

mini'app'les

apple computer user group newsletter

VOL IV NO 3

MARCH 1981

President Dan Buchler 890-5051
 13516 Grand
 Burnsville
 Mn 55337

Treasurer Marilyn Thomas 872-7669
 2735 Irving
 Minneapolis
 Mn 55408

Vice President Steve K Johnson 869-3447

Secretary A Michael Young 884-2841
 9319 Ellicott
 Bloomington
 Mn 55420

MEMBERS-OF-THE-BOARD:

Newsletter Editor Chuck Thiesfeld 831-0009
 830-5020
 8416 Xerxes
 Bloomington
 Mn 55431

Bibliographer Chuck Boody 933-5290
 Prg. Editor Ken Slingsby 507-263-3715
 Sales Co'r Hugh Kurtzman 544-7303

Librarians:
 -Acquisition Keith Madonna 474-3876
 -Organization Terry Pinotti 786-7118

Consultants:
 -Communications Nelson Capes 483-0414
 -Technical Jim Henke 869-0361

NEXT MEETING

WEDNESDAY MARCH 18th - 7:30 pm

Minnesota Federal Savings and Loan
 9th Avenue South,
 Hopkins
 Minn

IN THIS ISSUE

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Topic for the meeting will be the Alpha SYNTauri Keyboard. Chuck Boody, whom most of you know and appreciate, particularly with respect to his music knowledge and expertise at the podium, will demonstrate this new hardware and software. The Alpha Centauri is a true music synthesizer built around an Apple with either Mountain Hardware or ALF music boards. The software is said to be better than Mountain Hardware's own, and it adds the dimension of user interaction with a true musical keyboard, and at the same time provides the less than perfect musician the ability to correct his/her mistakes!

NOTES FROM YOUR PRESIDENT

1. Rumours from Cupertino via several routes suggest that Apple is working on two new computers: a Motorola 68000 16 bit mpu based business machine, the Apple IV; and an unknown machine which will probably replace the Apple II called the Apple V. No time schedule has yet been ascertained.

2. The club fiscal year ends with the election in April. Since the treasury will likely change hands, all expenses must be in and accounted for by April 1st or persons will not be reimbursed.

3. Talking about reimbursement, persons copying DOMs are offered \$1 per diskette to pay for wear and tear on drive. The selling price of the DOM is figured as diskette cost + \$1 + \$1 markup (which goes into club treasury for purchase of public domain software, etc.)

4. I attended the PASCAL Special Interest group meeting last month. Keith Madonna and his supporters are doing a great job. The meeting format is as follows:-

Brief comments from Keith and presentation of doctrine.

Then the meeting is split into two groups, the beginners going to one side and the advanced to another side of the room. Daryl Hammond last time was the selected 'experienced' person helping the beginners. He led them step by step through the program he had published in the Feb newsletter. Anyone contemplating the purchase of a Pascal system should be reassured by the existence of this group!

5. Printer Deals: Those of you who were at the Feb meeting may have heard the announcement about a bulk purchase offer for Epson MX-80 printers (See Jan newsletter). A local supplier offered us a discount on a buy of 10 or more Epson MX-80s. The price was very good. That, together with the excellent reputation established by the hardware in just a few months, caused 22 persons to come forth and

avail themselves of this opportunity. We also made a bulk purchase of 22 boxes of paper.

Other opportunity to make similar arrangements for other Apple related products also exist. It only takes someone to come up with the idea and someone to organize same. I organized the printer purchase and it does take work. However it benefits yourself and others, so there is a satisfaction to the job.

6. Northern Tier: Last month Terry Pinotti wrote about the idea of having a Northern and Southern Tier. This idea promises to reduce the squash at meetings and provide a more convenient meeting place for those of you who live North or East without sacrificing the benefits of the club. We are very serious about this and will discuss at the March 11th Open Board meeting. Also, John Schoepner is attempting to write a program which will show us the population spread of Mini'app'les members.

7. I often get phone calls requesting the help of a programmer. Sometimes this is for a small job, sometimes somebody is looking for a full time person. In the later case, we pass the request on to anyone we may know who is looking for a job, and who appears to fit the requirements. In fact, there is currently an unfilled full time position at MECC- anybody interested should call there as soon as possible.

The other type of job, of which there are many is for a short, usually simple application which often can be accomplished in a few evenings of work. People are willing to pay for this type of work, but probably less than the typical full time programmer would need to make a decent living. This is where the club comes in.

