



**MULTI-FUNCTION USER GROUP**  
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**Autumn is a beautiful time of year.**

Continuing our study of Romans chapter 5.

<sup>12</sup>Therefore as sin came into the world through one man and death through sin, and so death spread to all men because all men sinned - <sup>13</sup>sin indeed was in the world before the law was given, but sin is not counted where there is no law.

<sup>14</sup>Yet death reigned from Adam to Moses, even over those whose sins were not like the transgressions of Adam, who was a type of the one who was to come.

<sup>15</sup>But the free gift is not like the trespass. For if many died through one man's trespass, much more have the grace of God and the free gift in the grace of that one man Jesus Christ abounded for many. <sup>16</sup>And the free gift is not like the effect of that one man's sin. For the judgment following one trespass brought condemnation, but the free gift following many trespasses brings justification. <sup>17</sup>If, because of one man's trespass, death reigned through that one man, much more will those who receive the abundance of grace and the free gift of righteousness reign in life through the one man Jesus Christ.

<sup>18</sup>Then as one man's trespass led to condemnation for all men, so one man's act of righteousness leads to acquittal and life for all men. <sup>19</sup>For as by one man's disobedience many were made sinners, so by one man's obedience many will be made righteous. <sup>20</sup>Law came in, to increase the trespass; but where sin increased, grace abounded all the more, <sup>21</sup>so that, as sin reigned in death, grace also might reign through righteousness to eternal life through Jesus Christ our Lord.

In these verses, Paul is contrasting the effect of Adam's disobedience and Jesus' obedience. Adam and Eve's disobedience led to their spiritual death and banishment from their perfect life in the Garden of Eden. They had sinned by not obeying God's instructions and the result of this sin was the introduction of a sinful nature in mankind, instead of the Godlike nature that was originally given to man. This sinful nature eventually resulted in physical death for man. You

see, God had given Adam and Eve perfect physical bodies that would have never died had they not sinned. Remember from Genesis, that God gave Adam and Eve the right to eat from the Tree of Life, but instead they chose to eat from the one tree God told them not to. In fact, God sent angels to guard the entrance to the Garden of Eden so Adam and Eve could not return and eat of the Tree of Life. There is much debate about God's reaction to Adam and Eve's sin. Some say that if God is so loving, why didn't he forgive their sin right on the spot. The counter is that Adam and Eve did not seek forgiveness, but instead tried to cover up their sin - Adam blamed Eve and Eve blamed the serpent. Neither would admit their sin and ask for God's forgiveness. This is pride at work, which has led to many a man's downfall. Paul goes on to explain that once God gave the Ten Commandments to man through Moses, man's individual sins were held against him. God established the Ten Commandments to give a basis for judging man's action i.e. if we don't know the rules, how can we be held accountable for our actions. Once this occurred, man had no excuse for not knowing when he sinned. The next step in God's plan was to send his Son to give us the example of how man could be in complete obedience to God (in contrast to Adam's example of disobedience). Furthermore, through Jesus' act of obedience, even to the point of death on the cross for crimes he did not commit, our sins were forgiven by God's grace. What a wonderful gift and expression of how much God loves us. There are many places in the Bible in which God reveals his love for his sinful children by stating that all of heaven rejoices when just one repents and asks his forgiveness. Hard to believe, but it is true. God is anxiously waiting for all his "lost sheep" to come home, and just like the parable of the prodigal son (Luke 15:11), he will throw a party when they do. God bless you all.

## NIAD NEWS/ UPDATES

I don't know about your area, but around here the leaves are turning and falling fast. For the extremely hot summer we had, Fall has come on quick and cool. We were down in the 30's last night !

Well, Christmas time is approaching quickly and we need to plan ahead to be ready for it. Make sure you don't wait until the last minute to place your orders ! There are a number of new programs coming out for the ADAM and alot is going on in general.

This month we have some interesting articles that you will hopefully find educational, another "back to school" program, reviews of FILEWRITER, BUSINESS PACK/ SOFTPACK V 2, RAM DISK 256K, NIAD GOLD HOME & BUSINESS, an ADAM Z80 instructional book and a hardware device called the "gender changer". Also we have a patch for the Okimate 20 printer to print SIGNSHOP pictures/ files and thanks to J. Lingrel a patch that allows ADAMCALC spreadsheets to be printed on a dot matrix printer.

**EXCITING NEWS** is that a number of Activision titles are being released in ADAM ddp/disk formats! Yes, included are some never released titles including BOULDERDASH, ALCAZAR, and ROCK 'N BOLT. We will have complete reviews on these new games in our next issue. I have seen BOULDERDASH already and it rivals SPYHUNTER as the best game done for the ADAM. The color graphics are dazzling. Wayne and I can not figure how they achieved the multitude of simultaneous color activities on the same screen ! This game was named "arcade game of the year" when it was first released for other systems. Additionally, a number of other Activision cartridge titles are being re-released in ADAM tape/disk format - PITFALL and PITFALL II, RIVER RAID, BEAMRIDER, KEYSTONE KAPERS, HERO, DECATHALON, ZENJI and SKIING. This is great news for all of us

### ADAM IS ALIVE AND WELL

#### . ANNOUNCEMENTS

- Several of you called or wrote regarding problems with the program "Fractal Landscape" published in our July/ August 87 issue. The program is error free as printed, but due to its size many of you have made entry errors. The most common errors are in the DATA statements - all these numbers must be double checked. Additionally, the lower case letter "l" looks alike like the number one (1)- see what I mean. Lines 180, 250 and 330 have both "l's" and "1's" which many have interpreted as all "1's". Here is

line 180 using upper case "L's" to indicate which is which. This same expression in lines 250 and 330 should be "L's" not ones "1's":

```
180 d= (d1+d2)/2+RND(1)*L/2-L/4: ax=xe: ay=ye:  
GOSUB 420
```

- Please note that now that our store is open you may call in to place orders or for general information (technical call ins are still taken on Tuesday evenings between 7-10 PM Chicago time).

The store is closed on Sundays and Mondays, open Tuesday - Wednesday 11AM - 6PM, Thursday - Friday 11AM - 7PM and Saturday 9AM - 5PM.

- We continue to expand our Public Domain library. Beginning with SMARTBasic volume #BNDV21, all our Basic volumes are self-booting and contain a menu program for running each program. This approach will make the Basic PD much easier to use for novice ADAMites.

- There have been some additions and changes to our Public Domain librarians. We offer a PD exchange program. The procedure is that you submit a PD program to the specified librarian on a tape or disk along with a self addressed and STAMPED mailer. In return for the program you submit (assuming it is not a duplicate of one we already have and that it works) the librarian will copy all the programs from a volume of your choice onto your tape or disk. Rules are that you must exchange like programs e.g. send a Basic program to get a Basic PD volume, CP/M for CP/M, etc.. Additionally, the program you submit should have a documentation file on the tape or disk providing instructions if the program warrants it. Our PD volumes contain over 2000 of the best non-commercial programs available for the ADAM. If you don't have a program to exchange, you may purchase a specific PD volume for \$5.00 on disk/ \$7.00 on disk.

Here is the current list of PD librarians by type of program:

SMARTBASIC	>>>>>>>>>>>>>	L. Marschand
UTILITIES		6460 College Rd
CP/M 2.2		Lisle, IL 60532
PINBALL GAMES		
ADAMCALC	>>>>>>>>>>>>>	Greg Van Valkenburg
		701 Pond View Rd
		Audubon, PA 19403
SMARTLOGO	>>>>>>>>>>>>>	Andrew Heckert
		60 W. Wyneva St
		Phila, PA 19144
SIGNS	>>>>>>>>>>>>>	Mike Decker
(Use w/ SIGNSHOP pgm)		United Methodist Church
		P.O. Box 368
		Fredericktown, MD 63645
RLE Graphics Pics	>>>>>>>	Lee Smith
		Box 159
		Terre Hill, PA 17581
VIDEOTUNES Songs	>>>>>>>	John Silva
(Use w/ VIDEOTUNES pgm)		69 Sycamore St

ALL LIBRARIES FOR  
CANADIAN MEMBERS

New Bedford, MA 02740  
Sharon McFarlane  
P.O. Box 186, Etobicoke  
Post Office, Etobicoke  
Ontario, CAN M9C 4V3

- We are planning to offer ADAM educational courses here at the store. There will be three courses offered: Introduction to the ADAM; ADAM SMARTWriter and ADAM SMARTBasic. Each course will be two hours in length, include lecture, demonstration, questions/ answers and a book you can keep for a cost of \$25. Please send in your course payment, indicate which class(es) you want to attend and your first/ second choice for what evening of the week you can attend so we can begin scheduling the dates.

- Chicago local chapter meetings are held the second Thursday of each month, here at the new store. The next meeting will be November 12th at 7:30. The September meeting was well attended and we all had alot of fun and learned something as well. If you need directions please call. If you want a reminder sent the week of the meeting please write and ask to be put on our special local meeting mailing list.

- I'd like to publish a complete list of all ADAM User Groups in the US, Canada and other countries. I want to include ALL groups, large and small because these groups are so vital to us ADAM owners for support and service. A newsletter can help a user to a degree, but not as well as someone explaining a problem face to face and showing the solution. So, please send in the names and addresses of ALL User Groups.

- BBS's are also vital as a support for the ADAM. We published a list in our 9/86 issue that is out of date. We have published new ADAM BBS' as we have heard of them, but would like to publish a complete list. Please send in the name, phone number, hours and any other pertinent info such as parameters, etc. for all the ADAM BBS' you know of.

#### . HARDWARE

- Disk drives are still going strong and we have plenty available. Note that all of our drives have undergone extensive pre-testing by us and are guaranteed for 90 days. New drives are \$225 each or two for \$399.95.

- ADAMLink modems are also readily available and are on sale for \$49.95. The ADAMLink modem is an inexpensive way to communicate to other computers and expand the usefulness of your ADAM - see this months and previous TELECOMMUNICATIONS workshops for details.

- Many of you have asked about purchasing USED ADAM components. We have a small supply of the following for sale with a 30 day guarantee:

. STANDALONE ADAM MEMORY CONSOLE ( NO TAPE DRIVE)

- \$79.95

. ADAM PRINTER - \$79.95

. ADAM DISK DRIVE - \$179.95

. KEYBOARD - \$9.95

. HAND CONTROLLERS - \$5.00

- We're running a special on the 64K memory expander and Walter's Basic Ram Disk software: both for only \$59.95. With these two products you will have a 64K internal memory RAM disk accessible from either SMARTBasic v 1.0 or 2.0 (specify which one). This is an inexpensive way to add a speedy way to store and retrieve Basic programs AND reduce wear and tear on your tape and disk drives. See our software review in the Dec 86 issue.

- Prices have dropped on our dot matrix printers. Cost of a Panasonic 1080i printer, ADAM interface and cable is now only \$249.95 !! If you want high speed printing and graphics from your ADAM, now is the time !

