



PO Box 1317, Lisle, IL 60532
Phone: (312) 961-3529

MULTI-FUNCTION USER GROUP
MONTHLY NEWSLETTER-PUBLIC DOMAIN LIBRARY
DISCOUNT BUYING SERVICE FOR HDW & SFTW

Issue #31/32 July/August, 1987
Editor: Lyle Marschand
Copyright (c) 1987

Single Copy: \$3.00
Annual: (U.S. 3rd class) \$18.00
(U.S. 1st class/Canada) \$24.00

Greetings and God Bless you.

Continuing our study of Romans Chapter 4...

¹²The promise to Abraham and his descendants, that they should inherit the world, did not come through the law but through the righteousness of faith. ¹⁴If it is the adherents of the law who are to be the heirs, faith is null and the promise is void. ¹⁵For the law brings wrath, but where there is no law there is no transgression. ¹⁶That is why it depends on faith, in order that the promise may rest on grace and be guaranteed to all his descendants - not only to the adherents of the law but also to those who share the faith of Abraham, for he is the father of us all, ¹⁷as it is written, "I have made you the father of many nations" - in the presence of the God in whom he believed, who gives life to the dead and calls into existence the things that do not exist. ¹⁸In hope he believed against hope, that he should become the father of many nations; as he had been told, "So shall your descendants be." ¹⁹He did not weaken in faith when he considered his own body, which was as good as dead because he was about a hundred years old, or when he considered the barrenness of Sarah's womb. ²⁰No distrust made him waver concerning the promise of God, but he grew strong in his faith as he gave glory to God, ²¹fully convinced that God was able to do what he had promised. ²²But the words, "it was reckoned to him", were written not for his sake alone, ²⁴but for ours also. It will be reckoned to us who believe in him that raised from the dead Jesus our Lord, ²⁵who was put to death for our trespasses and raised for our justification.

These verses continue the explanation of faith versus works, or the law that was given to the Jews by God. The Jews felt that if they followed the law they would be considered righteous by God. However, God uses the faith of Abraham to show that righteousness can only be achieved by faith. Abraham has been called the father of faith because when God told him that he would be the

"father of many nations", he believed God even though both he and his wife Sarah were too old to conceive. Verse 20 describes the fact that he didn't even waver in his trust of what God has promised him, and in fact his faith grew even stronger! As a result of Abraham's faith in what God had told him, God considered him as righteous (apart from any adherence to the laws given) and gave him a "miracle" son who enabled the birth of a lineage including David, Solomon and eventually Jesus. All this was possible because of Abraham's faith in what God had promised him. God not only made Abraham the physical father of his descendants, but the father or originator of a lineage of God's children who believe God in faith for righteousness and salvation. If we believe that God sent Jesus to die for our sins and give us eternal life and salvation, then we will receive this gift as a result of our faith just as Abraham did, because God has promised this to us in the Bible. Won't you believe God in faith, accept Jesus as your personal Lord and Saviour and have your sins forgiven ?

INDEX

NIAD NEWS/ UPDATES1
ITEMS OF INTEREST3
WORKSHOP (GRAPHICS)5
WORKSHOP (SMARTBasic).....7
WORKSHOP (CP/M 2.2)10
REVIEWS12
LIBRARIAN, NIAD GOLD GAMES I, PRINTMASTER,
256K MEMORY EXPANDER, ADAM COMPATIBLE DISK DRIVE
PRODUCT LIST17
CONTRIBUTORS: W. Motel, S. McFarlane, R. Collins,
J. Quinn, J. Lingrel

NIAD NEWS/ UPDATES

WOW !! is all I can say based on the last two months. I'm sorry for the delay in getting this issue out. We have been working like crazy people to get our retail store completed. We opened our doors on 8/1. You wouldn't believe the amount of work it takes to set up a retail operation !

Several of you have been asking that we print more programs in the newsletter so this issue has several **GOOD** ones for you. **PLEASE** be aware of the fact that the vast majority of the reasons that people have problems with running programs printed in the newsletter is that they make errors in typing the lines. It is important that each line be typed in **EXACTLY** as it is printed in the newsletter, including lower and upper case letters.

This month we have reviews of some great new programs for the ADAM:
LIBRARIAN, developed by Walter's Software is a great little program that will be very useful. It's so simple that I wonder why no one ever thought of it before ! It will create a **SMARTFILER** data base consisting of the directory name and file names from all your disks, giving you the ability to organize your volumes and know where any one file or program is. I had this type of program for one of my old Heath computers and it is invaluable.

We're also proud to announce the release of the first of the **NIAD GOLD** series compiled by our own Bob Tarnowski. Bob has done a great job putting together this volume which contains 17 of the best games you'll see for the ADAM. Bob has taken the tops of our PD games, spruced them up, put them on a self booting media with a menu selection program, making them super easy to run. We found a supply on **LEARNING W/ LEEPER**, a great educational program for young children. So many of you have asked for these types of programs.

. ANNOUNCEMENTS

- We have sold over 100 ADAM disk drives and the orders are still coming in hot and heavy. This proves that there is still alot of interest in the ADAM, which is encouraging to all of us. If you want your own **ADAM DISK DRIVE**, now is the time to buy, while supplies last.
- We're very proud to announce the opening of **CompuKingdom**, our full service Coleco ADAM retail store here in Lisle, Illinois. This store is an extension of NIAD into the retail market, primarily serving the ADAM computer. However, we will also be carrying software for other computers as well as the AMSTRAD PC compatible system. We have done extensive research and feel the AMSTRAD

is the best of the family oriented PC compatibles, primarily due to the GEM operating system software that accompanies the computer. **CompuKingdom** will be primarily geared to the home educational market, but will support business software as well. Our approach will be somewhat unique in that we will be serving the family as a unit- Mom, Dad and children. Our premise is that computers are under utilized in the home due to lack of education and the frustration that comes with inadequate documentation and lack of service from the computer retailers. We will be supporting the home use of computers for word processing, budgets, record keeping, education and family oriented entertainment. We feel this is a much needed area of support.

We have sent out brochures announcing the store to all members in the neighboring four state area. Please keep us in your prayers. We hope to reach even more ADAM owners through this retail operation.

- Thanks to the hard work of our Eileen Muir, we now have available the most comprehensive source of information about ADAM products. Eileen has taken all the software and hardware reviews from 30 issues of the NIAD newsletter and compiled them into a single booklet. Each review is on its own page in alphabetical order. As you know, our reviews are very comprehensive and objective, designed to help the ADAM owner make informed decisions prior to buying products. This **NIAD PRODUCT REVIEW BOOK** contains detailed reviews of 100 ADAM products for only \$19.95.
- We are excited about an educational video tape titled **BEGINNING WITH THE ADAM**, created by Terry Fowler and the Greater Houston Area ADAM User's Group. This 1 3/4 hour video contains an overview of many pieces of ADAM software and is designed to give the prospective buyer (or the owner who doesn't know how to operate the software) good information on the purpose and operation of the software. Hopefully, this will be the first in a series of such educational videos. We have a first version of the tape and will review it after Terry Fowler completes some enhancements to it.
- We plan to begin a series of ADAM education classes this fall. Currently we are planning three different classes, Introduction to the ADAM; ADAM SMARTwriter and ADAM SMARTbasic. These classes will be held at the store, one or two evenings a week. If you are interested please write us and we will send you more information as we finalize it.
- Chicago local chapter meetings will resume on September 10th, here at the store. If you are interested in attending these meetings, and haven't already sent in your request to be added to local meeting mailing list, please do so now.
- Note that we have changed the technical call in

time to Tuesday evenings from 7PM to 10PM Chicago time.

- John Silva has volunteered to be our librarian for a new Public Domain volume, a song library of VIDEOTUNES compatible songs. For some of you newer members, VIDEOTUNES is a music composition and music generator program. It is very comprehensive, and can generate some excellent music using three voices. Many of our music lovers have converted songs so they can be played via VIDEOTUNES. John has the first two volumes ready to go. Procedures are as other PD volumes, send a disk/tape with your PD submission (in this case a VIDEOTUNES song) for exchange along with a self addressed, stamped (or include money for postage) return mailer. PLEASE follow these rules when sending in a PD program for exchange, otherwise it puts a burden on the PD librarian. Of course the other way to obtain a PD volume is by direct purchase from our Product List for \$5.00 on disk or \$7.00 on data pack.

- If 0787 or 0887 are the first 4 numbers of your members number as printed on your mailing label, this is your last issue. We are still maintaining our annual subscription rate of \$18 for 3RD class mailing and \$24 for first class or Canadian mailing. Send in your fee to insure you don't miss any issues.

. HARDWARE

- We have plenty of disk drives available. Please note that these units are ALL TESTED by us prior to shipping and carry a 90 day warranty. There may be other companies selling the disk drive for a lower price, but these units are not pre-tested. Additionally, we heard that H&R was selling the ADAM disk drive, without cables for \$99! We have confirmed that this price was an error and that they are not honoring it even though it was published in their catalog. We have been requested to provide quantity discounts on the drives so effective 8/1 you may purchase 2 drives for only \$399.95 !! Anyone desiring larger quantity pricing should contact us directly.

See our review of the new double sided ADAM compatible disk drive in this issue. I feel John Lingrels comments are correct. Carefully weigh your needs prior to purchasing a double sided drive.

- We're running a special on the 64K expander and Walter's Basic RAM DISK software: both for only \$59.95!! With these 2 products you will have a 64K internal memory RAM disk accessible from either SMARTBasic version 1.0 or 2.0 (specify which one). Utilizing the RAM DISK for storing/retrieving programs, permanently storing utilities for later use can not only save time (you can read/write a program to the 64K in just a few

seconds) but will save wear and tear on your digital data drives and disk drives.

- We are continuing our special on the ADAMLink modem at \$49.95.

- There is a price war going on in the dot matrix printer market that will help you get more out of your ADAM !. My distributor has lowered the prices of the Panasonic 1080i and 1091i twice in the last 6 weeks. With the second price cut (which was effective August 1st) the 1080i is now only \$199.95 and the faster 1091i only \$249.95!! These prices are at an all time low for the full featured printer Panasonic offers. Now is the time to order if you want a dot matrix printer ! Don't forget that the Panasonic line carries a TWO year warranty and is becoming one of the most popular printers for all computers.

Our NIAD special which includes the 1080i Panasonic printer, the PIA2 printer interface, parallel cable and software (all you need to attach a printer to your ADAM) is now only \$249.95. You can have high speed printing and full graphics capabilities for your ADAM with these products at a minimal price (Note: The Panasonic printer can also be used with other computers).

- Great news <<< Orphanware has completed their new expanded memory cards>>>

They have a 128K, 256K and 512K card available. They supply the CPM 2.2 software to access and use the expanded memory cards as ram disks. At this time these cards can only be accessed via the CP/M 2.2 operating system, but there are plans to provide software for use from SMARTBasic as well. Hard to believe, but our little ADAM can now have 512K of on board memory !!

See our review in this issue.

- COLOR MONITORS are a subject of many questions. Magnavox has come out with a new line of super color monitors. These monitors are multi-computer adaptable. They will work with the small home systems that require a composite signal (like the ADAM) as well as IBM PC compatibles that require RGB TTL or analog inputs. We have the model CM505 color monitor for only \$249.95 including a built in monitor stand, audio output and green screen mode for detailed text work.

. SOFTWARE

- See our reviews of LIBRARIAN and NIAD GOLD GAMES I in this issue.

- Thanks to Ron Collins, we have a review of PRINTMASTER, a CP/M 2.2 program that provides some unbelievable printing capabilities for dot matrix printer owners.

- We will review Digital Express' FONT POWER and TURBODISK programs in the next issue.