Many of you would probably like to make an extra buck or two playing with your Apple - so if you would like to be known as a person willing to do small programming jobs for pay, but not at a fantastic rate, please let me know. Lucille, my wife, will compile a list and make it available to people interested in procuring such services.

APPLESOFT FAST FILE ACCESSING

PRACTICAL COMPUTING, INC.

NEWSLETTER A80-002-01

COPYRIGHT 1981 BY EARL ALLEN

The following article was acquired for us by Charles. E Collins of CEC Systems, Minneapolis (546-5694). He is in the software consulting business. Earl Allen, the author, is a friend of his.

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It is often necessary to read large amounts of data from disk into RAM memory at one time. This is the situation whenever a program needs an entire file or an index to a substantially larger file.

Under Applesoft, this is typically accomplished by opening a text file containing the data, reading successive fields in the file, and finally closing the file after the data has been read. This approach can conceivably require several minutes to read large amounts of data.

A much faster alternative for handling massive amounts of data is described in this Newsletter.

Basically, this method involves shifting the HMEM pointer of Applesoft down in memory, thereby making available a block of RAM memory which can be saved to disk with the BSAVE command and later loaded from disk with the BLOAD command. Data in this memory area may be accessed from Applesoft Basic via Peeks and Pokes or thru monitor routines.

Before stepping thru the attached example, a short desertation on Applesoft memory organization is desirable. First, unlike Integer Basic, Applesoft loads the program into the lowest available RAM addresses. This usually begins at \$801 for the Applesoft ROM version and at \$3001 for the Applesoft RAM version. This can be changed by the user prior to loading or entering the Applesoft program by Poking the starting address into bytes 103 and 104 (\$67-\$68). The Lomem and Himem commands have no affect on these locations and therefore do not affect the starting location of the Applesoft program.

The Lomem command affects bytes 105 and 106 (\$69-\$6a) which indicate to Applesoft the location of the lowest address available for program variables. The Himem command affects bytes 115 and 116 (\$73-\$74) which indicate to Applesoft the location of the highest address available for program variables.

Thus, memory looks like the following as a (RAM) Applesoft program is being executed:

		.....	49152
		. DOS .	
\$73-\$74	Himem	.....	38400
		. Program .	
		. Variables .	
\$69-\$6A	Lomem	.....	varies
		. Program .	
		. Statements .	
\$67-\$68		.....	12289
		. Applesoft .	
		.....	2049

One word of caution is in order - although you may use a Himem command within an Applesoft program, its use will allow any previously defined string variables to be destroyed. Therefore the Himem command should be executed prior to using any string variables.

The attached example is programmed for a 48K Apple. A smaller machine would require adjusting the addresses shown.

The example demonstrates accessing a table of 1,000 eight byte entries. These entries identify the corresponding records being retained in a random access file (ie. the first entry identifies record one in the file, the second entry identifies record two, etc).

These entries could represent the item number in an inventory file, the check number in a check register file, the account number in a ledger file, the name in a personnel file, etc.

Looking at the example, we note the following:

Line(s)	Purpose
10	Moves Himem down 8,000 bytes so we can handle 1000 eight byte entries. This is done prior to using any strings.
100	Defines Ctrl-D for DOS, the beginning of the index table, and the end of the table.
200	Will intercept missing index file on first access.
210	Attempts to load index file, clears Onerr if loaded okay, goes to main code.
250	Handles Onerr problems, clears Onerr intercept, and initializes table to blanks.
260	Intercepts I/O problems.
270	Saves index file and goes to main code.
10100-10120	Searches index table for match. If found, go read data record; else, go create new data record.
20000-22000	Read existing data record.
30000-31000	Create new data record.
32000-33000	Update index table and save to disk.
40000	Reset Himem and end program.

