

# ***EXPANDABLE COMPUTER NEWS***

Issue #2

May/June 1984

\$3.00

---

An Independent Newsletter for the Adam & Other Computers  
COPYRIGHT 1984 - SAGE ENTERPRISES

---

SHAPE TABLES

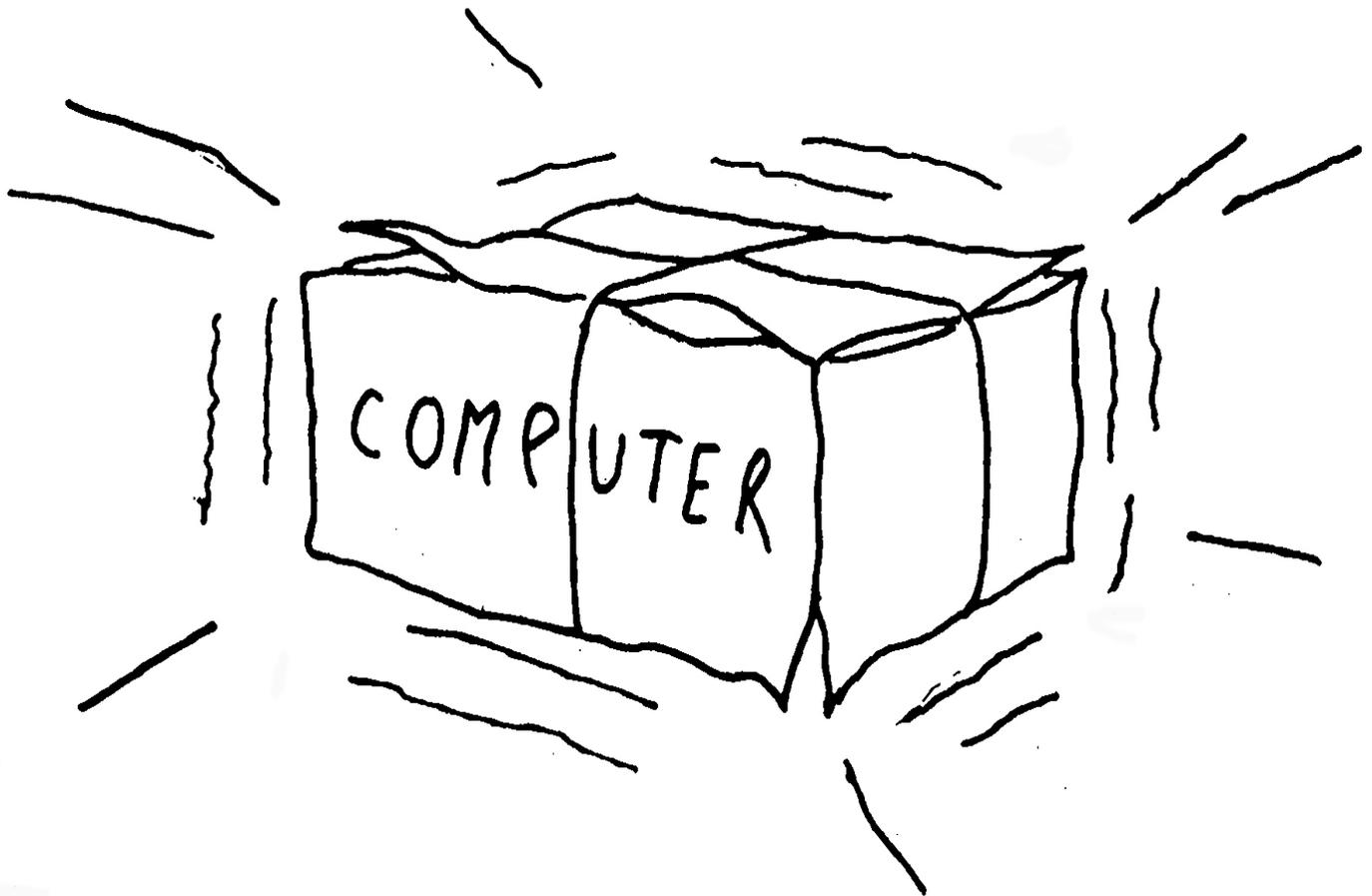
JOYSTICKS

MEMORY DECODER

REVIEWS

NEWS

---



\*\*\*\*\*  
**TABLE OF CONTENTS**  
 \*\*\*\*\*

<b>Ramblings from the Ridge</b>	<b>3</b>	<b>Product Review: War Room</b>	<b>13</b>
<b>West Hartford Happenings</b>	<b>4</b>	<b>Product Review: War Room (2)</b>	<b>14</b>
<b>What About the Competition</b>	<b>4</b>	<b>Product Review: Roller Controller-Slither</b>	<b>14</b>
<b>Programs: Greetings</b>	<b>5</b>	<b>Product Review: Champ Joystick Adapter</b>	<b>15</b>
<b>Using joysticks in Programs</b>	<b>6</b>	<b>Product Review: The Powerstick</b>	<b>15</b>
<b>Shape Tables and Shapes</b>	<b>8</b>	<b>Book Review: How to Use the Adam</b>	<b>16</b>
<b>Investigating Adam</b>	<b>10</b>	<b>Book Review: The First Book of Adam</b>	<b>16</b>
<b>Product Review: Burgertime</b>	<b>11</b>	<b>Glitches, Bugs, Errata, Etc.</b>	<b>16</b>
<b>Product Review: Pitfall</b>	<b>11</b>	<b>Public Domain Software</b>	<b>17</b>
<b>Product Review: Nova Blast</b>	<b>12</b>	<b>User Group News</b>	<b>18</b>
<b>Product Review: Heist</b>	<b>12</b>	<b>Mail Order Suppliers</b>	<b>18</b>
<b>Product Review: Centipede</b>	<b>13</b>	<b>Products</b>	<b>18</b>

\*\*\*\*\*  
 Expandable Computer News (ECN) is published bi-monthly by Sage Enterprises.

Current subscription rates: \$12.00 per year (6 issues) U.S. currency. Foreign rates may vary.

Send all correspondence (subscriptions, ads, reviews, articles and products) to:

Sage Enterprises  
 Expandable Computer News  
 Rt. 2, Box 211, Scrivner Rd.  
 Russellville, MO 65074

Telephone: 314/782-3448

\*\*\*\*\*  
 Staff:

Editor - Darrell R. Sage  
 Associate - Shirley Sage

Contributing Subscribers

**NOTE: This issue is a reproduction. It has been upgraded using modern graphics, column layout and other features. The original May/June 1984 issue of Expandable Computer News was 19 pages. This reproduction is 19 pages with all content intact.**

## **Ramblings From The Ridge** **by D. Sage**

This is only our second issue and we have already begun changing our format. In order to bring you more information in each issue, we have reduced our type size and changed to a double column format. We are also trying to eliminate as much white space as possible. Future issues will include some illustrations.



I want to thank all of you who took the time to write us, especially those who sent in reviews, programs or articles. Where necessary we will always try to provide a personal reply to your correspondence. In addition we will begin an information service for answering your questions with this issue. If you have a specific problem with a program we will try to help you find a solution. To use our service simply send us a letter describing what you are trying to do, include a listing of the program, and if at all possible send us a copy of the program on a Data Pack. This will make it easier for us to analyze your problem. In addition we must ask that you enclose a return envelope and sufficient postage to allow us to return your materials. If you feel your problem or question can be answered over the telephone, give us a call. For now we must ask that you only call us between 9 a.m. and noon on Saturdays. If you call at any other time you are likely to get our answer phone and will needlessly be charged with a long distance call. We cannot accept collect calls and cannot afford to return calls left on the answer phone. Our telephone number is (314) 782-3448. You do not have to have a problem to call us. We are more than happy to talk to anyone about anything. We enjoy hearing from all of our subscribers.

We will be covering a lot of ground in this issue. Every effort is being made to satisfy novices as well as those who are more experienced. Included in this issue are software reviews, book reviews, hardware reviews, articles, news, and programs.

Your participation is encouraged. See our first issue for submission requirements or try to follow the format of articles and reviews in this issue. If you are sending programs it will make it easier for us if you send them on data pack. We will copy the program and return it to you promptly, usually the day we receive it or no later than the next day.

We now have ribbons available for the ADAM printer. Included elsewhere is an order form and price list. We will provide 48 hour service on filling orders. We have also found a supplier of data packs, Data Backup, Iona, Idaho. For information on ordering see

the ad elsewhere in the newsletter. We have tested one data pack and it has performed without error.

