



# mini'app'les

apple computer user group newsletter

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DAYTON'S WISE THUR 7PM  
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LADIMB2 USERS  
NO. MALS  
TO: END B.V.D.

VOLUME V No 5

MAY 1982

## CALENDAR

## CALENDAR

## CALENDAR

WHICH	WHEN	WHERE	WHAT
Pascal Note 1	Wed May 5 7:30pm	Minnesota Federal 9th Ave S Hopkins	Regular Pascal Special Interest Group Meeting.
Dakota County Branch of MINI'APP'LES	Tues May 11 7pm-10pm	St. John Newman Chch Pilot Knob Road Eagan	General meeting Note 8
Minnetonka Branch of MINI'APP'LES	Weds May 12 7pm-10pm	Minnetonka High Sch Room 204	General meeting Note 9
Board Meeting Note 5	Wed May 12th 7:30 pm	Ron Androff's home	Appointment of new Board members
Education Note 6	May 13/18/20 (3sessions)	Dakota County Library Burnsville	Introduction to Microcomputers
IAC Annual	May 14th-16th	Boston MA	Annual Meeting & AppleFest
<b>REGULAR MINI'APP'LES</b> Note 2	<b>WEDNESDAY</b> MAY 19th 7:30pm	<b>UNIVERSITY MINNESOTA ST. PAUL CAMPUS</b> Near State Fair Room B45 Bldg 412 Map back cover	Profile: Apple Hard Disk Eric Johnson/W. Peterson of Stan Clothier, Apples' manufacturing rep.
Genealogy Note 4	Sat May 22	Lexington Library 1080 University St. Paul	Genealogical Computing Special Interest Group Regular meeting.
St. Paul Branch of MINI'APP'LES	Tues May 25 7pm-10pm	Minnesota Federal White Bear Lake Shopping Center	General meeting Note 3
Pascal Note 1	Wed June 2 7:30pm	Minnesota Federal 9th Ave S Hopkins	Regular Pascal Special Interest Group Meeting.
Amateur Fair \$3.	Sat Jun 5	Minn State Fair Grnds	Swapfest & Exposition.
Dakota County Branch of MINI'APP'LES	Tues Jun 8 7pm-10pm	St. John Newman Chch Pilot Knob Road Eagan	General meeting Note 8
<b>REGULAR MINI'APP'LES</b> Note 2	<b>WEDNESDAY</b> JUN 16th 7:00pm	<b>PENN COMMUNITY CENTER</b>	To be determined
Apple Fest 82	Sep 16-19 Note 7	Auditorium and Convention Center, Mpls	A Huge Exposition devoted exclusively to Apples
Note 1. Contact-	John Schoeppner	5.	Ron Androff
2. see pg 2	Chase Allen	6.	Bernie Stevenson, Librarian
3. for tel.	Pete Halden	7.	Dan Buchler
4. nos.	Bill Decoursey	8.	Bob Pfaff
		9.	David Onan

# MINI'APP'LES

The Minnesota Apple Computer Users' Group, Inc.

P. O. Box 796  
Hopkins, MN 55343

## MINI'APP'LES OFFICERS

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	Rick Gates	see above

## INFORMATION

This is the Newsletter of Mini'app'les, the Minnesota Apple Computer Users' Group, Inc., a non-profit club. Articles may be reproduced in publications of other User Groups except where specifically copyrighted by author.

## Questions

Please direct questions to appropriate board member or any officer. Technical questions should be directed to one of the Technical Advisers listed here.

## Membership

Applications for membership should be directed to the Membership Co-ordinator. \$12 buys membership for one year. Members receive a subscription to this newsletter and all club benefits.

## DOMs

The 3 most recent DOMs (Disk of the Month) are available at meetings for \$5/disk or any DOM may be ordered by mail for \$7.50/disk. Contact Software Sales coord'r.

## Dealers

Mini'app'les does not endorse any specific dealers but does promote distribution of information which may help club members to identify the best buys and service. Consequently the club does participate in bulk purchases of media, software, hardware and publications on behalf of its' members.

## Newsletter Contributions

Please send contributions directly to the Newsletter Editor. Hard copy binary or text files are preferred, but any form will be gratefully accepted. Deadline for publication is the 3rd Wednesday of the month preceding the month in which the item might be included. An article will be printed when space permits if, in the opinion of the Newsletter Editor, it constitutes suitable material for publication.

## Advertising rates

Full Page \$40/issue  
Half Page \$25/issue

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## EDITORIAL

by Dan Buchler

This month we feature two Word Processing system reviews: SuperScribe II, reviewed by Gary Mariash and Executive Secretary, from John Riskin of our own local Personal Business Systems, reviewed by Chuck Boody. Chuck in the same article reviews the Vision 80 eighty column board from Australia which really sounds great.

I would like to point out to anyone considering buying a Word Processor, that the current edition of the Orchard (sold at April club meeting) contains reviews on 3 Word Processors: Pie Writer (Apple Pie), Easy Writer and Magic Window.

And if you want to dig back into the Sept 81 issue of Call APPLE, you will find comparisons of Apple Writer, Aptype, Apple Pie, Super Scribe and Super Text II. Picking a word processor is like buying a car - what suits one person may not suit another and price isn't necessarily an indication of performance. I use Pie Writer for the newsletter and everything else and think it is the world's greatest, but each of the above reviewers like their respective systems.

Now days the better Word Processors handle all of the standard edit functions such as insert and replace, the ability to output controls to different printers, justification, etc. The method by which the software formats the output for printing varies considerably, and the way information is displayed for review often varies considerably. For example, SuperScribe II use the Hires screen with a 3 dot wide character to get 70 characters in view per line without additional hardware. If you can stand the character set used, I can't, it works OK. I prefer 40 columns and the lower-case adapter approach.

SuperScribe II includes a unique index feature that I would love to have on my system. So you must make your own decision.

For you old-timers using Super Text II, you may upgrade to the new Super Text 40/60 for \$50. The new version has fixes for several outstanding problems and will allow use with the Videx 80 col board. Similarly, Apple Pie users may upgrade to Pie Writer for \$75 by sending your original Programma disk to Hayden.

This newsletter contains a short discussion by Roger Flint on building a joystick. Roger by the way is dying to get a club project going in this area, so if you want a joy stick and are willing to spend a little time, give him a call.

We have two programming tutorial type articles. One by Mike Murrell shows rather vividly the power of a well designed screen Menu in making for super easy selection of options. The second by Dave Onan, shows how, using some simple BASIC statements, you can FORMAT your numerical output. In a sense he has created a rudimentary PRINT USING.

David Laden continues his regular monthly publication bibliography, and Chase Allen continues to educate us!

Last, but not least, our out-going President says goodbye and reviews a book on Applesoft. Publication next month.

In case you were unable to come to the April meeting, Chase Allen was favored for Vice President by 103 votes to 72 over Ken Slingsby. There was no contest for Androff as President, Kurtzman as Secretary and Hansen as Treasurer.

By the way, I still have unidentified diskettes in my possession. Presumably they were submitted to me at some time with software or newsletter articles. If anyone is missing a disk, please give me a call.

Concluding, I wish to thank our many advertisers for supporting our newsletter.

## THANK-YOU

by Stephen K. Johnson

This has been quite a year for Mini'app'les. We have grown from about 400 members a year ago to almost 900 today. That is a growth over 200%. That change in the membership has not made our work as officers any easier, but, as my term as President of Mini'app'les comes to a close, I must thank all my fellow officers and board members for a JOB WELL DONE. These persons did their jobs and tasks assigned without prompting, extra direction, or need to check for satisfactory completion. They made the learning experience and the job of the President very easy. This kind of fellowship makes for a good and smooth running club. Keep up the good work as we change officers for 82-83.