Mr. Allen has been programming for 17 years in languages such as ALGOL, FORTRAN, COBOL, Autocoder, PL/1, APL, BASIC, Assembler Language for the IBM 360/370/303X computer systems, and Assembler Language on the Apple II microcomputer. Currently he provides customized business programs and professional consultation for the Apple microcomputer. In addition, he advises on subjects such as Data Processing contracts and acquisition of D.P. equipment/services. He may be consulted at 312-837-9259.

```

10 HIMEM: PEEK(115)+PEEK(116)*256-8000

100 D$=CHR$(4):BTBL=PEEK(115)+PEEK(116)*256:ETBL=BTBL+8000
200 ONERR GOTO 250
210 PRINT D$;"BLOAD INDEX,A";BTBL:POKE 216,0:GOTO 300
250 CALL -3288:POKE 216,0:FOR I=BTBL TO ETBL:POKE I,32:NEXT I
260 ONERR GOTO 290
270 PRINT D$;"BSAVE INDEX,A",BTBL;"",L";ETBL-BTBL+1:GOTO 300
290 STOP:REM DISK ERROR
300 REM MAIN CODE
:
:
:
10000 REM NEED TO FIND RECORD WITH ENTRY MATCHING THAT IN VARIABLE INDEX$
10100 FOR ETRY=1 TO 1000:FOR I=1 TO 8:IF
PEEK(BTBL-8+I+ETRY*8)<>MID$(INDEX$,I,
1) THEN 10120
10110 NEXT I:GOTO 20000:REM FOUND
10120 NEXT ETRY:GOTO 30000:REM NOT FOUND - NEW ENTRY

20000 PRINT D$;"OPEN DATA,L100":PRINT D$;"READ DATA,BO,R";ETRY
:
:
:
21000 PRINT D$;"CLOSE DATA"
22000 GOTO 300
30000 PRINT D$;"OPEN DATA,L100":PRINT D$;"WRITE DATA,BO,R";ETRY
:
:
:
31000 PRINT D$;"CLOSE DATA"
32000 FOR I=1 TO 8 :POKE (BTBL-8+I+ETRY*8),MID$(INDEX$,I,1):NEXT I
33000 PRINT D$;"BSAVE INDEX,A";BTBL;"",L";ETBL-BTBL+1:GOTO 300

40000 HIMEM: PEEK(115)+PEEK(116)*256+8000:END

```

DISK PURCHASES for MEMBERS

Currently 3 Twin Cities merchants are offering special purchase deals for diskettes.-

Audio King, Southdale - Maxell at \$3.25

Digital Den, Maplewood- 3M at \$3.00

Personal Business Syst- Memorex AT \$3.00

The club is investigating the purchase of diskettes in bulk for use as DOMs.

Call Peter

Gilles 475-3916 if you have any comments.

CLASSIFIED ADVERTISEMENTS

For Sale

TECHNICO computer (9900 processor) with 8k RAM, 2K ROM DOS, 16k ROM Extended Basic, 16 bit parallel I/O, on board EPROM programmer, RS232 or 20mA loop interface, Video output (60 col. by 16 lines), analog and digital controllers, cassette interface and full ASCII Keyboard. Also have available Type 33 TTY. No reasonable offer refused. Contact Cary Mariash at 376-4410 (day) or 636-8286 (night).

Pondering Pascal: Zapping the BIOS

by Daryl Hammond

This month I would like to start out with some comments on last month's article. First, February's article referred to listing 1 and listing 2. Listing 1 was the Pascal program as it would be entered from the keyboard; and listing 2 was the compiled version of the same program. Listing 1 was not included in the newsletter; and listing 2 had the first two columns of numbers cut off. The missing listing 1 should have given you no problem, but you may have been confused if you didn't produce your own compiled listing 2 to use with the article.

Next I would like to point out some things I have learned since the February article. I stated that the 'D' in the fourth column of the compiled listing stood for 'data'. It actually stands for 'declaration'. Also, you can quickly look at a text file by typing <F> for filer and then <T> for transfer. In response to the prompt type in #5:INCH.LIST.TEXT,CONSOLE: and you can then use <CTRL-S> to halt the display. This is much quicker than the method I gave.

Now for new stuff. I purchased Pascal release 1.1 at the beginning of February. In my opinion, the two manuals provided (Language Reference Manual and Operating System Reference Manual) make this a must buy for those of you using release 1.0. Detailed information is also provided specifying what files and what disks are necessary to make a one drive system work! I have not read the manuals completely, but I am impressed at the overall level of detail.

The rest of this article and all future articles will assume that you are using release 1.1 and a two drive system. (Note: I will continue to point out problem areas for single drive systems.) I will not give as much detail in this article as I did last month because of the reference manuals now

available, and because of the amount of work involved on my part. (Yes I'm lazy!)

The new feature that most intrigued me in release 1.1 was the ability to enter upper and lower case data while in edit. This is actually simulated by displaying upper case characters as inverse upper case and lower case characters as normal upper case. I suppose you could get used to this. Changing between upper and lower case is accomplished through the use of <CTRL-E> and <CTRL-W>. Since I have a Dan Paymar Lower Case Adapter chip installed, I thought I should be able to use the new Pascal feature and display upper and lower case characters. However, it doesn't work that way. What I ended up doing was writing a program (see listing 1; please be there this time) that modifies the APPLE BIOS.