- Reedy Software has just completed STAGE FRIGHT, rumored to be a very sophisticated text adventure

game. We'll review in the next issue.

- Digital Express is working on a Desk Top publishing program for the ADAM! Yes, you heard correctly. More next month.
- ADAMZAP has completed MICROTALK, and educational program which uses the Eve Speech Synthesizer for voice output - review will be in the next issue.
- See last months issue for our review of PROOFREADER, the hot new spelling checker program that will catch and correct your numerous spelling errors !
- Walter's Software has released RAMDISK-2 and MEDIA AID PLUS-2.0 which are for use with SMARTBasic version 2.0, which many of you have.
- See last months issue for information on how to get upgrades for MEDIA AID PLUS and the RAMDISK program from Walter's Software. These upgrades provide some great improvements that you should have.

. ITEMS OF INTEREST

. The Buffalo ADAM Enterprise's ADAM BBS is online from 8PM to 1AM Sun thru Th and 8PM to 4AM on Friday/ Saturday. (716) 896-3498

. Tim Nunes reports the following news:

- In the CP/M Sig on CompuServe there are two new versions of the the excellent IMP modem program with overlays built in for the ADAM and an external 1200 baud modem (via the Eve SP-1 serial port).

I2SP-2.AZM and I2VB-3.AZM. These files must be uncrunched by using the UNCR.COM program that is in the ADAM Sig (DL10).

- There is a file named CPMHELP.COM in ADAM DL10 that is set for the 33 column display under CP/M. Anyone needing some help with ADAM CP/M 2.2 should get this one and read it.

- There is a great dot matrix font customization program called BRDFRD.LBR in DL10 that allows the ADAM owner with a dot matrix printer to produce some great looking specialized fonts (see some samples in the 256K review).

- Silicon Valley Surplus at (415) 261-4506 is selling CP/M versions of Supercalc 2, Correct It, MBasic and the Pearl Database for \$9.99 each. They also have New Word, but it does not run correctly on the ADAM. After purchasing, you must send the disks along with some CP/M formatted blanks to Elliam Assoc to have them configured for the ADAM. Elliam charges a \$5 set up fee plus \$6/disk. Tim states the programs work great, but really require the 80 column unit to operate as designed.

- There is a new CCP for the ADAM, also on DL10 called NEWCCP.LBR, which contains many enhancements and fixes over the CCP that comes with the ADAM CP/M 2.2

- On DL9 of the ADAM Sig there is a new program that converts PAINTMASTER pictures to the RLE format - GRAPAC.BAS. There is also a better RLE conversion program (to ADAM Basic Hires screens) called RLE.VIE.BAS.

Note that all these programs will be on future NIAD PD volumes.

. The following may be of interest to user's of CP/M who still use SMARTWriter for listings. The following steps will allow you to print a listing created using CPM and print it out using SMARTWriter. The problem with CPM is that CPMADAM does not clearly convert a CPM file into ADAM format correctly; it leaves non-printing characters (such as tabs, and line feeds) in the file. Using the following steps will correct this problem:

1. Use CPMADAM to copy the file to an ADAM disk or tape.
2. Start SMARTWriter and set the following options: Set Moving Window Screen option, set left margin to 1 and right margin to 80, set tab stops as desired (eg. col 9, 17, 25, 33, etc.)
3. Get the file (ignore the strange characters)
4. Use INSERT key, the screen will go blank, then use the done (VI) key. The screen will come back with all the strange characters removed, and any tabs will be expanded to the tab stops you selected.
5. Page forward to the top of the next screen (Home & down arrow twice, then Home) and repeat the Insert, Done procedure.
6. Repeat for all screens until the end of file is reached.

This file can now be printed using SMARTWriter, or can be saved for later. (If saved it will be a type A file and will need the margins to be reset next time you get the file).

. If you remember we discussed the creeping half space in Adam SMARTWriter. I have the original letter, written to you about it, stored some where, but no can find. It's so simple though, I'll write it over.

When printing text in Adam SMARTWriter, you can eliminate the extra half space in your printed text, by inserting the symbol, created by holding the CONTROL KEY down and pressing the #6 Key. (Not the #6 SMART KEY). This will put and upside down L on you screen. You must put at least one character space between this symbol and the HARD RETURN.

If the line above has been indented, then the HARD RETURN must be set at least one character space beyond the indentation.

When printing out text that has been underlined, you must set the HARD RETURN at least one character space beyond the end of the underlined

text, above it.

It is not necessary to always set the symbol at the beginning of the line before the HARD RETURN, but if you do not, the printer head runs back and forth looking for text to print.

. Let me first express my appreciation for the WAMMO driver for dot matrix printers. I have also found the graphics workshops very enlightening. Keep up the good work. My objective is to eventually see hard copy data plots with alphanumeric lettering at the user's discretion. With your help I'm sure I'll get there.

I have recently added a Star Micronics NP-10 to my Adam. I thought that the enclosed result might interest you. The results indicate that Nevada Basic, under CP/M will transmit all characters to the printer, even 0. The output was obtained by running the NP-10 in Hex Dump Mode, the listed Basic Program, Nevada Basic, and CPM. AN <esc> is inserted at the beginning of the message and a <CR> at the end. This evidence implies that the printer can be controlled under Nevada Basic without using any absolute locations in memory, or assembly programming.

. There is just one little practical bit of information about the ribbon cartridge operation which I would like to share with you that may help someone. In the April issue of the newsletter on page #3 there was an article on this. It was about Light Printing under Printer Problems. The article mentions that the cartridge might be binding up, but it does not give the reason. I have found what causes this problem and it is so simple to fix.

Every ribbon cartridge that I have bought for the Adam printer has had this problem of binding up after about one-quarter of the ribbon has been used up. The problem that I have found is simply this: the little spring on the new spool side (the right side) that controls the slack is too tight. All that has to be done to correct the problem is to just "unspring" it a little and put it back on. The cartridge is first opened up and the new spool is lifted off and laid aside. The slack control spring is attached to the bottom of this spool. Next remove the spring and "unspring" it by flexing it by flexing it out no more than an inch or two and then let it go back into shape. This will make the spring just slightly more loose allowing the ribbon to turn freely. Don't over flex it; it must still control the slack. Then reinstall it as it was originally.

This may seem to be a very simple matter; and indeed it is. But it may also be the cause for some giving up on the Adam printer, when it is only the slack spring being too tight and not allowing the spool to turn freely. Every ribbon cartridge I have gotten has had this problem. I fix each new cartridge now as a routine procedure

before installing it in the printer. I hope that this information may be of help for some other Adamite.

. In ITEMS OF INTEREST (Issue #30, June 87) there was a question on Smart Letters & Forms from W. Craig Westlake. If it won't print the letter out it's probably defective.

Saving is another question entirely. The SL&F tape is full, so there is no way to save a revised form on the same tape. However, you can save it on another DDP/disk with no problems. Also, I read in ECN that you can make personalized versions of SL&F files by typing it in under SMARTwriter, using brackets () to enclose the insert areas, then save it using one of the filenames on the SL&F master ddp. This will allow you to load it from the SL&F master program.

. Phil Palmer writes recommending two good Logo books for ADAM users:

Turtle Geometry by Harold Abelson and LOGO (for the Apple), also by Abelson.

. Barry Wilson would like anyone interested in joining a local ADAM Users Group in the St. Louis, MO area contact him at 12967 Weatherfield Dr; St Louis, MO 63146.

. Contact Brett Bensley at (217) 967-5465 regarding a user's group in the Coles and Clark county area of Illinois.

. Jim Cummings would like to correspond with anyone using Nevada Basic under CP/M 2.2. Write to him at PO Box 743; Newberg, OR 97132.

REVIEW ADDENDUMS

MEGACOPY

I have discussed some of the problems I encountered with Syd Carter, the developer of MEGACOPY. He pointed out some misunderstandings I had and indicated that he was completing a new version of the software that would make the format process a little smoother (NOTE: I just received the new version, but have not had a chance to use it. This new version of the software is available from Syd or NIAD for \$6.00). I have talked to people who are having great success with using MEGACOPY. Syd asked that I pass along his phone number to anyone who would like to call and discuss his products - (416) 769-6446. Syd indicated he has lowered the price of his internal 1200 baud modem to \$175 US.

MICROWORKS

I'm not sure who to thank, but we now have a fix so that MICROWORKS can use a dot matrix printer for output from its MicroWrite program. This fix is the same one used to allow MULTIWRITE to print on a dot matrix printer.

This program should be run after loading Basic and before running MICROWORKS -

```
10 POKE 16149,255: POKE 16150,255
20 DATA 126,254,3,200,245,219,64,203,71,40,250,241
30 DATA 211,64,35,24,239
40 FOR x=62741 to 62757:READ mc:POKE x,mc:NEXT
50 TEXT:PRINT "Parallel printer active"
```

GRAPHICS WORKSHOP

L.O.F Cumminications will convert any photo/picture to an ADAM RLE format so it can be displayed on a hires screen and, if you have GRAPHIXPAINTER, print it on your dot matrix printer. Each photo submitted, must be marked on the back with the senders name/address. Cost is \$5 for the first photo, \$3 for each additional one and \$2 for shipping. The files can also be emailed using American People/Link for 48 hr service by contacting ID COMPUTER or ID L.O.F. Please read the following to help you in preparing photos for submission:

WHAT PHOTOGRAPH MAKES A GOOD RLE FILE?

That's the one question we at L.O.F are asked most often, and is the toughest to answer. There are some general guidelines that can be followed, but there are never any guarantees that any given photograph will make a good digitized picture.

As a general rule-of-thumb, a high-contrast photo will make the best digitized computer art; a good example of this is a standard studio oneshot, the kind you have taken for yearbooks, job notices, and the like. Most of these photos are of the subject and the background. This brings the subject "out", both in the photo and in the digitized file.

One thing to watch OUT for are very dark or very light photos, with little contrast. A white cat on a snow-bank, or a black dog in the back yard at night just won't make it!

Also, the less detail around the subject, generally, the better. Since we try (except where specifically requested) to "zero in" on the people in a photo, a contrasting neutral background is best. There are exceptions to this, of course, but generally a computer room, with its maze of keyboards, printers, and assorted wires and cables makes a poorer digitized photo than a plain, contrasting background.

OKIMATE 20 COLOR PRINTER

Some of you have written regarding problems in using the Oki20 with the SIGNSHOP program. To our amazement the Oki doesn't support a backspace command, and hence won't work with SS, which requires one ! However, Wayne is working on a fix

for this problem that should give even better printing results. More next month.

Joseph Quinn submitted the following program which includes a low res color drawing program and one to print the picture on the Okimate 20 color printer. Thanks much for helping your fellow ADAMites.

JNOTE: There are three separate programs that must be entered and save individually. Then run the first one (the wamodrive program) which will in turn run the second, etc.