The delay on shipments from Coleco are substantial. If anyone is aware of a reliable volume source let us know. Many of our readers outside of major metropolitan areas are having difficulty obtaining supplies especially at reasonable prices.

We also have some bad news from our fellow publishers. Scholastic magazine has announced that the ADAM FAMILY COMPUTING magazine has been indefinitely postponed. Shirrel Rhoades, publisher of FAMILY COMPUTING, stated that ADAM owners who mailed in their warranty cards will instead receive the July issue of FAMILY COMPUTING. He indicated that the ADAM magazine would come out when there were sufficient subscribers and advertisers to justify the expense of the publication. Until that time commitments to owners would be met by issues of FAMILY COMPUTING magazine. Issues would be mailed on a quarterly basis.

Hershel Abelman of SMART Publications indicated that his magazine for the ADAM was also being delayed. He also cited insufficient advertising revenues to cover costs as the primary reason for the delay.

Software from third-party companies seems to be appearing on store shelves at a rather slow pace. I suggest that subscribers write the companies and urge them to speed up the process. If they become aware that there is demand for their products they will get them to the stores. If you are aware of any of this software actually being available, let us know. Give us the name and address of the store and a phone number if possible so we may relay the information to all subscribers. We are particularly interested in information on dealers that are in the mail order business and who have products in stock. A number of mail order houses seem to have a bad habit of listing items in their catalogs that do not and probably never will exist.

Some of you have expressed concern about a number of computer magazine reviews that have been extremely critical of Coleco and the ADAM. We have seen no evidence to indicate that Coleco plans to drop the ADAM. We have also not seen any evidence to indicate that the ADAM has suffered from more problems than other home computers.

Many of the magazine reviews that appeared in March and April were written back in December 1983 and/or were based on early versions of the ADAM. Coleco has had to fight the same battle that companies such as Mattel encountered. The computer industry does not like to see a toy company produce a quality product at a low price below that of

computers produced by the industry. In addition Coleco has typically not advertised in computer magazines.

Coleco also did not provide ADAMs for review, free-of-charge, to the computer magazines. All of these things should be considered when reading any product review. The ADAM has had problems but if our readers are any indication the problems have generally been limited to early models.

**NOTE:** Elsewhere in this newsletter is a brief article seeking information about ADAM's memory map. If anyone out there has detailed information on the memory map or is aware of an Assembler for the ADAM that is actually available, please call me. If you run across any books that have such technical information in them, I would like to know. Coleco has indicated that a technical manual will be forthcoming but we have been unable to obtain any such materials.

### West Hartford Happenings

by D. Sage, Editor

Ribbons and Data Packs may now be ordered directly from Coleco for \$5.95 each plus \$1.25 shipping for up to 10 items. Send your order to Coleco Industries, Inc., Consumer Services, 23 Chilton Ave., West Hartford, CT 06110. Delivery takes 8 weeks or more.

Updated manuals are available by calling Coleco's hot-line. You will need your serial number in order to obtain the manuals free.



As many of you know there are a number of versions of the word processor software and Basic currently in existence.

ADAM's printer uses Xerox 800 or Diablo Hytype I multi-strike ribbons. Inked ribbons will not work and its possible some of these ribbons may not fit properly.

- Richard Weideman reports that he has received a second digital data pack drive. It cost \$149 and was obtained through Markline, 411 Waverly Oaks Rd., Waltham, MA 02154. We ordered drives from several sources but have yet to receive one.

- Doreen Scascitelli of Coleco indicates that they have been talking to Al Gerson, founder of the Kaypro User's Group, about starting an ADAM User's Group. They suggested we might become a Midwestern Chapter. We, of course, intend to keep ECN fully independent but would be more than happy to provide any assistance to any group that seeks to help ADAM owners. We will keep you posted on any developments in this area.

- Coleco announced a number of layoffs and employee recalls during March and April at the New

York facilities involved in production of the ADAM. In addition they indicated that automation and production efficiencies have allowed them to maintain production levels of ADAM while cutting the production line from three to one shift.

- On April 14, Coleco announced first quarter income of 4.4 million on sales of 186.1 million. This is a good sign for ADAM. It is a lot easier to support a product that is profitable than one that is producing continuing losses. In addition Coleco's debt situation has recently improved.



- It is expected that working models of a disk drive and modem will be shown at the Consumer Electronics Show to be held in Chicago this June.

- More good news. Charles Winterble, formerly involved in the development of the Vic-20 and Commodore 64, has joined Coleco as Group Vice President - Computer Products.

### What About The Competition

by D. Sage, Editor

Commodore is still busily running around trying to figure out what to produce next. Commodore 64's are still selling well. If they introduce the 264 and 364 in a non-compatible form their sales are likely to decline. They may have a new disk drive available soon. It is reported that the new drive will take care of all of the problems that have existed for the last several years in the models 1540 and 1541. There is also supposed to be a new manual for the disk drive.

Look for software prices in general to become more competitive. This will be true for computers like Apple and Commodore that have a large established base.

AT&T is entering the micro market at the high end.

Apple plans to begin using a new high speed version of the 6502 microprocessor. This will allow them to continue to upgrade their Apple II series while maintaining compatibility with most available software. Sales of the Macintosh seem to be quite brisk with delivery delays running as high as 6 to 8 weeks. Apple has introduced a portable designated the IIc. It will sell for \$1295 with one disk drive and no monitor. The price of the IIe has been cut to \$995.

Atari continues to operate at a loss. I cannot imagine how much longer this can go on. Atari and Phillips (alias Odyssey) are



reportedly working on a joint venture to develop the next generation video game system.

THE IBM PC Jr. is going to have a hard time finding a market. Its introduction has probably done more to boost sales for other low end computers. I cannot imagine why anyone would buy one. One thing I am willing to predict -- there will not be any IBM PC Jr. clones.

We expect that there will be a lot of new introductions at the June CES at Chicago and perhaps a few conspicuous absences.

Activision is continuing to show losses on their software sales. They reported a 1984 loss of \$18 million.

Alan Kay, former chief scientist at Atari, has moved to Apple.

### Programs: Greetings by Nicholas Mucciariello

Below are two very basic programs written after reading about "Turnkey" systems in the ADAM manual. A "Turnkey" system is a form of greeting or logo that automatically appears when Basic is loaded. It can be any program, but must be saved under the savename "HELLO" and it must be capitalized. This program is saved on the Basic tape. When the tape is loaded, the program is run.

My first program prints the word HELLO on the screen. Each letter is a different color and a welcome to smart basic is at the bottom of the screen. The only difference in the second variation is that the letters change color. Readers are welcome to use this program.



**Editor's Note:** Mr. Mucciariello, age 35, Somerset, NJ, is a beginning programmer.

I recommend that anyone storing turnkey programs on their Basic tape exercise some care. Repeated saving and deleting of such programs increases the chances that the tape itself will become worn and require replacement.

#### Greeting 1

```
5 REM GREETING1 by Nick Mucciariello
10 GR
20 COLOR=1
30 VLIN 15, 23 AT 6: HLIN 6, 10 AT 19: VLIN 15, 23
  AT 10
40 COLOR=3
```

```
50 VLIN 15, 23 AT 12: HLIN 12, 16 AT 15: HLIN 12,
  16 AT 19: HLIN 12, 16 AT 23
60 COLOR=6
70 VLIN 15, 23 AT 18: HLIN 18, 22 AT 23
80 COLOR=8
90 VLIN 15, 23 AT 24: HLIN 24, 28 AT 23
100 COLOR=14
110 VLIN 15, 23 AT 30: HLIN 30, 34 AT 15: HLIN 30,
  34 AT 23: VLIN 15, 23 AT 34
125 PRINT "WELCOME TO ADAM SMART BASIC"
130 PRINT "TYPE text HIT RETURN TO START"
```

#### Greeting 2

```
5 REM GREETING2
10 GR
15 FOR i=1 TO 42
20 COLOR=1+INT(i/3)
21 IF i=42 THEN GOSUB
  116
30 VLIN 15, 23 AT 6:
  HLIN 6, 10 AT 19: VLIN 15, 23 AT 10
40 IF i=42 THEN GOSUB 117
50 VLIN 15, 23 AT 12: HLIN 12, 16 AT 15: HLIN 12,
  16 AT 19: HLIN 12, 16 AT 23
60 IF i=42 THEN GOSUB 118
70 VLIN 15, 23 AT 18: HLIN 18, 22 AT 23
80 IF i=42 THEN GOSUB 119
90 VLIN 15, 23 AT 24: HLIN 24, 28 AT 23
100 IF i=42 THEN GOSUB 120
110 VLIN 15, 23 AT 30: HLIN 30, 34 AT 15: HLIN 30,
  34 AT 23: VLIN 15, 23 AT 34
111 IF i=42 THEN GOTO 125
112 NEXT i
114 GOTO 20
116 COLOR=1: RETURN
117 COLOR=3: RETURN
118 COLOR=6: RETURN
119 COLOR=8: RETURN
120 COLOR=14: RETURN
125 PRINT "WELCOME TO ADAM SMART BASIC"
130 PRINT "TYPE text HIT RETURN TO START"
```



#### Using Joysticks In Programs by Darrell Sage, Editor

A number of readers and callers have asked that we take some time to explain how to use the PDL(#) function for the joysticks in programs. Unfortunately there are many ways this function can be used and it is therefore impossible to cover them all in one article. I have chosen only one of these options and will demonstrate its use in a program. In addition Dick

Jones has provided a brief description of each of the paddle status lines and their values which will be given next before discussing the program.