First a warning. Do not run this program unless you are using release 1.1 of Pascal and have a Paymar chip installed. The program BIOSZAP reads in block 5 of file SYSTEM.APPLE, modifies six bytes of code, and writes the block back out to the disk. The program assumes that file SYSTEM.APPLE is available on the disk in drive #4. This is true for two drive systems after booting. Single drive users will need to transfer a copy of SYSTEM.APPLE from APPLE3: to APPLE0: after booting their system. After running the program, single drive users will need to transfer the file SYSTEM.APPLE back to APPLE3:. Once the program is run, both one and two drive systems will need to be rebooted. Just press <RESET> to do this. This will cause the newly modified BIOS to be loaded into memory. The system will now always display upper and lower case characters as true upper and lower case. In addition you can use edit to enter true upper and lower case characters. Note: 'garbage' characters will be displayed in edit when moving the cursor over lower case text. This occurs because the Paymar chip does not contain inverse lower case characters.

Last month I promised to enhance the INCHESTOFEEET program to provide better edits of numeric input data. I'll get to that next month.

LISTING 1

PROGRAM BIOSZAP;

```
(*****
(* Written : 01-15-81 *)
(* By      : Daryl Hammond *)
(* Phone   : (612) 487-1002 *)
(*
(* This program requires that you *)
(* have Dan Paymar's Lower Case *)
(* Adapter installed, and that you *)
(* are running Pascal release 1.1. *)
(* Do not run this program unless *)
(* both of these conditions are true. *)
(*
(* This program modifies the APPLE *)
(* BIOS file SYSTEM.APPLE so that *)
(* lower case characters are *)
(* displayed as true lower case. *)
(* The <CTRL-W> and <CTRL-E> will *)
(* now accept and display true upper *)
(* and lower case. The inverse *)
(* upper case has been eliminated. *)
(*
(* The program expects drive #4 to *)
(* contain file SYSTEM.APPLE. *)
(*
(*****
```

VAR

```
  BUFFER : PACKED ARRAY [0..511]
           OF 0..255;
  BIOS   : FILE;
  I      : INTEGER;
  BEGIN
  RESET (BIOS, '#4:SYSTEM.APPLE');
  I := BLOCKREAD(BIOS,BUFFER,1,5);

  (* NOP lower case conversion *)
  BUFFER[171] := 234;
  BUFFER[172] := 234;

  (* Mask needed for Paymar chip *)
  BUFFER[174] := 127;

  (* JMP around inverse upper case
  routine *)
  BUFFER[388] := 076;
  BUFFER[389] := 156;
  BUFFER[390] := 219;

  I := BLOCKWRITE(BIOS,BUFFER,1,5);
  CLOSE(BIOS); END.
```

WANTED: APPLES FOR HIRE

On April 25, Dayton's and the Minneapolis Star and Tribune will sponsor the annual 'GET IN GEAR' 10 kilometer race which will attract about 3000 runners. Almost all will want to know exactly how well they did.

I have contracted to come up with the order of finish and times for the finishers. This will be accomplished by typing the finishers' identification numbers and times into Apples at the race site (Minnehaha Park; specifically, our machines will be on the bandstand). The programs will be written in PASCAL. A file of entrants and their identification numbers will be prepared before the race. After the race, that file will be used to identify the contestant.

I can use one or two more Apples to help in this task, preferably with language cards. I can pay \$50 for each Apple and Operator. If interested, call me at 373-2165 or -5010, or at 920-0558.

Jack Moran

THANK YOU

Nat Forbes gave us his usual high standard presentation during the February meeting and made us all instant experts about the Apple III. We thank Nat and Computerland.

We also thank Nat Forbes, Keith Madonna and Team Electronics for bringing Apple III computers to the meeting.

Janelle Norris then gave a short demonstration of the VERSA-WRITER. The supporting software is excellent.

Also Rick Gates, Terry Pinotti, Janelle Norris and some others provided Apple IIs. We thank them too.