- We're now carrying Magnavox color monitors that are compatible with the ADAM as well as all other computers. You will need to also purchase an ADAM monitor cable to attach the monitor to your standalone ADAM memory console using the "Aux Video" jack on the back of the unit. (NOTE: If you have the ADAM Expansion Module #3 that attaches to the Colecovision unit there is no jack to attach a monitor - you will need to purchase the Expansion Mod Monitor kit and have it installed in the Colecovision unit.

#### . SOFTWARE

- See our reviews in this issue of new products.

- As mentioned above, several Activision game titles are being released in tape/disk form for the ADAM. We will have reviews of the new titles next month.

- We have added some new cartridges to our Product List - GORF and NOVA BLAST. These are older titles, but good arcade games like these have staying power.

- We will run a special through Christmas: PAINTMASTER and either PAINTINGS Volume 1, 2, or 3 for only \$27.95. PAINTMASTER is a long standing product for the ADAM, offering high resolution color graphics drawing and design. PAINTINGS is a series of 3 different volumes containing original designs done in PAINTMASTER that you can modify or use as quidelines to make your own. See our review of PAINTMASTER in the 2/86 NIAD issue. This is a great value and shows off the ADAM's great high resolution color graphics.

- Most of the third party software developers for the ADAM are feverishly working to get some new products out by Christmas - more next month.

- Dale Metcalf, a very talented programmer and author of some of our most sophisticated Public Domain software (Crolons Adventure, Football, Mr.

Mumak) is busy developing several products. VRAMER is a very comprehensive color graphics program providing drawing, saving/ retrieving pictures, etc. VRAMER supports all Basic graphic modes - GR, HGR, HGR2. Dale is working on a technique to bring in graphics screens from the 64K to create animation ! Dale also has completed a fast copy utility program and a comprehensive ram memory test program.

- Alan Neely is a long time ADAMite and head of ADAM-LINK of Utah, a User Group which publishes a fine newsletter every 2 months (write to 2337 South 600 East, Salt Lake City, UT 84106; cost is \$15 per year). Alan also has a 24 hour ADAM BBS online at (801) 484-5114. Alan has just completed a significant modification to a BBS system called C-NET V 3.1. This BBS is tailored for the ADAM, written in SMARTBasic and requires 2 disk drives and 1 tape drive. This BBS was originally written by D. Threat, but has undergone extensive modification by Alan. We will be working with it over the next month and may finally get our NIAD BBS before Christmas! Alan is selling the BBS system as Freeware for \$20. You may also purchase an autoanswer hardware device (allows one to leave the BBS unattended at night) from Alan for \$15.

#### . ITEMS OF INTEREST

- The Chatanooga BBS system is now using the OPUS BBS software and linking up with other BBS', like Tony's Corner. This BBS program allows you to send a message to a person on a totally different BBS. Call them up to try it. The BBS us up 24 Hrs. Use default parameters for ADAMLink and use "N-8-1" for MADAM7 (CP/M).

- Congratulations to Patricia Herrington on her Metro Orlando ADAM UG newsletter. I received the September issue and even though I had to pay .17 postage due, I was impressed! The group also has monthly meetings at the Orlando Public Library. Contact Patricia at 1003 Oak Lane, Apoka, FL 32703.

- I've been a member of NIAD for awhile and have found it to be the best accessory investment to my ADAM. I'm looking forward to future issues and hope to visit CompuKingdom soon.

Something that I would like to see in future issues is an interview with the wizards at Strategic Software. How about it? These guys are truly the saviors of our orphaned computer. Not only do we have a professional paint and sign printing program, but now an excellent spell checker! How many owners do you think would have given up ADAM for dead if not for these and other programs?

Also, I would like to share the following experience dealing with my year-old Atari 520ST computer.

Recently I blew a power supply powering my CPU. This was a big problem because I had written a first draft of a novel on it and wished to continue working on it, time being very important. Well I did what all computer users would do. I called my dealer who did not have any power supplies in stock. Then I called Atari Customer Service based in California, was I in for a shock! Gone are the coleco days of 800 numbers, I was put on hold for 20 minutes long distance! When I finally got through, I was told that the only way to buy a new power supply was through Atari, and that it would take 5 weeks! For a company that has survived the computer wars of the early eighties, this is customer service?

When I had problems with my two ADAMS it never took more than 5 days to get an item fixed or replaced through area Honeywells. Coleco bent over backwards in helping the majority of its customers, I remember speaking to ADAM personnel for hours on the phone about software and hardware. I can't think of any other company, besides big blue, that has a better service system then Coleco.

I guess I'm spoiled, and I wish Coleco would have stuck with ADAM for at least another year. They had laid out all the perfect ground work for a user friendly computer. All ADAM owners thinking about buying another computer better be prepared. It ain't like it used to be.

Now that I've had my say about ADAM and NIAD, keep up the great work! Also, I love the new picture files now available. I hope you add more.

I also enclosed a S.A.S.E. for the solution to 2010: text adventure, mentioned awhile back. I've given up trying to solve this game, and hope to save what's left of my hair with your solution.

To the future of personal computing!

>John Bonavita

>>EDITOR: Thanks for the letter John. I'm sure that many computer owners share your views. Coleco had a great opportunity that they blew. The fact that the ADAM is still alive and well at this point is evidence of its staying power ! We'll see if we can get an interview with one of the developers at Startegic.

- Brigadoon, a small Scottish town appears for one day each 100 years and then disappears for another 100 years. This town was first revealed in a Rogers and Hammerstein musical by the same name. The day started in June 1985 and Brigadoon was run in the same tradition that was presented in the musical, up today, gone tomorrow. More and more requests came to put it up for it's first all night session. Since that time we have changed software that allows for the growth we're in the middle of. With 3284 ADAM blocks of transfer space, Brigadoon surpasses. Anything ever presented to the ADAM users , at cost that puts

Brigadoon in direct competition with CompuServe. We're a free system, run on voluntary contributions to the system. We're an open access system, which runs at night, after dinner and about the time you're ready to sit down and log onto casual conversation, with just enough 'tech talk' to keep things comfortable.

Call the Brigadoon BBS at (206) 723-5631, 8PM to 8AM Pacific time, 3/1200 baud. (Provided by Bart Lynch).

- Don Zimmerman provides the following:

Formatting ADAM disks. As a person who NEVER formats a disk without verifying the format I find this most useful. If you are fortunate enough to have access to an IBM clone you can format an ADAM disk on the clone and use it on ADAM. You will need the clone program MEDIA MASTER. This is a program that allows the clone to read and write to different disk formats. Boot MEDIA MASTER and select the TRS-80 IV (SSDD) format. Place the unformatted disk in drive B: and hit return. It will format and VERIFY the disk in 28 seconds. EDITOR'S NOTE: You can also use an IBM compatible to quickly copy an ADAM formatted disk on to a blank, unformatted disk. The DOS "diskcopy" command will read an ADAM formatted disk and write it to a blank disk. The clone's drives can be purchased for around \$80 so why worry about the wear and tear on them. Save your ADAM drive for reading and writing. It will last much longer.

Turn the main power switch off and back on if you are having strange problems that pulling the reset switch will not cure. More than once I have seen where pulling the reset switch would not re-load the system correctly. This would generally happen after a program really "bombs" out. I suspect that some part of ADAM's EOS RAM memory section was accidentally overwritten so badly that only a complete cold boot will properly reset ADAM. Pulling the reset button will properly reboot the system in 99% of the cases but I have had times when it would not. It has happened in SMARTBASIC, machine language auto-boot programs, rarely in SMARTWRITER, and most often in CP/M. This suggestion holds true for all computers and not just for ADAM.

As a person who had one ADAM unit burned out by a lighting strike I can attest to the importance of shutting down your unit when lighting is near. I lost the main CPU, one modem, and one 64K memory expansion unit. It also blew out a 100 watt light bulb in the room. My wife ran into the room and saw a bright glow coming from ADAM's printer. Honeywell and OrphanWare repaired the modem and 64K card. The printer? I am still

using it as I have been doing for about four trouble free years now with no problems. The inexpensive Radio Shack surge suppresser I had installed did not save the unit probably because of the nearness of the strike to my house. One protection device that I did not have was a modem line surge/spike protector. One of these may have saved my modem. Do not forget that lighting can travel into your home via the phone lines just as easy as it can travel down the power lines.

## SMARTWRITER TIPS

By D. Zimmerman

ADAMs extra 1/2 line feed on a blank line. We all know by now that ADAM will add an extra 1/2 line feed on the printer when it encounters a line with nothing but a carriage return. This will cause the printer to print closer to the bottom of the page or spill over to the next page. If there is any thing besides the carriage return on the line the printer will advance only one line as it should. I solved this a long time ago by cutting off the "~" (tilde) from the plastic printwheel with a scissors. I press this key before I enter a carriage return on a line with no text. The small sideways "s" appears on the screen but will not print because it was cut off the printwheel. The hammer that strikes the printwheel does not come out far enough to make even the slightest impression. If the tilde is ever needed to be printed I simply change the printwheel to an unmodified one. I did not think it was possible but I see where Irwin Singer came up with a better way. He uses the CONTROL 6 key followed by a single space. When the CONTROL 6 key is pressed an odd character that looks like an upside down L appears on the screen. This character will not print out on the paper and will bomb the printer if it is NOT followed by a SPACE so be sure to add one space.

Use the old trick of using two rubber bands to stop the paper from sliding in the printer. Remove the printer's cover and place one 3 three inch (unstretched) rubber band on both the left and right hand side of the cover. Replace the cover. It only takes a second to lift each rubber band and stretch it over the tabs that stick up on the paper hold down bar. Lift them off when the bar must be raised for paper adjustment.

Forcing SMARTWRITER to REFORMAT text to within changed margins. When the user changes the setting of the margins ADAM will normally change the text appearing on the screen to conform to the new

settings. The user can tell if ADAM is reformatting the text by watching the left hand white vertical marker that appears on the left hand ruler line. When ADAM reformats on-screen text the left hand marker will scroll from the top to the end of the text when the DONE smart key is pressed. If the marker fails to scroll the text will not be re-formatted to within the new settings. ADAM can be forced to re-format text to the present settings instantly at any time. Hit SmartKey I (MARGIN/TAB/ETC), Hit SK II (HORZ MARGIN), Hit SK V (TO: VERT MARGIN), Hit SK VI (DONE). The left hand marker WILL scroll and all text will be re-formatted. This is even faster than entering Q1 that the old WordStar users must. Besides ADAM will re-format the entire document regardless of where the cursor is in the text.

