrived. The printer has gone through a series of changes to it and there are even ongoing changes right now to continue improving the reliability. But right now the printer significantly improved. From the data and demonstrations I've seen, it's a pretty reliable product.

AUA: We sent an early critique of problems with the original system to Coleco last November in an effort to help the engineers solve them.

Winterble: Let me officially thank you for your work. A lot of that input is really very useful. I'm sure those were some of the reasons that a number of changes were made. They have made, and will continue to make even beyond today, a series of changes to the printer.

AUA: We still don't have a copy of the new printer.

Winterble: I don't really want to call it the "new printer" because it's the same printer. What's happened is there's been a lot of additional engineering and redesigning. And they're mostly "tweaks". Basicly the system was good. There were a couple of annoying bugs on it in the beginning. From your point of view (if you had an initial product that didn't work) it doesn't matter if it's trivial or significant, it didn't work. But the product that is being delivered today is significantly different.

AUA: We encountered many printers that printed faded letters on the top, bottom or all over, or printed letters askew regardless of mallet or head adjustment.

Winterble: Some of the changes that we've made include grinding the platens down now. One of the problems like from left to right if it faded or as the platen rotated, if it wasn't totally concentric, there'd be hot spots and soft spots. The adjustment procedure for the heads themselves has been totally changed as well as our testing. In addition, more burn is being put on it. Every unit is being run through a series of extensive burn cycles to make sure it leaves ok. What can happen during shipping, because of the inertia of the head, if it gets dropped enough it may still be possible occasionally for a unit to get out there which isn't quite perfect but still is a lot better than it was. So we've given people instructions on how to adjust these things. We have additional plans to continue improving it even further. I'm very pleased with what we're shipping right now.

AUA: What happened to the Personal CP/M that was susposed to have been developed by Digital Reasearch for ADAM™?

Winterble: We showed it at the June Consumer Electronic Show. We have made a deal with Digital Research. So as standard as CP/M is, that will run. There were at least a dozen programs which we have ported over and run under it--off the shelf standard CP/M programs on digital data pack and disk.

AUA: How much longer will it be before the disk drive is a reality?

Winterble: We'll be shipping the disk 3rd quarter. I anticipate a lot sooner than October. Our plans are to make limited shipments in August.

AUA: And the modem being originally announced as 1200/300 baud?

Winterble: I changed that. My input together with marketing, we decided we should go with a 300 baud only modem. We felt that for the home user, for the non-business applications, that 300 baud was better suited. It's a nice little product. It's got an automatic dialer.

AUA: Automatic RE-dial?

Winterble: Under software yes. Along with it goes a terminal software communications package which includes dialing, stores a directory of phone numbers, and auto-redial. That will be available on DDP and subsequently on Disk. We plan to offer most of our software in both formats.

AUA: We've heard the disk drive is very fast. Is that true?

Winterble: It is a very fast drive yes. It's something like 40 times faster than the Commodore disk drive, single sided, double density, and 160K formated capacity.

AUA: How is the software going?

Winterble: The pipeline is being filled on the majority of promised programs. The SmartFiler™ is going out now. The Flashcard series, the Recipie Filer, SmartLogo™, Telly Turtle™ and more are on the way. We showed about 25 brand new programs at the June Consumer Electronics Show.

AUA: Our concern is that although you have demonstrated existence of software for the system, it still has yet to reach the stores in significant quantity to satisfy demand among owners who have been waiting almost a year for fundamental programs to become available.

Winterble: No doubt we were slow. The only thing that's important now, and I'd like to make a point on this, the fact that the software is out there now. And you're going to see even more of it each quarter coming along. We intend to set a new record for software releases every quarter.

AUA: So are you optimistic about this computer making a comeback?

Winterble: Yes I am very much so.

AUA: Can you tell me how many units have been manufactured thus far?

Winterble: No, I'm sorry, I really don't want to get into specific numbers like that. It just causes confusion.

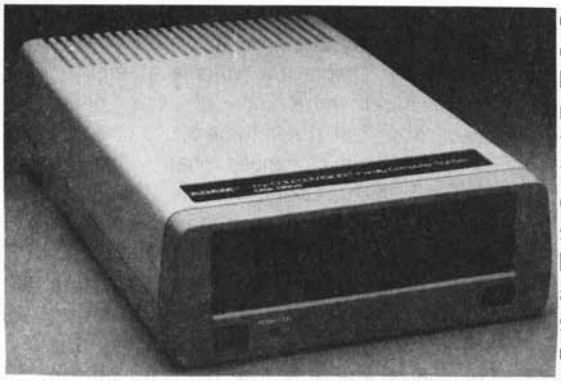
AUA: We think the keyboard is among the best of any computer at any price in the microcomputer industry. Are there any plans to manufacturer a similar keyboard for other computers?

Winterble: No. Right now we're concentrating on hardware and software for the ADAM™.

AUA: What good is CP/M™ in isolation?

Winterble: A number of third parties are converting their CP/M™ software for ADAM™.

AUA: What third parties? ☞



The Disk Drive Arrives

WARNING!

Put the WRITE PROTECT TAB on your DOS disk IMMEDIATELY before you forget to remove it and erase it while attempting to initialize what should be a *different BLANK* disk. The tab is in that little plastic bag with the **Disk 2** label. We have received numerous reports of this kind of DOS disk destruction by novice members. We called Coleco immediately and they are putting the tabs on disks at the packaging facility now. But for the drives in the pipeline already, **Coleco will replace any DOS disks that you may have already inadvertantly trashed.**
Call their 800 line to get an exchange.
Complete Review of Drive in next issue.