# SUPERSCRIBE ][

## A Review

by Cary N. Mariash

One of the many uses a small computer is ideally suited for is word processing. Besides the dedicated word processors on the market, there are numerous programs available which permit word processing on general microcomputers. Those of us who own Apples, however, have had several limitations facing us which make word processing on our favorite computer somewhat difficult to do. Not so anymore. Superscribe ][, from On-Line Systems, overcomes all the potential problems, and provides some bonuses as well.

One of the first problems we Apple users face is the lack of lower case letters. This word processing package uses the high-res screen to generate both upper and lower case letters. In fact, it generates all ASCII characters, including differentiating control characters. Imagine, typing a control-R, and seeing a special control character on the screen! In addition, the documentation provides simple explanations for creating the "shift-key" modification. This simple modification allows you to enter all capital letters by pressing the shift-key, just like a normal typewriter.

*(This is the same shift key mod. used by many Word Processors and other software - Ed.)*

The second problem our Apples suffer from is a 40 column screen. Superscribe ][ lets you view the text as you enter it with up to 70 columns. No extra hardware is needed. They again use the high-res screen to generate characters 3 dots wide with one dot spacing (280/4=70). Its just like having a 70 column board at no extra cost.

The word processing capabilities of this package are outstanding. Besides the usual "cut & paste", global search and replace, delete, insert, and find commands which are available on all good word processors, this package has numerous other capabilities. For example, all formatting and printing commands can be embedded in the text and changed anywhere at anytime. You can define single key macros to represent any character string. Other features included in this package, which should also be standard on any good package, are the support of proportional spacing,

right and left justification, underlining, superscripting, boldfacing, and headers and footnotes.

Special features in Superscribe ][ which are not present in other packages include the following items. The working text can be as large as you have space on your disk, up to 65,000 bytes. Movement of text from the computer to the disk is done automatically. It is as if you have much more than 48K RAM in your computer to use. Another special feature offered is printer spooling. This means that you can be printing one manuscript (for the newsletter?) while working on another at the same time. No wasted time waiting for your printer to finish before proceeding. A third special feature I want to mention is automatic indexing. If you are writing a book or manuscript which requires an index, this package allows you to insert a special character in the text next to any word you wish to be indexed. After the text is written, the indexed words are remembered, and the index is written, alphabetically if you wish, with all the appropriate page numbers. There are numerous other outstanding features which I have not even mentioned let alone described, such as automatic or manual hyphenation.

I do want to mention a few problems I have encountered.

1. With Epson printers you have to define the length of the page to be one line less than the actual length.
2. The embeded command to define the text which goes next to the page number does not work. You have to define this text just prior to printing.
3. Following the printing of a footnote, an extra page is inserted without any text.

These problems are relatively minor considering the powerful nature of the word processing package. I have called On-Line Systems and was informed that they are aware of the bugs. Instead of trying to fix them, they are no longer distributing Superscribe ][, but will be selling a new package entitled Screenwriter ][. They tell me that this package will be even more powerful than Superscribe! To those of us who already own Superscribe ][, On-Line Systems will provide an update to Screenwriter ][ for only \$5.00. As usual, On-Line not only distributes quality products for very reasonable prices, but also provides excellent support. I certainly would recommend Superscribe ][ to anyone who wants to use their computer for word processing.

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# MINI'APP'LES Education

by Chase Allen

On the 24th of March a seminar in our Education Series was held. The speaker was Chuck Thiesfeldt. The subject was the hardware level interface with Apple [ peripheral devices. Chuck did an outstanding job of outlining the principal features of memory-mapped I/O as it is implemented on the Apple II. Seven people were in attendance, and all came away with a much better understanding of how the Apple communicates with peripheral devices.

The next project for the Education Department is an outgrowth of the Peripherals Seminar. Chuck and I felt that there was enough need to present a three or four session series, aimed at the brand new Apple owner. The series will cover much of the same material, in a little more leisurely, basic fashion. The intent will be to appeal to all levels of experience, but to be an introductory discussion of the Apple System, useful to the beginner, as well as the more experienced type who wants to know the specifics of the Apple. More about this in the next newsletter.

# PRINTER RIBBONS

## POSTSCRIPT

by Dan Buchler

I tried the Centronics type 700 ribbon in my Epson as described in the article by Don Fuller in last months newsletter. My advice is **DON'T**. Problems:

1. Centronics ribbon is about 1/16th inch wider than that used by Epson. So it drags in the cartridge causing the drive gears to either slip or even jamb completely.
2. Mobius loop interferes with printing at extreme right edge of travel (col positions 77 thru 80).
3. Ribbons are inked differently from the ones for the Epson and print very light.
4. I could'nt find one for \$4.95. I paid \$7.50

The Silver Dollar replacements sold by Recycled Music Systems at 2/\$8.00 work OK, but utilize a bluish ink which you may or may not like. They don't last quite as long as the Aspen manufactured ribbons.



# DECIMAL FORMATTER

by Dave Onan  
473-0143

The Decimal Formatter program below uses some easily understood techniques to print out columns of numbers with the decimal points aligned. The REM statements describe how it works and how it is used.

```
JRUN
ENTER ANY NUMBER
?1234.5678
HOW MANY DECIMAL PLACES ?
?3
SB = 1234568
SC = 1234.568
IC = 1234
SC# = 1234.568
SB# = 1234568
NTGERLN = 4
SD# = 1234
DEC# = 568
SF# = 1234.568
LENGTH IS 8 SPACES
NUMERIC VALUE IS 1234.568
END
```

```
20 REM "DECIMALFORMATTER"
*
30 REM BY DAVE ONAN II
*
40 REM WRITTEN JANUARY 1, 19
82 *
50 REM UPDATED JANUARY 22, 1
982
60 REM *****
*****
61 REM
62 REM -----RETURNS THE FOLLOWI
NG-----
64 REM -----SF# = FORMATTED NUM
BER AS A STRING
66 REM -----LF = LENGTH OF FORM
ATTED STRING (COLUMNS)
68 REM -----SV = FORMATTED NUMB
ER AS A NUMBER
70 REM
80 REM THE LUMBERJACK'S CO
NSTRUCTION OF A PROGRAM TO
90 REM FORMAT NUMBERS WITH
DECIMALS
100 REM SO THEY CAN BE FED
INTO A PRINTER
110 REM WITH ENOUGH DATA T
O TAB THEM
120 REM INTO COLUMNS WITH
RIGHT JUSTIFICATION
```

```

130 REM      AND THE DECIMALS F
      ALLING IN LINE.
140 REM      DELETE WHAT Y
      OU DON'T NEED
145 REM      MAXIMUM NUMBER LEN
      GTH INPUT (ST) IS 9 INC. DEC
      IMAL PT.
150 REM      *** NOT THE MOST E
      FFICIENT PROGRAM IN THE WORL
      D;
151 REM      BUT IT WORKS AND I
      UNDERSTAND IT
152 REM      JUST ASK ME *****
      *****
158 REM
160 PRINT "ENTER ANY NUMBER"
170 INPUT SJ
180 PRINT "HOW MANY DECIMAL PLAC
      ES ?"
190 INPUT DEC
200 REM -----MAKE INTO
      INTEGER AND ROUND-----
210 SB = INT (SJ * 10 ^ DEC + .5
      )
220 REM
230 PRINT "SB = "SB
240 REM -----INSERT DEC
      IMAL-----
250 SC = SB / (10 ^ DEC)
260 PRINT "SC = "SC
270 REM -----ISOLATE IN
      TEGER PART OF NUMBER---
280 IC = INT (SC)
290 PRINT "IC = "IC
300 REM ----CONVERT ROUNDED DECI
      MAL NUMBER TO A STRING
310 SC$ = STR$ (SC)
320 PRINT "SC$ = "SC$
350 REM ----CONVERT ROUNDED INT
      EGER TO A STRING-----
360 SB$ = STR$ (SB)
370 PRINT "SB$ = "SB$
374 REM ****MAKE A SPECIAL CASE
      FOR THE NUMBER = 0 (ZERO) BE
      CAUSE WE DON'T WANT THE PRIN
      TER TO GET NOTHING***
376 IF SJ = 0 THEN GOTO 700
380 REM ----FIND THE LENGTH OF
      THE INTEGER BY SUBTRACTING T
      HE DECIMAL FROM THE LENGTH O
      F THE ROUNDED INTEGER
390 NTGERLN = LEN (SB$) - DEC
400 PRINT "NTGERLN = "NT
414 REM ---- A SPECIAL CASE FOR
      A DECIMAL FRACTION ----
415 IF NTGERLN < = 0 GOTO 600
417 REM ---- ISOLATE THE INTEGE
      R AS A STRING -----
420 SD$ = LEFT$ (SB$,NTGERLN)
430 PRINT "SD$ = "SD$
440 REM -----A SPECIAL CASE IS
      NEEDED IF THE DECIMAL IS 0--
450 IF DEC = 0 THEN GOTO 540
460 DEC$ = RIGHT$ (SB$,DEC)
470 PRINT "DEC$ = "DEC$
480 SF$ = SD$ + "." + DEC$
490 PRINT "SF$ = "SF$
500 LF = LEN (SF$)
510 PRINT "LENGTH IS "LF" SPACES
      "
514 SV = VAL (SF$)
516 PRINT "NUMERIC VALUE IS "SV
520 GOTO 800: REM END OF GENERA
      L CASE PATH THRU PROGRAM---
530 REM -----SPECIAL CASE FOR D
      ECIMAL = 0-----
540 SF$ = SD$ + "."
550 PRINT "SF$ = "SF$
560 LF = LEN (SF$)
570 PRINT "LENGTH IS "LF" SPACES
      "
574 SV = VAL (SF$)
576 PRINT "NUMERIC VALUE IS "SV
580 GOTO 800: REM END
590 REM -----END OF SPECIAL CAS
      E FOR DECIMAL = 0--
598 REM -----SPECIAL CASE FOR D
      ECIMAL FRACTION-----
600 SF$ = SC$
610 PRINT "SF$ = "SF$
620 LF = LEN (SF$)
630 PRINT "LENGTH IS "LF" SPACES
      "
634 SV = VAL (SF$)
636 PRINT "NUMERIC VALUE IS "SV
640 GOTO 800: REM END
645 REM -----END SPECIAL CASE F
      OR DECIMAL FRACTION
690 REM ****SPECIAL CASE FOR NUM
      BER = 0
700 SF$ = SB$ + "."
710 PRINT "SF$ = "SF$
720 LF = LEN (SF$)
730 PRINT "LENGTH IS "LF" SPACES
      "
736 SV = VAL (SF$)
738 PRINT "NUMERIC VALUE IS "SV
740 REM ***END SPECIAL CASE FOR
      NUMBER = 0
800 PRINT "END": END