## GRAPHICS WORKSHOP

### SIGNSHOP Print Patch By W. Motel

This is mainly for those of our readers who have SignShop and the OKIMATE 20 Printer. If you've tried to print on the OKI from SignShop, you know it doesn't work very well. The H, I, and X's that are used for the overprinting don't overprint. The reason is because the OKIMATE doesn't recognize the character 8 in the print buffer as a backspace. When the OKI see's this, it basically ignores it. I don't believe this is an omission on the OKI, but necessary due to the ribbon method used. If you watch the OKI print, you'll notice the ribbon is laid down over the entire print line, then the print mechanism goes across, left to right. The ribbon is a 'wax' type ribbon, therefore once the spot on the ribbon is struck, the 'wax ink' is gone from that spot. How do you backspace to reuse that spot of ribbon?

So this means we have one of two solutions. Either we print the entire row of H's, carriage return (without line feed) and print the entire row of I's, carriage return without line feed, then print the X's (if High Quality print requested). Once this is for a print line, THEN we line feed and do the next line. This is, in essence, what the program does, but on a character position basis. The first print position is printed, as blank or H/I/X. The H prints, backspace, the I, backspace, X,backspace; then the next print position is done. This is why the printer seems to be doing a Rumba when printing from SignShop. Solution 2 is to simply print a "graphics type character or block" in the non-blank positions. One pass per line, no overprinting is needed.

In looking thru the program logic and seeing whats available on the OKI font set, solution 2 is the best approach. Listed below are the changes to make in the program SS.OBJ. This also assumes you are running thru WAMOpriint and have corrected the machine language routine at line 12 DATA statement (I've reprinted that change).

To correct

1. Under BASIC, LOAD SS.OBJ
2. Make the changes listed below
  - A. Delete lines 500 - 870
  - B. Replace with lines 500 thru 810 below
  - C. Add Line 1, 1105, Change Line 12
3. SAVE SS.OBJ (this replaces the original, which is still useful if you want to also run a version on the ADAM printer.)

or

SAVE SS.OBJOKI (this creates a new version. Since the program "signshop" does a RUN SS.OBJ, this will mean you either have to create a new version of signshop, with a different name and a RUN SS.OBJOKI in it, OR you can also just RUN SS.OBJOKI instead of RUN signshop. Either will work.

Line 12 corrects the machine language call so that the dot-matrix, WAMOdriive works.

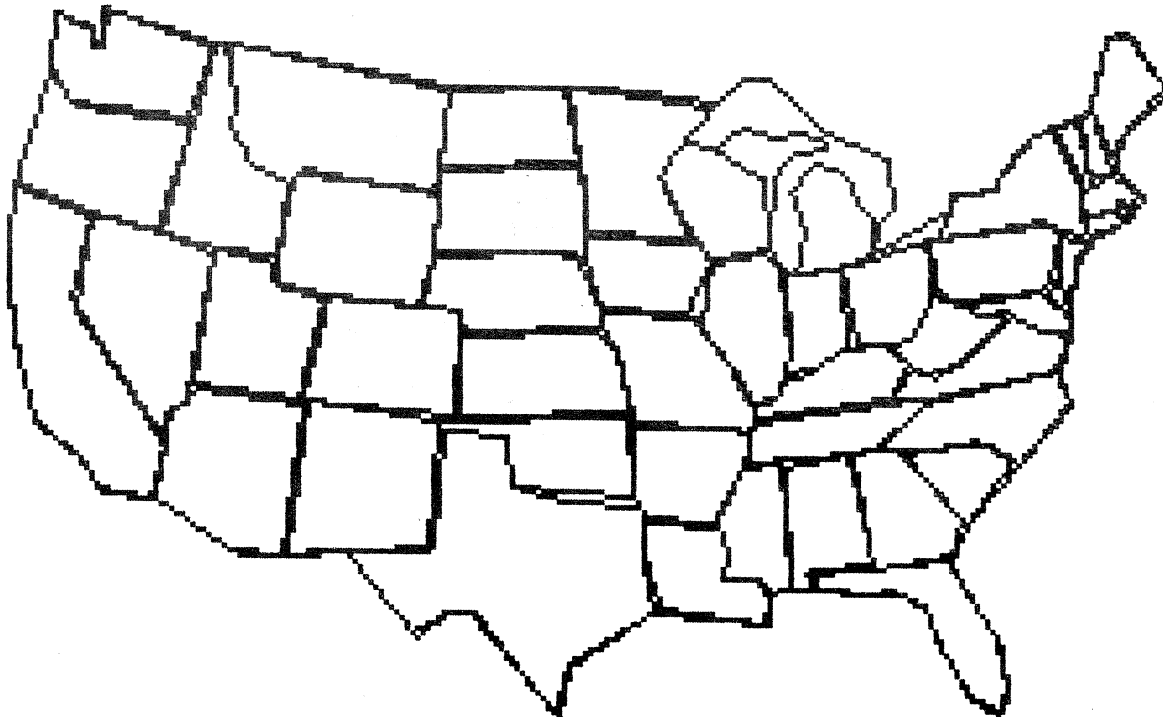
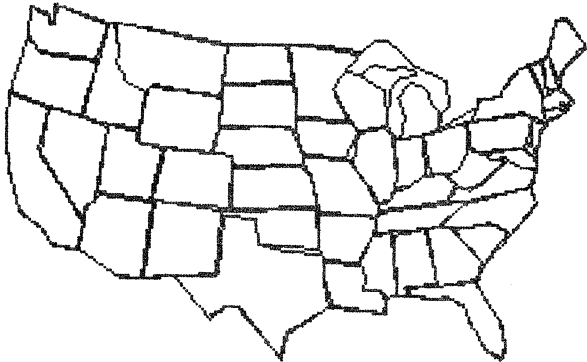
Line 1105 simply prints the message on the Main Signshop screen, so you know what version you are using (OKI 20 versus original)

Lines 500 thru 810 replace the original print code. Briefly, the trick is the value that gets printed. This is set at line 515. I have the value of 178 for normal print and 219 for high quality. If you look in your OKI IBM PC version handbook, appendix B, you'll see the character set. These are the characters that print for each value. At 625, when a = 72 (the character H), it is replaced with the value bp, which was set at 515. Under value 178, you'll see a checkboard type character. The 219 value is a solid black block. You might want to experiment, as value 176 is a little lighter pattern, perhaps 176 and 178 might be more pleasing to use as light/dark. Just set line 515 with the values you want to use.

This won't work for other dot-matrix printer unless you have equivalent 'graphics type' characters available in the normal font set. The Panasonic KX-P1080, for example doesn't, since it instead uses these values for italic characters. This will work, IF YOU FIRST DOWNLOAD SPECIAL CHARACTERS into the font set. This procedure, if available, should be listed in your printer manual. If you want to try it, these changes must still be made, IN ADDITION TO YOUR DOWNLOAD FONT procedures. Line 88 in SS.OBJ does a GOTO 1000. This is after initialization is done. If you want to try the DOWNLOAD FONT, change the GOTO 1000 at line 88, to GOTO 12000. At 12000 (after exiting

code), put in your initial download font routine. The last instruction within it, should be GOTO 1000. This will allow you to add your code in and then branch back to 1000. Whatever character values you use to store your custom font in should be the 2 values you set at line 515 of my patch.

```
1REM      NIAD 1987 W. MOTEL OKIMATE 20 VERSION
12DATA    33,17,0,205,99,252,201
500REM    Main called routine to print line
510 l$=p1$
514REM    OKIMATE 20 178 is light, 219 is pattern
for high quality
515 bp=178:IF sh$<>"L" THEN bp=219
520GOSUB 600
590RETURN
600REM    Called to create the print line (using
B P pattern)
602REM    and call Print Routine M.L. at address
3
610FOR p=1 TO LEN(l$)
620 a=ASC(MID$(l$, p, 1))
625IF a=72 THEN a=bp
630POKE 17+(p-1), a
640NEXT p
650POKE 17+(p-1), 3:CALL 3
660RETURN
800REM    Simply do the line feed after all the
overprint lines are done
810POKE 17, 10:POKE 18, 13:POKE 19, 3:CALL
3:RETURN
1105? " 1987 NIAD OKIMATE 20 Vers."
```



THIS WAS DONE ON THE ADAM USING GRAPHIXPAINTER

Here are three really nice graphics display programs. They're short but good. The first is called STARBURST, the second is a very interesting one called GALAXY MAKER. Follow the instructions and you can generate some nice pictures. Try different values at the input time to generate all different types. The third is TAMMYART, which generates some real nice designs in color.

```

0 & NIAD PUBLIC DOMAIN          Volume # BND
V 18
1 ONERR GOTO 1000
2 ve = 12: HOME: m$ = "STARBURST"
3 HOME: FOR x = 1 TO LEN(m$)
4 FOR ch = 32 TO ASC(MID$(m$, x, 1))
5 VTAB ve: HTAB x+(31-LEN(m$))/2
6 PRINT CHR$(ch): NEXT ch, x
7 FOR k = 1 TO 2000
8 NEXT k
10 y = 60
20 IF y = 0 THEN 10
30 HGR
35 PRINT " HIT CONTROL-C TO STOP PROGRAM"
40 FOR t = 1 TO y
50 c = INT(RND(1)*15)
60 HCOLOR = c
70 u = INT(RND(1)*255)
80 w = INT(RND(1)*159)
90 HPLLOT 139, 95 TO u, w
100 r = PEEK(-16326)
110 NEXT t
120 y = y-6
130 GOTO 20
140 END
1000 TEXT: END

```

```

0 & NIAD PUBLIC DOMAIN          Volume # BND
V 18
60 TEXT: ONERR GOTO 90
70 PRINT "L TRIGGER=END": PRINT "R TRIGGER=RERUN "
80 GOTO 100
90 PRINT "ENTER NUMBERS ONLY": GOTO 100
100 PRINT "ENTER 3 COLOR NUMBERS BETWEEN": INPUT "0
& 15 WITH A COMMA AFTER EA
CH"; c1, c2, c3
120 CLRERR
130 TEXT: ONERR GOTO 410
140 PRINT "TYPE 6 DIGETS< EACH FOLLOWED": PRINT "BY
'RETURN' (E.G.,1 1 1 5 5 5
)"
150 FOR i = 1 TO 6: INPUT " "; n(i): NEXT i
160 PRINT: PRINT "YOUR NUMBERS WERE";
170 FOR i = 1 TO 6: PRINT n(i); : NEXT i: PRINT "
OK (Y/N)": : INPUT a$

