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MONTHLY NEWSLETTER-PUBLIC DOMAIN LIBRARY
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HAPPY SPRING TO YOU ALL...

Continuing our study of Romans, Chapter 7...vs 9

And I was once apart from the Law; but when the commandment came, sin became alive, and I died; 10 and this commandment, which was to result in life, proved to result in death for me; 11 for sin taking opportunity through the commandment, deceived me, and through it killed me. 12 So then, the Law is holy, and the commandment is holy and righteous and good. 13 Therefore did that which is good become a cause of death for me? May it never be shown to be sin by effecting my death through that which is good, that through the commandment sin might become utterly sinful. 14 For we know that the Law is spiritual; but I am of flesh, sold into bondage to sin. 15 For that which I am doing, I do not understand; for I am not practicing what I would like to do, but I am doing the very thing I hate. 16 But if I do the very thing I do not wish to do, I agree with the Law, confessing that it is good. 17 So now, no longer am I the one doing it, but sin which indwells me. 18 For I know that nothing good dwells in me, that is, in my flesh; for the wishing is present in me, but the doing of the good is not. 19 For the good that I wish, I do not do; but I practice the very evil that I do not wish. 20 But if I am doing the very thing I do not wish, I am no longer the one doing it, but sin which dwells in me. 21 I find then the principle that evil is present in me, the one who wishes to do good. 22 For I joyfully concur with the law of God in the inner man, 23 but I see a different law in the members of my body, waging war against the law of my mind, and making me a prisoner of the law of sin which is in my members. 24 Wretched man that I am! Who will set me free from the body of this death? 25 Thanks be to God through Jesus Christ our Lord! So then, on one hand I myself with my mind am serving the law of God, but on the other, with my flesh the law of sin.

I am born again and the spirit of the risen Christ dwells within me. This gives me an interesting perspective of the above passages and the feelings the author expresses. Before I had Jesus living in my spirit, i. e. my inner man, most anything I cared to do was alright with my conscience. Once I was shown these words in God's Bible it was a different story. I sensed a very real war going

on inside my mind. As Paul states "what a wretched person I am." I feel this way many times.

But now I'm in the position to have hope for change in my life for the better. I used to think "you can't teach an old dog new tricks." I'll tell how I now always combat the temptation to believe this old adage. I remind myself of the many scriptures where God promises deliverance to those who will only believe His love for them. His son's crucifixion, His miracles, His healing touch, His promises for us miraculously preserved for us written down in our Bibles, His precious Holy Spirit who comes to comfort us when we're hurting or afraid, His creation that surrounds us, all these are only the start of how many ways He shows He cares!

To think He actually designed a way for man to be free from feelings of worthlessness, feelings of frustration, anger, bitterness, unforgiveness, hate, and so many other negative emotions is amazing to me. When we consider that man has only begun to understand the human mind in a scientific way, I marvel at God's wisdom from the very beginning. Where psychiatry offers a reason why we do things, the new cults offer a sense of belonging, drugs and alcohol offers a quick high, sex a feeling of self-worth, money a sense of power; only a loving, miracle-working God could provide us with a **RELATIONSHIP.**



That's where it's all at with our heavenly Father! He loves us and wants us to feel His love, know His forgiveness, understand how and why He forgives us and in these passages of Romans 7 God shows in detail the miracle of man's mind and emotions. He shows how we think without being close to Him and how we think when we are close to Him as our Father and a friend.
GOD BLESS YOU ALL.

NIAD NEWS/ UPDATES

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CONGRATULATIONS TO YOU !!

Yes, you own the orphaned ADAM computer...

- Abandoned by Coleco
- Spurned by major retailers
- Laughed at by computer snobs

BUT...

- You own one of the friendliest home computers made
- You have a combination word processor, computer and super game system
- You are one of over 200,000 loyal people who have vowed to not give up there favorite computer
- You have many loyal suppliers of hardware, software who are continually putting out new products
- You have your choice of many fine local and national user groups to provide information, support and service
- You have the choice of some great new software programs that are the equal of those available on any other home system
- ***YOU ARE AN ADAMITE !!!***

Pride is an important emotion (as long as it is not over done).

We can and should be proud of our ADAMs. This orphaned but mighty computer has a loyal following of users. One may ask why ? ADAMITES are holding on to their systems for very good reasons, practical reasons. The ADAM does the job. That is pretty plain and simple !

The old adage "If it isn't broken , don't fix it." certainly applies in this case. The ADAM is a complete system with a letter quality printer and easy to use software. This is a tough combination to beat, which is why the industry marvelled about the ADAM when it was first introduced in June of 1983. Unfortunately, Coleco missed it in the marketing end and lost a golden opportunity. When Coleco dropped the ADAM, many thought it was all over, but it really just began ! There is now more high quality software out for the ADAM then ever before and it is improving all the time.

1988 IS BETTER then ever ...

This month we have some interesting topics for your "digestion". We have the next installment in L. C. Austill's fine Basic programming course as well as a full article and documentation on SMARTBasic 2.0. Many members have been asking about this version of ADAM Basic, so we have devoted several pages to it this month. Next month we'll have some tips on the use of SPEEDYWRITE . The response to this fine program has been tremendous. It will certainly aid in improving the ADAM's use as a word processor. Reviews of the great FILEMANAGER utility program, PROGOLF CHAMP, and MR T SEARCH are included as well.



. We have been running into some backorder problems due to the shortage of memory expanders and disk drives. Please be patient since we are filling these backorders as quickly as we get them in from our suppliers.

. SPEEDYWRITE version 2.0 was found to have a bug in it which will delay shipments

. Memory chip prices are rising even more, which will cause a continuing rise in our 64K and 256K memory expanders. Due to this highly erratic situation, the price of these items will be adjusted at the time your order is received based on the current price of the memory chips. The price of the chips has almost doubled in the last few months.

. Due to postal service cuts, you may experience a delay in receiving your newsletter via Third class mail.

. See the GRAPHICS WORKSHOP for some information

regarding corrections for bugs in POWERPAINT. SPEEDYWRITE was reviewed last month. There might have been some confusion regarding the two versions available. Version 1 is what we would recommend for the average ADAM owner. It contains all the functions that most people would want and ever use. There is even a "config" file available that will allow it to support a dot matrix printer. Version 2 has built in support for a dot matrix printer plus several additional features for more advanced word processing users and hence the higher price. Again, for the average ADAM owner version 1.0 is fine.

We have our NIAD survey in this issue and ask ALL of you to take a few minutes to fill it out. This survey is very important to you, since its results will be used to change NIADs services and the newsletter. NIADs goal is to provide the best service to its members and the survey will help us do a better job in this area. As an extra incentive to filling out our survey form we will have a drawing on June 1ST and will give away the following prizes based on a COMPLETED survey form:

First Prize - \$100 NIAD Gift Certificate
 Second Prize- \$ 50 NIAD Gift Certificate
 Third Prize - \$ 25 NIAD Gift Certificate

Remember, to qualify your survey form must have ALL QUESTIONS ANSWERED. If you don't answer all questions, your survey form will not be part of the drawing.

I want to apologize to William Chappell for omitting to give him credit for a couple of great tips concerning ADAM printer ribbons. He was the author of the letter that appeared on page 4 of the July/ August 1987 issue. Williams tips were also the basis for the diagram of the ribbon that we printed in the Feb/88 issue. Sorry for the oversight, William and thanks for your contribution.

Our Chicago area NIAD User group meetings are held the second Thursday of each month at our store, located at 6460 College Road in Lisle, IL. We start at 7:30 and finish about 10PM. Good discussions ensue and we review new products. Come and meet other ADAM owners and have a good time. Next meeting is May 12th.

If 0488 are the first 4 letters of your member number as printed on your newsletter address label, this is your last issue. Send in your renewal of either \$19 or \$26 (frist class/ Canadian) so you don't miss any issues.



Charles O. Smith has written and suggested ADAM supporters write to the COMPUTER SHOPPER magazine and urge them to support the ADAM. I will be writing to them on behalf of NIAD. I urge all of you to write to: Stan Veit, Editor, Computer Shopper, 5211 S. Washington Ave., Titusville, FL 32780. Ask them to print articles which will be supplied by NIAD and others.