User Group News

You each have 'til November 20 to tell us if you don't want your name, address and phone number sent to members in your local phone area code. **Please send a Self Stamped Addressed Envelope along with 25¢** to cover the cost of preparing the list. **Place your phone area code on the lower left corner of your return envelope.**
Here are a few of the members who are starting groups:
NY:Upstate: Don K. Zimmerman, 5132 Jordan RD
Silver Springs NY 14550 716/ 493-5998
PA: Brad C. Bishop, 415 Lexington CT
Hershey PA 17033, 717/ 534-2437
Atlanta: Dwight Waggener, 4194 Meadow CT
Marietta GA 30066 404/ 928-1016
Tarheels: Gary Hill, Lot 5 Oak Grove
Chapel Hill NC 27514 919/ 968-0299
Gainesville: Jeff Harris, 28-305 East Hall U of FL
Gainesville FL 32612 904/ 395-7742
Alabama: Victor L. Watford, PO BOX 777
Russellville AL 35653 205/ 332-6069
Houston: Tom Stanhope, 9539 Clanton,
Houston TX 77080 713/ 460-9734
Mid-Western: Dr. Steve Harris, 730-N Thurber DR
Columbus OH 43215 614/ 221-2049
Illinois: Robert Lennes, 14637 Atlantic
Dolton IL 60419 312/ 841-5776
Nebraska: Norman R. Castro, 809 West 33rd AV
Bellevue (Omaha) NE 68005 402/ 291-4405
Tucson: Dan Levitt, 4525 S White Pine
Tucson AZ 85730 602/ 790-9678
Southern CA: Harvey Klein, 1736 S Bedford ST
Los Angeles CA 90035 213/ 553-1062
San Francisco **Bay Regional ADAM Information Network (BRAIN)** George Havach, 550 27th ST #202
San Francisco CA 94131 415/ 285-3007

Computer Learning Month OCTOBER 1984

(from page 2) I know many of you were disappointed not to be able to reach me by phone during late October, but it really came down to turning away from incoming phone calls or NEVER getting this newsletter to you! The volume of calls is reaching 30 to 40 a day. If I spent 5 minutes on each one, that would be 2.5 to 3.5 *hours* a day on the phone answering questions that *this* is susposed to answer. I hope you understand my need for you to cool down the use of the HOT-LINE.

The alternative is for you to put questions in writing with specific mention of said question on both the lower left side of the front of the envelope you send to us *and* the one you want us to reply with (SSAE).

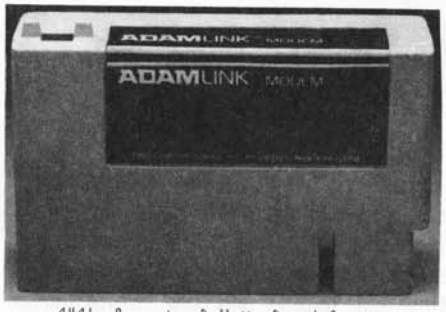
We are sending questions about BASIC programing to Professor Gary Cornell, co-author of *The BASIC ADAM™*. He will respond to them in a monthly column beginning with the next issue called **BASIC Answers**. Questions about LOGO will be answered in Ramsey Benson's ***LogoMotion™*** which you see beginning in this issue.

Needless to say, it *was* computer learning month for *me* but not so much for you I'm sorry to say (by AUA anyway). The graphics are so neat, I decided since this edition was created in that month, we would initially have cover dates that reflect the month of creation rather than the month of consumption.

We got the disk drive mid October and we have to think the rumors of Coleco dropping out of the home computer market don't make sense with the introduction of such an outstanding mass storage medium. It's extreemly quiet and fast - much faster than the Commodore 1541 drive. I've got to believe the pundits are wrong. Coleco seems to have a winner of a computer now that this drive is available for under $300.

The modem only comes with dumb terminal software. It lacks the auto-answer hardware that would have allowed ADAM™ systems to become CBBS hosts (back to the RS232 folks). It also has no auto-REdial, upload, download, and directory software. But WAIT! Two software developers are working full time to deliver all those features in an intelligent p.11

Winterble: I can't release them. But we'll be releasing, in the future, a list of the people we know of who are producing software. END PART 1



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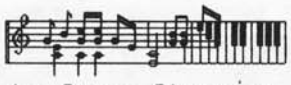

by Steve Simpson

The Sound Chip

The ADAM™ uses the **SN76489A** sound chip manufactured by Texas Instruments. This chip can make four sounds at the same time; three tones (musical notes) and one white noise sound. Each of the four sounds can be set to a different volume.

Programing Musical Tones

You play notes by telling the sound chip the time period of the frequency you wish to play. Generally, the time period is calculated by taking the inverse of the frequency. For example, a frequency of 1000 Hertz would have a time period of 0.001 seconds. For the SNA76489A sound chip, the period is calculated by the following equation:

$$\text{period} = \frac{\text{clock frequency}}{32 \times \text{note frequency}}$$

ADAM™'s clock frequency that's being fed to the sound chip= 3579535.0 Hertz

To make the sound chip play a musical note, you must send two bytes of data to the chip, one byte at a time. The high bit of the first byte is always set to a one and the high bit of the second byte is always set to a zero. This enables the sound chip to distinguish which is the first and which is the second byte.

Byte 1

BIT	7	6	5	4	3	2	1	0
	1	T	T	V	P	P	P	P

Byte 2

BIT	7	6	5	4	3	2	1	0
	0	X	P	P	P	P	P	P

T = Tone, V = Volume, P = Period X = "Don't Care"

Notice that the first bit in byte one has been set to a one and the first bit in byte two has been set to a zero.

Together, the two **T** bits tell the sound chip which **tone** to use (tones 0, 1 and 2 produce musical notes, tone 3 noise). The **V** bit is the **volume** bit and will be discussed later. It should be zero whenever you change the note period. The 10 **P** bits represent the note **period**:

TT = 0 0 change the period of tone #0
TT = 0 1 change the period of tone #1
TT = 1 0 change the period of tone #2
TT = 1 1 makes noise (discussed later)

Use the equation discussed earlier to convert the frequency of the note you wish to play into the period that the sound chip needs.

There are only ten **P** bits spread across the two bytes. This means that the legal values resulting from the calculation of the period must be between 0 and 1023 decimal. The four **P** bits in byte one are the high four bits of the ten bit period value and the **P** bits in byte two are the low six bits of the period.

The **X** bit isn't used by the sound chip. Set that bit to zero. Whenever you change the period of a note, the volume bit must be a zero. Otherwise, the period for that tone number will not get changed.

Programing Noise

Using tone #3 you can produce different noises. The noise generator can be used to produce the sounds of explosions or a simple "**blap**" when you press a wrong key.

Noise Byte

BIT	7	6	5	4	3	2	1	0
	1	1	1	V	X	FB	NF	NF

V = Volume FB = Feedback Control
X = "don't care" NF = Noise Feedback

Notice that the high bit is a one. Noise is always a one byte command to the sound chip. Also, the **T** bits (bits 6 & 5) are both one. Using the value of "11" for the **T** bits tells the sound chip to use tone number 3 which is the noise generator. The **V** & **X** bits should both be zero as usual. If the **FB** bit is zero, you will get periodic noise which sounds like a low frequency tone. If the bit is a one, the sound chip will produce white noise which sounds like a hiss.