```

```

180 IF LEFT$(a$, 1) = "n" THEN 140
190 HGR2
200 FOR i = 1 TO 6: d(i) = 2^(n(i)+1): NEXT i
210 FOR i = 1 TO 3: READ x(i), y(i): NEXT i
220 DATA 127,95,122,90,117,85
230 ON PDL(7) GOTO 410
235 ON PDL(9) GOTO 60
240 IF x(1) < 0 OR x(1) > 255 OR y(1) < 0 OR y(1) >
191 THEN 270
250 HCOLOR = c1: HPLLOT INT(x(1)), INT(y(1))
270 IF x(2) < 0 OR x(2) > 255 OR y(2) < 0 OR y(2) >
191 THEN 300
280 HCOLOR = c2: HPLLOT INT(x(2)), INT(y(2))
300 IF x(3) < 0 OR x(3) > 255 OR y(3) < 0 OR y(3) >
191 THEN 330
310 HCOLOR = c3: HPLLOT INT(x(3)), INT(y(3))
330 y(1) = y(1)-(x(2)-x(1))/d(1)
340 x(1) = x(1)+(y(2)-y(1))/d(2)
350 y(2) = y(2)-(x(3)-x(2))/d(3)
360 x(2) = x(2)+(y(3)-y(2))/d(4)
370 y(3) = y(3)-(x(1)-x(3))/d(5)
380 x(3) = x(3)+(y(1)-y(3))/d(6)
390 GOTO 230
410 TEXT: END

```

```

0 & NIAD PUBLIC DOMAIN          Volume # BND
V 18
5 ONERR GOTO 200
6 HOME: PRINT: PRINT " TammyART By Fisher 1986"
: PRINT: PRINT " PRESS ESC
APE TO END"
7 PRINT: PRINT: PRINT: PRINT " PRESS ANY KEY TO
BEGIN ": GET k$
10 HGR2
15 k = INT(RND(1)*16)
16 IF k = 0 THEN k = 13
17 IF k = 4 THEN k = 7
18 IF k = 16 THEN k = 1
20 a = 1: x = 1: b = 191: y = 255
25 FOR i = 1 TO 255 STEP 3
30 HCOLOR = k: k = k+1
35 IF PEEK(64885) = 27 THEN 200
40 IF k = 4 THEN k = 5

```



```

45 IF k = 16 THEN k = 1
50 HPLOT a, x TO y, b
60 a = a+3: y = y-3
70 NEXT i
100 a = 255: x = 1: y = 1: b = 191
101 k = INT(RND(1)*16)
102 IF k = 0 THEN k = 13
103 IF k = 4 THEN k = 9
104 IF k = 16 THEN k = 1
110 HCOLOR = k: k = k+1
115 IF PEEK(64885) = 27 THEN 200
117 IF k = 16 THEN k = 1
120 HPLOT a, x TO y, b
130 x = x+3: b = b-3
135 IF x = 193 GOTO 150
140 GOTO 110
150 GOTO 15
200 TEXT: END

```

```

105 IF x = 131 THEN x = 3
110 IF x = 132 THEN x = 4
115 IF x = 133 THEN x = 5
120 ON x GOTO 130, 500, 800, 1000, 1500
130 HOME: INVERSE: PRINT "Question Maker"
132 NORMAL
135 PRINT: PRINT " [M]ake questions"
140 PRINT " [E]xit to menu"
143 PRINT: PRINT "Enter choice"
145 GET a$
150 IF a$ = "m" OR a$ = "M" THEN 160
155 IF a$ = "e" OR a$ = "E" THEN 10
157 GOTO 145
160 DIM q$(10): DIM a1$(10)
162 FOR w = 3 TO 24: VTAB w: PRINT: NEXT w
165 FOR t = 1 TO 10
167 VTAB 3
170 PRINT "Enter question #"; t
175 INPUT q$(t)
180 PRINT: PRINT
185 PRINT "Enter answer #"; t
190 INPUT a1$(t)
195 FOR c = 3 TO 20
200 VTAB c: PRINT
205 NEXT c
300 NEXT t
305 VTAB 3: PRINT "You have entered all 10
"
310 PRINT "questions and answers."
315 PRINT "Would you like to save this "
320 PRINT "file to tape? [Y]or[N]"
330 GET a$
335 IF a$ = "Y" OR a$ = "y" THEN 350
340 IF a$ = "N" OR a$ = "n" THEN 10
345 GOTO 330
350 PRINT: INPUT "Enter file name "; n$
355 d$ = CHR$(4)
357 PRINT d$; "OPEN "; n$
360 PRINT d$; "WRITE "; n$
365 FOR t = 1 TO 10
370 PRINT q$(t)
375 PRINT a1$(t)
380 NEXT t
385 HTAB 1: PRINT d$; "CLOSE "; n$
387 PRINT: PRINT "File has been saved to tape.
"
390 FOR p = 1 TO 3000: NEXT p
400 GOTO 130
500 HOME: INVERSE: PRINT "Load Questions"
503 NORMAL
505 PRINT: PRINT " [L]oad Questions"
510 PRINT " [V]iew question files"
515 PRINT " [E]xit to main menu"
520 PRINT: PRINT "Enter selection."
525 GET a$
530 IF a$ = "L" OR a$ = "l" THEN 570
535 IF a$ = "V" OR a$ = "v" THEN 550
540 IF a$ = "E" OR a$ = "e" THEN 10
545 REM

```

## BEGINNER'S BASIC WORKSHOP

HOMEWORK HELPER which is an easy to use, menu driven program for making question/ answer drills on any subject. You can create multiple q/a files and store them for later use. The program prompts you for the question and answer and builds the file automatically. Once a q/a file is created the program will "test" you by presenting the question and asking for the answer.

```

1 & NIAD PUBLIC DOMAIN VOLUME #
BNDV 21
3 l = 0: 12 = 0
5 x = 0: w = 0: a = 0
10 POKE 17115, 20: TEXT
13 PRINT CHR$(7)
15 PRINT "Homework Helper"
17 PRINT "Main Menu"
23 INVERSE
25 HTAB 17: VTAB 3: PRINT " I "
30 HTAB 17: VTAB 6: PRINT " II "
35 HTAB 17: VTAB 9: PRINT " III "
40 HTAB 17: VTAB 12: PRINT " IV "
45 HTAB 17: VTAB 15: PRINT " V "
50 NORMAL
55 HTAB 17: VTAB 4: PRINT "make questions"
60 HTAB 17: VTAB 7: PRINT "load questions"
65 HTAB 17: VTAB 10: PRINT "print questions"
70 HTAB 17: VTAB 13: PRINT "take test"
75 HTAB 17: VTAB 16: PRINT "Exit program"
85 GET e$
90 x = ASC(e$)
93 IF x < 129 OR x > 133 THEN GOTO 85
95 IF x = 129 THEN x = 1
100 IF x = 130 THEN x = 2

```

```

550 d$ = CHR$(4)
553 VTAB 3
555 PRINT d$; "CATALOG"
560 PRINT
565 d1$ = CHR$(13)+CHR$(4)
570 INPUT "Enter file name "; n$
575 PRINT: PRINT "One moment ...Loading file"
580 PRINT d$; "OPEN "; n$
585 PRINT d$; "READ "; n$
600 FOR t = 1 TO 10
605 INPUT q$(t): PRINT CHR$(8)
610 INPUT a1$(t): PRINT CHR$(8)
615 NEXT t
620 HTAB 1: PRINT d$; "CLOSE "; n$
625 PRINT: PRINT "File is loaded into memory f
or"
630 PRINT "use with the rest of the "
635 PRINT "system."
640 FOR p = 1 TO 3000
645 GOTO 10
800 HOME: INVERSE: PRINT "Print questions / an
swers"
803 NORMAL
805 PRINT: PRINT " Print -"
810 PRINT " [Q]uestions only"
815 PRINT " [A]nswers only"
820 PRINT " [B]oth questions & answers"
825 PRINT " [E]xit to Main Menu"
830 PRINT: PRINT "Put paper in printer and -"
832 PRINT "Enter selection."
835 GET a$
840 IF a$ = "Q" OR a$ = "q" THEN 865
845 IF a$ = "A" OR a$ = "a" THEN 905
850 IF a$ = "B" OR a$ = "b" THEN 940
855 IF a$ = "E" OR a$ = "e" THEN 10
860 GOTO 835
865 PR #1
870 PRINT "Questions -"
872 PRINT: PRINT
875 FOR t = 1 TO 10
880 PRINT t; : PRINT " ";
885 PRINT q$(t)
890 PRINT
895 NEXT t
900 PR #0: GOTO 800
905 PR #1
910 PRINT "Answers -"
913 PRINT: PRINT
915 FOR t = 1 TO 10
920 PRINT t; : PRINT " ";
925 PRINT a1$(t)
930 PRINT
935 NEXT t
940 REM
945 PR #1: PRINT " Test -";
947 PRINT: PRINT
950 FOR t = 1 TO 10
955 PRINT t; : PRINT " "

```

```

960 PRINT q$(t)
965 PRINT: PRINT a1$(t)
970 PRINT
975 NEXT t
980 PR #0: GOTO 800
1000 HOME: INVERSE: PRINT "Take Test"
1004 NORMAL
1005 PRINT: PRINT " [T]ake test"
1010 PRINT " [L]ook at score"
1015 PRINT " [E]xit to main menu"
1025 PRINT: PRINT "Enter selection."
1030 GET a$
1035 IF a$ = "T" OR a$ = "t" THEN 1060
1040 IF a$ = "L" OR a$ = "l" THEN 1110
1045 IF a$ = "E" OR a$ = "e" THEN 10
1050 GOTO 1000
1060 FOR t = 1 TO 10
1063 GOSUB 3000
1065 VTAB 3: PRINT t: PRINT " "; : PRINT q$(t)
1070 PRINT: INPUT "Enter answer-"; e$
1075 IF e$ = a1$(t) THEN 1 = 1+1: GOTO 1090
1080 IF e$ <> a1$(t) THEN PRINT: PRINT "Sorry,
incorrect.The answer is"
1085 PRINT a1$(t)
1090 PRINT: PRINT "Press any key to conitnue":
GET a$
1097 NEXT t
1100 GOTO 1000
1110 VTAB 3: PRINT: PRINT: PRINT: PRINT: PRINT
1115 VTAB 3: PRINT "Your Score -"
1120 PRINT: PRINT " # correct - "; 1
1125 PRINT " # possible- 10"
1130 12 = 1/10*10
1135 PRINT " percentage- "; 12
1140 PRINT: PRINT "Press any key to continue.":
GET a$
1145 GOTO 1000
1500 POKE 17059, 0: POKE 17115, 240: POKE 17126
, 15: TEXT: PRINT: PRINT
1502 INVERSE: PRINT "Homework Helper"
1505 NORMAL: PRINT: PRINT "By:Joe Reardon"
1510 PRINT "November 26, 1985"
2999 END
3000 FOR a = 3 TO 24
3010 VTAB a: PRINT
3015 NEXT a
3020 RETURN

```

## SMARTBASIC WORKSHOP

This is in response to questions we've received from a couple of members recently. The question is HOW DO YOU FORMAT MONEY or DECIMAL VALUES FOR PRINTING? First, we want to make sure the number always will print with, say 2 decimal places for money and will align themselves properly.