]

```
11 DATA 229,33,21,245,34,100,252,33,252,244,34
,103,252,225,201
21 DATA 229,33,70,000,34,100,252,33,057,000,34
,103,252,225,201
31 DATA 03,03,03,03,03,03,03,03,03,03,03,03
,03,03,03,03
41 DATA 229,33,41,0,54,3,43,119,205,99,252,225
,210
51 DATA 126,254,3,40,13,245,219,64,230,1,40,25
0,241,211,64,35,24,238,201
61 DATA 00
71 DATA 229,33,40,0,205,99,252,225,201
100 FOR x = 10 TO 98: READ v: POKE x, v: NEXT x
110 CALL 25: REM Set for Parallel printer
120 TEXT: PRINT "WAMOD driver installed"
122 PRINT "Parallel port active"
123 PRINT CHR$(4); "RUN colordraw"
```

]

]

```
10 REM colordraw
20 REM adapted by J.M.Quinn
30 REM GULF COAST ADAM USERS 6665 Timbers DR. Mo
bile
40 REM 3/87
50 PRINT CHR$(27); "A"; CHR$(1);
60 PRINT CHR$(27); "2";
100 LOMEM :32000: POKE 16149, 255: POKE 16150, 255
110 DATA 62,17,17,0,16,33,0,0,205,3
8,253,201
120 FOR x = 27600 TO 27611: READ m1: POKE x, m1: NE
XT
130 DATA enter draw mode,change col
ors,enter erase mode
140 DATA load picture,save picture,displa
y catalog,print picture
150 FOR x = 1 TO 7: READ m1$(x): NEXT
160 DATA change pen drawing color,c
hange all of one color
170 DATA review the color values,ab
ort color change option
180 FOR x = 1 TO 4: READ m2$(x): NEXT
190 DATA black,magenta,dark blue,dark red,dar
k green
```

```

200 DATA grey,med. green,light blue,orange,me
d. red
210 DATA grey,light red,light green,light yel
low,cyan,white
220 DIM cr$(15): FOR x = 0 TO 15: READ cr$(x): NEXT
300 POKE 18607, 4: POKE 18633, 17: POKE 18711, 23:
GR
310 hp = 19: vp = 16: co = 8: ud$ = "down"
320 FOR x = 0 TO 15: NEXT
330 DIM grs(39, 31)
500 GOSUB 8000: cs = SCRN(hp, vp)
520 FOR x = 1 TO 7: PRINT " "; x; "="; m1$(x): NEXT
530 GET key$: k% = VAL(key$)
540 IF k% < 1 OR k% > 7 GOTO 530
550 IF k% = 1 THEN mode$ = "[draw]"
560 IF k% = 3 THEN mode$ = "[erase]"
570 ON k% GOTO 1000, 2000, 5000, 3000, 4000, 6000,
8001
1000 IF mode$ = "[draw]" THEN cv = co
1002 IF mode$ = "[erase]" THEN cv = 0
1004 COLOR = cv: POKE 64885, 0
1010 HOME: PRINT "pen status: "; ud$
1020 PRINT "pen color: "; cr$(cv)
1030 PRINT "mode type: "; mode$
1040 PRINT: PRINT "d = put the pen DOWN"
1050 PRINT "m= show the MENU"
1060 PRINT "u= lift the pen UP"
1070 IF cv = 3 OR cv = 7 OR cv = 9 THEN fz = 1: GOT
0 1100
1080 IF cv = 10 OR cv = 11 OR cv = 14 THEN fz = 1:
GOTO 1100
1090 fz = 15
1100 k% = PEEK(64885): IF k% <> 0 GOTO 1170
1110 COLOR = fz: PLOT hp, vp
1120 COLOR = cv: PLOT hp, vp
1130 FOR de = 1 TO 5: NEXT de: GOTO 1100
1170 key$ = CHR$(k%)
1180 IF ud$ = "down" THEN COLOR = cv
1190 IF ud$ = "up" THEN COLOR = cs
1200 PLOT hp, vp
1210 IF key$ = "m" OR key$ = "M" GOTO 500
1220 IF key$ = "d" OR key$ = "D" THEN ud$ = "down":
GOTO 1000
1230 IF key$ = "u" OR key$ = "U" THEN ud$ = "up": G
OTO 1000
1240 IF k% >= 160 AND k% <= 163 GOTO 1300
1250 POKE 64885, 0: GOTO 1100
1300 IF k% = 160 THEN vp = vp-1
1310 IF k% = 161 THEN hp = hp+1
1320 IF k% = 162 THEN vp = vp+1
1330 IF k% = 163 THEN hp = hp-1
1400 IF vp < 0 THEN vp = 31
1410 IF vp > 31 THEN vp = 0
1420 IF hp < 0 THEN hp = 39
1430 IF hp > 39 THEN hp = 0
1440 cs = SCRN(hp, vp)
1450 POKE 64885, 0: GOTO 1100
2000 HOME: FOR x = 1 TO 4: PRINT " "; x; "="; m2$(x)
: NEXT

```

```

2010 GET key$: k% = VAL(key$)
2020 IF k% < 1 OR k% > 4 GOTO 2010
2030 ON k% GOTO 2100, 2300, 2200, 500
2100 HOME: PRINT "current color="; co;
2110 PRINT "("; cr$(co); ")": PRINT
2120 PRINT "please enter your new pen"
2130 INPUT "color(0-15)"; co$
2140 co = VAL(co$): IF c1 < 0 OR c1 > 15 GOTO 2120
2150 GOTO 500
2200 HOME: FOR x = 1 TO 7: PRINT " "; x; "="; cr$(x)
: NEXT
2210 FOR x = 8 TO 9: VTAB 9+x: HTAB 18: PRINT x; " =
"; cr$(x): NEXT
2220 FOR x = 10 TO 14: VTAB 9+x: HTAB 17: PRINT x; "
= "; cr$(x): NEXT
2230 PRINT "press [RETURN] to continue";
2240 GET key$: GOTO 500
2300 HOME: PRINT "Change which color (1-14):"
2310 INPUT " "; c1$
2320 c1 = VAL(c1$): IF c1 < 1 OR c1 > 14 GOTO 2310
2330 PRINT: PRINT "change it to which other "
2340 INPUT "color (1-14): "; c2$
2350 c2 = VAL(c2$): IF c2 < 1 OR c2 > 14 THEN 2340
2360 PRINT "one moment...": PRINT: PRINT "changing";
2370 PRINT " "; cr$(c1); "to "; cr$(c2)
2380 COLOR = c2: FOR y = 0 TO 31: FOR x = 0 TO 39
2390 IF SCRN(x, y) = c1 THEN PLOT x, y
2400 NEXT: NEXT: GOTO 500
3000 HOME: PRINT "Which filename to load?": PRINT
3002 PRINT "REMEMBER: the filename must"
3004 PRINT "end with .GRP": PRINT: PRINT
3010 INPUT " ?"; fa$: fa% = LEN(fa$)
3020 IF fa% < 1 OR fa% > 10 GOTO 3000
3030 IF RIGHT$(fa$, 4) <> ".GRP" GOTO 3000
3200 HOME: PRINT "loading "; fa%; "... "
3210 PRINT CHR$(4); "bload "; fa$
3300 HOME: PRINT "sorting data..."
3310 xy = 0: FOR y = 0 TO 31: FOR x = 0 TO 39
3320 COLOR = PEEK(xy+30000): PLOT x, y: xy = xy+1
3330 NEXT x: NEXT y
3340 GOTO 500
4000 HOME: PRINT "What filename to save?"
4010 PRINT "(limit 10 characters)": PRINT
4020 PRINT "(the filename must end with .GRP,"
4030 PRINT "eg, pict1.GRP or blocks.GRP)": PRINT
4040 INPUT " ?"; fi$: fi% = LEN(fi$)
4050 IF fi% < 1 OR fi% > 10 GOTO 4000
4060 IF RIGHT$(fi$, 4) <> ".GRP" GOTO 4000
4300 HOME: PRINT "sorting data..."
4310 xy = 0: FOR y = 0 TO 31: FOR x = 0 TO 39
4320 POKE xy+30000, SCRN(x, y): xy = xy+1
4330 NEXT x: NEXT y
4340 HOME: PRINT "saving "; fi%; "... "
4350 PRINT CHR$(4); "bsave #,A30000,L1280"
4360 PRINT CHR$(4); "rename #, "; fi$
4370 HOME: PRINT "The file is stored.": PRINT: PRINT
4380 PRINT "press [RETURN] to continue"
4390 GET key$: GOTO 500

```

```

5000 HOME: PRINT "Which erase option?": PRINT
5010 PRINT " 1= erase individual blocks"
5020 PRINT " 2= clear the entire window"
5030 PRINT " 3= abort this erase option"
5040 GET key$: k% = VAL(key$)
5045 IF k% = 27 THEN END
5050 ON k% GOTO 1000, 5060, 500
5060 CALL 27600: GOTO 500
5100 IF k% = 3 GOTO 500
5200 IF k% = 2 THEN CALL 27600: GOTO 500
5300 co = 1: GOTO 1000
6000 HOME: PRINT " one moment please": PRINT
6010 PRINT " saving screen in RAM..."
6100 FOR x = 0 TO 39: FOR y = 0 TO 31
6110 grs(x, y) = SCRNX(x, y): NEXT: NEXT
6200 TEXT: PRINT CHR$(4); "catalog"
6210 PRINT: PRINT "press [RETURN] to continue": GET
key$
6220 GR: GOSUB 8000
6230 PRINT: PRINT "restoring graphics screen"
6300 FOR x = 0 TO 39: FOR y = 0 TO 31: COLOR = grs(
x, y)
6310 PLOT x, y: NEXT: NEXT: GOTO 500
7000 TEXT: PRINT "program terminated.": END
8000 POKE 16958, 16: POKE 16993, 8: POKE 16995, 16:
HOME: RETURN
8001 PRINT CHR$(4); "RUN print"

```

```

1 REM          LO-RES color screen print
2 REM          for OKIMATE 20
3 REM          by W. MOTEL NIAD 2/87
10 LOMEM :32000
20 POKE 40, 27: POKE 41, 65: POKE 42, 8: POKE 43,
3: CALL 90: REM      8/
72
21 POKE 40, 27: POKE 41, 50: POKE 42, 3: CALL 90
30 yb = 27648: rb = 28672: bb = 29696
40 FOR vh = 0 TO 39: ob = 0: FOR vl = 0 TO 39
50 c = SCRNV(vl, vh)
60 ON c+1 GOSUB 1001, 1002, 1003, 1004, 1005, 1006
, 1007, 1008, 1009, 1010, 1
011, 1012, 1013, 1014, 1015, 1016
70 wb = yb+ob: ON y GOSUB 1100, 1200, 1300
80 wb = rb+ob: ON r GOSUB 1100, 1200, 1300
90 wb = bb+ob: ON b GOSUB 1100, 1200, 1300
100 ob = ob+8
110 NEXT vl
120 POKE 27968, 13: POKE 27969, 3
121 POKE 28992, 13: POKE 28993, 3
122 POKE 30016, 13: POKE 30017, 10: POKE 30018, 3
130 POKE 40, 27: POKE 41, 25: POKE 42, 3: CALL 90
140 POKE 40, 27: POKE 41, 75: POKE 42, 64: POKE 43,
1: POKE 44, 3: CALL 90
150 POKE 92, 0: POKE 93, 108: CALL 90: POKE 92, 40:
POKE 93, 0

```

```

160 POKE 40, 27: POKE 41, 75: POKE 42, 64: POKE 43,
1: POKE 44, 3: CALL 90
170 POKE 92, 0: POKE 93, 112: CALL 90: POKE 92, 40:
POKE 93, 0
180 POKE 40, 27: POKE 41, 75: POKE 42, 64: POKE 43,
1: POKE 44, 3: CALL 90
190 POKE 92, 0: POKE 93, 116: CALL 90: POKE 92, 40:
POKE 93, 0
200 NEXT vh
210 POKE 40, 27: POKE 41, 48: POKE 42, 3: CALL 90
220 PRINT " DONE": STOP
1001 y = 1: r = 1: b = 1: RETURN
1002 y = 3: r = 1: b = 2: RETURN
1003 y = 3: r = 2: b = 1: RETURN
1004 y = 1: r = 1: b = 3: RETURN
1005 y = 1: r = 2: b = 1: RETURN
1006 y = 2: r = 2: b = 2: RETURN
1007 y = 1: r = 3: b = 1: RETURN
1008 y = 3: r = 3: b = 1: RETURN
1009 y = 1: r = 3: b = 3: RETURN
1010 y = 3: r = 1: b = 3: RETURN
1011 y = 2: r = 2: b = 2: RETURN
1012 y = 3: r = 2: b = 3: RETURN
1013 y = 2: r = 3: b = 2: RETURN
1014 y = 2: r = 3: b = 3: RETURN
1015 y = 3: r = 3: b = 2: RETURN
1016 y = 3: r = 3: b = 3: RETURN
1100 FOR x = 0 TO 7: POKE wb+x, 255: NEXT x: RETURN
1200 FOR x = 0 TO 7 STEP 2: POKE wb+x, 85: POKE wb+x
+1, 170: NEXT x: RETURN
1300 FOR x = 0 TO 7: POKE wb+x, 0: NEXT x: RETURN

```

SMARTBASIC WORKSHOP

We're printing some great programs that you should have a lot of fun with.

