



SPRING HAS SPRUNG HERE IN CHICAGOLAND, WHICH MEANS THE START OF OUTDOOR CHORES! MY JOB THIS WEEKEND IS TO MOVE ABOUT 3 YARDS OF DIRT TO MY GARDEN AND FLOWER BEDS - OH MY ACHING BACK !!

I'D LIKE TO WALK YOU THROUGH THE FIRST 2 CHAPTERS OF A VERY POWERFUL BOOK OF THE BIBLE - EPHESIANS. THE APOSTLE PAUL IS WRITING TO A CHURCH IN THE CITY OF EPHESUS TO ENCOURAGE THE CHRISTIANS THERE AND GIVE THEM SOME INSTRUCTION IN GOD'S WILL.

"BLESSED BE THE GOD AND FATHER OF OUR LORD JESUS CHRIST, WHO HAS BLESSED US IN CHRIST WITH EVERY SPIRITUAL BLESSING IN HEAVENLY PLACES, EVEN AS HE CHOSE US IN HIM BEFORE THE FOUNDATION OF THE WORLD, THAT WE SHOULD BE HOLY AND BLAMELESS BEFORE HIM." (1:3-4 RSV).

FIRSTLY, PAUL IS SAYING THAT GOD THE FATHER HAS BLESSED US IN CHRIST, MEANING THAT ALL THESE BLESSINGS ONLY COME VIA JESUS AND NOT THROUGH ANY OTHER MEANS OR OTHER PEOPLE -ITS ONLY JESUS CHRIST THE SON OF GOD THROUGH WHOM GOD THE FATHER WORKS. JESUS IS GOD'S "AGENT" OR REPRESENTATIVE TO MANKIND. NOW, UNDERSTANDING THAT GOD WORKS THROUGH HIS SON JESUS, PAUL TELLS US THAT THE BLESSINGS GOD SENDS US ARE "EVERY SPIRITUAL BLESSING IN THE HEAVENLY PLACES". I CAN'T EVEN IMAGINE WHAT EVERY SPIRITUAL BLESSING IS, BUT IT HAS TO BE ALOT OF FANTASTIC THINGS !! GOD SAYS THESE ARE THE SPIRITUAL BLESSINGS IN THE HEAVENLY PLACES THAT HE WILL GIVE US DOWN HERE ON POOR OLD EARTH. WHAT I BELIEVE HE IS TRYING TO TELL US IS THAT ONCE WE HAVE ACCEPTED JESUS AS OUR PERSONAL LORD AND SAVIOUR, WE ARE ELIGIBLE TO RECEIVE THESE WONDERFUL BLESSINGS IN OUR LIVES, POURED OUT FROM HEAVEN ITSELF !!!!!

I CAME TO A REAL REVELATION A COUPLE OF YEARS AGO, THAT OUR BLESSINGS AS CHRISTIANS ARE NOT JUST IN HEAVEN, AFTER WE DIE AND GO THERE TO BE WITH GOD, BU THAT THROUGH JESUS WE HAVE BLESSINGS HERE ON EARTH. GOD'S PLAN IS TO BLESS US WHERE WE ARE AT, TO HELP US CONQUER OUR PROBLEMS IN THIS LIFE NOT JUST IN THE NEXT LIFE. JESUS MINISTERED WHILE HE WAS HERE ON THE EARTH TO PEOPLES NEEDS - HE HEALED PHYSICAL PROBLEMS AND MENDED BROKEN HEARTS. I FOUND THIS IS HIS PLAN FOR ALL OF US NOW. SALVATION IS BOTH THE PRE-REQUISITE FOR ETERNAL LIFE AND FREEDOM FOR US IN OUR PRESENT LIFE.

WE'LL CONTINUE NEXT MONTH IN EPHESIANS.....GOD BLESS YOU ALL.

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COLECO, ADAM, COLECOVISION, SMARTWRITER, ADAMCALC, SMARTFILER, SMARTBASIC, CPM 2.2, SMARTLOGO, SUPER ZAXXON, DRAGON'S LAIR ARE ALL TRADEMARKS OF COLECO INDUSTRIES, INC.



NIAD NEWS

WELL, TO SHOW OUR "PROGRAMS ARE WHERE ARE MOUTH IS", WE HAVE INCLUDED THE FIRST PUBLIC DOMAIN BACKUP COPY PROGRAM FOR THE ADAM IN THIS ISSUE. THIS PROGRAM, WRITTEN BY OUR WAYNE MOTEL WILL OUTSHINE MOST OTHERS I HAVE SEEN, IT IS A VERY WELL DONE PIECE OF SOFTWARE. SEE THE UTILITIES WORKSHOP. ENJOY !

WE WILL ALSO HAVE ANOTHER PUBLIC DOMAIN COPY PROGRAM AND UTILITY MINI-KIT FROM ONE OF THE WEST COAST USER GROUPS FOR NEXT MONTH.

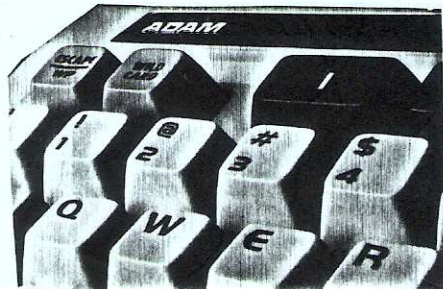
WE ARE STILL IN THE PROCESS OF UPLOADING THE NIAD SOFTWARE EXCHANGE LIBRARY TO COMPUSERVE. LOOK FOR OUR ITEMS WITH A KEYWORD OF NIAD. WE WILL CONTINUE TO PUBLISH PROGRAM LISTINGS IN THE NEWSLETTER AND MAINTAIN THE SOFTWARE EXCHANGE PROGRAM FOR THOSE OF YOU WITHOUT THE ADAMLINK MODEM. I'VE ADDED A NEW COMMUNICATIONS WORKSHOP TO COVER TOPICS IN THIS HOT AREA.

MANY OF YOU HAVE RECEIVED A MAILING FROM COLECO WITH "SALE" PRICES ON MANY OF THE SOFTWARE AND HARDWARE ITEMS. THE 64K AND EXTRA DIGITAL DATA DRIVE HAVE LOWER PRICES THEN NIAD AND SOME OF YOU HAVE ASKED IF I WILL MATCH THESE PRICES - SORRY, BUT MY COST FOR THESE ITEMS HAS NOT BEEN REDUCED, SO I WILL HAVE TO STICK WITH THEM. EVIDENTLY, COLECO IS TRYING TO MOVE THEIR STOCK OF THESE ITEMS.

SOME OF YOU HAVE ASKED WHY NIAD DOESN'T INCLUDE ADVERTISING. BASICALLY, ADVERTISING BY ITSELF IS AGAINST OUR POLICY BECAUSE IT IS IN CONFLICT WITH THE PURPOSE OF NIAD TO PROVIDE ALL MEMBERS WITH INFORMATION ON WHICH TO MAKE INFORMED PURCHASING DECISIONS. WE ACCOMPLISH THIS BY DOING REVIEWS ON ALL PRODUCTS BASED ON PRODUCT TYPE, FUNCTION PROVIDED AND COST. THIS IS A VERY TIME CONSUMING TASK, BUT ONE THAT WE ARE COMMITTED TO. ADVERTISING CIRCUMVENTS THIS. ALSO, ADVERTISING CAN LEAD TO A LACK OF OBJECTIVITY IN REVIEWS WHICH WE DON'T WANT TO GET INTO. FINALLY, IT TAKES ALOT OF ADDITIONAL SPACE THAT COULD BE BETTER DEVOTED TO PROVIDING YOU INFORMATION.

NIAD WILL BE AT THE CHICAGO CONSUMER ELECTRONICS SHOW IN JUNE TO SEARCH OUT INFORMATION ON ADAM PRODUCTS. THE JUNE ISSUE WILL HAVE A FULL REPORT ON WHATEVER WE FIND.

PLEASE SEND IN YOUR COMMENTS, SUGGESTIONS. PLEASE SEND IN INFORMATION ON ANY OF THE CPM 2.2 PUBLIC DOMAIN PROGRAMS THAT YOU HAVE FOUND THAT WORK WITH THE ADAM. NIAD WILL PRINT REVIEWS OF THESE PRODUCTS AND REPORT ON THEM FOR ALL MEMBERS INFORMATION.



NIAD BASICS

- . NEW MEMBERS SUBSCRIPTIONS ARE STARTED WITH THE LAST ISSUE PUBLISHED.
- . BACK ISSUES OF THE NIAD NEWSLETTER ARE AVAILABLE FOR \$3.00 EACH AND I WOULD RECOMMEND YOU PURCHASE THEM FOR THE REVIEWS AND WORKSHOP INFORMATION.
- . TELEPHONE CALL INS ARE TAKEN SATURDAY AM'S FROM 8:00 TO 11:00, CHICAGO TIME.
- . REGARDING PRODUCT ORDERING -
 - SEND A MONEY ORDER OR CHARGECARD NUMBER IF YOU WANT TO EXPEDITE YOUR ORDER. ALL FIRST TIME ORDERS (NOTE: ESTABLISHED MEMBERS MAY PAY BY CHECK WITHOUT THE 10 DAY DELAY) PAID BY CHECK WILL BE HELD FOR 10 DAYS UNTIL THE CHECK CLEARS.
 - . IF YOU ORDER ITEMS THAT ARE SHOWN AS NOT YET AVAILABLE AT THE SAME TIME YOU ORDER OTHER ITEMS, YOU WILL BE CHARGED TWO SHIPPING CHARGES UNLESS YOU SPECIFY THAT I SHOULD HOLD YOUR ORDER UNTIL ALL ITEMS ARE AVAILABLE.
 - . IF YOU WANT ME TO SHIP TO A POST OFFICE BOX, INCLUDE THE SHIPPING CHARGE FOR US MAIL SINCE UPS DOES NOT SHIP TO PO BOXES.
 - . PLEASE CALL ME BEFORE RETURNING ANY MERCHANDISE.
 - . IF I AM BACKORDERED ON AN ITEM THAT IS NOT SHOWN AS "NOT YET AVAILABLE", I WILL FILL THE REST OF YOUR ORDER AND SEND THE BACKORDERED ITEM WHEN RECEIVED (WITH NO ADDITIONAL SHIPPING CHARGE).

ADAM'S FUTURE

WELL, AS STATED IN COLECO'S ANNUAL SHAREHOLDERS MEETING, THE REVCO DEAL IS OFF AND COLECO HAS SOLD THEIR INVENTORY OF ADAM HARDWARE, SOFTWARE TO THE FIVE RETAIL OUTLETS MENTIONED IN THE MARCH NIAD NEWSLETTER. TO REPEAT, THESE ARE TOYS-R-US, ZAYRES, BEST PRODUCTS, LIONEL LEISURE AND KAY BEE. ADDITIONALLY, COLECO HAS JUST COMPLETED A MASS MAILING TO ALL ADAM OWNERS ENCOURAGING YOU TO BUY PRODUCTS VIA MAIL ORDER DIRECTLY FROM COLECO. THEIR PRICES ARE VERY SIMILAR TO NIAD'S, SOME LOWER AND SOME HIGHER. ALL THESE ARE GOOD SIGNS FOR US ADAMITES, IN THAT PRODUCT AVAILABILITY IS THE KEY TO THE SURVIVAL OF THE ADAM. I HAVE TALKED TO MANY OF YOU THAT WERE READY TO "SHELVE" YOUR SYSTEM, UNTIL YOU FOUND THAT PRODUCTS WERE AVAILABLE. NOW LET ME DAMPER YOUR ENTHUSIASM A BIT AND PREDICT THAT COLECO WILL STOP PRODUCING ADAM SOFTWARE AFTER THE 1985 CHRISTMAS SEASON. ALSO, I THINK COLECO WILL "RUN OUT" OF CERTAIN PERIPHERALS AT THE END OF THE YEAR. THE ISSUE HERE IS WHETHER THIRD PARTY VENDORS WILL PICK UP THE PRODUCTION OF THESE ITEMS, WHICH IS PURELY DEPENDENT ON HOW MANY MORE ADAMS ARE SOLD IN 1985 THROUGH THESE FIVE RETAIL OUTLETS. BASED ON WHAT I HAVE SEEN THE ADAM IS SELLING VERY WELL AT THE CURRENT \$299.00 PRICE. LETS FACE IT, THIS IS A GREAT SYSTEM, ESPECIALLY AT THIS PRICE. THE COMMODORES, ATARIS, ETC. CAN'T HOLD A CANDLE TO THE ADAM AT THIS PRICE. CONSIDER THAT EVEN IF A PERSON ONLY USED THE ADAM AS A WORD PROCESSOR (WHAT AN UNDERUTILIZATION), IT IS A BETTER BUY THEN MANY OF THE NEW "COMPUTERIZED" TYPEWRITERS THAT ARE NOW OUT.

COLECO IS STILL WORKING ON FINALIZING A NUMBER OF SOFTWARE TITLES AND IS ANALYZING THE PRO'S AND CON'S OF RELEASING THESE TITLES. COLECO HAS DECIDED TO NOT PRODUCE BASIC 2.0 AND THE ADAM UTILITY KIT BASED ON THIS ANALYSIS. THIS IS TOO BAD FOR US, BUT NEVER FEAR THERE ARE SOME ALTERNATIVES (SEE NIAD NEWS).

COLECO IS OBVIOUSLY NOT GOING TO BE AT THE BIG SUMMER ELECTRONICS SHOW IN JUNE (CHICAGO). NIAD WILL BE THERE TO GATHER INFORMATION ON ADAM PRODUCTS. ITS INTERESTING THAT ATARI HAS RECENTLY ANNOUNCED THEY WOULD NOT BE AT THE CES SHOW EITHER ! SPECULATION IS THAT THEIR NEW "JACKINTOSH" SYSTEM IS NOT READY YET. COMMODORE HAS JUST ANNOUNCED A \$28.2 MILLION DOLLAR LOSS FOR THE THIRD FISCAL QUARTER AND WILL POST A LOSS FOR THE FISCAL YEAR ENDING JUNE, 85. IT APPEARS THAT THE WHOLE HOME COMPUTER MARKET IS A SHAMBLES AND EVERYONE IS IN SOME TYPE OF TROUBLE !

SOME GOOD NEWS - QUEST CUSTOM VIDEO IS MARKETING A RS232 INTERFACE FOR THE ADAM. THEY ARE SENDING OUT PROTOTYPE VERSIONS FOR TESTING SHORTLY. THIS IS A GOOD SIGN AND ONE WE HAVE ALL BEEN WAITING FOR. EVIDENTLY, AN 80 COLUMN CARD IS ALSO UNDER DEVELOPMENT! NOW ALL WE NEED IS THE TRACTOR FEED AND WE'RE IN GREAT SHAPE. SEE THE UPDATES SECTION FOR MORE PRODUCT INFORMATION.

IT IS VERY IMPORTANT THAT WE SUPPORT THESE SOFTWARE COMPANIES THAT ARE PUTTING OUT HIGH QUALITY SOFTWARE FOR THE ADAM. FRANKLY, IF THEY DON'T EXPERIENCE GOOD SALES, WE WON'T SEE ANYMORE NEW PRODUCTS FROM THEM, WHICH WILL LEAD TO THE DOWNFALL OF THE ADAM. AS AN EXAMPLE, SYDNEY DEVELOPMENT OF CANADA (DAMBUSTERS, BC) HAS STATED THAT THEY WILL ONLY DEVELOP ADDITIONAL PRODUCTS FOR THE ADAM BASED ON THE SALES OF RECENT RELEASES. I COMPLETELY SUPPORT A "PICKY" BUYER CONCEPT, THE VIDEO GAME MARKET AND NOW THE HOME COMPUTER MARKET HAS BEEN FLOODED WITH MEDIOCRE PRODUCTS AND WE NEED TO SORT OUT THE COMPANIES THAT PRODUCE GOOD ONES AND SUPPORT THEM. THIS IS ONE OF THE PRIME OBJECTIVES OF NTAD - TO HELP ITS MEMBERS SELECT GOOD PRODUCTS. I HIGHLY RECOMMEND THAT YOU ANALYZE OUR REVIEWS AND PURCHASE THOSE PRODUCTS THAT YOU FEEL WILL MEET YOUR PARTICULAR NEEDS.