```

## APPLEFEST, 82

*by Dan Buchler*

You may have noticed that AppleFest will be coming to Minneapolis in September. We hope to participate in the Fest, i.e. operate a booth. As many as 30,000 people could attend the show! So it might be alot of fun, and hard work too. By way of this article, we are starting early to solicit help in manning the booth, preparing for the show, thinking up ideas for demos, etc. If you are interested, please call me or any club board member.



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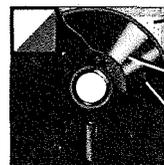
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# CURSOR MENU

by Mike Murrell

How would you like to be able to control your programs like all the Visi systems do? Just move the cursor around the screen and hit return. A turnkey system that doesn't have to check spelling. Well the following program should give you a good start.

The idea is to put a menu someplace on the screen and wait for a key to be hit. Then analyze the input, move the cursor or change control of the program to somewhere else.

To use this subroutine to fit your situation, here is some insight to what I tried to do. Lines 10 and 11 are just to read the keyboard with no blinking cursor. Lines 110 thru 501 will read the prompts you have chosen for your program into an array S\$. You should have at least 6 prompts, that's because I wanted two lines. With more than 20 prompts line 8000 would be changed to list the next batch of prompts. Lines 520 thru 550 display the selected prompts. Changing J from 1 to 2 in this example displays the first or seconds 10 prompts.

The prompts are displayed on the screen as 4 lines starting at line TP. Each prompt must have the same width FW and the number of data prompts per screen is ND. Change these as need be. The cursor is initialized to position 1 of the first 10 prompts. Lines 1100 thru 1600 is the main control. If a space (dec 32) is hit the cursor is shifted to the other line. If a left or right arrow (dec 8 or 21) is hit the cursor will move the cursor left or right respectfully and also check for the end of line. Dec 13 is a return and is the key to activate the prompt. This is a GOSUB to the interpretation center. If the cursor is in the first position, then I = 1. The program should execute the proper code for that prompt.

Data statements 1800 thru 1900 are the prompts, all of which are 8 characters wide. Lines 1910 thru 1950 are an extra added attraction. They are the expanded meaning of each prompt. These will be displayed by line 900; TP + 5 in this case. You can move this line of information anyplace on the screen.

Lines 2000 thru 6000 are the lines you always wanted someone else to write. They control the cursor's movements, checking for end of line and moving to the next line.

This is not a demonstration of how to set up a print but how this might be used for a tyro.

JLIST

```
0 REM
CURSOR INPUT
1 REM
BY
MIKE MURRELL
```

```
10 POKE 768,44: POKE 769,00: POKE
770,192: POKE 771,16: POKE 7
72,251: POKE 773,173: POKE 7
74,00
11 POKE 775,192: POKE 776,141: POKE
777,15: POKE 778,3: POKE 779
,44: POKE 780,16: POKE 781,1
92: POKE 782,96
50 D$ = CHR$(4)
60 ESC$ = CHR$(27)
100 HOME
110 INVERSE : FOR I = 1 TO 160: PRINT
" ";: NEXT : NORMAL
200 TP = 2: VTAB TP
300 FW = 8
400 ND = 10
410 FOR J = 1 TO 2
500 FOR I = 1 TO ND: READ S$(J,I
): NEXT : NEXT
501 FOR J = 1 TO 2: FOR I = 1 TO
ND: READ EX$(J,I): NEXT : NEXT

510 J = 1
520 NORMAL : VTAB TP
550 FOR I = 1 TO ND: PRINT S$(J,
I): NEXT
600 I = 1
700 VTAB TP: POKE 36,0
800 INVERSE : PRINT S$(J,I)
900 INVERSE : VTAB TP + 5: CALL
- 868: PRINT EX$(J,I): NORMAL

1100 CALL 768:CH = PEEK (783) -
128
1200 IF CH = 32 THEN GOSUB 5400

1300 IF CH = 8 THEN D = - 1: GOSUB
2000
1400 IF CHAR = 21 THEN D = 1: GOSUB
2000
1500 IF CH = 13 THEN GOSUB 7000

1600 GOTO 900
1700 NORMAL
1800 DATA "LOAD ", "SAVE
", "MX-80 ", "ITALIC ", "STA
NDARD", "80 CHR ", "132 CHR "
, "MX-100 ", "MORE ", "EXIT
"
1900 DATA "SINGLE ", "DOUBLEV
", "DOUBLEH ", "QUAD ", "SPA
CEO ", "SPACE1 ", "SPACE2 "
, "EDIT ", "MORE ", "BOOT
"
```

