



I CAN'T BELIEVE HOW GOD IS PROSPERING NIAD WITH NEW MEMBERS ! IT'S GETTING HARD TO KEEP UP WITH THE APPLICATIONS AND ORDERS FOR HARDWARE AND SOFTWARE ! I APPRECIATE YOUR SUPPORT AND THOSE OF YOU WHO HAVE BEEN PRAYING FOR NIAD. I HAVE RECEIVED SEVERAL POSITIVE COMMENTS RELATIVE TO THE INCORPORATION OF MY CHRISTIANITY IN NIAD. I HAVE FOUND TO MY PLEASURE THAT SOME OF YOU ARE CHRISTIANS AND THAT OTHERS OF YOU WHO MAY NOT BE APPRECIATE MY BELIEFS AND FEEL A SENSE OF ASSURANCE THAT I AM ON HONEST BUSINESS MAN AND CAN BE TRUSTED. THANKS AGAIN FOR YOUR POSITIVE COMMENTS AND SUPPORT.

MY LIFE HAS UNDERGONE A DRAMATIC CHAGNGE FOR THE BETTER SINCE I FOUND JESUS CHRIST. MY GOALS HAVE CHANGED FROM BEING SELF SERVING TO SERVING OTHERS AND I REALIZE THAT THERE IS MORE TO LIFE THEN FEEDING MY EGO AND TRYING TO BE A BIG SUCCESS IN THE BUSINESS WORLD. NOW, DON'T GET ME WRONG, I'M NOT PERFECT BY ANY MEANS, BUT YOU SHOULD HAVE SEEN ME BEFORE !!

I WAS READING IN THE GOSPEL OF JOHN THIS MORNING AND WOULD LIKE TO SHARE SOMETHING WITH YOU. THE SITUATION IN CHAPTER 7 WAS THAT THE JEWISH LEADERS HAD DISPATCHED THEIR GUARDS TO BRING JESUS TO THEM BECAUSE OF THE THINGS HE WAS SAYING TO THE POPULATION. THE GUARDS CAME BACK WITHOUT HIM AND WHEN QUESTIONED AS TO WHY, THEY SAID " NO MAN EVER SPOKE LIKE THIS MAN !" (7:46). I CAN TESTIFY TO THIS - THE BIBLE IS FULL OF AMAZING TRUTHS THAT SPEAK TO THE HEART OF LIFES ISSUES. I USED TO THINK THE BIBLE WAS ALOT OF PHILOSOPHY AND FILLED WITH ERROR AND ASSUMPTIONS. WHEN GOD BEGIN TO DRAW ME TO READ THE BIBLE SERIOUSLY, I DISCOVERED I WAS VERY WRONG. JESUS SAID " I AM THE WAY, THE TRUTH AND THE LIFE." THIS IS WHAT I FOUND, THAT JESUS THE PERSON IS THE TRUTH, NOT SOME PHILOSOPHY OR DOCTRINE BUT GOD HIMSELF. ONCE I DREW CLOSE TO GOD THROUGH JESUS I FOUND OUT THE REAL PURPOSE OF MY LIFE IN MY RELATIONSHIP TO HIM.

I HAVE INCLUDED A FREE COPY OF THE VOICE MAGAZINE FOR YOUR READING. I THINK OU WILL FIND THE STORIES EYE OPENING.  
 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, THINGS CERTAINLY DON'T STAY THE SAME FOR LONG IN THE WORLD OF THE ADAM AND COLECO ! SEE THE ADAM'S FUTURE COLUMN FOR SOME STARTLING CHANGES WHICH I FEEL WILL BENEFIT ALL CURRENT ADAM OWNERS.

WE'VE ADDED A NEW WORKSHOP THIS MONTH - UTILITIES WHICH I HOPE YOU WILL FIND INFORMATIVE AND PRACTICAL. WE'LL INCLUDE PROGRAMS THAT SHOULD AID YOU IN GETTING INTO SOME OF THE "NOOKS AND CRANNIES" OF YOUR ADAM. I WANT TO THANK WAYNE HOTEL WHO IS A GREAT HELP TO ME AND YOU AS NIAD MEMBERS. WAYNE WILL BE A BIG CONTRIBUTOR TO THE UTILITIES WORKSHOP IN THE FUTURE AS WELL. READ THE CPM 2.2 WORKSHOP TO GET THE LATEST ON PUBLIC DOMAIN SOFTWARE FOR THE ADAM.

I AM SETTING ASIDE SATURDAY AM'S BETWEEN 8:00 AND 11:00 (CHICAGO TIME) TO ANSWER QUESTIONS AND TAKE PHONE ORDERS.

YOU'LL NOTICE A NEW LOOK (YES, AGAIN) FOR THE NEWSLETTER THIS MONTH TO AID IN REDUCING COPYING AND COLLATING TIME. ALSO, STARTING WITH THE NEXT ISSUE (APRIL) I WILL BE MAILING VIA BULK MAIL TO REDUCE COST. IF I DON'T DO THIS I WILL NOT EVEN BREAK EVEN ON THE NEWSLETTER OVER THE REST OF 1985. I WILL WORK TO GET THE NEWSLETTER OUT EARLIER EACH MONTH TO COMPENSATE FOR THE LONGER MAILING TIME. I WILL PROBABLY GO THE WAY OF OTHER NEWSLETTERS AND OFFER FIRST CLASS MAILING FOR AN ADDITIONAL COST. LET ME KNOW YOUR THOUGHTS ON THIS. PLEASE REMEMBER THAT NIAD IS THE ONLY MONTHLY NEWSLETTER FOR THE ADAM AROUND. I'M ASSUMING THAT YOU WOULD RATHER HAVE A MONTHLY NEWSLETTER THEN EVERY TWO MONTHS. I COULD OBVIOUSLY SIGNIFICANTLY REDUCE COSTS BY GOING TO SIX ISSUES A YEAR - LET ME KNOW WHAT YOU THINK, THIS IS YOUR NEWSLETTER. I FEEL IT IS IMPORTANT TO BE HONEST AND UP FRONT WITH YOU RELATIVE TO NIAD'S FINANCES. THE BUYING SERVICE HAS GENERATED SOME INCOME, BUT IT IS NOT SUBSTANTIAL AND I WILL TAKE A LOSS ON ALL MY STOCK AS OF 3/22 WHEN I REDUCE PRICES. THIS PRICE REDUCTION IS BASED ON A PRICE REDUCTION FROM COLECO IN CONCERT WITH THE NEW RETAIL OUTLET ARRANGEMENT (ADAM'S FUTURE). THE WAY I AM HANDLING THIS IS THAT ANY ORDERS PLACED BEFORE 3/22 WILL BE BILLED AT THE OLD PRICES UNLESS I AM OUT OF STOCK ON ANY ITEM, IN WHICH CASE THAT ITEM WILL BE BILLED AT THE NEW REDUCED PRICES. ALL ORDERS PLACED 3/22 OR LATER WILL GET THE NEW PRICES. THIS IS THE ONLY FAIR WAY TO DO IT. IF ANY OF YOU FEEL THIS IS NOT FAIR, PLEASE CONSIDER THAT I HAVE HUNDREDS OF DOLLARS OF STOCK PURCHASED BEFORE THE COLECO PRICE REDUCTION THAT I CAN NOT RETURN !!

I AM WORKING WITH SEVERAL ADAM SOFTWARE SUPPLIERS TO REVIEW SOFTWARE FOR ADDITIONS TO THE NIAD PRODUCT LIST. PLEASE LET ME KNOW WHAT ITEMS YOU WOULD LIKE TO SEE NIAD CARRY. I WILL NEED SOME FEEL FOR DEMAND FOR A SPECIFIC ITEM BEFORE I BUY

IN QUANTITY. TWO ITEMS I NEED YOUR INPUT ON NOW ARE VIDEOTUNES FROM FUTUREVISION (NIAD PRICE OF \$26.95) AND RIB I/II FROM TAPEWARE TECHNOLOGY (NIAD PRICE OF \$25.95). PLEASE LEAVE ME AN EASYPLEX MESSAGE OR DROP ME A NOTE IF YOU WOULD BE INTERESTED IN PURCHASING THESE ITEMS AT THESE PRICES.

THERE HAVE BEEN SOME PROBLEMS WITH THE VICTORY DDP'S SOLD RECENTLY BY NIAD AND OTHER SUPPLIERS. THE PROBLEM IS NOT CONNECTED WITH THE QUALITY OF THE TAPE ITSELF BUT WITH THE DRILLING OF HOLES IN THE BACK OF THE TAPE WHICH MUST MATCH THE PINS IN THE ADAM DATA DRIVE. THERE WAS A PROBLEM WITH THE DRILLING CORRECTED. VICTORY HAS AGREED TO REPLACE ALL DEFECTIVE DDP'S WITH THE NEW ONES. IF YOU PURCHASED THE DDP'S FROM NIAD PLEASE RETURN THEM FOR REPLACEMENTS.

THERE HAVE BEEN SOME QUESTIONS ABOUT TYPING WHEELS. THE COLECO WHEELS ARE, WELL LETS SAY A LITTLE CHEAP, WHICH IS WHY I DO NOT CARRY THEM AND HAVE ALSO DROPPED THE ACCESSORY KIT. NIAD CARRIES QUME SUPERSTRIKE WHEELS WHICH ARE GOOD QUALITY BUT NOT OVERLY PRICED. THEY ALSO OFFER A WIDE VARIETY OF FONTS TO CHOOSE FROM. THERE HAS ALSO BEEN SOME CONFUSION REGARDING THE RIBBON SITUATION. THE ADAM PRINTER USES A DIABLO HYTYPE I (NOT II) MULTISTRIKE RIBBON. THESE ARE MADE BY ONLY A FEW MANUFACTURERS AND MAY BE HARD TO FIND. NIAD USES THE SAME RIBBON SUPPLIED BY COLECO (MINUS THE COLECO STAMP).

MANY OF YOU HAVE REQUESTED THE DISK VERSION OF CPM 2.2. I HAVE DECIDED TO ONLY CARRY THE DDP VERSION DUE TO THE FACT THAT THE FIRST THING YOU DO IS TO MAKE A WORKING COPY OF CPM ON A DISKETTE IF YOU HAVE THE DISK DRIVE. HENCE, THE DISK VERSION IS OF NO ADVANTAGE AS FAR AS I CAN SEE. HOWEVER, IF YOU REALLY WANT THE DISK VERSION I WILL ORDER IT FOR YOU. THE ONLY PIECES OF SOFTWARE CURRENTLY OFFERED ON DISK ARE SMARTFILER, RECIPEFILER, EXPERTYPE AND SMART LTRS/FORMS.

## ADAM'S FUTURE

ITS INTERESTING TO NOTE THAT THE ADAM HAS BEEN JOINED BY NONE OTHER THEN THE IBM PCJR AS A CASUALTY OF THE HOME COMPUTER MARKET. IBM ANNOUNCED IT IS DISCONTINUING THE PCJR DUE TO POOR SALES. THE NUMBER ESTIMATED TO HAVE BEEN SOLD IS 250,000 WHICH IS THE SAME ESTIMATE AS THE ADAM !! SEE, IT CAN HAPPEN TO ANYONE, EVEN THOSE WHO THOUGHT THEY WERE PAYING FOR STABILITY !!

WELL, COLECO HAS DONE IT AGAIN ! AS OF 3/15 THE ADAM WILL BE SOLD VIA THE FOLLOWING FIVE RETAIL OUTLETS : TOYS R US, KAY BEE TOYS, BEST PRODUCTS, ZAYRE'S, AND LIONEL LEISURE. MY FIRST QUESTION WAS WHAT HAPPENED TO REVCO AND THE 1/2 ANNOUNCEMENT THAT "CURRENT ADAM HARDWARE, SOFTWARE AND PERIPHERALS HAVE BEEN SOLD TO A MAJOR RETAILER" ? I DIDN'T GET A SPECIFIC ANSWER OTHER THEN THAT MANY PEOPLE "ASSUMED" THAT REVCO WAS GOING TO BE THE SOLE OUTLET. I'M NOT SURE WHAT TO



CONCLUDE FROM THIS ANNOUNCEMENT RELATIVE TO WHETHER THE REVCO DEAL FELL THROUGH OR JUST STALLED FOR AWHILE. IT APPEARS THAT COLECO MAH HAVE SOLD THE STOCK OF ADAMS TO THESE FIVE RETAILERS, BUT THAT IS JUST CONJECTURE. COLECO REPORTED THEIR YEAR-END RESULTS, CITING A LOSS OF \$80 MILLION DOLLARS ON SALES OF \$775 MILLION. A TOTAL LOSS OF \$118 MILLION WAS DUE TO THE "DISPOSITION" OF THE ADAM COMPUTER. THE COLECO STOCK ROSE BY 1 5/8 LAST WEEK AFTER THE YEAR-END RESULTS WERE ANNOUNCED.