THE IMPORTANT FACT HERE IS THAT THIRD PARTY SOFTWARE COMPANIES ARE PICKING UP THE SLACK FROM COLECO WHICH IS WHAT IS REQUIRED TO KEEP THE ADAM ALIVE.

UPDATES

. BASIC 2.0 IS DEFINITELY DEAD AS FAR AS COLECO PRODUCING IT. YOU MAY WONDER WHY THEY MADE THIS DECISION, BASED ON WHAT APPEARED TO BE A HIGH LEVEL OF INTEREST IN THE PRODUCT. MY OPINION IS THAT THE PRODUCTION COST (COMPLETION OF A DETAIL MANUAL, PACKAGING, ETC.) AND THE SUPPORT THAT WOULD BE REQUIRED WAS MORE THEN COLECO COULD SUPPORT. NIAD WILL BE IN CONTACT WITH THE DEVELOPERS (LAZER) AND WE WILL SEE IF SOMETHING CAN'T BE WORKED OUT.

. ALTHOUGH THE ADAM UTILITY KIT IS ALSO DEAD, WE'RE HAPPY TO ANNOUNCE THAT EXTENDED SOFTWARE CO. IS JUST ABOUT COMPLETED WITH A VERY COMPREHENSIVE UTILITY TOOLKIT WHICH WILL MEET A BIG NEED FOR THE ADAM OWNER. WE SHOULD HAVE A FULL REVIEW ON THIS PROGRAM WHEN IT BECOMES AVAILABLE.

. STEVE SIMPSON HAS RELEASED AUTOAID AND IT IS EXCELLENT IN THAT IT EXPANDS BASIC 1.0 AND PROVIDES FOR SOME OF THE FUNCTIONS THAT WERE TO BE IN BASIC 2.0. WE WILL REVIEW IT NEXT MONTH.

. MARTIN CONSULTING HAS ALSO RELEASED A NEW TITLE - FANTASY GAMER, WHICH IS FOR YOU ADVENTURE GAME LOVERS.

. VICTORY HAS RELEASED GAME PACK I WHICH IS REVIEWED IN THIS ISSUE.

. COLECO'S CURRENT SOFTWARE RELEASE SCHEDULE FOR THE 2ND QUARTER INCLUDES 2010: TEXT ADVENTURE, FAMILY FEUD, JEOPARDY AND THE BEST OF ELECTRONIC ARTS: HARD HAT MACK & PINBALL CONSTRUCTION. AS MENTIONED BEFORE, COLECO IS CONSTANTLY EVALUATING THE SALES POTENTIAL OF THESE PLANNED NEW PRODUCTS. HOWEVER, SINCE THESE DIDN'T GET CHOPPED WHEN BASIC 2.0 AND THE UTILITY KIT DID THEY LOOK PRETTY GOOD FOR A JUNE/ JULY RELEASE.

. COLECO IS CUTTING BACK THERE "HOT LINE" HOURS TO 8:00 AM TO 5:30 PM, MONDAY THRU FRIDAY.

. QUEST VIDEO IS PUTTING OUT 10 TEST PROTOTYPES OF AN RS232 INTERFACE WHICH WILL ALLOW THE ADAM TO INTERFACE WITH CENTRONICS AND OTHER BRANDS OF PRINTERS. ONCE THESE TEST VERSIONS HAVE THE BUGS FIXED, AND ASSUMING QUEST FEELS THEY CAN MAKE MONEY ON IT, PRODUCTION WILL BEGIN.

. COLECO HAS JUST RELEASED THE HOME SOFTWARE LIBRARY WHICH IS A COLLECTION OF 32 PROGRAMS - WE WILL REVIEW IT NEXT MONTH.

. RUMOR HAS IT THAT A TRACTOR FEED FOR THE PRINTER IS ALSO UNDER DEVELOPMENT.

COMMUNICATIONS WORKSHOP

I DECIDED TO START ANOTHER SECTION DEVOTED TO COMMUNICATIONS VIA THE ADAMLINK MODEM.

AS BACKGROUND FOR THOSE OF YOU THAT HAVE ASKED ABOUT THIS SUBJECT, A MODEM ALLOWS YOU TO TRANSMIT AND RECEIVE DATA OVER PHONE LINES. THE ADAMLINK MODEM IS INSERTED INTO THE INSIDE OF THE ADAM'S CONSOLE AND HAS A PHONE WIRE THAT COMES OUT AND IS PLUGGED INTO A REGULAR PHONE JACK. TO OPERATE THE MODEM A SOFTWARE PROGRAM IS PROVIDED WITH THE MODEM THAT SETS UP THE ADAM TO SEND AND RECEIVE DATA OVER PHONE LINES. A TYPICAL SCENARIO WOULD BE AS FOLLOWS:

1. MAKE SURE THE MODEM WIRE IS PLUGGED INTO THE PHONE JACK
2. LOAD THE SPECIAL ADAM TELECOMMUNICATIONS DIGITAL DATA PACK INTO THE ADAM AND PRESS THE COMPUTER RESET
3. ONCE THE PROGRAM LOADS IT WILL ASK YOU TO ENTER THE PHONE NUMBER OF THE COMPUTER YOU WANT TO CALL
4. THE ADAM WILL DIAL THE NUMBER ELECTRONICALLY
5. ONCE CONTACT HAS BEEN MADE AND THE MODEM AT THE OTHER END "ANSWERS" YOUR CALL, THE ADAMLINK PROGRAM TELLS YOU THAT IT IS "HOOKED" INTO THE OTHER COMPUTER

THIS MAY SOUND COMPLICATED BUT IT REALLY ISN'T, ONCE YOU GET USED TO IT.

THE BENEFITS OF TELECOMMUNICATIONS VIA A COMPUTER ARE SEVERALFOLD:

- . EXCHANGE INFORMATION WITH PEOPLE FROM ACROSS THE COUNTRY. THIS IS ACCOMPLISHED BY USING "BULLETIN BOARD SYSTEMS" (BBS) LIKE COMPUSERVE (EXPLAINED BELOW). THESE BBS ALLOW YOU TO POST AND READ MESSAGES. MANY ADAMITES DO THIS ON COMPUSERVE BY JUST MAKING A LOCAL CALL IN THEIR CITY. THIS IS A GREAT WAY TO CONTACT MANY PEOPLE OF LIKE INTERESTS FOR ALOT CHEAPER THEN A LONG DISTANCE PHONE CALL.

- . OBTAIN PUBLIC DOMAIN PROGRAMS (FREE, NON-COPYWRITED). MOST BBS HAVE WHAT ARE CALLED DATA LIBRARIES WHERE THESE PROGRAMS RESIDE. SEE BELOW FOR A LIST OF THOSE THAT CONTAIN ADAM COMPATIBLE PROGRAMS. THIS IS AN EASY WAY TO OBTAIN AND SHARE PROGRAMS, WHICH BENEFITS ALL OF US. NOTE: TO UPLOAD AND DOWNLOAD PROGRAMS, YOU WILL NEED THE UPDATED VERSION OF THE ADAMLINK SOFTWARE - THIS IS AVAILABLE FROM COLECO FOR \$9.00 VIA A "COUPON" CARD THAT COMES WITH YOUR ADAMLINK MODEM.

- . USE GENERAL INFORMATION DATABASE SYSTEMS SUCH AS COMPUSERVE TO OBTAIN INFORMATION, DO "ONLINE" SHOPPING AND USE DISCOUNT BUYING SERVICES.

AS YOU CAN SEE THERE ARE MANY USES FOR "TELECOMMUNICATING" WITH YOUR ADAM.

COMPUSERVE IS A MULTI-PURPOSE INFORMATION SERVICE FOR HOME AND BUSINESS COMPUTER OWNERS. IT OFFERS BBS FOR MANY DIFFERENT TYPES OF COMPUTERS, INCLUDING THE ADAM. IT ALSO HAS A PERSONAL ELECTRONIC MAIL SYSTEM THAT ALLOWS YOU TO LEAVE MESSAGES TO OTHERS, THAT NO ONE ELSE CAN READ. THERE ARE ALSO GAMES TO PLAY ONLINE AND EXTENSIVE INFORMATION DATABASES ON MANY SUBJECTS. THERE IS ELECTRONIC SHOPPING AND TRAVEL RESERVATION SERVICES. SOME INFORMATION ON COMPUSERVE COMES WITH YOUR ADAMLINK MODEM. IF YOU WANT TO JOIN COMPUSERVE, THERE IS AN ACCESS COST OF \$6.25 PER HOUR FROM 6:00 PM TO 5:00 AM LOCAL TIME M-F AND ALL DAY SATURDAY AND SUNDAY. YOU ALSO MAY HAVE TO PAY THE COST FOR A NORMAL CALL TO ONE OF THE ACCESS NUMBERS IF YOU DON'T HAVE ONE IN YOUR CITY. ALL MAJOR CITIES AND MOST OF THE MEDIUM SIZE CITIES HAVE LOCAL NUMBERS TO CALL. YOU SHOULD PURCHASE A COMPUSERVE STARTER KIT IF YOU WANT TO JOIN WHICH CONTAINS YOUR OPERATING MANUAL, IDENTIFICATION NUMBER AND PASSWORD, PLUS 5 HOURS OF TIME ON COMPUSERVE (SEE NIAD PRODUCT LIST). THIS SHOULD BE ALL THE BASIC INFORMATION YOU NEED TO GET STARTED.

THE FOLLOWING ARE THE BBS THAT HAVE SPECIAL SECTIONS FOR ADAMITES TO EXCHANGE INFORMATION, MOST ALSO CONTAIN DATA LIBRARIES WITH ADAM PROGRAMS:

1. COMPUSERVE - VARIOUS LOCAL #'S
2. ADAM INFO EXCHANGE - (404)445-8785
3. WEBER STATE COLLEGE - (801)626-7906
4. PLANET EARTH - (415)968-7728
5. TONY'S PLACE - (313)754-1131
6. DETROIT COOP - (313)342-3019
7. CITADEL - (916)338-2352
8. PEOPLES CHOICE -

UTILITIES WORKSHOP

FDUMP2 FIX
BY W. MOTEL

LINE 1852 OF FDUMP2 SHOULD READ ---- RV=24 ---
INSTEAD OF RV=18.

THE VALUE 24 IS THE DECIMAL EQUIVALENT OF THE HEX
VALUE 18.

UPDATED FONTEDIT
BY W. MOTEL

IN THE MARCH ISSUE, WE PRINTED A FONT EDITOR PROGRAM BY BEN HINKLE. SOME OF YOU HAVE ENCOUNTERED SOME PROBLEMS WITH IT. SOME OF THESE PROBLEMS COME FROM THE USE OF HTMEM INSTEAD OF LOMEM. HTMEM IS SUPPOSED TO SAVE MEMORY ABOVE THE ADDRESS YOU SPECIFY. UNFORTUNATELY, IT DOESN'T WORK CORRECTLY. IT IS CHANGED BY A NEW, LOAD, OR RUN COMMAND. LOMEM SHOULD ALWAYS BE USED. THIS RESERVES MEMORY BELOW YOUR ADDRESS. IT REMAINS SET UNTIL YOU CHANGE IT WITH ANOTHER LOMEM COMMAND OR REBOOT BASIC.

WHAT I'VE DONE IS CHANGE THE PROGRAM AND MACHINE LANGUAGE ROUTINE TO USE LOMEM. THE SMALL MACHINE LANGUAGE PROGRAM IS STORED AT ADDRESS 27600 - 27639 AND THE FONT SET AT 27640 - 28664. BSAVE AND BLOAD WORK FROM ADDRESS 27600 FOR A LENGTH OF 1064 BYTES.

ONE ADDITIONAL THING I'VE ADDED IS THE ABILITY TO DISPLAY THE ACTUAL 8x8 PATTERN FOR EACH CHARACTER. THIS IS NOT ONLY HELPFUL IN ACTUALLY SEEING HOW THE CHARACTER IS DESIGNED, BUT MAKES IT EASIER FOR YOU TO CHANGE IT. YOU ONLY HAVE TO ADD OR ERASE TO THE EXISTING DISPLAYED PATTERN.

THE ENTIRE PACKAGE NOW CONSISTS OF TWO (2) PROGRAMS. FONTEDIT WHICH IS THE MODIFIED ORIGINAL FONTEDITOR. I'VE ALSO ADDED FONTLOAD. THIS DOES THE INITIAL LOAD INTO MEMORY OF THE OPERATING SYSTEM FONT SET (INTO OUR ADDRESS 27640 - 28664) AND THE CHANGING OF THE OPERATING SYSTEM TO NOW LOOK FOR THE FONT SET AT THAT ADDRESS. IN TRANSFERING THE FONT SET FROM THE OPERATING SYSTEM INTO OUR ADDRESS, AN OPERATING SYSTEM ROUTINE IS USED THAT SWITCHES THE VARIOUS BLOCKS OF MEMORY AROUND. WHAT IS BASICALLY DONE IS:

A. FONTLOAD IS IN HI 32K AND THE MACHINE LANGUAGE ROUTINE SWITCHES THE LO 32K TO THE COLECOVISION GAME MEMORY TO PULL OUT THE FONT TABLE AND LOAD INTO OUR HI 32K (OUR BASIC PROGRAMS LOMEM 32K-35K). WE THEN GET THE ORIGINAL LO 32K SWITCHED BACK. FONTLOAD FINALLY TRANSFERS THE FONTSET FROM ITS LOCATION ABOVE 32K DOWN TO THE 27640-28664 AREA. IT ALSO SETS VALUES INTO ADDRESS POSITIONS AND RUNS FONTEDIT.

B. FONTEDIT CHECKS THE ADDRESS VALUES FOR THE CODE SET BY FONTLOAD. IF NOT PRESENT, IT RUNS FONTLOAD.

AS YOU CAN SEE, YOU SHOULD FIRST RUN FONTLOAD TO INITIALLY LOAD AND CHANGE THE OPERATING SYSTEM FONT SET. IF YOU FORGET, FONTEDIT WILL CALL IT FOR YOU. JUST MAKE SURE THESE TWO PROGRAMS EXIST ON THE SAME TAPE OR DISK. ONCE YOU INITIALLY RUN FONTLOAD PER BASIC BOOT, YOU DO NOT HAVE TO REDO IT AGAIN. WHEN YOU RUN IT, NOTE THE MESSAGE THAT PRINTS AFTER YOU QUIT THE FONTEDIT RUN.