SOFTWARE/ HARDWARE UPDATES

FILEMANAGER may be the most comprehensive utility program for the ADAM. Developed by Tony Morehan, a long time ADAMITE, this program is a must for the serious ADAMITE. See our full review in this issue.

PROGOLF CHAMP is a great graphics game for you golf lovers. Even Wayne was impressed with the detail of the graphics and the playability of the game. See his review.

MR T SEARCH is super word search game, with on screen play options and many extras. I think this will be a big hit for many ADAM owners into these type of games.

Walter's Software has come out with two more versions of their SMARTDSK program (just to confuse us folks!). SMARTDSK II allows the use of any memory expander with ADAMCALC, BOTH SMARTBASIC v 1.0/ 2.0 and FLASHCARD MAKER (no utilities provided). SMARTDSK III is for use with BOTH SMARTBASIC v 1.0 and 2.0 and offers a whole host of utilities as well. It supports double sided 5 1/4 drives as well as the new 720K 3 1/2 inch ADAM drives. It is essentially a combination of Walter's fine MEDIA-AID program and their BASIC RAM DISK programs. See our mini review of these products (full review next month).

Walter's has also just released PRBOOT, which will allow the copying of multiple bootable programs such as SMARTBASIC, ADAMCALC, SMARTFILER, SMARTWRITER, etc. to a single disk/tape or the ram disk and then running them directly without rebooting the entire system. We will have a full review next month.

Digital Express delayed their MEGASYSTEM XR, so we will have the full review next month.

CHESSE CHAMP was also delayed in order to make it a little less challenging - review will be next month.

We will have a review Alan Neeley's A-NET ADAM BBS program next month.

ADAMZAP has completed WORDLIST, a new program that works with Strategic Softwares PROOFREADER spelling checker program. WORDLIST comes with 4 dictionary files and expands the number of total dictionary words to 16000! We will have a full review next month.

. Digital Express is planning to release their GODOS operating system in mid-May which means we should have it in time for a review in our next issue. Everyone is anxiously awaiting this mysterious program which is advertised to be an icon based operating system and the basis for several other products - GOWRITE, GOCALC, GOPUBLISH, GOFIELD, GOPAINT, GOLINK, etc. This product line appears to be designed similar to the GEOS line of software for the Commodore 64. We'll wait and see next month.

. ADAMZAP software is working on a new adventure program that will use the ADAM speech synthesizer - it "sounds" great !!

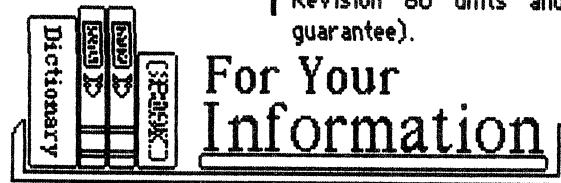
E & T Software is working on a point of sale program that will support invoicing, purchase orders and inventory.

. Walter's Software is working on a new spell checker program which they hope to have ready in a few months.

. E & T is also working on some hardware projects - an ADAM mouse and double sided disk upgrades kits. More on this next month.

. Orphanware now offers an upgrade of a Coleco disk drive to a 720K 3 1/2 inch drive for approximately \$135. CP/M software is provided.

. NIAD now has more standalone ADAM memory consoles for sale at \$79.95 without a data drive. These are all Revision 80 units and in good condition (30 day guarantee).



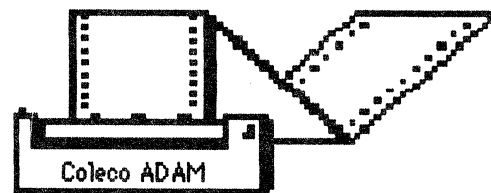
. SMARTWRITER 1 1/2 LINE SPACE PROBLEM

In our never ending story of this problem, Mike Keith has written and suggested that our original suggestion was the best !! He does suggest a slight modification to prevent the one problem with using the "CONTROL 6" solution (see page 6 of the DEC/JAN 88 issue). The problem is that if the preceding line is indented from the left margin and you insert the "CONTROL 6" on the next line, you will get garbage. Mike has found that "... all you need to do is space or tab in until the cursor is directly under the first printed character on the preceding line, then hit the CONTROL key and the number six (while continuing to hold down the control key), THEN the SPACEBAR and THEN the RETURN key. The upside down "L" should display directly below the first character of the preceding line. In other words, indent the CONTROL 6, SPACE, CARRIAGE RETURN the same number of spaces as the preceding line." By doing this on an otherwise blank line, SMARTwriter won't incorrectly space 1 1/2 line instead of 1 line when printing.

. Dear Editor:

I wish to write this as a followup to my last letter of March 15, 1988. That was about my input on the light printing, or "sticky ribbon" problem of the Adam printer ribbon cartridges. There has been the question of just how much to flex the tension spring in order to allow free

advance of the ribbon. I hadn't really put much thought in on this at the time of my first letter; I just had reason to believe that I had discovered the cause of the problem. So now I would like to add this one bit of factual data. When installed on the spool the ends of the tension spring measure 7/16 inch apart. But when removed from the spool the ends spring together to only 1/8 inch apart. So any amount of "flexing" of the tension spring between these two measurements will loosen up the traction which controls the slack of the new ribbon spool. I have found that about 5/16 inch works the best. Now this is with the tension wire taken off the spool and is at rest. Simply stretch the ends apart until they stay at 5/16 inch apart. Then reinstall it back onto the spool again. As I can figure it the problem is a matter of physics. As the new ribbon spool gets smaller as the ribbon advances during use, it requires more and more force to pull it. This is because of the breeding action of the tension spring. The ribbon comes off in a clockwise direction which causes the tension spring to tighten anyway. And as the new spool grows smaller it simply requires more torque in order to turn it. Thus the ribbon normally binds up when between 1/4 to 3/4 to 5/16 inch apart at the ends, the breaking action is reduced and thus the ribbon can completely unwind without it binding up. Now all of the above is in reference to the directions and diagram as given on page 8 of the February 1988, Issue #38, newsletter. The "Low-Tech Corner" page. All that I am adding here is that the tension spring should be flexed so that the ends are



about 3/16 inch apart. It must not be any more than that or else the ribbon can jump over the daisy-wheel which would result in loss of typing and require the realigning of the ribbon. Bill Chappell



PUBLIC DOMAIN WORKSHOP



. Bob Tarnowski has just finished SMARTBasic volume #BNDV26. We will have the program descriptions in next months issue.

. We will also have descriptions of the next two CP/M 2.2 PD volumes next month.

. We have a whole bunch of graphics PD volumes available now, see last months GRAPHICS WORKSHOP for a list and description of each volume.

. PLEASE don't forget to send in return postage and a return mailing envelope/ container (we can use the one you send your disk/ ddp in if it is reusable) with all your PD exchange submissions.

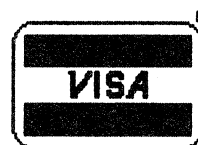
. Here is the documentation for the INVOICER program we printed in last months issue:

INVOICER *by Terry R Fowler*

INVOICER is a program I use everyday to produce a typed invoice for ADAM'S HOUSE customers. It produces a listing of the items purchased, totals the column, and even produces an address label on the bottom of the invoice. It may be easily modified to suit your particular needs, and it works well with the Panasonic Dot Matrix Printer or ADAM Printer.

The program begins by asking questions which will be used to automatically calculate and print the invoice. The Invoice number, date, last name, first name, address, and city-state-zip (no commas) are self explanatory. The payment means allows you to record the check amount & number, or if a credit card typing "V" or "MC" (Visa or Mastercard) allows you to input the card number. When taxable, a yes answer produces the tax percentage (in Texas, 6%; you may have to adjust this to your own state & local tax rate). Membership refers to members in gHAAUG who may be joining for this or previous years. Balance Due where a previous balance is involved (plus or minus). Additional shipping may be required for heavy or distant shipping. Entering "L" will

prevent any shipping charge. Otherwise the standard shipping is figured in line 5300 at 10%. You are asked whether discounts are involved for club members or as a part of your business (retail or wholesale). If so, you are asked the percent, i.e. -.05 would be 5% of the Subtotal.



