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Adam Users' Group

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Presents
The

SPRITE CHASER

This is the newsletter of the #1 Adam Users' Group. We are an organization for the sharing and advancement of knowledge and resources of people having interests in, or ownership of Coleco Adam ColecoVision Family Computer System.

Vol. 2 No. 1

ADAM

The ColecoVision™ Family Computer System.™



It's an Electronic Typewriter/Word Processor . . .
It's a Center for Family Learning . . .
It's an Enhanced Entertainment System!

THE SPRITE CHASER is published by the #1 Adam Users' Group for the enjoyment and furthering the knowledge of its members in the use of the Adam Computer System. Address all correspondence to The Editor, #1 Adam Users' Group, P.O. Box 3761, Cherry Hill, NJ 08034.

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Editorial Comment
by Jay H. Forman
President, #1 Adam Users' Group

Into each life a little rain must fall.

It was difficult hearing the news that Coleco had made the decision to stop all production of the Adam. Fur flew and foreheads became moist with perspiration.

But then the dust cleared and we realized that things weren't really so bad. No one's Adam self-destructed or ceased to function and the world kept right on turning.

It's unfortunate that when all the Adams are sold, that future computer enthusiasts will be unable to enjoy the Adam, and our second generation will never see Coleco's second generation computer. However, the time is now, and the #1 Adam Users' Group will continue to keep its doors open and grow.

In fact, you are the reason the #1 Adam Users' Group is still going strong. Now more than ever, all Adam computer owners must join together to prolong any obsolescence of the Adam. We are trying to get our Software Exchange Library off the ground. Please send in programs so we can offer them to other members. We will have a list in this newsletter when we get enough programs. Send them to the attention of Steve George, who will handle this department. We are in need of more articles. Please help do your part.

I have delayed putting out this newsletter for only one reason - waiting for concrete information from Coleco, but none has come. Rumors are all over such as Odd-Lot took over the Adam etc. I have been with the Coleco people at the CES and in West Hartford and only top management knows what's happening and they ain't talking. So let's not worry about them. Now and in the future we will continue to give you up to date info about the Adam and everything that's related.

A big question that is always asked. I lost SmartBasic what do I do? I have found that I use a program by Extended Software Co., called EBU This program has SmartBasic on it plus many extra commands that Coleco left out.

PACKCOPY is a program that will back-up most programs like SmartBasic, Logo etc. on disk or data pack.

We can use more reviews on programs that you have purchased, so all of our members will be better informed. Don't be shy.

Last minute flash - A tractor feed will soon be available. I spoke to the company who has a proto-type. They are checking it out and hope to have it out within the next few months for under a \$100, this will be sold by the M.W. Ruth Co.

Below is a list of Users' Groups - You can have your group listed. Just have an officer send us a letter about your group. We know that there are many more groups, please write, so we can keep an updated list.

#1 Adam Users' Group - Jay Forman, P.O. Box 3761, Cherry Hill, NJ 08034. A National Users' Group. phone 609-667-2526

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

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

Northwest Adam User's Group, Valorie Zimmerman, 22607 SE 322nd, Kent, Washington 98042. Phone 206-886-1167.

Alan L. Taylor, 612 7th Ave. NE, Stewartville, MN 55976. Phone 507-533 8415 after 6PM.

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

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

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

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

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Brian Stranahan, So. California Adam Users, 8580 Buggy Whip Rd., Alta Loma, CA 91701. Phone 714-989-1394.

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

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

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

Russell M. Clinton, Houston User's Group, 8954 Shoreview Ln., Humble, TX 77346.

Al Roginski, 4327 Thorndale Pl., Las Vegas, NV 89103.

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

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

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

Seattle-Tacoma ADAM Users Group, Barbara Duncan, 3727-34th Ave. SW, Seattle, WA 98126. Phone 206-938-5276 (evenings).

San Francisco ADAM Users Group, Jono Smith. Phone 415-567-9531.