I STARTED TO SUSPECT SOMETHING WHEN NO ANNOUNCEMENT WAS MADE ON THE PLANNED 2/28 DATE AND THE COLECO YEAR END FINANCIAL RESULTS WERE DELAYED. ADDITIONALLY, MY SUSPICION GREW WHEN TOYS R US DROPPED PRICES AND RECEIVED ADDITIONAL STOCK OF THE NEWER ITEMS (CPM, ADAMCALC). ALL IN ALL THIS IS VERY STRANGE AND WE'LL JUST HAVE TO WAIT TO SEE WHAT THEY DO NEXT - ALWAYS A NEW SURPRISE FROM THE CABBAGE PATCH !

THE BOTTOM LINE OF COURSE IS WHAT DOES ALL THIS MEAN TO US ADAMITES ? FIRST OF ALL THE DROP IN PRICES DOESN'T HURT US DOES IT ?? I WENT OUT AND BOUGHT MY BACKUP ADAM SO I CAN RUN BOTH PRINTERS AT ONCE AND REALLY DRIVE MY WIFE TO THE BRINK !! OBVIOUSLY, WE CAN BETTER AFFORD THOSE DISK DRIVES AND 64K EXPANDERS NOW. SOFTWARE PRICES ALSO DROPPED WHICH IS GREAT FOR THOSE PIECES YOU HAVE PUT OFF BUYING. ALL THESE ITEMS SHOULD BE MORE AVAILABLE THEN OVER THE PAST SEVERAL MONTHS (FOR YOU NON-NIAD BUYERS !). NIAD WILL CONTINUE TO CARRY ALL ADAM PRODUCTS AND AT REDUCED PRICES !!! (SEE THE NIAD NEWS SECTION).

THERE HAVE BEEN SOME RUMORS THAT COLECO HAS STATED THAT THEY WILL NOT BE PRODUCING ADDITIONAL SOFTWARE FOR THE ADAM. THESE ARE NOT TRUE FROM WHAT I CAN ASCERTAIN. COLECO DID PUBLISH A MEMO THAT STATED THAT NO ADDITIONAL HARDWARE/PERIPHERALS WOULD BE PRODUCED (RS232, TRACTOR FEED, 80 COLUMN CARD). AGAIN, I CAN'T SEE THEM DROPPING WHAT WOULD HAVE TO BE AN INCOME PRODUCING LINE.

## UPDATES

. I FEEL I MUST GIVE MY OPINION ON ADAM SOFTWARE PRICES. I HAVE HAD OTHER COMPUTERS AND BEEN THROUGH THIS BEFORE AND HAVE SOME VERY DEFINITE OPINIONS. I AM ALL FOR PEOPLE MAKING MONEY ON SOFTWARE, HOWEVER I AM NOT IN FAVOR OF OVERPRICING. THIS IS WHAT KILLED THE HOME VIDEOGAME MARKET. ALL NIAD REVIEWS TAKE INTO CONSIDERATION THE PRICE OF THE PRODUCT AND RATE IT ACCORDINGLY. ADDITIONALLY, NIAD WILL SET ITS PRICES BASED ON REASONABLENESS FOR THE TYPE OF PRODUCT. NIAD WILL NOT CARRY OR ENDORSE PRODUCTS WHICH ARE NOT WORTH THE PRICE. ADDITIONALLY, I HAVE A PROBLEM WITH CHARGING MONEY FOR UTILITY PROGRAMS THAT SHOULD BE AVAILABLE TO ALL ADAMITES. I STRONGLY FEEL THAT PEOPLE WHO DEVELOP THESE UTILITIES SHOULD NOT CHARGE FOR THEM, BUT CONTRIBUTE THEM FOR THE BENEFIT OF ALL ADAM

OWNERS. AS YOU CAN SEE BY THIS ISSUE I AM LIVING THIS PHILOSOPHY WITH THE NIAD PROGRAMS OFFERED TO ALL MEMBERS WHO CAN PASS THEM ALONG AS THEY SEE FIT. NOW, DON'T GET ME WRONG I AM NOT SUGGESTING THAT COMMERCIALY DEVELOPED SOFTWARE OF THE CALIBER OF FUTUREVISIONS AUTOAID SHOULD FALL INTO THIS CATEGORY. I'M TALKING ABOUT UTILITIES LIKE DUMP ROUTINES, COPY PROGRAMS, BASIC COLOR SET OPTIONS, MODEM PROGRAMS FOR UP/DOWN LOADING AND TEXT FONT CHARACTER SETS. ENOUGH SAID, I FEEL BETTER NOW THAT I GOT THAT OFF MY CHEST !

. THE RESPONSE FROM THE SURVEY FOR BASIC 2.0 AND THE UTILITY KIT HAS BEEN VERY GOOD. I HAVE ALSO RECEIVED MANY RESPONSES FROM NON-NIAD COMPUSERVE ADAMITES. I WILL REPORT THE STATISTICS IN THE NEXT ISSUE.

. MOST OF YOU HAVE PROBABLY RECEIVED YOUR CARD FOR THE ADVANCED ADAMLINK SOFTWARE BY NOW. IT WILL START SHIPPING BY LATE MARCH. THIS SHOULD BE A GREAT HELP IN THE SHARING OF SOFTWARE VIA COMPUSERVE AND LOCAL BBS.

. COLECO IS RUNNING BEHIND ON 2010: TEXT ADVENTURE WHICH IS NOW SLATED FOR EARLY APRIL RELEASE. FAMILY FEUD, JEOPARDY, MATH QUEST AND BERENSTAIN BEARS ARE ALL SLATED FOR A SECOND QUARTER RELEASE.

. CPM PUBLIC DOMAIN SOFTWARE IS STARTING TO COME OUT FOR THE ADAM. SEE THE CPM 2.2 WORKSHOP FOR DETAILS.

. VICTORY SOFTWARE HAS ANNOUNCED TWO NEW TITLES WHICH SHOULD BE OUT IN TIME FOR A REVIEW IN THE APRIL NIAD ISSUE. STRATEGY PACK I CONSISTS OF FOUR BOARD GAMES. GAMES PACK I CONTAINS THREE GRAPHIC ACTION GAMES.

. THE SOFTWARE EXCHANGE LIBRARY IS GROWING. I WILL PUT A LISTING OF ALL PROGRAMS IN THE APRIL ISSUE.

. NO NEWS ON THE AVAILABILITY OF A RS232 INTERFACE CARD YET, BUT I KNOW THAT SOME COMPANIES ARE ACTIVELY WORKING ON IT - BE PATIENT, ITS JUST A MATTER OF TIME FOR THIS ONE.

. BC: GROG'S REVENGE HASN'T APPEARED YET BUT SHOULD SHORTLY. VIDEO TAKE OUT HAD HOPED TO HAVE THE EXCLUSIVE DISTRIBUTION RIGHTS ON THIS BUT IT WILL BE AVAILABLE ELSEWHERE (TOYS R US I ASSUME).

. SEVERAL OTHER SUPPLIERS ARE RUMORED TO HAVE COMPLETED ADAM CONVERSIONS BUT ARE HOLDING OFF PRODUCING THEM TO SEE HOW THE MARKET FOR ADAM SOFTWARE IS. I WILL BE STARTING A WRITING CAMPAIGN TO THESE COMPANIES AFTER THE NIAD MEMBERSHIP IS A LITTLE LARGER.



# UTILITIES

FDUMP  
BY W. MOTEL

THIS PROGRAM GIVES YOU A FORMATTED HEX DUMP FOR ANY MEMORY LOCATIONS. THIS IS HELPFUL WHEN DOING INVESTIGATIONS INTO THE OPERATING SYSTEM AND/OR BASIC. THE PRINT OUT SHOWS THE DECIMAL AND HEXIDECIMAL ADDRESS AT THE LEFT SIDE. THIS IS FOLLOWED BY THE CONTENTS OF THE NEXT 16 BYTES, STARTING AT THAT MEMORY LOCATION. THE CONTENTS OF THE BYTES ARE SHOWN IN HEXIDECIMAL. THESE START PRINTING AT POSITION 14. AT THE RIGHT SIDE, STARTING IN POSITION 63, IS THE CHARACTER EQUIVALENT OF THOSE 16 BYTES. ANY NON-PRINTABLE CHARACTERS ARE PRINTED AS A . CHARACTER. THE NEXT LINE START AT NEXT ADDRESS (16 BYTES MORE CURRENT LINE STARTING ADDRESS). THIS CONTINUES UNTIL YOUR REQUESTED END LOCATION HAS BEEN PRINTED.

YOU CAN START AND END AT ANY VALID ADDRESS AND HAVE THE OPTION OF SINGLE OR DOUBLE LINE SPACING. THE PROGRAM ALSO CHECKS WITHIN EACH REQUESTED ADDRESS RANGE AND LETS YOU CHANGE PAPER WHENEVER 60 LINES HAVE BEEN PRINTED.

THIS PROGRAM WILL BE THE BASIS FOR FUTURE ARTICLES AND PROGRAMS I WILL HAVE ON VARIOUS INVESTIGATIONS AND UTILITIES. NEXT MONTH WE WILL LOOK INTO PRINTING OUT THE CATALOG AREA FROM TAPE/DISK.

THE ONE THING I HOPE YOU NOTICE WHEN YOU USE THIS PROGRAM IS THE USE OF COLOR FOR BOTH BACKGROUND AND TEXT. SEE MY ARTICLE AND PROGRAM IN THIS ISSUE THAT COVERS THIS. LET ME KNOW WHAT YOU THINK OF THIS DISPLAY.

ONE REMINDER, THIS PRINTS OUT THE CONTENTS OF EACH BYTE IN HEXIDECIMAL. WHEN YOU DO PEEKS/POKES, YOU WORK WITH THE DECIMAL EQUIVALENTS. FOR EXAMPLE, THE POKE 17115,245 USES THE DECIMAL VALUE 245. WHAT ACTUALLY GETS POKED IS THE HEXIDECIMAL EQUIVALENT F5. DECODING THIS BACK,

$15 * 16$  (POSITION VALUE) = 240 (F IS 15 IN DECIMAL)

$5 * 1$  (POSITION VALUE) = 5  
-----  
245

IF YOU ARE NOT FAMILIAR WITH HEXIDECIMAL, PETER HINKLES BOOK INFORMATION FOR ADAM EXPLORERS HAS AN EXPLANATION ON THIS, AS DOES MOST GENERAL DATA PROCESSING BOOKS.

BRIEFLY,

THE POSITION VALUE IN HEXIDECIMAL ARE 16 TIMES THE POSITION TO THE RIGHT (DECIMAL IS 10). THE RIGHTMOST POSITION IS THE UNIT POSITION AND IS WORTH 1.

I.E. 4096 -- 256 -- 16 -- 1

IN DECIMAL, EACH POSITION CAN HAVE A CHARACTER 0 - 9 IN IT.

IN HEXIDECIMAL, THE CHARACTERS ARE 0 - 9, A - F. THE VALUES OF THE CHARACTERS 0 - 9 ARE THE SAME AS IN DECIMAL, WHERE AS A = 10, B = 11, C = 12,

D = 13, E = 14, F = 15

NOTE: FOR YOUR ASSISTANCE, I'VE INCLUDED A HEX-TO-DECIMAL CONVERSION SCREEN. JUST USE START ADDRESS 88888. THIS WILL CALL THE HEX CONVERTOR. WHEN DONE, YOU RETURN BACK TO DUMP SCREEN.