The two **NF** bits work like this:

NF = 0 0 less coarse hiss (higher pitch)
NF = 0 1 in between
NF = 1 0 more coarse hiss (lower pitch)
NF = 1 1 **DO NOT** USE A VALUE OF 1 1

Programing Volume

If you calculated the period value needed to produce a tone of 440 Hertz, created the two data bytes and sent them to the sound chip, you would hear nothing because volumes for all three tones and the noise generator are off.

Volume Byte

BIT	7	6	5	4	3	2	1	0
	1	T	T	V	L	L	L	L

T=Tone# V=Volume on/off L=Loudness

L L L L = 0 0 0 0 Loudest (full volume)
L L L L = 0 0 0 1 One step quieter
etc.
L L L L = 1 1 0 1 One step above
L L L L = 1 1 1 0 softest
L L L L = 1 1 1 1 volume off

Up until now, the **V** bit has been a zero. When you change the volume of eigther a musical note or of the noise generator, set the volume bit to one.

T T = 0, 1, or 2 changes music volumes
T T = 3 changes noise volume

It is important to realize you cannot change volume in the same command as you change eigther the period of a note or the noise bits. When the **V** bit is zero, you are eigther changing the period of a note or the feedback bits in the noise generator. When the **V** bit is a one, you can only change the volume loudness for eigther one of the three tones or of the noise generator.

Playing a Musical Note

1. Tell the sound chip the period of the note you wish to play by sending it the tone number and the period value. The V bit is zero. Setting the tone period is a two byte command.
2. Tell the sound chip the volume you want (using the same tone number). The V bit is one. Setting the volume is a one byte command.

Making Noise

1. Tell the sound chip the value of the feedback bits using tone number 3. Set the **V** bit to zero. Setting the noise bits is a one byte command.
2. Tell the sound chip the volume you want (again using tone number 3). Set the **V** bit to one. Setting the volume is a one byte command.

Example Tone Creation

Say you want to play the note "middle C" = 261.63 Hz (cycles per second):

1. Calculate the period needed by the sound chip:
   3579535 ÷ (32 X 261.63) = 427.55
   Round this value to 428 decimal.
2. Split this value across two bytes:
   428 decimal = 01AB hex =00653 octal = 0000000110101011 binary. Make sure that the value fits in ten bits (not more than 1023 decimal). It does. In binary, ten bits of the value is 0110101011. Now put the high four bits (00000110) into the first byte and the low six bits (00101011) into the second byte.
3. Create the two data bytes needed to change the tone period. (Put in the bit for the first/second byte, and the TT bits).

1st byte	2nd byte	
10000110	00101011	to use tone 0
10100110	00101011	to use tone 1
11000110	00101011	to use tone 2

4. Calculate the values needed to change the volume:

10010000	tone #0	full volume
10011111	tone #0	off

```
10110000        tone #1   full volume
10111111        tone #1    volume off
11010000        tone #2   full volume
11011111        tone #2    volume off
```

5. Send the bytes to the sound chip (use the method described below to do this from Basic). First, send the two bytes that will change the period. Second, send to the sound chip the byte to order full volume and the tone will play. Third, stop the note from playing by sending the byte to order volume off.

If you are making sounds from Basic, then you will need to use the decimal values of the three bytes. To play "middle C" using tone #0, the three bytes would be 134, 43, and 144. A value of 159 will turn the tone off again:

```
10000110 = 134 decimal
00101011 =  43 decimal
10010000 = 144 decimal
10011111 = 159 decimal
```

Sending Commands from SmartBasic™

The Basic subroutine that follows will create a five byte assembly language routine in memory. You only need to call this setup routine once. It can be called to output commands directly to the ADAM™ sound chip. It will stay in memory until you reload Basic from tape again.

After you call this setup routine, sending a command to the sound chip is easy. Just POKE the byte into f +1 then CALL f.

in your main program:

```
05  clear              Remarks in Boldface:
10 LOMEM : 29000   reserve space for
                       the sound routine
15  f = 28950
20  gosub 9000         poke sound routine
                           into memory
21  rem
22  rem
100 your main program
9000  This routine pokes a 5 byte "output
9001  to sound chip" routine into memory
9002                  at the address "f".
9003       Thereafter, to send a byte to the
9004          sound chip you POKE the byte
9005            to address f+1, then CALL f.
9009 REM
9020 POKE f   , 62              LD A, value
9021 POKE f+1, 0
9022 POKE f+2, 211              OUT OFFH
9023 POKE f+3, 255
9024 POKE f+4, 201                   RET
9030 RETURN
```

SmartBasic™ Routine Examples

```
9100    This routine sends the byte value
          in the variable "s"
9101    directly to the sound chip.
9105 poke f+1, s : call f
9110 return

9200          Turns off all sound and noise
9205 poke f+1,159:call f  turn off tone 0
9206 poke f+1,191:call f  turn off tone 1
9207 poke f+1,223:call f  turn off tone 2
9208 poke f+1,255:call f  turn off noise
9210 return
```