The Item Numbers solicited are for your inventory stock number as you list them in lines 3100 to 4000. You need only list the number and the quantity purchased, and the program will produce a line with item number, description, quantity, price each, and total. This solicitation for item numbers continues for up to thirty items, or until you type "0" as the item number. At this point, the program activates the printer and prints the form with all calculations. On a dot matrix printer, this may only take 30 seconds. After printing, you may choose to make a second copy before proceeding to the next invoice.

The program is structured to keep track of the spacing on each invoice, using dimensions to store temporarily the item number and quantity inputs, as well as the total price per item. Using the Dot Matrix Printer easily allows the form to be advanced (Form Fed) to the beginning of the next page, but the ADAM Printer will require the page to be advanced manually. Once you've typed in the program, use the example line #3100 to enter your own inventory with number, description, and cost.





GRAPHICS WORKSHOP



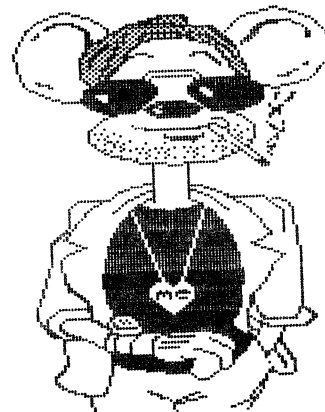
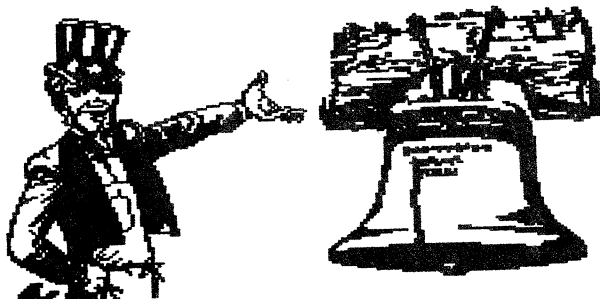
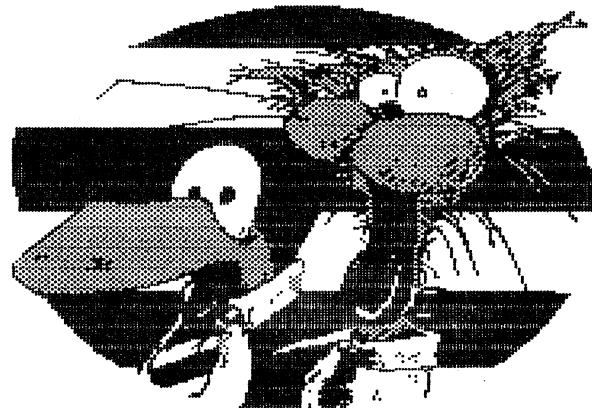
. Many of the early versions of POWERPAINT (up to serial number 10300) have a few bugs. You can double check and see if your version needs correction by going to the Polygon options and select draw straight line. Without moving the pointer hit return twice. If the program locks up you have the old version.

You may send your original disk/ddp and a receipt back to Digital Express until July 1 for a free correction.

The other option is to purchase PAINTAIDE, a new program from Digital Express that will correct your POWERPAINT disk/ ddp plus provide some additional enhancements to it. Specifically, you can pick your own predefined typeface for the four sets of special fonts. This and some other features require two drives - POWERPAINT goes in one and PAINTAIDE in the other.

SWIFT FONT KIT also comes with PAINTAIDE. It includes 20 sets of FONTPOWER font sets for use in POWERPAINT as well as SMARTBasic programs.

See the GRAPHICS PRODUCT LIST section for information on pricing.



The ADAM has grown significantly in the area of graphics over the last year with the introduction of many fine products that show off the screen resolution available on ADAM, and in conjunction with the ability to attach dot matrix printers, these graphics capabilities can now be printed.

I think we will see even more expansion in this area in the future, as even more sophisticated graphics software is developed for the ADAM by our fine software houses. This is yet another reason to enjoy our fine little system!!

This page contains some examples of what the ADAM can do. All these pictures are from the Public Domain library volumes described in last month's GRAPHICS WORKSHOP.





SMARTBASIC WORKSHOP

BASIC PROGRAMMING By L. C. Austill

CHAPTER V

There are several ways to get information into the computer while it is running a program. The first is the command INPUT. INPUT will cause the computer to wait until it has been given some information and RETURN pressed to tell it that is all. It is an unusual command in that it can also include a prompt to tell you what it is waiting for. This principle can be illustrated with a simple program. Type:

```
NEW
10 home
20 INPUT x$
30 ? x$
40 ?
50 END
```

Assume that the computer wants your name when it stops. ENTER RUN. The screen shows a question mark plus a blinking cursor, but nothing else. Type your name and then press RETURN. Now the program continues. Statement number 40 is a new situation. It says print nothing. The computer skipped down one line and then went through its END procedure.

This program can be improved. Rewrite statement 20 to read:

```
20 INPUT "What's your name "; x$
```

Now RUN the program. The characters inside the quotation marks printed out to tell what the computer wants. Note that the space at the end of name makes the screen look better; otherwise the answer would have immediately followed name. Also, there is no question mark as before. If the question mark is wanted, add it after the word name in statement 20. Remember the earlier discussion on editing. Try it.

A second way to get information into the computer is to use the command GET. There are both advantages and disadvantages to this command. The main disadvantages are, you can not print a prompt as part of the command statement. Any prompts are printed ahead of the GET command. Second, the information is not printed directly on the screen. Thirdly, the information can consist of only one character. The advantage -- it is quick and requires only one key stroke. RETURN does not have to be pressed. This program will illustrate both the GET command and the ASCII codes for keys. Type:

```
NEW
10 Home
20 ? "Enter a key stroke"
30 GET q$
40 ? q$, asc(q4)
50 ? : 60 ? "Hit any key to continue"
70 GET x$
80 IF x$ = "q" then END
90 GOTO 10
```

This program contained two new features. The first one was IF/THEN. This is a conditional transfer statement that is necessary to get out of a continuous loop. To end the game, press "q" key when requested to hit any key and the program will end. There will be more information on IF/THEN statements later.

The second new one was GOTO. It instructs the computer to go to statement 10 and continue running.

The program prints out the key pressed (if it is a printable character) and then prints the ASCII code for the key. This is a useful program if there are doubts about the chr\$ code of a key. Try pressing some keys holding down the SHIFT key. Try some holding down the CONTROL key but avoid the "p" in that mode. Also try some of the various command keys such as UNDO, GET, etc.

This principle will be used frequently in menu driven programs as it makes selection quick and provisions can be made for miscellaneous errors.

The following is a program to demonstrate materials presented. To illustrate steps, some comments have been put at the side -- don't type these comments into the program. The program is called GROCERIES:

```
10 eggs = 1.24 20 bread = 1.19      Sets cost of items
30 milk = .79 40 HOME              Clears the screen
50 INPUT "How many dozen eggs? "; x1
60 INPUT "How many loaves of bread? "; x2
70 INPUT "How many quarts of milk? "; x3
80 sum = 0                          Makes sure that sum equals 0 to start
90 HOME
100 ? x1 ; " doz eggs"; tab(24); x1 *eggs
110 sum = sum + eggs *1  Adds cost eggs to sum
```

```

120 ? x2; " lvs bread"; tab(24); x2*bread
130 sum = sum + bread*x2      adds bread
140 ? x3; " qts milk"; tab(24); x3*milk
150 sum = sum + milk*x3      adds milk
160 ? : 170 ? "Total"; tab(24); sum Prints out total oost
180 ? : ? "Would you like to go shopping again -- y or n?:
get q$
190 IF q$ = "y" then goto 40
200 ? : ? "Thank you!": END

```

There are some new features in this program. The first was the use of a colon in statements 180 and 200. The colon indicates that is the end of one command and the start of another, but all the same number statement. The next word must be a command or ADAM will not accept it. One statement may contain up to 128 characters including spaces. There is information available on how to increase that number. Sometimes it makes the intent clearer if several things are included in one statement. It is a matter of choice. RUN time is decreased when multiple commands are used in one statement.