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2REM      FONTLOAD BY W. MOTEL
3REM      INITIAL FONT SET LOADER
4REM      DUE TO MEMORY CONFIGURATIONS, WE NEED
5REM      TO GET FONTSET INTO ADDRESS ABOVE 32767,
6REM      THEN SET BACK INTO 27640
10LOMEM :35000
20FOR X=33000 TO 33032:READ D:POKE X, D:NEXT X
30CALL 33000
40POKE 27637, 250:POKE 27638, 251:POKE 27639, 252
45? " RUNNING FONTEDIT"
50? CHR$(4); "RUN FONTEDIT"
100DATA   62,0,205,20,253,33,4,3,1,0,4,17
110DATA
16,129,237,176,62,1,205,20,253,33,16,129,1,
0,4,17,248,107,237,176,201

2REM      FONT EDITOR BY BEN HINKLE
3REM      MODIFIED BY W. MOTEL
4LOMEM :29000
5POKE 17115, 245:POKE 17126, 74:GOSUB 1000
10DATA   175,50,112,225,50,113,225,50,114
13DATA   225,50,127,225,50,128,225,50,129,225

15DATA   50,117,225,62,17,50,118,225,62
17DATA
248,50,119,225,62,107,50,120,225,201
20FOR X=27600 TO 27637:READ D:POKE X, D
30NEXT:CALL 27600
50GR:COLOR =10: X=11: Y=1
53? "'Q'-QUIT 'D'-DISPLAY 'S'-SAVE"
54? "'R'-RESET SET", "'L'-LOAD"
55INPUT "EDIT CHARACTER # (32-126)?": D$
56 D=VAL(D$):IF D=0 THEN 600
57IF D<32 OR D>126 THEN 50
58 RA=27640+D*8
60VLINE 0, 9 AT 10:VLINE 0, 9 AT 19
61HLINE 10, 19 AT 0:HLINE 10, 19 AT 9
64GOSUB 800
70? "CUR.KEYS-MOVE", "'S'-SAVE SET"

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80? "'A'-PLOT", "'E'-ERASE"
90? "'RETURN'-DONE", "'Q'-QUIT"
95? "CHARACTER #": D; " LOOKS LIKE:"; CHR$(D);
100COLOR =6:PLOT X, Y:GET A$: P=ASC(A$)
120IF E=1 THEN COLOR =8:PLOT X, Y:GOTO 140
130COLOR =0:PLOT X, Y
140IF P=97 THEN COLOR =8:PLOT X, Y
145IF P=113 THEN 50
147IF P=115 THEN 500
150IF P=101 THEN COLOR =0:PLOT X, Y: E=0
155IF P=13 THEN 230
160IF P=163 AND X-1>10 THEN X=X-1: E=0
165IF P=161 AND X+1<19 THEN X=X+1: E=0
167IF P=160 AND Y-1>0 THEN Y=Y-1: E=0
170IF P=162 AND Y+1<9 THEN Y=Y+1: E=0
180IF SCRN(X, Y)=8 THEN E=1
190GOTO 100
230FOR Y=1 TO 8: I=0
240FOR X=18 TO 11 STEP -1
250IF SCRN(X, Y)=8 THEN I=I+2^(18-X)
260NEXT X:POKE RA, I: RA=RA+1:NEXT Y
270GOTO 50
500TEXT:INPUT "FILE NAME?": A$
540? CHR$(4); "BSAVE "; A$; ",A27600,L1064"
550? A$; " HAS BEEN SAVED":END
570HOME:INPUT "FILE NAME?": A$
580? CHR$(4); "BLOAD "; A$
590GOTO 50
600IF D$="S" THEN 500
610IF D$="Q" THEN TEXT:GOTO 900
620IF D$="D" THEN 640
625IF D$="R" THEN RESTORE:GOSUB 1010:GOTO 20
627IF D$="L" THEN 570
630GOTO 50
640TEXT:?" "; :FOR X=0 TO 9:?" X;
642NEXT:?"
650FOR X=3 TO 9:HTAB 2:?" X:NEXT
660FOR X=10 TO 12:?" X:NEXT:INVERSE
670VTAB 2:HTAB 5
680VTAB 2:HTAB 5:FOR X=32 TO 126
690IF INT(X/10)=X/10 THEN ? :HTAB 3
695? CHR$(X); :NEXT:?"
710VTAB 22:?" HIT ANY KEY TO CONT":GET A$:NORMAL
720GOTO 50
800REM      CHART CURRENT CHARACTER
801? " DO YOU WANT CHAR> PLOTTED"
802? " IF NOT, IT IS CLEARED":?" Y/N":?" ";
810GET A$
815IF A$="Y" OR A$="y" THEN GOTO 820
816GOTO 890
820COLOR =8
830FOR Y=1 TO 8: I=PEEK(RA+(Y-1))
840FOR X=11 TO 18
850IF I>2^(18-X) THEN I=I-(2^(18-X)):PLOT X, Y
860NEXT X:NEXT Y
890VTAB (21):HTAB (3): X=11: Y=1: E=0
895IF SCRN(X, Y)=8 THEN E=1
899RETURN
900? " THE OPERATING SYSTEM AND"
905? " FONT SET HAS BEEN CHANGED"
910? " IT IS NOW AT ADDRESS"

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915? " 27640-28664"
920?
930? " DO NOT REUSE BELOW THIS "
935?
940? " IF NOT WANTED ":INVERSE
945? " REBOOT BASIC":NORMAL
950END
1000REM CHECK IF FONTLOAD RUN
1005IF PEEK(27637)=250 AND PEEK(27638)=251 AND
PEEK(27639)=252 THEN GOTO 1030
1010? " RUNNING FONTLOAD"
1020? CHR$(4); "RUN FONTLOAD"
1030RETURN

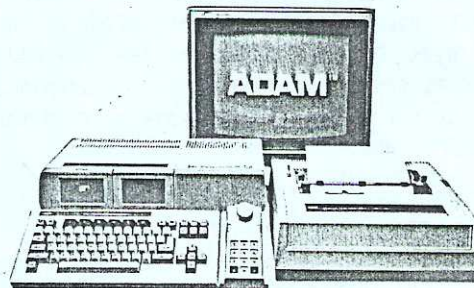
```

UTILCOPY BY W. MOTEL

HERE'S THE PROMISED COPY PROGRAM. ITS JUST A BASIC TAPE/DISK COPY UTILITY, BUT I'VE WRITTEN IN BASIC AND UTILIZED SMARTKEYS. I HOPE THIS IS NOT ONLY USEFUL TO YOU, BUT ALSO EDUCATIONAL AND INFORMATIVE. HOPEFULLY, YOU CAN USE SOME OF THESE TECHNIQUES IN YOUR OWN PROGRAMS.

SOME OF THE THINGS TO LOOK AT:

1. USE OF THE SMARTKEYS FOR PROMPTING. CODE COMPRESSION THRU USE OF SUBROUTINES.
2. KEYBOARD READ/CLEAR ROUTINE. THIS ELIMINATES NEED FOR GET AND INPUT COMMANDS THAT CAUSE PROGRAM TO WAIT FOR REPLY.
 - A. LINE 1550-1569 (KEYBOARD ROUTINE)
 - B. LINE 1583. EXAMPLE OF LOOPING UNTIL A REPLY IS C.
 - C. LINE 3110. EXAMPLE OF IGNORING NON REPLY. ONLY REPLY LOOKED FOR IS THE ESCAPE KEY (CHR\$(27)).
3. USE OF THE ESCAPE KEY TO INTERRUPT. CERTAIN SITUATIONS ALLOW "CANCELING" OF THE INTERRUPT AND RESUME PROCESSING.
4. NOISE ON INVALID KEY PRESSES.
5. PROGRAM DETERMINES DYNAMICALLY WHICH DEVICES YOU HAVE AVAILABLE AND ONLY PROMPTS FOR THESE. THIS IS SIMILIAR TO ADAMCALC AND SMARTWRITER DEVICE PROMPTS.



NOTE: WE HAVE REPRODUCED THIS PROGRAM FOR YOU IN THE NEWSLETTER IF YOU WANT TO TYPE IT IN. HOWEVER, IT IS ALSO AVAILABLE VIA THE NIAD SOFTWARE EXCHANGE PROGRAM ON DDP OR DISK.

```

10REM UTILCOPY BY W. MOTEL
20LOMEM :44384
29REM LOAD ML FOR BLOCK READ
30FOR SA=27645 TO 27665:READ SV:POKE SA, SV:NEXT SA
31DATA 205,138,252,62,0,33,96,109,1,0,0,17
,0,0,205,243,252,50,95,109,201
33REM LOAD ML FOR KEYBOARD CLEAR
34FOR SA=27666 TO 27671:READ SV:POKE SA, SV:NEXT SA:CAL L 27666
35DATA 33,117,253,54,0,201
37REM LOAD ML FOR BADKEY NOISE
38FOR SA=27672 TO 27698:READ SV:POKE SA, SV:NEXT SA
39DATA 62,141,211,255,62,63,211,255,62,144
,211,255,6,127,62,127,61,32,253,5,32,248,62,159,211,255,201
40FOR SA=27999 TO 29023:POKE SA, 0:NEXT SA
43REM LOAD ML FOR DEVICE CHECK

```

```

44FOR SA=27700 TO 27773:READ SV:POKE SA, SV:NEXT SA
45DATA      62,0,50,91,109,50,92,109,50,93,109,50,
94,109,62,4,205,126,252,40,3,50,91,109
46DATA
62,5,205,126,252,40,3,50,92,109,62,8,205,126,252,40,7,50,93,109,50,94,109,201
47DATA
62,8,205,70,244,253,126,20,203,63,203,63,203,63,254,3,56,5,62,1,50,94,109
,201
50REM      LOAD ML FOR BLOCK WRITE
53FOR SA=27774 TO 27791:READ SV:POKE SA, SV:NEXT SA
55DATA      62,0,33,96,109,1,0,0,17,0,0,205,246,252,50,95,109,201
1001 BR%=255
1002 SD%=8: SN$="TAPE 1": WD%=8: WN$="TAPE 1": CR=255
1005 S2%=PEEK(17115): S3%=PEEK(17126)
1010POKE 17115, 245:POKE 17126, 74:GOTO 1100
1099REM      MAIN MENU
1100TEXT:INVERSE:VTAB 3:HTAB 8:? " UTILITY COPY ":
1101VTAB 5:HTAB 8:? " BY W. MOTEL ":NORMAL: SV=FRE(0)
1102 SK%=5: L2$="COPY QUIT": L3$="":GOSUB 1570
1110IF KF%=133 GOTO 3000
1115POKE 17115, S2%:POKE 17126, S3%:TEXT:END
1500REM      INITIAL SMART KEY PRINT
1501REM      PASS SK% WITH STARTING KEY
1502VTAB 22:INVERSE:ON SK% GOTO 1503, 1504, 1505, 1506, 1507, 1508
1503HTAB 2:? " I ";
1504HTAB 7:? " II ";
1505HTAB 12:? " III";
1506HTAB 17:? " IV ";
1507HTAB 22:? " V ";
1508HTAB 27:? " VI ";
1509NORMAL:RETURN
1510REM      PRINT L2$ (KEYS) LINE 23
1512 HT%=(SK%-1)*5+2:HTAB HT%:VTAB 23:? L2$: :RETURN
1520REM      PRINT L3$ (KEYS) LINE 24
1522 HT%=(SK%-1)*5+2:HTAB HT%:VTAB 24:? L3$: :RETURN
1530REM      CLEAR LINES 22-24
1532NORMAL:FOR VT=22 TO 24
1533VTAB VT:HTAB 1:? " ";
1534NEXT VT:RETURN
1550REM      KEYBOARD READ/CLEAR
1551IF PEEK(64885)=0 THEN KP%=0:GOTO 1569
1552 KP%=1
1553 KF%=PEEK(64885):REM      ASCII VALUE (0-255)
1555REM      FOR ASCII < 128 (THIS IS A CHARACTER I.E. 0-9, A-Z)
1556IF KF%<128 THEN KF$=CHR$(KF%): KF%=0:GOTO 1565
1558REM      IF NOT, ITS A SPECIAL KEY (I.E. SMARTKEY) KF%=ASCII
VALUE
1560 KF$=""
1561REM      RETURNED IS KP%=0 (NO KEY PRESSED)
OR KF%=0 AND KF$= CHARACTER (NORMAL)
1562REM
1563REM      KF$="" AND KF%=ASCII VALUE (SPECIAL KEYS)
1565CALL 27666:REM      CLEAR 64885
1569RETURN
1570REM      GLOBAL KEY LINE PRINT
1571REM      SET SK%, L2$, L3$
1575GOSUB 1500:GOSUB 1510:GOSUB 1520
1580REM      GLOBAL KEY READ (UNTILL KEY PRESSED)
1583GOSUB 1550:IF KP%=0 GOTO 1583
1584IF KF$=CHR$(27) GOTO 1589
1585IF KF%<128+SK% OR KF%>134 THEN CALL 27672:GOTO 1583
1589RETURN
2100REM      DEVICE SELECT

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```

2105REM          PASS RD%, DD$, DN$, RETURN RD% (DEVICE), DN$ (DEVICE NAME),
BR% (BLOCK RANGE)
2110HTAB 3:VTAB 3:? "SELECT          DEVICE"; :HTAB 10:INVERSE:? DD$;
:NORMAL
2115HTAB 3:VTAB 5:? "CURRENTLY SET FOR"; :INVERSE:HTAB 21:? DN$;
2120NORMAL:CALL 27700: SK%=2: L2$="": L3$=""
2125IF PEEK(27997)=0 THEN L2$="TAPE ": L3$=" 1  ":GOTO 2130
2127GOSUB 2190
2130IF PEEK(27998)=0 THEN L2$=L2$+"TAPE ": L3$=L3$+" 2  ":GOTO 2135
2132GOSUB 2190
2135IF PEEK(27995)=0 THEN L2$=L2$+"DISK ": L3$=L3$+" 1  ":GOTO 2140
2137GOSUB 2190
2140IF PEEK(27996)=0 THEN L2$=L2$+"DISK ": L3$=L3$+" 2  ":GOTO 2145
2142GOSUB 2190
2145 L2$=L2$+"DONE"
2147GOSUB 1570
2150IF KF%=134 OR KF$=CHR$(27) GOTO 2195
2152IF PEEK(27997)=0 AND KF%=130 THEN RD%=8: BR%=255: DN$="TAPE 1":GOTO 2195
2154IF PEEK(27998)=0 AND KF%=131 THEN RD%=24: BR%=255: DN$="TAPE 2":GOTO 2195
2156IF PEEK(27995)=0 AND KF%=132 THEN RD%=4: BR%=159: DN$="DISK 1":GOTO 2195
2158IF PEEK(27996)=0 AND KF%=133 THEN RD%=5: BR%=159: DN$="DISK 2":GOTO 2195
2160CALL 27672:GOTO 2147
2190 L2$=L2$+"      ": L3$=L3$+"      "
2195RETURN
3000REM          COPY MENU
3005TEXT:VTAB 1:HTAB 9:? " FULL COPY "; :NORMAL
3007VTAB 3:HTAB 3:? "SOURCE DEVICE      "; :INVERSE:? SN$; :NORMAL
3008VTAB 5:HTAB 3:? "DESTINATION DEVICE "; :INVERSE:? WN$; :NORMAL
3010 SK%=3: L2$="NEW NEW COPY EXIT": L3$="SRCE DEST":GOSUB 1570
3015IF KF%=134 OR KF$=CHR$(27) GOTO 1100
3020IF KF%=131 THEN DN$=SN$: RD%=SD$: DD$="SOURCE":TEXT:GOSUB 2100: SN$=DN$:
SD%=RD$:GOTO 3005
3025IF KF%=132 THEN DN$=WN$: RD%=WD$: DD$="DESTINATION":TEXT:GOSUB 2100:
WN$=DN$: WD%=RD$:GOTO 3005
3030POKE 27649, SD%:POKE 27775, WD%
3031 CR=255
3032IF SD%<6 OR WD%<6 THEN CR=159
3033GOSUB 1530:IF SD%=WD% GOTO 3040
3034 DD$="SOURCE": DN$=SN$:GOSUB 3160: DD$="DESTINATION": DN$=WN$:GOSUB 3160
3040INVERSE:VTAB 16:HTAB 3:? "USE ESCAPE TO INTERRUPT"; :NORMAL
3043FOR X=0 TO CR STEP 16
3045IF SD%=WD% THEN DD$="SOURCE": DN$=SN$:GOSUB 3160
3050FOR Y=0 TO 15
3055POKE 27652, 109+(Y*4):POKE 27657, X+Y:POKE 27999, 0
3060GOSUB 1550:IF KP%=1 AND KF$=CHR$(27) THEN GOSUB 3180
3065CALL 27645:IF PEEK(27999)=22 THEN DD$="READ ": BR%=PEEK(27657):GOTO 3190
3070NEXT Y
3080IF SD%=WD% THEN DD$="DESTINATION": DN$=WN$:GOSUB 3160
3100FOR Y=0 TO 15
3105POKE 27778, 109+(Y*4):POKE 27783, X+Y:POKE 27999, 0
3110GOSUB 1550:IF KP%=1 AND KF$=CHR$(27) THEN GOSUB 3180
3115CALL 27774:IF PEEK(27999)=22 THEN DD$="WRITE": BR%=PEEK(27785):GOTO 3190
3117VTAB 20:HTAB 3:? "COPIED SECTOR "; X+Y;
3120NEXT Y
3130NEXT X
3140CALL 27672:VTAB 22:HTAB 3:INVERSE:? "COPY COMPLETED"; :VTAB 23:HTAB 3:?
"REMOVE MEDIA"; : SK%=6: L2$="CONT": L3$="INUE"
3145GOSUB 1570:GOTO 1100
3160CALL 27672:VTAB 22:HTAB 3:? "INSERT "; :INVERSE:? DD$; :VTAB 23:HTAB 6:?
DN$; :NORMAL:HTAB 3:? "ON";
3163VTAB 24:HTAB 3:? "OR "; :INVERSE:? "ESCAPE";
3165 SK%=6: L2$="CONT": L3$="INUE":GOSUB 1570:GOSUB 1530
3170IF KF$=CHR$(27) THEN GOSUB 3180:GOTO 3160
3175RETURN

```



