Brefere

mini'app'les
apple computer user group newsletter

VOL III   No 12   DECEMBER 1980

IN THIS ISSUE

NEXT MEETING

Wednesday, Dec 17th, 1980

Demo of Winning Program from 3M competition
Official Presentation to the winner
Discussion on Apple Stock by Brocker Weingartner
Christmas Programs - if you have something in the holiday spirit, bring it along (Preferably something new)

We also will hand out the survey which has been talked about for 6 months. This is important to the club as it will help to shape future meetings, meeting places, etc.

Meeting will be held as usual at
Minnesota Federal Savings and Loan
9th Avenue South,
Hopkins,
Minn.
Meeting starts at 7:30pm.
Visitors welcome!

JANUARY MEETING

Weds, January 21st, 1981!.

3-Dimensional Graphics

Jim White and Ken Slingsby will demonstrate and comment on the 3 major graphics packages currently available:-
Sub-logic
Apple-world
Bill Budge

If you are interested in graphics, don't miss that night!

THANK YOU

KACY MORK of MECC delivered an intensely interesting presentation about MECC, who they are, what they do and what they offer in the way of Apple software and support.

Perhaps the most interesting statement made has to do with how, we Mini´app´les users can get hold of MECC software. It was suggested that members contact their local schoool district and make arrangements to copy diskettes. It was futhur stated that, MECC recognizes two copyright situations:
1. If you are a Minnesota resident, paying state taxes, the MECC software is to be considered public domain.
2. If you are not a Minnesota resident, a normal copyright situation exists- i.e the software may not be freely distributed.

We may find an alternative to distribution of MECC software to Minnesotans as Kacy suggested.
There may be a possibility that we can establish a special MECC subbank of the Mini´app´les software to be distributed to Minnesotans only.

We also wish to thank following members for bringing systems:
Rick Gates
John Hanson
Kacy Mork (who brought her own hardware)
and last but not least
Keith Madonna
who brought a Monitor and , would you believe an Apple III. Keith, respecting the request of certain Computer stores to be allowed to be first to demo the ´III´, only ran it a little bit. However, we do thank Keith for that opportunity to glimpse the long awaited----------

RUMORS

Dealers have received APPLE IIIs, but seem to be having problems. Supposedly none are being shipped to customers!

APNOTES:

We distributed the first set of subject a few months back (50 copies) and last month we distributed 10 copies of the Pascal APNOTES. Because of popular demand, all of the Apnotes have been reprinted and we will have available for sale at the next meeting.
30 copies of the 1st set of Apnotes
10 copies of the Pascal Apnotes
50 copies of a new set of Apnotes

Price is at cost (2 cents per page) rounded to nearest quarter!

FOR SALE

ZETA plotter Model 230
New price was $2400 sell for $1000.
This is a high quality X-Y PLOTTER with RS 232 interface. It does require development of software for Apple
Ken Keiser   789-2588

NEW BOARD POSITION

Hugh Kurtzman has volunteered for the job of Sales Co-ordinator which involves organizing and supporting the sale of club disks, documents, etc. As per the club Bylaws, the club president has confirmed the creation of that position and the appointment of Hugh Kurtzman.

Thank you Hugh and Good Luck.

MINI´APP´LES SURVEY by S.K.JOHNSON

The long awaited survey should be available for members to fill out at the December meeting. You may ask, WHY! A SURVEY? Well, the purpose of this survey is to find out some information about members of our club, and to create a data base of this information that can be used to better serve the needs of the members. Again you ask, WHAT! DO YOU WANT TO KNOW? We want to know your NAME, PHONE #, SYSTEM CONFIGURATION, your INTERESTS, and your PROGRAMING ABILITY. With this information in a data base we can get an idea of what equipment an average club member has, his interests, and his programing ability. We can also match up people with similar system configurations, interests, or programing skills. It is our plan to mail out this survey in a newsletter next year to those of you that can´t get to a meeting to fill it out. It is also our plan that new members would fill it out upon joining the club. Also a new copy may be filled out if you wish to update information about yourself. Then the data base will be kept up to date. PLEASE HELP TO MAKE THIS PROJECT WORTHWILE BY COMPLETEING A COPY OF THIS SURVEY!!THANK YOU VERY MUCH.

BYTE BOOKS

As most of you know BYTE magazine offers a good selection of computer books. They currently have an offer out to user groups as follows:

Purchase 1 to 5 books of a kind at 20% off
Purchase 6 or more of a kind at 40% off
We could possibly get together to buy something like one of their Pascal books. Contact a Mini´app´les officer or form your own group.

DAN ON PRINTERS

TABBING

In recent months I have been approached by a
number of members asking the same question
Why doesn't TAB work with my printer?