1. The first is an ADAM rendition of the Star Spangled Banner, utilizing ADAM's fine sound output from a Basic program.
2. Next is a practical program for keeping a birthday list. You must first edit the DATA statements in lines 1000-1140 and substitute the month, name, day and alpha month for each person you want to keep track of. Leave line 2000 as it is because it marks the end of the list. If you don't use all the line numbers before 2000, just delete them. This program allows you to view or print the entire list or just select a single month.
3. The last program is a fractal landscape plotter. I only know that fractals involve an area of math I never made it to. In any case you'll find this a nice program that generates 3D landscapes in hires color.

Enjoy these fine programs -


```

0 & NIAD PUBLIC DOMAIN          VOLUME # BNDV
20
10 HOME
20 TEXT: CLEAR
30 VTAB 10: HTAB 3: INVERSE: PRINT "THE STAR SPANG
LE BANNER"
40 LOMEM :29000
50 FOR i = 28000 TO 28005: READ a: POKE i, a
60 NEXT i
70 mhertz = 3597000
80 DIM i(100): DIM j(100)
90 FOR a = 1 TO 100
100 READ i(a), j(a)
110 p = i(a)
120 p = mhertz/(32*p)
130 tt% = p/16
140 o% = 128+(p-tt%*16)
150 POKE 28006, o%: CALL 28000
160 POKE 28006, tt%: CALL 28000
170 POKE 28006, 144: CALL 28000
180 FOR d = 1 TO j(a)*450
190 NEXT d
200 POKE 28006, 159: CALL 28000
210 NEXT a
220 NORMAL
230 DATA 58,102,109,211,255,201
240 DATA 394,.5,330,.5,262,1,330,1,392,1,523,2,659,
.5,587,.5
250 DATA 523,1,330,1,370,1,392,2,392,.5,392,.5,659,
1.5,587,.5
260 DATA 523,1,494,2,440,.5,494,.5,523,1,523,1,392,
1,330,1
270 DATA 262,1,392,.5,330,.5,262,1,330,1,392,1,523,
2,659,.5
280 DATA 587,.5,523,1,330,1,370,1,392,2,392,.5,392,
.5,659,1.5
290 DATA 587,.5,523,1,494,2,440,.5,494,.5,523,1,523
,1,392,1
300 DATA 330,1,262,1,659,.5,659,.5,659,1,698,1,784,
1,784,2
310 DATA 699,.5,659,.5,587,1,659,1,699,1,699,2,699,
1,659,1.5
320 DATA 587,.5,523,.5,494,2,440,.5,494,.5,523,1,33
0,1,370,1
330 DATA 392,2,392,1,523,1,523,1,523,.5,494,.5,440,
1,440,1
340 DATA 440,1,587,1,699,.5,659,.5,587,.5,523,.5,52
3,1,494,1
350 DATA 392,1,523,1.5,587,.5,659,.5,694,.5,784,2,5
23,1,587,1
360 DATA 659,1.5,699,.5,587,1,523,4

```

```

0 & NIAD PUBLIC DOMAIN          VOLUME # BNDV
20
1 d$ = CHR$(4)
2 GOSUB 5000: & ** MENU **
5 REM birthdays
6 v = 10: h = 5

```

```

7 RESTORE
10 TEXT: VTAB 2: HTAB 2
20 INPUT "MONTH # DESIRED "; pick
100 READ m, name$, d, month$
110 IF m = 999 THEN GOTO 700
120 IF pick <> m THEN 100
130 IF pick = m THEN GOSUB 600
150 & **NEXT DATE**
155 v = v+2
160 GOTO 100
599 END
600 & ** VIEW INFO **
605 VTAB 8: HTAB 19: INVERSE: PRINT "* "; month$: "
*": NORMAL
610 VTAB v: HTAB h
620 PRINT name$, " "; m: "/"; d
630 RETURN
700 & **TRY ANOTHER **
710 VTAB 3: HTAB 2
720 PRINT "CONTINUE <y/n>"; : GET x$
730 IF x$ = "y" OR x$ = "Y" THEN 5
899 END
1000 DATA 2,TOM,9,FEBUARY
1010 DATA 3,APRIL,10,MARCH
1020 DATA 3,LINDA,16,MARCH
1025 DATA 3,ART,22,MARCH
1026 DATA 3,CHUCK,22,MARCH
1030 DATA 4,JIMMY,12,APRIL
1040 DATA 4,JASON,16,APRIL
1045 DATA 5,EMMA,6,MAY
1050 DATA 5,ALLAN,24,MAY
1060 DATA 6,CHARLES,7,JUNE
1070 DATA 7,KRISTA,25,JULY
1080 DATA 8,TAMI,25,AUGUST
1085 DATA 8,MARTHA,26,AUGUST
1090 DATA 8,LEE,27,AUGUST
1100 DATA 8,GLORIA,28,AUGUST
1110 DATA 9,JEREMY,9,SEPTEMBER
1120 DATA 9,ANGIE,18,SEPTEMBER
1130 DATA 9,GERRY,25,SEPTEMBER
1140 DATA 12,ARCHIE,12,DECEMBER
2000 DATA 999,DONE,999,DONE
5000 POKE 17059, 5: TEXT
5002 HTAB 9: VTAB 6: INVERSE
5010 PRINT " BIRTHDAY LISTER ": NORMAL
5020 FOR de = 1 TO 2000: NEXT de: VTAB 15
5030 PRINT "1. VIEW ON SCREEN"
5040 PRINT "2. PRINT COMPLETE LIST"
5050 VTAB 14: INVERSE: PRINT "INPUT SELECTION "; : I
NPUT x
5055 NORMAL
5058 IF x > 2 THEN 5050
5059 IF x = 0 THEN 5050
5060 IF x = 1 THEN 5
5070 IF x = 2 THEN GOSUB 10000: GOSUB 6000
5999 END
6000 & *PRINT ROUTINE*
6010 RESTORE
6020 READ m, name$, d, month$

```

```

6025 IF m = 999 THEN PR #0: END
6030 GOSUB 15000
6040 HTAB 5
6050 PRINT month$, ; d, ; name$
6060 PR #0
6100 GOTO 6020
10000 & *READY PRINTER*
10005 PRINT
10010 PRINT "PLEASE PLACE PAPER IN PRINTER"
10015 PRINT "PRESS ANY KEY WHEN READY": GET x$
10018 GOSUB 15000: FOR de = 1 TO 1000: NEXT de: PR #0
10020 GOSUB 15000
10025 PRINT SPC(15); "BIRTHDAY LIST"
10030 PRINT: PRINT
10035 PRINT "MONTH"; SPC(7); "DAY"; SPC(13); "NAME"
10040 PRINT: PRINT: PR #0
10045 RETURN
15000 PRINT d$; "pr#1"
15010 RETURN

```

```

0 & NIAD PUBLIC DOMAIN          VOLUME # BNDV
20
5 ONERR GOTO 2000
10 DIM d(64, 32)
12 HOME: VTAB 7: PRINT TAB(4); "Fractal Landscape
Plotter"
14 FOR i = 1 TO 2000: NEXT
20 HOME
30 PRINT " Number of levels (1-6; 4 and 5 are best
)? "; : GET le
34 IF le > 6 OR le < 1 THEN GOTO 20
40 ds = 2: FOR n = 1 TO le: ds = ds+2^(n-1): NEXT
n
50 mx = ds-1: my = mx/2: pi = 3.1416: rh = pi*30/1
80: vt = rh*1.2
60 FOR n = 1 TO le: l = 10000/1.8^n
65 HOME
70 PRINT " Working on level "; n; "."
80 ib = mx/2^n: sk = ib*2
90 GOSUB 150
100 GOSUB 220
110 GOSUB 290
120 NEXT n
130 GOTO 640
140 REM
150 FOR ye = 0 TO mx-1 STEP sk
160 FOR xe = ib+ye TO mx STEP sk
170 ax = xe-ib: ay = ye: GOSUB 370: d1 = d: ax = xe
+ib: GOSUB 370: d2 = d
180 d = (d1+d2)/2+RND(1)*1/2-1/4: ax = xe: ay = ye:
GOSUB 420
190 NEXT xe
200 NEXT ye: RETURN
210 REM
220 FOR xe = mx TO 1 STEP -sk
230 FOR ye = ib TO xe STEP sk

```

```

240 ax = xe: ay = ye+ib: GOSUB 370: d1 = d: ay = ye
-ib: GOSUB 370: d2 = d
250 d = (d1+d2)/2+RND(1)*1/2-1/4: ax = xe: ay = ye:
GOSUB 420
260 NEXT ye
270 NEXT xe: RETURN
280 REM
290 FOR xe = 0 TO mx-1 STEP sk
300 FOR ye = ib TO mx-xe STEP sk
310 ax = xe+ye-ib: ay = ye-ib: GOSUB 370: d1 = d
320 ax = xe+ye+ib: ay = ye+ib: GOSUB 370: d2 = d
330 ax = xe+ye: ay = ye: d = (d1+d2)/2+RND(1)*1/2-1
/4: GOSUB 420
340 NEXT ye
350 NEXT xe: RETURN
360 REM
370 IF ay > my THEN 390
380 by = ay: bx = ax: GOTO 400
390 by = mx+1-ay: bx = mx-ay
400 d = d(bx, by): RETURN
410 REM
420 IF ay > my THEN 440
430 by = ay: bx = ax: GOTO 450
440 by = mx+1-ay: bx = mx-ax
450 d(bx, by) = d: RETURN
460 REM
470 REM
475 IF xo <> -999 THEN 500
480 IF zz < 0 THEN GOSUB 1070: z2 = zz: zz = 0: GO
TO 620
490 GOSUB 1090: GOTO 610
500 IF z2 > 0 AND zz > 0 THEN 610
510 IF z2 < 0 AND zz < 0 THEN z2 = zz: zz = 0: GOT
O 620
520 w3 = zz/(zz-z2): x3 = (x2-xx)*w3+xx: y3 = (y2-y
y)*w3+yy: z3 = 0
530 zt = zz: yt = yy: xt = xx
540 IF zz > 0 THEN 590
550 REM
560 zz = z3: yy = y3: xx = x3: GOSUB 950
570 GOSUB 1070: zz = 0: yy = yt: xx = xt: z2 = zt:
GOTO 620
580 REM
590 zz = z3: yy = y3: xx = x3: GOSUB 950
600 GOSUB 1090: zz = zt: yy = yt: xx = xt
610 z2 = zz
620 x2 = xx: y2 = yy: RETURN
630 REM
640 GOSUB 1110: REM
650 xs = .0365: ys = .0365: zs = .037
660 FOR ax = 0 TO mx: xo = -999: FOR ay = 0 TO ax
670 GOSUB 370: zz = d: yy = ay/mx*10000: xx = ax/mx
*10000-yy/2
680 GOSUB 940: NEXT ay: NEXT ax
690 FOR ay = 0 TO mx: xo = -999: FOR ax = ay TO mx
700 GOSUB 370: zz = d: yy = ay/mx*10000: xx = ax/mx
*10000-yy/2
710 GOSUB 940: NEXT ax: NEXT ay