GOTO 10

## Cursor Menu Continued from page 9

```

1910 DATA "LOAD MX.STATUS FILE"
      , "SAVE MX.STATUS FILE AND SE
      T PRINTER"
1920 DATA "SET SWITCHES FOR THE
      MX80/GRAFTRAX80", "SET TO ITA
      LIC FONT", "SET TO STANDARD F
      ONT", "SET TO 10 CHAR/IN"
1930 DATA "SET TO 132 CHAR/IN
      ", "SET SWITCHES FOR THE MX10
      0", "CONTINUE WITH MORE OPTIO
      NS", "EXIT PROGRAM, FILE SAVED
      AND SWITCHES SET"
1940 DATA "SINGLE STRIKE ", "TWO
      VERTICAL STRIKES", "TWO HORI
      ZONTAL STRIKES", "QUADRUPLE T
      RIKES, SET TO 80 CHAR/LINE", "
      BEATS ME"
1950 DATA "SAME", "AGAIN I DON'T
      KNOW", "EXIT TO THE EDIT/SWI
      TCHES SET AND SAVED", "CONTIN
      UE WITH MORE OPTIONS", "BOOT
      A NEW DISK"
2000 IF I = 1 AND D = - 1 THEN
      GOSUB 2900: I = ND + 1: GOSUB
      4800
2100 IF (I = > 1 AND I < 5) OR
      (I = 1 AND D = 1) THEN GOSUB
      2900: GOSUB 3700
2200 IF I = 6 AND D = - 1 THEN
      GOSUB 4400: VTAB TP: GOSUB
      3700
2300 IF I = 5 AND D = 1 THEN GOSUB
      2900: GOSUB 4800
2400 IF I = 5 AND D = - 1 THEN
      GOSUB 2900: GOSUB 3700
2500 IF (I > 5 AND I < ND) OR (I
      = ND AND D = - 1) THEN GOSUB
      4400: GOSUB 4800
2600 IF I = ND AND D = 1 THEN GOSUB
      4400: I = 0: VTAB TP: POKE 36
      , 0: GOSUB 3700
2700 IF I > ND THEN PRINT "HELP
      "
2800 RETURN
2900 NORMAL
3000 VTAB TP
3200 POKE 36, ((I - 1) * FW)
3300 PRINT S$(J, I)
3400 VTAB TP
3600 RETURN
3700 IF D = 1 THEN POKE 36, (I *
      FW)
3800 IF D = - 1 THEN POKE 36, (
      (I - 2) * FW)
3900 I = I + D
4000 INVERSE
4100 PRINT S$(J, I)
4200 POP
4300 RETURN
4400 VTAB TP + 1
4500 POKE 36, ((I - 6) * FW)
4600 NORMAL : PRINT S$(J, I)
4700 RETURN
4800 VTAB TP + 1
4900 IF D = 1 THEN POKE 36, ((I -
      5) * FW)
5000 IF D = - 1 THEN POKE 36, (
      (I - 7) * FW)
5100 INVERSE
5200 I = I + D
5300 PRINT S$(J, I): POP : RETURN

5400 IF ND < = 5 THEN RETURN
5500 IF I = > 1 AND I = < 5 THEN
      D = 1: GOSUB 2900: GOSUB 570
      0
5600 IF I = > 6 AND I < = ND THEN
      GOSUB 4400: I = I - 6: D = 1:
      VTAB TP: GOSUB 3700
5700 I = I + 4
5800 IF I = > ND THEN I = ND -
      1
5900 POP
6000 GOSUB 4800
7000 IF J = 2 THEN 8000
7100 IF I = 9 THEN J = 2: POP : GOTO
      520
7110 IF I = 1 THEN GOTO 9000
7120 IF I = 2 THEN 9500
7130 IF I = 3 THEN TYPE = 1: RETURN
7140 IF I = 4 THEN A = 2: RETURN
7150 IF I = 5 THEN A = 1: RETURN
7160 IF I = 6 THEN C = 2: RETURN
7170 IF I = 7 THEN C = 1: RETURN
7180 IF I = 8 THEN TYPE = 2: RETURN
7190 IF I = 10 THEN 20000
7999 RETURN
8000 IF I = 9 THEN J = 1: POP : GOTO
      520
8110 IF I = 1 THEN B = 1: RETURN
8120 IF I = 2 THEN B = 2: RETURN
8130 IF I = 3 THEN B = 3: C = 2: RETURN
8140 IF I = 4 THEN B = 4: C = 2: RETURN
8150 IF I = 5 THEN DD = 1: RETURN
8160 IF I = 6 THEN DD = 2: RETURN
8170 IF I = 7 THEN DD = 3: RETURN
8180 IF I = 8 THEN GOTO 10000
8190 IF I = 10 THEN END
8999 RETURN
9000 REM
9500 REM
9999 RETURN
10000 REM
10100 RETURN
20000 PRINT D$; "PR#1"
20010 IF D < 3 THEN PRINT ESC$;
      (4 - 2 * D); : GOTO 20030
20020 PRINT ESC$; "1";
20030 E = 80: IF C = 2 THEN E = 8
      1
20040 PRINT ECS$; CHR$ (84); ESC$
      ; CHR$ (E): IF B < 3 THEN PRINT
      ESC$; CHR$ (70); : GOTO 20060
GOTO 17

```

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The Microcomputer division of Datatronix, Inc. was established to offer competitive affordable prices to the Microcomputer users in the twin cities area. Due to low margins, some equipment may not be in immediate inventory, but available in 1 to 5 days. Datatronix does require pre-payment on all special orders.

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**BOARD MEETING**

March 10, 1982

by Ron Androff

Meeting was called to order at 7:40 by the president.

**OLD BUSINESS:**

- Minutes were read and approved.
- Reviewed the changes to be proposed to the bylaws and corrected several points.
- Comment on potential problem with annual dues, and whether notice of renewal could or should be made. Can be reviewed by the new board.

**NEW BUSINESS:**

- Moved: We nominate Dan Buchler our candidate for representative at International Apple Corp, and we seek co-sponsoring club in our district, pending acceptance by Dan. Passed.  
(Dan subsequently declined - Ed)

- Discussion of possible candidates for office in the new year:

President: Ronald Androff

Vice President: Chase Allen  
Charles Thiesfeld  
Ken Slingsby

Treasurer: John Hansen  
Marilyn Thomas

Secretary: Ken Foss  
Hugh Kurtzman

Board member candidates

Membership Coordinator - Ann Bell  
Software Dist. - ????

Newsletter Editor - Dan Buchler  
Bibliographer - Chuck Boody  
Librarian - Phased in with  
Program Editor

MECC Librarian - Dave Nordvall  
Program Editor - Al Peterman  
Hardware Bulk - Phased out  
Disk Bulk - Peter Gilles

Publicity Coordinator - A. Michael Young  
Education Coordinator - Chase Allen  
Special Int. Pascal - John Schoeppner  
Special Int. Genealogy - Bill DeCoursey  
Special Int. Nibble - ????

Special Int. Z80/CPM &  
Meeting Hdw Support - Rick Gates  
St Paul Branch - Pete Halden  
Technical Advisers } - Dave Laden  
                          } - Jim White

Assistant Editor - Tom Edwards

**PERF-SKIP****Errata**

by Dan Buchler

I goofed! The MX-80 version of the PERF-SKIP program, published last month, won't handle long lines or embedded line feeds correctly. In MAKEMX80 replace statement 60 with the new statement 60 below.

```
60 PRINT "300:C9 8D D0 15 CE 1C
      03 D0 10 A9 0C 20 02 C1 A9 8
      D 20 02 C1 A9 3C 8D 1C 03 60
      4C 02 C1 3C"
```

**THOSE DREADED WORDS**

by Rob Stewart, CDP

Reprinted from the Harvest, April 1982. The Harvest is the newsletter of the Northern Illinois Apple User Group.

Here's the situation. You have hours, days or even weeks of time invested in a program and/or data. All of a sudden, you hear that sickening clatter from your disk, then a short beep, and upon your APPLE screen you see those dreaded words 'DISK I/O ERROR'.

"Oh #\*!%, what do I do now?"

There are several different possible reasons for this devastating problem. Two of these you can attempt to correct even if you are not a 'hardware type'. The first and easiest(?) of these two is what is commonly called a 'blown disk'. This means that there is no problem with the physical disk or the drive, but somehow the data that is recorded on the disk has in some way been scrambled. All(?) that is needed to repair this disk is a detailed understanding of DOS and some type of disk utility program which will allow you to edit sectors directly on disk. Generally any disk can be repaired, provided the amount of information that has been scrambled is not very great. This applies even to protected disks, although correcting a protected disk can be a long and involved process. (One tip: make a copy of the blown disk, and work with the copy.) I will not be covering this complex and detailed 'blown disk' repair procedure in this article.