### **Paddle (Joystick) Commands**

PDL(0) - Controller #2 - reads up and down movement of the joystick. Starting value is 128, each down movement adds +1 to the previous value, each forward movement subtracts 1 from the previous value, a CLEAR command does not reset the value.

PDL(1) - Controller #1 - same as PDL(0).

PDL(2) - Controller #2 - reads right and left movement of the joystick. Starting value is 128, each right movement adds one to the previous value, each left movement subtracts one from the previous value, a CLEAR command does not reset the value.

PDL(3) - Controller #1 - same as PDL(2).

PDL(4) - Controller #2 - Returns a value of 0 (zero) when joystick is not moved. Movement forward returns a value of 1, right a value of 2, back a value of 4, and left a value of 8. Different values are returned if you move the joystick diagonally. If you move it to the upper right you will get a 3, lower right a 6, lower left a 12 and upper left a 9. For most games you will find this value and those for the fire buttons most useful.

PDL(5) - Controller #1 - same as PDL(4).

PDL(6) - Controller #2 - left fire button not pressed gives a 0 (zero), button pressed returns a value of +1.

PDL(7) - Controller #1 - same as PDL(6).

PDL(8) - Controller #2 - same as PDL(6) except this is the right fire button.

PDL(9) - Controller #1 - same as PDL(8).

PDL(10) - Controller #2 - this returns the ASCII value of the keypad button pressed. Nothing pressed=0, 1=49, 2=50, 3=51, 4=52, 5=53, 6=54, 7=55, 8=56, 9=57, 0=48, #=35, \*=42.

PDL(11) - Controller #1 - same as PDL(10).

PDL(12) - Controller #2 - this returns the actual value of the keypad button pressed. Nothing pressed=15, 0=0, 1=1, 2=2, 3=3, 4=4, 5=5, 6=6, 7=7, 8=8, 9=9, \*=10, #=11.

PDL(13) - Controller #1 - same as PDL(12).

PDL(14) - Controller #2 - this is a rather strange one it returns a value of 255 and appears to be a potentiometer reading that was included for the speed roller that was originally supposed to be included on the controller and that is now present on the super action controllers.

PDL(15) - Controller #1 - same as PDL(14).

The program at the end of this article will demonstrate how one of the PDL functions can be used in the program. For this demonstration PDL(5) will be the only joystick value used by the program.

Once you have entered the program, run it. A "v" shape pointed to the left will appear on the screen. Use joystick #1 and push the joystick away from you. The shape should begin moving to the left. Push the joystick to the right and the shape will rotate right; push it to the left and it will rotate left. When you release the joystick the shape will stop moving. If you continue moving the shape until it leaves the screen in one direction you will find that it reappears at the opposite side of the screen and will still be moving in the same direction.

The program is relatively complex, so let's take a look at it line-by-line. HIMEM is set to memory location 51455 in line 50. This protects our shape table so that BASIC does not destroy it. Lines 110-120 define the shape (see the article on shape tables for a detailed discussion on designing shapes). Lines 150-180 read the twelve data statements and stores them sequentially from memory location 51456 to 51467. Line 190 tells the computer where to find the shape table. Line 200 turns on high resolution graphics. Line 300 sets the image color to white. Lines 310-320 set starting values for a number of variables. "lc" is the column value, "lr" is the row value for the screen and "m1" is the movement counter.

Everytime the joystick is pushed forward the shape will actually move 5 positions on the screen. The SCALE is set to 1 which means that the object will be drawn in the same scale that it was coded. The rotation (ROT) is set to zero and "rt", the variable that will keep track of joystick movements, is set to zero.

Line 330 draws the "v" shape at its starting point near the center of the screen. Line 400 is the beginning of the joystick routine. The variable, "j1", is equated to the value of PDL(5) (see the preceding table for PDL values). Line 405 equates "xc" and "xr" to the starting column and row values respectively.

If the joystick has not been moved then line 410 sends the program back to line 400. If the value of "j1" is anything other than zero then the program proceeds to line 420. Lines 420 and 440 check to see if the joystick was moved right or left. The value of "rt" is either incremented (added to) or decremented (subtracted from) or left unchanged accordingly.

Lines 430 and 450 reset the value of "rt" so that it cannot be less than zero or greater than 64 which is the normal range of values possible for rotation.

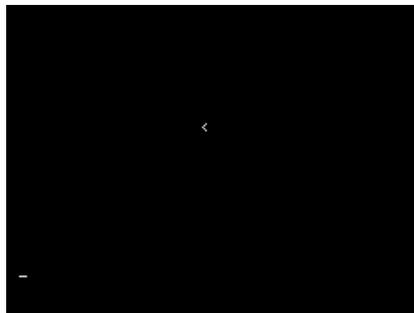
Lines 460-540 determine the value of "tt", which is used to control the actual rotation of the "v" symbol on the screen. Because of the level of resolution available and the size of the "v" it can only be rotated over 8 different screen positions.

Lines 460-540 control the actual rotation so that it will appear smooth on the screen.

Line 600 checks the position of the joystick. If the joystick is not pushed forward then the program proceeds to line 650. If the joystick is pushed forward, returning a value of 1 to PDL(5), then "m1" is incremented by 5. Line 650 checks the value of "m1". If it is zero the program jumps to line 790, if not it proceeds to line 660. At line 660 one is subtracted from "m1". At 670 the previous column and row values are saved in "xc" and "xr". Lines 680-710 determine which direction to move the shape. The values of "tt" are checked for the rotation so that the shape will be moved in the direction that it is pointing. Movement is obtained by changing the column and row values that will be used in the DRAW statement. Lines 720-750 take care of the problem of the shape running off the screen by returning it to the opposite side. Line 790 erases the shape at the old column and row values. Line 800 sets the old column and row values. Line 800 sets the rotation (ROT) to "tt" and line 810 draws the shape at the new location. Line 820 checks "m1" and sends the program back to line 660 if "m1" is greater than zero. If not the program proceeds to line 830 then goes to line 400 to check the joystick value again.

This program can actually be written in fewer steps, but I wanted to keep it as simple as possible.

Unfortunately, even with more steps it is still relatively complex. With some practice and experimentation you can see what is going on in the program. One thing that will make it simpler is to diagram the joystick values in relation to the movement of the shape. In any event you can use this joystick routine to write your own games in BASIC.



```
10 REM Joystick Demonstration
50 HIMEM :51455
100 REM Shape Table
110 DATA 01,00,04,00
115 DATA 18,19
120 DATA 56,56,40,40,40,00
140 REM Load Shape
150 FOR s=0 TO 11
160 READ h
170 POKE 51456+s, h
180 NEXT s
```