```

```

720 FOR ex = 0 TO mx: xo = -999: FOR ey = 0 TO mx-e
x
730 ax = extey: ay = ey: GOSUB 370: zz = d: yy = ay
/mx*10000
740 xx = ax/mx*10000-yy/2: GOSUB 940: NEXT ey: NEXT
ex
750 GOTO 1130: REM
760 REM
770 IF xx <> 0 THEN 800
780 IF yy <= 0 THEN ra = -pi/2: GOTO 820
790 ra = pi/2: GOTO 820
800 ra = ATN(yy/xx)
810 IF xx < 0 THEN ra = ra+pi
820 r1 = ra+rh: rd = SQR(xx*xx+yy*yy)
830 xx = rd*COS(r1): yy = rd*SIN(r1)
840 RETURN
850 REM
860 rd = SQR(zz*zz+xx*xx)
870 IF xx = 0 THEN ra = pi/2: GOTO 900
880 ra = ATN(zz/xx)
890 IF xx < 0 THEN ra = ra+pi
900 r1 = ra-vt
910 xx = rd*COS(r1)+xx: zz = rd*SIN(r1)
920 RETURN
930 REM
940 GOSUB 470
950 xx = xx*xs: yy = yy*ys: zz = zz*zs
960 GOSUB 770: REM
970 GOSUB 860: REM
980 IF xo = -999 THEN pk$ = "M"
985 IF xo <> -999 THEN pk$ = "D"
990 xp = INT(yy)+cx: yp = INT(zz)
1000 GOSUB 1030
1010 RETURN
1020 REM
1030 xp = xp*.625: yp = 33.14-.663*yp
1040 IF pk$ = "M" THEN x8 = xp: y8 = yp: xo = x
1045 IF y8 > 191 OR y8 < 0 OR yp > 191 OR yp < 0 THE
N RETURN
1047 IF x8 > 255 OR x8 < 0 OR xp > 255 OR xp < 0 THE
N RETURN
1050 HPLLOT x8, y8 TO xp, yp: x8 = xp: y8 = yp: RETUR
N
1060 REM      sea color
1070 HCOLOR = 6: RETURN
1080 REM      land color
1090 HCOLOR = 5: RETURN
1100 REM
1110 HGR: RETURN
1120 REM
1130 PRINT " Would you like to plot"
1140 PRINT " another fractal landscape? "; : GET a$
1160 IF a$ = "Y" OR a$ = "y" THEN GOTO 20
1165 TEXT
1170 END
2000 TEXT: END

```

NIAD CP/M PUBLIC DOMAIN DISK #27
By S. McFarlane

This entire Library Disk contains files from "The UNIFORTH SAMPLER", a subset of the full professional UNIFORTH by Unified Software Systems. A full Assembler is provided as well as a Video Editor & floating-point calculator. The FORTH-83 standard is supported with few exceptions & the authors claim that this sampler is the equivalent of several commercial systems selling for \$200. or more!

Files contained in this collection include:

- UNIFORTH.COM** The executable task image.
- FORTH.FTH** The default file that is opened when UNIFORTH is executed. It contains the SYSGEN utility, the segment utility, a game & other miscellaneous programs.
- VEDITOR.FTH** The configuration file for the Video Editor.
- UNIFORTH.DOC** A comprehensive 38 Page Manual.
- WORDS.DOC** Additional information that should be studied before using the system.

The UNIFORTH Assembler uses Z-80 mnemonics which are essential in defining some of the basic words of the system & uses about 3K storage. FORTH machine language definitions are extremely easy to create & debug compared to other languages, and is ideal for learning how to program in machine language or to test out various algorithms before incorporating them into other programs. Machine language FORTH words are created by using one of the defining words CODE or SUBROUTINE. In each case the interpretation state is changed from compilation (storing addresses of routines into a definition) to execution (executing each word as it is encountered). The words executed are Z-80 Opcodes which use stack parameters to create instructions which are then stored into the definition.

UNIFORTH offers several additions to the FORTH-83 standard, many of which are outlined in the DOC file. UNIFORTH is an excellent introduction to the FORTH language for ADAM Users interested in expanding their horizons & going FORTH into the unknown!!!

NIAD CP/M PUBLIC DOMAIN DISK #28
By S. McFarlane

ASPRETTY.LBR - This utility re-formats an assembly source file, forcing all source code to upper case & all comments to lower case. The one exception is that quoted strings outside comments are left unchanged. The quotes may be single or double. End of line terminates a comment & end of line or start of comment terminates single or double quotes. A single quote string embedded in a double quote string will work properly, but a single quote within a single and/or double within a double will not, as the utility is unable to recognize the nesting. DOC file included.

DEARC.LBR - Written in Turbo Pascal & modified to operate in the CP/M environment, DEARC is a utility that removes files from an IBM-PC Archive file for use in a CP/M system. No documentation provided. (NOTE: Similar to UNARC.LBR)

PIPMODEM.LBR - A utility that modifies CP/M's PIP to become a communications terminal program which allows a text file to be downloaded from another computer. The routine is written so that the memory buffer is only loaded after Cntl<D> is invoked, allowing you to log on to the remote system & search for a file before opening the memory buffer. To write the file & exit simply input Cntl<Z>. DOC file included.

TELLO2.LBR - This program is used to find out where various addresses are located within a particular CP/M system. TELL is a useful tool for programmers who require the exact addresses of certain system routines that cannot be accessed directly through software. 17 routine addresses are given as well as the location of where ADAM's CCP starts, the BDOS entry address & where the BIOS jump table begins.

UNARC10.LBR - UNARC is a utility program for CP/M systems which allows the listing & extraction of subfiles contained in MS-DOS/PC-DOS archives (.ARC files). Archives are commonly used for compressed file storage on remote access bulletin board systems which cater to IBM-PC & compatible computer users. UNARC affords the CP/M user the ability to process such files after downloading from these remote systems. The UNARC program includes an on-line help menu which is invoked by running the program with an empty command line. UNARC provides 3 main functions:

- 1> Listing an Archive Directory.
- 2> Extracting component files from an Archive.
- 3> Screen display of a component file.

DOC files contain a comprehensive users guide as well as a technical manual for advanced users.

NIAD CP/M PUBLIC DOMAIN DISK #29
By S. McFarlane

This Library Collection contains communications

files for use with an external 1200-2400 Baud Modem & the EVE SP-1 Serial/Parallel Interface. The disk is self-booting & I have SmartKey configured it for the IMP Modem program by Irv Hoff which has been installed for ADAM using a Hayes compatible modem. I have tested it with a Hayes modem as well as a 1200 Baud U.S. Robotics Modem without any problems. In addition, I have included a modified IMP version for the EVE VD-MB Unit. A comprehensive DOC file is included. IMP supports any 1200-2400 Baud Modem designated for auto-dialing with the "AT" protocol or the Rascal-Vadic protocol developed by Hayes. IMP adds KMD-type batch protocol in addition to the MODEM7 type familiar to most ADAM users. The KMD feature is automatically active but using the TBM command will toggle the batch mode to the MODEM7 type if needed. RCPM systems with KMD/BYE500 support the KMD-type batch mode.

The newer 300-2400 BPS intelligent modems have the ability to determine the maximum speed at which the system they are calling can use. They adjust themselves accordingly without operator intervention. They send a "result code" back to the local computer telling it what speed they now have. This information is used to automatically set the local computer to the same speed. A message confirming the baud rate is displayed on the console.

If for some reason you wish to use less than the maximum speed to which another system might respond, the modem can be instructed to connect at a lower speed. For example: COMPUSERVE has modems that will answer at either 1200 or 300 BPS. If you are calling simply to read/write messages, many callers prefer to use 300 Baud rather than 1200 BPS which is nearly twice the cost. IMP is the first & currently the only public domain program to take advantage of this automatic stepdown feature. Although the modem is first instructed to attempt connection at 2400 BPS, the operator can easily override the automatic "start trying at 2400 Baud" feature & have a specific speed dialed by using the "SET" command. The automatic feature is reinstated by either using the SET command for 2400 Baud or re-booting IMP. As with MADAM7, IMP features on-line help menus as well as programmable function keys & a telephone Library. The supporting files to add/change etc. these functions are included in this collection along with DOC files.

IMP is without a doubt the most versatile public domain modem program available for ADAM users.

REVIEWS

LIBRARIAN By L. Marschand

This is a great program for all you owners of SMARTfiler (of which there are alot) who have disks and/or tapes laying around and you don't know which programs are where !

A good program that lists and cross references program titles against the name of the disk/ tape is invaluable. The LIBRARIAN utilizes the SMARTfiler programs strengths of searching, indexing and cross referencing to manage your file names. If you're one of the few who haven't yet purchased SMARTfiler you'll want it for use with LIBRARIAN to organize your disks/tapes.

The concept is simple but very useful. The LIBRARIAN will create a SMARTfiler compatible disk/tape, then will read the directory name and individual file names off of all your disks/tapes to create a database. Each SF record created will contain a field for the directory name, a file name and a comment. You add the comment after the LIBRARIAN creates the database. Each file can have a comment of up to 128 characters, plenty to describe enough about the file so that you'll know what is in it later. As you know, if you have alot of programs, the names tend to not be descriptive enough for you to recall what they. This comment feature is a great idea.

As you add new program files you can add them to your database via the LIBRARIAN, up to a maximum of 765 files per disk/tape, which should be plenty for most of us.

The LIBRARIAN is written in SMARTBasic using fastrun programs for quick loading. It is self booting with a menu for choosing one of the following programs:

RENAME - Allows you to rename the directory of a disk/tape. This is a needed feature for a program like this, so you can give logical names to your disks/tapes.

SETUP - Establishes a SF database on a disk/tape.

FILER - Reads a source media and extracts the directory name and each file name and places them on your database.

Operation is simple and Walter's uses extensive error testing to eliminate problems.

Once created the database can be accessed from SF, sorted by directory name or file name and printed with the comments creating a super report for use in finding a file amongst your collection.

You can also use SF to do a quick search for a file for you and display what disk/tape it is on along with the comments.

RATING - A+

NIAD GOLD - GAMES I

This is the first in a series of enhanced PD volumes that we plan to release. Our Bob Tarnowski has corrected, spruced up and enhanced the best of our PD games into this volume. Scoreboards have also been added to many of the games. It is a self booting, menu driven program with fastrun programs for quick and easy operation - just insert the ddp/disk, reset and then pick what game you want to play.

Seventeen great color graphics games are included

-
HI-Q
HANGMAN
MAZE
OTHELLO
PATIENCE
GRAVITAR
GOMOKU
BREAKOUT
SCRAMBLE
MOSQUITOES
POISONIVY
MOONBASE
HORSERACE
KENO
SPEEDMAZE
CANNONS
TOWERS

Instructions are included within the games if needed.

This is a great collection of high quality games in an easy to use self loading media, and at a bargain price.

RATING - A

PRINTMASTER By Ron Collins/ L. M

PRINTMASTER is a CP/M based program for producing signs, letterheads, etc. using graphics on dot matrix printers. (NOTE: There are now versions of this fine program for many different computers) You need two disk drives and the 80 column board to use PM on the ADAM, but the results are well worth it. The best review is to see the finished product. The review I submitted on the new 256K memory expander was printed on a PM created letterhead, the four computers and the large lettering were done with PM.

You can order the Kaypro version (which you might ask them to supply in IBM CP/M86 format SS/DD 159K...that way you can convert it yourself using TRSIBM.COM or CONVERT form Sage) from Central Computer Products; 330 Central Ave; Fillmore, CA 93015. Price is \$49.95. Of course, you can have it converted to ADAM format by Elliam Assoc. It will slupport all types of printers.