```

3180VTAB 22:HTAB 3:? "ESCAPE PRESSED"; : SK%=5: L2$="AB  CONT": L3$=" ORT
INUE":GOSUB 1570:GOSUB 1530
3185IF KF%=133 GOTO 1115
3186IF KF%=134 THEN RETURN
3188GOTO 3180
3190INVERSE:VTAB 20:HTAB 3:? DD$; " FAIL BLOCK "; BR%; " ABORT "; :NORMAL:END
65535REM
END PROGRAM

```

H FILE FORMAT BY W. MOTEL

LAST MONTH I GAVE YOU THE FORMAT FOR CHECKING YOUR DIRECTORY BLOCKS. THIS MONTH WE'LL DISCUSS HOW H (SMARTWRITER) FILES ARE STORED. YOU WILL SEE WHY THE H AND A FILES ARE NOT COMPATIBLE. THE NORMAL A TYPE FILES (BASIC PROGRAMS OR DATA) ARE STORED AS IS. IF YOU DUMP OUT (WITH FDUMP2) A BASIC PROGRAM FILE, YOU'LL SEE IT CONSISTS OF LINE NUMBER, BASIC STATEMENT, RETURN, WITH THIS PATTERN REPEATED. H FILES ARE A LITTLE DIFFERENT. THEY NOT ONLY CONTAIN YOUR DATA YOU ENTERED THRU SMARTWRITER, BUT A HEADER AREA AT THE BEGINING THAT CONTAINS SMARTWRITER VALUES. THE HEADER CONSIST OF USUALLY 258 BYTES OF HEADER INFO BEFORE YOU ACTUAL DATA. THE FORMAT IS AS FOLLOWS:

BYTE	INFO	
0-1	HEADER SIZE	USUALLY A HEX 00 01

REMEMBER LAST MONTHS LO, HI
THIS IS $0 + 1 * 256 = 256$ BYTES

2	FILE CODE	ALWAYS 1
3	TOP MARGIN	
4	BOTTOM MARGIN	
5	LEFT MARGIN	
6	RIGHT MARGIN	
7	LINE SPACING	
8-87	TAB SETTING	

ONE POSITION FOR PRINTER POSITIONS 1 THRU 80. A 1 IN THE CORRESPONDING POSITION INDICATES TAB IS SET. IGNORE, AS IT CONTAINS GARBAGE. I AM TRYING TO FIGURE OUT HOW SOME OF IT GETS HERE. THIS POSSIBLY WAS RESERVED FOR FUTURE USE IN SAVING OTHER SMARTWRITER VALUES. 259-N YOUR DATA TOP/BOTTOM MARGIN THE VALUE SHOWN IS THE ACTUAL VALUE TIMES 2, THEREFORE MARGIN 6 WOULD BE 12 (0C IN HEX)

88-258	UNUSED
259-N	YOUR DATA

TOP/BOTTOM MARGIN. THE VALUE SHOWN IS THE ACTUAL VALUE - 1.
MARGIN 10 WOULD BE SHOWN AS 9.

LINE SPACING. THE VALUE SHOWN IS 2 TIMES THE ACTUAL. THIS TAKES CARE OF THE HALF SPACE LINES. 1 1/2 LINES WOULD BE SHOWN AS 3.

TRY CREATING SOME SMARTWRITER FILES USING VARIOUS OPTIONS FROM SMARTKEY I. (THESE ARE THE STORED OPTIONS, I.E. MARGINS, TABS, LINE SPACING). USING FDUMP2

- A. FIND OUT FROM THE DIRECTORY, WHAT BLOCK THE FILE IS STORED AT AND THE LAST BLOCK BYTE SIZE.
- B. DUMP THE ACTUAL FILE OUT AND LOOK AT THE SETTINGS.

1. REMEMBER, FDUMP2 WILL SHOW VALUES IN HEX.
2. A CARRIAGE RETURN (YOU TYPED) WILL BE A HEX 0C.
3. LINES THAT GO ONTO THE NEXT LINE WITHOUT A CARRIAGE RETURN GET PADDED WITH BLANKS (HEX 20).
4. AN ENDPAGE IS A HEX 0D.
5. YOU MAY SEE INFO AT THE END OF THE LAST BLOCK THAT YOU DIDN'T TYPE IN. THIS IS WHY YOU LOOK AT THE DIRECTORY FIELD BYTES-IN-LAST-BLOCK. THE SYSTEM NORMALLY ONLY READS THIS NUMBER OF BYTES IN FROM THE LAST BLOCK. THE ROUTINE I USE READS THE WHOLE BLOCK IN.

SMARTBASIC WORKSHOP

```

10TEXT:HOME:POKE 17059, 6:TEXT
20VTAB 3:HTAB 5:? "*****"
25HTAB 5:? "*"
30HTAB 5:? "*" TIC TAC TOE "*"
35HTAB 5:? "*"
38HTAB 5:? "*" BY "*"
40HTAB 5:? "*"
42HTAB 5:? "*" KIP H. HAMMOND "*"
44HTAB 5:? "*"
46HTAB 5:? "*****"
50?:? "PLAYER ONE IS 'X' AND PLAYER"
52?:? "TWO IS 'O'. USE THE JOYSTICK"
55?:? "KEYPADS AS YOUR PLAYING BOARDS."
60?:?:? "PRESS LEFT FIRE BUTTON"
62? "TO BEGIN."
70IF PDL(6)=1 OR PDL(7)=1 GOTO 80
72GOTO 70
80 E=0: F=0: G=0: H=0: I=0: J=0: K=0: L=0: M=0
100GR:COLOR =4

```

```

110V LIN 0, 39 AT 15:V LIN 0, 39 AT 24:HLIN 7, 32 AT
13:HLIN 7, 32 AT 26
120HOME:HTAB 8:?"PLAYER ONE'S TURN"
130 c=PDL(13)
140IF c=0 OR c=10 OR c=11 OR c=15 GOTO 130
145IF c=1 AND E=1 GOTO 130
146IF c=1 AND E=2 GOTO 130
150IF c=1 THEN A=1: B=8: E=1:GOSUB 5000
155IF c=2 AND F=1 GOTO 130
156IF c=2 AND F=2 GOTO 130
160IF c=2 THEN A=1: B=17: F=1:GOSUB 5000
165IF c=3 AND G=1 GOTO 130
166IF c=3 AND G=2 GOTO 130
170IF c=3 THEN A=1: B=26: G=1:GOSUB 5000
175IF c=4 AND H=1 GOTO 130
176IF c=4 AND H=2 GOTO 130
180IF c=4 THEN A=15: B=8: H=1:GOSUB 5000
190IF c=5 AND I=1 GOTO 130
195IF c=5 AND I=2 GOTO 130
200IF c=5 THEN A=15: B=17: I=1:GOSUB 5000
210IF c=6 AND J=1 GOTO 130
215IF c=6 AND J=2 GOTO 130
220IF c=6 THEN A=15: B=26: J=1:GOSUB 5000
230IF c=7 AND K=1 GOTO 130
240IF c=7 AND K=2 GOTO 130
250IF c=7 THEN A=28: B=8: K=1:GOSUB 5000
260IF c=8 AND L=1 GOTO 130
270IF c=8 AND L=2 GOTO 130
280IF c=8 THEN A=28: B=17: L=1:GOSUB 5000
290IF c=9 AND M=1 GOTO 130
300IF c=9 AND M=2 GOTO 130
310IF c=9 THEN A=28: B=26: M=1:GOSUB 5000
320 c=0:GOSUB 6000
390HOME:HTAB 8:?"PLAYER TWO'S TURN"
400 d=PDL(12)
410IF d=0 OR d=10 OR d=11 OR d=15 GOTO 400
420IF d=1 AND E=1 GOTO 400
430IF d=1 AND E=2 GOTO 400
440IF d=1 THEN A=1: B=8: E=2:GOSUB 5500
450IF d=2 AND F=1 GOTO 400
460IF d=2 AND F=2 GOTO 400
470IF d=2 THEN A=1: B=17: F=2:GOSUB 5500
480IF d=3 AND G=1 GOTO 400
490IF d=3 AND G=2 GOTO 400
500IF d=3 THEN A=1: B=26: G=2:GOSUB 5500
510IF d=4 AND H=1 GOTO 400
520IF d=4 AND H=2 GOTO 400
530IF d=4 THEN A=15: B=8: H=2:GOSUB 5500
540IF d=5 AND I=1 GOTO 400
550IF d=5 AND I=2 GOTO 400
560IF d=5 THEN A=15: B=17: I=2:GOSUB 5500
570IF d=6 AND J=1 GOTO 400
580IF d=6 AND J=2 GOTO 400
590IF d=6 THEN A=15: B=26: J=2:GOSUB 5500
600IF d=7 AND K=1 GOTO 400
610IF d=7 AND K=2 GOTO 400
620IF d=7 THEN A=28: B=8: K=2:GOSUB 5500
630IF d=8 AND L=1 GOTO 400
640IF d=8 AND L=2 GOTO 400
650IF d=8 THEN A=28: B=17: L=2:GOSUB 5500
660IF d=9 AND M=1 GOTO 400
670IF d=9 AND M=2 GOTO 400
680IF d=9 THEN A=28: B=26: M=2:GOSUB 5500

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690 d=0:GOSUB 6000:GOTO 120
5000COLOR =3
5010V LIN A, A+1 AT B
5020V LIN A+2, A+3 AT 1+B
5030V LIN A+8, A+9 AT B
5040V LIN A+6, A+7 AT 1+B
5050V LIN A+4, A+5 AT 2+B
5060V LIN A+4, A+5 AT 3+B
5070V LIN A, A+1 AT B+5
5080V LIN A+2, A+3 AT B+4
5090V LIN A+6, A+7 AT B+4
5100V LIN A+8, A+9 AT B+5
5110RETURN
5500COLOR =14
5510V LIN A, A+9 AT B
5520V LIN A, A+9 AT B+5.
5530HLIN B, B+5 AT A
5540HLIN B, B+5 AT A+9
5550RETURN
6000IF E=1 AND F=1 AND G=1 GOTO 7000
6010IF H=1 AND I=1 AND J=1 GOTO 7000
6020IF K=1 AND L=1 AND M=1 GOTO 7000
6030IF E=1 AND H=1 AND K=1 GOTO 7000
6040IF F=1 AND I=1 AND L=1 GOTO 7000
6050IF G=1 AND J=1 AND M=1 GOTO 7000
6060IF E=1 AND I=1 AND M=1 GOTO 7000
6070IF K=1 AND I=1 AND G=1 GOTO 7000
6090IF E=2 AND F=2 AND G=2 GOTO 8000
6100IF H=2 AND I=2 AND J=2 GOTO 8000
6110IF K=2 AND L=2 AND M=2 GOTO 8000
6120IF E=2 AND H=2 AND K=2 GOTO 8000
6130IF F=2 AND I=2 AND L=2 GOTO 8000
6140IF G=2 AND J=2 AND M=2 GOTO 8000
6150IF E=2 AND I=2 AND M=2 GOTO 8000
6160IF K=2 AND I=2 AND G=2 GOTO 8000
6170IF E+F+G+H+I+J+K+L+M=13 GOTO 9000
6180RETURN
7000FOR x=0 TO 20:?"CHR$(7):NEXT
7020POKE 17059, 12:TEXT
7030VTAB 10:HTAB 8:?"PLAYER ONE IS"
7040?:HTAB 9:?"THE WINNER!!!"
7050?:?:?:?
7060?"PUSH LEFT FIRE BUTTON TO"
7070?"PLAY AGAIN, RIGHT FIRE BUTTON"
7080?"TO QUIT."
7100IF PDL(7)=1 GOTO 80
7110IF PDL(9)=1 THEN HOME:POKE 17059, 1:TEXT:END
7120GOTO 7100
8000FOR x=0 TO 20:?"CHR$(7):NEXT
8020POKE 17059, 4:TEXT
8030VTAB 10:HTAB 8:?"PLAYER TWO IS"
8040?:HTAB 9:?"THE WINNER!!!"
8050?:?:?:?
8060?"PUSH THE LEFT FIRE BUTTON TO"
8070?"PLAY AGAIN, RIGHT FIRE BUTTON"
8080?"TO QUIT."
8100IF PDL(6)=1 GOTO 80
8110IF PDL(8)=1 THEN HOME:POKE 17059, 1:TEXT:END
8120GOTO 8100
9000FOR x=0 TO 20:?"CHR$(7):NEXT
9010POKE 17059, 13:TEXT
9020VTAB 10:HTAB 10:?"CAT'S GAME !!!"
9030?:?:?:?:?:?