ADAM'S APPLE, Charles Kolin, 4835 Edsal Rd., Cleveland, OH 44124. Phone 216-291-2865.

AUG, P.O. Box P, Lynbrook, NY, 11563

The Lake Erie Adam Users - Jonathan Fligner, 2110 W. 36th St., Lorain, OH 44053, phone 216-282-8467

QUESTIONS & ANSWERS

by

RAY J.

People seem most interested in the internal workings of the ADAM computer.

Dear Ray J.,

Firstly, I found that after something was erased by HPLOYing in black color (HCOLOR=0 or 4), it would reappear on screen if you DRAW or HPLOT something in its vicinity. I am wondering if there is any way to correct this or to get around it.

Secondly, I was amazed when I saw that in some commercial games, such as BUCK ROGERS and DONKEY KONG, an object is moved without erasing the background. But I always have this problem when I try to use some animation in my graphic programs. I'd like to ask you whether this animation without erasing background can be done in SMARTBASIC and how.

Finally, I'd like to know a little about the RAM mapping of high resolution graphics if it is possible. Coleco claims there is an extra 16K RAM for graphics besides the main 64K RAM. I wonder if it possible to access this extra RAM.

Zhi Deng

Dear Zhi;

First of all are you sure you are erasing the entire image on the high-res screen? If not I suggest for one that you recheck your variables to make sure you are. I really suggest that you stick to one type of drawing mode in high-res. What I mean is either do all your plotting via the HPLOT command or all plotting via the DRAW and XDRAW commands. This should correct your problem.

Secondly, the Coleco ADAM is capable of manipulating 32 sprites on screen at one time. Don't know what sprites are? Sprites are smoothly animated graphic images. There are certain machine language subroutine in ADAM's memory to accomplish the task of creating and moving them but the process is too long and complex to go into here. A sprite can move independently of the background because each sprite has a numerical value assigned to it. What this means is that the background has a higher value than the sprite itself. It works out that the smaller of the values will appear in the 'foreground' of the screen.

Lastly, Coleco's claim of 16K graphics RAM is correct but its proper term is 16K of video RAM, let me explain. Coleco calls the chip the V.D.P. or VIDEO DISPLAY PROCESSOR. It's a TEXAS INSTRUMENTS 9928. It generates all video, control and sync.

signals and controls the storage, retrieval and refresh of display data in a dynamic memory, VRAM. The 9928 uses a table-driven architecture that allows the programmer to control every pixel on the screen, and to define and control 32 'sprites'. Sprites can be put ANYWHERE on the display and moved at will.

Zhi, do you know machine language? If you do, this may help you. The 9928's data port is \$BE or 190, while its register port is \$BF or 191. The 16K RAM is not directly accessible from SMARTBASIC. You need to set up a table of data and utilize a machine language program to move the data into the 9928. See how hard it is getting.

Another user writes:

Dear Ray J.,

Why on the ADAM when I save a program I get the message "NO MORE ROOM" yet when I catalog the DATAPACK it says 147 BLOCKS free. What gives?
Sincerely,
George D. Raeburn

Dear George,

The digital-data-pack and the disk-drive for the ADAM can only hold 35 files apiece. Now a file can be a program, memory image for shape tables, SMARTWRITER TEXT files and the like. For some reason COLECO set the maximum number of entries to 35, a reason which I know not, but one we're going to have to live with.

COLECO's advertising the ADAM to be APPLE compatible leads to some interesting querries.

Dear RAY J.,

What type of monitor can be used with expansion module # 3? And, if ADAM is APPLE compatible and I have the ADAM disk drive can I use APPLE disks?
Sincerely yours,
David Adamowicz

Dear Dave,

On expansion module # 3 you have no choice but to use a TV set. It is incapable of giving the output a monitor needs, unless you rewire the output, sorry.