RATING - A



256K ADAM!



A review of the 256K Orphanware Expander

Hello fellow NIAD members. I just received my new 256K memory expansion board from Orphanware, and thought you might be interested in 1 member's review of it. First, let me insist that on receiving YOUR board, before touching the unit you should print the READ.ME file on the inclosed disk for instructions. The file is an intro and direction for installation guide. It warns of the manyfold dangers of EDS (electro-static-discharge), DEATH to electronic circuits!

I was suprised to learn that Glen Gabaric's GJMG Operating System was still in the design stage and not ready for release. I have been reading a lot about it's many features on CompuServe. The System will allow many uses for the 256K board under EDS programing. In the meantime, Big John found an alternative use for the unit. Has anyone ever considered how useful a 256K Ram Drive would be for CP/M? If so, you won't beleive what those guys at Orphanware have done. Big John got together with a true genius of CP/M..Canadian Tony Morehan. Tony has almost completly re-written CP/M 2.2 as we know it! It now does so much that the revision should be 2.5 or something even higher.

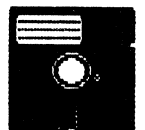
Now, about the board itself. Why do I need an extra 256K board? Will it still work on AdamCalc, etc. when I need it? These are some of the questions I asked myself before I made a purchase. The board works as a standard 64K board until accessed with the new CP/M system or the future release of GJMG. Under CP/M however, you will learn to depend on this super fast system. I can now copy all of my WordStar files and overlays to the M drive and have instant access to WordStar when needed. You can do a spelling check in seconds! The new system even gives you a 64 entry directory replacing the standard 32 of CP/M 2.2 so you can copy over a lot of small files when needed. How about you guys and gals who download from CompuServe, etc.? Just think of running IMP or MEX from the ram disk. No more waisted time when the buffers are dumped to disk. And if you only have data drives or only 1 disk drive, now you can have something much faster at an economical price thats even cheaper than a disk drive..and it holds more! This version of CP/M leaves you 246K of memory on M. One final note: Big John told me these boards are upgradable to 512K! Thats half a meg ADAM owners.

THIS REVIEW WAS WRITTEN USING WORDSTAR AND PRINTED WITH SAMPLES OF DIFFERING FONTS USING THE NOW PD BRADFORD PRINTING ENHANCEMENT NLQ PROGRAM FOR DOT MATRIX PRINTERS ON PRINTMASTER CREATED STATIONERY! NOW WHO SAID NOTHING WOULD WORK ON AN ADAM?
Who knows what we have to look forward to in the future?



NIAD

The best club for Adam!
Reviewed by Ron Collins



ORPHANWARE 256K MEMORY EXPANDER By L. Marschand

Yes, ADAM now has a 256K memory expander available - just like the big boys. This expander uses the latest technology to cram 256K of memory on a small memory board that fits inside the ADAM. Orphanware has done a fantastic engineering job on this board, using a complex multilayer design. My hat is off to John Lingrel on this one. Physically the board is about the same size as the 64K expander with alot more chips. Additionally, the 256K requires a separate addresser card if the user does not have the Orphanware PIA2 parallel interface. If they do have the PIA2 an address wire must be connected between the 256K card and the PIA2. Orphanware will do this mod for no charge or the user can do it if they have soldering expertise (Orphanware supplies instructions).

Instructions are provided for installing the 256K card, the only major precaution being to prevent any static discharge from damaging the sensitive memory chips.

As an fantastic extra a new ADAM CP/M 2.2 BIOS patch program is included which allows the automatic configuring of your CP/M 2.2 for single/double sided disk drives; use of serial port #1 and #2 by allowing the setting of the port address, baud rate, parity, stop bits and bits per word. Serial port #2 can be configured for the Eve or Orphanware 80 column video display. Some nice enhancements are included with this BIOS patch like a resident hex/decimal/ascii/binary convert program and the ability to configure your own SMARTKeys. Eight pages of documentation are included with the BIOS patch program. This program was written by Tony Morehen of Russell, Ontario Canada, an obvious CP/M expert and is a great addition for the CP/M'r.

One might ask "What would I do with a 256K memory expander on my ADAM ?" At this point you can only utilize the 256K from CP/M 2.2, although it does default to a "normal" 64K expander for use in Basic, SMARTWriter, etc. Under CP/M the 256K becomes an internal ram disk using drive M:. You can read/ write files and programs to it at blazing speed, even run programs from it. I loaded the DEADLINE Infocom game into the 256K and boy was it fast ! You can use PIP or COPY to move programs from a tape/disk to and from the 256K expander. Hence, you now have an extra, super fast drive that has all the functions of your tape/disk. The person with only 1 Digital data drive and 1 disk drive can gain tremendous flexibility by adding the 256K expander. To effectively use CP/M you need multiple drives and a fast ram disk adds even more flexibility. Serious CP/M owners should consider the 256K as

another drive, the advantages being speed and no mechanical parts to wear out. The combination of the 256K and the 80 column board make the ADAM, under CP/M a powerful system.

Walter's Software is looking at the 256K and considering developing software to access it from SMARTBasic. Until this is done (assuming Walters can figure it out) the 256K can only be used from CP/M.

I had no problems with the 256K and Orphanware provides a 2 year warranty. There is not much more to say, one would just have to decide whether it would provide you a benefit, based on your use of CP/M.

RATING - A

NIAD member prices are \$159.95, plus \$17 for an addresser if you don't have the PIA2 interface. If you already have the PIA2, you can send it to us to have the wire attached to the 256K.



ADAM COMPATIBLE DISK DRIVE

By J. Lingrel

I am submitting the following review on the In House Service Reps disc drive, serial # DD1BS0006, for publication in the NIAD newsletter. The drive is available for approximately \$300.00 from In House Service Reps or M.W. Ruth. I received my first IHSR double sided drive in May of this year. The product is impressive at first glance, and appears to have had a lot of effort put into the engineering. (I had previously received schematics and artwork from Joe Magner, the drive designer, and was already aware of the design concept.) This drive had to be returned to the manufacturer as it would not access the second side. I was later informed that the drive had malfunctioned due to a bad disc controller chip. The second 2 drives arrived in July and what follows is a report on my testing and experiences with these new disc drives. The drive is nearly identical in size to the existing ADAM drives built by Coleco. The front panel is beige and the case is black. Gone is the miserable door latch of the ADAM MPI drives. The QUME drives have a rotating latch similar to those found on the IBM machines. The latch works well and the lock is positive. There is a two position rocker switch on the rear that allows you to select the drive number (1 or 2). There is no power on or off switch, as the drive is powered by the ADAM supply. (Everyone with EVE PS-1's, don't even try it until you get a decent power supply). The other main physical features are the 2 DB-9 sockets on the rear of the drive. One is marked "TO CPU" and the other is marked "FROM PRINTER". The drive is connected first to the printer supply with the existing power supply cable. Next you connect the cable supplied with the drive between the drive and the side connector on the ADAM. You can now select the drive number. I set mine to "1" and the second drive (my own double sided conversion) was set to "2". The first tests attempted were to determine the drive compatibility with existig discs. I loaded programs that were of commercial beginnings and some that I had copied here myself and others that were written on other peoples drives. The drive seemed to handle all the discs that I had handy, which were probably written on as many as 40 other drives. This still was only in a single sided configuration. Next, I tried loading discs that were in the EVE double sided (255K) format. Again, no problem. Finally, as a good engineer should do, I got out the documentation and read it. The documentation is quite complete and well written. The package contained the following:

1. Warranty sheet for limited 90 day warranty.
2. Drive installation sheet.
3. Format-EOS instructions (2 sheets)

4. FORMAT11.COM Instructions (4 sheets)
5. Conversion Utility (3 sheets)
6. ABP12.COM Instructions (8 sheets)
7. Warranty Registration The contents of the instruction sheet were covered earlier, so I will start with the EOS format utility. As all manufacturers tend to do, they instruct you to make a back up of the supplied disc. They suggest only copying the first 8 blocks, but it would be better to use Quickcopy or another block copier to copy the entire 160 blocks of the disc. They have created a double format disc that will boot in EOS, or permit you to run CPM programs from other parts of the disc) I might warn you to not try to store anything on this disk without understanding the format of the disc. If you must try, do so on a copy of the original. The format utility is rather straight forward and easy to use. It is completely menu driven and requires very little reading of the documentation to operate. You are given the choice of drive to format and the type format you want (ie single or double sided). The program ran without a hitch and I later used the ADAM EOS formatter to verify a disc formatted with the new utility as a single sided disc. I was unable to load up an EOS formatted disc as Quickcopy would not handle the 3 block directory, and I did not have time to load and resave all those basic programs that would prove the capacity of the drive. The Basic 1.0 catalog showed 316 free blocks. Now we get to the area where I feel more qualified to talk about, that is in the area of CP/M. The first and most important thing that the new BIOS Patch does is open the block addresses beyond FFh by going to 2K blocks. This gives us 320K of disk space to play with. Actually, you will have about 308K after you take out the directory and system tracks that you don't have access to. The first piece of software that is used is the FORMT11.COM. Here again, it is best to use PIP or the hated CP/M COPY program to take a copy of the format program from the distribution to a working disk. Once done, read the documentation carefully. This program has more nice "stuff" than Santa at Christmas. As an example, the command line could look like this: AO>FORMAT11 b:/I/2/n This line would format the disk in drive B: double sided, write the system tracks with out a verify. If we leave the /n out, the program would verify the disk. When using FORMAT11 to write the system tracks, you will have to go through an install process that is well documented in the instructions. The last piece of software that is included other than the conversion programs (not reviewed here) is ABP12. This program is a major BIOS patch to the system and the IO BYTE. It allows you to configure your CP/M for the equipment you have connected to your ADAM. It will handle the following:

1. Orphanware or other 80 column display units
2. Most parallel interface for printers
3. Correct the FFh addressing error in the EVE double sided conversions.
4. Configure a second serial port at any of the four addresses defined by Orphanware. This is nice for using an external modem or a serial EPROM PROGRAMMER
5. Provide SMARTKEYS on the last line of an 80 column display.
6. Configure the Orphanware 128/256/512K memory expanders
7. Cause all the external devices to be operable at boot time. No need to run the patch every time you enter CP/M. The mechanics of using it are too detailed to discuss here, but it is possible to configure your CP/M system by only reference to the built in menus and throwing the documentation away. It is that easy. Once run and set the way you want it, you will not need to use the program again. Just sysgen your double or single sided disks using the configured system as the source. You might want to just patch the memory without writing the changes to the disk. To do this, you only instruct the program to patch the "z" drive. The last thing to mention in this review is of course the drive itself. As stated earlier, the drive appears to be well built and is attractive. The problems encountered here make the purchase of the drive worth holding off until it has been proven further. I encountered numerous read problems when trying to move fragmented files from one disk to another. To set up this test, I first created a disk with 64 "short" files that filled the drives capacity. I then deleted them in a random fashion so as to create holes of 3 or 4K all over the surface of the disks. I then copied Word Star (WS.COM, WSMSSGS.OVR and WSOVLY1.OVR) onto the disk where I was sure that it would be a worst case read problem. I received "disk error, abort/retry" messages about 50 percent of the time. I would have to open the door, remove and re-install the disk and type r for a read retry. Generally the drive would read OK on the second try, but on 15 percent of the retrys, it would fail again. I tried to read the same disk from both an EVE double sided conversion (TANDON Mechanics) and from a drive that I converted to double sided myself (QUME TRACK 142 mechanics). The problems were not noted on either drive. Trying the read on the second IHSR (serial # 5) drive, resulted in identical read problems. I contacted Don Perlman's answering machine on Sunday explaining the problem. A few hours later, I was contacted by Joe Magner, the designer of the drive with several hardware changes to try. I put the changes in and all appears to be well with the first drive. I can read and write with no problem at all. And it is indeed nice to have a

computer where memory and storage are no longer a problem. I have yet to make the mod to the second drive. I warn those who have purchased the drive "NOT to open the drive or attempt any modification or repair as this will surely void your warranty". I did the mods with the blessings of the manufacturer and am qualified to do it. As an additional note, the cable that connects the drive to the computer is only 22 gauge wire and in the opinion of this writer, inadequate for the current drain on a large system. This may not prove to be much of a problem to most, but my own personal system has 2 tapes, 2 double sided drives, 512K of expansion memory and 3 serial ports. The 80 column board and the EPROM programmer have their own power supplies and are not a factor. The supplied cables should have a latching type connector to stop the cables from becoming unseated. One more design improvement that I would like to see is the incorporation of a power on lite. I have become used to a power lite and an activity lite. This is a matter of preference, and not necessity. Unless you have extremely large memory requirements, this is not recommended until you can't make it with 2 standard drives. An example of a user who needs this drive is the heavy word processor user who uses and maintains large spelling checker dictionaries. I find that the price is too high.