The following routines are from the TI technical document on the sound chip and modified for use on the ADAM™.

```
01                              dropping bomb
02                               plus explosion
05 clear
10 LOMEN:29000          reserve space for
15 f=28950                 sound routine.
20 gosub 9000           poke sound routine
                             into memory.
25 gosub 9100           turn off all sound
26
27
100s=144:gosub9100 full volume, tone 0
105  for j = 5 to17       loop to generate
                           byte 2 for sweep
110 for i=128 to143       loop to generate
                           byte 1 for sweep
120 s = i : gosub 9100      output to chip
125 s = j : gosub 9100
130 for d = 0 to 10              delay loop
131 next d
140 next i
150 next j
160 s = 159: gosub 9100   off tone #1
165                            BOOM!
170 s =228 : GOSUB 9100
        set noise to high pitch white noise
180 for s = 240 to 255  loop to generate
190 gosub 9100             volume bytes
200 for d = 0 to 75              delay
210 next d
220 next s
250 end
```

```
01                        SOUND OF BELLS
02
05 clear
10 LOMEN : 29000        reserve space for
15 f = 28950              sound routine (SR)
20 gosub 9000           poke SR into memory
25 gosub 9100             turn off all sound
26 rem
27 rem
100 s = 140 : gosub 9100          tone 0
105 s = 5 : gosub 9100            (byte 2)
110 s = 170 : gosub 9100          tone 1
115 s = 5 : gosub 9100            (byte 2)
120 for b = 1 to 5          number of bells
130 for i = 145 to 159      volume tones
140 s = i : gosub 9100            tone 0
145 s = i + 32 : gosub 9100       tone 1
150 for d = 0 to 75 : next d    delay loop
160 next i
170 next b
180 end
```

```
01                              BIRDS
02
05 clear
10 LOMEM : 29000        Reserve space for
15 f = 28950          the sound routine (SR)
20 gosub 9000         Poke SR into memory
25 gosub 9100           Turn off all sound
26 rem
27 rem
100 t = 0
105 z = 1
110 z = INT (10 X RND (-z))  Random
                                chirp length.
115 s = 144 : gosub 9100 tone 0 full Vol.
120 for i = 0 to 15      Start chirp loop.
125 s = 128+i : gosub 9100   Step the
130 s = 1 : gosub 9100         frequency.
135 for d = 0 to z : next d  Random delay
140 next i                      ammount.
150 t = t + z     Count to stop the program.
160 if t >= 100 then 180
170 goto 110
180 s = 159 : gosub 9100     Volume off.
190 end
```

```
01                          Missile Sound
02 REM
05 clear
10 LOMEM : 29000  Reserve Space for SR.
15 f = 28950
20 gosub 9000   Poke sound into memory.
25 gosub 9100         Turn off all sound.
26 rem
100 s = 231 : gosub 9100    Noise value.
105 s = 240 : gosub 9100  Noise full Vol.
110 for b = 0 to 15         loop to generate
120 for a = 192 to 207        second byte.
130 s = a : gosub 9100
135 s = b : gosub 9100
140 next a
150 s = 240 + b      Change noise volume.
160 next b
170 goto 25                    FOREVER...
180 end
```

```
01 REM                    PHASER SOUND
02 REM
05 clear
10 LOMEM : 29000  Reserve Space for SR
15 f = 28950
20 gosub 9000     Poke SR into memory.
25 gosub 9100       Turn off all sound.
100 s = 231 : gosub 9100  Set noise bits.
105 s = 240 : gosub 9100  Noise Volume
110 for b = 0 to 15             on full.
115 for a = 192 to 207
120 s = a : gosub 9100 Tone 2 frequency.
125 s = b : gosub 9100
130 next a
135 s = 240 + b : gosub 9100  Lower
140 next b                  noise volume.
150 end
```

Steve is President of FutureVision, a software firm in North Bellerica, MA

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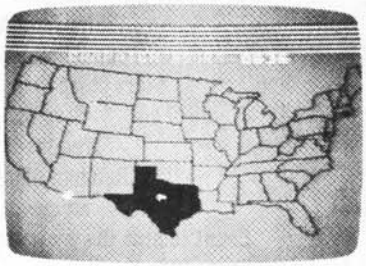

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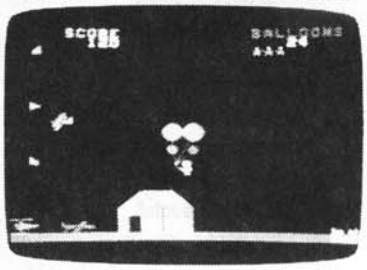

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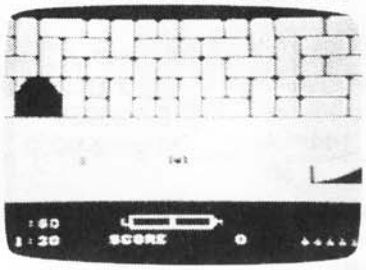

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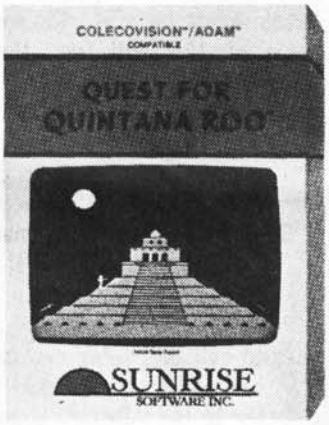

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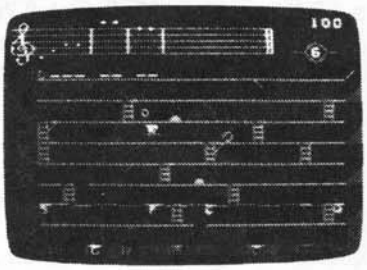

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Card Number ____

Signature ____

SUNRISE
SOFTWARE INC.

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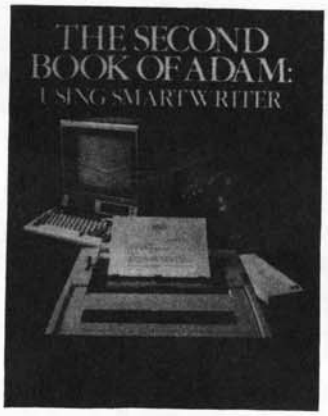
Phone Directory
by Joung S. Bae

This software will do the job of your family phone book by keeping and listing names and numbers from your list in data statements. Store your list of names and numbers in data statements beginning at line 5000 as follows: "DATA Name, Number". For example: 5000 DATA ADAM, 895-1234. The last line ***must*** be : DATA END, 0. The data statements have to be complete before you can save the program.