GOTO 13

**Those Dreaded Words Continued from page 12**

The second, more difficult, and thankfully less frequent problem is a disk 'head crash'. In hard disk products, where this term originated, the disk heads ride upon a very thin layer of air. This is a property of aerodynamics and basically any surface in contact with air, has a very thin layer of air molecules that are in effect stationary in reference to the surface. This air layer exists regardless of the air movement around the disk surface. This air layer is very, very thin. A hair, dust or smoke particle, or even a fingerprint is thicker than this layer of air. The disk head is designed with this aerodynamics in mind. The head actually FLIES above the surface of the disk, in effect floating on this layer of air. A 'head crash' then is when anything sticks up through, or even just disturbs the air flow, thus causing the head to contact the disk surface or whatever happened to be in the way.

In floppy disk systems, there have been several changes which make the hardware much less expensive when compared to hard disk systems. The disk is flexible (hence the name FLOPPY). The disk spins at less than 10% of the speed of hard disk drives. The floppy disk head has been designed to physically touch the disk in order to read or write to the media. The floppy disk is pinched between either 2 disk heads, or 1 head and a pressure pad. This pinching process is required precisely because the disk is flexible and would not stay in contact with the disk head if not physically restrained.

We now have very reliable floppy disk media and floppy disk drives. It is not necessary to keep them in a 'computer' environment. Any office class environment is quite adequate as long as common sense is used when dealing with disks and drives. Even small amounts of smoke and dust are not a problem with current products. There may come a time when you have a 'head crash' on a floppy. It happened to me for the first time the other day, and I have been using my system 24 hours/day for over 18 months. Not a very frequent occurrence, but at the time it could have wiped out a whole Saturday's work.

How do you tell if you have a 'head crash'? Well, you should compare a good disk with the bad one. Inspect the reverse (bottom) side of the disk surfaces. Apple drives write on the bottom of the disk. You can see the surface through the long oval cutout. Look for scratches in the surface of the media. Carefully grasp the disk thru the center hole (place 2 or 3 fingers thru the hole and then gently spread them). Now carefully rotate the disk sleeve around the disk to inspect the entire surface. If you can't tell the good disk from the bad disk by looking at the surfaces, then you probably have a 'blown disk' instead a disk 'head crash'.

Now, assuming you do have a 'head crash', what can you do about it? In order to attempt to salvage your data, you will need the following: isopropyl alcohol (80% or better) some Q-Tip swabs, a medium Phillips screw driver, and a small Phillips screwdriver. You will be cleaning 2 things. The first is the disk head itself. The second is the disk surface.

Turn off power to your APPLE computer and disconnect the crashed disk drive from the disk controller, if you feel it is necessary to more easily work on the drive. Remove the cover from the drive. There are 4 Phillips head screws on the bottom of the drive. Once you have removed the retaining screws, then slide the cover backwards to remove it from the drive. After the cover, then carefully remove the analog board from the drive. The analog board is located on the top of the drive, just above where the diskette is placed in the drive. In order to remove the analog board, you will first have to remove the disk head cable and the 2 retainer screws. You do not need to remove the cable that goes back to the APPLE since you can just fold the analog board up and over the back of the drive. With the analog board out of the way, you will be able to see clearly both the disk head and the pressure pad. Insert a disk now, watching out for the dangling head cable, and observe how the diskette is positioned. After you understand the mechanics of the drive, remove the diskette and we will proceed to clean the head.

GOTO 14

**Those Dreaded Words Continued from page 13**

Notice how the pressure pad is lifted above the head by the door closing mechanism. You must be careful not to overbend the spring on the pressure pad while you clean the disk head. With the drive door open, lift the pressure pad up until it clears the disk head by about 1/2 inch. Look closely at the head surface. You will see a small rectangle of white porcelain embedded in a small mound of grey plastic. Along the center of the long axis of the rectangle you should see a black line, about the width of the end of a newly sharpened pencil. Approximately 2/3rds of the way across this line you should see a little cross mark. That cross is the actual point where data is transferred to and from the disk.

If you have had a 'head crash', then you should see little black or dark brown marks on the head or the mounting material. After wetting a Q-Tip in the alcohol, gently rub the head with the Q-Tip to remove the marks. Keep at it. It may take several Q-Tips. When one Q-Tip gets dirty or dries out, throw it away and start with a new one. When all of the marks have been removed, take 1 or 2 dry Q-Tips and gently polish the head and mounting material to remove any leftover alcohol residue. Now, if you have touched the pressure pad with the wetted Q-Tip, be sure to dry it also.

That's it. You're done cleaning the head. Put the analog board back into position and plug the head cable back in. The head cable will only go on one way, so don't worry. You may want to leave the cover off the drive for a day or two, that way you can keep an eye on the head just in case you have any further trouble. There is a nice little hole cut in the analog board just for this purpose. You may also have to re-clean the head after you try to recover the data from the crashed diskette.

Now, on to the diskette. You have already looked at the disk surface. If it is scarred, don't give up hope just yet. Take a DRY Q-Tip and gently rub the entire disk surface, especially in the area of any scratches. You are trying to remove any loose particles from the

surface of the diskette, to prevent another crash when you try to recover the disk. Now try to copy the disk, by whatever method is quickest. If at all possible, use a 2 drive copy. You don't want to crash any more disks if you can help it.

If copying fails, then try FID, or MUFFIN. You may be able to get all the files without error, if you are lucky. If problems in a text file develop, you can write a little routine to read in the records, one at a time. If an error occurs, trap it with an ONERR GOTO and skip that record number, going on until the entire file is salvaged. You will have holes in the file, but at least you will have a file.

If you are working with a protected disk, then you will have to use a nibble copier. Once copied, try and boot the copy. With luck it will boot, otherwise you now have a 'blown disk'. Return the original to the manufacture for replacement. Save the copy, as you may be able to salvage some, if not all of the data using 'blown disk' salvage techniques.

One last thing to try if nothing else works on the diskette. Clean it again, this time with a wetted Q-Tip. Be careful, as some alcohol will get into the felt padding on the inside of the diskette sleeve. Be sure the diskette and the sleeve are both dry before trying to copy the disk again. Also, always check the head for new evidence of a 'head crash' after working with the crashed diskette.

With floppy disk technology, a disk 'head crash' may not be a total disaster as it is with hard disks. It is not easy to recover a blown or crashed disk, but it can be done. If you have any problems with the head, your local APPLE dealer can repair or replace any necessary parts.

\*\*\* NOTE: Cleaning the disk head may void your warranty. If your disk drive is still under warranty DON'T clean it yourself, let your dealer clean and test it.

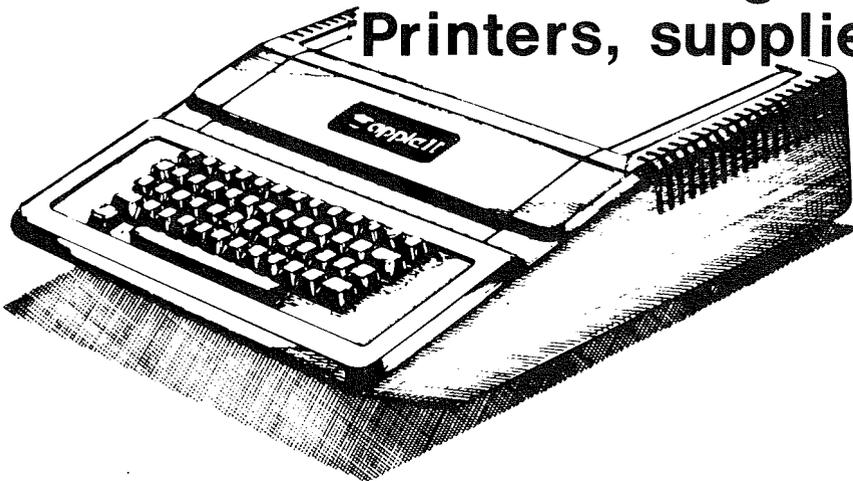


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## STOLEN APPLES

by Russ Bagley

**\$1000 Reward** for information leading to the recovery of equipment or apprehension of thieves. The following equipment was stolen from ABBOTT-NORTHWESTERN HOSPITAL during the weekend of March 27th, 1982.