The conditional transfer IF/THEN was used in 190. If y had been pressed the computer would have transferred to statement 40 and continued running. If any other key had been pressed, the program goes to 200, prints "Thank You" and stops. As a short cut, the GOTO following THEN in 190 could have been omitted. It could have read:

```
190 IF q$ = "y" then 40      RUN this one.
```

Another way of handling data is through the use of DATA/READ statements. This can be illustrated by using GROCERIES which is still in the computer. DATA statements always start with the word DATA and then list items of information, each separated by a comma until all the required information is listed. Do not use commas in numbers such as 1,024 for one thousand twenty-four. The computer will think that the number is 1 and will ignore the rest or use it some place where it shouldn't! These statements can be any place in the program as long as the data is listed in the order that it will be needed. The READ commands then assign the data in the DATA statement to variables.

Del 20,40 from GROCERIES.

Now add the following:

```
5 data 1.24, 1.19, .79
```

```
10 read eggs
```

```
20 read bread
```

```
30 read milk
```

Now RUN the program. It worked!

To illustrate that the data statement can be any place in

the program, do the following:

```
LIST 5
```

Using the arrow keys as discussed in editing, change the number of the statement to 195 and then press RETURN. Remember to run the cursor completely through the statement before reentering. Try LIST 195 to see if the statement is in memory. If it is, type 5 and RETURN which effectively deletes statement 15 from the memory. Enter LIST to see if the program is correct. If so, RUN. There is another way of handling the READ statement. To illustrate this way, once again DEL 10,30. Leave the DATA statement at 195 where it is. Now enter the following:

```
20 READ eggs,bread,milk
```

RUN again. You still have the same results.

If all of the data has been read once, and another READ statement is given, you will have a problem. To illustrate, change the GOTO address in statement 190 from 40 to 20. Now RUN the program again. The first time was fine -- what happens when you responded to the question y or do it again? An error statement was received. ADAM remembers where the data statements are and keeps track of each piece of data as it is used. When there are no more data points, it perceives an error when it comes across a READ statement again.

RUN the program again. This time it ran for the first time. Why? The command RUN resets the pointer in ADAM to the beginning of the DATA statements.

There is a command that will take care of this problem: RESTORE. When the computer comes across this command, it resets the DATA pointer to be the beginning of the DATA statements thus they are ready to be READ again. Change line 190 to read as follows:

```
190 if q$ = "y" then RESTORE :GOTO 20
```

RUN the program again. Now it can be repeated without difficulty.

The FOR/NEXT commands were introduced earlier and have been used in some programs. They warrant more discussion. The full command is:

```
FOR I = 1 to 10 STEP 1      NEXT I
```


The STEP 1 at the end of the first statement indicates that the increments have a value of 1 each time. If no STEP instructions are given, ADAM assumes that it is STEP 1. Had the instruction been STEP 2, i would have had the values of 1,3,5,7, and 9. There is no 10 because the next value of i was greater than 10 so the computer ignores it. A program will illustrate the point. Type:

```
NEW
10 home
20 for i = 1 to 15 STEP 1
30 ? i
40 next i
50 end
```

RUN the program. The numbers 1 through 15 should appear along the left side of the monitor screen. Change the size of the "STEP" in statement number 20 to numbers that are selected and then RUN.

Programs can decrement (subtract from the total) rather than increment. Change statement 20 to read as follows:

```
20 for i = 15 to 0 STEP -1
```

RUN the program. Change the step number to several different values and RUN.

If the step value is negative, the largest number must be listed first in the FOR statement. For a positive value, the smaller number is listed first.

More than one FOR/NEXT loop can be utilized at the same time. These are called "nested loops". ADAM can handle up to six nested loops without getting lost. Thinking of the loops as statements in a program, you must complete the innermost loop and then work out towards the outer loops in order. A short program will help to understand this concept. Start off with

```
NEW
10 home
20 for i = 1 to 10
30 ? "i = ";i; " ";
```

```
40 for j = 0 to 9
50 ? j;
60 next j : 70 ?
80 next i : 90 ?
100 ? "That's All" : 110 end
```

Note that the FOR j in statement 40 and NEXT j in statement 60 form the innermost loop. FOR i in 20 and NEXT i in 80 form the outermost loop. This program does the following things. First it will clear the screen, a standard operation. Then it will set the value of i at 1 and go to step 30 where it will print the value of i followed by a space and then hold the cursor at that point. It then sets the value of j at 0 and prints the value of j once again holding the cursor position through the use of the semicolon. In step 60 it increases the value of j to 1 (0 + 1) and prints the value of j still holding the cursor. This will continue until the value 9 has been printed for j. The cursor is still on the same line that we started with. The semicolon does this. To start a new line, the cursor must be released from where it is. This could have been done in step 70 through the use of the VTAB and HTAB commands. It is easier to have the simple instruction in 70 of PRINT. ADAM will PRINT nothing, but it will then be released to drop down one line. Step 80 now says increase the value of i by 1 and go back to 30 unless i is greater than 10.

The following should be on the screen:

i = 1 0123456789 i = 2 0123456789 etc. through i = 10.

RUN it and see if it is right.

Try writing a program that has three nested loops, i, j, and k. Hint: you can make k the 0123456789 string and proceed it with the values of i and j.

You need not have written next i, next j etc. The word NEXT will be sufficient. ADAM will go back to the proper loop in the nest, and increment or decrement as appropriate. Try it and see.

SMARTBASIC 2.0



We have been getting many questions regarding SMARTBasic version 2.0 so we thought we should provide some information on the difference between version 1.0 (which everyone got with their ADAM). The following is an excerpt from the documentation file that is on the NIAD SMARTBasic 2.0 Public Domain disk/ tape. I'm not sure who wrote this documentation but it is very good.

Basic 2.0 differs considerably from it's predecessors. Many if not all of Basic 1's faults have been identified and eliminated, and several new features have been added.

The aggravating "growing" DATA and REM LINE Bug has been fixed! And in fact old BASIC 1 files with sloppy DATA and REM lines can be instantly cleaned up by Booting Basic 2.0 and then LOADING and SAVEing the old file.

The utility of sequential Tape or Disc Files has been considerably improved by fixing the "Backup" Bug. A Backup Copy of saved files is NO LONGER MADE after APPENDING them. All that's necessary is that the APPENDED FILE be the LAST PROGRAM on the Tape or Disc. Then there will be no more rapidly filled up tapes with useless copies, and the SEQUENTIAL FILE feature of Basic can be used directly without resorting to Machine Language routines to overcome BASIC 1's Limitations.

Also, DELETEing Programs in Basic 2.0 now actually FREES that space on the Tape or Disc for OTHER PROGRAMS. To be reliable though, Programs should be DELETED beginning with the LAST PROGRAM SAVED and then inward toward the FIRST Program. To DELETE all programs on a tape such as either BASIC tape that can't otherwise be INITIATED, just be sure that the LAST PROGRAM DELETED is the FIRST PROGRAM on the Tape or Disc. That will result in a virtually INITIATED Basic Tape or Disc with the Full Program Space Available for new programs.

The Line Buffer has been enlarged to now allow a line length up to 255 Characters for direct compatibility with MicroSoft Basic.

Line Editing is easier too. The Insert

and Delete Keys now work in Basic 2 as well as SmartWriter and the Clear Key Erases the Entire Line.

There is another change that really IS an improvement, but takes some getting used to. When editing previously written lines if you should make an Error, the ERROR is ACCEPTED and the Original Line is LOST. This line is then printed on the screen with the "Sad Face" character preceding it. (This Sad Face as well as the Syntax Error "" and run time Error Messages are always accompanied by the Bell Sound.) It must then be re-written. Sad Face lines will stay in the listing until changed, and may even be SAVED with the program, but will Break the program when Run, if between sequential lines. This differs considerably from Basic 1.0 where any errors in editing were REJECTED and the original line was returned UNCHANGED. It's good insurance to copy lines before editing them. You'll then have an unchanged line to fall back on if you make an error and lose the line.