After you run the program, the instructions will appear, then the menu. You can choose to display individual numbers or display the whole list. If you choose to display individuals, ADAM™ will ask you to input your desired name entry. Type in the name ***exactly*** *the way it appears in the list.* After ADAM™ displays the name and the phone number, you can eigther end the program or go back to the menu.

```
01 FLASH
10 HOME: PRINT "**********
****** ": PRINT "**********
PHONE DIRECTORY**********":
PRINT "**********"
20  NORMAL: PRINT
30  PRINT "THIS PROGRAM WILL HELP
    YOU"
31  PRINT "ORGANIZE YOUR PHONE
    NUMBERS"
32  PRINT: PRINT "LIST YOUR NUMBERS
    STARTING"
33  PRINT "LINE 5000, AS FOLLOWS:"
34  PRINT "DATA STEVE, 777-7777"
35  PRINT"THE LAST DATA STATEMENT
    SHOULD"
36  PRINT "READ: DATA END, 0"
40  FOR i = 1 to 5000
41  NEXT i
50  HOME:  PRINT "PHONE DIR. MENU"
60  PRINT: RESTORE: PRINT "HIT '1' FOR
    INDIVIDUAL NUMBERS"
70 HTAB (5): PRINT " '2' FOR FULL LIST"
80   HTAB (5): PRINT "  '3' TO END"
90   INPUT a$
100  IF  a$ =  "1" THEN GOTO 200
110  IF  a$ =  "2" THEN GOTO 300
120  IF  a$ =  "3" THEN END
130  GOTO 50
200  HOME: INPUT "ENTER NAME"; b$
210  PRINT: PRINT " SEARCHING FOR: ";
     b$ : PRINT:  PRINT
215  RESTORE
220  READ n$, no$
230  If n$ = "END" THEN 250
240  IF n$ =  b$ THEN 280
241  GOTO 220
250  PRINT b$;  "  IS NOT FOUND"
260  RESTORE
270  GOTO 4000
280  PRINT "NAME", "NUMBER"
290  PRINT:  PRINT n$,  no$
291  GOTO  4000
300  RESTORE
301  HOME:  PRINT  "NAME",  "NUMBER":
     PRINT
305  READ n$, no$
307  IF n$ = "END" OR n$ = "end" THEN
     4000
310  PRINT n$, no$
311  GOTO  305
320  GOTO  4000
4000 PRINT: PRINT
4001 PRINT "WOULD YOU LIKE TO GO
     BACK TO" :  PRINT "THE MENU?"
4005 PRINT "Y = YES      N = NO"
4010 INPUT c$
4020 IF c$ = "Y" THEN  GOTO 50
4030 IF c$ = "N" THEN END
4040 GOTO 4000
5000 DATA  STEVE, 777-7777
5010 DATA  DAVE,  123-4567
5020 DATA  RICK,   765-4321
5030 DATA  END, 0
```



Pamela J. Roth rates ****

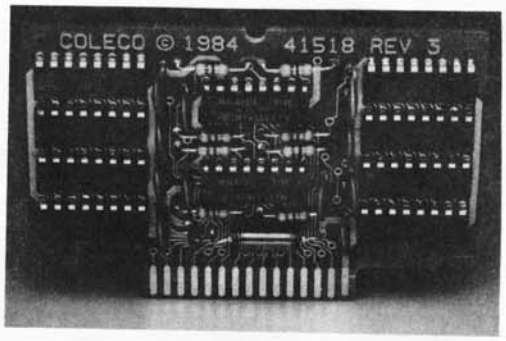
next page

(from page 2) ED: Scholastic felt it could not obtain enough third party ad revenue to justify it.

Coleco is coming out with an RS232 cable that will enable ADAM™ to utilize other printers. Will an alternate power supply be made available or will ADAM™ still need to be hooked up to the present printer?

Ronald D. Pacheco
Dyess AFB, TX

ED: A third party that wants to produce the external power supply is negotiating with Coleco to buy proprietary parts. Coleco can't decide if they should allow the third party access to the parts or if they should make it themselves. We think they should sell to an outfit that is ready willing and able to provide this peripheral now, rather than make owners wait another six months for the item that will make ADAM™ portable.



THIS ACCESSORY IS DESIGNED TO ENHANCE THE CAPABILITIES OF ADAM PROGRAMS. ALTHOUGH ALL PROGRAMS WRITTEN FOR THE ADAM COMPUTER CAN RUN ON THE BASE SYSTEM, THIS EXPANDER ADDS PERFORMANCE AND FEATURES TO SOME PROGRAMS. YOU CAN CREATE LARGER DOCUMENTS WITH SMARTWRITER. THE CP/M OPERATING SYSTEM RECOGNIZES THE INSTALLED 64K MEMORY EXPANDER AS A RAM DISK WHICH CAN BE USED FOR RAPID TRANSFER OF DATA. ADAMCALC LETS YOU USE THE EXPANDER FOR CONCURRENT PROCESSING SO THAT YOU CAN MOVE A SPREADSHEET INTO THE BACKGROUND AREA AND PRINT THAT SPREADSHEET WHILE WORKING ON ANOTHER ONE.

What difference does it make when I bought my computer or what the memory console number is?

Joyce Ware
Lindsay OK

ED: First new computer models have a few engineering snags that need attention from an authorized service center for you to get the most out of your system. Yours should have been checked out since February to assure everything is in proper working order. Today's ADAM™ has a lower defect rate than today's Commodore 64.

(from p.7) terminal package that is expected to be ready for sale by January. New modem packaging includes a discount coupon for early ADAMLink™ purchasers to get it then at a special price. Ask the 800 operators to have a copy sent to you if you already bought yours.

Speaking of the 800 Customer Service operators: We are initiating a monthly **Actual Assistance Award** to those operators who, according to the nomintations and feedback of members actually knowledgably help. We want to thank Gordon Meyer of Roy, Utah for this idea. This month's winners are:

Ask for them by name & extension for some real help from West Hartford!

Classifieds

25¢/word, 20 word minimum

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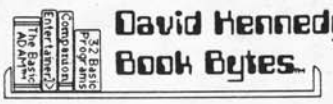

David Kennedy's Book Bytes...

INTRODUCTORY BOOKS

* **HOW TO USE THE COLECO ADAM**, Dilithium Press, 121 pages, by Jerry Willis covers everything without getting into details.

* **THINGS TO DO WITH YOUR COLECO ADAM™ COMPUTER**, New American Library, 181 pages, by Jerry Willis, Merl Miller, & Cleborne Maddux. Everyone would think that a book written by three people would be great but in my opinion it's not even fair. While informative about a mythological "in the future" that is constantly referred to, it's substance is old news.

GENERAL INTEREST BOOKS

In this catagory should be many "fat books" but there are few.

** **ADAM'S COMPANION**, Avon Press, 394 pages, by Ramsey Benson & Jack Rochester was hurried into printing by computer novice Avon Press. A few typesetting errors and program line deletions were enough to destroy the usefulness of most of it's contents. Many users of the AUA's HOTLINE have criticized the book for these flaws:

1. The Mailing List Program was written in a Basic 1.1 that Coleco promised Mr. Benson would be available to the public at the time the book was. That version is **still not available**.
2. Lack of criticism toward some Colecovision games which are not great.
3. Appendix F was left out.
4. Missing lines in programs.
5. Publisher failed to allow the authors time to proofread the book before it went to press. Had Avon paid attention to details, it would have had a hit. Instead, they spoiled their future in computer book publishing.