APPLE II+	Ser. No. A252 93783
APPLE II+	Ser. No. A252 144221
APPLE III	Ser. No. 019925
APPLE III Drive	Ser. No. 0001485
Disk Drive	Ser. No. 125197
Disk Drive	Ser. No. 213754
Disk Drive	Ser. No. 438887
Disk Drive	Ser. No. 542333
MDEK Color II	Ser. No. Y1K000461
BMC Monitor	

Any information will be treated confidentially and should be communicated to:

Cathy Fealy,  
Director of Security,  
Abbott-Northwestern Hospital,  
874-5360;

or Minneapolis Police Dept., 348-3125 and 835-4195.

*(Editor's note: There has been quite a few thefts of Apple equipment reported during the last year. So be wary of used equipment and try and get the serial numbers. Of course there are many people selling equipment legitimately)*

## MINUTES

### MAR REGULAR MEETING

March 17th, 1982

by Ron Androff, Secretary

Meeting was called to order at 7:40 by our president.

OLD BUSINESS. None.

NEW BUSINESS. None.

Mountain Computer was represented by Mr Steve Rainen, who presented many of the fourteen products they sell. I did enjoy much of it and I learned several things about Mountain Computer. They appear more than willing to work with you if you have a problem with one of their products. Their willingness to send you user manuals free for the asking, is a very refreshing marketing approach. This allows one to examine the products' features at their expense - very considerate of them.

Meeting was ajourned at 9:35.

## BRANCHES

by Dan Buchler

I am still pushing for the formation of local branches within Minni'app'les. I keep hearing complaints about our big meetings, particularly from beginners who are apparently intimidated by the quantity of people. In last month's newsletter I asked for persons South of the Minnesota river to call. Only 3 people did! Well maybe you didn't all read the Editorial. Anyway, we are attempting to follow through on the promotion of branches.

There will be a Dakota County Branch meeting on May 11th at 7.00pm at:

Church of St. John Newmann  
4030 Pilot Knob Road,  
Eagan

Directions: Cedar Avenue to Diffley Road, or Cliff Rd. East on Diffley or Cliff to Pilot Knob; South on Pilot Knob to Church (on East side of Pilot Knob. If you come to Deerwood, you are too far North. Use west door.  
Call Bob Pfaff 452-2540, or  
Dan Buchler 890-5051  
for further information.

For those who live West of 494 (Wayzata, Lake Minnetonka, etc),  
David Onan  
473-0143

is trying to form a branch. He is planning a first meeting on May 12th at 7.00pm in the:

Minnetonka High School  
Room 204

Directions: Submarine from East end of Lake Minnetonka to the 30 foot marker..... Don't ask someone from Burnsville for directions in this part of the world!

Meanwhile, the St Paul group under the leadership of Pete Halden with support from Bob Foss, Roger Flint and others is flourishing. See calendar on front page.

Cursor Menu Continued from page 10

```

20050 PRINT CHR$(69)
20060 PRINT ESC$; IF B = 1 OR B
      = 3 THEN PRINT CHR$('2);
      : GOTO 20080
20070 PRINT CHR$(71);
20080 PRINT ESC$;(6 - A); PRINT
      D$;"PR#0"
20100 PRINT "THIS IS A TEST FOT
      EH"
22222 END

```

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JC  
~~70~~ → 50  
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Program

Yankee  
Micro

Yankee Micro  
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Milford, NH 03055

# HOME-PROJECTS

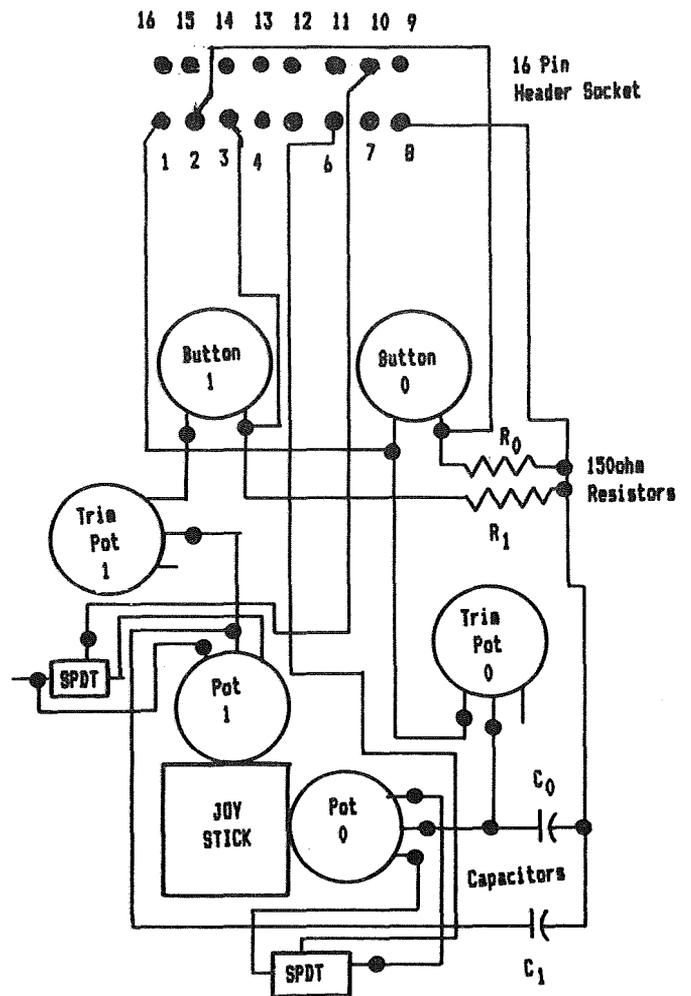
by Roger Flint  
771-2868

I am a new member to the Mini'apples. In fact I joined in december.

Being a student at St. Paul T.V.I. in electronics, will hopefully help me to get a special interest group started. I would like to get other members with similar interests involved in designing and building projects pertaining to the computer. From talking to other members, it seems that most of the interest is in expansion boards, controlling appliances, joysticks, Z-80 boards and etc. The list goes on, but the above should give you some ideas. However the list need not be confined to electrical items. Maybe you are good at woodworking and can help in building computer cabinets, printer tables etc. Then when the projects are finished we would make plans for all members of Mini'apples so that if they want to build instead of buy they will have a choice.

So if you are interested please get in touch with me.

For starters, below is a circuit diagram and parts list for a Joystick which I have built entirely from Radio Shack parts. This could be our first project. You don't have to understand circuit diagrams or being proficient at laying out the parts. This is a club project and anyone can build the Joystick with help as you go along.



JOYSTICK CIRCUIT DIAGRAM

## JOYSTICK PARTS LIST FROM RADIO SHACK STORE

1.	271-1312	Pack of (5) 150 ohm resistors	\$ .39
2.	271-219	50K potentiometer (2) required	\$ .59ea
3.	271-1705	Joystick potentiometer (1) required	\$ 4.96
4.	270-251	Metal utility box (1) required	\$ 2.99
5.	275-1547	Pack of (5) push button switches N.O.	\$ 2.49
6.	278-372	Roll of wire	\$ 5.49
7.	276-1980	16 pin header socket	\$ 1.59
8.	272-1065	.01mfd capacitors pack of (2)	\$ .59
9.	64-3025	Assorted vinyl grommets (31) in package	\$ .99
10.	275-613	SPST switches (2) required	\$ 1.79

Use the trimmer pots to adjust your joy stick movement to fill the screen height and width

## REVIEW

### VISION 80 80 column board and EXECUTIVE SECRETARY by Chuck Boody

I have had the opportunity to work with a VISION 80 eighty column board for some weeks now, and just this past week had a chance to get a pre-release version of Release IV of the EXECUTIVE SECRETARY word processing package. There seem to be some real strengths in each product; enough so that I felt that club members might be interested in hearing about both.