JOHN'S PASCAL QUICK REFERENCE:

Command: E(dit, R(un, F(ile, C(omp, L(ink, X(ecute, A(ssem, D(ebug? [II.1]
 commands not on prompt line: H(alt, I(nit, U(ser

>Edit: A(djust, C(opy, D(elete, F(ind, I(nsert, J(ump, R(eplace, Q(uit, X(chngs, Z(ape [E.6f]
 editor commands not on prompt line: P(ase, S(et, V(erify

File: G, S, N, L, R, C, T, D, Q [C.2]

: G(et, S(ave, N(ew, L(ist, R(emove, C(hange, T(ransfer, D(ate, Q(uit
 file commands not on prompt line: W(hat, V(olumes, E(xtended list, P(refix,
 M(ake, K(runch, Z(ero, B(ad blocks scan, eXamine

Wild Cards: '=' is 'all', '?' is 'all with prompting', '\$' is 'same name'

Compiler commands: (*\$L PRINTER*)=list, (\$L-)=deactivate, (\$G+)=enable Goto,
 (\$S+)=swapping on, (\$S-)=swapping off, (\$I-)=do not check I/O results,
 (\$I FILENAME)=include, (\$Q+)=quiet (suppresses progress messages)

To set:	Press:
ESC	ESC
DEL	CTRL + X
RET	RET
EOF	CTRL + C
backspace	<-- (left arrow)
ETX	CTRL + C
TAB	CTRL + I
Break	Reset, forces System to re-initialize!
down arrow	CTRL + L
up arrow	CTRL + O
left arrow	<-- (left arrow)
right arrow	--> (right arrow)
]	shift + M
[	CTRL + K
C/R	CTRL + M
LF	CTRL + J
Stop	CTRL + S, stops display of text untill pressed again
DC1	CTRL + Q, in Editor's I(nsert Jumps to left margin
screen swap	CTRL + A, 40 spaces at a time, turns off auto-follow
auto-follow	CTRL + Z, displayed 40 columns follow the cursor
Flush	CTRL + F, discards output waiting to be displayed
WITH THE DAN PAMAR CHIP AND AVS 'PAS-LOW'	
-	CTRL + W
(	CTRL + E
)	CTRL + R
~	CTRL + T
`	CTRL + Y
!	CTRL + V
\	CTRL + B

USING THE EDITOR FOR WORD PROCESSING:

S)et;

E)nviroment;

A)uto indent to False

F)ilings to True

R)ight margin to length of line (39 for Apple screen)

space bar to exit S)et mode.

P)ara (Paragraph margin) - indents first line of paragraph

M)argin - repairs paragraph spacings (removes spaces after a deletion)

MINUTES --
MINI'APP'LES REGULAR MEETING

January 21st, 1981

The meeting was called to order at 7:42pm.

The December minutes were approved as printed.

The President listed some reasons why some persons did not receive their Jan newsletter:-

1. Bulk mail, used for 1st time this month, made it necessary to mail newsletters one week earlier in month.
2. Many members had not paid their 1981 dues and the computer cancelled those subscriptions.

If you have paid your dues, but have not received a newsletter, please let us know so we can track down the problem.

Apple Orchards that were prepaid were distributed.

The IAC is holding elections for the regional director. Our club has one vote.

It was announced that there would be an IAC symposium on the weekend of May 1st at the O'Hare Marriott in Chicago.

There was a question from the floor on the Pascal Language System and 3 people asked for help. Keith Madonna answered questions and suggested that persons come to Pascal Special Interest group meeting.

A request was made for help in typing in programs published in the newsletter so that they could be placed on DOMs.

Discussion ensued about interfacing Apple used as remote terminals to PDP-11 Time Sharing systems.

Dan asked for volunteers to help set up a user bank of MECC software.

It was stated that board elections will be held in April.

It was noted that Apple had increased the price of Apple IIs by 13% (supposedly because of FCC requirements for RFI sheilding). A few Apples remain at the old list price, but supplies are dwindling.

Discussion on whether programs should be submitted/distributed in 3.2 or 3.3 DOS? Consensus was that 3.2 be used until all club members are updated to 3.3

Program for evening was presented by Jim White who demonstrated 3 commercially available 3-D packages:
Sublogic

Appleworld

Bill Budge

The club thanks him for the effort. Steve Saliterman showed his excellent slides of his 3-D work with intersecting planes and hidden planes eliminated.

A. Michael Young - Secretary

MINUTES --
MINI'APP'LES REGULAR MEETING,
February 18th 1981

The Vice President called the meeting to order at 7:33pm. The rule of 'no sales during the meeting' was announced. The VP also asked for everyone to fill out the survey if they have not already done so.

OLD BUSINESS

Dan Buchler, the President, made an announcement that the club would cast one vote foran IAC regional directorship candidate. The first candidate is Dave Alpert, President of the Northern Illinois User Group. The second candidate is Hassler who is from Colorado and also works with Amateur Radio. Because there were no inputs from the floor, the issue will go before the next board meeting.

This was the last opportunity for setting up a nominating committee for next years board candidates.

There is interest in forming a Northern Tier of Apple Users. Terry Pinotti published an article in the Feb newsletter "Do we want a Northern Tier?"