*(Ed: Ramsey covers points 3 & 4 in his **Companion Corrections** article found elsewhere in this edition.)*

** **THE FIRST BOOK OF ADAM™ THE COMPUTER**, Tab, 202 pages, by Authur Dent doesn't live up to the title. The publisher slashed 75 pages of advanced programing information from the author's original manuscript leaving a shell of light coverage on word processing & programming.

*** **COLECO ADAM™ USER'S HANDBOOK Revised Edition**, Webber Systems Inc., 300 pages, by Webber Systems Staff is a substantial improvement over the original which *was* primarily a rewrite of Coleco manuals. It contains a number of interesting programs one can type into ADAM™ and use with SmartBasic.

WORD PROCESSING BOOKS

** **WORD PROCESSING WITH YOUR ADAM™**, Tab, 154 pages, by Barbara Spear has a number of practical ideas that could be useful in the home and for user groups and other clubs.

*** **WORD PROCESSING WITH YOUR COLECO ADAM™**, Sybex, 127 pages, by Carole Alden covers the subject in a way that gives the reader a better understanding of the SmartWriter™ commands.

**** **THE SECOND BOOK OF ADAM™: USING SmartWriter™**, Que, 244 pages by Pamela Roth is the best book on the subject. Ms. Roth's writing style helps any reader ten years or older understand easily.

PROGRAMMING BOOKS

* **THE EASY GUIDE TO YOUR COLECO ADAM™**, Sybex, 181 pages, by Thomas Blackadar is superficial *and* "easy". Avoid this if you want to learn Basic.

1/2 **THE FIRST BOOK OF ADAM™, Que, 227 pages, by Pamela Roth is a beginner's introduction to SmartBasic that doesn't go into much deatil.

*** **PROGRAMMING ADAM™**, Banbury, 321 pages, by Edward B. Claflin and John A. Heil goes into more detail and includes listings of useful home application programs.

*** **SMARTBASIC FOR THE ADAM™**, Brady, 375 pages, by Bill Searle and Donna Jones is written in a manner that has attracted many beginners to the programing field. It reads like, and could serve as, a school textbook.

**** **THE BASIC ADAM™**, Wiley Press, 500 pages, by William Abikoff and Gary Cornell covers everything there is to know about SmartBasic™. It leads newcomers from the ground up into advanced programing. It includes many ready to type in programs.

SOFTWARE BOOKS

Software for ADAM™ is hard to find. So two excellent strictly-software books is a relief to discover amidst the shortage of programs *and* good books.

**** **32 BASIC PROGRAMS FOR THE COLECO ADAM™**, Dilithium, 275 pages, by Tom Rugg and Phil Feldman is a classic that you may also buy a Digital Data Pack of. We'll have an in-depth review of this in next month's issue.

**** **THE COLECO ADAM™ ENTERTAINER**, Osborne/McGraw Hill, 190 pages, by Brian Sawyer is full of ready-to-run programs that are delightful and fun.

****	***	**	*
Excellent	Good	Fair	Poor

David Kennedy is President of **ADAM™ MICROHACKERS™** in New York City, Northeastern Regional Headquarters for **ADAM™ Users of America™**.

Members only may call him at the AUA Eastern HotLine 10 PM to 1:30 AM Eastern Time, 7 days a week:

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SmartFiler™ and Mailer

by Martin L. Schamus

**** For those of you who have accumulated a mass of personal records over the years and had difficulty keeping things in order *and* accessible, this is a tool to help you put those records in order. Whether you want to catalog your record, coin, or stamp collection or keep an inventory of valuables, here is the program for you. Of course, there is no reason that SmartFiler™/Mailer (SF™M) has to be limited for home use only. A small businesses can use this software to keep track of inventory and its bowling team's scores for each team member.

It would take at least two pages of this newsletter to thoroughly explain the virtues of SF™M. I'll shorten that explanation by showing you how I set up an inventory of all my ADAM™ software.

In order to create a form, you first must prepare a blank DDP or disk for your data base. This consists of a sequence of loading SF™M, then a blank DDP/disk, reloading SF™M and once again the DDP/disk. It is done simply and quickly by using your Smart Keys. This preparation is only done once, but is needed for every new data base created.

Once this is done, a **structure form** appears on the screen asking you to **name** each field and to identify it as a **character**, **numeric**, or **text** field. You are also asked to input the **length of your fields** (up to 255 characters) and then if your fields are to be **searchable or not** (you may have up to four searchable fields). The **text** field must always be entered last and you may have up to two typewritten pages available to you for input.

After your **entrance screen** information is completed, all that is required is to follow the directions of your Smart Key lables and begin entering your records. After each entry, push your Smart Key for **SAVE**, and continue with your next record. The following is an example data base and record:

PROGRAM - Donkey Kong
SYSTEM - ADAM™
COMPANY - Colceo
RECEIVED - 04/16/84
HIGH Score - 93,763
CATAGORY - Climbing
RATING - 90
TEXT - 4 screens, plus intermissions

When you later try to retrieve your records, the SF™M will tell you how many you have on file and then list them all alphabetically. Later you can use your **search** fields by asking ADAM™ not only to bring up the record of Donkey Kong™ for example, but you can also ask to be shown all your other **climbing** games that are manufactured only by Coleco, or Parker Brothers, or Activision, etc; as well as the specific **system** that is required to play them on. You may **search** in this manner in up to four field names including the first field which is always automaticly defined as searchable.

All the information up to this point has only been stored in ADAM™'s memory. To permanently save it on DDP/disk, simply use your Smart Keys by pressing **DONE** and then **QUIT**.

Editing or adding records is equally simple. To edit, bring up the individual record on the screen and type over any iformation you desire to replace or add to existing copy. Then press **SAVE**. As with SmartBasic™ or SmartWriter™ (SW™), individual or entire records can also be deleted quickly and easily.