## PROGRAM DESCRIPTION

1010 - 1090      INITIALIZATION  
1005      SAVE ORIGINAL SCREEN SETTINGS  
1010      SET NORMAL WHITE LETTERS ON  
LT BLUE  
                        INVERSE DK BLUE LETTER ON  
DK YELLOW  
1100 - 1170      PROMPTS FOR ADDRESS RANGE, SPACING,  
                        EDITS.  
1115      END PROCESSING, RESTORE  
ORIGINAL SCRIN  
1200 - 1270      PRINT OF LEFT SIDE (ADDRESS)  
1300 - 1390      DECODE AND PRINT OF 16 BYTE HEX  
                        VALUES  
                        SAVE INTO C\$ ARRAY FOR CHARACTER  
                        VALUE  
1400 - 1470      PRINT OF RIGHT SIDE CHARACTER  
                        VALUES  
                        LINE CONTROL CHECKING  
1600 - 1649      ROUTINE TO BREAKDOWN AND DETERMINE  
                        HEX VALUE  
                        NOTE: EACH BYTE CONTAINS 2 HEX  
                        VALUES  
                        EACH ADDRESS IS 2 BYTES, 4  
HEX VALUES  
1650 - 1699      PRINT OF HEX EQUIVALENT  
                        NOTE: X\$ CONTAINS THE 16 HEX  
                        SYMBOLS 0 - F  
                        IF RS IS 0, THIS PULLS OUT (RS+1),  
THE  
                        FIRST VALUE OR 0  
                        IF RS IS 15, THIS PULLS OUT  
(RS+1), THE  
                        16TH VALUE OR F  
1700 - 1799      HEX CONVERTOR

## CHANGES YOU MAY WANT TO MAKE

1010 - POKE DIFFERENT COLOR COMBINATIONS INTO  
17115, 17126  
1115 - DON'T RESET TO ORIGINAL COLORS, KEEP NEW  
SETTINGS  
                        (1115 IF SA=99999 THEN END)  
1440 - FOR CONTINUOUS FORM OR NQ LINE CHECK  
                        (1440 GOTO 1200)  
1150 - IF YOU HAVE MEMORY EXPANDER, CHANGE 65536





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10REM      FDUMP BY W. MOTEL
1000 x$="0123456789ABCDEF":DIM c$(15)
1005 s2=PEEK(17115): s3=PEEK(17126)
1010POKE 17115, 245:POKE 17126, 74:GOTO 1100
1090FOR LC=0 TO 5000:NEXT
1100PR #0:TEXT
1101? " ENTER "; :INVERSE:? "START"; :NORMAL:? "
ADDRESS"
1109FLASH
1110? " OR 88888 TO HEX CONVERT"
1111? " OR 99999 TO STOP"; :NORMAL:INPUT " ";
SA
1112IF SA=88888 THEN GOSUB 1700:GOTO 1100
1115IF SA=99999 THEN POKE 17115, s2:POKE 17126,
s3:TEXT:END
1120? " ENTER "; :INVERSE:? " END "; :NORMAL:? "
ADDRESS"; :INPUT " "; EA
1140IF SA>EA THEN ??: CHR$(7):FLASH:? " START >
END ADDR":GOTO 1090
1150IF SA<0 OR SA>65535 OR EA<0 OR EA>65535 THEN
?:? CHR$(7):FLASH:? " ADDRESS OUT OF RANGE":GOTO
1090
1152? " DOUBLE LINE SPACING":? " ";
:FLASH:? "Y/N"; :NORMAL:INPUT " "; AS
1154 LS=1:IF AS="Y" OR AS="y" THEN LS=2
1160? CHR$(7):? CHR$(7):FLASH:? " RETURN WHEN
PAPER READY"; :NORMAL:INPUT " "; AS
1170PR #1: LC=1
1200FOR C=0 TO 15: C$(C)=" ":NEXT C
1210?:IF LS=2 THEN ?
1220? SPC(5-LEN(STR$(SA))); SA; "-";
1230 SV=SA: DV=4096:GOSUB 1600:GOSUB 1650
1240 SV=RV: DV=256:GOSUB 1600:GOSUB 1650
1250 SV=RV: DV=16:GOSUB 1600:GOSUB 1650
1260 RS=RV:GOSUB 1650
1270? TAB(14);
1300FOR C=0 TO 15
1305 V=PEEK(SA+C)
1310 SV=V: DV=16:GOSUB 1600:GOSUB 1650
1320 RS=RV:GOSUB 1650
1330? " ";
1340IF V<32 OR V>126 THEN V=46
1350 C$(C)=CHR$(V)
1360IF SA+C>=EA THEN C0=C: CI=1: C=15
1370NEXT C
1380IF CI=1 THEN CI=0:GOTO 1400
1390 C0=15
1400? SPC(63-(C0*3+16)); :FOR C0=0 TO 15: ? C$(C0);
:NEXT C0
1410IF SA+C>=EA THEN GOTO 1100
1420 SA=SA+16
1430 LC=LC+LS
1440IF LC<60 THEN 1200
1450PR #0
1460? CHR$(7):INVERSE:? " INSERT NEW
PAPER":NORMAL
1470GOTO 1160
1600REM      BREAKDOWN TO HEX VALUE
1601REM      SV IS START VALUE
1602REM      DV IS DIVIDE VALUE
1603REM      RS IS RESULT
1605REM      RV IS REMAINDER(RETURN VALUE)
1610 RS=INT(SV/DV)
1620 RV=SV-RS*DV

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1649RETURN
1650REM      PRINT OF HEX VALUE
1660? MID$(X$, RS+1, 1);
1699RETURN
1700REM      HEX CONVERTOR
1708GOTO 1710
1709FOR LC=0 TO 5000:NEXT
1710TEXT:HTAB (9):INVERSE:? " HEX CONVERTOR "
1715NORMAL:?:?:? " ENTER 1-5 DIGIT HEX NUMBER":?
1720? " ENTER "; :INVERSE:? "HEX"; :NORMAL:? "
NUMBER >>"; :INPUT " "; H$
1725 LH=LEN(H$)
1727IF LH<0 OR LH>5 THEN ??: CHR$(7):FLASH:? "
INVALID NUMBER OF DIGITS":GOTO 1709
1730 RS=0: DV=0
1740IF DV=LH THEN 1770:REM ALL DIGITS USED
1745 DV=DV+1: SV$=MID$(H$, DV, 1):REM GET A HEX
CHARACTER FROM NUMBER
1748IF SV$>="0" AND SV$<="9" THEN
RV=VAL(SV$):GOTO 1760
1749REM      ABOVE WAS NOT 0-9, FIND OUT WHICH IT IS
A-F
1750IF SV$="A" OR SV$="a" THEN RV=10:GOTO 1760
1751IF SV$="B" OR SV$="b" THEN RV=11:GOTO 1760
1752IF SV$="C" OR SV$="c" THEN RV=12:GOTO 1760
1753IF SV$="D" OR SV$="d" THEN RV=13:GOTO 1760
1754IF SV$="E" OR SV$="e" THEN RV=14:GOTO 1760
1755IF SV$="F" OR SV$="f" THEN RV=15:GOTO 1760
1758?:? CHR$(7):FLASH:? " INVALID HEX DIGIT
":GOTO 1709
1760 RS=RS+RV*(16^(LH-DV)):REM HEX VALUE *
POSITIONAL VALUE
1765GOTO 1740
1770?:INVERSE:? " DECIMAL NUMBER >>"; :NORMAL: ?
" "; RS
1772?:FLASH:? " MORE TO CALC Y/N"; :INPUT " ";
AS

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## SMARTBASIC WORKSHOP

EASY COLOR FOR BASIC TEXT  
BY W. MOTEL

WITHIN THE ADAM, THE TEXAS INSTRUMENT VIDEO DISPLAY PROCESSOR IS RESPONSIBLE FOR PRODUCING TEXT, GRAPHICS, AND SPRITES. THE TI VDP ALLOWS FOR 32 INDIVIDUAL SPRITE SCREENS, A PATTERN SCREEN, AND A BACKDROP SCREEN. THE PRIORITY, OR OVERLAYING, IS SPRITE 0 (FIRST) THRU SPRITE 31, THEN THE PATTERN SCREEN, AND LAST THE BACKDROP SCREEN. WE WILL NOT DISCUSS THE SPRITE SCREENS IN DETAIL, OTHER THAN TO POINT OUT AN EXAMPLE FROM LUGO. THINK OF EACH SPRITE SCREEN REPRESENTING A TURTLE. THE LOWER THE TURTLE NUMBER, THE HIGHER THE PRIORITY. THE LOWER TURTLES SHAPES PASS OVER THE HIGHER NUMBERED TURTLES. ALL TURTLES PASS OVER THE TEXT. THE TEXT IS ON TOP OF THE BLUE BACKDROP.

IN BASIC, THE TEXT SCREENS (BOTH NORMAL AND INVERSE) COLORS ARE CONTROLLED BY THE SETTING FOR THE PATTERN PLANE AND, TO SOME DEGREE, THE



BACKDROP SCREEN. THE NORMAL DEFAULT IN THE ADAM FOR TEXT IS

NORMAL MODE: WHITE LETTERS ON BLACK

INVERSE MODE: BLACK LETTERS ON WHITE

ON THE ADAM, THE ACTUAL SETTINGS ARE.

BACKDROP SCREEN IS TRANSPARENT (BLACK FOR HERE)

PATTERN SCREEN IS

NORMAL MODE: WHITE LETTERS

TRANSPARENT BACKGROUND

INVERSE MODE: TRANSPARENT TEXT

WHITE BACKGROUND

WHAT DOES TRANSPARENT MEAN ON THE PATTERN SCREEN? BASICALLY IT IS CLEAR, OR WHATEVER IS UNDER IT (BACKDROP SCREEN) SHOWS THRU.

FROM OUR FIRST ISSUE, WE SEEN A CHANGE TO THE CONTENTS OF LOCATION 17059 WOULD CHANGE THE BACKGROUND COLOR, BUT NOT THE TEXT. WHAT THIS DID, WAS CHANGE THE BACKDROP SCREEN COLOR. THE TEXT STILL REMAINED WHITE IN NORMAL MODE, BUT SINCE THE NORMAL MODE BACKGROUND IS TRANSPARENT, THE NEW BACKDROP COLOR SHOWS THRU. IF YOU DID INVERSE PRINTING, YOU WOULD GET WHITE BACKGROUND, BUT YOUR TEXT WOULD BE THE BACKDROP COLOR (INVERSE TEXT IS TRANSPARENT). THE OTHER THING TO REMEMBER IS THAT THE COLOR CHANGE TOOK PLACE AFTER THE POKE AND AFTER A TEXT COMMAND.

ON THE PATTERN SCREEN, WE HAVE A LITTLE DIFFERENT SITUATION. WE NEED BOTH THE TEXT AND BACKGROUND COLOR. WITHIN THE TI VDP, ONE OF THE REGISTERS USED DENOTES THIS AS FOLLOWS: UPPER 4 BITS LOWER 4 BITS

TEXT BACKGROUND

THE UPPER 4 BITS ARE THE TEXT DESCRIPTOR, THE LOWER 4 BITS ARE FOR THE BACKGROUND. EACH HALF CAN CONTAIN A DECIMAL VALUE 0 - 15 (HEX OF 0 - F). THE DEFINITIONS FOR THESE ARE:

0	TRANSPARENT	8	MD RED
1	BLACK	9	LT RED
2	MD GREEN	10	DK YELLOW
3	LT GREEN	11	LT YELLOW
4	DK BLUE	12	DK GREEN
5	LT BLUE	13	MAGENTA
6	DK RED	14	GRAY
7	CYAN	15	WHITE

THANKS TO GREG CALENT ON COMPUSERVE, HE HAS FOUND CHANGES TO LOCATIONS 17115 AND 17126 CONTROL TEXT AND BACKGROUND COLORS IN BOTH NORMAL AND INVERSE PRINT MODE.

IN THEORY, WHAT BASIC DOES ON A TEXT COMMAND, IS TO SEND THE CURRENT VALUES OF LOCATIONS 17059, 17115, AND 17126 TO THE OPERATING SYSTEM, WHICH IN TURNS DECODES THEM AND SETS UP THE VARIOUS SCREEN SETTINGS. GIVEN THIS INFORMATION, WE CAN CHANGE THESE INITIAL SETTINGS TO WHATEVER WE WISH.

THE BACKDROP VALUE (17059) IS EASY. JUST POKE IN THE DECIMAL EQUIVALENT (0 - 15) FOR THE COLOR YOU WANT. DO NOT PUT A HIGHER VALUE IN AS IT ONLY USES THE LOWER 4 BIT VALUE.

THE NORMAL MODE (17115) AND INVERSE MODE (17126) ARE NOT DIFFICULT, BUT A LITTLE TRICKIER UNTIL YOU GET USED TO IT.