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9040? "PUSH LEFT FIRE BUTTON TO"
9050? "PLAY AGAIN, RIGHT FIRE BUTTON"
9060? "TO QUIT."
9070IF PDL(6)=1 OR PDL(7)=1 GOTO 80
9080IF PDL(8)=1 OR PDL(9)=1 THEN HOME:POKE 17059,
1:TEXT:END)
0090GOTO 9070

```

SMARTLOGO WORKSHOP

"TWO ARE BETTER THAN ONE BECAUSE THEY HAVE A GOOD RETURN FOR THEIR LABOR."

-- ECCLESIASTES 4:9

ADAMCALC WORKSHOP

WE HAVE A NUMBER OF SMALL BUSINESS' THAT ARE NIAD MEMBERS SO I THOUGHT I WOULD DISCUSS THE BUILDING OF AN INVENTORY MODEL THIS MONTH. THIS SAME MODEL COULD BE USED BY ANYONE TO KEEP TRACK OF ANY LIST OF ITEMS WHERE THE COST OR WORTH OF THE ITEM MAY CHANGE OVER TIME OR THE LIST OF ITEMS MAY VARY. AS AN EXAMPLE, IT COULD BE USED TO KEEP TRACK OF HOME VALUABLES FOR INSURANCE PURPOSES.

FIRST WE NEED TO PLAN OUT OUR INVENTORY NEEDS. LETS MAKE A COMPREHENSIVE ONE THAT REQUIRES THE MAINTENANCE OF A WHOLESALE PURCHASE COST AND A RETAIL COST FOR EACH ITEM. THIS WILL ALLOW US TO VALUE THE INVENTORY AT BOTH OF THESE COSTS - WHAT THE PURCHASE VALUE IS AND WHAT THE RETAIL VALUE IS AT ANY ONE TIME BASED ON THE NUMBER OF ITEMS IN THE INVENTORY. WE SHOULD PLAN TO KEEP THIS AS A MONTHLY INVENTORY SYSTEM FOR MONTHLY ACCOUNTING AND TAX PURPOSES. WE SHOULD ALSO PLAN TO MAKE USE OF ADAMCALCS SORTING CAPABILITIES DEPENDING ON THE NEEDS OF THE PARTICULAR BUSINESS. FOR EXAMPLE, YOU MAY WANT TO GROUP OR SUB-TOTAL THE INVENTORY BY SUCH THINGS AS PRODUCT TYPE, SUPPLIER NAME, ETC. ANOTHER POSSIBILITY IS TO USE THE INVENTORY MODEL AS AN "ON ORDER" LIST TO KEEP TRACK OF WHAT PRODUCTS AND QUANTITIES ARE ON ORDER AT ANY ONE TIME.

LETS PUT ALL THIS TOGETHER AND LAY OUT OUR COMPREHENSIVE ADAM INVENTORY MODEL !

HERE IS OUR BASIC STRUCTURE FROM THE ADAMCALC PRINTOUT. WE'LL WORK ON OUR FORMULAS AND REFINEMENTS NEXT MONTH.

PAGE	1	2	3	4	5	6
1	VENDOR	ITEM #	DESCRIPTION	UNIT COST	UNIT RETAIL	
2						
3						

PAGE	7	8	9	10	11
1	INVENTORY SYSTEM	STOCK COST	ITEMS ON ORDER	ON ORDER COS	
2	# ITEMS				
3					

PAGE	12
1	T
2	
3	

HAVE YOU EVER TRIED WRITING A SET OF LOGO PROCEDURES ONLY TO FIND THAT YOU DON'T HAVE ENOUGH MEMORY? ARE YOU WILLING TO TRADE ACCESS SPEED FOR THE ABILITY TO WRITE PROCEDURES WHICH CAN HOLD MORE DATA?

WELL YOU CAN FINALLY REJOICE, LOAD MODULES ARE HERE TO SAVE THE DAY!

A LOAD MODULE IS SIMPLY A WAY TO UTILIZE THE DISK AS AN EXTENSION OF MEMORY. THIS TECHNIQUE WORKS BEST IF YOU HAVE A DISK. BUT, IF YOU DON'T, IT WILL WORK JUST AS WELL WITH A DIGITAL DATA PACK DRIVE (IT WILL JUST TAKE A LITTLE LONGER).

IF YOU HAVE RUN ANY OF THE INTRODUCTORY MODULES ON YOUR SMARTLOGO DATA PACK (SUCH AS EXPLORE OR DEMO), YOU HAVE SEEN LOAD MODUES IN ACTION.

THE FIRST THING YOU ARE GOING TO HAVE TO DO IF YOU WANT TO USE THIS CONCEPT IS LEARN TO BREAK UP YOUR PROBLEM INTO MODULES. TAKING THE EXAMPLE OF WRITING A PROGRAM TO KEEP TRACK OF YOUR CHECKBOOK, YOU MAY DECIDE TO BREAK IT UP INTO AN ADD CHECKS MODULE, A DELETE CHECKS MODULE, A VOID CHECKS MODULE, AND A BALANCE YOUR CHECKBOOK MODULE. YOU WILL ALSO NEED A MODULE WHICH WILL READ IN THE APPROPRIATE CHECKING INFORMATION WHEN YOU BEGIN AND ONE TO SAVE THE INFORMATION WHEN YOU ARE DONE.

THE KEY TO DOING THIS EASILY IS TO HAVE A CONTROL ROUTINE WHICH WILL LET YOU TRANSFER CONTROL TO EACH ROUTINE EASILY. THE MENU PROGRAM ON THE LOGO TOOLS DISK (AND COVERED IN A PREVIOUS ISSUE). INSTEAD OF CALLING A PROCEDURE WHICH IS IN MEMORY YOU USE THE FOLLOWING STATEMENTS:

ERPS LOAD :MODULE

THIS WILL ERASE ALL THE PROCEDURES FROM MEMORY (LEAVING ANY DATA INTACT). AND, AMAZINGLY ENOUGH, IT WILL TRANSFER CONTROL TO :MODULE. IF YOU HAVE A STARTUP PROCEDURE IN THE NEW MODULE IT

MAKE "STARTUP [FACE]

TYPE FACE TO RUN THE PROGRAM IF YOU DON'T USE THE STARTUP PROCEDURE. YOU WILL NOTICE THAT THE CLOCK PROCEDURE IS EXITED BY THE IF N=180 STATEMENT. IT IS WITH THIS STATEMENT THAT YOU CAN DETERMINE HOW LONG THE CLOCK WILL RUN. I USE 180 BECAUSE 180 SECONDS IS THREE MINUTES.

THE FUN PART OF LOGO IS THAT ANY GIVEN PROGRAM IS NEVER "FINISHED" BECAUSE IT CAN ALWAYS BE JAZZED UP. I HOPE YOU HAVE FUN JAZZING UP THESE TWO.

SMARTFILER WORKSHOP

SMARTFILER REVISION BY W. MOTEL

SOME OF YOU HAVE ASKED HOW TO DETERMINE WHETHER YOU HAVE THE CURRENT VERSION OF SMARTFILER (WITH THE CORRECTED INDEX AND SORT ROUTINES). THIS IS EASY TO FIND OUT USING FDUMP2. THE FOLLOWING WAS DERIVED FROM DUMPING VARIOUS BLOCKS FROM THE SMARTFILER TAPE/DISK. THE SMARTFILER MACHINE LANGUAGE PROGRAM OCCUPIES BLOCKS 5-37 (33 BLOCKS) ON THE PROGRAM TAPE. INVESTIGATING, I FOUND THAT THE LAST BLOCK CONTAINING DATA IS BLOCK 34. DUMPING OUT THIS BLOCK ON THE ORIGINAL AND NEW VERSION IS HOW I WAS ABLE TO DETERMINE A DIFFERENCE.

THE NEW SMARTFILER SHOWS UP AS REVISION 25 7/23/84 WHILE THE OLD VERSION IS REVISION 21 6/13/84. HERE IS THE PROCEDURE TO DETERMINE WHICH VERSION YOU HAVE:

1. RUN FDUMP2 (NOT THE ORIGINAL FDUMP)
2. DO THE BLOCK READ OPERATION
3. INSERT THE SMARTFILER PROGRAM TAPE/DISK
4. READ BLOCK 34 FROM THAT DEVICE
5. DO THE DUMP OPERATION

YOU ONLY NEED TO START YOUR DUMP AT ADDRESS 28700 TO 29023. YOU SHOULD SEE THE REVISION NUMBER AND DATE WITHIN THIS AREA.

IF YOU FIND YOU HAVE A LATER REVISION THEN 25 PLEASE LET US KNOW !

AFTER I HAD DONE ALL THIS WORK TO DETERMINE THE REVISION NUMBER, LYLE TOLD ME THAT HE READ ON COMPU SERVE THAT BY DOING A "CONTROL - R" AFTER SMARTFILER IS LOADED THE REVISION NUMBER IS DISPLAYED AUTOMATICALLY !! OH WELL, AT LEAST YOU GET AN IDEA OF HOW TO USE FDUMP !

WE ALSO HEARD THAT THERE ARE SOME REVISION # 27'S OUT THERE. WE'LL INVESTIGATE WHAT THE DIFFERENCES ARE AND REPORT ON THIS NEXT MONTH.

THERE HAVE BEEN SOME QUESTIONS AS TO WHAT THE SOFTWARE PROGRAMS RECIPFILER AND ADDRESSBOOK/AUTODIALER HAVE IN COMMON WITH SMARTFILER.

BOTH OF THESE PIECES OF SOFTWARE, RELEASED BY COLECO ARE DERIVATIVES OF SMARTFILER AND IN FACT USE THE SAME BASIC SOFTWARE PROGRAM FOR THE DATABASE STORAGE, SEARCHING AND PRINTING FUNCTIONS. EACH IS A UNIQUE APPLICATION OF SMARTFILER AND DEMONSTRATES THE FLEXIBILITY OF A GENERAL DATABASE PROGRAM.

ADDRESS BOOK FILER COMES WITH AN ALREADY FORMATED RECORD FOR THE SPECIFIC PURPOSE OF RECORDING/ MAINTAINING ADDRESSES AND TELEPHONE NUMBERS. ADDRESS FILER COMES WITH PRE-ESTABLISHED FIELD NAMES AND LENGTHS WHICH CAN NOT BE ALTERED. ADDRESS FILER IS A SINGLE PURPOSE DATABASE PROGRAM. EACH RECORD HAS THE FOLLOWING FIELDS:

LAST NAME; FIRST NAME; TITLE; STREET; CITY; STATE; ZIP; HOME AND BUSINESS PHONE; NOTES 1,2,3. THIS RECORD FORMAT IS ONE THAT YOU COULD SET UP AND USED ON SMARTFILER - SO WHY BUY ADDRESS FILER ? WELL, IT DOES OFFER ONE ADDITIONAL FEATURE WHICH IS THE AUTO DIALER. THIS IS A PIECE OF HARDWARE THAT PLUGS INTO THE EXPANSION SLOT ON THE SIDE OF THE ADAM CONSOLE AND THEN INTO YOUR TELEPHONE. BASED ON THE PHONE NUMBERS RECORDED IN THE ADDRESS FILER DATABASE, IT WILL AUTOMATICALLY DIAL THE PHONE NUMBER YOU INDICATE ON THE RECORD DISPLAY FIELD. THIS FEATURE IS THE ONLY ENHANCEMENT THAT ADDRESS FILER HAS OVER SMARTFILER. HOWEVER, IF YOU HAVE NEED OF A DATABASE OF NAMES/ ADDRESSES AND PHONE NUMBERS THAT YOU CALL FREQUENTLY THIS COULD BE A NICE FEATURE TO HAVE. YOU STILL HAVE ALL THE SEARCH AND PRINT CAPABILITIES OF SMARTFILER, WITH THE ADDITION OF THE AUTODIAL.

SOME OF THE POSSIBLE APPLICATIONS INCLUDE - SMALL BUSINESS CLIENT LIST; SECRETARY OF A SOCIAL CLUB; SCOUT LEADER; VOLUNTEER WORK; LIST OF FREQUENTLY CALLED PEOPLE, ETC. THERE ARE OBVIOUSLY A GREAT NUMBER OF OTHER APPLICATIONS THAT USE NAME/ ADDRESS/ PHONE NUMBER DATA.

RECIP FILER IS PRETTY EASY TO GUESS. IT IS DATABASE OF RECIPES AND INGREDIENTS, ORGANIZED BY CATEGORY. THIS IS ALSO A DERIVATIVE OF SMARTFILER, BUT HAS SOME ADDITIONAL FUNCTIONS THAT I DON'T THINK YOU COULD DUPLICATE BY MAKING YOUR OWN RECIP FILER VIA SMARTFILER. THE SCREEN FORMAT IS DIFFERENT THEN SMARTFILER IN THAT IT IS FORMATTED TO LOOK LIKE A RECIP CARD. THE "SEARCH" FIELDS ARE SET UP TO BE RECIP TYPE (ENTREE, APPETIZER, ETC); MAIN INGREDIENT; AND RECIP NAME. THIS ALLOWS THE CROSS REFERENCING AND PRINTING VIA THESE FIELDS. THE RECIP INGREDIENTS AND QUANTITIES ARE ALSO DISPLAYED. BASED ON THE FACT THAT ONLY 150 RECIPES CAN BE STORED ON A DDP, I WOULD GUESS THAT THE SMARTFILER "TEXT" FEATURE IS USED TO STORE THE RECIP INGREDIENTS.

A NICE FEATURE OF RECIP FILER IS THE ABILITY TO CREATE A SHOPPING LIST BASED ON RECIPES SELECTED.

I HOPE THIS ANSWERS SOME OF YOUR QUESTIONS AND GIVES YOU SOME MORE EXAMPLES OF THE VARIETY OF DATABASES THAT CAN BE CREATED WITH SMARTFILER.

WELL, THINGS ARE STARTING TO PICK UP IN THE CPM AREA. WE HAVE NOW HAVE TWO MODEM TRANSFER PROGRAMS AVAILABLE TO US - ADAMBOO.ASM WRITTEN BY BARRY WALLIS (THIS PROGRAM IS ON DL6 OF THE FAM-200 FORUM ON COMPUSERVE, IT CAN BE DOWNLOADED TO YOUR ADAM VIA ADAMLINK II, CONVERTED TO CPM AND ASSEMBLED) AND ASCOM WHICH IS AVAILABLE FROM WESTICO AND OTHER SOURCES. ASCOM IS NOT PUBLIC DOMAIN AND SELLS FOR ABOUT \$150-\$195. THESE COMMUNICATIONS PROGRAMS ALLOW THE UP/DOWN LOADING OF CPM COMPATIBLE HEX OR BINARY FILES. YOU MAY ASK, WHAT DO I WANT WITH THESE STRANGE THINGS ! AS WE STATED IN THE REVIEW OF ADAMLINK II LAST MONTH, IT CAN ONLY BE USED TO UP/ DOWN LOAD ASCII BASED PROGRAMS, THAT IS ONES WRITTEN WITH "NORMAL" CHARACTERS (LETTERS AND NUMBERS). MANY OF THE CPM PROGRAMS THAT ARE ON BULLETIN BOARD SYSTEMS CONTAIN DATA AND ARE FORMATED IN SUCH A WAY THAT THEY CAN NOT BE TRANSFERRED USING ADAMLINK II.