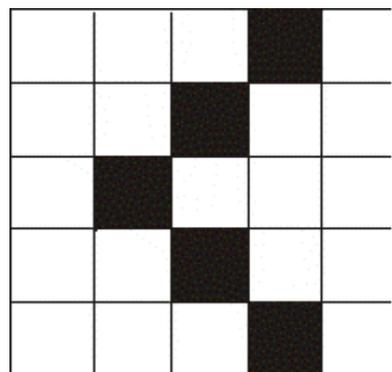
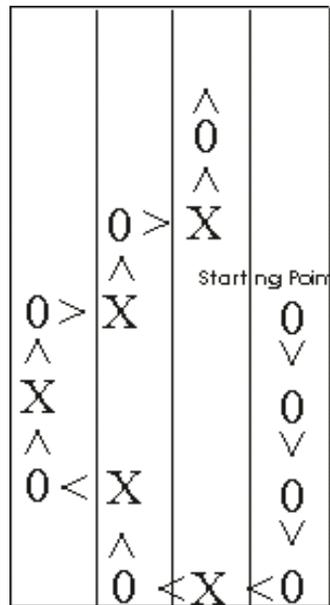
```
190 POKE 16766, 0:POKE 16767, 201
200 HGR
290 REM Initialize Values
300 HCOLOR =3
310 lc=125: lr=75: m1=0
320 SCALE =1:ROT =0: rt=0
330 DRAW 1 AT lc, lr
400 j1=PDL(5)
405 xc=lc: xr=lr
410 IF j1=0 GOTO 400
420 IF j1=2 THEN rt=rt+1
430 IF rt>=64 THEN rt=rt-64
440 IF j1=8 THEN rt=rt-1
450 IF rt<0 THEN rt=rt+64
460 IF rt<=4 OR rt>=60 THEN tt=0
480 IF rt>4 AND rt<12 THEN tt=8
490 IF rt>=12 AND rt<=20 THEN tt=16
500 IF rt>20 AND rt<28 THEN tt=24
510 IF rt>=28 AND rt<=36 THEN tt=32
520 IF rt>36 AND rt<44 THEN tt=40
530 IF rt>=44 AND rt<=52 THEN tt=48
540 IF rt>52 AND rt<60 THEN tt=56
600 IF j1<>1 THEN 650
610 m1=m1+5
650 IF m1=0 THEN 790
660 m1=m1-1
670 xc=lc: xr=lr
680 IF tt<12 OR tt>52 THEN lc=lc-1
690 IF tt>36 AND tt<60 THEN lr=lr+1
700 IF tt>20 AND tt<44 THEN lc=lc+1
710 IF tt>4 AND tt<28 THEN lr=lr-1
720 IF lr<=1 THEN lr=lr+157
730 IF lr>=159 THEN lr=lr-158
740 IF lc<=1 THEN lc=lc+254
750 IF lc>=256 THEN lc=lc-255
790 XDRAW 1 AT xc, xr
800 ROT =tt
810 DRAW 1 AT lc, lr
820 IF m1>0 THEN GOTO 660
830 GOTO 400
900 END
```

### Shape Tables And Shapes by D. Sage, Editor

A number of subscribers have expressed an interest in learning more about the graphics capabilities of the ADAM. Since current versions of Basic do not support sprites about the only way to use high resolution graphics is to learn how to use shapes stored in a shape table. I must warn you that this is a very crude approach to graphics especially if you want animated graphics. Designing and coding shapes is extremely complex and time consuming but it can be done. After reading this article and the manual study the examples and try making simple

shapes.

A shape table is nothing more than a portion of memory set aside for storing and retrieving shapes. It is possible to store several shapes in a shape table. I have included examples at the end of the article that demonstrate how this is done. Once you have created a shape the DRAW command is used to display it. The appearance of movement can be obtained by drawing over the previous shape using the background color then redrawing the shape at a different location. This will be demonstrated in the article using joysticks. Shapes can be drawn in only one color. To create a multi-color shape requires combining shapes of different colors. Large shapes are drawn slowly in Basic. To design and code a shape you will need graph paper and a coding key. Since shapes are drawn by plotting individual points in a given direction I have constructed a table (see Table 1 at the end of this article) that gives essentially all of the codes for all possible combinations of plots. This process is made slightly more complex by the fact that each code stands for two points or plots and you can either fill in a point or leave it the background color. I will use two simple



shapes to demonstrate how to code a shape and then how to use it in a program. The shapes will be a "v" shape and a solid circle. In future articles more detailed shapes will be demonstrated and we will try to provide programs to simplify the construction of shapes.

Now we are ready to begin coding the "v" shape. This shape will be coded so that it points to the left and starts halfway between the two arms of the "v". First let's draw the shape on a piece of graph paper by darkening the squares that make up the shape.

Essentially this shape is composed of 5 darkened squares. Next we have to translate those squares into codes that will tell a

program to plot and color those 5 points or pixels on the screen. The next piece of graph paper shows several x's and o's. The x's are the five original points and the o's are points that will be plotted but left uncolored (they will remain the same color as the screen background). When you draw a shape using a shape table you cannot simply code only the points you want for your shape. You must move the shape pointer, like a pencil, from pixel to pixel telling it which you want on and which you want off. You can only move your pointer vertically or horizontally, you cannot move it diagonally.

There are 14 x's and o's in the graph. It will be easier if the combined number of x's and o's are an even number. Now look at Table 1. Find the value for two o's both with arrows pointing down. The value should be 18 which is the code for the first two positions or plots in our shape. Next find two o's one with a down arrow and one with a left arrow. The answer is 19. Next we need an x with a left arrow and an o with an up arrow. This one is 56. The next one is also 56. The last three values from the table will all be 40's. We now have the data all coded for the shape itself. The codes are: 18, 19, 56, 56, 40, 40, 40, 00. You will note that the last code, 00, is used to tell the computer that there is no more data for that shape. Next you will have to tell the computer how many shapes are in your table and in

00*	⬆	⬆	32	⬆	⬆
01	⬆	⬇	33	⬆	⬇
02	⬆	⬇	34	⬆	⬇
03	⬆	⬇	35	⬆	⬇
04	⬆	⬆	36	⬆	⬆
05	⬆	⬆	37	⬆	⬆
06	⬆	⬆	38	⬆	⬆
07	⬆	⬆	39	⬆	⬆
08	⬆	⬆	40	⬆	⬆
09	⬆	⬆	41	⬆	⬆
10	⬆	⬆	42	⬆	⬆
11	⬆	⬆	43	⬆	⬆
12	⬆	⬆	44	⬆	⬆
13	⬆	⬆	45	⬆	⬆
14	⬆	⬆	46	⬆	⬆
15	⬆	⬆	47	⬆	⬆
16	⬆	⬆	48	⬆	⬆
17	⬆	⬆	49	⬆	⬆
18	⬆	⬆	50	⬆	⬆
19	⬆	⬆	51	⬆	⬆
20	⬆	⬆	52	⬆	⬆
21	⬆	⬆	53	⬆	⬆
22	⬆	⬆	54	⬆	⬆
23	⬆	⬆	55	⬆	⬆
24	⬆	⬆	56	⬆	⬆
25	⬆	⬆	57	⬆	⬆
26	⬆	⬆	58	⬆	⬆
27	⬆	⬆	59	⬆	⬆
28	⬆	⬆	60	⬆	⬆
29	⬆	⬆	61	⬆	⬆
30	⬆	⬆	62	⬆	⬆
31	⬆	⬆	63	⬆	⬆

what byte of data the shape starts. The codes you will need for the number of shapes are 01 and 00. The codes for the starting byte of the shape are 04 and 00. These codes must precede your shape data in the DATA statement(s). Your data should now look like this: 01, 00, 04, 00, 18, 19, 56, 56, 40, 40, 40, 00. Do not feel bad if you do not understand all of this now. You may find it necessary to reread this article several times before it makes any sense. You do not need to understand all of the logic behind a shape table to use one. The main thing is to learn how to use the codes to plot shapes. Before I go on to a shape table that contains two shapes, I will present a short program that draws the "v" shape on the screen and then briefly discuss the program.

### Shape Table Demo

```

5   REM Shape Table Demo
10  REM One Shape
50  HIMEM: 51455
100 REM Shape Table
110 DATA 01, 00, 04, 00
120 DATA 18, 19, 56, 56, 40, 40, 40, 00
150 FOR s=0 TO 11
160 READ h
170 POKE 51456+s, h
180 NEXT s
190 POKE 16766, 0: POKE 16767, 201
200 HGR
300 HCOLOR=3
320 SCALE=1: ROT=0
330 DRAW 1 AT 125, 75
900 END

```

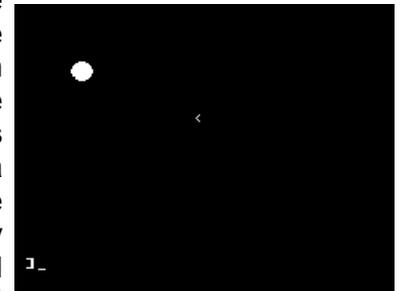
**NOTE:** In Table 1, 00 is used to designate the end of a shape. Do not use this value within a shape.