FOR EITHER ONE:

- A. GET VALUE OF COLOR YOU WISH FOR TEXT
- B. MULTIPLY BY 16 (THIS MAKES THE VALUE GO INTO UPPER 4 BITS)
- C. GET VALUE OF COLOR YOU WISH FOR BACKGROUND
- D. ADD THE VALUE FROM STEP C TO VALUE FROM STEP B
- E. POKE THIS VALUE INTO 17115 FOR NORMAL MODE 17126 FOR INVERSE MODE
- F. DO TEXT (THIS RESETS SYSTEM COLOR SCREENS)

ASSUME WE WANT NORMAL MODE TO BE WHITE TEXT ON LT BLUE

- A. WHITE VALUE IS 15
- B.  $15 * 16$  IS 240
- C. LT BLUE VALUE IS 5
- D.  $240 + 5$  IS 245
- E. POKE 17115, 245
- F. TEXT

ONE THING TO NOTE ON THE COLOR CODES. THESE COLORS ARE THE SAME, BUT THE VALUES ARE DIFFERENT, FROM THE VALUES USED IN THE COLOR AND HCOLOR COMMAND. I'M SURE THE CODES USED IN THESE COMMANDS ARE TRANSLATED INTO THE TI COLOR CODES BY THE BASIC COMPILER. THE COLOR AND HCOLOR VALUES ARE THE SAME AS APPLE BASIC AND THIS IS PROBABLY WHY THEY ARE DIFFERENT.

SEE MY PROGRAM FOR BTCOLOR. THIS WILL LET YOU PLAY AROUND AND SEE ALL THE DIFFERENT COMBINATIONS. FOR A SAMPLE OF HOW MUCH MORE EFFECTIVE COLOR TEXT/BACKGROUND IS, RUN MY FDU/P PROGRAM. THESE COLOR CHANGES ARE SIMPLE TO INCLUDE IN ANY BASIC PROGRAM.

BTCOLOR BY W. MOTEL

HOPEFULLY, YOU READ MY ARTICLE ON EASY COLOR FOR BASIC TEXT. IF NOT, READ IT FIRST.

THIS PROGRAM WILL ALLOW YOU TO EASILY EXPERIMENT WITH ANY COMBINATION OF COLORS YOU WANT FOR BACKDROP, NORMAL, AND INVERSE PRINT SCREENS. NOTE, SOME COMBINATIONS ARE NOT VERY READABLE. THE SAME COLOR TEXT AND BACKGROUND WILL GIVE YOU INVISIBLE PRINTING.

THE PROGRAM HAS 2 PARTS:

- FIRST SHOWN IS THE CURRENT SETTINGS WITH PROMPT FOR

CHANGE DESIRED. IF INVISIBLE PRINT, 4 WILL END AND RESET

- THE SECOND SCREEN PROMPTS YOU FOR THE COLOR CODE CHANGE AND GOES BACK TO ORIGINAL SCREEN. THE COLOR IS NOW SHOWN.



THE CURRENT VALUE IS THE ACTUAL DECIMAL VALUE  
IN

17059 BACK DR OP  
17115 NORMAL MODE  
17126 INVERSE MODE

THESE VALUES CAN BE POKED INTO THE RESPECTIVE  
LOCATIONS ONCE YOU FIND A COMBINATION YOU LIKE.

OF INTEREST, CHANGE THE BACKDROP TO WHITE AND  
THE BACKGROUND OF NORMAL MODE TO SOME COLOR. NOTE  
THE SIZE OF THE NORMAL SCREEN. IF YOUR TV IS LIKE  
MINE, YOU'LL NOTICE THAT THE BACKDROP SCREEN AREA  
IS LARGER THEN THE BACKGROUND SCREEN OF THE TEXT  
SCREEN AREA.

```
10REM      BTCOLOR BY W. MOTEL
90DIM C$(15)
100 C$(0)="0 TRANSPARENT"
101 C$(1)="1 BLACK"
102 C$(2)="2 MD GREEN"
103 C$(3)="3 LT GREEN"
104 C$(4)="4 DK BLUE"
105 C$(5)="5 LT BLUE"
106 C$(6)="6 DK RED"
107 C$(7)="7 CYAN"
108 C$(8)="8 MD RED"
109 C$(9)="9 LT RED"
110 C$(10)="10 DK YELLOW"
111 C$(11)="11 LT YELLOW"
112 C$(12)="12 DK GREEN"
113 C$(13)="13 MAGENTA"
114 C$(14)="14 GRAY"
115 C$(15)="15 WHITE"
130 S1=PEEK(17059): S2=PEEK(17115): S3=PEEK(17126)
200GOSUB 1000:GOSUB 1150
210INPUT " "; A$:IF A$<"1" OR A$>"5" THEN 200
220IF A$="4" THEN POKE 17059, S1:POKE 17115,
S2:POKE 17126, S3:TEXT:END
221IF A$="5" THEN TEXT:END
225GOSUB 1000:GOSUB 1400:?
230IF A$="2" THEN 300
240IF A$="3" THEN 400
250? " CHANGE BACKDROP"
260 N$="BACK DR OP":GOSUB 1300:POKE 17059, A:GOTO
200
300? " CHANGE NORMAL "
310 N$="TEXT":GOSUB 1300: HI=A
320 N$="BACK":GOSUB 1300: LO=A
330POKE 17115, HI*16+LO:GOTO 200
400? " CHANGE INVERSE "
410 N$="TEXT":GOSUB 1300: HI=A
420 N$="BACK":GOSUB 1300: LO=A
430POKE 17126, HI*16+LO:GOTO 200
1000TEXT
1010? " CURRENT BACKDROP IS "
1015 HI=INT(PEEK(17059)/16)
1016 LO=PEEK(17059)-(HI*16)
1020? " "; C$(LO)
1040? " CURRENT NORMAL IS "; PEEK(17115)
1050 HI=INT(PEEK(17115)/16)
1060 LO=PEEK(17115)-(HI*16)
```

```
1070? " TEXT IS "; C$(HI)
1080? " BACK IS "; C$(LO)
1090INVERSE
1100? " CURRENT INVERSE IS "; PEEK(17126)
1110 HI=INT(PEEK(17126)/16)
1120 LO=PEEK(17126)-(HI*16)
1130? " TEXT IS "; C$(HI)
1140? " BACK IS "; C$(LO)
1145NORMAL
1149RETURN
1150?
1160? " 1 CHANGE BACKDROP"
1170? " 2 CHANGE NORMAL"
1180? " 3 CHANGE INVERSE"
1190? " 4 END (WITH RESET)"
1193? " 5 END (NO RESET)"
1199RETURN
1300? " >> PICK COLOR # FOR "; N$: :INPUT " ";
A
1310IF A<0 OR A>15 THEN 1300
1320?
1330RETURN
1400?
1410FOR C=0 TO 7
1420? TAB(3); C$(C); TAB(16); C$(C+8)
1430NEXT
1440RETURN
```

#### FONT EDITOR BY BEN HINKLE

THE FOLLOWING PROGRAM ALLOWS YOU TO CREATE NEW  
CHARACTERS (EG. RUSSIAN?) OR NEW STYLE CHARACTERS  
(FONTS) FOR THE SCREEN IN ANY MODE. IT LOADS THE  
ORIGINAL CHARACTER SET INTO A TABLE IN RAM  
STARTING AT 50,020 TO USE AS A BASE FROM WHICH TO  
WORK. IT THEN ASKS WHICH CHARACTER YOU WOULD LIKE  
TO CHANGE, AND WHEN YOU ENTER THE ASCII NUMBER OF  
THE DESIRED CHARACTER, IT FORMS A BOX ON THE  
SCREEN IN WHICH YOU CAN PLOT A NEW CHARACTER ON AN  
8X8 GRID USING THE CURSOR KEYS. WHEN YOU ARE DONE,  
IT PUTS THE NEW CHARACTER IN THE TABLE IN RAM, AND  
THEN LOADS IT INTO VIDEO RAM USING A MODIFIED  
OPERATING SYSTEM ROUTINE. WHEN YOU HAVE MADE ALL  
THE CHANGES YOU WANT, YOU CAN SAVE THE NEW FONTS  
AND A SHORT MACHINE LANGUAGE ROUTINE ON TAPE AS A  
BINARY FILE. TO USE THE FILE TYPE "BLOAD (NAME)",  
"CALL 50000" AND "TEXT" IN THE IMMEDIATE MODE OR  
FROM A PROGRAM, AND THE NEW FONTS WILL BE  
INSTALLED. VERY LONG PROGRAMS MAY OVERWRITE THE  
FONT TABLE, ALTHOUGH THEY SHOULD NOT. IT ALSO  
SOMETIMES HAPPENS THAT THE EDITOR PROGRAM GIVES A  
"BUFFER OVERFLOW" ERROR WHEN SAVING A FONT SET, IN  
WHICH CASE TYPING "BSAVE (NAME), A 50000, L 1036  
(RETURN)" IN THE IMMEDIATE MODE WORKS. I HAVE  
MADE A NEW FONT SET CALLED FAT FONTS, AND AM SURE  
YOU WILL FIND IT INTERESTING TO TRY YOUR OWN.



```

2REM FONT EDITOR BY BEN HINKLE
3HIMEM :49996:GOSUB 1010
7DATA 62,0,205,20,253,33,4,3,1,0,4,17
3DATA 100,195,237,176,62,1,205,20,253,201
10DATA 175,50,112,225,50,113,225,50,1*4
13DATA 225,50,127,225,50,128,225,50,129,225
15DATA 50,117,225,62,17,50,118,225,62
17DATA 100,50,119,225,62,195,50,120,225,201
20FOR X=50000 TO 50037:READ D:POKE X, D
30NEXT:CALL 50000

```

```

720GOTO 50
1010FOR X=49997 TO 50018:READ D:POKE X, D:NEXT
1020CALL 49997:RETURN

```

```

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$):IF D=0 THEN 600
57IF D<32 OR D>126 THEN 50
58 RA=50020+D*8
60VLINE 0, 9 AT 10:VLINE 0, 9 AT 19
61HLINE 10, 19 AT 0:HLINE 10, 19 AT 9
70? "CUR.KEYS-MOVE", "'S'-SAVE SET"
80? "'A'-PLOT", "'E'-ERASE"
90? "'RETURN'-DONE", "'Q'-QUIT"
95? "CHARACTER #"; D; " LOOKS LIKE:"; CHR$(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 SCRNX(X, Y)=8 THEN E=1
190GOTO 100
230FOR Y=1 TO 8: I=0
240FOR X=18 TO 11 STEP -1
250IF SCRNX(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$(4); "BSAVE "; A$; ",A50000,L1036"
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:END
620IF D$="D" THEN 640
625IF D$="R" THEN RESTORE:GOSUB 1010:GOTO 20
627IF D$="L" THEN 570
630GOTO 50
640TEXT:?" " " :FOR X=0 TO 9:? X;
642NEXT:?
650FOR X=3 TO 9:HTAB 2:? X:NEXT
660FOR X=10 TO 12:? X:NEXT
670VTAB 2:HTAB 5
680VTAB 2:HTAB 5:FOR X=32 TO 126
690IF INT(X/10)=X/10 THEN ? :HTAB 3
695? CHR$(X); :NEXT:?
710VTAB 22:? " HIT ANY KEY TO CONT":GET A$

```

ADAMCALC WORKSHOP

ADAMCALC™ ADDS UP FOR HOME APPLICATIONS!

Variable column widths

Up to 255 columns

Sort columns by numbers or alphabetically

Up to 255 rows

Search for formulas, words or values

Variable formats available (\$, %, whole #s, etc.)

Formulas can contain comments and up to 255 characters

Features ADAM™ Smart Keys for ease of use

LOAN ANALYSIS

WE ALL KNOW ADAMCALC IS GREAT FOR SPREADSHEET USE, BUT I'VE FOUND IT TO BE EXTREMELY USEFUL FOR LIST PROCESSING.

WHAT MAKES IT SO HELPFUL IS THE SORT CAPABILITY. I'VE MADE LISTS FOR MY WIFE'S PTA WORK, FOR MY WORK WITH THE CUBSCOUTS, AND EVEN FOR MY OWN JOB AS A PROGRAMMER. LET ME GIVE YOU AN EXAMPLE TO GET YOU GOING. THIS WAS SOMETHING I USED FOR THE PINWOOD DERBY RACE WE HAD FROM OUR CUBSCOUT TROOP.