LETS BACK UP A BIT AND GO OVER THE TYPES OF CPM FILES. LET ME FIRST EXPLAIN THAT A COMPUTER ONLY UNDERSTANDS A LANGUAGE MADE UP OF 0'S AND 1'S, THIS IS OF COURSE KNOWN AS THE BINARY NUMBER SYSTEM. THIS IS THE FORM THAT ALL SOFTWARE PROGRAMS EVENTUALLY HAVE TO BE IN TO OPERATE ON A COMPUTER. SINCE US HUMANS DON'T UNDERSTAND BINARY DATA TOO WELL, WE NEED A MECHANISM TO GET FROM OUR LETTERS AND NUMBERS TO THIS BINARY DATA. PART OF THE BASIC PROGRAM ITSELF IS A SUB-PROGRAM THAT TAKES THE BASIC COMMANDS AND DATA WE ENTER AND CONVERTS IT INTO THIS BINARY, MACHINE LANGUAGE. THIS ACTUALLY OCCURS AS THE BASIC PROGRAM IS RUN ON A LINE BY LINE BASIS. SINCE THIS CONVERSION OF DATA FROM OUR "ENGLISH" LANGUAGE MUST OCCUR PRIOR TO THE COMPUTER PERFORMING THE FUNCTIONS INDICATED BY THE BINARY MACHINE LANGUAGE, YOU CAN SEE THAT THIS IS A SLOWER PROCESS THEN IF THE COMPUTER DID NOT HAVE TO WAIT FOR THIS CONVERSION TO OCCUR. THIS IS WHY, IF SPEED IS REQUIRED FOR A PROGRAM, IT IS NOT WRITTEN IN BASIC BUT IN THIS MACHINE LANGUAGE. PROGRAMS WRITTEN IN MACHINE LANGUAGE RATHER THEN BASIC ARE NOT ONLY FASTER, BUT REQUIRE LESS MEMORY SPACE. NOW, THE NEGATIVE PART ABOUT THESE PROGRAMS IS THAT THEY ARE FRENEDOUSLY DIFFICULT TO WRITE IN COMPARISON TO BASIC. A SINGLE COMMAND LIKE "PRINT" IN BASIC MAY REQUIRE 5-8 COMMANDS IN MACHINE LANGUAGE. THE COMPLEXITY OF A MACHINE LANGUAGE PROGRAM IS SIGNIFICANTLY GREATER WHICH ACCORDINGLY INCREASES ERROR DETECTION AND CORRECTION DURING THE WRITING OF THE PROGRAM. A CPM FILE THAT IS READY TO BE RUN DIRECTLY BY THE COMPUTER, WITHOUT ANY OTHER CONVERSIONS IS TITLED A "COM" FILE. THE NAME OF THE PROGRAM WOULD BE "ADAMBOO.COM". WHEN YOU ENTER THE NAME ADAMBOO AND HIT RETURN UNDER CPM, THE PROGRAM IS LOADED INTO MEMORY AND AUTOMATICALLY RUN, IF IT IS A COM FILE. NOW, LETS TALK ABOUT HOW WE GET TO A COM FILE. A MACHINE LANGUAGE PROGRAM STARTS WITH COMMANDS, JUST LIKE BASIC, BUT THE COMMANDS ARE DIFFERENT. THESE COMMANDS

ARE KNOWN AS MNEUMONICS, WHICH ARE ENGLISH REPRESENTATIONS OF THE MACHINE CODE THE COMPUTER UNDERSTANDS. A CPM FILE WHICH CONTAINS THESE ENGLISH MNEUMONIC INSTRUCTIONS IS AN "ASM" FILE TYPE I.E. ADAMBOO.ASM.

THE FOLLOWING IS A COMPARISON OF BASIC AND MACHINE LANGUAGE INSTRUCTIONS:

	MACHINE	BASIC
DIRECT:	CALL FOPEN	10 INPUT "ENTER";X
	LXI D,DIR\$BUF	20 PRINT "ADD"
	CALL FSETBUF	30 GOSUB 1000
	MVI L,3	40 FOR X=1 TO 10
	POP D	50 READ A

THESE MACHINE MNEUMONICS NEED TO BE CONVERTED INTO INSTRUCTIONS, THIS IS THE JOB OF THE CPM ASSEMBLER. THE ASSEMBLER IS A PROGRAM THAT TAKES THESE ENGLISH MNEUMONICS AND 1) CHECKS THEM FOR ERRORS; 2) CONVERTS THEM TO HEXIDECIMAL NUMBERS; 3) DETERMINES WHAT THE MEMORY LOCATIONS ARE THAT THE PROGRAM INSTRUCTIONS WILL BE LOADED INTO. READ THE CPM 2.2 MANUAL ON HOW THE ASSEMBLER IS RUN, AND WHAT KINDS OF FILES CAN BE PRODUCED. THE PRIME FILE PRODUCED IS KNOWN AS A "HEX" FILE TYPE I.E. ADAMBOO.HEX. THIS FILE IS NOW READY FOR THE FINAL CONVERSION (A COMPUTER CAN'T READ HEXIDECIMAL EITHER). THE CPM PROGRAM "LOAD" IS USED TO CONVERT A HEX FILETYPE TO A COM FILE THAT IS READY TO BE RUN DIRECTLY BY THE COMPUTER. WHEW ! THAT MAY SEEM TO BE A LONG WAY AROUND, BUT IT IS ALL NECESSARY. YOU CAN THINK OF IT AS THE PROCESS THAT BASIC GOES THROUGH FOR EACH LINE IT READS IN FROM YOUR PROGRAM. BY ASSEMBLING AND LOADING OUR CPM MACHINE LANGUAGE PROGRAM, WE HAVE SAVED ALL THIS OVERHEAD.

NOW, AS MENTIONED ABOVE, MANY OF THE CPM FILES YOU WILL GET OFF OF BULLETIN BOARD SYSTEMS ARE HEX OR COM FILES THAT CAN'T BE UP/ DOWN LOADED BY ADAMLINK II. INSTEAD YOU NEED A SPECIAL MODEM PROGRAM THAT CAN DEAL WITH THESE FILE TYPES. THE TWO PROGRAMS MENTIONED UTILIZE A DATA TRANSFER PROTOCOL KNOWN AS XMODEM WHICH HANDLES THESE FILE TYPES. IF YOU GET AN ASM TYPE CPM PROGRAM FROM A BULLETIN BOARD SYSTEM VIA ADAMLINK II, YOU WILL HAVE TO ASSEMBLE AND/OR LOAD IT AS DESCRIBED ABOVE. PLEASE BE ADVISED THAT YOU CAN'T EXPECT ANY CPM PROGRAM TO RUN ON THE ADAM, MOST WILL REQUIRE SOME AMOUNT OF WORK TO ADAPT THEM TO EITHER THE 2.2 VERSION OF CPM (THERE ARE OTHER VERSIONS) OR TO THE ADAM SPECIFICALLY. THE DEGREE OF CONVERSION WORK DEPENDS ON THE TYPE OF PROGRAM IT IS.

A GENERAL PROBLEM WITH MOST CPM SOFTWARE IS THAT IT ASSUMES THE TERMINAL CAN ACCOMODATE AN 80 CHARACTER DISPLAY, WHICH IS MORE THEN TWICE WHAT THE ADAM CAN HANDLE. CHUCK KOLANDER HAS JUST FOUND A CPM PROGRAM THAT WORKS WITH ADAM CPM 2.2 AND ALLOWS YOU TO "TELL" CPM WHAT WIDTH YOUR TERMINAL CAN HANDLE - THIS IS JUST WHAT WE NEED !! WE WILL TRY THIS PROGRAM AND LET YOU KNOW THE RESULTS.

NEXT MONTH WE WILL HAVE REVIEWS OF SOME ADAM COMPATIBLE CPM PROGRAMS FOR YOU.

THIS IS A CONTINUATION OF THE REVIEW STARTED IN LAST MONTHS ISSUE.

THE OBJECTIVE OF DAMBUSTERS IS TO SUCCESSFULLY (WITHOUT BEING SHOT DOWN OR CRASHING) FLY A MISSION FROM BRITAIN ACROSS THE ENGLISH CHANNEL OVER ENEMY TERRITORY AND TO BOMB ONE OF THREE KEY GERMAN DAMS. AS DISCUSSED LAST MONTH, THE PREMISE OF THE GAME IS AUTHENTIC AND VERY WELL EXPLAINED IN THE MANUALS THAT ARE SUPPLIED. IT IS INTERESTING TO READ THE ACCOUNT OF HOW THE "DAMBUSTER" BOMB WAS DEVELOPED AND PERFECTED TO DESTROY A LARGE DAM WITH A SINGLE, UNIQUE TYPE OF BOMB.

NOW FOR THE GAMEPLAY - WATCH OUT FOR A VERY CHALLENGING GAME, REQUIRING A GREAT DEAL OF STRATEGY AND SKILL.

THERE ARE TWO SKILL LEVELS. THE "FLIGHT LIEUTENANT" LEVEL AUTOMATICALLY TAKES OFF FOR YOU AND STABILIZES THE PLANE FOR YOU. I RECOMMEND THAT YOU START WITH THIS LEVEL TO SEE WHAT THE QUAGES LOOK LIKE WHEN THEY ARE SET CORRECTLY, THIS WILL HELP YOU TO SET THEM WHEN YOU GRADUATE TO THE "SQUADRON LEADER" LEVEL. THIS ADVANCED LEVEL ALSO GIVES YOU AN INTELLIGENCE REPORT OF ENEMY ACTIVITY THAT AIDS YOU IN AVOIDING PROBLEM AREAS WHEN YOU SET YOUR FLIGHT PLAN, WHICH IS DONE BY USING A MULTIPLE SCREEN MAP WHICH INDICATES POPULATION AREAS, MILITARY INSTALLATIONS, MILITARY AIRPORTS (STAY AWAY FROM THESE !), RADAR INSTALLATIONS AND OF COURSE THE DAMS. YOU NEED TO STRATEGIZE YOUR FLIGHT PLANS TO WEAVE YOUR WAY THROUGH ENEMY TERRITORY TO AVOID THE PROBLEM AREAS. AS YOU CROSS THE CHANNEL ENEMY ATTACKS BEGIN IN THE FORM OF FLAK WHICH IS GUIDED BY SEARCH LIGHTS AND BARRAGE BALLONS, WHICH YOU MUST ATTEMPT TO SHOOT OUT TO AVOID BEING SHOT DOWN. HOWEVER, YOUR REAL NEMESIS IS THE ME109 FIGHTER PLANE WHO COMES AFTER YOU RELENTLESSLY. IT IS PLEASURE TO SHOOT HIM, AND WATCH HIM CATCH FIRE AND THEN EXPLODE - THE GRAPHICS ARE VERY GOOD. THE SOUND AND GRAPHICS ARE GREAT WHILE YOU ARE MANNING EITHER THE FRONT OR REAR GUNNER POSITIONS.

THE REAL CHALLENGE TO THIS GAME IS THAT WHILE YOU ARE SHOOTING DOWN ME109'S AND DEFENDING YOURSELF, YOU MUST CONSTANTLY WATCH YOUR HEADING AND ALTITUDE, AS WELL AS MAINTAIN PROPER AIR SPEED WHICH IS AFFECTED WHEN ONE OF YOUR ENGINES CATCHES FIRE. I FOUND THE ADJUSTING OF THE BOOSTERS AND THROTTLES ONE OF THE TOUGHEST PARTS OF THE GAME.

ASSUMING THAT YOU HAVE NAVIGATED YOUR WAY ACROSS ENEMY TERRITORY, YOUR FINAL CHALLENGE IS IN THE DAM APPROACH. WAY BEFORE YOU COME CLOSE TO THE DAM YOU SHOULD GET YOUR AIRSPEED TO THE 232 MPH REQUIRED FOR THE DAM APPROACH. WHEN YOU GET CLOSE TO THE DAM, YOU SHOULD SET YOUR COURSE TO MAKE A RUN OVER THE LAKE DURING WHICH TIME YOU GO TO THE BAMB AIMER SCREEN TO FINE TUNE YOUR ALTITUDE VIA SPOTLIGHT AND SET THE "DAMBUSTER" BOMB ROTATING. YOU THEN GO TO THE FRONT GUNNER SCREEN TO USE THE SIGHTS TO DETERMINE WHEN TO DROP THE BOMB. IF ALL IS SET YOU DROP THE BOMB AND THE DAM IS DONE FOR !! NOW, NEVER HAVING MADE IT TO

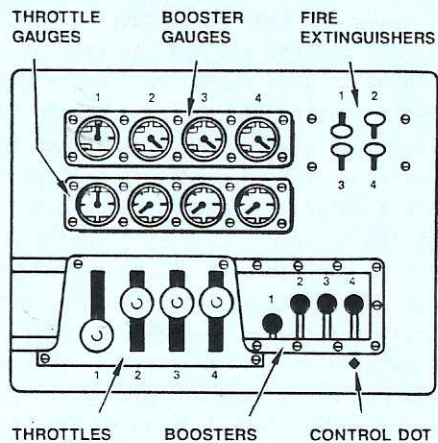
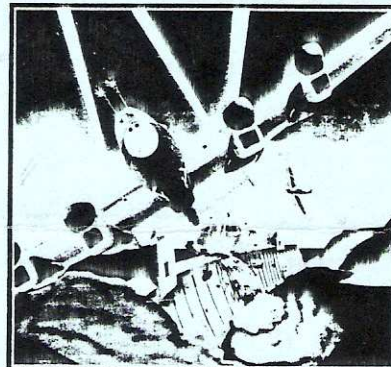
SEE THE DAM GO I CAN'T REPORT ON THIS FOR YOU. AS I SAID IT IS A VERY CHALLENGING GAME - GOOD LUCK TO YOU WOULD BE DAMBUSTER PILOTS !!!

WHAT I LIKE ABOUT THIS GAME OVER OTHER CHALLENGING GAMES IS THAT IT IS AN EXPERIENCE IN HISTORY AS WELL AS JUST A GAME. THE DESIGNERS AND DEVELOPERS OF THE GAME AT SYDNEY OF CANADA SHOULD BE GIVEN A LOT OF CREDIT FOR THIS PIECE OF WORK, IT REALLY IS A MASTERPIECE OF DESIGN AND PROGRAMMING. MANY PEOPLE RAVED AT THE SPACE SHUTTLE GAME FOR ATARI WHICH CAME OUT ABOUT A YEAR AGO - IT IS NOTHING COMPARED TO THIS. ITS HARD TO BELIEVE HOW MUCH GAME SYDNEY GOT INTO A CARTRIDGE, THE VARIATIONS OF MULTIPLE SCREENS AND EXCELLENT GRAPHICS ARE SUPERB.

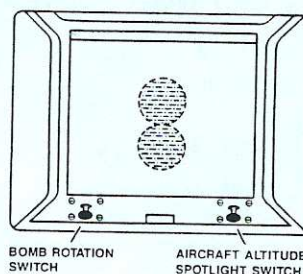
RATING - GRAPHICS/SOUND - A+
PLAY A+

THE DAM BUSTERS™

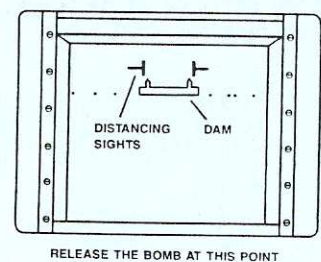
TRAINING MANUAL



SCREEN 4: ALTITUDE ADJUSTMENT



SCREEN 2: DISTANCING



DAWN IS AN EASY TO LEARN AND USE DATA BASE PROGRAM WRITTEN IN SMARTBASIC. DAWN IS LOADED AFTER SMARTBASIC HAS BEEN LOADED BY ENTERING RUN DAWN, WHICH TAKES ABOUT 3 MINUTES TO LOAD. PRESENTLY IT IS AVAILABLE ONLY ON DATA PACK BUT THIS MAY CHANGE.

THIS IS A VERSATILE PROGRAM WITH SORT CAPABILITY ON ALL FIELDS. FIELDS CAN BE UP TO 40 CHARACTERS ALPHA OR NUMERIC. TWO ADVANTAGES TO THIS PROGRAM ARE THE UNLIMITED SORT AND THE SUM/AVERAGE CAPABILITY.

DISADVANTAGES ARE THE LIMITED PRINTING CAPABILITY. YOU CANNOT SET UP A FORM TYPE PRINT AS WITH SMARTFILER. WHEN DISPLAYING ON THE SCREEN YOU ONLY SEE ONE FIELD AT A TIME VERSUS ALL TOGETHER AS WITH SMARTFILER. STORAGE IS LIMITED TO DATA PACKS UNTIL IT IS AVAILABLE ON DISC.

SAMPLE DESIGNS PROVIDED WITH THE PROGRAM ARE FOR TAX DEDUCTION, SCHEDULER, TUTOR, ADDRESS KEEPER, ACCOUNTS, AND INVENTORY, BUT WITH A LITTLE IMAGINATION IT CAN BE ADAPTED FOR ANY APPLICATION.

PROGRAM BY MAGIC WAND ENTERPRISES

RATING B

TOURNAMENT TENNIS BY C. KOLANDER

TOURNAMENT TENNIS IS A VIDEO GAME CATRIDGE BY IMAGIC, AS THE NAME IMPLIES IT CHALLENGES YOU TO A TOP NOTCH GAME OF TENNIS. THE GAME GIVES YOU A CHOICE OF NOVICE, AMATEUR OR PRO LEVELS, AND YOU CAN HAVE ONE OR TWO PLAYERS. THERE IS ALSO A DEMO MODE WHICH LETS THE COMPUTER PLAY ITSELF. THE GRAPHICS ARE UP TO ALL IMAGIC STANDARDS, WHICH ARE EXCELLENT AND INCLUDE BOTH PLAYERS, BALLBOYS (WHO COME OUT TO GET THE BALL ON BAD SERVES) AND A JUDGE. YOU CAN PUT YOUR NAME ON THE SCOREBOARD AND ALL RULES OF TENNIS ARE IN EFFECT. THE BALL ITSELF IS DONE IN A 3D TYPE GRAPHIC WITH A SHADOW THAT HELPS YOU TO FIND ITS POSITION. YOU CAN RETURN THE BALL WITH A FOREHAND OR BACKHAND SHOT. THE ACTION IS GREAT AND ALOT OF FUN. YOU PLAY 3 SETS TO DETERMINE THE WINNER, AND HE IS REWARDED WITH A GRAPHIC OF A CUP WITH HIS NAME ON IT. THIS GAME IS BY FAR THE BEST FROM IMAGIC, AND THIS IS WHY ITS TO BAD THAT THEY ARE GETTING OUT OF THE ADAM MARKET. ALL IN ALL I LIKE THIS GAME ALOT, AS IT IS ONE OF THE BEST SPORTS SIMULATIONS AVAILBLE FOR ADAM.