AMOUNT

AMOUNT

12.5 or 12.50  
1.07 1.07

```

The following routine will accomplish this.
This example formats to print with 2 decimal
places and align within 10 print positions
(XXXXXX.XX), but can be adjusted easily.
1000 REM Print 9 digits, 2 decimal place number
1001 REM GOSUB 1000
1002 REM Pass numeric value in V
1003 REM Returned is printable version in V$
1010 v=INT(v/.01)+.5)*.01
1015 v$=STR$(v): IF v=0 THEN V$=""
1020 IF INT(v+1E-05)=0 THEN v$="0"+v$
1025 IF ABS(v-INT(v+1E-05))<1E-05 THEN
    v$=v$+".00":GOTO 1035
1030 IF ASC(RIGHT$(v$, 3))>>46 THEN v$=v$+"0"
1035 v$=RIGHT$(" "+v$,10)
1040 RETURN

```

An example of its use:  
 Assume A1 contains the value you want to print:  
 V=A1: GOSUB 1000: Print " Answer = ";V\$

Brief explanation:  
 1010 This rounds value off to 2 decimal places and eliminates decimal places over 2.  
 1015 Converts numeric value in V to string equivalent. This is placed in V\$.  
 If original value of v = 0, V\$ set to space.  
 1020 If V has decimal places only (integer portion is 0), Concatenate a "0" to front.  
 The 1E-05 is .00001. Due to the way ADAM and other computers handle numbers, this "small" value forces values to be "true". For example, the value 10, might be stored as 9.99999. It will print as 10, but the INT will say its 9.  
 1025 This checks to see if the original value is a whole number only. If it is, we need to append .00 to the end of our printable answer AND bypass the next check.  
 1030 We have a number that has decimal places, but how many, one or two. This tests the 3rd position from the right for a decimal place. If it isn't, then we have only 1 place, so append a 0 to the right end. 2.5 becomes 2.50  
 1035 Finally, Concatenate 10 spaces " " and what is in V\$ for 10 spaces from the right. This forces the number to be right justified within 10 positions. If you wanted 15, change the value to 15 and use 15 spaces, instead of 10.  
 Hopefully you'll find this useful in you're own programs to make you're reports or screen output a little neater.

### SMARTLOGO WORKSHOP

Here is a SMARTLogo program that I thought you guys might like. To run it type in STARTA (after you have loaded the program, if on tape/disk). The program displays shapes of cars from the game SPYHUNTER. Use the keypad to change the colors (0-9). Type in one of the following letters to see different cars:  
 A The Enforcer  
 B Switch Blade  
 C Road Lord  
 D Spy Hunter  
 E My design

From Don Gomez

```

TO STARTA
MAKE "A [0 0 0 0 0 189 219 37 249 249 249 249 249
3 7 219 189 0 0 0 0 248 248 132 251 252 252 252
251 132 248 248]
MAKE "B [0 0 0 0 0 15 23 16 47 31 31 31 47 16 23
15 0 0 0 0 187 237 114 159 159 159 159 114
237 187]
MAKE "C [0 0 0 0 0 60 127 60 231 199 199 231 60
1 27 60 0 0 0 0 60 254 176 31 31 31 176 254
60 ]
MAKE "D [0 0 0 0 0 120 253 192 151 167 135 167 151
192 253 120 0 0 0 30 175 97 158 159 241 159
158 97 175 30]
MAKE "E [0 0 0 0 0 60 255 57 239 199 199 239 57
2 55 60 0 0 0 0 60 255 17 142 143 143 142 17
255 60]
MAKE "F [0 0 0 0 0 124 251 4 255 143 143 255 4
25 1 124 0 0 0 0 60 218 41 23 27 27 23 41 218
60]
RESET
END

```

```

TO CHANGE :DIR
IF :DIR = "1 [SETC 3]
IF :DIR = "2 [SETC 4]
IF :DIR = "3 [SETC 5]
IF :DIR = "4 [SETC 6]
IF :DIR = "5 [SETC 9]
IF :DIR = "6 [SETC 10]
IF :DIR = "7 [SETC 11]
IF :DIR = "8 [SETC 12]
IF :DIR = "9 [SETC 15]
IF :DIR = "0 [SETC 8]
IF :DIR = "A [HT TELL 0 SETSH 1 TELL 1 SETSH 0
TELL [0 1] ST]
ST
IF :DIR = "B [HT TELL 2 SETSH 2 ST]
IF :DIR = "C [HT TELL 2 SETSH 3 ST]
IF :DIR = "D [HT TELL 2 SETSH 4 ST]
IF :DIR = "E [HT TELL 2 SETSH 5 ST]
CHANGE RC
END

```

```

TO START
TELL ALL CS
HT
PU
SETBG 1
TELL 1 RT 90 FD 8
TELL 0 LT 90 FD 8
CHANGE RC
END

```

```

TO RESET
PUTSH 0 :A
PUTSH 1 :B
PUTSH 2 :C
PUTSH 3 :D
PUTSH 4 :E
PUTSH 5 :F
START
END

```

```

MAKE "F [0 0 0 0 0 0 124 251 4 255 143 143 255 4
251 124 0 0 0 0 0 60 218 41 23 27 27 23 41 218
60]
MAKE "E [0 0 0 0 0 0 60 255 57 239 199 199 239 57
255 60 0 0 0 0 0 60 255 17 142 143 143 142 17
255 60]
MAKE "D [0 0 0 0 0 120 253 192 151 167 135 167 151
192 253 120 0 0 0 0 30 175 97 158 159 241 159
158 97 175 30]
MAKE "C [0 0 0 0 0 60 127 60 231 199 199 231 60
127 60 0 0 0 0 0 60 254 176 31 31 31 176 254
60]
MAKE "B [0 0 0 0 0 15 23 16 47 31 31 31 47 16 23
15 0 0 0 0 187 237 114 159 159 159 159 114
237 187]
MAKE "A [0 0 0 0 0 189 219 37 249 249 249 249 249
37 219 189 0 0 0 0 248 248 132 251 252 252 252
251 132 248 248]

```

## CP/M 2.2 WORKSHOP

CP/M: SPECIAL TRICK From Verna Bishop  
 If PIP has already been loaded and all you've done since using it is a warm boot followed by DIR (or any other built-in command of CP/M), the PIP program is actually still in the transient program area. In this case there's a way to restart PIP without reloading provided one of your disks contains a file we'll call GO.COM. If it does all you'll have to do is type:

```
A>GO (CR) (or A>B:GO.COM is on B)
```

You will immediately see the asterisk \*. The \* tells you that PIP is running again and ready to do work. The advantage of GO.COM is that (unlike PIP) it takes zero space on a disk, and almost zero time to execute.

To put the GO.COM file on the A disk, type:

```
A>SAVE 0 GO.COM (CR)
```

To put in on the B: drive, type:

```
A>SAVE 0 B:GO.COM (CR)
```

This command will save zero pages of data, storing the file name GO.COM in the disk file directory. The file directory will also have the information that the file has a length of zero records recorded in byte 15. When you give the command A>GO, CP/M does three things: (1) It sets up a File Control Block with the name GO.COM and a record count CR (current record) of zero, (2) it reads CR records of htis file into the transient program area, and (3) it starts execution of the file at the standard starting address used by all COM files. For GO.COM step (2) amounts to reading zero records into the TPA, so step (3) will start executing whatever program may have already been in the TPA. It's alright to use any of CP/M's built in commands (DIR or TYPE) before giving the GO command since these commands do not use the TPA.

## NIAD CP/M PUBLIC DOMAIN DISK #31

By S. McFarlane

A collection of 26 games written in E BASIC that I guarantee will provide you with a challenge as well as hours of enjoyment! I have configured the SmartKeys for ease of use & provided on-line instructions. Simply boot the disk & then press SmartKey I for a Games Directory. After selecting a game, press SmartKey II (RUN GAME) & input the filename - without the file extension. That's all there is to it! Most of the files include a help menu.

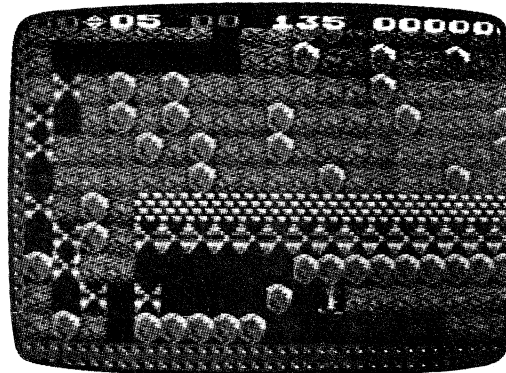
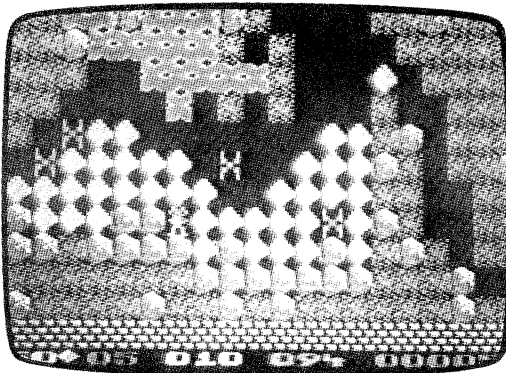
This collection includes the following Games:

23MATCH	BAGELS
BAGLES2	BULLSEYE
CANNONS	CHECKERS
CHIEF	CHOMP
CRAPS	DICE
HANG	JEM
KINGDOM	LANDER
LOVE	LUNAR
NFL	POET
ROCKET	RUSSIAN
STRIKE9	SWARMS
TRAP	TTT
WUMPUS	WUMPUS2

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## GAMES WORKSHOP

Well, a big HELLO from Jim Goebel! I am starting up a new games column for the user's group, and I would like for all you members of NIAD to write in your tips, tricks, questions or answers about any games for the ADAM/ColecoVISION, Nintendo Entertainment system, or Atari 2600 & 7800 game systems. I would like to say that if anyone out there has a Sega master system to contribute the knowledge about it to us. I will devote virtually all space in the following issues to ADAM/ColecoVISION, but if I find a particular product of interest, I will notify you about it.

Being the first column, I will compare the various game systems that you can currently get software for.

First generation:

ATARI 2600 - The "granddaddy" of the game systems is still around. In its heyday, you could get a selection of over 150 different cartridges in one store! Now a selection of about 15-20 is all you can find. The graphics are strictly the bottom of the spectrum, but if you can get your hands on the Solaris cart (about 12 bucks), you can see some truly outstanding (for the 2600) graphics. RATING C

Second generation:

InTV system 3 - Maybe you better knew this as Intellevision, back when George Plimpton did commercials for it. The graphics are now considered low-res (although I have not seen their latest releases). You can find about 15-20 cartridges for this in one store. RATING C+  
ColecoVISION - Although I never liked it at first, I learned to love it, so to speak. Need I say more? RATING A

Third Generation

ATARI 7800 - Although the graphics are not as good as the Sega, they still are FABULOUS! Another nice added feature about it is that it plays the 2600 carts without an adapter! There aren't many games made for it, but the games they do have for it are well worth it! Xevious, Dig Dug, Galaga, Robotron, Pole Position 2 (included), plus old favorites like Centipede, and Asteroids (This one has to be seen to be believed) are all available for it right now, with some licensed computer games (such as Summer Games) on their way! RATING A+

NES (Nintendo Entertainment System) - This game system was the one that came with the robot (useless, in my opinion). The biggest problem with it, is it falls into the trap of having "typical" graphics. The NES has the biggest selection of software currently. The third party carts, are better than the Nintendo made ones. RATING B-  
Note: At the time that this was originally

written, I was thinking of getting rid of my NES. I have since changed my mind because of the new software coming out for it. NEW RATING A+  
Sega Master System - I do not believe that I have enough experience with this one to make any judgements (although what I do know is that the graphics are the best).