I, as most know, have a pretty good feel for small time manufacturing. I know the costs of small parts buys and the problems with small production runs, but think that the drive can be marketed for \$250.00 to \$270.00. This is more than you would pay for a drive for an Apple or a Clone, but we must consider that we are but a small market and do not enjoy the luxury of collectively buying millions of units. All in all, I suggest that we wait and see and see if Don can get the price to where the average owner can afford it. This would be an excellent buy at \$265.00, a price that is below what I paid for the first Coleco drive that I purchased. If money is no factor, buy it while it is available. If you are counting your pennies, then you may want to explore some alternatives.

(EDITORS NOTE: I concur with Johns suggestions. ADAM CP/M users must weigh their needs for single vs double sided drives vs the new 256K memory expander reviewed in this issue. If I did not yet have a disk drive, I would opt for the flexibility of 2 single sided drives or 1 single sided and a memory expander rather than 1 double sided drive for the money. Multiple drives offer much greater flexibility)

PRODUCT LIST - MEMBERS ONLY
 and SUBJECT TO CHANGE without notice
 PRICES EFFECTIVE: 7/15/87

PRODUCT LIST - MEMBERS ONLY
 and SUBJECT TO CHANGE without notice
 PRICES EFFECTIVE: 7/15/87

OTHER SOFTWARE
 Specify DDP or DISK

VOCOTUNES	(DDP)	\$ 20.95	SPECIAL
FANTASY GAMER	(DDP)	\$ 22.95	SPECIAL
BASIC BONANZA	(DDP)	\$ 18.95	SPECIAL
SOFT PACK I	(DDP)	\$ 18.95	SPECIAL
RECY SOFTWARE I	(DDP)	\$ 18.95	SPECIAL
QUICKFAX QUEST	(DDP)	\$ 19.95	SPECIAL
PERSONAL ACCOUNTANT	(DDP)	\$ 19.95	SPECIAL
STRATEGY STRAITNER I	(DDP)	\$ 18.95	SPECIAL
BUSINESS PACK	(DDP)	\$ 22.95	SPECIAL
PAINTMASTER	(DDP)	\$ 26.95	SPECIAL
TURBOLOAD	(DDP)	\$ 15.95	SPECIAL
POWERPRINT	(DDP)	\$ 15.95	SPECIAL
SIGNSHOP	(DDP)	\$ 22.95	SPECIAL
QUICKCOPY	(DDP)	\$ 15.95	SPECIAL
MULTIWRITE	(DDP)	\$ 38.95	SPECIAL
ELECTRIC GAME PACK	(DISK)	\$ 17.95	NEW
Specify I or II	(DDP)	\$ 19.95	NEW
NUMBER BUMPER	(DISK)	\$ 15.95	SPECIAL
ENTERTAINMENT PACK	(DDP)	\$ 15.95	SPECIAL
JEDDARDY QUESTION PACK	(DDP)	\$ 18.95	NEW
FAMILY FEUD QUESTION PACK	(DISK)	\$ 18.95	NEW
TAVIA PACK I	(DDP)	\$ 12.95	NEW
KIDS TRIVIA	(DISK)	\$ 12.95	NEW
PRO FOOTBALL	(DDP)	\$ 14.95	NEW
BACKUP 3.0 (COPY ONLY)	(DDP)	\$ 18.95	NEW
BACKUP +3.0 (COPY/UTILITY)	(DISK)	\$ 29.95	NEW
SMARTGAMES PACK	(DISK)	\$ 9.95	NEW
ROYAL AMBS. EDUC PCK (DISK)	(DDP)	\$ 11.95	SPECIAL
(Christian game)	(DDP)	\$ 9.95	SPECIAL
CPM NEVADA BASIC	(DDP)	\$ 11.95	NEW
5-1-1 CUSTOM SOFTWARE FOR	(DDP)	\$ 39.95	NEW
GRAPHIXPRINTER	(Specify printer)	\$ 7.00	NEW
GRAPHIXPRINTER	(Specify printer)	\$ 19.95	NEW
For dot matrix printers			
GRAPHIXPIX I		\$ 14.95	NEW
ADDRESS BOOK/CALENDAR		\$ 9.95	NEW
SPRITE MASTER		\$ 18.95	NEW
JEDDARDY QUESTION MAKER			
FAMILY FEUD QUEST MAKER			
Each of Quest Makers (DISK)	(DDP)	\$ 24.95	NEW
BASIC RAM DISK	(DISK)	\$ 26.95	NEW
Use 64k in Basic	(DDP)	\$ 24.95	NEW
(Specify Basic V1.0 or V2.0)		\$ 26.95	
PAINTINGS Vol 1, 2, 3 (DISK)	(DDP)	\$ 7.95	NEW
Specify Vol 1 or 2 (DISK)	(DDP)	\$ 9.95	NEW
JAMES'S RECIPES 29 DDP	(DDP)	\$ 9.95	NEW
(Specify Disk or Volume)		\$ 9.00	
V1 Deserts, V2 Salad, V3 OUTDOOR			
MICROWORKS	(Specify V4 Holiday)	\$ 29.95	NEW
Filter, Calc, Graph, Text			
EASY COME, EASY GO		\$ 19.95	NEW
WIZARD'S PINBALL ARCADE		\$ 19.95	NEW
ADAMTALK		\$ 19.95	NEW
Interpreter for EVE Speech			
SOLAR SYSTEM QUIZ	(DDP)	\$ 9.95	NEW
AMERICA AT WAR QUIZ (DDP)	(DDP)	\$ 9.95	NEW
WORLD GEO (DDP)	(DDP)	\$ 9.95	NEW
HOME FILE MANAGER (DDP)	(DDP)	\$ 9.95	NEW
HOME FILE CHECKBOOK (DDP)	(DDP)	\$ 9.95	NEW
HOME BUDGET (DDP)	(DDP)	\$ 12.95	NEW
BASIC SYSTEM MGR./FASTMIN	(DDP)	\$ 18.95	NEW
STATS and CAPTOLS (DDP)	(DDP)	\$ 9.95	NEW
WORLD CAPTOLS (DDP)	(DDP)	\$ 9.95	NEW
GREAT INVENTIONS	(DDP)	\$ 9.95	NEW

OTHER SOFTWARE
 CONTINUED

BASIC/AIDE		\$ 9.95	NEW
MEDIA-AID PLUS	(Specify Basic V1.0 or V2.0)	\$ 19.95	NEW
SMART TYPE 2.0	(DDP)	\$ 34.95	NEW
PROOF READER		\$ 19.95	NEW
LIBRARIAN		\$ 19.95	NEW
MIAD BUILD GAMES I		\$ 9.95	NEW
COLECO SOFTWARE	(DDP unless noted)		
SMART LOGO	7600	\$ 28.95	SPECIAL
EXPERTISE	7602	\$ 18.95	SPECIAL
RECIPE FILTER	7613	\$ 18.95	SPECIAL
SMART LIBS/FORMS	7805	\$ 18.95	SPECIAL
FLASHCARD MAKER	7662	\$ 15.95	SPECIAL
HISTORY 2901, VOCAB 2902			
CP/M 2.2		\$ 11.95	EACH
ADAMCALC	7832	\$ 29.95	NEW
R. SCARRY WORDBOOK	7831	\$ 24.95	NEW
WACKY WORD GAME	7658	\$ 20.95	NEW
DONKEY KONG JR.	7834	\$ 15.95	NEW
SUPER ZAXON	2632	\$ 19.95	NEW
2010: TEXT ADVENTURE	7849	\$ 12.95	NEW
FAMILY FEUD	7710	\$ 20.95	NEW
BEST OF BRODERBUND		\$ 20.95	NEW

CARTRIDGE SOFTWARE
 Collected/Adam

SMURF PAINT/PLAY	2697	\$ 18.95	NEW
SUESS FAXUP PUZZLE	2699	\$ 18.95	NEW
1-TURBLE LOGO/GRAPHICS	2698	\$ 18.95	NEW
DAMUSTER		\$ 29.95	NEW
Target Bomber/Dogfight			
TARZAN		\$ 29.95	NEW
BEARLEADER		\$ 22.95	NEW
HERO		\$ 22.95	NEW
WARGAMES		\$ 22.95	NEW
CABBAGE PATCH PICTURE SHOW		\$ 18.95	NEW
HEIST		\$ 18.95	NEW
LEARNING WITH LEEPER		\$ 9.95	NEW

CP/M 2.2 COMM SOFTWARE
 INFOCOM PRODUCTS

Requires: ADAM CP/M software
 Disk only

PLANETFALL	\$ 34.95	SPECIAL
ZORK I	\$ 29.95	SPECIAL
ZORK II	\$ 39.95	SPECIAL
ZORK III	\$ 39.95	SPECIAL
STARCROSS	\$ 39.95	SPECIAL
DEADLINE	\$ 39.95	SPECIAL
HITCHHIKERS GUIDE	\$ 29.95	SPECIAL

MIAD USER GROUP PRODUCTS
 PUBLIC DOMAIN

PLEASE Specify VOLUME # and DISK/DDP
 COST per VOLUME:
 \$ 5.00 DISK - \$ 7.00 DDP

SMARTBASIC # 1 - 21 (21 Different)			
# BNDV - 21 (Vol numbers)			
SMARTLOGO # 1 - 2 (2 Volumes)			
# LNDV - 2 (2 Volumes)			
ADAMCALC UNV # 1 - 2 (2 Volumes)			
# CNDV - 32 (32 Volumes)			
BASIC UTILITIES # 1 - 2 (2 Volumes)			
# UNDV1 - 2 (Vol 1 includes backup utility)			
CPM2.2 # 1 - 32 (32 Volumes)			
# CNDV - 32 (32 Volumes)			
JEDDARDY			
PINBALL/HARDHAT MACK			
New BUG FREE vers with 2 DEMO games			
Add \$ 2.00 for 40 page manual			
(2 Volumes)			
PINBALL GAMES			
Requires Pinball/Hardhat Mack			
SUPER SUBROC			
TROLLS TALE			
ADAM DIAGNOSTIC			
Requires 64k expander			
ADAMLINK II TELECOMMUNICATIONS			
SMARTBASIC REPLACEMENT DDP			
MIAD BUILD ISSUE V1.01 Doc-Smartlink file			
ENDS DISK MANAGER (Rep) Access to DISK or DDP			
RLE PICTURE FILE # 1-3 (3 Volumes available)			
CUSTOM PRINTER SOFTWARE			
SIENS Volume 1		\$ 7.00	NEW
VIDEOTUNE SONGS Volume 1			