RATING - A+

THE MASTER CATALOG SYSTEM IS A DOUBLE SIDED DISK SET FROM ELLIAM ASSOC. IT CONTAINS ALL THE PROGRAMS YOU NEED TO START A CATALOG SYSTEM FOR YOUR CP/M PROGRAMS. THERE ARE 20+ PROGRAMS INCLUDED ON THE DISKS LIKE, FMAP, MAST.CAT, FIND AND CATPAGE. TO USE THIS SYSTEM YOU MUST FIRST SET UP EACH DISK YOU WISH TO CATALOG WITH A DUMMY FILE NAME, ALL SUCH NAMES MUST BEGIN WITH A "-". THEN YOU SET UP A "CATALOG" DISK THAT WILL HOLD THE NAME OF YOUR FILES. ONCE THIS IS DONE THERE ARE A COUPLE OF WAYS FOR YOU TO CATALOG, YOU CAN JUST BE BASIC AND JUST LIST THE NAMES OF THE PROGRAMS AND THE DISKS THERE ON, OR YOU CAN LIST THE USERS, OR THE AMOUNT OF SPACE USED ECT. ONCE ALL OF THIS IS DONE YOU HAVE A VARIETY OF WAYS YOU CAN HAVE THE CATALOG PRINTED OUT. BECAUSE OF THE AMOUNT OF PROGRAMS ON THIS DISK YOU HAVE ALOT OF FREEDOM TO MAKE THE SYSTEM WORK THE WAY YOU WANT. SOME OF THE PROGRAMS WON'T WORK WITH DOUBLE DENSITY DISKS, AND SOME JUST WON'T, FOR ONE REASON OR ANOTHER WORK WITH ADAM. BECAUSE OF THIS THE ASM PROGRAMS ARE ON THE DISK AS WELL AS COM FILES SO THAT THEY CAN BE CHANGED TO FIT NEEDS. THERE ARE ALSO A LOT OF DOC FILES ON THE DISK TO NOT ONLY HELP SET UP YOUR CATALOG, BUT ALSO TO GIVE SOME IDEAS ON HOW TO CHANGE SOME OF THE PROGRAMS TO FIT YOUR SYSTEM. I THINK THAT THIS IS A VERY NICE SET OF PROGRAMS AND BECAUSE THE BULK OF THEM DO WORK WITH ADAM, I THINK THIS SET IS WELL WORTH THE 15.00 CHARGE. NOT ONLY DO YOU GET A CATALOGING SYSTEM, BUT IF YOU PRINT OUT THE PROGRAMS, YOU GET SOME VERY GOOD EXAMPLES OF ASSEMBLY LANGUAGE PROGRAMING.

RATING - A

ROOT BEER TAPPER BY W. MOTEL

THIS IS THE TRANSLATION OF THE BALLY ARCADE GAME FOR THE COLECOVISION. THE GAME HAS THE 1/2 PLAYER OPTION WITH 4 SKILL LEVELS. THE PAUSE FEATURE IS ALSO INCLUDED. THERE ARE 4 DIFFERENT SCREENS (ROOT BEER FOUNTAINS) AND THERE IS ALSO A BONUS SCREEN. THE INSTRUCTIONS COME ON A "MENU" SHEET THAT LOOKS KIKE AN OLD SODA FOUNTAIN MENU. COLECO IS OBVIOUSLY INJECTING A LITTLE PERSONALITY INTO THE INSTRUCTIONS THAT HAVE BEEN PACKED WITH RECENT RELEASES. EACH FOUNTAIN SCREEN CONSISTS OF 4 BARS THAT SAM MUST TEND TO. THESE CONSIST OF 2 WESTERN MOTIFS, A SPORTS STADIUM SCENARIO, AND AN OUTER SPACE FOUNTAIN. SAM MUST KEEP THE PATRONS SUPPLIED WITH ROOT BEER MUGS BY SLIDING THEM DOWN THE BAR. IF HE WAITS TOO LONG, THEY MOVE DOWN THE BAR TO GRAB HIM AND TOSS HIM OUT. SAM MUST ALSO PICK UP EMPTY GLASSES AS THEY COME BACK DOWN THE BAR. IF ONE FALLS OFF, HE LOSSES L LIFE. HE ALSO LOSES A LIFE IF HE SLIDES MORE MUGS THEN HE HAS PATRONS WAITING.

SOMETIMES AN APPRECIATIVE PATRON LEAVES A TIP. IF SAM PICKS IT UP, HE GETS BONUS POINTS PLUS HE SHOWS HIS APPRECIATION BY PROVIDING A FLOOR SHOW. WHILE THE

PATRONS WATCH, HE GETS A BREATHER AND A CHANCE TO PICK UP THE EMPTY GLASSES.

EVERY 3RD ROUND OR SO, YOU HAVE A BONUS ROUND. HERE SNEAKY PETE SHAKES 5 OR 6 CANS AND THEN SWITCHES THEM AROUND (AS IN THE OLD SHELL GAME). IF SAM PICKS OUT THE ONE UNSHAKEN CAN, HE GETS A BONUS, OTHERWISE HE HAS FOAM ON HIS FACE. OVERALL, THE GRAPHICS ARE WELL DONE, THE GAMEPLAY IS SMOOTH AND THE GAME IS FAIRLY ENTERTAINING. I'M NOT OVERALLY EXCITED BY THE GAME, BUT THIS IS THE FAULT OF BALLY, NOT COLECO'S TRANSLATION. I JUST CAN'T GET TO EXCITED ABOUT CHASING GLASSES. IF YOU LIKE THE ARCADE VERSION OR THE GAME PREMISE SOUNDS LIKE SOMETHING YOU WOULD ENJOY, YOU WON'T BE DISAPPOINTED.

RATING - B

GAME PACK I BY L. MARSCHAND

THIS IS THE NEWEST RELEASE FROM VICTORY SOFTWARE. IT IS A SERIES OF THREE SMARTBASIC GAMES AND COMES ON DDP OR DISK.

A NICE TOUCH IS THAT ALL THREE GAMES ARE INTEGRATED FROM THE STANDPOINT THAT YOU CAN TRANSFER FROM ONE TO THE OTHER AT THE END OF EACH GAME.

STREET SWEEPERS

THIS IS A DERIVATIVE OF THE PAC MAN MAZE GAME. YOU CONTROL A MAN (SMILEY FACE) WHO MUST GO THRU A MAZE AND GOBBLE UP DOTS, WHILE BEING CHASED BY AN ENEMY. THERE ARE FOUR LEVELS TO THE GAME, TWO OF WHICH HAVE "INVISIBLE" DOTS WHICH TESTS YOUR MEMORY AND MAKES YOU CHOOSE A LOGICAL PATH THROUGH THE MAZES. ALSO, IN TWO OF THE LEVELS, ONCE THE ENEMY GETS ON YOUR TRAIL HE RAVENOUSLY PURSUES YOU UNTIL YOU ARE DONE FOR. IN THE OTHER TWO LEVELS THE ENEMY SEEMS TO PURSUE A RANDOM PATH THROUGH THE MAZES. A DIFFERENT MAZE PATTERN IS DRAWN EACH TIME AND THE HIGHER LEVELS HAVE MORE COMPLICATED MAZES.

OVERALL I FOUND THIS GAME CHALLENGING AND EASY TO GET INTO. THE CONTROLLERS WORK WELL WITH THE GAME AS LONG AS YOU ANTICIPATE YOUR TURNS. IF YOU'RE INTO THIS TYPE OF GAME, THIS IS A NICE ADAPTION FOR THE ADAM, ALTHOUGH NO COLOR IS USED.

GOTCHA

THE GAME SETTING IS THAT YOU ARE IN FIELD OF MINES (ASTERISKS) AND ARE BEING PURSUED BY SOME ROBOTS. YOU NEED TO LURE THE ROBOTS INTO BLOWING THEMSELVES UP BY HIDING BEHIND THE MINES.

MAYBE IT'S JUST ME, BUT I FOUND THIS GAME DULL AND ANNOYING AT THE SAME TIME. IT IS VERY DIFFICULT TO MANEUVER TO AVOID THE MULTIPLE ROBOTS THAT CLOSE IN ON YOU. THE GAMEPLAY IS NOT VERY GOOD.

CANNONEERS

THIS IS THE CLASSIC COMPUTER GAME OF TWO CANNONS FIRING AT EACH OTHER. IT IS A TWO PLAYER GAME AND EACH PLAYER CHOOSES A TRAJECTORY ANGLE AND A POWER FOR THEIR SHOT. BASED ON WHERE THE SHOT LANDS, THE PLAYER

MUST ADJUST BOTH ANGLE AND POWER. THE SCENE IS A MOUNTAIN RANGE OVER WHICH YOU HAVE TO SHOOT AT YOUR OPPONENT.

THE GAME IS NICELY DONE IN LOW RESOLUTION COLOR GRAPHICS. WHEN YOU SHOOT, YOUR SHOT IS DEPICTED IN RED AND ACCOMPANIED BY A SOUND PITCHED BASED ON THE SHOTS ANGLE AND POWER AS IT GOES UP AND OVER TOWARDS YOUR OPPONENT. IF YOU HIT THE OPPONENT, HE EXPLODES. OVERALL I THINK THIS IS A GOOD GAME, ESPECIALLY FOR YOUNG CHILDREN.

TWO OF THE THREE GAMES ARE GOOD IN MY OPINION. ALTHOUGH STREETSWEEPERS IS NOT IN COLOR, SOME OF YOU MAY BE ABLE TO FIX THAT! MY RATING IS BASED ON TWO GOOD GAMES AND THE PRICE OF \$16.95.

RATING - C

64K MEMORY EXPANDER

BY W. MOTEL

THE 64K MEMORY EXPANDER ADDS 65,536 BYTES OF RAM TO THE ADAM. WITH SMARTWRITER, YOUR WORKSPACE CAN HOLD LARGER FILES. CP/M USES IT AS A RAPID TRANSFER RAM DISK. ADAMCALC UTILIZES IT AS A PRINT BUFFER.

THE USE OF A PRINT BUFFER IS NICE, IN THAT YOU ARE NOT HELD BACK BY WAITING FOR THE PRINTER TO FINISH. WHEN YOU INITIATE A PRINT COMMAND, A COPY OF THE CURRENT SPREADSHEET IS TRANSFERED INTO THE EXTRA 64K. PRINTING BEGINS, BUT NOW YOU REGAIN CONTROL AND THE ORIGINAL SMARTKEYS ARE REDISPLAYED. YOU CAN NOW CONTINUE TO WORK ON THE SPREADSHEET (IT IS STILL ON YOUR SCREEN) OR YOU CAN CLEAR IT TO START/LOAD A NEW ONE. WHEN THE CURRENT PAGE IS FINISHED PRINTING YOU AGAIN HIT THE PRINT KEY, BUT YOU NOW GET AN ADDITIONAL SMARTKEY CALLED PRINT PAGE. THIS TELLS ADAMCALC TO CONTINUE WITH THE NEXT PAGE OF THE SPREADSHEET ALREADY IN THE EXTRA 64K. IF YOU INSTEAD SET YOUR PRINT OPTIONS, AS YOU NORMALLY DO, THE SPREADSHEET ON YOUR SCREEN IS TRANSFERRED INTO THE 64K (REPLACING WHAT WAS THERE).

EVEN IF YOU'RE NOT WORKING ON ANOTHER SPREADSHEET, THIS IS STILL USEFUL. YOU CAN START YOUR PRINTING, AND WHILE THE PRINTING CONTINUES, YOU CAN SAVE YOUR SPREADSHEET TO TAPE/DISK. THIS WAY YOU CAN HAVE THE PRINTER AND TAPEDISK DRIVE WORKING AT THE SAME TIME. NEITHER ONE IS WAITING ON THE OTHER. BASIC, AS IS, DOES NOT SUPPORT THE EXTRA 64K. BASIC 2.0 WAS, BUT SINCE THE RELEASE OF IT HAS BEEN CANCELED, WHAT'S LEFT. AUTOAID, FROM A THIRD-PARTY APPARENTLY USES IT AS A PRINT BUFFER. I WILL TRY TO SEE IF I CAN FIGURE OUT A WAY TO USE IT FROM BASIC. A RUMOR SEEMS TO EXIST THAT BASIC WILL ACCESS IT BY OPENING A FILE AS DEVICE D4. I TRIED IT AND IT DOES WORK. HOWEVER, IT ALSO WORKS WITHOUT THE 64K.. WHAT I BELIEVE IS BEING USED IS THE OPERATING SYSTEM TAPE BUFFER OR CATALOG BUFFER AREA.

IS IT WORTH IT? IF YOU LIKE THE CONVICIENCE IN ADAMCALC AND WITH AUTOAID OF NOT HAVING TO WAIT FOR THE PRINTER TO FINISH, YES. IF NOT, YOU'LL HAVE TO WAIT TO SEE WHAT ELSE BECOMES AVAILABLE TO USE THIS. IF SOMEONE HAS USED IT WITH CP/M, LET US KNOW.

MEMBER COMMENTS/

.KEEP UP THE GOOD WORK ON THE NEWSLETTER, YOU'RE DOING FINE. ENCLOSED IS A REVIEW OF THE TALCOTT MOUNTAIN SCIENCE CENTER BOOK "DISCOVERING SCIENCE ON YOUR ADAM WITH 25 PROGRAMS." I TYPED IT OUT USING THE EMPHASIS PRINT WHEEL. I FIND THE EMPHASIS TYPE MUCH LESS READABLE THAN A NORMAL FONT WITH TRUE DESCENDERS.
BRUCE CROCKER

- THANK YOU BRUCE FOR THE COMMENTS AND THE REVIEW, BOTH ARE APPRECIATED. I WILL TEST OUT OTHER TYPE FONTS, I THOUGHT THE EMPHASIS WAS BETTER BECAUSE OF THE SIZE.

.I WOULD JUST LIKE TO SAY HOW MUCH I ENJOYED LAST MONTH'S ISSUE. THE PROGRAM ON CHANGING SCREEN COLORS WAS GREAT. I USE IT IN MY TURNKEY PROGRAM;"HELLO". I ADDED A SIXTH OPTION TO THE FIVE ALREADY IN THE PROGRAM. THIS OPTION GIVES ME A CUSTOM SCREEN WITHOUT HAVING TO GO THROUGH THE ENTIRE PROGRAM. I HAVE PREDETERMINED THE CORRECT VALUES OF THE SCREEN I WANT AND HAVE WRITTEN THEM INTO THE PROGRAM. UPON CHOOSING THE 6TH OPTION, THE PROGRAM POKES THESE VALUES INTO THEIR RESPECTIVE PLACES AND THEN IT WILL HOME THE SCREEN AND THE FINAL COMMAND IS "NEW" SO AS TO NOT INTERFEAR WITH ANY NEW PROGRAM I MAY WRITE.

TIMOTHY BALON

- THANKS, TIM FOR THE COMMENTS AND YOUR ADAPTION OF THE COLOR PROGRAM. THIS IS A GOOD EXAMPLE OF HOW NIAD MEMBERS CAN UNIQUELY USE THESE PROGRAMS.

. I LIKED YOUR NEWSLETTER VERY MUCH. I PREFER IT COMES OUT MONTHLY. IN REGARDS TO THE UPDATED VERSION OF SMARTFILER, HOW DO I KNOW IF I HAVE THE OLD ONE ?
JACK WALTON

- THANKS, JACK. I HAVE DECIDED TO KEEP IT MONTHLY FOR THE NEAR FUTURE. YOU HAVE A VERY GOOD QUESTION, WAYNE CAME UP WITH AN ANSWER - SEE THE SMARTFILER WORKSHOP THIS MONTH.