First, the VISION 80. Those who read CALL A.P.P.L.E. will recall that a year ago they reviewed the five eighty column boards then on the market, and that the following month they reviewed a sixth, the ZOFARRY eighty column board. This latter board was from Australia, and was to be made available from Vista. That is the board that now appears as the VISION 80, as was promised at that time. (Amazing how it can take a year from the time we read about a product to the time the product appears as available: isn't it?) Bob Huelsdonk, who did all of the CALL A.P.P.L.E. reviews reted this board the highest of all those he tested, and I can see why.

To my eyes the character set is by far the best of the five eighty column boards I have seen. Bit-3, Double Vision, Videx Video term, and Sup 'R Term are the others. I use a nine inch Sanyo monitor, and despite the small screen size all of the characters are very easy to read; even the lower case w and m are crisp and clear. The character set has true descenders based on a 9 X 10 matrix. Installation is simple and straight-forward. The board is placed in Slot 3, two connectors are placed over two pins of the video connector on the Apple mother board, and the monitor is connected to a female phono connector exactly like the one on the Apple.

The shift key connection is made by clipping a clip to one of the pins that runs between the two parts of the Apple keyboard (on the newer machines) and placing the connector for the other end in the game paddle connector. The connector at the game paddle end is set up so that you can plug other

accessories into the game paddle connector without disconnecting the board. Those with the older Apples will still have to solder to the bottom of one of their shift keys. I soldered a small loop of wire to the bottom of mine, and clipped the clip to it. That way I can replace the keyboard should that ever be necessary without having to resolder the shift key mod.

*(This is the standard Shift-key mod which many of the Word Processors on the market recognize. It is also used by Superscribe reviewed elsewhere in this newsletter.*

- Ed)

Once installed, the board is activated by an IN#3 or PR#3. The user can then switch back and forth from the forty column screen to the eighty column screen with a single command. If the user has a second monitor or a color television set, it can be connected to the Apple in the normal way, and the computer will display the standard screen on that set, and either screen on the set connected to the VISION 80 board. All of the standard Applesoft commands are supported in the eighty column mode except CALL -936 (HOME is supported), CALL -868, and CALL -958. These could not be supported because the eighty column screen does support the text window POKES (32-37), and HTAB and VTAB. Using the above mentioned monitor calls will result in the monitor trying to clear portions of a 24 X 80 (rather than 24 X 40) screen, thus destroying the first part of whatever Applesoft program might be in memory.

Appropriate control codes are supported to replace those commands. The board is automatically recognized by Pascal, and in my limited attempt to use it worked well. However, users of the Pascal graphics will have to add some code to their program to enable the switch from the eighty column screen to the standard graphics screen. The documentation indicates that the board is transparent to CP/M also, and includes "highlight" and "lowligh" text display for CP/M.

There are a lot of special features, but in the interest of space I'll only mention a few of them here. The system provides either underline or block cursors that may flash at either of two rates or not flash at all. There is a provision for listing BASIC programs in eighty column mode (a real joy for those who program lots), and a "debug" mode that displays control characters as

GOTO 22

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Review Continued from page 20

uppercase underscored characters. All of the standard escape codes are supported. Reverse line feeds and GOTO XY (where X and Y are screen coordinates) are provided for. All of the characters "missing" from the Apple keyboard are supported in the eighty column mode. The keyboard can be locked into uppercase "Apple" mode. The bell drops an octave or so when in eighty column mode as a reminder that you are using it. Graphics commands work correctly. If you have an upper/lower case chip in your machine the system will allow upper and lower case entry in the forty column mode using the shift key as you would for the eighty column mode.

As if that weren't enough, there is also a built in communications package on the board. I haven't had much chance to experiment with that package yet, but if you can believe the documentation (and I see no reason not to) you will no longer need most of the capabilities of Data Capture 4.0 or the ASCII Express. You can set data format, duplex, break transmission, execute DOS commands, load and save text into a buffer, print the buffer, turn the buffer on and off, control a remote Apple from your terminal, and in general do most of the things you might want to do. There are a couple of limitations though. There is some conflict between the CTRL Z used by the Micromodem as a hang up command, and the fact that the CTRL Z is the primary command used to alert the VISION 80 board that a command is coming to it.

And, you can't edit the text in the text buffer; you may only send or receive it.

The only real drawback I have found with the board is that it requires quite a lot of current. CALL A.P.P.L.E. indicated that it drew more than any other of the eighty column boards; all of which draw lots of power. However, power usage is within reason, and unless you are, like me, always stuffing your Apple with lots of boards you probably won't have to worry about that. Some users would undoubtedly like to have user definable character sets but they are not provided. However, the character generator is an EPROM, and there has been indication that more character sets are forth coming.

Do I like the board? Very much!  
Do I recommend it? Yes. Most of the limitations mentioned in Huelsdonk's

review dealt with matters that have already been changed. The documentation is much better than that which he received, and many of the suggestions he made have been incorporated. I noticed that Al Peterman has a special on these boards, so there is a way to see them, and to try them out. If you are looking for an eighty column board I would certainly suggest looking at this one.

Now I want to talk about the **Executive Secretary**. Word processors abound, and I have certainly not had enough experience with the many on the market to play the pundant about them. I have used Apple Writer, Easy Writer (the original, and in my estimation better version of it), Super-Text (but only a bit), Apple PIE (again not enough) and Executive Secretary. Each time that I have a fairly good sized bit of writing to do I try to use a different one. Unfortunately, I do not have the funds to purchase any more for the time being.

I have been using Executive Secretary for about six months now, and have been delighted with the tremendous capability it has to format text files and integrate "card files" to produce form letters, and all sorts of good formatting. Printing is somewhat slower than with some word processors because the file is brought in from the disc bit by bit; a procedure necessitated by the flexibility just mentioned. I don't find that objectionable though.

Primarily I have had two objections to the system. First, because it was written in Applesoft editing was slow and cumbersome at times, and second there was no way to hook up special printer drivers to it. The first of these objections was enough to keep me from recommending Executive Secretary, for I could often type a bit faster than the program could accept letters. This certainly did not help my already poor spelling!!!

The major change in Executive Secretary's new release is an internal switch to machine code routines for several of the key portions of the program. As a result, I can now only exceed the program's speed by trying tricks to do so. Otherwise, it keeps ahead of me. Editing has been improved greatly by the machine code too, as has the accessing of the different programs. Now there are almost no waits in editing of as much as one second, and

GOTO 23

## Review Continued from page 22

only a few of the changes from section to section take as much as six seconds.

One consistently strong point with the distributors of Executive Secretary (ES) has been their policy with regard to update. Purchasers can update very inexpensively at any time. If you own ES you will want to update to this version. If you do not already own a Word Processor, and in the process of looking for one, have rejected ES because it seemed slow and awkward I suggest you take another look at it.

Executive Secretary lists for \$250, but for the price you get alot of features which are often extra with other Word Processors. It supports a wide variety of data base packages for customized letters, includes a mail-merge type of program, and even contains a fairly good small data base package within the system. ES provides for output of control sequences for selecting print styles on different makes of printers and includes a proportional spacing option.

All of these options were nice, but not so valuable when the fundamental typing and editing were slower and more cumbersome. You can now set it up so it works as a "you get what you see" system, and if you have an eighty column board you can print to the screen to see what you'll get. ES is of the family of Word Processors in which you normally enter data in an unformatted mode and then give it commands to perform the setting of margins, justification, indentation, printing of headers, page numbering, etc.