As for your second question of using APPLE disks on ADAM. Well we're back to the old compatible blues. ADAM is ONLY compatible with 90% of APPLES APPLESOFT basic language and I mean its commands like PRINT, RUN, STOP, and so on. So it means that you cannot use APPLE disks in ADAM. The formats are two totally separate entities into themselves.

```

1 SPEED =70
2 PRINT " ADAM'S COUNTER PROGRAM"
3 PRINT
4 PRINT " BY NEAL FREDERICKS
5 SPEED = 255
6 REM COUNTER
7 HOME: PRINT
8 INPUT "What number do you want ADAM to count up to? "; n
9 PRINT
10 v = 0
12 PRINT v
15 IF v =n THEN 50
30 v = v+1
40 GOTO 12
50 PRINT "ADAM IS FINISHED COUNTING UP TO "; n; "."
70 PRINT
80 INPUT "Do you want ADAM to count some more numbers? (Y/N)"; yn$
90 IF yn$ = "Y" THEN 7
91 IF yn$ = "N" THEN 110
92 IF yn$ = "y" THEN 7
93 IF yn$ = "n" THEN 110
110 HOME: PRINT
120 PRINT "Thank you for using ADAM and have a nice day."

```

The program above is called ADAMS COUNTER PROGRAM and it shows how ADAM counts numbers and prints them on the screen. The counting statements are from line 10 to 14.

Neal Fredericks

HOW TO USE FUNCTION KEYS IN SMARTBASIC

There are twenty-three various function keys on ADAM keyboard (8 Command keys, 6 Smart keys, 5 Cursor keys and 4 other special keys). Coleco has not documented these keys in SmartBASIC. Using these function keys will make your SmartBASIC programs easy to use, particularly when the programs involve a lot of selections. The following is a general description of how to program these keys.

There are corresponding ASC II codes for each of the function keys (See attached Table for detail information). Although nothing appears on the screen when you press any of these keys, the computer reads the ASC II code of the key pressed. Thus you have to peek into the memory location where the code is stored. This location happens to be -651. The following routine is an example of using function keys to make selections.

Suppose you want to program Smart keys I-VI to select subroutines for doing different jobs. Here is the example:

```

10 REM --Get Keys--
20 zz=PEEK(-651)
30 IF zz<135 AND zz>128 THEN zz=zz-128: GOTO 60
40 IF zz<143 AND zz>136 THEN zz=zz-136: GOTO 60

```

50 ON zz GOSUB 100, 200, 300, 400, 500, 600

where 100, 200 etc. are the beginning of different subroutines.
Note: It is also possible to use GET to get the code of functions keys. Then it is impossible to stop the program by CONTROL-c.

ZHI DENG

ASC II CODES FOR FUNCTIONS KEYS

1. Smart Keys:

| | | |
|-----|-----|-------------|
| I | 129 | 137 (SHIFT) |
| II | 130 | 138 (SHIFT) |
| III | 131 | 139 (SHIFT) |
| IV | 132 | 140 (SHIFT) |
| V | 133 | 141 (SHIFT) |
| VI | 134 | 142 (SHIFT) |

*CONTROL has no effect on these keys.

2. Command Keys:

| | | |
|-----------|-----|-------------|
| WILD CARD | 144 | 152 (SHIFT) |
| UNDO | 145 | 153 (SHIFT) |
| MOVE/COPY | 146 | 154 (SHIFT) |
| STORE/GET | 147 | 155 (SHIFT) |
| INSERT | 148 | 156 (SHFT) |
| PRINT | 149 | 157 (SHIFT) |
| CLEAR | 150 | 158 (SHIFT) |
| DELETE | 151 | 159 (SHIFT) |

*Control has no effect on these keys.

3. Cursor Keys:

| | | | |
|------|-----|---------------|------------|
| Home | 128 | | |
| ↑ | 160 | 164 (CONTROL) | 172 (HOME) |
| → | 161 | 165 (CONTROL) | 173 (HOME) |
| ↓ | 162 | 166 (CONTROL) | 174 (HOME) |
| ← | 163 | 167 (CONTROL) | 175 (HOME) |

*SHIFT has no effect on these keys.