There is virtually NO imposed POKE LIMIT in Basic 2.0, you can poke up to FEBF (65215). POKES are rejected above that limit only to prevent Poking into the DCB's which could be catastrophic. Basic 1 Programs with the old POKES TO 16149 and 16150, used to re-set it's Poke Limit SHOULD NOT BE USED with Basic 2.0. These pokes are in a different part of the Basic 2.0 machine language and will blow-up the Basic Boot and require re-booting. This damage may not be immediately apparent on all functions and I suspect this is one of the reasons for the reports that Basic 2.0 seems "incomplete". This is true with the old Basic 1.0 COLOR POKES as well. DON'T use a program written for Basic 1.0 that changes the Screen Colors. These programs MUST be modified first.

The Printer will now start to Print from the Top of the Screen by Pressing the PRINT key on the Keyboard. It can also be STOPPED EARLY by Pressing CONTROL and C together. The Printer now Prints any INVERSE CHARACTERS in the text that have normal characters on the Daisy Wheel, as NORMAL CHARACTERS. Also the Printer can be made to print bi-directional, as with Basic 1.0, with CHR\$(15). This feature was useless however on Basic 1.0 since the printer would lock up and continue printing the same 80 characters forever. This bug has been fixed in Basic 2.0 and the Printer will stop and return control to the program.

There is also a NEW SCREEN PRINTING FUNCTION that requires a POKE. To display ANY of the 256 characters including "control characters" on the screen in the TEXT Mode, at the current cursor position, POKE its ASCII number into 16771 then CALL 16770. The following Line will show them all. 5 TEXT: FOR i=0 TO 255: POKE 16771,i: CALL 16770: PRINT " ";: NEXT.

The Basic 2.0 Source File or Program on the Disc/Tape takes up 49 BLOCKS. SmartBASIC 1.0 only required 28 Blocks. ALL this extra code includes a revision of the EOS. This NEW EOS Revision-7 is Loaded into RAM instead of the ROM Revision-5 resident in ADAM that was used with Basic 1.0. This is where the New File Handling Routines come from. Fortunately for the Pokers amongst us the EOS JUMP TABLE is at the same address in RAM and even most of the new routines are simply displaced by a few blocks.



It is wise to investigate the area of any poke in your Basic 1.0 program before running it under 2.0.

It is also worth noting that even with all this extra source code, Basic 2.0 requires 447 bytes (1/2 Block) LESS memory so that you have additional room for Basic or Machine Code programs even when in STD MEM. Basic 2.0 PRINT FRE(0) yields 26401 as opposed to Basic 1.0's 25954. (Each following NEW). HIMEM default is the same at 53632 but the extra space is revealed by Basic 2.0's default LOMEM of 26960 as opposed to Basic 1.0's 27407. Note too that now BOTH HIMEM AND LOMEM can be set.

Even Block ZERO didn't escape revision. This is the "Boot-STRAP LOADER" and now includes a test for the presence of the 64K Expansion Board as well as A Memory Test of it. Also code to reset the Default Drive to be the Current Drive (the Drive that you're Booting Basic 2.0 from). This means that unspecified Reads or Writes will be to IT and that HELLO will Self-RUN as Expected.

Basic 2.0 Also correctly INITIALizes Discs with 160 Blocks. And BLOCKS REMAINING is now re-calculated each time CATALOG is requested, from the total of Those Programs NOT DELETED.

NEW COMMANDS

MERGE This command is used like LOAD but does not NEW the program space, so that favorite routines may be stored separately and MERGED with any existing program. The MERGED lines will replace any existing lines numbered the same, or will simply be added to the program if numbered differently.

EXTMEM This command accesses

the 64K expansion board for additional basic program space. NOTE that when EXTMEM is entered the BASIC 2.0 Tape or Disc MUST BE IN THE CURRENT DRIVE. The Tape or Disc is then Accessed ONLY if the 64K Expansion was tested as Present when Basic 2.0 was Booted. If this is so the Screen will Blank while the Memory Map is reconfigured, then the Title "Coleco SmartBASIC 2.0" will reappear. PRINT FRE(0) will confirm that your new Expanded Workspace is 90646. (90656 if preceded by NEW). HIMEM And LOMEM can now be set anywhere in this new workspace but be careful with the values. Reports are that there is no Error Trapping on LOMEM and HIMEM values while in EXTMEM AND AN ILLEGAL ENTRY WILL CRASH BASIC. Note too that one drawback that comes with all this extra room is slower program execution. EDITOR'S NOTE: The extended memory option obviously requires the 64K memory expander and appears to work fine with the EXCEPTION that programs containing string variables do NOT WORK in the extended memory mode of SMARTBasic 2.0, but will work fine in the standard memory mode.

STDMEM This command returns you to the normal Basic Map. Once Again the BASIC 2.0 TAPE OR DISC MUST BE IN THE CURRENT DRIVE WHEN STDMEM IS INITIATED. The Tape/Disco is Accessed Again and the Basic Map is configured as "normal". Anything in the Workspace is LOST. PRINT FRE(0) reports 26391 (26401 if preceded by NEW). (It might prove simpler just to ReBoot the tape or disco from the start)

COMMANDS PDL(1) and PDL(2) in BASIC 2.0 have been INTERCHANGED as referenced to BASIC 1.0. PDL(2) now yields the VERTICAL POSITION for Controller #1 (0- 256) and PDL(1) now yields the HORIZONTAL POSITION for Controller #2. ALSO

PDL(15) For the #1 controller Or PDL(14) For the #2 Controller now returns an Update on the Position of the SPINNER, used in the SUPER ACTION CONTROLLER.

As you can see, SMARTBasic 2.0 has many additional features that make Basic programmers happy. It also corrects some flaws that plagues SMARTBasic 1.0. A note on random access files (which don't work at all in SMARTBasic 1.0) -SMARTBasic 2.0 handles them correctly, but there is a 32K limitation on the size of a random access file. This limitation will only impact those trying to create files with large numbers of records/ data.

An implicit problem with using SMARTBasic 2.0 is that many of the programs originally written in SMARTBasic 1.0 will not run without modification. This is limited to extensive use of PEEKS/ POKES. SMARTBasic is certainly a "smarter" way to go for Basic programming then version 1.0, but may require some re-work of many version 1.0 programs to get them to run.

As mentioned above, version 2.0 also loads a whole new operating system into the ADAM to aid in the correct handling of files. This implies that any peeks/ pokes or calls into the operating system MAY be in conflict between 1.0 and 2.0. However, this should not be the case as long as the 1.0 Basic programmer does their peek/ poke to what is called a jump table, instead of the actual address of the routine involved. If this technique was used, then the same jump table address in version 2.0 will work. Note, that jump tables are only used in the EOS routines, not SMARTBasic itself.



Wayne has compiled a list of all the jump table and corresponding execute addresses for SMARTBasic 1.0 and 2.0 with a cross reference. This will be invaluable for those working with both, doing conversions, etc. Send in a SASE and request this list for no charge. The key here is make sure your 1.0 programs don't do peeks/ pokes or calls to the actual execute address, but use the jump table address, which will make them compatible with both versions of BASIC.

Additionally, thanks to Sharon McFarlane, we have a list of SMARTBasic 2.0 peeks/ pokes that should help you in converting your 1.0 programs.