THE SHEET CONSISTED OF 4 COLUMNS:  
 LASTNAME FIRST DEN # CAR #

I ENTERED ALL 64 SCOUTS IN WITH THEIR DEN # AND A CAR NUMBER I RANDOMLY ASSIGNED. I SAVED THE SHEET ON DISK. I NOW HAD MY ORIGINAL SHEET PROTECTED. HERE IS WHERE ADAMCALC NOW PROVED TO BE VERY USEFUL. I WAS ABLE TO PRINT LISTS FOR OUR USE IN VARIOUS ORDERS. SORTED ON LASTNAME, I HAD MY ALPHABETIC LIST. SORTED BY DEN #, I HAD MY LIST IN ORDER OF DEN AND WITH THE PRINT BLOCK ABILITY OF ADAMCALC, PRODUCE LISTS FOR EACH INDIVIDUAL DEN. FINALLY, I SORTED THE SHEET BY CAR #, TO GET A LIST IN CAR # ORDER.

THIS WILL HOPEFULLY GIVE YOU AN IDEA OF SOME ADDITIONAL USES FOR ADAMCALC. THERE IS JUST ONE THING TO WATCH OUT FOR. I'VE HAD SOME TIMES WHERE I'VE ENTERED INFORMATION IN, BUT NOT ALL THE VALUES WERE KNOWN YET. TAKE THE FOLLOWING EXAMPLE:  
 PROJECT# EST-HRS START-DATE COMPL-DATE

ENTERING THE VALUES IN FOR EACH PROJECT, I DID NOT HAVE THE COMPL-DATE FOR A FEW PROJECTS. KEEP IN MIND THAT IF I SORT ON THAT COLUMN, THE SORT WILL NOT SORT ANY ROW IF THE SORT FIELD IS BLANK. THIS PRODUCES A LIST WITH THOSE PROJECTS IN THE ORIGINALLY TYPED IN POSITION. HOW CAN WE FORCE THESE BLANK VALUES TO SORT TOGETHER. WE CAN'T USE A BLANK VALUE, BUT WE CAN USE ONE OF 2 VALUES,



DEPENDING IF WE WANTED THESE AT THE BEGINNING OR  
END OF THE LIST.

WITHIN THE SORT SEQUENCE, ! IS THE LOWEST  
VALUE

AND ~ IS THE HIGHEST  
INSTEAD OF LEAVING THE UNKNOWN VALUE BLANK, FILL  
IT IN WITH EITHER VALUE, DEPENDING ON HOW YOU WILL  
BE DOING THE SORT. AFTER YOU DO YOUR SORT AND  
PRIOR TO PRINT, JUST REBLANK OUT THESE FIELDS.

ONE FINAL THING, IF YOUR JUST USING THIS FOR  
PRINTS, YOU CAN KEEP ALL YOUR CELLS AS TEXT, SINCE  
YOU WON'T BE DOING ANY CALCULATING ON THEM. ALSO  
TO SLIGHTLY SPEED UP ENTRY, SET IT TO MANUAL  
RECALC. HOPEFULLY, THIS WILL GIVE YOU A NEW IDEA  
FOR USING ADAMCALC.

## SMARTLOGO WORKSHOP

# Smart LOGO™

LOGOLINK BY BARRY WALLIS

"BY WISDOM IS A HOUSE BUILT,  
AND BY UNDERSTANDING IT IS ESTABLISHED..."  
- PROVERBS 24:2

AS PROMISED THIS MONTH THE COLUMN WILL BE DEVOTED  
TO SMARTLOGO HINTS AND TRICKS.

THE TECHNIQUE THAT I FIND MOST USEFUL IS CALLED  
"ACCUMULATING PARAMETERS". IT IS USED WHENEVER  
YOU NEED TO HAVE A FUNCTION WHICH ACCUMULATES A  
LIST AS IT RUNS. FOR EXAMPLE, LETS TAKE A  
FUNCTION WHICH TAKES AS INPUT TWO SETS (SET1 AND  
SET2) AND OUTPUTS THEIR DIFFERENCE (THAT IS THE  
SET CONSISTING OF THOSE ELEMENTS IN SET1 WHICH ARE  
NOT IN SET2). THE TECHNIQUE REQUIRES US TO DO ONLY  
ONE STRANGE THING, WE HAVE TO DEFINE TWO  
FUNCTIONS.

THE OUTER FUNCTION LOOKS LIKE THIS:

```
TO SETDIFF :SET1 :SET2
  OP SETDIFF% :SET1 :SET2 []
END
```

WHAT WE HAVE DONE HERE IS DEFINE A FUNCTION WHICH  
I'LL CALL THE FUNCTION WHICH DOES THE REAL WORK  
(MY OWN CONVENTION IS TO APPEND A "%" TO THE  
FUNCTION NAME TO SHOW THIS). THE CALL INCLUDES  
ONE MORE INPUT PARAMETER TO THE INNER FUNCTION,  
THE NULL (OR EMPTY) LIST. THIS WILL BE THE  
VARIABLE IN THE INNER FUNCTION WHERE WE WILL BE  
"ACCUMULATING" OUR RESULT.

HERE IS THE INNER FUNCTION:

```
TO SETDIFF% :SET1 :SET2 :OP
  IF EMPTY? :SET1 [OP :OP]
  IF NOT MEMBERP FIRST :SET1 :SET2
    [MAKE "OP LPUT FIRST :SET1 :OP]
  OP SETDIFF% BF :SET1 :SET2 :OP
END
```

FIRST LETS DISCUSS THE ALGORITHM I USED. IN ORDER  
TO IDENTIFY ALL THE MEMBERS OF SET1 WHICH ARE NOT  
IN SET2 I DECIDED TO USE LOGO'S BUILT IN FUNCTION,  
MEMBERP, TO CHECK EACH MEMBER OF SET1 AGAINST ALL  
OF SET2 TO SEE IF IT APPEARS. IF IT DOESN'T THEN  
IT BECOMES PART OF OUR OUTPUT LIST, OP.

THE FIRST LINE SIMPLY CHECKS TO SEE IF THE  
RECURSION IS COMPLETE. IF IT IS, WE OUTPUT THE  
LIST WHICH WE HAVE ACCUMULATED.

THE NEXT LINE (ACTUALLY TWO LINES IN THE ABOVE  
LISTING) DOES THE CHECK TO SEE IF THE FIRST MEMBER  
OF SET1 OCCURS IN SET2. IF IT DOES NOT, IT IS  
ADDED TO THE END OF THE LIST OP. ON THE OUTERMOST  
CALL OF THIS FUNCTION WE PASSED IN THE NULL LIST.  
ON SUBSEQUENT RECURSIVE CALLS WE ADD TO THIS LIST  
(IF THE CONDITION IS MET). THIS IS WHERE THE NAME  
"ACCUMULATING PARAMETERS" COMES FROM. WE SIMPLY  
GO MERRILY ON OUR WAY ADDING TO THE LIST AS WE  
NEED TO.

FINALLY, THE LAST LINE EXECUTES THE RECURSIVE CALL  
ON OUR INNER FUNCTION PASSING IT THE SECOND AND  
SUBSEQUENT CHARACTERS OF SET1, THE ENTIRE SET2,  
AND OUR CURRENT LIST OF ACCUMULATED PARAMETERS,  
OP.

IF YOU DON'T BELIEVE THAT USING THIS TECHNIQUE IS  
EASIER THAN DOING IT SOME OTHER WAY, JUST TRY AND  
FIND ANOTHER WAY WHICH IS EASIER (IF YOU COME UP  
WITH ONE PLEASE LET ME KNOW).

THE NEXT TRICK, THOUGH NOT AS IMPRESSIVE, IS JUST  
AS USEFUL. IT IS CALLED "LOCAL PARAMETER PASSING"  
AND IS USED TO IMPROVE THE MODULARITY OF A LOGO  
PROCEDURE. IT MAKES USE OF THE FACT, COMMON TO  
ALL VERSIONS OF LOGO, THAT WHEN A VARIABLE IS  
DEFINED WITHIN A PROCEDURE ANY REFERENCE TO A  
VARIABLE WITH THE SAME NAME IN AN OUTER PROCEDURE  
IS MADE INVISIBLE TO THE EXECUTING PROCEDURE AND  
ANY PROCEDURES CALLED BY IT.

FOR EXAMPLE, IF WE WANT TO USE A VARIABLE CALLED X  
IN OUR PROCEDURE, BUT WE WANT TO GUARANTEE THAT IT  
WON'T INTERFERE WITH ANY VARIABLES WHICH HAPPEN TO  
BE NAMED X IN THE OUTER PROCEDURE WE COULD DEFINE  
OUR PROCEDURE AS FOLLOWS:



TO DO\_IT :X

MAKE "X [ANYTHING YOU WANT]

END

WE COULD THEN CALL THE PROCEDURE WITH:

DO\_IT []

AND WE WOULD BE GUARENTEED THAT ANY VARIABLE NAMED X IN OUR OTHER PROCEDURE WOULD NOT BE AFFECTED. INCIDENTALLY, SINCE THE VALUE OF X COMING IN TO THE FUNCTION IS BEING IGNORED WE COULD HAVE PASSED ANY VALUE IN. I USE THE NULL LIST BECAUSE THAT SEEMS THE CLEAREST TO ME.

THE CHALLENGE FOR THIS MONTH IS TO USE THE "ACCUMULATING PARAMETERS" TECHNIQUE AND WRITE A PROCEDURE WHICH ACCEPTS A LIST OR A WORD AS INPUT AND OUTPUTS THE LIST OR WORD IN THE REVERSE ORDER. FOR EXAMPLE, PRINT REVERSE [HOW ARE YOU] WOULD PRINT: YOU ARE HOW.

IF YOU HAVE ANY TRICKS OR TECHNIQUES WHICH WOULD BE VALUABLE TO OTHER LOGO USERS YOU CAN SEND THEM TO:

BARRY L. WALLIS  
2140 BESSANT STREET  
SAN BERNARDINO, CA 92404

OR E-MAIL THEM TO ME OVER COMPU SERVE AT 74726,500.

\* \* \* TURTLEHOP \* \* \*  
A GAME IN SMARTLOGO  
BY KIP H. HAMMOND

THIS MONTH, LOGO FANS, WE ARE GOING TO DESIGN A GAME CALLED "TURTLEHOP", WHICH YOU WILL NOTICE IS MODELED AFTER THE GAME "FROGGER". OUR TURTLE WILL BEGIN IN A STARTING BLOCK AT THE BOTTOM OF THE SCREEN. THE OBJECT IS TO JUMP THE TURTLE FROM ONE MOVING LILLYPAD TO ANOTHER UNTIL HE REACHES THE FINISHING BLOCK AT THE TOP OF THE SCREEN. WE WILL BEGIN BY SETTING UP THE GRAPHICS. THE PROCEDURE "BRICKSTART" DRAWS A BRICK WALL AND STARTING BLOCK AT THE BOTTOM OF THE SCREEN.

TO BRICKSTART

PU HOME BK 72 RT 90 FD 8  
SETPC 6 PD FD 240  
RT 90 FD 16 LT 90 FD 16 LT 90 FD 16  
PU SETSH 30 BK 20 SETPC 10  
PD FILL PU SETX 0 SETPC 6 PD SHADE PU  
SETSH 36  
SETPC 15 HOME  
END

THE PROCEDURE "TOP" DRAWS THE FINISHING LINE AND TARGET WINNING BLOCK AT THE TOP OF THE SCREEN.

TO TOP

PU SETY 72 RT 90 SETX 8  
SETPC 12 PD FD 240  
LT 90 FD 16 RT 90 FD 16 RT 90 FD 16 RT 90 SETPC 8  
FD 16  
PU FD 16 RT 90 FD 8  
SETPC 12 PD FILL  
PU HOME  
FD 80 SETPC 8 PD FILL PU HOME SETSH 36 SETPC 15  
SETBG 4  
END

THE PROCEDURE "SETTURS" SETS THE STARTING POSITION, COLOR, AND SPEED OF ALL 11 TURTLES THAT WE WILL USE IN THE GAME.