One of the highlights of SF™M is its ability to not only organize an inventory, but to store mailing lists and personalize letters with its **MAIL MERGE** capability. You can write a single letter intended for many friends, club members, press contacts, or campaign contributors you may have stored on one of your SF™M DDP/disks. You can then print out letters with each individual's name and adddress at the top, each person's name in the greeting, and even unique sentences or references for each person in the body of the letter using this feature which Coleco fails to mention anywhere on the outside packaging. It's this feature which makes SF™M such an outstanding value. Usually, you have to pay separately for two integrated programs: a **data base manager** *and* a **mail merge** program that work with each other *and* a computer's word processor. Coleco's software team is to be commended for combining them. But the marketing department overlooked those integrated features completely when they designed the name and packaging and didn't call the program **SmartFiler *& Mailer*™**.

Last, but certainly not least, is the printing capabilities. You can print out partial or entire records, or even use print formats that have been created with SW™ or SmartLetters & Forms™.

The 38 page instruction booklet plus the 6 page quick reference guide that come with this software are examples of excellent documentation.

However, there is one annoying flaw in the software. When I wanted to edit files, I called up a list of the entire inventory and SF™M showed me as many titles as it could display on the screen. To display the entire record, I had to move the arrow to the particular record desired and use the Smart Key **DISPLAY RECORD**. Unfortunately, there was no way to proceed to the next entire record without first having to return to the first screen which again listed the entire inventory from the top. This can become quite tedious when you are correcting many records. The software should have been designed to return to the last record the arrow was on before it switched to the display record screen. Of course, I could have programed in title by title using **SEARCH**, but this would have taken twice as long.

I found this to be a wonderful data base manager and mail merge program; one that belongs in every ADAM™ user's software library.

SmartLetters & Forms™

by Martin L. Schamus

**** Are you a little bit concerned everytime you send out correspondence that the person on the receiving end will say: "who taught him/her how to write?" If you're like myself, this has happened too frequently and you wished that you had at your fingertips sample letters covering many situations. Well ADAM™ lovers, this program is for you. It contains over 100 expertly written social and business letters plus forms on a single DDP or disk. Invitations, thank you, sympathy, employment, complaint, resumes, college applications, and ordering information are among the letters covering 21 areas of interest. In addition, you will find a directory or forms for shopping lists, safe deposit inventories, moving, vacations, charge accounts, plus ten other subject areas.

An outstanding feature of SL & F™ is its simplicity. For every catagory you are provided with professional written forms, to be filled in and later printed, as well as samples of finished letters you can preview and edit before printing.

Computer Learning Month OCTOBER 1984

Your first decision is to choose the type of letter you need. You choose the appropriate catagory from the changing Smart Key captions. You choose a particular letter by moving the arrow on the screen to the letter's name and pressing the **GET** Smart Key. Within a few seconds your letter will appear. Each letter/form has labeled blanks that tell you the type of information you need to insert to customize it for your purpose. All SW™ editing functions work. In addition, an **AUTO CENTERING** feature has been added to allow you to automaticly center lines both on the screen and on the final printout. A typical form looks like this:

(sender's name)
(address)
(city, state, zip)
(date)

(company name)
(address)
(city, state, zip)

Attention: Complaint Department

On (date) I ordered (item) with my check # (number) in the amount of (amount). etc.

As you will have noted, information must be inserted within each label as prompted (indicated on your screen between the two parenthesis marks) by the use of your keyboard. You simply press the **TAB** key to send the cursor to the next label in the form/letter. If you want to skip around, you use the arrow/home keys to get to each point and then press the **INSERT** command key. When you have completed entering each item, press the **DONE** Smart Key and your text will appear in its proper position. This method is continued until you have completed your form/letter. You may also bi-pass any label by pressing **DONE** when you come to it.

These steps are easy to become acustomed to. Once your letter/form is completed, your next decision may be whether to store it, print it, or both. By storing it for later recall and printing, you will be able to use the additional SW™ features that allow you to change tabs, margins, line spacing, auto-page numbering etc.

You can also move the text of a letter from this software into the text field of SF™M. More importantly, you can merge fields from SF™M into the letters in this software for the purpose of sending out repetitive letters to many people in a data base that you flag. Flaging is a feature in SF™M that allows you to only merge part of the data base rather than everyone in it.

SL & F™ is a supurb companion to SF™M that will save each family member time in preparing individual and mass correspondence to one person or many. Both these programs are integrated with SW™ to facilitate the process of organizing items and persons in your life for better communication for all. I recommend both to you as essential in helping to fulfill the promise that ADAM™ brings to your family's lifestyle.

Corrections to Programs in *ADAM™'s Companion*

by Ramsey J. Benson

My thanks to those of you who purchased my book, published this year by AVON books. The letters I have received praise the book but point out errors in a few of the programs. For these errors I apologize and regret that they caused so much frustration. Although I wrote and tested all the programs, the publishing processes left no opportunity for final review. To right the wrong, let me offer the following corrections to the effors I have found.

Chapter 7 describes how to program a low-resolution Picture Maker program. On page 144, in figure 7-14 the following statement is missing:

8685 print func % (func)

This statement displays the function key values stored in the array. It's purpose is to show you what the program does and it's not part of the final PICMAKER program.

While it appears in figure 7-31 on page 160, in the final listing of the picmaker program on page 163, the following statement is missing:

5230 onerr goto 5285

Without this statement, PICMAKER will not successfully load a picture file.

I learned later that for SmartBasic to recognize an I/O command in a PRINT statement, the cursor must be in column 1. To assure this, I suggest the following replacement statements to the PICMAKER program:

5240 htab 1: print d$; "open "; name$
5340 htab 1: print d$; "open "; name$

In the program listings throughout the book, the lowercase L and the number 1 appear identical. In most cases the character is a number 1, but on page 174, figure 8-3 line 2200 and 2210 the variable names should begin with a lowercase L.

On page 187, statements 6000 through 6100 have the wrong line numbers and 9060 should GOSUB 6100 instead of GOSUB 6000. Here are the statements with correct line numbers:

6100 **rem read word file.**
6110 d$ = chr$ (4)
6120 word$ = 0
6150 htab 1:print d$; "open"; name$
6160 print d$; "read "; name$
9060 gosub 6100: **rem read file**

There is a mistake in figure 9-1 on page 217 and the musicmaker final listing. Statement 4460 should read:

4460 ms% = music% - row% + 2: gosub 5800: **rem display notes**

The mailing label system described in Chapter 10 has caused much confusion. In retrospect I should have left it out of the book as it turned out more complicated than I had originally intended. Even if you succeed in getting it to work, you'll find it incredibly slow. Coleco had promised to provide true random access in a version 1.1 of SmartBasic™ by the time the book was released. That still hasn't happened.