Location	Function/Description	Default/Range	
153	FLASH Speed (1=Slowest/255=Fastest)	12	
259	PEEK to determine STD MEM=195 EXT MEM=210	-	
1121	Number of Prompt Fonts (1-2)	1	
1122	1st Left Line Margin Prompt	93	
1123	2nd Left Line Margin Prompt	0	
1594-95	LOMEM Pointer (lo/hi bytes)	0/0	
1628	SPEED Value	255	
1648	Highest Pokeable Address (lo byte)	144	
	Value 255 increases poke limit to 65535	-	
1649	Highest Pokeable Address (hi byte)	211	
	Value 255 increases poke limit to 65535	-	
11943	Value 208 corrects bug & allows removal of sprite once drawn (STD MEM)	191	
		-	
12454	Value 208 corrects bug & allows removal of sprite once drawn (EXT MEM)	191	
		-	
16771	Display any of 256 ASCII characters including Cntl. characters in TEXT Mode	-	
	POKE ASCII value & then CALL 16770	-	
16781	Value of Current Storage Device	-	
	DISK #1=4 DISK #2=5 RAMDISK=205	-	
	TAPE #1=8 TAPE #2=24	-	
16783	Text Window Color in HGR Mode	1	
16786	Pointer-Start of Sprite Design (lo byte)	192	
16787	Pointer-Start of Sprite Design (hi byte)	0	
16788	Displays pre-programmed Sprite #1	1	
	Color MUST be defined first	-	
16788	Displays pre-programmed Sprite #2	2	
	Color MUST be defined first	-	
16788	Leave Sprite Mode	0	
16789	Flag for version of SBasic	0	
	0=STD MEM Non-0=EXT MEM	-	
16939	HOME Key / Substitute any Value	32	
16957	Number of Lines to Clear (TEXT)	24	
	A value of 20=clear 20 lines only	-	
16957	Number of Lines to Clear (GR/HGR)	4	
16958	Number of Columns to Clear	30	
16959	Top Margin to Clear	0	
	A value of 16=HOME/Cursor to Line 16	-	
16960	Left Margin to Clear	1	** REMAINDER OF LIST TO BE
17111	Current COLOR value (0-15)	255	PRINTED NEXT MONTH **
17184	Background Color in TEXT Mode	0	



REVIEWS



FileManager by W. Motel



This is a media (tape/disk) and file utility package with some unique features. It is menu driven, utilizes both SmartKeys and some of the dedicated function keys (I.E. Print, Clear, etc.). Tape and normal disk, as well as double-sided or quad density disk can be used. Expansion RAM, if present, is used as a copy buffer, but you have the option of disabling it if you are using it as a RAM disk and do not want the contents destroyed. You can change and save the various default setting to suit your own individual needs.

File Functions:

1. Copy single files, to same or different media.
2. Delete files.
3. Clear directory starting at any file name entry to the end.
4. Print the directory, with file information.
5. PRINT the ACTUAL FILE, Basic or Smartwriter format.
6. Point to and tag file entries for various multiple copy, print, delete operation.
7. Edit catalog entries to
 - a. Rename file
 - b. Change attributes
 - c. Modify File Size
 - d. Set Date field

Media Functions:

1. Format Tape/Disk
2. Init Directory (up to 8 directory blocks)
3. Block Copy
4. Full Media (backup) copy
5. Recover of Directory and/or Deleted files
6. Block Edit. Changes can be in Hex or Ascii

As you can see, FILEMANAGER has every utility you could ask for in one package. Tony Morehan has done a superior job in writing this entirely assembly language program.

All the screens are very well done and informative. Nice use of the Smartkeys and function key make this easy to use and user friendly. Besides the normal utility functions, I feel the following made this an especially worthwhile package.

1. Multiple disk-type capabilities.
2. Format 2 DISKS at once.
3. Use of Expansion RAM for Copy buffer, WITH ABILITY for USER DISABLE.

4. FILE PRINT. The file print is probably the most useful feature. How many times have you been doing file utilities and didn't remember what was on the file. You get out of the utility program, load up Smartwriter to print the file, then reload the utility. Now you don't have to. This will print a Basic or Smartwriter file and, if Smartwriter type, use it's settings. The package contains the routines for both the ADAM printer or a parallel port attached printer. You can set the left margin, print 30, 80, 96, or 132 characters per line, do page or continuous form feed paper, single/double space, and draft/letter quality print mode.

5. DIRECTORY PRINT - By hitting SHIFT-PRINT the directory for any disk/ ddp can be printed to the screen, ADAM printer or parallel printer. A icely formatted print is provided. This is another fine feature of this program.

This is a package well-worth it's low price and a must have, even if you already have a utility package.

RATING - A+

EDITOR'S NOTE: There have been many excellent ADAM utility programs written, but I would have to say that this one will be the one I will be using from now on because it is fast and has every function I need in a single package.

MR T - SEARCH By L. Marschand

Well MR T SOFTWARE has been at it again ! This time he has come up with an ADAMized word search creator that not only creates complex word search puzzles like those you see in magazines or books, but allows you to make your own and even solve them on the ADAM.

This product is a high quality one, like MR T 's other products (AUTOWRITER, BASICAIDE, TRIVIAPAK, KID'S TRIVIAPAK, YOUR ADDRESS BOOK). SEARCH uses nice graphics and sound and a 40 column text screen display. Two additional nice touches include an onscreen timer and a display of what memory is remaining. Printing is done

to either the ADAM or dot matrix printer, as selected when the game is first loaded.

The first screen displayed after booting allows you to create a puzzle or load one of the 27 puzzles on the MR T SEARCH game disk/ ddp. MR T is creating gamedisks/tapes which contain 39 wordsearch games for use with SEARCH. Games1 is completed as of this writing. If you choose to create your own puzzle, you can choose from 5 sizes ranging from 10 by 10 letters up to 26 by 22. All except the very largest size can be displayed and played on the ADAM, the largest must be printed in order to play it. Next, you are presented with a box the size of the one you selected and you start entering your words. You can choose to let ADAM place each word individually or wait until you have entered all words. Once a word is entered, ADAM calculates where to put it in the puzzle box and how - front, backwards, diagonally, vertically, etc. Once you have entered all the words you want, you can choose to print the puzzle as is (with just the words filled in) to use as a solution. Then the grid is filled in with additional letters to complete the puzzle. You can now print the puzzle and the word list, save it to a disk/tape or play it. Choosing to play it displays the puzzle on the screen. The word list is displayed one word at a time by hittin the space bar. To select a word in the puzzle, move the cursor to the start of the word, hit enter, then to the end of the word. Correct quesses are highlited on the screen. The number of words left is displayed as well. At anytime during the game, you can ESCape to the menu to replay the game from the beginning, print it, print just the word list, abandon it or save it in memory. Loading a puzzle from a disk/tape is done by entering the name of the file after a specially formatted directory is displayed on the screen.

Personally, I don't go for these type of games because I don't have the time for them (even if I did have the inclination). However, if word type of games are something you like, then this is for you. MR T SEARCH has provided a very comprehensive program, with all the options you could want. It is very practically designed, not like some games I have seen. The ability to create your own puzzles is a real plus. The fact that the player can choose from five sizes allows all age groups to participate in the fun. Kids love to watch the program build the puzzle as they enter the words. The price for the program is right as well.

Rating - A+

Here is a tough one for you computer nuts - have fun ! We'll print the solution next month.

COMPUTER LANGUAGE - Mr. T-SEARCH word search puzzle!

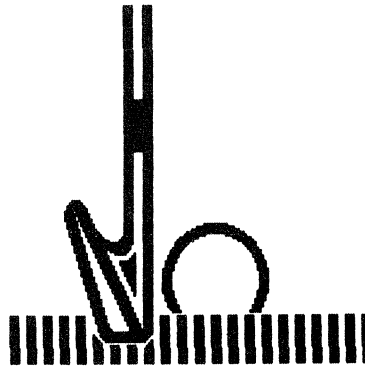
```
R I L E U H D I S K D R I V E F M U X N Y R B F K R
E U W R L A E O R L S A I H Y Q A N G F T H U F P E
L S T I M R D X C B I T O E F I L E Y H I Z C Z F L
I T F E D E G A U G N A L Y L B M E S S A E L Q L
P Z E S U W H U H D M A T M N E O R E T N I R P U O
M I R A D A D B Q T E E D E R Z R P S A E Y A G G R
O U S B T R O P E K M C N D R O H P P S D R W W Z T
C X N A A E A R M M O Y I T R F F I R Y Q A T H F N
J R E T U P M O C O R C I M A E A H T S D N F Q O O
B K E A X I D G B F Y N E O A T S C G S E I O W Y C
U Y L D N E I R F R E S U N J L I S E E E B S W K D
F K T A M H T A M A S C I I W X W O R C Z R A K A N
F C L E S U O M C A S S E T T E X C N C P Y I S W A
E S C I H P A R G G R O B O O T S T R A P K C A I H
R J A R O S S E C O R P D R O W F D C U W U L Y L C
```