ADDENDUM: This column will also keep you posted of the new games for the NES, Sega master system, and the 7800. Future titles to look for are Spynhunter, Punch Out, Karnov, Metroid, And Legend of Zelda (NES). Gato, Summer Games, Winter Games, Desert Falcon (AT 7800). Track & Field, Kung Fu, Stargate (AT 2600 & 7800). Next month, we will discuss the PD DDP'S that Coleco never released, and talk about a truly interesting diversion in Harvey called PHOTON.

## SEGA UPDATES

Sega has released their 3D glasses and the first 3D game, MISSILE DEFENSE. The glasses are black plastic with a liquid crystal display behind each lens that provides the 3D effect by alternating your vision through each eye. A thin wire attaches the glasses to an adapter which plugs into the card slot on the Sega base unit. Missile Defense 3D is a game that requires the Sega phaser and puts you in command of defending US cities against missile attacks. Each round has three scenes where you can shoot down the missiles. The last scene (and your last chance) is when the missiles are heading into a major city. The 3D effect is excellent, showing true depth of view. The effect is so true to life that it feels like you could reach out and touch the missiles as they come at you!!

I predict this will usher in a whole new wave of such 3D games, that offer this great added "depth" to home video arcade games.

## REVIEWS

### NIAD GOLD - HOME & BUSINESS

This is collection of the best home and business programs for the ADAM. Bob Tarnowski has taken the cream of the public domain to create this NIAD GOLD volume. Descriptions of each of the fine programs are recorded below.

ADAMBASE - A comprehensive data base system. You define the number of fields per record and the length of each field, then the program calculates the number of records the file can contain. Once a database is created, you can add records,

search, sort and print out the records. A real nice program for a small database application.

ADDRESSER - Will address (both return and addressee) regular and business size envelopes.

ANNOUNCE - A text editor that can be used to format a one page announcement. Text can be centered, left or right justified. The entire page can also be vertically centered on the page.

BANNER - Prints out a banner on fanfold paper using huge letters. You can choose the height, width of the letters, center, left/ right justified and what character to be used.

BTRBARGRAPH - Displays an excellent color graphics bar graph based on data values you input.

CALENDAR - Will print out a nice full page calendar for any month/ year.

CASSLABEL - Real nice little program that prints labels for cassette tapes. You can enter a title, 13 lines for the front and 4 for the back. Cut lines are printed to get a perfect fit inside a plastic cassette case.

DRIVERNUMB - This interesting program will "calculate" a drivers license number (for most states) based on name and other information !

INVENTORY - Simple inventory system. Allows item name, dollar amount and description to be entered and later recalled.

LABELMAKER - Good program for creating 5 line labels using standard 15/16 inch labels. Lines can be left, center or right justified. Prints one label at a time and allows you to store labels for later printing.

LOANANALYSIS - Figures monthly payments based on loan amount, interest rate and term. Will also print the monthly payments and interest.

MAILLIST - Good program for creating, maintaining and printing a mailing list of names and addresses. Also allows searching for a specific name. Mailing list files can be saved for later retrieval and use.

MORTGAGE - A very comprehensive program for calculating mortgage payments. Five different reports are available based on your input of principal, term and per centage rate.

PERSBALSHT - An excellent program for determining your personal worth (or indebtedness). The program walks you through about 20 questions about

your assets and liabilities and then prints out a balance sheet summarizing all pertinent data. This program can be used for business as well as personal.

PHONEBOOK - This program will allow you to record name, address and phone number to create a personnel phonebook which can be printed on the ADAM printer.

PHONECOST - A neat little program that you run WHEN you get on the phone. It will either display the number of minutes and cost based on your input of per minute cost, tell you when you have reached a specific cost or when you have been on the phone for a pre-specified period of time. Someone obviously wrote this program for a non-phone conscious mate/ child.

SHOPPER - This program will prompt you for all possible grocery items. You can enter a quantity or a phrase for each item or just hit enter to skip the item if you don't need it. A nice shopping list is then printed out for you.

SORT - An alphabetical sorting program that will accept the inputting of a variable number of items, sort them and output them to a disk/tape file, the printer or the screen. Excellent utility for handling this task.

VCR - This program will create a graphics screen for each of your VCR tapes listing the names of the movies and what counter number they begin at. Once you create the screen based on the questions asked, you would take the cable that goes into your tv or monitor and hook it to your VCR and set it to record (make sure the tape is rewound to the beginning). Let it record for a few seconds and then stop the VCR. This will record the screen you created on the tape containing the movies and counter numbers you entered into the program. Then, everytime you play the tape (from the beginning of course) the movie titles will be displayed for you.

To my knowledge, this is the first collection of high quality programs of this type. The tape/disk is self booting and contains an automatically loaded menu from which you can run all the programs.

RATING - A+

## SOFTPACK 2.0/ BUSINESS PACK 2.0

E & T Software has been a solid, long time supporter of the ADAM. Ed Jenkins is a great programmer and a devoted ADAMite.

Ed has rewritten his two great programs, SOFTPACK and BUSINESS PACK, adding many features and enhancements. He is now using SMARTBasic v 2.0 in order to utilize its random access file capabilities (SMARTBasic v 1.0 does not support random access files). The advantage of random files is access speed and the ability to store more records per file. Sequential files, which is what Basic v 1.0 provides, can only hold 150 records per file. This limits many programs and requires multiple files to be created and used. SOFTPACK contains two main programs -

SOFTCHECK is a comprehensive checkbook management program handling checks, deposits, ATM transactions, interest, check fees and account charges. Up to 650 entries per file can be accommodated. An "autocheck" feature has been added that supports up to five different checks that are the same each month (car, mortgage payment, etc.). Once all transactions are entered they may be listed to either the screen or printer or edited if an error was made. Full search capabilities are provided by check #, deposit, atm, charge, or date. All canceled entries can also be retrieved.

CHECKBOOK RECONCILER is just that - you enter your bank balance and any outstanding checks/ deposits and the program will balance for you !

CHECKBOOK TOTALIZER aids in analyzing how your money was spent. You can print out checks, deposits by month, category (food, doctor, etc.) or tax deductible.

SOFTMAILER provides for the entry and maintenance of a list of names and addresses (up to 248 per file). Three lines of address are provided for as well as three categories that can be used to group names/ addresses for later retrieval and printing (e.g. bills, Christmas list, etc.). A full editor is provided for maintenance. Printing is fully supported, with search by last name, record #, zip code or category. Large and small envelopes, paper and mailing label printing are supported.

BUSINESS PACK contains an improved version of the SOFTMAILER program with additional features and a program called SOFTFILER, that allows the establishment of a database of names, addresses, etc.. Up to 248 records can be stored in each file and multiple files can be set up. Sophisticated search facilities are provided in addition to editing and sorting capabilities. SOFTSTOCK and STOCKPRINT are used to create and maintain an inventory system for small businesses with up to 400 stock items. Stock #, vendor, product name,

quantity on hand, reorder point, quantity on order, total sold, company and retail cost data are provided. Various reports can be printed off based on this data.

Both SOFTPACK and BUSINESS PACK are very well done programs with good edit routines and ease of entry for the user.

These new versions are being made available to owners of the current version for \$7.50 including shipping. Also, you may send in a data tape/disk containing files created using the original version of SOFTPACK/ BUSINESS PACK for conversion to be compatible with the new version for only \$3.00. Just send in your original tape/ disk and the fee to E&T Software, 1010 Westminster, Garland, TX 75040.

RATING - A

### FILE PRINTER By L. Marschand

This fine program, written by Terry Fowler of the the Greater Houston ADAM User's Group, is a set of dot matrix printer programs for formatting and printing documents prepared by the SMARTWriter word processing program on Panasonic KX or compatible printers. It is NOT a word processor or text editor (like the recently reviewed SMARTTYPE 2 program).

The programs are written in Basic and run from a self loading disk/tape. The main menu screen provides three alternative programs:

1. NEWSLETTER COLUMN PRINTER - Will print a SMARTWriter document in two column newsletter style using 3 inch margins, 15 CPI. Options for single or double spacing and NLQ print are provided.
2. SMARTWRITER FILE PRINTER - Will print documents in normal format. Options for margins, spacing, NLQ and autojustification are provided so unaltered SW documents can be printed. Additionally, FILE PRINTER will recognize an extensive set of control codes that you can embed in the SW document. Terry has provided a comprehensive set of codes covering most of the features of the Panasonic KX (and compatibles) printer.
2. DOT MATRIX FUNCTION PRESET - This program allows you to preset your printer by entering commands directly. This is a nice feature because your alternative is to enter those long Basic command strings per the manual. I use this approach to set up the printer prior to printing my documents with the default parameters I want. There are two additional programs that are needed by FILE PRINTER, but can be used on their own as well. TOTEXT will change a SW file to a SMARTBasic



compatible file (no line numbers of course) and TOWP does the opposite.

The only limitations are that when you embed the control codes in your document, they will affect an entire line or paragraph and can't be used for just one or a few words. This is due the fact that SMARTBasic treats each line as data. The Eve Custom Printer software program allows printer features to be turned on/off by word or even

letter. Since Basic is doing the printing it will not be as fast as direct SW printing.

FILE PRINTER does allow one to simply print professional looking documents originally prepared by the SW word processor. If you are a user of SMARTWriter and have a Panasonic KX or compatible dot matrix printer, this program will help in preparing really nicely formatted documents with features like full autojustification, centering, etc.

FILE PRINTER is only \$9.95 and should be ordered directly from Terry Fowler, Rt 2 Box 2756, Pearland, TX 77581

RATING - A

#### BASIC RAM DISK - 256K

This program by Walter's Software is a revised version of their 64K RAM Disk program, designed to work with Orphanware's 256K memory expander board. It provides the same functions under SMARTBasic as the 64K version, but obviously gives you a much larger RAM disk. You can copy a whole data pack full of files into the RAM disk if you want to and then run your programs from that. This would be great for SMARTBasic children's games - no more messing with tapes, etc. once you load and copy the program into the 256K card. As with the 64K version, once you load a program/ file into the 64K, you can load and run other programs, even reset the computer to run CP/M, ADAMCALC, etc. and not erase the programs you originally loaded in. Walter's has also found and corrected the bug in the operating system that occasionally "hangs" up the system when using the 256K expander.