When writing a program that uses shapes from a shape table there are a number of things that must be done. First you must reserve a portion of memory where you can store your shape. Line 50 lowers the top of memory to 51455. This is not a magic number; with longer programs you may have to lower this value more. If you get an out of memory error then you probably need to lower HIMEM. Next you need to include your data for the shape table in DATA statements (lines 110-120). Lines 150-180 read the values in the data statements and store them in memory using the POKE statement. The data is stored from memory location 51456 through 51467. You also have to tell the computer where the shape table is stored. Line 190 gives the location of the shape table. This part is a little more complex, but essentially the value is in two parts because the largest number that can be stored at these locations is 256. If you multiply 201 by 256 you will get 51456 which is the start of the shape table. To find the

values to POKE for another memory location you simply divide the starting value for memory by 256. For example, if you wanted to start your shape table at 51000, you would divide that value by 256 which will give you a value of 199 and a remainder of 56. Store the 56 at the first location (16766) and store the 199 at the second location (16767). The rest of the program is easier. Line 300 sets the color to white; 320 sets the scale to 1 and the rotation to zero (0). Line 330 draws the shape starting at screen column 125 and row 75.

The second program adds a second shape to the shape table. This shape is a solid circle. The codes for this shape are given separately following the first shape.

The primary difference is in line 110 where the shape table parameters are stored. These values are now: 02, 00, 06, 00, 14, 00. The 02 means there are two shapes in the table. The first shape starts after the sixth data value and the second shape starts after the 14th data value. The rest of the program is relatively self-explanatory and follows the first program closely.



### Shape Table Demo

```

5   REM Shape Table Demo
10  REM Two Shapes
50  HIMEM :51455
100 REM Shape Table
110 DATA 02, 00, 06, 00, 14, 00
120 DATA 18,19,56,56,40,40,40,00
125 REM Circle
130 DATA 27,59,63,63,24,45,45,45,12
135 DATA 63,63,63,63,63,56,45,45,45,45
137 DATA 45,60,63,63,63,63,63,40,45,45
140 DATA 45,45,45,45,37,63,63,63,63,63
142 DATA 63,44,45,45,45,45,45,37,59,63
144 DATA 63,63,63,63,39,45,45,45,45,45
146 DATA 28, 63,63,63,63,12,45,45,45,45
148 DATA 28,59,63,63,00
150 FOR s=0 TO 94
160 READ h
170 POKE 51456+s, h
180 NEXT s
190 POKE 16766, 0:POKE 16767, 201
200 HGR
300 HCOLOR=3
320 SCALE =1:ROT =0
330 DRAW 1 AT 125, 75
340 DRAW 2 AT 50, 50
900 END

```

## Investigating ADAM - A Simple Monitor

by D. Sage, Editor

Many of you have written asking for information about sound and graphics. Currently Coleco has not made available the technical information necessary to answer your questions. While we have done some preliminary investigation in order to provide answers to these questions, we have not yet found the answers. Decoding a computer's memory and operating system by PEEKing memory is a tedious process which does not always provide an obvious answer.

Following this article I have provided a brief program that will allow you to dump various parts of ADAM's memory. If any of our readers are experienced in machine and assembly language programming I hope they will join us in trying to decode ADAM and make the information available so that we can all take advantage of the machine's fantastic capabilities. Occasionally PEEKing a memory location may cause your printer to do a screen dump, clear the screen and possibly even activate your data drive. For these reasons I recommend that this program be used with NO data pack in the drive. You could lose important information. It is also possible that a particular memory location may cause a total system reset, turn on the word processor, or electronic typewriter mode, so it is important to keep track of the last memory location you examined. You will then know where to start your program when you reload and restart it.

Data stored in memory locations control the many functions that ADAM perform. We are particularly interested in the locations that control the following functions:

- Screen color
- Cursor location
- Character color
- Video chip which controls sound and graphics including sprites
- Data pack buffers and routines
- Keyboard buffer
- Other input/output channels
- Graphics color

A number of important locations are already known:

Interupt Vectors 0 - 255

Basic Interpreter 256 - 27407

Stack 53632 - 54159

Operating System 54160 - approx. 64000

In addition a program in the current Basic manual will give you the locations of some other memory addresses. Now all you have to do is enter the

following program and you're ready to start exploring. The programs will only list information for seven locations at a time on the screen. To look at the next seven locations press any key except the "s". To stop the program press the "s" key.

```
MONITOR
Starting Location? 30000
Ending Location? 31000
Printer Output? n
MEMLOC=0          Uvalue=201
$C9              I
MEMLOC=1          Uvalue=255
$FF              █
MEMLOC=2          Uvalue=0
$0
MEMLOC=3          Uvalue=255
$FF              █
MEMLOC=4          Uvalue=0
$0
MEMLOC=5          Uvalue=255
$FF              █
```

### Monitor Memory Decoder

```
10 REM Monitor-Memory Decoder
20 DIM a$(15)
30 DATA "0", "1", "2", "3", "4", "5", "6", "7", "8", "9"
35 DATA "A", "B", "C", "D", "E", "F"
40 FOR i=0 TO 15
50 READ h$
60 a$(i)=h$
70 NEXT
100 HOME
110 PRINT "MONITOR"
120 PRINT
130 INPUT "Starting Location? "; s1
140 INPUT "Ending Location? "; s2
150 INPUT "Printer Output? "; p$
160 IF p$="y" THEN PR #1:GOTO 390
170 IF p$<>"n" THEN 150
390 f=0
400 FOR i=s1 TO s2
410 x=PEEK(i)
420 y$=""
430 IF x<=15 THEN y$=a$(x):GOTO 460
440 x1=INT(x/16): x2=INT(x-(16*x1))
450 y$=a$(x1)+a$(x2)
460 z$=CHR$(x)
470 f=f+1:IF f=7 THEN f=0:GET b$
475 IF b$="s" THEN 510
480 PRINT "MEMLOC="; i, "Value="; x, "$"; y$, z$
490 PRINT
500 NEXT
510 IF p$="y" THEN PR #0
600 END
```

## Product Review: Burgertime game cartridge

by Jason Hirsch

Product: Burgertime

Manufacturer: Coleco Industries, Inc.,  
Amsterdam, NY 12010

Requirements: ColecoVision/ADAM, Joystick

Media: Cartridge

Warranty: 90 days

Burgertime is a new cartridge for the ADAM/ColecoVision and is an adaptation of the Data East game. You control Chef Peter Pepper. Mr. Pickle, Mr. Egg and Mr. Hotdog chase Peter around mazelike screens. Your defense against them is pepper, which will stun them momentarily. Peter must walk over burger parts in order to drop them one level. You may drop burger parts with your enemies on them or drop the burger parts on your enemies, thereby earning more points. Occasionally a prize will appear on the screen. If you reach it before it



disappears you gain extra pepper and bonus points.

The instructions were clear with illustrations. Because this is a simple game it does not require much explanation.

Burgertime is almost identical to its arcade cousin. The graphics are crisp, clean and well drawn. The sound effects are superb. There are multiple skill levels for one or two players. There are six screens, each more difficult than the last.

The only complaint I have is that when there are three or more characters on a horizontal line minor flashing will occur. It is barely noticeable, but some people may find it annoying. The six screens provide a good variety, however the designer could have included more.

I have been using computers for two years and have used Burgertime for a few weeks. It is already one of my favorites. The best way to describe Burgertime is fun. I think it has lasting play value and rate it a 9.

## Product Review: Pitfall game cartridge

by Joe Blenkle

Product: Pitfall

Manufacturer: Activision, Drawer 7287, Mountain  
View, CA 94039

Requirements: ColecoVision/ADAM, Joystick

Media: Cartridge

Warranty: One year

Pitfall by Activision is a one player game that requires a joystick. Pitfall's biggest drawback seems to be the screen color selection that the company used in this version. Rather than a good mix of darker colors with lighter colors, the Coleco version seems to have a majority of bright/light colors, which after several minutes of intense play begin to fatigue your eyes.

The object of the game is to guide explorer Pitfall Harry through the jungle, collecting a variety of treasures along the way. The



game gives you a 20 minute time limit and three lives to accomplish this goal.

Along the way you encounter swinging vines, crocodile infested swamps and tar pits - as well as snakes, fire, and rolling logs which you must jump over.

The game play on this version seems to be trickier than on the Atari VCS (2600) version, both in jumping for the swinging vines and onto the crocs.

Graphics are greatly improved, however the Coleco version is a disappointment in that there are no added dangers for Harry to face.

If you own an Atari computer or 5200, wait for those versions to come out. For some reason unknown to me, Activision's graphics and gameplay seem to favor the Atari systems (Activision's River Raid for Coleco is absolutely the pits when compared to the Atari versions).

If you don't own an Atari system, Pitfall for the ADAM is passable. It is an improvement over the VCS version, so if you've played Pitfall on your Expansion Module #1, go ahead and purchase the ADAM compatible version. Hopefully Activision will get its act together and realize there is more than just the Atari line of computers and start producing cartridges that are equal in color and graphics for the ADAM. If you own the VCS version of River Raid and are thinking about the Coleco/ADAM version...save your money. I took mine back to the store after playing it once.