I am much more satisfied with it now. In fact, this article was written on it, and as soon as I finish proofing it I'm going to try to send it to Dan using that VISION 80 communications package I mentioned above.

*(Unfortunately that did'nt work, but that was'nt the fault of the Vision 80, but rather the fact that Dan's software could'nt handle the 80 character lines - Ed.)*

---

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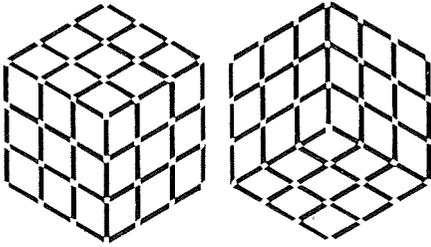
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with David E. Laden

## BYTE -- APRIL 1982

Hardware Review: Strawberry Tree's Dual Thermometer Card for the Apple by Dr. William Murray. Pages 96-100.

Converting Apple DOS and Pascal Text Files by John B. Matthews, MD. Pages 447-463.

## COMPUTE! APRIL 1982

Customizing Apple's Copy Program by Roger B. Chaffee. Pages 132-134.

## CREATIVE COMPUTING MAY 1982

Terminal Communications for the Apple by Ken R. Hancock. Pages 27-29. This is a review of VisiTerm.

Adventures in Adventureland by Dale Archibald. Pages 36-44. Seven adventure games for the Apple are reviewed.

Financial Aid by John B. Fisher. Pages 107-116. This is an Applesoft program to help calculate the eligibility for college financial aid.

Listing/Copying Apple Text Files by Jack P. Ott. Pages 144-154. This is an Applesoft program.

AWACS by John Hitchcock. Pages 158-167. This is a high resolution game written in Applesoft.

Apple Cart by Chuck Carpenter. Pages 170-178.

## MICROCOMPUTING APRIL 1982

Pascal Meets Instant Insanity by Michael K. Kan. Pages 84-87.

## POPULAR COMPUTING MAY 1982

Getting into Apple Graphics by John Edwards. Pages 64-70. This is a review of Power Painter from Micro Lab, E-Z Draw from Sirius Software, and Bill Budge's 3-D Graphics System.

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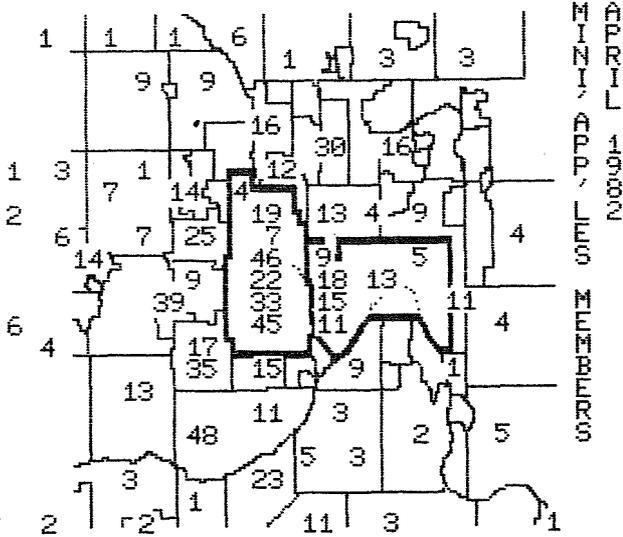
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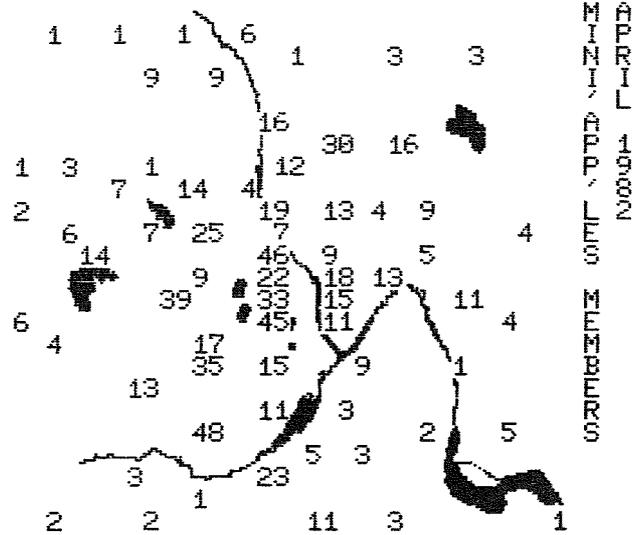
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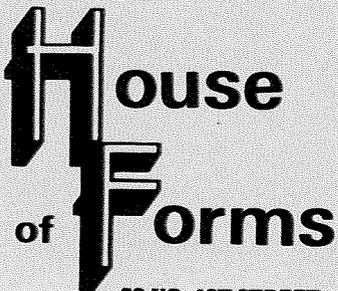
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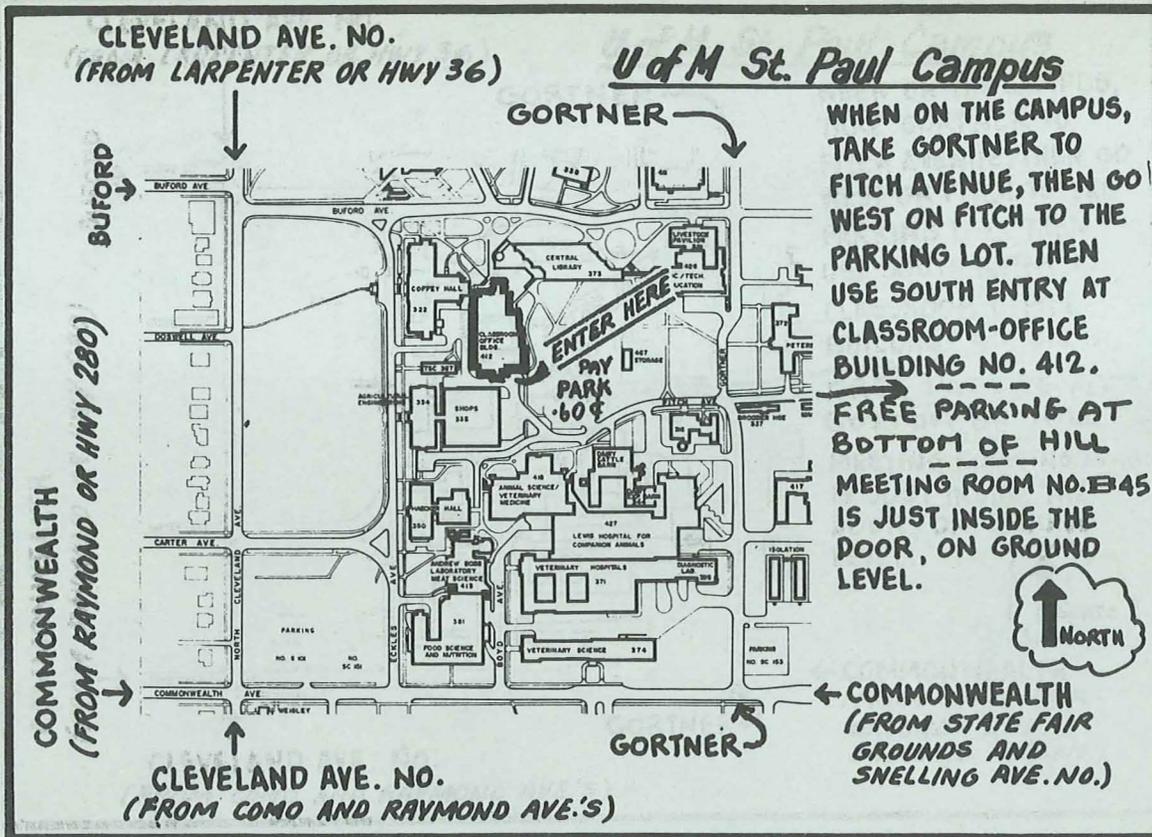


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