Despite these errors, I feel proud of the *Companion*. It provides information about games and music found in no other ADAM™ book. While other books show how to write simple programs, it demonstrates how to write the more complicated programs that most people will find useful. If you're writing smartBasic™ programs, you'll find Appendix B provides an excellent statement reference.

BOOKS

☐** 1/2 First Book of ADAM™: Using & Programming, Roth, Que.... $10.40
☐**** The Second Book of ADAM™: Using SmartWRITER, Roth, Que. 8.80
☐** Word Processing with your ADAM™, Barbara Spear, Tab..... 7.20
☐ Discovering Science on ADAM™ with 25 Programs, Tab, 176 pp. 7.75
☐*** ADAM™ Users Handbook: Revised Edition, Balentine..... 8.00
☐*** Programing ADAM™ Claffin and Heil, Banbury..... 12.00
☐*** SmartBASIC™ for the ADAM™ Searle and Jones, Brady..... 10.40
☐ ADAM™ Users Guide Bell & Bell, Brady, 320 pp..... 11.20
☐**** The BASIC Adam™ Cornell, John Wiley & Sons.... 12.00
☐**** The ADAM™ Entertainer Sawyer, Osborne/Mcgraw Hill 10.40
☐**** 32 BASIC Programs... dilithium Press, book only..... 16.00
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☐ 104 Home/Office Inventory
☐ 105 Credit Card File (information)
☐ 106 Tenant/Property Management
☐ 107 Micro Math (+, x, grades 2-5)
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☐ S & H each 1.50

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☐ Other game cartridges..... 30.
☐ S & H each 3.

Hardware

☐ ADAMLink™ 300 baud modem $89. w/terminal software ☐ S & H 4.
☐ 160K, 5.25" Disk Drive with 249. DOS disk+one blank ☐ S & H 10.
☐ 250K 2nd Digital Data Drive 169. ☐ S & H 6.
☐ 64K Memory Expander..... 165. ☐ S & H 3.
☐ AutoDialer & Address..... 39. merger w/SWriter ☐ S & H 4.

☐ Printer fanfold paper stilts $20. & Front power switch kit ☐ SH 2.
☐ 3 Piece Dust Cover Set $20. ☐ SH 2.
☐ 5 Head Cleaner Pads postpaid 2.

☞ Continuous Loop Nylon Printer Ribbon $7

Yields 4 to 6 times the characters of one pass ribbons: 1/4" x 13 yards 4 mil. nylon. Made especially for ADAM™. The imprint is softer than Coleco film ribbon. Excellent for drafts, printing lists, fooling around.
☐ Black Nylon Ribbon $7. ☐ S&H $1.

☞ COLOR Composite RGB MONITOR $280

This is a monitor you can grow with. It will accept your ADAM™'s composite output now for an excellent 12" medium resolution (380 x 262 pixels) picture plus sound. In the near future, *all* computers and stereo TV tuners will have Red, Green, and Blue [RGB] outputs for the highest quality picture possible. *210* has *both* types of inputs for a flexible future, yet costs less than composite-only monitors.
☐ TAXAN 210 $280. ☐ S&H $20.

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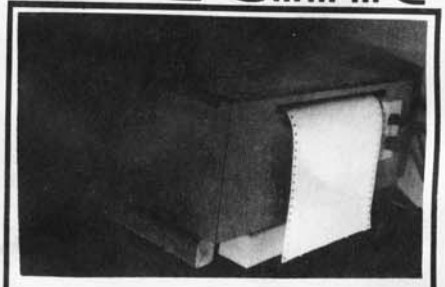

☞ NOISE KILLER $80

Custom-made specifically for your ADAM™. Includes: removable LEGS for fanfold paper, DUAL PLUG for system and monitor, MASTER SWITCH near the front of the left side, PLEXIGLASS LID so you can see print. Kills 80% of el Noisy Wheel Printer sound.
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☐ 14 feet flat.....$6. ☐ S&H $2.
☐ 25 feet flat.....$9. ☐ S&H $3.

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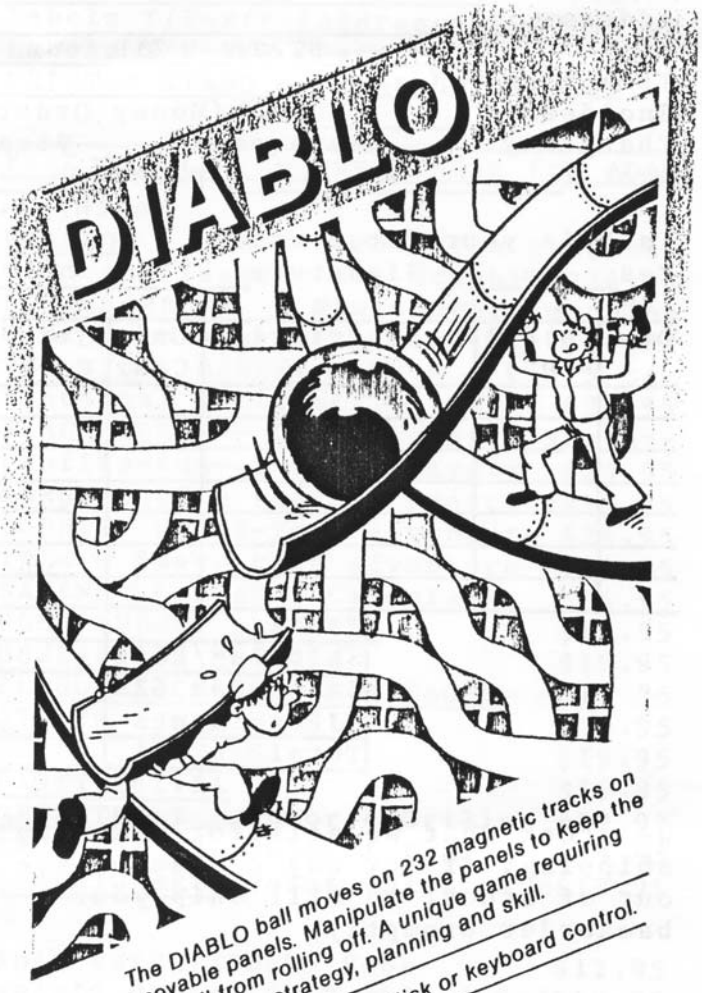

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