## Product Review: Nova Blast game cartridge

by D. Sage, Editor

Product: Nova Blast

Manufacturer: IMAGIC, 981 University Ave., Los Gatos, CA 95030

Requirements: ColecoVision/ADAM, Joystick

Media: Cartridge

Warranty: Two years

Nova Blast is a combination of Defender, Missile Command, and Atlantis all rolled into one. The game is started over capsulated (domed) cities which you are supposed to protect using your Nova 1 spacecraft.

You have both bombs and lasers available to blast water walkers and a variety of airborne attackers. The water walkers can shoot at you and the others can run into your ship. Everytime an attacker hits a city the city's shield is weakened. If the shield is destroyed, one more hit will destroy the city.

Fortunately you have resources available to use in restoring a city's shield. By positioning your spacecraft over an energy depot you can beam up energy. Next you position your craft over a city with a weakened shield and beam down energy. The energy depots will continue to produce energy as long as you do not drain them entirely.

Your main problem will be finding time to replenish cities' shields while the enemy is attacking. You must



constantly monitor your radar screen and listen to the attack warning siren. If you work quickly you can generally replenish the shields of at least two cities

when each new round begins. You must then eliminate the water walkers before they reach any of the cities. Once that is done you can concentrate on the airborne attackers. When all but a couple of them have been destroyed its a good idea to go ahead and replenish the shields of any cities that you missed at the start of the round.

This game gets fast very quickly and you will soon find yourself expending all of your effort to defend just one city. The Super Action Game controllers work quite well with this game.

Imagic has done another excellent job with Nova Blast. The background of stars and planets is excellent. The graphics are crisp and game play hectic. My only complaint is that they should have

included a somewhat slower version of the game for beginners. The instructions are quite thorough.

I would have to rate this game a 9. Below I have included the comments on this cartridge sent to me by Norman Castro, age 50, Bellevue, Nebraska:

1. No title on the cartridge end so that you can pick out the game from a stack of cartridges.
2. No patch mentioned for reaching a certain score.
3. Title screen does not include selection numbers for various game levels.

## Product Review: The Heist game cartridge

by Joe Blenkle, No. Highlands, Calif.

Product: The Heist

Manufacturer: MicroLab, 2699 Skokie Valley Rd., Highland Park, IL 60035

Requirements: ColecoVision/ADAM, Joystick

Media: Cartridge

The Heist is a video game cartridge by MicroLab for the ADAM Computer System. Play requires a joystick. The Heist should follow in the successful footsteps of MicroLab's Miner 2049er with addictive game play and a challenge factor that lets the game remain fun after most cartridges would see retirement.

The object of this game is to guide the hero, Graham Crackers, through an art-filled museum stealing all the paintings in search of hidden microfilm. Along the way, various obstacles are encountered, mostly of the deadly variety, as well as locked rooms and gaps in the floor that you must jump over. Keys are spaced throughout the museum that must be collected in order to go through the locked doors.

The game consists of three levels, each harder than the last, with each level containing 10 rooms made up of three floors. Crackers must clear all the paintings before advancing onto the next level. After three levels, the game returns to level one at a higher difficulty level (deadly objects move faster).

The game gives you two minutes in the first round to find either a painting or a key. Each painting or key collected renews your time. Progressive rounds shorten the time to one and a half minutes, making you dash from room to room with greater haste.

MicroLab has done another great job on the graphics of Heist, with a variety of colors and sharply



defined figures. An upbeat jazz tempo plays throughout the game, and the Heist includes a music and sound on/off option as well as a pause feature.

The only drawbacks of Heist are the momentary screen blank-outs as you run from one room to another and somewhat skimpy instructions. The blackout, however, may be to your advantage as some obstacles are placed right at the edge of the screen and without the pause you would run into them, losing your life.

The instructions don't really explain adequately all the game play features. I thought sure on two separate occasions that there was no way possible to reach a certain painting or avoid a "sweeper," a moving ball, that first makes a ground level pass across the screen and then returns at waist level.

The ground level jump is nothing, but if you want to jump the ball travelling the other direction (which you must do at one point in the game) it leaves you gritting your teeth and thinking there is no way to do it.

Timing is a big factor in the game and Heist's minor drawbacks in no way make it less entertaining. It's addictive, partly out of fun, partly out of frustration. It is a game that everyone in the family should enjoy. The Heist rates a 9 on a scale of 10 and should be a big hit for MicroLab.

**Product Review: Centipede game cartridge  
by D. Sage, Editor**

**Product: Centipede game cartridge**  
**Manufacturer: AtariSoft, Atari Inc., 1312 Crossman Rd., Sunnyvale, CA 94086**  
**Requirements: ColecoVision/ADAM, Joystick**  
**Media: Cartridge**  
**Warranty: 90 days**  
**Price: \$39.95 at Sears (gasp)**

Centipede from AtariSoft is another translation of the popular arcade game. The idea is to shoot the various parts of a centipede descending through a maze of mush-rooms while avoid-ing or blasting a spider. Fleas and scorpions also appear and can be blasted for points. You can also shoot away the mush-rooms to get a clear shot at the centipede.

Your shooting wand can be moved left and right and up and down. The latter movement is restricted to about the lower third of the screen. The graphics for this version are only



slightly better than the Atari 2600 version. While game play is relatively good, I was generally disappointed in this version of the game.

The price may have had a lot to do with my attitude. I would have to rate Centipede as a 5. Maybe the soon to be released Joust will make up for this one.

**Product Review: War Room game cartridge  
by Dick Jones**

**Product: War Room game cartridge**  
**Manufacturer: Probe 2000, Odyssey, NAP Electronics, P.O. Box 6950, Knoxville, TN 37914**  
**Requirements: ColecoVision/ADAM, Joystick**  
**Media: Cartridge**  
**Warranty: 24 months, return to service center**  
**Price: \$29.95**

Few games made thus far for the ColecoVision-ADAM appeal to teens and older adults alike. This is one that does. War Room is a realistic and graphic simulation of a nuclear attack upon the United States.

For those who object to war games, I might point out that this is a purely defensive game -- there is no way to launch U.S. missiles. The instruction booklet



also points out the folly of nuclear war in the first paragraph by stating that "no responsible government would want to resort to nuclear warfare in any other than game form."

Nevertheless, it is a two way challenge to see how long you can survive a full scale nuclear war. It is two way in that you not only have to defend the country from incoming bombs, but you also have to maintain production of goods and services to maintain your defense.

After choosing any of ten skill levels with either fixed or random production areas, sirens immediately warn of an attack.

You must position your laser firing satellite over the incoming missiles with the joystick and destroy them with either fire button.

Unlike most battle games, you have only a limited amount of laser fuel permitting a limited number of shots.

Waves of attacking satellites are first detected on national radar at the top of the screen. Radar automatically tracks the enemy unless you command

other data from the keypad such as target cities or laser fuel supply locations.

The lower part of the screen is a regional view of the nation as seen from your defending satellite. This is a quite detailed map of the United States which scrolls in any direction as you move the joystick.

You collect supplies by entering cities using the keypad commands (best done between attack waves). The graphics here are "cute" but still require sufficient hand-eye coordination to be interesting.

Enemy spies are everywhere and if they touch you while collecting supplies, the city becomes an enemy base.

If you are quick enough, there is a destruct button to destroy the city. Supplies are moderately complex.

For example, to manufacture machinery, you must deliver food and raw materials to a machinery producing city after collecting them from food producing and raw material cities.

All 12 buttons on the keypad are used and there is a handy pause feature to allow you to stop and plan (or just temporarily postpone the final destruction).

This game is made under the Probe 2000 label by Odyssey (yes, the same people that made the old Odyssey video game).

Probe 2000 had announced four games for the ColecoVision, including a beautiful graphic version of the Pink Panther, but they produced only two before dropping out of the Coleco cartridge business, citing a lack of necessary microchips.

In addition to War Room, they also made Power Lords, another excellent game.

Power Lords is in very short supply, but War Room can be found. Sears carries it and Wards retail stores were offering it for around half price (\$14.98), making it an even more desirable addition to your collection.

**Editor's Note:** Mr. Jones, Cole Camp, Missouri, is an experienced computer user, programmer and author of a number of adventure games.

**Product Review: War Room game cartridge**  
by Kerry Takenaka

**Product:** War Room game cartridge  
**Manufacturer:** Probe 2000, Odyssey, NAP Electronics, P.O. Box 6950, Knoxville, TN 37914  
**Requirements:** ColecoVision/ADAM, Joystick  
**Media:** Cartridge  
**Warranty:** 24 months, return to service center  
**Price:** \$29.95

**Editor's Note:** Whenever more than one review of a product is received the second review will be limited primarily to the writer's comments that differ from the original review).