COMPUTER LANGUAGE - FIND THE FOLLOWING WORDS

- | | |
|---------------|----------------|
| ADDRESS | ASCII |
| BAUDRATE | BINARY |
| BOOTSTRAP | BUFFER |
| CASSETTE | CHIP |
| CURSOR | DATA |
| DISK | DISKDRIVE |
| ERRORMESSAGE | FILE |
| GRAPHICS | HANDCONTROLLER |
| INTERFACE | LOAD |
| MICROCOMPUTER | MODEM |
| PORT | PRINTER |
| ROM | SCREEN |
| TERMINAL | TEXT |
| WORDPROCESSOR | |
-
- | | |
|------------------|--------------|
| ASSEMBLYLANGUAGE | ACCESS |
| BIT | BASIC |
| BUG | BOARD |
| COMPILER | BYTE |
| DATABASE | CPU |
| DOCUMENTATION | DENSITY |
| FLOPPYDISK | DOS |
| HARDWARE | FORMAT |
| MEMORY | HEXADECIMAL |
| MONITOR | MENU |
| PROGRAM | MOUSE |
| SERIAL | RAM |
| USER | SOFTWARE |
| | USERFRIENDLY |

PRO GOLF CHAMP By W. Motel

This is an 18 hole golf game for the Adam by Superior Software. Play consists of sandtraps, trees to block your shots, and water hazards on a very colorful Hi-res course. You also have the option of having a wind factor. Shots are taken on the overall hole screen. When the ball lands on the green, view switches to a close up green shot. You have 6 clubs to choose from. Four which range from average 206 yards to 125 yards. A 9 iron which you also enter the distance for your shot (10 to 115). Lastly you have a chip wedge (20 - 30 yards) for sand traps. When you are on the green, you automatically use the putter. When shooting on the normal course, you enter the club number and the angle of your shot. The angle can be entered as 0 to 359 degrees, in 1 degree differences. Distance is defined as 1 pixel is 1 yard. This may seem difficult at first, but in looking at the course, they have cleverly designed the water waves and alternating light/dark green grass to be in normal graphics 8 x 8 bit patterns, so you can estimate distance without too much trouble. The green closeup is 8 times larger, or 1 yard = 1 normal screen



position (32 across). Green shots call for angle and distance. A distance strength of 1 will normally go 1 yard on a flat green, however, the greens are hilly (denoted by > showing direction of hill). These also have to be taken into account. Instructions are self contained on the game. The game prompts you as to whether you want to load an optional course pack, so they must be planning to have optional courses available. I was very impressed with the game,

however, the opening title screen should be done in Hi-Res to match the rest of the Hi-Res graphics. The course layout was very nicely done, with a little stick type golfer.

The movement of the golf ball is very smooth and even displays a shadow as the ball travels over the course. They've done a very nice job on this. All you golf nuts out there now can enjoy the game at night or when it is raining - FORE !!

RATING - A

GAMES

Before I begin this article, I would like to mention that Norm Castro of DAUC sent me some hints etc. for the very interesting ALCAZAR game. For copies of these, please write to NIAD (not the games address). Thank you Norm.

Well, hello again. This time I thought I'd talk about text games.

Text games are different from the classic "arcade" type games in that you rely mostly on your puzzle solving abilities. While some of these games have graphics, they are mainly only used to give the player clues.

If you are looking for some great PD text games, there are many. The NIAD GOLD text adventure disk should be your first choice for great adventures. There are many different games on here, from a text game simple enough for those first starting to play text games, to one complicated enough to challenge the real text gamer. Among the games on this disk, the Lighthouse adventure is the most enjoyable -- and frustrating on the disk (I'm still trying to learn how to open the treasure chest). The most interesting is a truck-driving simulation that is on here.

Another disk that you may want to pick up is "FANTASY GAMER". This game has two text adventures as well as a framework program, so that you can create your own. The two text games use graphics as well. As an added bonus, this disk has full documentation on how to create-and us sprites in any of your basic programs. NOTE: On "FANTASY GAMER" the two included adventures ARE COPYRIGHTED, however, any game created by yourself with the framework may be sold, or distributed at the creators discretion. Suppose you are on-line with Adalink 2 or 3, where do you go for a good text adventure download? Well, if you subscribe to Compuserve, you have a world of text games just ready for the pickin'. The two that I most recommend from Compuserve are EVIL and EVIL2. These two games are similar in story to Activision's HACKER. MASTER EVIL2 and it does something very interesting (hint on EVIL2: when you solve the game, it has to do with the NEW, RUN, LIST, and CATALOG statements). More on text adventure games next month. -- Jim Goebel

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- LAB MOUSE (DDP) \$ 12.95
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- WORLD OF TROLLS (DDP) \$ 9.95
- GREAT INVENTIONS (DDP) \$ 9.95
- BASICADE (DDP) \$ 9.95
- MEDIA-AID PLUS (DDP) \$ 18.95
- (Specify Basic V1.0 or V2.0)
- SMART TYPE 2.0 (DDP) \$ 17.95
- PROOF READER (DDP) \$ 34.95
- LIBRARIAN \$ 18.95
- NIAD GOLD SERIES \$ 9.95
- GAMES 1 FANTURE \$ 9.95
- HOME/BUSINESS \$ 9.95
- SCIENCE/EDUCATION \$ 9.95
- MICROTALK (Requires speech synthesizer) \$ 19.95
- STAGE FRIGHT \$ 19.95

OTHER SOFTWARE
CONTINUED

- ADAMCALC Dot Matrix PATCH \$ 9.95
- ADAMLINK Dot Matrix PATCH \$ 9.95
- BEYOND TREK \$ 16.95
- NEWSMAKER \$ 14.95
- FILE MANAGER \$ 17.95
- CHESS CHAMPION \$ 15.95
- ADAMLINK III \$ 18.95
- MEGASYSTEM XR \$ 35.95
- SPEEDYWRITE V1.0 \$ 39.95
- SPEEDYWRITE V2.0 \$ 39.95
- ROCKY CHAMP \$ 16.95
- MR. T SEARCH GAME PAK 1 \$ 18.95
- SMARTOSK II (For Smartwriter) \$ 16.95
- SMARTOSK I (For Smartwriter) \$ 16.95
- SMARTOSK III (For Basic 1.0/2.0, Adamcalc, Flash Maker) \$ 24.95
- (For Basic 1.0/2.0 with Cmpl. Utility) \$ 24.95

COLECO SOFTWARE
(DDP unless noted)

- SMART LOGO \$ 29.95
- EXPERTISE \$ 19.95
- SMART FILER \$ 15.95
- RECIPE FILER \$ 10.95
- SMART LTRS/FORMS \$ 15.95
- FLASHCARD MAKER \$ 15.95
- FLASHFACTS (TRIVIA 2902) \$ 11.95
- CP/R 3.0 \$ 29.00
- ADAMCALC \$ 24.95
- R. SCARRY WORDBOOK \$ 20.95
- WACKY WORD GAME \$ 20.95
- DONKEY KONG \$ 19.95
- DONKEY KONG JR. \$ 19.95
- SUPER ZAZOON \$ 12.95
- 2010: TEXT ADVENTURE \$ 20.95
- 1010: TEXT ADVENTURE \$ 20.95
- ADDR. BOOK FILER/AUTO DIAL. \$ 19.95

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- (For Basic 1.0/2.0 with Cmpl. Utility) \$ 24.95

HARDWARE & ACCESSORIES

NOTE: SEE SPECIALS ON NEXT PAGE AS WELL

ADAM_DISK_DRIVE 7817 \$399.95

5-1/4" High-capacity disk drive for the Celco MAH. Provides expanded capability for faster storage and retrieval and increased reliability. Requires standard distettes.

ADAM_LINK_MODEM 7818 \$49.95

ADM phone modem which provides capability, with included software, to interface with other ADM computers or large bulletin board systems such as Compuserve.

NOTE: Order ADMALII II software from Public Domain list which will allow upload/download of programs.

COMPUSERVE_STARTER_KIT \$29.95

Includes account number, password and five free hours of connect time to the popular computerization system.

DIGITAL_DATA_DRIVE_E-2409 \$29.95

IBM format hard disk drive which can be used as a replacement or as a second drive.

54K_MEMORY_EXPANDER_ME-64 \$49.95

Provides additional 64K bytes for MMULTI, CM program, provides 128K bytes for MMULTI, CM program.