4. Special Keys:

| | | | |
|-----------|----|-----------|---|
| RETURN | 13 | BACKSPACE | 8 |
| ESCAPE/WP | 27 | TAB | 9 |

*These keys are not affected by SHIFT or CONTROL.

PRINTER PROBLEMS:

I recently had a very frustrating experience with my ADAM printer. I did not know who or where to send it for service, so I attempted to fix it myself. Here is my problem.

Every time I turned on my computer, the printing head would move to the right side of the printer and try to beat it's way out of the printer. This was very annoying, and it was impossible to print properly centered pages.

After looking under the cover, I discovered what the problem was. On

the left side of the printing head, there are two flat pieces of copper, one of which has a black plastic tip. The two pieces of copper must be in contact at all times. On the left side of the printer case, there is a plastic ridge that separates the copper switch when the printer head returns to the left margin. Apparently, if the two pieces do not have good contact the head keeps moving right until there is contact. In my case, never.

All that is needed to correct the problem, is to gently bend the pieces of copper until they make contact. It fixed mine, and I have not had the problem since.

I would be very grateful if anyone can tell me where in the Tulsa area I can have my ADAM computer serviced.

David Billingsley

7208 N. 145th E. Ave.

Owasso, OK 74055.

I just had an experience with my ADAM printer. While in the midst of printing a letter, the ribbon stopped advancing. I called COLECO, and they referred me to HONEYWELL for service. In talking to the HONEYWELL repairman, he informed me that I would have to replace the entire print head as they do not repair them, for a cost of \$89.95. I figured that since I had to replace the entire head, I might as well tear this one open and see if I could repair it. After removing the ribbon cartridge, I removed the five screws holding the cartridge holder on, and then removed the cartridge holder. What I discovered was a long (4") thin (3/4") piece of brass with a tang on it that advances the ribbon by pushing a wheel around. On my printer, the tang was broken off of the brass piece. I then unbolted the solenoid that is connected to the brass piece by inserting a screwdriver into the screw, and carefully removing the nut holding it into position. I then lifted the brass piece out of the solenoid with the plunger attached.

My next problem was how to attach the tang back into the brass piece. I had tried to purchase the brass piece from HONEYWELL, but they told me that no one stocks those parts. I tried super-glue to no avail. I then got out my soldering iron, and soldered the tang on. I then reinstalled everything in the reverse order that I took it out. My printer is now working fine, and I saved \$89.95. If you know of a source for the brass piece, I would appreciate knowing of it, as I am not sure of how long this fix will last, and I sure do not want to pay for a new print head.

Thanks for your assistance.

Richard D. Williams

1201 Michigan Blvd.

Racine, WI 53402.

Review by Steve Chamberlain

Product: Diablo

Manufacturer: Image Microcorp

Requirements: Adam

Media: Data Pack or Disk

Warranty: Will be replaced if found defective.

Price: \$24.95 at M.W. Ruth
Rating: 10

Diablo is the newest release from Image Microcorp, and it's the best by far. This game is written completely in machine language, and unlike the others by Image it is all graphics. Once you hit computer reset an ADAM title screen appears, just like that on all Coleco data packs. After the title screen you choose to play using the keyboard or joystick, and then give keyboard input to begin.

The object of the game is to keep a moving ball safely rolling on a section of slidable track. There are 232 tracks on 116 movable panels. You have to move the panels in such a way that you form a safe path for the ball. After the ball crosses over a section of track that part of the track disappears, which is what makes the game progressively more challenging. If the ball runs out of track or into a wall then you lose. If, however, the ball runs into a wall after you have removed 60 sections of track then the ball wraps around to the other side of the screen.

This is an incredible game, and I have nothing but good things to say about it. This is the first 3rd party arcade type game available and it is super. The graphics and sound are first notch, and would not look out of place with Coleco's own. This is the first "must-have" game I've run into for the ADAM, and the ONLY game I ever would be willing to pay more for. At the price you can't lose. Be sure not to pass this game up!