TO SETTURS

TELL [1 2 3 4 5 6 7 8 9 10]  
SETSH 7 PU  
TELL 1 SETY -64 SETXVEL -10 SETC 13  
TELL 2 SETY -48  
TELL 3 SETY -48 SETX 16  
TELL [2 3] SETC 3 SETXVEL 15  
TELL 4 SETY -32 SETC 9 SETXVEL -8  
TELL 5 SETY -16 SETC 7 SETXVEL 12  
TELL 6 SETC 6 SETXVEL -5  
TELL 7 SETY 16 SETC 12 SETXVEL 9  
TELL 8 SETY 32 SETC 1 SETXVEL -13  
TELL 9 SETY 48 SETC 3 SETXVEL 7  
TELL 10 SETY 64 SETC 9 SETXVEL -11  
TELL 0 PU SETY -80  
TELL [0 1 2 3 4 5 6 7 8 9 10]  
ST  
TELL 0  
END

IN THE PROCEDURE "DEMONS" WE DEFINE ALL OF THE 'WHEN' AND 'ON.TOUCH' DEMONS THAT WILL BE NEEDED IN THE GAME. IT IS NECESSARY TO DEFINE THE DEMONS WITHIN A PROCEDURE FOR TWO REASONS. FIRST, DEMONS WILL NOT BE SAVED ON TAPE WHEN YOU SAVE THE WORKSPACE UNLESS THEY ARE IN A PROCEDURE, AND, SECOND, WE WILL ERASE THE DEMONS WHEN WE DEFINE OUR PROCEDURE TO STOP THE GAME. HOWEVER, THE DEMONS ARE AGAIN EASILY REACTIVATED BY RUNNING THE "DEMONS" PROCEDURE WHEN THE GAME IS RESTARTED.



```

TO DEMONS
WHEN 2 [JUMP JOY 0]
ON.TOUCH 0 1 [SETXVEL -10 SETY -64]
ON.TOUCH 0 2 [SETXVEL 15 SETY -48]
ON.TOUCH 0 3 [SETXVEL 15 SETY -48]
ON.TOUCH 0 4 [SETXVEL -8 SETY -32]
ON.TOUCH 0 5 [SETXVEL 12 SETY -16]
ON.TOUCH 0 6 [SETXVEL -5 SETY 0]
ON.TOUCH 0 7 [SETXVEL 9 SETY 16]
ON.TOUCH 0 8 [SETXVEL -13 SETY 32]
ON.TOUCH 0 9 [SETXVEL 7 SETY 48]
ON.TOUCH 0 10 [SETXVEL -11 SETY 64]
END

```

THE DEMON "WHEN 2" RUNS THE "JUMP" PROCEDURE WITH AN INPUT OF 'JOY 0' WHENEVER THE JOYSTICK ON GAME CONTROLLER 0 IS MOVED. THIS MAKES OUT TURTLE 'JUMP' AROUND IN WHATEVER DIRECTION THE JOYSTICK IS MOVED.

```

TO JUMP :D
IF :D = 0 [SETH 0 SETY YCOR + 16]
IF :D = 2 [SETH 90 SETX XCOR + 16]
IF :D = 4 [SETH 180 SETY YCOR - 16]
IF :D = 6 [SETH 270 SETX XCOR - 16]
IF COLOR.OVER = 8 [FINISH]
SETSP 0
END

```

THE 'IF COLOR.OVER' PRIMITIVE WITHIN "JUMP" DETECTS IF THE TURTLE IS IN THE FINISHING BLOCK AND RUNS THE PROCEDURE "FINISH" IF IT IS.

```

TO FINISH
SETSP 0
SETPOS [0 80]
PR [ * * * * * YOU WIN * * * * * ]
WINSONG
REPEAT 10 [SETC 1 WAIT 6 SETC 15 WAIT 6]
HT
START
END

```

THE PROCEDURE "WINSONG" ADDS A LITTLE FANFARE TO THE CEREMONY IF THE TURTLE SUCCESSFULLY COMPLETES HIS JOURNEY.

```

TO WINSONG
TOOT 0 130.81 15 7
WAIT 8
TOOT 0 174.61 15 7
WAIT 8
TOOT 0 220 15 7
WAIT 8
TOOT 0 261.63 15 14
WAIT 15
TOOT 0 220 15 7
WAIT 8
TOOT 0 261.63 15 14
WAIT 20
TOOT 0 174.61 15 60
TOOT 1 261.63 15 60
TOOT 2 349.23 15 60
END

```

IN THE PROCEDURE "PLAY", WE DEFINE A RECURRING SET OF CONDITIONS THAT ARE CONSTANTLY BEING SEARCHED WHILE THE GAME IS IN PLAY.

```

TO PLAY
IF ( AND YCOR > -70 XVEL = 0 YCOR < 75 ) [HT DEAD START]
IF ( AND YCOR < -70 XCOR < 0 ) [HT DEAD START]
IF ( AND YCOR < -70 XCOR > 0 ) [HT DEAD START]
IF YCOR = 96 [HT DEAD START]
IF ( AND YCOR > 70 XVEL = 0 ) [HT DEAD START]
IF LBUTTONP 0 [STOPGAME STOP]
PLAY
END

```

THE PROCEDURE "DEAD" IS RUN WHENEVER THE TURTLE JUMPS OFF A MOVING LILYPAD INTO THE POND, OR MISSES THE FINISHING BLOCK.

```

TO DEAD
PR [ * * * * * YOU'RE DEAD * * * * * ]
NOISE 6 15 1 15 15
END

```

THE "START" PROCEDURE RESTARTS THE GAME EACH TIME THE TURTLE DIES OR WINS.

```

TO START
SETSP 0
HOME
SETY -80
WAIT 120
CT ST
END

```

YOU WILL NOTICE IN THE PROCEDURE "PLAY" THE 'IF LBUTTONP 0' CONDITION. THIS MEANS THAT IF AT ANYTIME THE LEFT FIRE BUTTON IS PRESSED, THE PROCEDURE "STOPGAME" WILL RUN. THIS WILL ERASE ALL OF THE GRAPHICS AND THE DEMONS AND SET THE SCREEN BACK TO THE ORIGINAL STARTING CONDITION THAT EXISTED WHEN SMARTLOGO WAS FIRST BOOTED.

```

TO STOPGAME
ERD$
TELL [1 2 3 4 5 6 7 8 9 10]
SETSP 0
HOME
HT
TELL 0
HOME
ST
CS
SETBG 5
END

```

AFTER "STOPGAME" IS RUN, THE PROCEDURES ARE STILL IN THE WORKSPACE. TO START THE GAME FROM SCRATCH, OR RE-START THE GAME AFTER PUSHING THE LEFT FIRE BUTTON, SIMPLY TYPE "GAME" AND THE ENTIRE GAME WILL BE SETUP AND STARTED.



TO GAME  
CS HT BRICKSTART  
TOP  
SETTURS  
DEMONS  
PLAY  
END

WELL, THERE IT IS...YOUR VERY OWN VIDEO COMPUTER GAME DESIGNED FROM SCRATCH.

HOW COMES THE FUN PART!!! SEE WHAT YOU CAN DO TO JAZZ THIS GAME UP! YOU CAN SPEED IT UP BY SETTING THE SPEEDS HIGHER IN THE "SETTURS" AND "DEMONS" PROCEDURES. YOU CAN CERTAINLY JAZZ UP THE GRAPHICS BY USING DIFFERENT SHAPES FOR THE LILLYPADS, OR ADDING MORE TURTLES TO THE POND. NOTE THAT WE HAVE USED UP ALL 10 OF THE ON.TOUCH DEMONS SO ANY OTHER ADDED TURTLES WOULD NOT BE ABLE TO LET THE TURTLE 'RIDE'. TRY TO ADD SCORING, OR MAYBE EVEN TWO-PLAYER SCORING!

\*\*\*\*\* HAVE FUN \*\*\*\*\*

## SMARTFILER WORKSHOP

AS MENTIONED LAST MONTH, THERE IS A CORRECTED VERSION OF SMARTFILER WHICH WILL ALLOW YOU TO CORRECTLY CREATE A DATABASE OF MORE THEN 255 RECORDS. THIS NEW VERSION ALSO HAS A MUCH IMPROVED SORT ROUTINE WHICH SIGNIFICANTLY REDUCES THE SORTING TIME. SORTING ON THE PRIMARY INDEX FIELD FOR 262 RECORDS WITH THE OLD VERSION TOOK 145 SECONDS, AND ONLY 15 SECONDS WITH THE NEW VERSION. ADDITIONALLY, AND VERY IMPORTANTLY THE NEW VERSION WILL READ A "MESSSED UP" DATABASE OF MORE THEN 255 RECORDS CREATED UNDER THE OLD VERSION AND CORRECTLY RESORT AND INDEX IT !! HOW'S THAT FOR A FIX ? PLEASE SEND YOUR OLD SMARTFILER TO SHAWN FONTAINE AT COLECO AND ASK FOR A NEW ONE.

I FEEL I SLIGHTED THE SEARCH CAPABILITIES OF SMARTFILER AND WANT TO GO INTO MORE DETAIL ON THEM THIS MONTH.

ONE OF THE MAJOR ADVANTAGES OF A DATABASE PROGRAM IS THE CAPABILITY TO SEARCH FOR INFORMATION IN VARIOUS COMBINATIONS. THIS FUNCTION MAKES SMARTFILER MORE THEN JUST AN AUTOMATED INDEX CARD SYSTEM. AS WE DISCUSSED LAST MONTH, YOU NEED TO CAREFULLY CHOOSE YOUR FOUR SEARCH FIELDS BASED ON YOUR FUTURE NEEDS. I HIGHLY RECOMMEND THAT YOU MAKE ONE OF THESE AN "OPEN" FIELD OF 24 CHARACTERS THAT YOU CAN MODIFY FOR FUTURE USES THAT YOU WON'T BE ABLE TO FORSEE. THIS FIELD CAN BE "CODED" TO PROVIDE THE EQUIVALENT OF SEVERAL SEARCH FIELDS. AS AN EXAMPLE LETS TAKE THE FOLLOWING "CODED" SEARCH FIELD FOR OUR ADDRESS DATABASE:

[5|7|X|K2]

THE FIRST POSITION INDICATES THE MONTH OF THE PERSONS BIRTHDAY. THE SECOND IS THE MONTH OF A COUPLES ANNIVERSARY IF APPLICABLE. THE THIRD DIGIT INDICATES THAT THIS PERSON SHOULD BE SELECTED WHEN ITS TIME TO PRINT THE CHRISTMAS CARD LIST. THE FOURTH POSITION INDICATES IF THE FAMILY HAS CHILDREN AND HOW MANY. AS YOU CAN SEE, THERE IS NO END TO WHAT YOU CAN DO WITH THIS TYPE OF CAPABILITY.

LETS SAY OUR INDEX SCREEN LOOKS LIKE THIS:

LAST NAME:  
STATE:  
ZIP:  
CODED SEARCH:

NOW, LETS SET UP A SAMPLE SEARCH FOR ALL THE PEOPLE WHO HAVE BIRTHDAYS NEXT MONTH (APRIL). WE WOULD GO THROUGH THE FIND RECORDS PROCEDURE AND ENTER THE FOLLOWING ON THE LINE FOR OUR CODED SEARCH FIELD: "4..."

THIS INDICATES THAT ALL RECORDS WITH A "4" IN THE FIRST POSITION OF THE CODED SEARCH FIELD SHOULD BE SELECTED AND DISPLAYED.

NOW, LETS SAY WE WANT TO SEARCH FOR ALL THE PEOPLE WHO LIVE IN ILLINOIS FOR THE PURPOSE OF DOING OUR CHRISTMAS CARD LIST. THE INDEX SCREEN SHOULD LOOK LIKE THIS:

LAST NAME:  
STATE: ILLINOIS  
ZIP:  
CODED SEARCH: ...X...

SPEND SOME TIME PLANNING OUT YOUR OWN APPLICATION FOR SMARTFILER TO MEET YOUR PARTICULAR NEEDS.

## ORGANIZE YOUR HOME WITH EASY ELECTRONIC FILING!





## CPM 2.2 WORKSHOP

AS DISCUSSED LAST MONTH THERE ARE TWO MAIN USES OF CPM 2.2 FOR THE ADAM USER. THE FIRST BEING FOR THOSE PROGRAMMERS AMONG YOU WHO WANT TO WRITE IN ASSEMBLER. THIS MONTH WE HAVE OUR FIRST NIAD MEMBER WRITTEN PROGRAM TO RUN UNDER CPM 2.2 !

BARRY WALLIS HAS WRITTEN A VERY NICE PROGRAM IN ASSEMBLER THAT WILL COPY FROM DISK TO DISK. AS YOU MAY HAVE NOTICED THE COPY PROGRAM SUPPLIED ON CPM 2.2 WILL NOT COPY FROM ONE DISK TO ANOTHER. BARRY RECOGNIZED THAT THIS WAS A NEEDED FUNCTION AND SUPPLIED THIS PROGRAM, PLACING IT IN THE PUBLIC DOMAIN. THIS SUPPORTS MY EARLIER STATEMENTS ON FREE UTILITY PROGRAMS.