The documentation accompanying the game was rather sketchy and does not include instructions for usage of all keypad buttons, but, in my opinion the game is easily understood after a few plays.

I have nothing but praise for the game. The graphics are top notch and the wailing air raid siren signalling an attack is a great addition. One disadvantage is that the game is only for one player. While the inclusion of 10 skill levels alleviates the problem to a degree, there is still nothing like the challenge of competition.

I have played many computer games, but War Room blends strategy and great graphics to produce a truly outstanding game. I have been playing War Room for three months, but it still presents a challenge every time I play. If I had to rate this game on a scale of 1 to 10, it would receive an easy 10.

**Product Review: Slither/Roller Controller**  
by Joe Blenkle

**Product:** Slither game cartridge/Roller Controller  
**Manufacturer:** Coleco  
**Requirements:** ColecoVision/ADAM  
**Media:** Cartridge/Hardware  
**Warranty:** 90 day

Coleco's Roller Controller comes with the arcade game Slither, and as of right now, that's the only plus in the controller's favor. While the controller works well on the game, its roll feels a bit sticky, unlike its coin-op counterpart that rolls smoothly. It still turns in an adequate performance, however, but it's far from being the best trackball ever made.



Compatible only with Coleco's system, it proved to be somewhat of a disappointment, since I had hoped to use it for play on my Atari 5200 via the Masterplay Interface (a device that allows standard joysticks to be used on the 5200).

Since the Roller Controller interfaces through Coleco's power source, it sets up too much electrical interference on the screen to be used with another system. Play seems to be somewhat erratic on other systems as well.

Coleco's adaptation of Slither is excellent with some of the best color and music I have seen and heard on a Coleco cartridge. Slither has a pause feature and the musical interlude that plays during pauses is the clearest and cleanest sound yet...almost worth the price just to listen to it.

The object of Slither is to shoot slithering snakes in the desert before they can get to you. Unlike past Coleco games, and because of the Roller Controller, movement is not confined to any one area. You can move all over the screen and in every direction.

Besides blasting the snakes, there is sagebrush to contend with as well as a killer pterodactyl that can polish you off at any time.



There are only two additional cartridges currently compatible with the Roller Controller - Omega Race and Victory. Hopefully Coleco won't follow the example set by the Driving Module and take eons to release more compatible cartridges. Unfortunately most of the other excellent tracball arcade games have already been licensed by other companies.

While the Roller Controller has some shortcomings, it's still well worth the investment if it continues to be supported by new games. The Roller Controller rates a 7 on a scale of 10.

#### **Product Review: Champ Joystick Adapter**

**by Harry L. McDonald**

**Product: Champ Joystick Adapter (Product #CA-340)**

**Purpose: Adapts Atari joysticks to Coleco (includes keypad)**

**Manufacturer: Championship Electronics Inc., 711 Grandview Dr., So. San Francisco, CA 94080**

**Price: \$16.95 (available from manufacturer - no shipping charge)**

**Warranty: 90 day/return to manufacturer**

The Champ Adapter is basically the keypad of a ColecoVision game controller. The adapter fits nicely in the ADAM's controller holder but is a wee bit thicker than the Coleco controller.

The instructions are on the back of the box. Simply plug the adapter into the ADAM or your ColecoVision

game unit, then plug any controller into the adapter.

The Champ Adapter works perfectly except there is no right and left distinction for the firing buttons. The left-hand button is the only one that is useable. This is a problem for those games that make this distinction. I bought the adapter so that I could use the Suncom stickless Joy-Sensor (I bought the Atari version which is cheaper than the Coleco version). I also use other Atari-type joysticks. I like them better.

As a numeric keypad, the adapter works perfectly. The keys are membrane type and has a slot for overlays. The feel of the keys improves with use, breaking in, I suppose. I rate this product an 8 because the right-hand button won't function separately. For those who want to play cartridges with high quality joysticks and cartridges with no fire button distinctions, this product is a 10.

#### **Product Review: The Power Stick**

**by Harry L. McDonald**

**Manufacturer: Amiga Corp., Santa Clara, CA 95051**

**Requirements: ColecoVision/ADAM**

**Warranty: Two year**

This is a Coleco version of Amiga's small-sticked joystick. Each controller included the numeric keypad which is set at the top and tilted up at about 30-35 degrees. The keypad allows for the use of overlays.

Documentation is good but is mostly on the outside of the box. There is a small but colorful leaflet inside.

Externally the Power Stick is built like a tank and it has a nice heft to it. Internally it looks to be a little weak. The unit has the left hand button functions on the side and the right hand button equivalents are at the bottom of the keypad. Using these buttons is painful and difficult because they have very little travel. The side buttons have no tactile response but they do travel which is a good indication that the button has been pushed.

The Power Stick fits nicely in the hands of children and the response is quite good. So good in fact, that the user must adapt after having used the original Coleco-supplied joysticks.

Although the design could probably be improved with better buttons, it is uncertain whether the



additional cost would be worth it. The product is acceptably good as is.

The Power Stick joysticks were purchased at a Target discount store for \$20 each.

Subjectively the product is about a 7.

By itself, the product would be about a 5, but considering what it is replacing - Coleco's own joystick - its value goes up.

**Book Review: How To Use The Coleco ADAM  
by Richard Weiderman**

**Product: Computer Book**

**Author: Jerry Willis**

**Publisher: Dilithium Press, Beaverton, Oregon**

**Length: 121 pages**

**Price: \$5.95**

Jerry Willis' new book, one of the spate of recent titles to interest ADAM owners, is a brief but relatively complete primer on using ADAM as a computer.

Its discussion of the machine's word processing and game playing is kept to a few cursory remarks.

The emphasis on ADAM and Basic is a definite plus since the instruction manual included with the system, especially the gray manual that came with the earliest machines, is so incomplete and inaccurate.

Willis goes far beyond that early manual, telling the reader/user more about Smart Basic than he could have learned until now.

For example, Willis explains the Control P command not covered in the manual.

In addition, he includes a lengthy and thorough discussion of programming graphics.

The book wisely keeps the discussion of setting up and running the machine to about 40 pages.

The bulk of the text, as discussed above, is an introduction to Smart Basic.

The final chapter discusses future hardware -- cards, disk drives, ports.

It also details software needs under headings like business and financial, recreational and educational, as well as telecommunications software.

Written in a simple, lucid and readable style, How To Use The Coleco ADAM is an essential introduction to Basic programming on our machine.

It is written for the beginning programmer and is an excellent guide into this mysterious realm, mysterious at least to the uninitiated who haven't checked their baggage and started their journey into this fascinating undiscovered country.

With this well-written and illuminating guide, first time travelers are promised an interesting journey.

**Editor's Note:** Mr. Weiderman, age 41, Grand Rapids, Michigan, is a beginning computerist.

**Book Review: The First Book Of ADAM**

**by D. Sage, Editor**

**Product: Computer Book**

**Author: Pamela J. Roth**

**Publisher: Que Corp., 7999 Knue Road, Suite 202,  
Indianapolis, IN 46250**

**Length: 223 pages**

**Price: \$12.95 at Walden Books**

Many of you, I am sure, are eagerly awaiting the many promised books on the ADAM. If this book is any indication, you may want to wait awhile longer.

This is NOT the same book as "The First Book of ADAM: The Computer", by Arthur Dent. This book appears to be based entirely on the first incomplete manuals included by Coleco with the early ADAMs.

The first chapter comes across as little more than a sales pitch for ADAM. Chapter 2 tells you how to hook up the ADAM and use its various components. If you already have an ADAM this chapter will not help much since by now you have already figured out how to hook it all together.

The remainder of the book is supposed to be a primer on programming. I found it to be a little disjointed, somewhat like my own style of writing.

This book will be of little value to experienced programmers. It contains essentially no technical information and little else that was not covered in the early manuals. As for the value to beginners I hesitate to make any judgements. I would like to hear from any beginners who have bought this book before pronouncing final judgement. If anyone out there has time to go through the book and test all of the sample programs I would be happy to give them my copy with the understanding that they would write an in-depth review of the book and sample programs.

I would prefer that a beginning programmer do this rather than someone who is experienced. I will announce the recipient of the book in our next issue so all who write me on this should not expect a personal reply.