Is the 256K memory board for you ? Only you can answer that. It's major advantage is for ADAM hackers and programmers and we know there are a lot of them ! For the normal user, the 64K memory expander would meet most needs, but some people want more and more. Note that the 256K expander will NOT provide any additional functions in any programs other than SMARTBasic and CP/M.

Walter's is offering an upgrade option for those people who have already purchased the 64K RAM DISK software program from them. Send your disk/ddp containing the 64K program and only \$7.50 to

receive the 256K version if you decide to buy Orphanware's 256K memory board.

RATING - A

#### ADAMCALC DOT MATRIX PRINTER PATCH

Orphanware has released a program that patches the popular ADAMCALC spreadsheet program to direct all print output to a dot matrix printer. The ADAM community has been long awaiting this program to provide faster printing for what is an excellent program. ADAMCALC contains its own printer drivers so many of the other printer patch programs would not work. There is not much more to say, the program works !

All that is required is to run the CALCPATCH program which will permanently alter your ADAMCALC disk/tape so make sure you only do this on a copy. All ADAMCALC printing will be done exactly the same, except it will go the dot matrix printer of your choice.

#### PRINTER GENDER CHANGER

Sounds strange you say ! Well yes, but it serves a purpose. This little piece of hardware that bares Coleco's name is to be attached between the power cord that comes from the printer and the ADAM memory console. After this brief installation procedure, the only thing you will notice is that when you reset the computer the printer is silent! Yes, the "gender changer" eliminates the sometimes annoying resetting of the printer and automatic line feed. Advantages are no noise and less wear and tear on your printer. Order for \$8.00 US plus \$1.50 shipping from: Trisyd Video, 26 Florence Cres., Toronto, Ontario Canada M6N 4E4 (416) 769-6446

**PRODUCT LIST** and **MEMBERS ONLY**

PRICES EFFECTIVE: 9/15/87

MEMBERS ONLY and SUBJECT TO CHANGE without notice

PRODUCT LIST and MEMBERS ONLY

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**NIAD USER GROUP PRODUCTS**

**PUBLIC DOMAIN**  
PLEASE Specify VOLUME # and DISK, DDP  
COST per VOLUME:  
NOTE: \$ 5.00 DISK - \$ 7.00 DDP

**SMART BASIC # 1 - 21** (21 Different)  
# SN0V1 - 21 (Vol. numbers)  
# SN0V1 - 3 (3 Volumes)

**SMART LOGO # 1 - 3** (3 Volumes)  
# ANOV1 - 2 (2 Volumes)  
# ANOV1 - 2 (2 Volumes)

**BASIC UTILITIES # 1 - 2** (2 Volumes)  
(Vol 1 includes backup utility)  
CPM2.2 # 1 - 32 (32 Volumes)  
# CN0V1 - 32

**JEPARDY PINBALL/HARDHAT MACK**  
New Bug FREE versions with 2 DEMO games  
and 100 for 40 pages manual

**PINBALL GAMES**  
Requires Pinball/Hardhat Mack

**SUPER SUBROC**  
ADAM DIAGNOSTIC  
Requires 64K expander

**ADAMLINK II TELECOMMUNICATIONS**  
SMART BASIC REPLACEMENT DDP  
SMART BASIC V2.0 with doc. file

**NIAD BACK ISSUE INDEX - Smartfiler file**  
EDS DISK MANAGER - (Replacement on disk or DDP)  
FILE PICTURE FILE/1-3 (3 volumes available)

**CUSTOM PRINTER SOFTWARE**  
NIAD. Includes manual  
VIDEOTUNE SONGS Volumes 1 and 2.

**NIAD SPECIALS**  
GRAPHIX P1 and EITHER PAINTINGS \$ 19.95  
PAINTMASTER and EITHER PAINTINGS \$ 27.95  
BOX of 10 LORAN DS/DD Disks \$ 9.95  
NIAD Economy DDP - Non Loran 10 for \$ 19.00  
SUPERACTION CONTROLLERS 2491 \$ 49.95  
EXPANSION MODULE 2 (Driver 2413) \$ 49.95  
ORPHANWARE P1A2 PARALLEL INTERFACE \$ 249.95  
Everything you need to hook it up NEW LOW PRICE  
ORPHANWARE P1A2 PARALLEL INTERFACE \$ 249.95  
8 OKI 20 PRINTER-ADAM PLUG/PRINT \$ 199.95  
OKI 20 PRINTER-ADAM PLUG/PRINT \$ 199.95  
NEW ADAM KEYBOARDS \$ 9.95  
ADAMNET CABLES FOR KEYBOARD/DISK \$ 2.95  
3 1/2 x 15/16 PIN FEED ADDR. LBLs \$ 6.95/1000  
9 1/2 x 11 20 Lb PIN FEED PAPER \$ 16.95/1000

**SUPER GAME CONVERSION TO DISK**  
NOTE: You must send label and from game as  
proof of purchase. Family Feud Best of Broderbund  
can be copied directly by most copy programs

**SMART FILLER COPY WITH LATEST VERS.** \$ 4.00  
Includes: Label Disk/DDP

**BACK ISSUES OF NIAD from 1/85**  
\$ 3.00 EACH  
RIGHT DIR TAPES for SUPERGAME COPY \$ 2.50 EACH  
UPDATES or FIXES to PD tapes \$ 3.00 EACH

**SUPPLIES**

**RIBBONS**  
ADAM REPLACEMENT \$ 4.95 EACH  
PANASONIC 1080/1080I \$ 9.95 EACH  
OKIMATE 20 RIBBONS \$ 4.95 EACH

**COVERS**  
3 PIECE FOR COMPLETE ADAM \$ 18.95  
DISK DRIVE ONLY \$ 8.95  
3 PIECE FOR EXPANSION ADAM \$ 23.95

**PRINTER WHEELS**  
SPECIFY FONT STYLE for the ADAM printer  
Gothic 12, Script 12, Elite 12, Emphasis,  
Courier 12, Pica

**TARE DRIVE HEAD CLEANING KIT** \$ 50  
DISK DRIVE HEAD CLEANING KIT \$ 19.95  
Contains 2 cleaning diskettes/films

**DISK/DIGITAL DATA PACKS**  
COLLECO/LORAN DDP \$ 4.75 EACH  
NIAD/LORAN DDP \$ 39.95 EACH  
NIAD (Non Loran) DDP \$ 4.25 EACH  
BOX of 10 TDK DS/DD Disks \$ 34.95  
5 Boxes 50 Diskettes \$ 9.95 SPECIAL  
\$ 34.95 SPECIAL

**PINNEED PAPER/LABELS**  
9 1/2 x 11 20 MICROPERF PAPER \$ 9.95 /500  
9 1/2 x 15 OKT 20 THERMAL PAPER \$ 16.95 /1000  
3 1/2 x 15/16 PIN FEED ADDR LABEL \$ 6.95 /1000

**CARTRIDGE SOFTWARE**

Collecovision/Adam

SMURF PAINT/PLAY 2697 \$ 18.95  
SUSS FIXUP PUZZLE 2699 \$ 18.95  
TURTLE LOGO/GRAPHICS 2698 \$ 18.95  
DAMBUSTER \$ 28.95  
WW II Bomber/Dogfight \$ 29.95  
TAPER \$ 22.95  
BEARBRIDER \$ 22.95  
WARGAMES \$ 22.95  
CABBAGE PATCH PICTURE SHOW \$ 18.95  
HEIST \$ 9.95  
LEARNING WITH LEEPER \$ 18.95  
NOVA BLAST \$ 18.95  
GOLF \$ 18.95

**CP/M 2.2 COMMML SOFTWARE**

INFORM PRODUCTS  
Requires ADAM CP/M software

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

**OTHER SOFTWARE**

Specify DDP or Disk

VIDEOTUNES (DDP) \$ 26.95  
BASIC/AID PLUS (Specify Basic V1.0 or V2.0) \$ 19.95 NEW  
SMART TYPE 2.0 (DDP) \$ 17.95 NEW  
PROOF READER (DDP) \$ 34.95 NEW  
LIBRARIAN (DDP) \$ 19.95 NEW  
NIAD GOLD SERIES \$ 9.95 NEW  
GAMES 1 \$ 9.95 NEW  
TEXT ADVENTURE \$ 9.95 NEW  
HOME/BUSINESS \$ 9.95 NEW  
BASIC RAM DISK \$ 29.95 NEW  
MICROBASIC in BASIC (Requires speech synthesizer) \$ 19.95 NEW  
STAGE FLIGHT \$ 19.95 NEW  
ADAMCALC Dot Matrix PATCH \$ 9.95 NEW

**COLECO SOFTWARE**

(DDP unless noted)

SMART LOGO 7600 \$ 29.95 SPECIAL  
EXPERTISE 7602 \$ 19.95 SPECIAL  
SMART FILER 7813 \$ 15.95  
RECIPE FILER 7814 \$ 10.95 SPECIAL  
SMART LTRS/FORMS 7805 \$ 15.95  
FLASHCARD MAKER 7662 \$ 15.95  
FLASHFACTS (TRIVIA 2902) \$ 11.95 EACH  
HISTORY 2901, VOCAB 2900) \$ 29.95  
CP/M 2.2 7832 \$ 24.95  
ADAMCALC 7831 \$ 24.95  
R. SCARRY WORDBOOK 7858 \$ 20.95  
PACKEY WORD GAME 7834 \$ 15.95  
DONKEY KONG \$ 19.95  
DONKEY KONG JR. \$ 19.95  
SUPER ZAXON \$ 12.95 SPECIAL  
2010: TEXT ADVENTURE 7849 \$ 20.95  
FAMILY FEUD 7710 \$ 20.95  
BEST OF BRODERBUND \$ 19.95 NEW  
ADDRESS BOOK FILER

**ACTIVISION SOFTWARE**

(Specify DDP or Disk)

ALCAZAR \$ 27.95 NEW  
ROCK n' BOLT \$ 27.95 NEW  
BOULDER DASH \$ 22.95 NEW  
WESTWARD \$ 22.95 NEW  
KENTON KAPERS \$ 22.95 NEW  
PTFLA II \$ 19.95 NEW  
DEATHLON \$ 19.95 NEW  
SKIING \$ 19.95 NEW

**OTHER SOFTWARE**

(Specify DDP or Disk)

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ROCK n' BOLT \$ 27.95 NEW  
BOULDER DASH \$ 22.95 NEW  
WESTWARD \$ 22.95 NEW  
KENTON KAPERS \$ 22.95 NEW  
PTFLA II \$ 19.95 NEW  
DEATHLON \$ 19.95 NEW  
SKIING \$ 19.95 NEW

**OTHER SOFTWARE**

(Specify DDP or Disk)