THIS PROGRAM IS QUITE LENGTHY, SO I WILL NOT LIST IT OUT HERE. IT WILL BE AVAILABLE VIA THE NIAD SOFTWARE EXCHANGE PROGRAM ON A CPM 2.2 DISK. IF YOU WANT THIS AND ANY OTHER CPM PROGRAMS SEND A CPM FORMATTED DISK TO NIAD. I WILL SEND YOU BOTH THE ASSEMBLER SOURCE CODE AND THE OBJECT CODE.

THE SECOND USE OF CPM 2.2 WE DISCUSSED WAS TO OBTAIN A WEALTH OF CPM PUBLIC DOMAIN SOFTWARE THAT IS AVAILABLE WHICH COULD BE USED BY THE NOVICE PROGRAMMER. I NEED TO REITERATE THE FACT THAT MUCH OF THIS PUBLIC DOMAIN SOFTWARE WILL NOT RUN AS IS ON THE ADAM. SOME MODIFICATIONS WILL BE REQUIRED WHERE THE PROGRAM USES ROUTINES UNIQUE TO THE SYSTEM IT WAS WRITTEN ON. THE PROGRAMMERS AMONG YOU WILL HAVE TO GET THESE PROGRAMS AND DISCOVER AND MAKE THESE CHANGES. YOU MAY ASK, HOW DOES ONE GO ABOUT GETTING THEM? GLAD YOU ASKED. THE FIRST WAY IS VIA A COMPANY NAMED ELLIAM ASSOCIATES IN CALIFORNIA. THIS COMPANY MAINTAINS A VAST LIBRARY OF CPM PUBLIC DOMAIN SOFTWARE FOR ALL TYPES OF COMPUTERS. THEY HAVE RECENTLY ADDED THE ADAM TO THEIR LIST. IF YOU ORDER A PARTICULAR VOLUME (AS THEY ARE CALLED) OF CPM PUBLIC DOMAIN SOFTWARE FROM THEM, THEY WILL SEND YOU THIS SOFTWARE ON AN ADAM CPM 2.2 FORMATTED DISK ! IN OTHER WORDS YOU DON'T HAVE TO HAND ENTER THESE PROGRAMS. THE SECOND METHOD WILL BE AVAILABLE WHEN COLECO RELEASES THE ADVANCED ADAM LINK SOFTWARE FOR THE MODEM WHICH WILL ALLOW UPLOAD/DOWNLOAD OF SOFTWARE FROM BULLETIN BOARDS. COMPUSERVE HAS A LARGE CPM SIG WITH TONS OF PUBLIC DOMAIN SOFTWARE. THIS SOFTWARE FROM COLECO SHOULD BE OUT BY THE END OF MARCH (SEND IN THOSE COUPONS). ADDITIONALLY, I KNOW OF SEVERAL PEOPLE WHO ARE WORKING ON CONVERTING OTHER PUBLIC DOMAIN MODEM PROGRAMS TO RUN UNDER THE ADAM. THIS WILL BE A GREAT SOURCE OF SOFTWARE.

BACK TO ELLIAM, WHICH IS OUR CURRENT SOURCE OF CPM SOFTWARE. I JUST TODAY RECEIVED FOUR DISKS WITH PROGRAMS ON BOTH SIDES (ABOUT 600K). THESE ARE CPM UTILITY PROGRAMS, Z80 ASSEMBLERS/ DISASSEMBLERS, ETC. GOING THROUGH THEM TO DETERMINE WHAT THEY ARE, HOW THEY WORK AND IF THEY NEED MODIFICATION WILL BE A TIME CONSUMING TASK. I WILL REPORT ON MY PROGRESS IN THE NEXT ISSUE. PLEASE, ALL OF YOU WHO GET PUBLIC DOMAIN FROM

ELLIAM OR ANY OTHER SOURCE, USE NIAD TO COMMUNICATE TO OTHER MEMBERS WHATS GOOD AND BAD. DO MINI REVIEWS AND SUBMIT THE GOOD ONES TO NIAD SOFTWARE EXCHANGE SO ALL MEMBERS CAN BENEFIT FROM THEM.

THE ELLIAM CATALOG IS VOLUMINOUS AND NOT VERY DESCRIPTIVE IN MOST CASES AND YOU MAY FIND IT CONFUSING. ALL I CAN RECOMMEND IS THAT YOU LOOK FOR SOMETHING YOU FEEL IS WORTHWHILE, ORDER IT AND TRY IT (MOST VOLUMES ARE ONLY 8\$ - \$12). THERE ARE A FEW GROUND RULES I WOULD SUGGEST, HOWEVER. STICK TO THE HIGHER VOLUME NUMBERS SINCE THESE ARE LATER VERSIONS OF CPM THAT WILL BE MORE LIKELY COMPATIBLE WITH THE ADAM; WATCH FOR MEMORY REQUIREMENTS THAT EXCEED THE ADAM'S CAPACITY; MANY OF THE PROGRAMS ARE WRITTEN IN VARIOUS LANGUAGES THAT ARE NOT AVAILABLE FOR THE ADAM.

I WOULD RECOMMEND THAT YOU BASIC PROGRAMMERS ORDER THE MBASIC VOLUMES AND BEGIN WORK ON CONVERTING THEM TO SMARTBASIC, WHICH SHOULD NOT BE TOO DIFFICULT AND COULD GIVE THE ADAMITES A GREAT SOURCE OF BASIC SOFTWARE.

YOU MAY WRITE TO ELLIAM AT:

24000 BESSEMER ST  
WOODLAND HILLS, CA 91367

THE CATALOG IS \$7.50 VIA CHECK OR CHARGE CARD. YOU MAY ALSO CALL THEM FRIDAY AND SATURDAY EVENINGS AFTER 7:00 PM CALIFORNIA TIME AND PLACE YOUR ORDER FOR THE CATALOG OR VOLUMES (818-343-4273).



**ADAM**

IN THE BOOK OF GENESIS WE ARE TOLD ABOUT THE CREATION AND SUBSEQUENT FALL OF MAN AND WOMAN. ITS INTERESTING THAT GOD TOLD ADAM AND EVE THAT THEY HAD COMPLETE FREEDOM OVER ALL THINGS IN THE GARDEN OF EDEN EXCEPT THE TREE OF THE KNOWLEDGE OF GOOD AND EVIL. I OFTENED WONDERED ABOUT THIS AND FINALLY HAVE COME TO UNDERSTAND THAT THERE WAS NOTHING SPECIAL ABOUT THIS TREE, IT WAS ONLY A TOOL FOR GOD THE FATHER TO ESTABLISH HIS RULE OVER MAN. IN OTHER WORDS, GOD ESTABLISHED ONLY ONE RULE FOR MAN TO TEST HIS OBEDIENCE. UNFORTUNATELY, ADAM AND EVE DISOBEYED THIS ONE APPARENTLY SIMPLE RULE. THIS ACT OF DISOBEEDIENCE BROKE THE RELATIONSHIP BETWEEN GOD AND MAN WHICH IS KNOWN AS ORIGINAL SIN. I BELIEVE THAT ALL SIN HAS AS ITS ROOT DISOBEEDIENCE TO THE RULES OF GOD. ALL GOD WANTED WAS MAN TO OBEY HIM AND THAT IS WHAT HE IS STILL SEEKING THROUGH HIS SON JESUS.



## REVIEWS

### SMARTBASIC BONANZA BY C. KOLANDER

SMARTBASIC BONANZA IS A COLLECTION OF PROGRAMS FROM MARTIN CONSULTING. THERE ARE OVER 18 BASIC PROGRAMS ON THIS DATA PACK, WHICH RANGE FROM MUSIC TO A MINI ASSEMBLER. OTHER PROGRAMS ON THE PACK ARE A TEXT ADVENTURE, GAMES AND A FILING PROGRAM. THE PROGRAMS ON THIS PACK ARE EXCELLENT. THERE ARE MANY PROGRAMS THAT CAN BE USED AS TOOLS TO WRITE OTHERS. I BOUGHT THIS PACK FOR THE ASSEMBLER AND DISASSEMBLER, BUT I FOUND A BONUS IN THE OTHER PROGRAMS. OTHELLO IS EXCELLENT AND A REAL CHALLENGE, AND THE MUSIC PROGRAMS (SOUNDER AND FUGUE) ARE VERY EASY TO USE. THE DOCUMENTION IS VERY GOOD. ALL IN ALL I RECOMMEND THIS PACKAGE TO ANYONE WHO WANTS MORE FROM THERE BASIC PROGRAMS, AND EVEN THOSE WHO JUST WANT AN ECELLENT VALUE FOR THEIR DOLLAR.

35.00 FROM MARTIN CONSULTING  
94 MACALESTER BAY  
WINNIPEG, MANITOBA  
R3T 2X5 CANADA  
(204)269-3234

RATING - A

AUTOMATIC, THERE ARE NO BAR LINES. THIS MEANS ACCIDENTAL SHARPS/FLATS APPLY ONLY TO THE NOTES THEY ARE ON. TIED NOTES ARE NOT ALLOWED, BUT YOU CAN COMPENSATE BY MAKING A NOTE EQUAL TO THE TIED LENGTH. THERE IS ALSO NO TRIPLET NOTES. ACTUALLY THIS SHOULD NOT CAUSE ANY MAJOR PROBLEMS.

THE MUSIC SHEET SCROLLS AS YOU ENTER OR PLAY A SONG. YOU CAN SCROLL TO ANY POSITION ON THE SONG. ONE THING YOU CAN'T DO IS PRINT YOU COMPOSITION OUT. THIS IS THE BIGGEST COMPLAINT I HAVE. OTHER THEN SAVE IT TO TAPE/DISK, THE ONLY OTHER THING LEFT IS TO TRANSCRIBE IT YOURSELF ONTO PAPER.

THE ONLY THING NOT EXPLAINED VERY CLEARLY IS THE NEED TO MAKE SURE YOU LINE UP YOUR 3 VOICES PROPERLY FOR TIMING. FOR EXAMPLE, IF VOICE 1 HAS 2 QUARTER NOTES, WITH VOICE 2 HAVING 2 EIGHTH NOTES FOR EACH QUARTER NOTE, JUST MAKE SURE THE 3RD EIGHTH NOTE IS UNDER THE 2ND QUARTER NOTE, OR THE TIMING GETS THROWN OFF.

ALTHOUGH I THINK YOU SHOULD GIVE SOME SERIOUS CONSIDERATION TO GETTING THIS IF YOUR NOT INTERESTED IN MUSIC, THIS WILL MORE THEN SUIT YOUR NEEDS IF YOU HAVE A MUSICAL BACKROUND OR WISH TO DABBLE IN IT.

RATING A-

### VIDEOTUNES BY W. HOTEL

IF YOU'VE WANTED TO COMPOSE AND PLAY MUSIC ON YOUR ADAM, THIS PROGRAM BY FUTUREVISION IS FOR YOU. YOU CAN COMPOSE A SONG USING ALL THREE VOICES (PLAY 3 DIFFERENT NOTES AT ONCE). YOU CAN EVEN HAVE THE THREE VOICES PLAYING DIFFERENT LENGTH NOTES. IT IS FAIRLY EASY TO USE, WITH THE SONG DISPLAYED ON A PIECE OF SHEET MUSIC CONSISTING OF BOTH THE TREBLE AND BASS CLEF. AT THE BOTTOM OF THE SCREEN IS A KEYBOARD THAT ALSO DISPLAYS YOUR NOTES. ENTRY AND VARIOUS OTHER FUNCTIONS ARE CONTROLLED BY EITHER THE KEYBOARD AND/OR CONTROLLER. INCLUDED ON THE TAPE IS A SELECTION OF COMPOSED SONGS THAT YOU CAN HAVE PLAY.

EACH SONG YOU COMPOSE HAS A MAXIMUM OF 1000 NOTES, WHERE A NOTE IS COUNTED ONCE NO MATTER WHERE, WHAT LENGTH, OR WHAT VOICE IT'S IN. THIS PROVIDES YOU WITH THE CAPABILITY OF COMPOSING QUITE A LARGE SONG. YOU CAN USE ALL 3 VOICES AND HAVE A RANGE OF 4 OCTAVES, 2 BELOW AND 2 ABOVE MIDDLE C.