**Glitches, Bugs, Errata, Etc.**

- Joe Blenkle had problems with the word processor. Setting the left margin to 1 causes a loss of characters that are underlined. Coleco offered to fix the problem.
- Nick Mucciarello had problems with his first ADAM and had it replaced. He suspects problems were mostly due to the manual.
- Some of the early versions of the word processor software contained bugs and/or possibly had chip problems. George Knochel reports he sent his ADAM to Honeywell for word processor problems and had it back in 17 days.

**ADAM** Compatible pre-formatted blank C-250 data cassettes. Quality data cassettes ready to use on your computer. Why pay more?

**ONLY! \$3.95 each**

(when ordered in lots of 10) +\$2 per lot for shipping and handling. For orders in quantities less than 10, send \$4.95 each + \$1.50 each order for S/H. Dealer inquiries welcomed.

**DUST COVERS: for keyboard and printer. Strong, lightweight nylon fabric with logo. Folds easily for storage. \$12.95 + \$1 shipping & handling.**

**EDUCATIONAL PROGRAMS:** Data cassette with: Capitals and states, Annuity, Calculator, and Spelling quiz. Get all for \$6.95 + \$1.00 S&H.

**DATA DRIVE HEAD CLEANER PADS in pre-measured sealed foil packets: 5 @ \$2.50**

To order, send name, address, and zip code, with a cashier's check or money order (personal checks require 3 weeks to clear) to:

DATA BACKUP  
BOX 335, IONA, IDAHO 83427  
(208) 523-2505

Idaho residents add 4% sales tax. Canadian residents add 5% U.S. each order for shipping & handling.

For more information send self addressed stamped envelope - ADAM is a registered trademark of Coleco Industries Inc.



Products for the ADAM computer Box 355 Iona, Idaho 83427

- Richard Weideman had a bug in his ADAM that prevented copying files from one data drive to the second one when in word processor mode.
- Harry McDonald reports ADAM's operating system was written by Infsoft.
- Francis Sifers had problems with the word processor on a December 83 ADAM, but had it promptly repaired by Honeywell.
- Jeff Silva has had continuing problems with his printer even after several replacements.

If you have been having problems with your printer try using it from Basic. Many of the printer problems appear to be due to word processor problems. I suspect it may be caused by control characters generated by the word processor.

Reports from persons buying ADAMs in 1984 have been generally good. If you have had problems with ADAM please let us know what they are along with the version of the word processor and/or Basic that you have.

To obtain the Word Processor version press Control-R while in the electronic typewriter mode.

The version number will appear on the bottom of the screen.

The Basic version may be obtained by peeking - PEEK (260) - while in Basic.

This will allow us to document problems specific to a particular version of Basic or the Word Processor. The serial number of your computer would also be helpful in determining when it was actually manufactured.

### Public Domain Software

Substantial progress has been made in our efforts to write programs for the first public domain software data pack. We are currently in the process of making arrangements to duplicate the data packs in preparation for distribution. We hope to have everything ready by the first of June. All subscribers will be notified by mail when we are ready to go. We encourage subscribers to donate programs they have written to this effort. The first data pack will include a variety of software which will be listed on the order

form. If all goes well the price should be between \$10 and \$12 per data pack.

### User Group News

In addition to the user's group which Coleco is attempting to get started there has been one formal group established and some of our subscribers have indicated an interest in establishing local groups in their area. If you are interested in establishing a group of your own we will be happy to support you in your efforts. We encourage all subscribers in the areas listed below to join a local group.

**Harry L. McDonald**  
1222 Division St.  
Charleston, IL 61920

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

~National Groups~  
**Adam Users of America**  
P.O. Box 599 Venice, CA 90294

### Mail Order Suppliers

The following mail order businesses carry a variety of products for ADAM/ColecoVision. If you write them for a catalog or price list enclose a self-addressed stamped envelope unless a charge for the catalog is specified.

**Video Today**  
P.O. Box 144C  
Holland, MI 49423  
(Catalog - \$.25)  
**Command Computers**  
9229 Todd Drive, Suite 104  
Birmingham, AL 35206

**DHA Hobby Crafts**  
5204 Midmoor Road  
Monona, WI 53716

### Products

The following list of software companies and products was compiled with the assistance of Norman Castro and George Knochel along with a number of other subscribers. Those products that we know are available or subscribers have seen on the store shelves are designated with an asterik. If you are aware of any other software that is now available let us know. We have long ago learned not to accept the word of some mail order houses or software

companies. If we don't see it in a store we generally do not believe it is available. This list is not comprehensive. We are sure there are some companies and products we have missed.

**Adventure International** - Unknown.

**Epyx** - Pitstop\*.

**HesWare** - May or June.

**Koala Technologies** - Probably.

**MicroLab/MicroLearn** - Heist\*; Miner 2049er\*; English SAT I, II, III; Math SAT I, II, III; U.S. Constitution; Personal Banker.

**Spinnaker Software** - Facemaker\*, Kidwriter, Kids on Keys, Ranch, Aerobics, Grandma's House, Fraction Fever\*, Alphabet Zoo\*.

**Sierra-On-Line** - BC's Quest for Tires\*, Sierra Adventure series, Sierra Boxing, Jaw Breaker, WizType, the Prisoner, Troll's Tale, Threshold\*, Learning with Leeper\*.

**Infocom** - Zork I, II, III; Deadline; Starcross; Suspended; Witness; Planetfall; Enchanter, Infidel.

**Datamost** - Mr. Robot, Super Bunny.

**Broderbund** - Lode Runner, Ultima II, Choplifter, A.E.

**Activision** - BeamRider, Decathlon, H.E.R.O., Keystone Kapers, Pitfall\*, Pitfall II, Zenji, River Raid\*.

**Electronic Arts** - Hardhat Mac, Pinball Construction Set.

**Sirius** - Capture the Flag, Gruds in Space, Type Attack.

**Sunrise Software** - Gust Buster\*, Mountain King\*, Quest for Quintana Roo\*, Rolloverture, Campaign 84\*.

**Xonox** - Sir Lancelot\*.

**Adventure International** - The Hulk, Captain America, Spiderman.

**Synapse** - Necromancer, Rainbow Walker.

**Softsync** - Computer Mechanic, Dancing Feats, The Model Diet, Mothership, Personal Accountant.

**Microsoft** - Typing Tutor.

**Coleco** - Colorforms (Electronic Crayons), CP/M Programmer's Tool Kit, Dr. Seuss Adventures in Early Reading, Dr. Seuss Fun with Numbers, Dr. Seuss Storymaker, Donkey Kong\*, Donkey Kong Jr.\*, Dragon's Lair, Electronic Flash Card, Electronic Work Book, Entrepreneur, Family Feud, Frontline\*, Gorf\*, Jeopardy, Joker's Wild, Password, Personal CP/M, Presidential Campaign, Price is Right, \$25000 Pyramid, Right Thing-Right Place, Rocky\*, Smart Basic II, Smart Filer, Smart Home & Address File, Smart Letters & Forms, Smart Logo, Smart Logo step-by-step, Smart Money Manager, Smart Picture Processor, Smart Recipe File, Smart Sheet, Smart Writing Checker, Smart Word Base & Spelling

Checker, Smurf Adventures in Reading, Smurf's Rescue, Star Trek, SubRoc\*, Telecom Software, Tic-Tac-Dough, Time Traveler, Troll's Tale, Tunnels & Trolls, Turbo\*, Typewrite, War Games\*, Wheel of Fortune, Word Book, Word Factory, World Game, Zaxxon\*, plus many game cartridges already available.

**Imagic** - Nova Blast\*, Solar Storm\*

**AtariSoft** - Centipede\*, Pacman\*, Defender\*, etc.

**Parker Bros.** - Popeye\*, Q\*bert\*, Frogger\*

**RIBBONS - RIBBONS - RIBBONS**

We now stock ribbons for the ADAM printer. Orders will normally be shipped within 48 hours of receipt. To order simply send a check or money order to the address indicated below. Ribbons are \$5.70 each plus \$.86 each for postage and packaging

Make checks or money orders payable to Sage Enterprises and mail to:

**Sage Enterprises**  
**ATTN: SUPPLIES**  
**Rt. 2, Box 211, Scrivner Rd.**  
**Russellville, MO 65074**

\$

**SAVE MONEY!**

\$

**Software Mail Order**  
**convenient shop at home service**

**COLECOVISION™ & ADAM™**  
**New Manufacturers WARRANTED Products**

---

**Activision™ Coleco™ Epyx™**  
**Hesware™ Microlab™ Sierra On Line™**  
**Softsync™ Spinnaker™ Wico™**

---

**Send large stamped self addressed envelope**  
**for FREE price lists**

*\* Prompt Delivery \**

**DHA HOBBY CRAFTS**  
5204 Midmoor Road  
Monona, WI 53716

\$