Review by Steve Chamberlain
Product: Black Gold
Manufacturer: Image Microcorp
Requirements: ADAM
Media: Data Pack or Disk
Warranty: Will be replaced if found defective.
Price: \$24.95 at M.W. Ruth Co.
Rating: 10

If you've been waiting for a program for your ADAM, I mean a real program, then your wait is over! Image Microcorp has just released three programs for the ADAM that I would never think of parting with. The programs are written in computer language, not SmartBASIC (although there are some Basic routines), so you don't need to load Basic first. You just put the tape in and hit reset, then, once it is in memory type "run" and you can begin.

This is a board style type game for 1 to 4 players where you can pretend to be J.R. drilling for oil. On screen you have a map of the land you can drill on, information about the land (cost to drill, taxes ..), player's net worth, and an oil well. You can decide whether or not you want to drill, how deep to drill, and you can stop at any time. Once you have chosen land to drill on, or not to drill on it is coded with a color that reveals it's probable profit range (how close it is to the center of the oil field). If you are lucky enough to hit

oil, then you are rewarded by getting to see the well spray a fountain of that most precious natural resource that you seem to have dedicated your life to finding. You, of course, also get the money you earn each week from the well. As the well starts to run dry, and you are paying more in taxes than what the well is producing, you can choose to sell it. After each turn your portfolio is displayed where all your financial information is kept and changed each week (one turn). The main objective of the game is to become filthy rich in ten weeks (turns).

The instructions are very easy to understand, and explain each step of the game in detail. If you love simulation games as much as I do, then this game is for you. The graphics, sound effects, and game play make this program an all around winner. It is a joy to play, especially with four people and I highly recommend it.

Review by Steve Chamberlain

Product: The Stock Market Game

Manufacturer: Image Microcorp

Requirements: ADAM

Media: Data Pack or Disk

Warranty: Will be replaced if found defective.

Price: \$24.95 at M.W. Ruth Co.

Rating: 9

The Stock Market Game is one of three programs recently released by Image Microcorp. It is written in computer language, which allows you to put it in ADAM, press reset, and begin.

This is a simulation game for 1-6 players. It is a perfect game for people who like to follow the stock market, and for those who would like to learn the techniques of stock trading. This game follows the ups and downs of eight companies, which range from blue chip to speculative ventures. You can buy and sell stocks from any of the eight companies using the \$50,000 you start with. At the end of the game the person who has the most money is the winner. To help you decide what companies to invest in you look at the charts (Big Board and Dow Jones) and try to speculate the future direction of the stocks. To call either of these charts you press the designated keyboard key(s) which is also how you use the other options available in this program.

The instruction book is very detailed and clear. It explains all of your options and also gives you a description of all the companies in the game. Because of my interest in stocks I loved the game from the very beginning, but I feel that because of the uniqueness and depth of this game, it could be enjoyed by anyone. The graphics and sound effects add a nice touch to this game. If you like simulations and don't mind thinking a little, then I would not hesitate to pick up this game.

Review by Steve Chamberlain

Product: Disassembler

Manufacturer: Image Microcorp

Requirements: ADAM
Media: Data Pack and Disk
Warranty: Will be replaced if found defective.
Price: \$34.95 at M.W. Ruth
Rating: 10

This was the first program that I know of by Image Microcorp available for the ADAM. It, like the others by this company, is written in computer language allowing you to load it without having to boot up SmartBASIC.

Before I describe this program I would like to explain how I rated this program. I rated it a 10 in comparison to all other disassemblers, not in comparison to all programs. I feel that it is impossible to accurately compare this program to any other program, except another disassembler.

The purpose of this program is to take the machine language from memory and convert it into something readable. I find this disassembler much more clear and understandable than any other. One reason I feel this way is because of the simplicity of the program; everything is menu driven. You have your choice of disassembling opcodes, data, or text separately which makes things less confusing. After you decide what it is you will disassemble you can choose to have it sent to the printer for a permanent copy. On screen lines scroll upward on a colored background (very easy on your eyes) and stop before scrolling off the top. You then press a key to continue. On the printer typing stops after 50 lines giving you a chance to change paper.