YOUR SONGS CAN BE STORED AND LOADED ON TAPE OR DISK. YOU CAN CHANGE THE KEY AND TEMPO OF YOUR SONGS OR SHIFT IT UP/DOWN 1 OCTAVE. YOU CAN PLAY THE ENTIRE SONG, ONLY WHAT'S ON THE SCREEN, OR JUST ONE COLUMN.

WHAT CAN'T YOU DO?. SINCE THE TIMING OF THE THREE VOICES AND DIFFERENT LENGTH NOTES ARE

### FLASHCARD MAKER BY L. MARSCHAND

I SURE HOPE ALL OF YOU KNOW WHAT FLASHCARDS ARE ! FOR THOSE NIAD YOUNGSTERS, LISTEN CAREFULLY. COLECO HAS DONE A NICE JOB IN CREATING A PRACTICAL EDUCATIONAL PROGRAM FOR MEMORY DRILLING, REVIEWING OF SOMETHING YOU ONCE KNEW OR JUST PLAYING SOME MEMORY GAMES.

THE BASE FLASHCARD MAKER PROGRAM PROVIDES THE FACILITY FOR MAKING YOUR OWN FLASHCARDS, EDITTING OF FLASHCARDS PREVIOUSLY CREATED, READING THE FLASHCARD QUESTIONS AND ANSWERS, KEEPING TRACK OF "MISSES" AND CORRECT ANSWERS, STORING AND RETRIEVING CARD "DECKS", SORTING CARDS, PRINTING OF THE CARD DECKS (QUESTIONS ONLY, BOTH QUESTIONS AND ANSWERS, ETC.), INSERTING AND RENUMBERING DECKS. ADDITIONALLY, THE CARDS CAN BE DISPLAYED AUTOMATICALLY WITH A VARIABLE TIME INTERVAL BETWEEN CARDS. YOU CAN ALSO REVIEW ONLY YOUR MISSES AFTER COMPLETING A DECK.

AS YOU CAN SEE THERE IS A LOT OF FUNCTION PROVIDED WITH THIS PROGRAM, THERE IS EVEN A "PAPER SHUFFLE" SOUND AS THE ANSWER SIDE OF EACH CARD IS TURNED OVER FOR YOU. I WAS IMPRESSED WITH THE PROGRAM AND THE INSTRUCTION BOOK. THE EXPLANATIONS ARE CLEAR AND A NICE DIAGRAM IS INCLUDED WHICH "WALKS" YOU THROUGH THE VARIOUS FLASHCARD MAKER FUNCTIONS. A LIST OF SUGGESTED APPLICATIONS IS ALSO INCLUDED TO GET YOU STARTED.



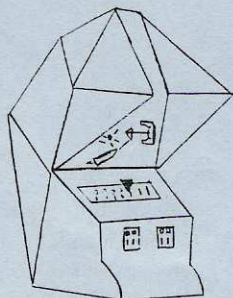
COLECO ALSO SELLS THREE ADDITIONAL FLASHFACTS PROGRAMS WHICH CONTAIN FLASHCARD DECKS WHICH ARE USED BY THE BASE FLASHCARD MAKER PROGRAM. THE AMERICAN HISTORY FLASHFACTS PROGRAM CONTAINS 22 DIFFERENT CARD DECKS COVERING HISTORY FROM 1490 THROUGH CURRENT DATE. A DECK ON THE PRESIDENTS IS ALSO INCLUDED. EACH DECK INCLUDES FROM 35 TO 50 CARDS (CONTAINING BOTH QUESTIONS AND ANSWERS) WHICH PROVIDES ALMOST 1000 INDIVIDUAL CARDS FOR ALL DECKS. THIS IS QUITE A COLLECTION OF DATA WHICH I THINK IS QUITE A VALUE FOR THE MINIMUM PRICE CHARGED. MY ELEVEN YEAR OLD SON LIKES IT AND IS KEEPING UP WITH HIS CURRENT HISTORY COURSE. ADDITIONALLY, WE WILL BE ADDING CARDS THAT ARE SPECIFIC TO HIS HISTORY COURSE.

THE SECOND FLASHFACTS PROGRAM IS VOCABULATOR WHICH CONTAINS 25 DECKS AND 1000 WORDS. MOST OF THE DECKS PROVIDE DEFINITIONS OF WORDS IN SPECIFIC CATEGORIES LIKE PLACES, FOREIGN TERMS, TOUGHIES (WORDS THAT ARE USUALLY MISSED), EVERYDAY EXPRESSIONS. THERE ARE ALSO DECKS FOR SYNONYMS, ROOTS OF WORDS, PREFIXES, ANTONYMS. ONE DECK HELPS YOU DEFINE WORDS THROUGH APPLICATION IN SENTENCES. AGAIN, THIS PROGRAM CONTAINS A WEALTH OF INFORMATION FOR A SMALL PRICE. I RECOMMEND IT FOR CHILDREN TO AID IN WHAT I ALWAYS FOUND WAS A TOUGH SUBJECT !

THE THIRD FLASHFACTS IS TRIVIA. WITH THE CURRENT CRAZE THIS WILL ALSO BE A POPULAR PROGRAM. THERE ARE 23 DECKS STARTING WITH KIDS LITERATURE AND GOING ON TO GEOGRAPHY, SPORTS, SHOWBIZ, ANIMALS, BIBLE (I LIKE THIS ONE OF COURSE), INVENTIONS, HISTORY, ROCK N ROLL AND MUSIC IN GENERAL. I DIDN'T REVIEW THIS ONE IN DETAIL BUT ASSUME IT IS THE STANDARD TRIVIA CONCEPT.

OVERALL I THINK THE FLASHCARD SERIES OF PROGRAMS IS AN EXCELLENT ONE FOR THE CHILD STUDENT OR ANYONE WHO NEEDS A DRILLING SYSTEM FOR HELPING THEM MEMORIZE A SERIES OF FACTS. THE UTILITY OF THE FLASHCARD MAKER IS ONLY LIMITED BY THE CREATIVITY OF THE USER.

RATING - A



THE FOLLOWING IS A LIST OF BOOKS WRITTEN FOR THE ADAM. IF ANY OF YOU HAVE READ THESE BOOKS, I WOULD APPRECIATE IT IF YOU WOULD SUBMIT A REVIEW OF THE BOOK TO AID OTHER NIAD MEMBERS.

CURRENT BOOKS AVAILABLE FOR  
THE ADAM FAMILY COMPUTER SYSTEM

LEARNING TOGETHER WITH ADAM  
PETER SCHARF  
MCGRAW-HILL

ADAM SMARTWRITER WORD PROCESSING USER'S GUIDE  
EUGENE D. MORTIMER  
PRENTICE-HALL

KIDS, BASIC, AND THE COLECO ADAM  
PAT CASSIDY & JIM CLOSE  
PRENTICE-HALL

THE PRACTICAL ADAM: A FAMILY GUIDEBOOK  
ROBERT WOLENIK  
PRENTICE-HALL

USING YOUR COLECO ADAM: BEGINNING BASIC AND  
APPLICATIONS  
RICHARD SWADLEY & JOSEPH WIKERT  
PRENTICE-HALL

ADAM USER'S GUIDE  
A. J. BELL & E. Q. BELL  
ROBERT J. BRADY CO.

ADAM'S COMPANION  
RAMSEY J. BENSON & JACK B. ROCHESTER  
AVON BOOKS

ADAM: AN INTRODUCTION TO THE OPERATING SYSTEM,  
BASIC PROGRAMMING & APPLICATION  
LARRY JOEL GOLDSTEIN  
ROBERT J. BRADY CO.

THE HOME COMPUTING SYSTEM  
ERIC N. BERG & ALAN SMITH  
BANBURY BOOKS, INC.

CAN I PLAY WITH THE COMPUTER, TOO? COLECO ADAM  
PRESCHOOL  
BERNARD FALKOFF  
BANBURY BOOKS, INC.



COLECO ADAM USER'S HANDBOOK  
WEBER SYSTEMS INC.  
DISCOVERING SCIENCE ON YOUR ADAM WITH 25 PROGRAMS  
TALCOTT MOUNTAIN SCIENCE CENTER  
TAB BOOKS INC.

HEY, LET'S PLAY WITH THE ADAM! (CHILDREN'S BOOK  
4-5)  
KEFFREU ERICKSON & SUSAN RICHARD  
BANBURY BOOKS, INC.

HOW TO USE THE COLECO ADAM  
JERRY WILLES  
DILITHIUM PRESS

JOY OF BASIC FOR THE ADAM  
GARY WEST  
ROBERT J. BRADY CO.

MASTERING THE COLECO ADAM  
KENT PORTER  
NEW AMERICAN LIBRARY

PROGRAMMING ADAM: HOME APPLICATIONS IN THE BASIC  
LANGUAGE  
EDWARD B. CLAFLIN & JOHN A. HEIL  
BANBURY BOOKS

SMARTBASIC FOR THE ADAM  
GILL SEARLE & DONNA JONES  
ROBERT J. BRADY CO.

THE BASIC ADAM  
WILLIAM ABICOFF & GARY CORNELL  
JOHN WILEY PRESS

THE COLECO ADAM ENTERTAINER  
BRIAN SAWYER  
OSBORNE/MCGRAW HILL

THE EASY GUIDE TO YOUR COLECO ADAM  
THOMAS BLACKADAR  
SYBEX INC.

THE FIRST BOOK OF ADAM THE COMPUTER  
DENT  
TAB BOOKS INC.

THE FIRST BOOK OF ADAM: USING AND PROGRAMMING THE  
COLECO ADAM  
PAMELA ROTH  
7999 KNUE RD STE 202  
INDIANAPOLIS, IN. 46250

THINGS TO DO WITH YOUR COLECO ADAM COMPUTER  
JERRY WILLIS, M. MILLER, & C. MADDUX  
NEW AMERICAN LIBRARY

WORD PROCESSING WITH YOUR COLECO ADAM  
CAROLE ALDEN  
SYBEX INC.

HOW TO USE THE COLECO ADAM  
ALFRED PUBLISHING

PROGRAMMING THE ADAM COMPUTER WITH READY TO RUN  
PROGRAMS  
SUSAN SUTPHIN  
PRENTICE HALL

UNDERSTANDING ADAM THE HOME COMPUTING SYSTEM  
ERIC BERG & ALAN SMITH  
BANBURY BOOKS

ADAM USER'S GUIDE  
D. MILLER & D. VOUSEN  
PRENTICE HALL

BASIC BASIC PROGRAMS FOR THE ADAM  
TIMOTHY ORR KNIGHT  
TAB BOOKS, INC.

THIRTY-TWO BASIC PROGRAMS FOR THE COLECO ADAM  
TOM RUGG & PHIL FELDMAN  
DILITHIUM PRESS

USING AND PROGRAMMING THE ADAM INCLUDING  
READY-TO-RUN PROGRAMS  
TIMOTHY ORR KNIGHT  
TAB BOOKS INC.

WORD PROCESSING WITH YOUR ADAM  
BARBARA SPEAR  
TAB BOOKS INC.

## MEMBER COMMENTS/ QUESTIONS & ANSWERS

. CONTROL CABLE, INC, DATA SYSTEMS DIVISION, 6720  
WHITE STONE RD, BALTIMORE, MD 21207 SUPPLIES 6-PIN  
MODULAR CORDS FOR THE ADAM KEYBOARD AND DISK.  
ORDER #64613 FOR 7FT (\$3.95); #64619 FOR 14FT.  
(\$5.20) AND #64620 FOR 25FT. (\$6.95). THEY  
ACCEPT VISA/ MSTCD VIA PHONE  
(301-298-4411).....JOE BLENKLE  
P.S. THERE IS ANOTHER SUPPLIER OF CABLES - BOB  
DENNISTON 21970 KERN RD, SOUTH BEND, IN 46314 OR  
BY PHONE AFER 3:00 PM AT 219-291-0252.

. I WOULD STRONGLY ADVISE THAT IF YOU WANT ANY OF  
THE SUNRISE GAMES WHICH INCLUDE MOUNTAIN KING,  
QUEST FOR QUINTANAROO, ROLLADVENTURE, ETC. THAT  
YOU NOT BUY DIRECT FROM SUNRISE SOFTWARE DUE TO  
PROBLEMS THEY HAVE IN ORDER AND SHIPPING. ORDER  
FROM ONE OF THE MAIL ORDER HOUSES OR OTHER RETAIL  
OUTLETS.....JOSEPH SHEPPARD