We have already been offered facilities at North Hennepin Junior College but some feel that this location would detract from the main group.

Several people volunteered to establish a user bank of MECC software for the club. The President insists that strict controls be made because of copyright considerations. This software may not be copied for persons living outside of the state of Minnesota.

Ken Slingsby provided some information on the Applied Engineering Times Two time-of-day board for Apple IIs. The on board battery will last 4 months without recharging.

An open board meeting has been scheduled for Mar 11th. By a show of hands, approx. 20 persons indicated they might attend.

The President announced that he could get a good deal for club members on Epson MX-80 printers.

The DOMs have completely depleted the clubs supply of disks. A bulk purchase is being considered. Chuck Boody thanked members for helping with the DOMs.

Jack Moran solicited help from club members for the Dayton's annual running race. (See elsewhere in this newsletter.

The program for the night was put on by Nat Forbes of Computerland who demonstrated the Apple III.

This was followed by a demonstration by Janelle Norris of the Versa-Writer.

A Michael Young - Secretary

DISK OF MONTH (DOM) by Ken Slingsby

There will not be a DOM for March. Pressure of work has kept me away from the Apple. If you have any software contributions, please mail a disk (or tape) to

Ken Slingsby
Route 2
Welch
Minn, 55089

Diskettes and tapes will be returned and contributors get a free DOM. Please label the disk with your name and address.

Editors Note:

We finally figured out what the demand for DOMs really was. We made 125 Feb DOMs and sold about 115!

Notice about Jan and Feb DOMs.

There was a mix-up in labelling an unknown quantity of DOM#2s and DOM#3s. In order to make the meeting deadline, some diskettes were brought to the meeting unlabelled. In the haste to apply the labels, a few DOM#3s were confused with DOM#2s. If you were the recipient of one of these diskettes we apologize for the inconvenience. Please bring your diskette to the next meeting and we will either trade the diskette or refund your money (as you wish).

A few people have complained about diskettes that won't boot. We try to boot all diskettes but occasionally a bad one slips through. Also the old type Verbatims, used for Nov/Jan/Feb DOMs were prone to I/O errors during initialization and copy phase. Diskettes planned for future DOMs will be more reliable (but will cost a little more).

TURNING THE PAGES with David Laden
=====COMPUTE! -- FEBRUARY 1981

Guest Commentary: Business Applications Analysis--The Missing Step by Hal Wadleigh. Pages 12-14. Five steps are defined in this article.

Simulated Print Using by Jim Butterfield. Pages 30-32.

List Apple Integer BASIC Programs One Page At A Time by Keith Falkner. Pages 64-66.

The 25cent Apple II Real Time Clock by Erann Gat. Pages 68-73. This article tells you all about interrupts and how you can have a clock for 3 to 25 cents.

CREATIVE COMPUTING -- FEBRUARY 1981

Music Editors for Small Computes by Rebecca T. Mercuri. Pages 18-24. This article includes a discussion of The Micro Music, ALF, and Mountain Hardware music editors as well as the authors "ideal" music editor.

Base 2 Makes its Mark by Wayne F. Cummings. Pages 30-32. This is a review of the Base 2 printer.

Bach by Michael Keith. Pages 70-73. This article describes "BACH (Basic Aids for Composing Harmonies), a home brew software music system" utilizing the Alf music board and the Apple II.

A Problem Solving Technique Based on Genetics by Arthur Radcliffe. Pages 78-81. Includes an Applesoft program.

Genepool by J.D. Eisenberg. Pages 94-105. This is a Pascal program for genetics simulation.

Lower-Case Display for Apple Writer by John E. Stith. Pages 124-129.

Apple-Cart by Chuck Carpenter. Pages 172-180. This month, Chuck tells us about a Mini Pilot interpreter (Applesoft listing included) and Super Text II.

INTERFACE AGE -- MARCH 1981

Business Software Review: Visicalc examined by Carl Heintz, CPA. Pages 46-47.

About Searches... 3 Techniques by Gene Cotton. Pages 70-72 and 154-155. Examples are given using Pascal.

Computers by Mail by Tom Fox. Pages 74-81. This article should help you answer the question: Should you purchase a computer via Mail-Order?

KILOBAUD MICROCOMPUTING -- FEB 1981

The Modem Eliminator by Dennis J. Murray. Pages 112-113.

Simulation of Musical Instruments Part 2 by Hal Chamberlin. Pages 142-148.

MICRO -- FEBRUARY 1981

A Simple Securities Manager for the Apple by Ronald A. Guest. Pages 7-13. Applesoft program listing included.