. IN THE APRIL, 85 ISSUE A REVEIIN BY C. KOLANDER OF PACKCOPY APPEARED. KOLANDER RATED PACKCOPY A D+, BUT GAVE NO LEGITIMATE REASONS WHY THIS PROGRAM WAS RATED SO LOW. THE STATEMENT WAS MADE THAT PACKCOPY "IS NOT SO GOOD AT COPYING MULTI-LOAD PROGRAMS LIKE THE SUPER GAME PACKS." THIS HAS NOTHING TO DO WITH THE PROGRAM ITSELF, RATHER COLECO'S APPROACH TO PUTTING THE GAMES ON "RIGHT-DIRECTORY" RATHER THAN "CENTER-DIRECORY" TAPES. SINCE THE BLOCKS OF INFORMATIN ARE ARRANGED DIFFERENTLY ON THESE TWO TYPES OF TAPES IT IS VIRTUALLY IMPOSSIBLE TO MAKE AN INDENTICAL BACKUP OF A

SUPER GAME PACK ONTO A "CENTER" DIRECTORY TAPE. A BLOCK WHICH MIGHT BE IMMEDIATELY AFTER ANOTHER BLOCK ON A RIGHT DIRECTORY TAPE, MAY BE ENTIRELY ON THE OTHER END OF A CENTER DIRECTORY TAPE, MAKING ANY KIND OF CONTINUITY IN A SUPER GAME ALMOST IMPOSSIBLE. I FURTHER DISAGREE THAT A PROGRAM OF THIS TYPE SHOULD BE PUBLIC DOMIAN. IT IS A LEGITIMATE PIECE OF PROFESSIONAL SOFTWARE AND ITS AUTHOR IS ENTITLED TO THE ROYALTIES FOR WRITING AND PRODUCING IT. IF ALL PROGRAMMERS ARE EXPECTED TO DONATE SOFTWARE OF FILES QUALTIY TO PD, I THINK WE'LL FIND THAT THE SOFTWARE WELL WILL DRY UP VERY QUICKLY.

JOE BLENKLE

- JOE, I UNDERSTAND YOUR POINTS AND AGREE WITH THE PROBLEMS IN PROVIDING A COPY PROGRAM FOR THE SUPER GAME PACKS. I DON'T AGREE, HOWEVER WITH THE ISSUE OF PUBLIC DOMAIN AND SOFTWARE COST. MY POINT IS THAT A PROGRAM OF THIS SIMPLICITY (AND IT REALLY IS) SHOULD NOT BE PRICED AT ANYTHING NEAR THE \$40.00 LEVEL. THIS SETS A BAD PRECEDENCE FOR ALL ADAM SOFTWARE. IN ORDER FOR THE ADAM TO SURVIVE, SOFTWARE WILL HAVE TO BE MADE AVAILABLE AT AFFORDABLE PRICES, BASED ON THE COMPREHENSIVENESS AND QUALITY OF THE SOFTWARE. CAN YOU EVEN BEGIN TO COMPARE PACKCOPY WITH ADAMCALC FOR THE SAME PRICE !!!! ITS ALMOST A LUDICROUS COMPARISON. ALL NIAD REVEIINS ARE BASED ON PRICE/ PERFORMANCE AND HENCE I AGREE WITH CHUCKS RATING. THANK YOU FOR YOUR COMMENTS AND OPINIONS, THEY ARE ALWAYS WELCOME EVEN IF WE DON'T AGREE.

. GREAT NEWSLETTER, I LOVED FDUMP2.

BOB MORNINGSTAR

- THANKS BOB, COMMENTS ARE APPRECIATED AND WAIT UNTIL YOU SEE THE NEW VERSION OF FDUMP (UTILDUMP), NEXT MONTH !

. RECEIVED MY FIRST ISSUE OF NIAD AND AM REALLY IMPRESSED WITH IT !! IT IS FIRST RATE AND I HOPE YOU MAINTAIN THE HIGH QUALITY AS ISSUE #4 IS AND THAT YOU PUBLISH ON TIME. I AM SO IMPRESSED THAT I AM ENCLOSING \$9.00 FOR THE FIRST THREE BACK ISSUES. LYLE, WHAT IS THE LEGAL SITUATION WHEN ONE ADAPTS/MODIFIES A PROGRAM FROM A MAGAZINE? I HAVE HAD PEOPLE TELL ME THAT ANYTHING PUBLISHED IN A MAGAZINE WAS COPYRIGHTED JUST BY THE FACT THAT IT WAS PUBLISHED.

DONALD ZIMMERMAN

- THANKS DONALD FOR THE VOTE OF CONFIDENCE. MY UNDERSTANDING IS THAT ANY PROGRAM IN A MAGAZINE COMES UNDER THE COPYRIGHT PROVISIONS OF THAT MAGAZINE AND THAT ONE CAN ONLY LEGALLY GIVE THAT PROGRAM TO A PERSON WHO HAS A SUBSCRIPTION TO THE PARTICULAR MAGAZINE. HOWEVER, PROGRAMS THAT ARE TAKEN FROM ANY SOURCE AND MODIFIED (BEYOND A FEW LINES) WOULD BE CONSIDERED ADAPTIIONS OR MODIFICATIONS AND WOULD NOT FALL UNDER THE SAME REGULATIONS.

SOFTWARE EXCHANGE

NIAD SUPPORTS A SOFTWARE EXCHANGE FOR ALL MEMBERS IN ORDER TO SUPPLY PUBLIC DOMAIN AND NON-COPYRIGHTED PROGRAMS. "LIBRARIES" WILL BE MAINTAINED FOR EACH OF THE MAJOR SOFTWARE PRODUCTS BY A NIAD MEMBER. CURRENT LIBRARIES ARE:

SMARTASTC >>>>>>>> C. KOLANDER
1295 A PEARL AVE
GLENDALE HTS, IL 60139

SMARTLOGO >>>>>>>> BARRY WALLIS
2140 BESSANT ST
SAN BERNADINO, CA 92404

ADAMCALC, >>>>>>>> L. MARSCHAND
UTILITIES, CPM 2.2

SOFTWARE EXCHANGE RULES:

IN ORDER TO RECEIVE ALL THE LIBRARY PROGRAMS IN A SPECIFIC LIBRARY SEND A DDP OR DISK (DISK ONLY FOR CPM 2.2) WITH ONE PROGRAM FOR THE LIBRARY (ALL PROGRAMS SHOULD BE TESTED AND WELL DOCUMENTED VIA A SEPARATE "README" FILE) TO THE LIBRARIAN. INCLUDE A SELF ADDRESSED AND STAMPED RETURN MAILER. THE LIBRARIAN WILL COPY THE ENTIRE LIBRARY ON YOUR DDP OR DISK AND RETURN IT TO YOU.

NOTE: I HAVE HAD SOME COMPLAINTS ABOUT THE REQUIREMENT OF SUBMITTING ONE PROGRAM TO GET THE SOFTWARE LIBRARY. PLEASE BE ADVISED THAT THESE PROGRAMS DON'T HAVE TO BE WRITTEN BY YOURSELF. THEY CAN BE ANY NON-COPYRIGHTED PROGRAM THAT YOU MAY GET FROM A BOOK OR MAGAZINE. YOU NON-PROGRAMMERS CAN DO US ALL A GREAT SERVICE BY TYPING IN THESE PROGRAMS, RUNNING THEM TO MAKE SURE THEY WORK AND SENDING THEM IN. I DON'T THINK THIS IS TOO MUCH TO ASK FOR WHAT YOU WILL RECEIVE. EVERYONE, PLEASE SUBMIT YOUR PROGRAMS TO CREATE AN EXPANSIVE LIBRARY FOR NIAD.
LIBRARY INDEX:

BOOKS

CP/M REVEALED BY C. KOLANDER

THIS BOOK BY JACK D. DENNON IS A BEGINNERS GUIDE TO THE CP/M OPERATING SYSTEM. IT COVERS A WIDE VARIETY OF SUBJECTS FROM HOW TO POWER UP THE SYSTEM TO THE TECHNICAL ASPECTS OF CP/M. THE BOOK STARTS OUT WITH SOME BASIC EXERCISES TO GET YOU USE TO PUTTING LISTINGS INTO THE EDITOR AND GETTING A PROGRAM UP AND RUNNING. IT SHOWS YOU HOW TO ASSEMBLE THE PROGRAM, AND IF YOU HAVE TROUBLE HOW TO DEBUG. THIS BOOK IS VERY CLEAR, AND IF YOU SIT DOWN AT THE COMPUTER WHILE YOU READ IT AND GO THROUGH THE EXERCISES WITH IT, YOU CAN LEARN ALOT ABOUT HOW TO DO ASSEMBLY PROGRAMING. YOU DON'T HAVE TO UNDERSTAND ASSEMBLY TO USE THIS BOOK,

WHICH IS WHY IT IS SO NICE FOR BEGINNERS. THERE ARE 8+ PROGRAMS IN THE BOOK TO BE TYPED IN BY THE READER, SOME OF THESE ARE VERY USEFUL, AND OF COURSE SOME ARE NOT. THE BETTER PROGRAMS INCLUDE, COMMON.ASM, RESTORE.ASM AND MEMMAP.ASM, ALL OF WHICH ARE VERY USEFUL AND BETTER YET WORK WITH ADAM. ANOTHER NICE THING ABOUT TYPING IN THE PROGRAMS IS OF COURSE THAT YOU LEARN. THE PROGRAMS IN ONE WAY OR ANOTHER TRY TO SHOW YOU THE WAY THAT CP/M WORKS BY USING CP/M, IN OTHER WORDS "HANDS ON EXPERENCE". I LIKE THIS BOOK ALOT BECAUSE I FIND TRYING TO LEARN FROM TECH MANUALS TO BE VERY HARD. THIS BOOK GOES THROUGH EACH PIECE OF INFO AS YOU NEED IT WHICH TO ME SEEMS TO MAKE A LOT MORE SENSE, AND IS ALOT EASIER TO FOLLOW. THE BOOK WILL TEACH YOU THE VISABLE AND INVISIBLE ASPECTS OF CP/M, SUCH AS HOW CP/M READS A DISK DIRECTORY AND HOW IT WRITES TO A DISK ECT. ALL IN ALL I RECOMEND THIS BOOK TO ANYONE WHO IN SERIOUS ABOUT LEARNING BOTH CP/M AND ASSEMBLY LANGUAGE.

A

REVIEW

DISCOVERING SCIENCE ON YOUR ADAM WITH 25 PROGRAMS
BY BRUCE CROCKER

THIS IS AN 'ADVENTURE' BOOK. THERE ARE 23 'ADVENTURES' COVERING TOPICS IN ASTRONOMY AND SPACE SCIENCE, EARTH SCIENCE, LIFE SCIENCE, MATHEMATICS AND COMPUTER SCIENCE, AND PHYSICS. EACH TOPIC IS FOLLOWED BY ONE OF THE PROGRAMS WHICH IS AN ACTIVITY RELATING TO THE TOPIC. UNFORTUNATELY THERE IS A RANGE OF QUALITY IN THE PROGRAMS. SOME ARE VERY GOOD AND INTERESTING WHILE OTHERS ARE NOT. SUPERSONIC BEES AND THE EVERGREEN KEY ARE QUITE GOOD WHILE THE METRIC CONVERSION PROGRAMS ARE MEOIOCRE. THE TEXT IS EASY TO READ AND IS WELL ILLUSTRATED. MY 14 YEAR OLD DAUGHTER STILL GIGGLES WHEN SHE LOOKS AT THE PICTURE FOR THE FORMATION OF A METAMORPHIC ROCK. THE AGE RANGE FOR THIS BOOK IS HARD TO DETERMINE. MY WIFE IS A SUBSTITUTE K TO 8 TEACHER WHO ALSO TUTORS IN TO SUMMER SO WE BOUGHT THE BOOK TO SEE IF WE COULD USE IS FOR HER SCIENCE MAKE UP STUDENTS. I THINK IT IS SUITABLE FOR 5TH OR 6TH GRADE THROUGH 9TH GRADE AND SHE WILL CERTAINLY USE IT FOR ANY SCIENCE STUDENTS SHE HAS. THE ONLY OBVIOUS TYPOGRAPHIC ERROR IS IN THE WEATHER FORECASTING PROGRAM. FORTUNATELY THE PROPER LINES CAN BE RECONSTRUCTED FROM THE SAMPLE RUN FOR THAT PROGRAM. FOR EACH PROGRAM THERE IS A SAMPLE RUN AND AN EXPLANATION OF PROGRAM VARIABLES AND HOW THE PROGRAM OPERATES. THE BOOK IS 181 PAGES LONG INCLUDING A GOOD INDEX. ALL IN ALL I THINK I WOULD RECOMMEND THIS BOOK TO SOMEONE WITH A CHILD IN THE AGE RANGE MENTIONED ABOVE.

RATING: B+

PRODUCT LIST

**** NIAD BUYING SERVICE PRODUCT LIST ****

<u>HARDWARE/ ACC'S</u>	<u>PRICE</u>
ADAM DISK DRIVE 7817	\$195.00
ADD'L DATA DRIVE 2409	\$135.00
MODEM 7818	\$ 69.95
ADDRESS BOOK/AUTO	
DIALER 7815	\$ 31.95
64k EXPANDER 2562	\$130.00
COLECO DATA PACKS 2564	\$ 4.75 π
COLECO DATA PACKS (10)	\$ 39.95
FAST FORWARD DDPS	\$ 3.55 π
FAST FORWARD DDPS (10)	\$ 29.95
RIBBONS 7806	\$ 4.95
PRINTER WHEELS (Qume)	\$ 5.55
SPECIFY FONT DESIRED	
MONITOR CABLE 7830	\$ 8.95
TDK DISKETTES (Box of 10)	\$ 17.95
COMPUERVE STARTER KIT	\$ 25.95

This is an example of Gothic 12 # 89750, a Qume Superstrike print wheel.

This is an example of Elite 12 # 89753, a Qume Superstrike print wheel.

THIS IS AN EXAMPLE OF ORATOR 90 # 89757, A QUME SUPERSTRIKE PRINT WHEEL.

This is an example of Courier 72 # 89761, a Qume Superstrike print wheel.

SOFTWARE (DDP UNLESS NOTED)

SMART LOGO 7600	\$ 51.95
EXPERTYPE 7602;9610 DSK	\$ 31.95
SMART FILER 7813;9656 DSK	\$ 15.95
RECIPE FILE 7814;9657 DSK	\$ 15.95
SMART LTRS/FORMS	
7805;9613 DSK	\$ 20.95
FLASHCARD MAKER 7662	\$ 20.95
FLASHFACTS (TRIVIA 2902, HISTORY 2901,VOCAB 2900)	\$ 11.95 π
ADAMCALC 7831	\$ 31.95
R. SCARRY'S WORDBOOK 7658	\$ 20.95
DRAGONS LAIR 2683	\$ 24.95
WACKY WORD GAME 7834	\$ 15.95
CPM 2.2 & ASSEMBLER	
7832	\$ 49.95
SUPER ZAXXON 2623	\$ 24.95
BEST OF BRODERBUND: AE & CHOPLIFTER 7850	\$ 24.95
*2010: TEXT ADVENTURE	
GAME BY MGM/UA 7849	\$ 20.95
*FAMILY FEUD 7710	\$ 20.95
*JEOPARDY 7716	\$ 20.95
*BEST OF ELECTRONIC ARTS:	
HARD HAT MACK & PINBALL CONSTRUCTION SET 7852	\$ 20.95

CARTRIDGE SOFTWARE

DAMBUSTERS 2686	\$18.95
ILLUSTIONS 2621	\$18.95
BC II: Grog's	
REVENGE 2620	\$18.95
SPYHUNTER	\$18.95
TAPPER	\$18.95

OTHER SOFTWARE - SPECIFY DDP
OR DISK

BOUNTY HUNTER VS4048	\$19.95
ADVENTURE PK I VS4011	\$19.95
ADVENTURE PK II VS4015	\$19.95
TREK VS5004	\$19.95
SAVINGS & LOAN VS5051	\$19.95
VIDEOTUNES (DDP ONLY)	\$26.95
(FUTUREVISION)	
RIB I/ II (DDP ONLY)	\$26.95
EXT BASIC UTILITIES	\$18.95
BASIC BONANZA	\$29.95
DIABLO	\$21.95
STRATEGY PACK I	\$16.95
GAMES PACK I	\$16.95

*ITEMS NOT YET AVAILABLE

PRICES VALID 5/22 TO 6/22