ALCAZAR \$ 27.95 NEW  
ROCK n' BOLT \$ 27.95 NEW  
BOULDER DASH \$ 22.95 NEW  
WESTWARD \$ 22.95 NEW  
KENTON KAPERS \$ 22.95 NEW  
PTFLA II \$ 19.95 NEW  
DEATHLON \$ 19.95 NEW  
SKIING \$ 19.95 NEW

PRODUCT LIST 10/15/87

MEMBERS ONLY

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PRODUCT LIST

HARDWARE & ACCESSORIES

NOTE: SEE SPECIALS ON NEXT PAGE AS WELL

ADAM DISK DRIVE 781Z \*\*\*\*\* TWO FOR \$225.00  
 \$399.95  
 5-1/4" high-capacity disk drive for the Colco Adam.  
 Provides expanded capability for faster storage and  
 retrieval and increased reliability. Requires standard  
 diskettes.  
 ADAM LINK MODEM 781B \$ 49.95  
 ADAM share modem which provides capability, with included  
 software, to interface with other ADAM computers or large  
 bulletin board systems such as Compuserve.  
 NOTE: Other AdLink II software from Public Domain list  
 which will allow upload/download of programs.  
 COMPUSERVE STARTER KIT \$ 25.95  
 Includes account number, password and five free hours of  
 connect time to the popular computer information system.  
 DIGITAL DATA DRIVE # 2409 \$ 29.95  
 NEW but not home! digital data drive which can be used  
 as a replacement or as a second drive.  
 54K MEMORY EXPANDER ME-64 \$ 49.95  
 Provides additional 64K of memory for SMARTwriter, DM  
 programs. Provides print buffer spooling for AdMailic,  
 ZSEK, MEMORY EXPANDER \$159.95  
 Provides 256K ram disk under CP/M 2.2  
 Requires address card (add'l \$17) !!  
 You don't have PIZ2 interface. Must  
 send in PIZ2 for modification if you  
 have it.  
 EVE RS232C/PARALLEL INTERFACE SP-1 \$139.95  
 Allows the connection of the ADM to any popular printer and  
 other devices requiring either serial or parallel interface  
 connections. Includes software for setting up and control to  
 additional printers directly from SMARTwriter, SMARTer,  
 MAIL, DM programs.  
 EVE SERIAL/PARALLEL INTERFACE ONLY \$ 79.95  
 ORTHOWARE PIZ2 PARALLEL INTERFACE \$39.95  
 PARALLEL OR SERIAL CABLE SP-1C \$ 15.95  
 Cable required to attach SP-1 or PIZ2 interface  
 to SHIELDED PARALLEL CABLE \$ 24.95  
 SHIELDED PARALLEL CABLE \$ 24.95  
 Parallel cable containing extra shielding to prevent  
 interference with tv sets.  
 SPEECH SYNTHESIZER/CLK CAL. SS-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 accessibility from  
 basic and CP/M.  
 ORPHANWARE 80 COL. VIDEO UNIT \$199.95  
 Standalone unit  
 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

SPECIALS ON NEXT PAGE AS WELL

Special adapter cable required to attach both the SP-1 and  
 SP-CC to the ADM. NOTE: Kit required for 80-column video  
 board.  
 CARD EDGE ADAPTER CEA-1 \$ 24.95  
 For attaching ADM Mainframe to M-3 cable.  
 ADAM PRINTER TRACTOR FEED \$ 72.95  
 Hooks onto the ADM printer as originally designed to  
 provide for feeding of gate-fed continuous form paper.  
 Provides consistent alignment and strapping of paper. All  
 metal design - guaranteed.  
 PRINTER STAND/ON/OFF SWITCH \$ 15.95  
 Provides raised plastic legs for the ADM 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 ADM console to a video monitor.  
 Supports both picture and sound signals.  
 EXPANSION MOD MONITOR KIT \$ 29.95  
 Kit to modify color monitor to allow it to be connected  
 to a monitor via 780 cable above. Requires soldering  
 skill - see review in 2/80 issue.  
 \* SPECIFY DTP OR DISK FOR SOFTWARE PROVIDED

SPECIALS / NEW PRODUCTS

54K MEMORY EXPANDER & BASIC RANDDISK \$ 59.95  
 Provides full ability to use 64K expander from SMART-  
 Basic as a ram disk. Specify whether you want the  
 BASIC RANDDISK program for Basic V1.0 or 2.0  
 POWER SUPPLY FOR COLLECO DISK DRIVE \$ 19.95  
 POWER SUPPLY FOR COLLECO DISK DRIVE \$ 9.95  
 MAGNAVOX CH88505 COLOR MONITOR \$249.95  
 Use with the ADM for better color. Also  
 compatible with all other computers as well.  
 Gives 40 column color in 800 mode.  
 MAGNAVOX BC88515 COLOR MONITOR \$369.95  
 Same as CH88505 above, but will display 80  
 columns on 888 computers (not the ADM).  
 3 OUTLET SURGE PROTECTOR \$ 14.95  
 Protect your hardware from power surges.  
 COMBO MONITOR TILT/SWIVEL STAND & \$ 69.95  
 5 OUTLET SURGE PROTECTOR W/ MASTER SWITCH  
 Integrated small unit organizes your computer  
 wires and gives surge protection. Turn on  
 all components with one switch or individually.  
 NIBAD PRODUCT REVIEW BOOK \$ 19.95  
 Contains detail reviews of 100 ADM products,  
 organized alphabetically for quick reference.

PRINTERS

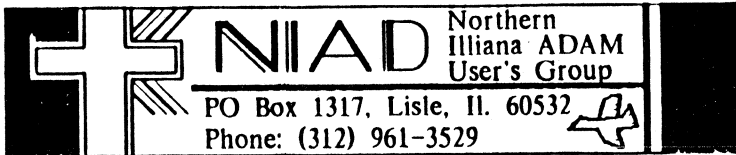
PANASONIC 10911-2 \$159.95  
 TYPE: 513 DOT MATRIX  
 SPEED: 80MPH  
 MEDIA HANDL: COMPATIBLE W/ EPSON R180,  
 180, FULL GRAPHICS  
 ADJ TRACTOR FEED  
 CENTRONICS PARALLEL  
 FEATURES: 2 YEAR LIMITED WARRANTY  
 PANASONIC 10911-2 \$269.95  
 TYPE: 513 DOT MATRIX  
 SPEED: 80MPH  
 MEDIA HANDL: COMPATIBLE W/ EPSON R180,  
 180, FULL GRAPHICS  
 ADJ TRACTOR FEED  
 CENTRONICS PARALLEL  
 FEATURES: 2 YEAR LIMITED WARRANTY  
 EPSON 20 COLOR PRINTER \$199.95  
 TYPE: 24 PIN THERMAL  
 SPEED: 80MPH  
 MEDIA HANDL: LIMITED ADJ TRACTOR FEED  
 MEDIA HANDL: NONE (300 DPM)  
 INTERFACES: PARALLEL, SERIAL  
 ATTACHES TO ESC OR ORPHANWARE  
 PARALLEL INTERFACE  
 BLACK & WHITE OR COLOR PRINTING  
 OR BUFFER, SPECIAL PAPER REQ'D  
 FEATURES: 2 YEAR LIMITED WARRANTY

BEGA GAME SYSTEM

\*\*NOT COMPATIBLE WITH ADM\*\*  
 BEGA GAME SYSTEM \$79.95  
 2 HAND CONTROLLERS  
 COMBO NEW CARTRIDGE  
 HANG ON GAME  
 ASTRO WARRIORS  
 MASTER GAME SYSTEM \$ 99.95  
 2 HAND CONTROLLERS  
 LIGHT PAPER GUN  
 COMBO NEW CARTRIDGE  
 HANG ON GAME  
 SHOOT HUNT GUN  
 SEGA SPORTS PAD CONTROLLER \$49.95  
 SEGA CONTROL STICK \$19.95  
 SEGA 30 BLASSES \$79.95  
 SEGA CARD SOFTWARE (52K) \$24.95  
 5-1/4" FLIGHTING PALCON  
 W/ 8000  
 TENDY 300  
 TRANSDOT  
 SUPER TENNIS (sports pad not req'd)  
 SEGA NEW CARTRIDGES (COMBO) \$29.95  
 CHORLETTOR  
 ACTION FIGHTER  
 VALETTBALL NEW  
 BLACK BELT  
 ALICE IN HURDLE WOULD NEW  
 FANTASY ZONE  
 WORLD GP  
 PRO WRESTLING  
 MARSHAW/ TAP SHOOTING  
 BEAT HOCKEY (SPORTS PAD REQ'D)  
 RANBO  
 BASEBALL (SPORTS PAD NOT REQ'D)  
 QUARTET  
 SHOOTING GALLERY ( FOR USE WITH GUN)  
 MISSILE DEFENSE 30 (REQ'S 30 BLASSES & GUN)  
 SPACE SHOOTER (TWO MEN) \$34.95  
 ROCKE BATTING (TWO MEN) \$34.95

THE COLLECT ADM ENTERTAINERS BY  
 BRIAN SHAWER \$ 12.95  
 HACKER'S GUIDE TO ADM VOL. 1 \$ 11.95  
 HACKER'S GUIDE TO ADM VOL. 2 \$ 11.95  
 HACKER'S GUIDE TO ADM VOL. 3 \$ 11.95  
 PROGRAMS FOR BOTH VOL. 1 & 2 \$ 2.00 DISK  
 HACKER'S GUIDE ON 1 TAP OR DISK \$ 5.00 DTP  
 2ND EDITION ADM RESOURCE DIRECTORY \$3.95  
 USING & PROGRAMMING ADM BY MANSIE \$ 7.95

THE COLLECT ADM ENTERTAINERS BY  
 BRIAN SHAWER \$ 12.95  
 HACKER'S GUIDE TO ADM VOL. 1 \$ 11.95  
 HACKER'S GUIDE TO ADM VOL. 2 \$ 11.95  
 HACKER'S GUIDE TO ADM VOL. 3 \$ 11.95  
 PROGRAMS FOR BOTH VOL. 1 & 2 \$ 2.00 DISK  
 HACKER'S GUIDE ON 1 TAP OR DISK \$ 5.00 DTP  
 2ND EDITION ADM RESOURCE DIRECTORY \$3.95  
 USING & PROGRAMMING ADM BY MANSIE \$ 7.95



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D/R

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ADDRESS		NAME	
		ADDRESS	
PHONE (        ) -        -			

Q'TY.	ITEM NAME / NUMBER	DDP/DISK	PRICE EA.	TOTAL PRICE

SUB TOTAL \_\_\_\_\_

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----> \$ \_\_\_\_\_

ALL MEMBERS PLEASE DO NOT FORGET SHIPPING/INSURANCE

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\$ 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

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Check or money order enclosed Charge my:     
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BAL. OR CREDIT DUE ----> \$ \_\_\_\_\_

TOTAL INCLUDED ----> \$ \_\_\_\_\_

Write Credit Card Account Number in boxes below:

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Signature \_\_\_\_\_

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