SUPPLIES

RIBBONS			
ADAM REPLACEMENT		\$ 4.95	EACH
PANASONIC 1080/10901		\$ 9.95	EACH
OKIMATE 20 RIBBONS	Black	\$ 4.95	EACH
	Color	\$ 5.95	EACH
COVERS			
3 PIECE FOR COMPLETE ADAM		\$ 18.95	NEW
DISK DRIVE ONLY		\$ 8.95	NEW
3 PIECE FOR EXPANSION ADAM		\$ 23.95	NEW
PRINTER WHEELS			
SPECIFY FONT STYLE for the ADAM printer			
Gothic 12, Script 12, Elite 12, Emphasis,			
Courier 72, Pica			
TAPE DRIVE HEAD CLEANING KIT		\$.50	NEW
DISK DRIVE HEAD CLEANING KIT		\$ 19.95	NEW
Contains 2 cleaning diskettes/Fluid			
DISK/DIGITAL DATA PACKS			
COLECO/LORAN DDP		\$ 4.75	EACH
MIAD/LORAN DDP	10 for	\$ 39.95	EACH
MIAD (NON LORAN) DDP	10 for	\$ 4.25	EACH
BOX OF 10 TDK DS/DO Diskettes	10 for	\$ 34.95	NEW
5 Boxes 50 Diskettes		\$ 19.00	NEW
		\$ 9.95	SPECIAL
		\$ 34.95	SPECIAL
PINFEED PAPER/LABELS			
9 1/2 x 11 OKI 20 THERMAL PAPER		\$ 9.95	/500
3 1/2 x 15/16 PIN FEED ADDR LABEL		\$ 18.95	/1000
		\$ 9.95	/250
		\$ 8.95	/1000

PRINTERS

- PANASONIC 10801 \$199.95
 • TYPE: 9x9 DOT MATRIX
 • SPEED: DRAFT MODE - 120 CPS
 NEAR LTR QUALITY - 24 CPS
 COMPATIBLE W/ EPSON RX80,
 IBM, FULL GRAPHICS
 • PRINT CHR: ADJ TRACTOR FEED
 • MEDIA HNDL: CENTRONICS PARALLEL
 • INTERFACE: 2 YEAR LIMITED WARRANTY
 • FEATURES:
- PANASONIC 10901 \$249.95
 • TYPE: 9x9 DOT MATRIX
 • SPEED: DRAFT MODE - 160 CPS
 NEAR LTR QUALITY - 32 CPS
 COMPATIBLE W/ EPSON RX80,
 IBM, FULL GRAPHICS
 • PRINT CHR: ADJ TRACTOR FEED
 • MEDIA HNDL: CENTRONICS PARALLEL
 • INTERFACE: 2 YEAR LIMITED WARRANTY
 • FEATURES:

OKIMATE 20 COLOR PRINTER \$199.95

- TYPE: 24 PIN THERMAL
 • SPEED: DRAFT MODE - 80 CPS
 NEAR LTR QUALITY - 40CPS
 LIMITED ADJ TRACTOR FEED
 • MEDIA HNDL: NONE STD - PARALLEL PLUG N
 • INTERFACE: PRINT MODULE SUPPLIED THAT
 ATTACHES TO EVE OR ORPHANWARE
 PARALLEL INTERFACE
 • FEATURES: BLACK & WHITE OR COLOR PRINTING
 BK 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
 • THE COLECO ADAM USER'S HANDBOOK \$ 8.95
 • FIRST BOOK OF ADAM, THE COMPUTER \$ 8.95
 • TAB BOOKS \$ 8.95
 • 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

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 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
 • CHOPFLIFTER
 • ACTION FIGHTER
 • BLACK BELT
 • FANTASY ZONE
 • WORLD GP
 • PRO WRESTLING
 • MARKSMAN/ TRAP SHOOTING
 • GREAT HOCKEY (SPORTS PAD REQ'D)
 • RAMBO
 • BASEBALL (SPORTS PAD NOT REQ'D)
 • QUARTET
 • SHOOTING GALLERY (FOR USE WITH GUN)
 • SPACE HARRIER (THO MEGA) >>>>>> \$ 34.95
 • ROCKY BOXING (THO MEGA) >>>>>> \$ 34.95

- THE COLECO ADAM ENTERTAINER BY \$ 19.95
 BRIAN SAWYER
 • HACKER'S GUIDE TO ADAM VOL I \$ 12.95
 • HACKER'S GUIDE TO ADAM VOL II \$ 11.95
 • PROGRAMS FOR BOTH VOL I & II OF \$ 8.95
 HACKER'S GUIDE ON 1 TAPE OR DISK \$ 3.00 DISK
 \$ 5.00 DDP
 • 2ND EDITION ADAM RESOURCE DIRECTORY \$ 13.95

HARDWARE & ACCESSORIES

NOTE: SEE SPECIALS ON NEXT PAGE AS WELL

- ADAM_DISK_DRIVE_7817 \$225.00
 ***** TWO FOR \$399.95
 5-1/4" high-capacity disk drive for the Coleco Adam.
 Provides expanded capability for faster storage and
 retrieval and increased reliability. Requires standard
 diskettes.
ADAM_LINK_MODEM_7818 \$ 49.95
 ADAM phone modem which provides capability, with included
 software, to interface with other ADAM computers or large
 bulletin board systems such as CompuServe.
 NOTE: Order ADAMLink II software from Public Domain list
 which will allow upload/ download of programs.
COMPUERVE_STARTER_KIT \$ 25.95
 Includes account number, password and five free hours of
 connect time to the popular compuserve information system.
DIGITAL_DATA_DRIVE_#_2409 \$ 29.95
 NEW (but not boxed) digital data drive which can be used
 as a replacement or as a second drive.
64K_MEMORY_EXPANDER_ME-64 \$ 49.95
 Provides additional 64K of memory for SMARTWriter, CP/M
 programs. Provides print buffer spooling for ADAMCalc.
256K_MEMORY_EXPANDER \$159.95
 Provides 256K ram disk under CP/M 2.2
 Requires addresser car (add'l \$17) if
 you don't have PIA2 interface. Must
 send in PIA2 for modification if you
 have it.
EVE_RS232/PARALLEL_INTERFACE_SP-1 \$139.95
 Allows the connection of the ADAM to any popular printer and
 other devices requiring either serial or parallel interface
 connections. Includes software for directing print to
 additional printers directly from SMARTWriter, SMARTer,
 BASIC, CP/M programs.
EVE_SP-1 PARALLEL INTERFACE ONLY \$ 79.95
 ORPHANWARE PIA2 PARALLEL INTERFACE \$39.95
 (Parallel cable required - see next item)
PARALLEL_OR_SERIAL_CABLE_SP-1C \$ 15.95
 Cable required to attach SP-1 or PIA2 interface
 to other printers.
SHIELDED_PARALLEL_CABLE \$ 24.95
 Parallel cable containing extra shielding to prevent
 interference with TV sets.
SPEECH_SYNTHESIZER/CLK_CAL_95-CC \$109.95
 Outputs voice speech and words via Basic and CP/M programs.
 Includes software to construct words. Real time clock
 calendar provides continuous date and time accessible from
 Basic and CP/M.
ORPHANWARE_80_COL_VIDED_UNIT
 • Standalone unit \$199.95
 • Unit to attach to Eve Serial Port \$179.95
 Provides 80 column video output for CP/M
 software. Emulates various terminals.
EVE_POWER_SUPPLY_FOR_ADAM_PS-1A \$ 79.95
EVE_MULTI-UNIT_ADAPTER_MA-3 \$ 44.95

Special adapter cable required to attach both the SP-1 and
 95-CC to the ADAM. NOTE: Not required for 80-column video
 board.

- CARD_EDGE_ADAPTER_CEA-1 \$ 24.95
 For attaching ADAM Autodialer to M4-3 cable.
ADAM_PRINTER_TRACTOR_FEED \$ 72.95
 Hooks onto the ADAM printer as originally designed to
 provide for feeding of pin-fed continuous form paper.
 Provides consistent alignment and advancing of paper. All
 metal design - guaranteed.
PRINTER_STAND/ON/OFF_SWITCH \$ 15.95
 Provides raised plastic legs for the ADAM printer and
 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 ADAM console to a video monitor.
 Supports both picture and sound signals.
EXPANSION_MOD_MONITOR_KIT \$ 29.95
 Kit to modify colcovision unit to allow it to be connected
 to a monitor via 7830 cable above. Requires soldering
 skill - see review in 2/85 issue.

* SPECIFY DDP OR DISK FOR SOFTWARE PROVIDED

SPECIALS/ NEW PRODUCTS

- 64K MEMORY EXPANDER & BASIC RAMDISK \$ 59.95
 Provides full ability to use 64k expander from SMART-
 BASIC as a ram disk. Specify whether you want the
 BASIC Ramdisk program for Basic V1.0 or 2.0
POWER SUPPLY FOR COLECO DISK DRIVE \$ 19.95
POWER SUPPLY FOR COLECOVISION \$ 9.95
MAGNOVOX CB8505 COLOR MONITOR \$249.95
 Use with the ADAM for better color. Also
 compatible with all other computers as well.
 Gives 40 column color in RGB mode.
MAGNAVOX BCMB515 COLOR MONITOR \$369.95
 Same as CB8505 above, but will display 80
 columns on RGB computers (not the ADAM).
3 OUTLET SURGE PROTECTOR \$ 14.95
 Protect your hardware from power surges.
COMBO MONITOR TILT/SHWELV STAND & \$ 69.95
5 OUTLET SURGE PROTECTOR W/ MASTER SWITCH
 Integrated seal unit organizes your computer
 wires and gives surge protection. Turn on
 all components with one switch or individually.
NIAD_PRODUCT_REVIEW_BOOK \$ 19.95
 Contains detail reviews of 100 ADAM products,
 organized alphabetically for quick reference.



PO Box 1317, Lisle, Il. 60532
 Phone: (312) 961-3529

PLEASE DO NOT WRITE IN THIS SPACE

PR 1 2 3

D/R

MULTI-FUNCTION USER GROUP
 MONTHLY NEWSLETTER-PUBLIC DOMAIN LIBRARY
 DISCOUNT BUYING SERVICE FOR HDW & SFTW

BUYING SERVICE ORDER FORM

YOUR MEMBER # ----> _____

NAME	SHIPPING ADDRESS (IF DIFFERENT)
ADDRESS	NAME
	ADDRESS
PHONE () - -	

QTY.	ITEM NAME / NUMBER	DDP/DISK	PRICE EA.	TOTAL PRICE

SUB TOTAL _____

ILLINOIS RESIDENTS ADD 6.75% SALES TAX TO

HARDWARE ACCESSORIES AND CARTRIDGE SOFTWARE ONLY

----> \$ _____

ALL MEMBERS PLEASE DO NOT FORGET SHIPPING/INSURANCE

	<input type="checkbox"/> US UPS	<input type="checkbox"/> US MAIL	<input type="checkbox"/> CANADA	
\$ 1.00- 50.00 -	\$ 2.50	\$ 4.00	\$ 6.00	
\$ 50.01-100.00 -	\$ 4.50	\$ 7.00	\$10.00	----> \$ _____
\$100.01-200.00 -	\$ 7.50	\$10.00	\$16.00	
\$200.01-and up -	\$10.50	\$15.00	\$22.00	

INITIAL ANNUAL MEMBERSHIP FEE REQ'D FOR BUYING SERVICE

----> \$ _____

Payment Method:

Check or money order enclosed

Charge my:



\$25 minimum charge

MEMBERSHIP RENEWAL

----> \$ _____

BAL. OR CREDIT DUE

----> \$ _____

TOTAL INCLUDED

----> \$ _____

Write Credit Card Account Number in boxes below:

--	--	--	--	--	--	--	--	--	--

Expiration Date

US FUNDS ONLY

Signature _____