In The Heart Of Applesoft by C. Bongers. Pages 31-47.

ON COMPUTING -- SPRING 1981

Getting Started in Personal Computing by Larry Press. Pages 8-17.

Hexadecimal Numerals Explained by Richard S. Shuford. Page 18.

Computerized Homes: Fact or Fiction? by Harold Nelson. Pages 20-23.

Kitchen System: A Computerized Cookbook by Gary Stotts. Pages 26-28 and 86-91. This program series to help you "computerize a cookbook" is written in Applesoft BASIC.

Pascal for the BASIC Programmer Part 1 by Paul Friedman. Pages 50-59.

Banking With A Computer by Ivan Flores. Pages 61-70.

PERSONAL COMPUTING -- FEBRUARY 1981

How To Choose Data Base Management Programs by Fred Blechman and Jules H. Gilder. Pages 23-30.

DISK SORT+ CHANGES

by Bob Pranis

DISK SORT+ is a useful utility program that many members might have. Originally written by another user group and enhanced by Chuck Boody, the utility sorts and replaces the catalog in any disk with the sorted version. In order to make this work with applesoft in RAM, I had to make a few changes. These were accomplished with the help of Chuck Boody. In addition I am relaying changes made by Chuck which will fix the "SORT BY TYPE" routine. According to Chuck, this did not work properly before. In addition, I have included a minor change to make the program work in DOS 3.3.

Below are the listing changes. Line 0 and 2 have 24576 in place of 16384 in the original program. Now to change the memory location in which the binary routine and the buffer operate, one replaces all of the "24576" references in lines 0 and 2 to the desired memory location (such as 16384).

Menu-Writer by Kenneth Miles. Pages 38-42. This program is written in Applesoft.

Simulation: Is it right for you? by Charles J. Wilson. Pages 73-75. The technique of computer simulation is discussed.

Archimedes' Spiral by Robert Karis. Pages 81-82. An Applesoft program is included.

That is all for this month... next month can't be far away. Keep TURNING those PAGES 'til then!

Since there were numerous changes in the "SORT BY TYPE" subroutine, I have just listed the entire routine. To modify the program to run in DOS 3.3, line 2020 and 9030 which should be "FOR S=12 TO 1 STEP -1" should be changed so the "12" is a "15". If anybody has problems with these changes I will be glad to help if I can.

```

0  SPEED= 255: HIMEM: 24576:MAX =
   70:RWTS = 24576:BUFFER = RWT
   S + 256
1  IF PEEK (RWTS) = 72 THEN 5
2  PRINT CHR$(4)"BLOAD RWTS,A24
   576,V"
3  POKE RWTS + 36, INT (RWTS / 25
   6) + 1
4000 REM ----SORT BY TYPE----
4005 FOR I = 0 TO N: SX(I) = SEQ(
   I): NEXT I
4010 FLAG = 0
4015 TYPE = 1: GOTO 4030
4020 IF TYPE = 0 THEN 4080
4025 TYPE = TYPE * 2: IF TYPE > 4
   THEN TYPE = 0
4030 FOR I = 0 TO N
4040 X = P%(SX(I)) - 128: IF X <
   0 THEN X = X + 128
4050 IF X = TYPE THEN SEQ(FLAG) =
   SX(I): FLAG = FLAG + 1
4060 NEXT I
4070 GOTO 4020
4080 RETURN

```

**INTERNATIONAL
APPLE CORE**

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BULLETINP. O. BOX 976, DALY CITY, CALIFORNIA 94017 USA

We are in the throes of refining long range goals for the IAC and objectives for 1981 and subsequent years. Got any favorites? Get them into your friendly Director (or to Jerry Vitt) by no later than February end. We intend to have them approved by the Board and available for your information by annual meeting time in Chicago.

Speaking of which, it will be held in the Marriott Hotel located near O'Hare on May 2 and 3. This is the weekend preceeding the National Computer Conference. The IAC annual meeting will include the general business meeting and seminar sessions to be given by Apple experts from member clubs and from Apple Computer Inc. Plan to attend.

On the move...

Scott Knaster, one of our Board Directors for Region 3 has joined Dakin5 Corporation.

Product Poop...

Apple Pilot which uses Pascal 1.1 runs fast and has four editors - Text, Music, Graphics and Character Set Generator. Worth a look, particularly by educators.

Apple Computer Inc. is coming out with its own modem. Rumored to have touchtone or pulse dialing capability and dial tone or busy signal detection. Numerous features above and beyond the D.C. Hayes.