256K_MEMORY_EXPANDER \$149.95

Provides 256K bytes of random access memory (RAM) for MMULTI, CM program. Requires additional 64K bytes of RAM.

EYE_SP-1 PARALLEL INTERFACE ONLY \$79.95

Allows the connection of the ADM to any popular printer and other devices requiring either serial or parallel interface connections. Includes software for directing print to additional printers directly from MMULTI, MMULTI, MMULTI, CM programs.

ORIHANWARE_P1A2_PARALLEL_INTERFACES \$32.95

Parallel cable required - see next item

PARALLEL_OR_SERIAL_CABLE_SP-1C \$15.95

Cable required to attach SP-1 or P1A1 interface to other printers.

SHIELDED_PARALLEL_CABLE \$24.95

Parallel cable containing extra shielding to prevent interference with TV sets.

EYE_MULTI-UNIT_ADAPTER_MA-3 \$44.95

Special adapter cable required to attach both the SP-1 and SP-1C to the ADM. NOTE: Not required for 10-column video board.

ADAM_PRINTER_TRACTOR_FEED \$72.95

Mounts into the ADM printer as originally designed to provide for feeding of pin-fed continuous form paper. Provides consistent alignment and accuracy of paper. All metal design - guaranteed.

PRINTER_ON/OFF_SWITCH \$12.95

Relocates the on/off switch to the front of the printer for easier access when loading paper.

MONITOR_CABLE_7830 \$9.95

Required to hook complete IBM console to a video monitor. Supports both picture and sound signals.

* SPECIFIC TOP OR DISK FOR SOFTWARE PROVIDED

SPECIALS/ NEW PRODUCTS

54K_MEMORY_EXPANDER & SHARDISK \$59.95

Provides full ability to use the expander from standard IBM disk. Specify whether you want the basic board or the expander.

POWER_SUPPLY_FOR_COLECO_DISK_DRIVE \$19.95

POWER SUPPLY FOR COLECO/DISK DRIVE \$3.95

MAGNAVOX_CM8505_COLOR_MONITOR \$249.95

See with the ADM for better color. Also compatible with all other computers as well. Includes 1000 hours of free use.

MAGNAVOX_TV_TUNER_FOR_MONITORS \$79.95

Requires MMULTI II and a color monitor. Also compatible with all other computers as well. Includes 1000 hours of free use.

MAGNAVOX_CM8505_COLOR_MONITOR \$369.95

See with the ADM for better color. Also compatible with all other computers as well. Includes 1000 hours of free use.

3_OUTLET_SURGE_PROTECTOR \$14.95

Protect your hardware from power surges.

5_OUTLET_SURGE_PROTECTOR_W/MASTER_SWITCH \$69.95

Integrated small unit regulates your computer wires and gives surge protection. Test on all computers with one switch or individually.

NIAD_PRODUCT_REVIEW_BOOK \$19.95

Contains detail reviews of 100 IBM products, super games, and other software. Programs are listed alphabetically for quick reference.

MICROSOFTOFFER_64K_PRINTER_BUFFER \$59.95

For any computer/parallel dot matrix printer. Free computer by controlling the printer.

NIAD SPECIALS

ORIHANWARE_P1A2_PARALLEL_INTERFACE \$269.95

& PANASONIC 10801 PRINTER W/CABLE NEW LOW PRICE

ORIHANWARE_P1A2_PARALLEL_INTERFACE \$249.95

& OKI 20 PRINTER-ADAM PLUG/PRINT \$199.95

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PRINTERS

PANASONIC_10801I-2 \$219.95

9x9 DOT MATRIX

DRAFT MODE - 144 CPS

NEAR LTR QUALITY - 28 CPS

COMPATIBLE W/ EPSON RX80,

IBM, FULL GRAPHICS

ADJ. TRACTOR FEED

CENTRONICS PARALLEL

2 YEAR LIMITED WARRANTY

PANASONIC_10911I-2 \$269.95

9x9 DOT MATRIX

DRAFT MODE - 192 CPS

NEAR LTR QUALITY - 38 CPS

COMPATIBLE W/ EPSON RX80,

IBM, FULL GRAPHICS

ADJ. TRACTOR FEED

CENTRONICS PARALLEL

2 YEAR LIMITED WARRANTY

OKIMATE_20_COLOR_PRINTER \$199.95

24 PIN THERMAL

DRAFT MODE - 80 CPS

NEAR LTR QUALITY - 40CPS

LIMITED ADJ. TRACTOR FEED

NONE STD - PARALLEL PLUG N

PRINT MODULE SUPPLIED THAT

ATTACHES TO EVE OR ORIHANWARE

PARALLEL INTERFACE

BLACK & WHITE OR COLOR PRINTING

8K BUFFER; SPECIAL PAPER REQ'D

PANASONIC_RIBBONS - \$9.95

OKIMATE_20_RIBBONS - \$4.95 BLACK

- \$5.95 COLOR

TRAINING_MANUALS/_BOOKS

NIAD_PRODUCT_REVIEW_BOOK \$19.95

LEARNING EXPRESS AUDIO TRAINER \$19.95

CP/M USER'S GUIDE BY T. HOGAN \$15.95

WORD PROCESSING WITH YOUR ADAM \$8.95

FIRST BOOK OF ADAM, THE COMPUTER \$8.95

TAB BOOKS

BASIC BASIC PROGRAMS FOR THE ADAM \$8.25

BY KNIGHT, TIMOTHY ORR

DISCOVERING SCIENCE ON YOUR ADAM, \$9.95

WITH 25 PROGRAMS BY TAL MOUNTAIN

SCIENCE CENTER \$9.95

THE COLECO ADAM ENTERTAINER BY \$11.95

BRIAN SAWYER \$11.95

HACKER'S GUIDE TO ADAM VOL I \$11.95

HACKER'S GUIDE TO ADAM VOL II \$11.95

PROGRAMS FOR BOTH VOL I & II OF \$3.00 DISK

HACKER'S GUIDE ON 1 TAPE OR DISK \$5.00 DDP

2ND EDITION ADAM RESOURCE DIRECTORY \$13.95

USING & PROGRAMMING ADAM BY KNIGHT & \$7.95

SEGA_GAME_SYSTEM

NOT COMPATIBLE WITH ADAM

BASE_GAME_SYSTEM \$79.95

2 HAND CONTROLLERS

COMBO MEGA CARTRIDGE

HANG ON GAME

ASTRO WARRIORS

MASTER_GAME_SYSTEM \$99.95

2 HAND CONTROLLERS

LIGHT PHASER GUN

COMBO MEGA CARTRIDGE

HANG ON GAME

SAFARI HUNT GAME

SEGA_SPORTS_PAD_CONTROLLER \$49.95

SEGA_CONTROL_STICK \$14.95 NEW

SEGA_3D_GLASSES \$49.95 NEW

SEGA_CARD_SOFTWARE_(256K) \$24.95

F-16 FIGHTING FALCON

MY HERO

TEDDY BOY

TRANSBOT

SUPER TENNIS (sports pad not req'd)

SEGA_MEGA_CARTRIDGES_(1048K) \$29.95

2 ACTION FIGHTER

FOOTBALL NEW

BLACK BELT

ALEX IN MIRACLE WRLD NEW

FANTASY_ZONE

GHOSTBUSTERS

WORLD GP

SOCCER

PRO WRESTLING

ZILLION

MARKSMAN/TRAP

GOLF

GREAT HOCKEY(SP)

WONDERBOY

RAMBO

BASKETBALL *NEW*

BASEBALL(NO SP)

GANGSTER TOWN

QUARTET

SHOOTING GALLERY (FOR USE WITH GUN)

RESCUE MISSION (FOR USE WITH GUN) NEW*

MISSILE DEFENSE 3D (REQ'S 3D GLASSES & GUN)

TAXXON 3D (REQ'S 3D GLASSES) NEW*

SPACE HARRIER (TWO MEGA) >>>>>> \$34.95

ROCKY BOXING (TWO MEGA) >>>>>> \$34.95

OUTRUN (TWO MEGA) >>>>>> \$34.95

FANTASY_ZONE_2(TWO MEGA) >>>>>> \$34.95

BEYX JOYSTICK W/ AUTOLEVER \$19.95 NEW*