This is a program for the serious ADAM programmer who will know how to use the disassembled information. This program is a supplement to the assembler package for the ADAM.

Address Book Filer and Auto Dialer - Review by Randy Page

I recently obtained and have been using the Address Book Filer (with Autodialer) for the ADAM computer. This program offers the user 4 basic functions:

1. Data Entry
2. Data Retrieval
3. Autodialing
4. Formated Printout

Address Book Filers' data entry phase gives you a formatted screen which prompts the user to enter Name, address, Phone and note data on each entry.

The Data retrieval phase allows you 4 searchable fields (Last Name, First Name, City and note 1) to enable you to retrieve the persons you desire. The search function also allows you to search for names you are unsure of by using a partial entry. This feature also works in the Note 1 field and if you encode information in that field you can effectively increase your number of separately searchable features to

over 20!

The Autodialer allows you to search for entries as described above and to have ADAM dial the number of the person desired for you. The program also allows you to mark numbers that had no answer, etc.

The Formatted Printing is the portion of the program that I find most useful. I have used it to print mailing labels, mailing lists, and personalized letters. You can establish your own format within the program for 1 time use or you can write a format in Smartwriter and load it as part of the print formatting stage.

My overall impression with the program is positive but I feel that there are a couple drawbacks that should be mentioned. First, there is no provision made for fanfold paper usage. Secondly, once you have stored a large number of entries on the tape, ADAM is much slower at retrieving from memory. Thirdly at the time of this writing no one seems to know a way to back up the address book tape that you create to store your entries.

* * * TECHNICAL BULLETIN * * *

Subject: BASIC 1.0 Hints: Randomize Numbers
Date: June 7, 1984

Bulletin # 84003 from Systems Product Integrity Group

* * * * *

RANDOMIZE NUMBERS: SmartBasic's RND function returns a random real number less than 1 and greater than or equal to zero. The sequence of random numbers is the same each time Smart BASIC is booted, and each time you RUN a program. This arrangement is consistent with ANSI standards, but it differs from AppleSoft Basic which produces a new random number each time the program runs.

Here is a little program that will randomize the numbers each time you start the program. The randomization is based on the variable length of time it takes a person to press a number on the front Paddle's keypad that is requested in the first line. ADAM strobes the keypad to see if any number has been pressed. If it was not pressed, ADAM decrements counter rx. Since it is very unlikely that people will press the keypad's number keys in the same length of time, a random seed is produced.

Here is a program that can be tucked into the first 3 lines of your program:

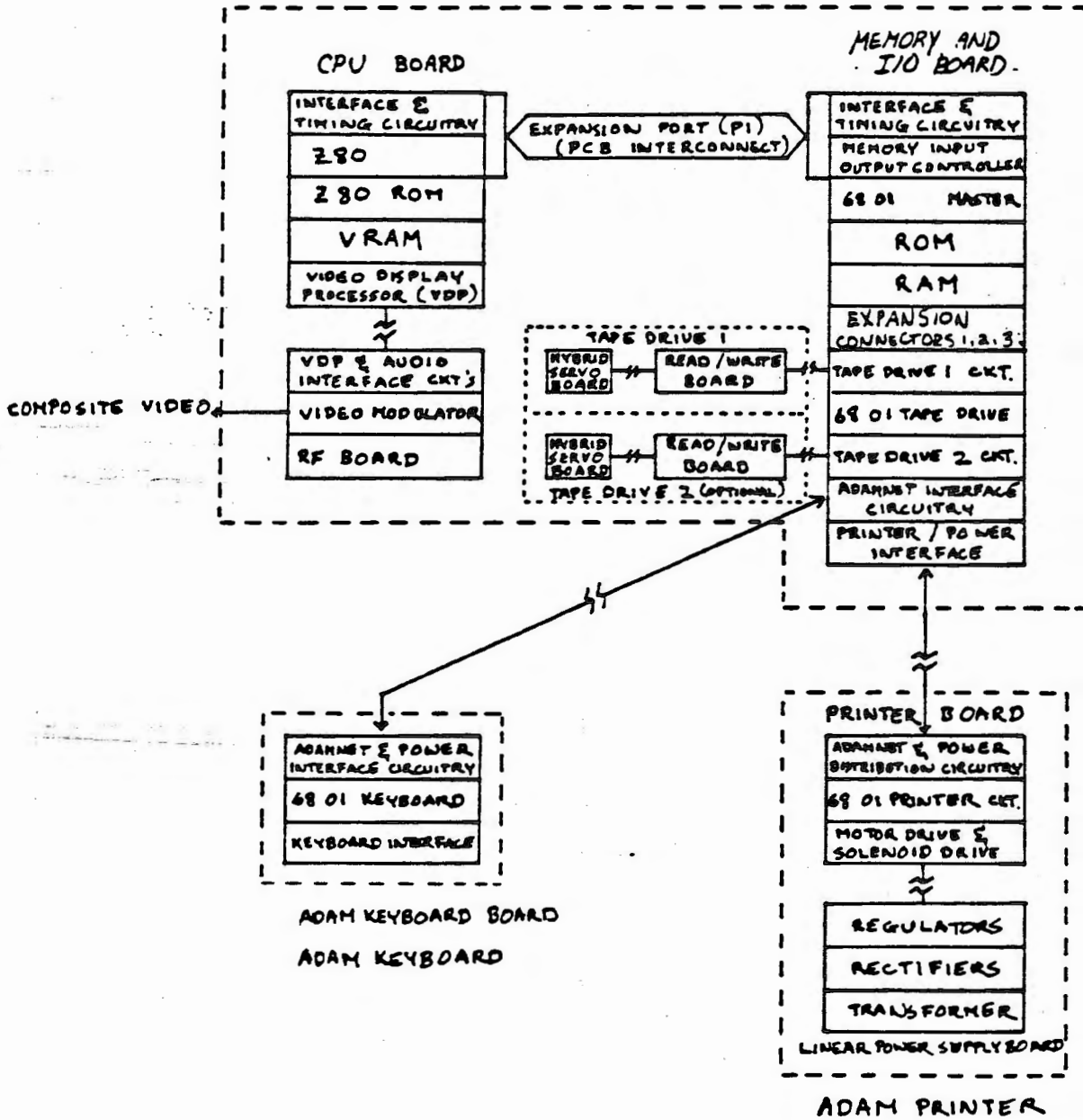
```
1 PRINT "Press # on the front keypad to continue"
2 rx = rx - 1 : IF NOT PDL(11) THEN 2
3 junk = RND(rx)
```

If you want to use this in a little test program that shows a bunch of random numbers between 1 and 6, type in lines 1 through 3, then add:

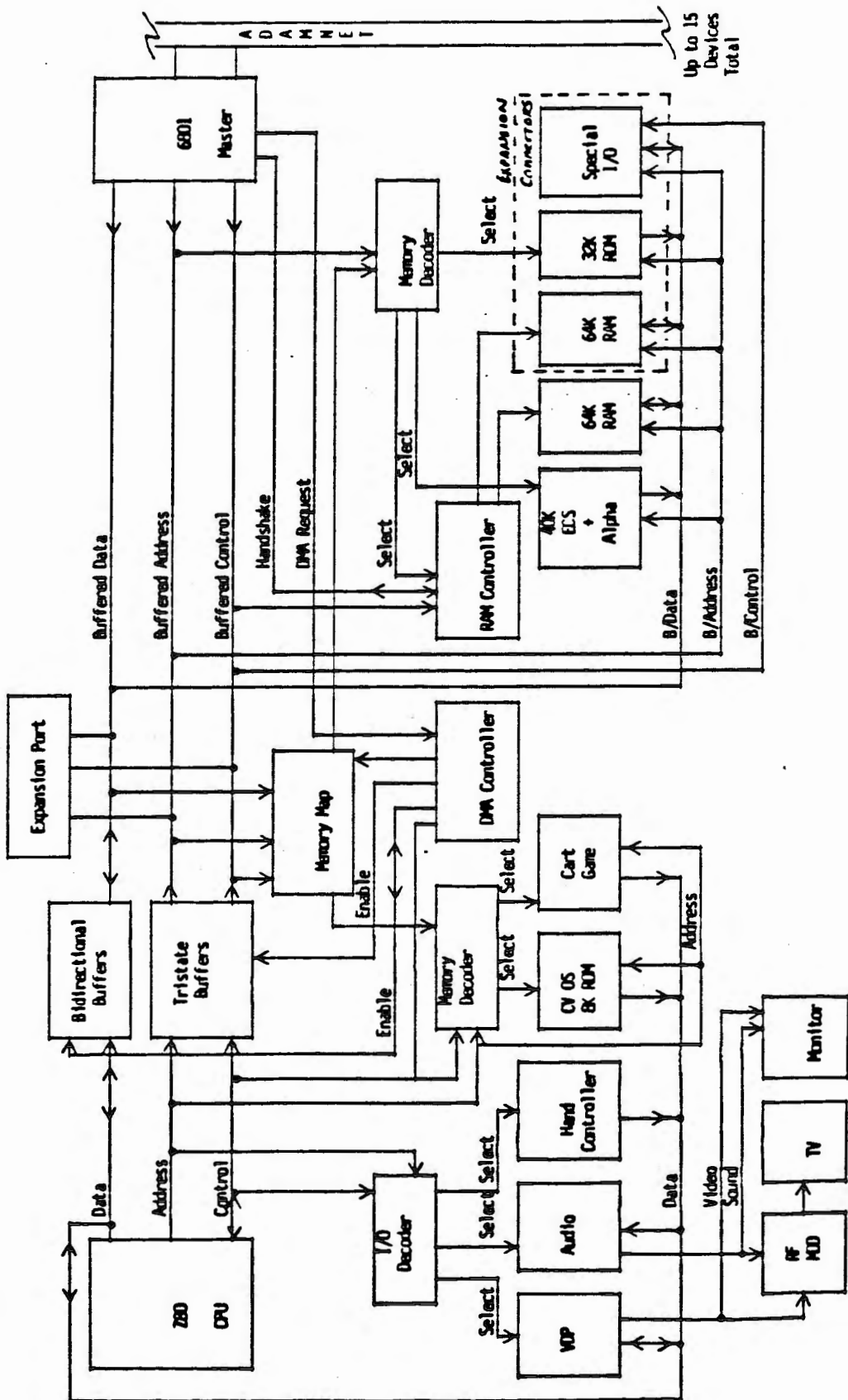
```
10 FOR Y = 1 TO 5
20   FOR X = 1 TO 10
30     PRINT INT(RND(1)*6+1); " ";
40 NEXT : PRINT : NEXT
```

You may wish to have a truly randomized number to start your program the first time, but start from the same number each time thereafter. If so, have your program loop back to line 3.

SYSTEM BLOCK DIAGRAM



SYSTEM FLOW DIAGRAM



NO. 1 ADAM USERS' GROUP
 P. O. BOX 3761
 CHERRY HILL, NJ 08034

COLECO ADAM OUTLET

| | |
|-------------------------------------|-------------|
| Data Pack (Pre/Formatted Adam) | \$3.95 |
| Data Pack (Pre/Formatted) | 10/\$37.50 |
| Disks (blank for Adam) | 10/\$19.95 |
| Disks (blank for Adam) | 30/\$56.85 |
| Ribbon Cart. (Adam printer) | \$5.50 |
| Ribbon Cart. (Adam printer) | 3/\$15.00 |
| Daisy Wheel-Elite, Script etc. | \$5.50 |
| Covers (3) Key, CPU, Printer | \$18.95 |
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