Miscellaneous trade papers have reported that Apple Computer Inc. has signed a contract with Seagate Technology (formerly Shugart) for a large order of 5 1/4 Winchester disk drives (5 - 6 m bytes). No information re pricing, availability, etc.

More hot air - there are now two sources for fans to coddle your treasured peripheral cards. One reported on last month is from the M&R folks - the other is from a company called MRE in Chicago. Both are priced around \$50.

New Lipson light pen now available which works with 80-character Videx card.

Caution!

The NEC jolly green monitor for the APPLE III will clobber your disks. Plastic non-shielding is the culprit.

Apple Orchard contributors, please take note. The pay rates for accepted copy has been increased to \$60/page for a standard article and \$75/page for a feature/lead article. Help us make the Orchard the best Apple magazine going. Remember, please mark your copy "For the Orchard".

Reminder...

Jerry Vitt has his IAC Bulletin Board System up and running. Post your club meetings, items of interest, check in, leave messages or just browse. (214)369-0427.

Bernie Urban, Ed.
February 2, 1981

CORRECTIONS TO THE 'BOWLING SCORE' PROGRAM
FROM DOM #2

50 DIM SC((6,126), DA\$(42)

7510 IF (PU * I - PC) > 60 THEN
GOTO 7530

7530 PRINT I\$K: PC = PC + 60

SUB-GROUP (Programming)

By David Nordvall

It seems to me that there is a need for a smaller type of group meeting that has some special or general interest, such as the Pascal Users Group. What I see are groups of 10-20 sharing ideas and skills with each other and other sub-groups. The group meetings would give a chance for some hands-on evaluation of things shown at club meetings. I think that everyone would like a chance to try the VERSA-WRITER that was shown at our last meeting. How many members who do not have printers would like to learn the commands and try one without coping with a salesperson?

I feel it is important that any sub-group be an extension of the MINI'APP'LES and function to the benefit of the whole club. Responsibilities could include monthly reports for the newsletter and conducting a club meeting.

Would you like to know more about your Apple? What's inside it? How to make better use of it? For members in the Fort Snelling area,

I'm suggesting the formation of a Programming Sub-Group. The exact objectives of this group would be decided at the first meeting. Some possibilities...

Goals.... Basic programming skills
Memory Locations
CALLS - PEEKS - POKES
Monitor usage
RWTS
Use of Disk Files, etc

Methods.. Analyse other programs
Group Programming
Guest Experts
Individuals' reports

Results.. Articles and reports for the club newsletter
Organization in the form card files or notebooks
Games and Utilities
More enjoyment from your Apple
Articles for magazines
New friends

If you would be interested in such a group, call me at 724-9174, and leave your name and phone number. I'm proposing an organization meeting on March 23rd, and would confirm the time and place if there is any interest.

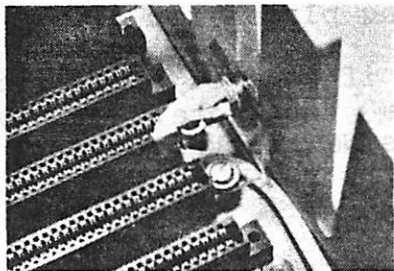
David Nordvall

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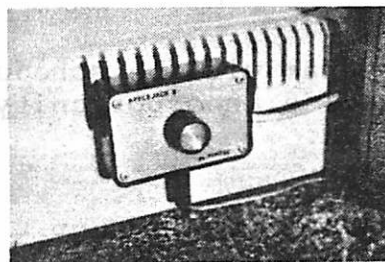
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APRIL MEETING

Wednesday, April 15th, 7:30 pm

Place to be announced.
See April Newsletter.

ELECTION NIGHT! Come, exercise your right to vote for the candidates of your choice. If you want the club run the way you think it should be run, mark April 15th on the Calendar.

No formal program will be scheduled. This will provide an opportunity for open discussion.

PASCAL SPECIAL INTEREST GROUP

Wednesday, April 1st 1981, 7:30pm

Minnesota Federal Savings and Loan
9th Avenue South
Hopkins.

Keith Madonna, Daryl Hammond, Rick Rodgers et al will again host you Pascal types, beginners or advanced. Also includes Apple III users!

OPEN BOARD MEETING

Wednesday March 11th
Zim Computer, 7pm.

Topics:
Candidates for 1981 Mini'app'les election
Northern Tier User Group and ramifications
Constitutional amendments as they relate to above
Meeting places for club

Sorry if some of you receive this notice too late. It was in last months Newsletter too.

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