The problem stems from the fact that an over
zealous programmer writing the firmware for
the Apple Serial Interface card, incorporated
a non-standard feature in that software. Let
us review what BASIC does with TABs.
In APPLESOFT the statement
HTAB 10
will cause the next printed character to
start at absolute horizontal column no. 10.
If you follow the 'TAB 10' with a 'TAB 3',
for example, subsequent characters will be
printed starting at absolute column no 3.
Example:
10 HOME
20 HTAB 10: PRINT "1ST PHRASE"
30 HATB 3: PRINT "2ND PHRASE"
40 PRINT "NO TAB ON THIS LINE"
50 HTAB 10 : PRINT "ABCDEFGHIJKL";
60 HTAB 3: "4TH PHRASE"

looks like

            1st PHRASE
     2ND PHRASE
NO TAB ON THIS LINE
     4TH PHRASEDEFGHIJKL

In the case of line 60, there is a semicolon
after the "ABCDEFGHIJKL", in line 50 causing
the 2nd HTAB 3 to 'tab' on the same line as
the "ABCDEFGHIJKL"
In BASIC, a semicolon inhibits the RETURN.
OK so far?
All of the above applies to a CRT display
which is (unless you own an 80 character
board) limited to 40 characters. Now another
less known rule of BASIC is that a TAB with
an argument greater than 40 Tabs to a column
that is modulus 40 the argument. For example
a HTAB 50, will actually tab to column 40 and
VTAB down one line. Inside both APPLESOFT
and INTEGER BASIC, this is done by storing
the resultant horizontal tab in the Cursor
Horizontal address 'CH' ($24 or 36 decimal).
So far this has nothing to do with printers.
The designers of the Apple assumed that one
would always turn off (blank) the display
when hard-copy printing line lengths greater
than 40. In that way, location CH could
still be used for the current horizontal
position without the restriction of a maximum
of 40. The maximum is in fact 40 as far as
tabs are concerned with HTAB if you are
working with absolute column positions.
However you can POKE 36, n
where n is any absolute column position
provided that you have the screen turned off.
That is the standard way of programming for
line printers!

Now back to that over-zealous firmware
programmer and the Serial Interface card.
Because of this problem, that programmer
added a special feature to allow TABs to be
used beyond column 40.

The serial firmware works like this.
(1) It checks to see if CH is greater than
the currently being printed column position.
If it is, it issues spaces to the printer to
bring the currently printed position up to
and equal with the value of CH.
(2) If CH is less than current column, it
checks if CH is less than 18 (equal or less
than $11).
(3) If CH is greater than 17, (and of course
current col is more), no spaces are printed.
(4) If Ch is less than 18, it issues spaces
equal in count to the contents of CH (which
was the TAB specified).

Now this probably seems like a good idea, and
it would have been, if it were consistant
with the screen display, which it is'nt, and
if all firmware worked the sameway.
Unfortunately, only the serial card does
that, and whats worse, some BASIC and
APPLESOFT programs have been written with
that feature in mind!

So if you have a printer and an Apple Serial
card, some software will work OK, but won't
work with the parallel card or non-standard
interfaces.

If you have a gameport interface and minimum
software, the TABSETTER subroutine published
a few months back might be of interest.

DISK OF MONTH (DOM)

There will be no DOM for December. Because
of the confusion and complaints associated
with the sale of the DOM for November (30
copies were sold), we will take orders and
prepayment for future DOMs. We expect to
have another DOM either in Jan or Feb, and
anyone who thinks they might want one should
send his $3 (Yes thats the price) to our
treasurer. (WOW - is she going to be busy
this next month!). The next DOM will contain
a mix of programs from the Dallas user group
and some scientific graphic applications
developed locally.

As for the current DOM, we will bring more
copies to the meeting. In the main these are
for those of you who ordered the DOM at the
last meeting, and could not get one due to
limited supply.

Persons submitting programs, which are
accepted for the DOM, will receive a DOM free
of charge. For the Nov DOM, that list
includes:-
Steve Johnson
Dave Lau
Ken Slingsby

We also thank the IAC, NW Suburban User group
(of Chicago) and Abacus for their
contributions.

Meanwhile, if you have any software to
contribute, please give it to Ken Slingsby at
a meeting. Ken is our Program Editor. Ken's
telephone number (he lives in Red Wing area)
is now included on head of 1st page of
Newsletter.

BULLETIN BOARD SYSTEMS IN TOWN

by Dan Buchler and Jim White

There are now 2 Apple based Bulletin Board Systems (ABBS) in town and at least one S-100 system using the CBBS software (as described in Byte a couple of years ago). All are available free of charge to Mini'app'les members. The numbers are:-

929-6699   The new ABBS.
561-6311   Zim Computer's ABBS.
869-5780   New CBBS system.

The new ABBS uses a different software package than previous ABBS systems. That software incorporates some interesting features such as the ability to scan automatically for messages in your name and to ask only for messages new since the last time you signed on.

The CBBS system is of course somewhat different from the ABBS systems. It is potentially difficult for Apple owners to use if they communicate through a Hayes MICROMODEM. The difficulty comes because the system does not answer the phone immediately. If you use the Hayes MICROMODEM in Terminal Mode, your Apple may not wait long enough to detect the carrier from the CBBS. You can solve this by not hitting return immediately after the last digit of the phone number. Instead, wait until the phone rings a few times, then hit return. The Hayes MICROMODEM does not start its timeout until you hit return. If you are using an AUTO-DIAL program (as Jim White was) you cannot do this manually. You would have to change the program to print the number to the Hayes MICROMODEM using a print statement ending with a semicolon, delay a few seconds with a FOR NEXT loop, and then send the Hayes MICROMODEM the RETURN via a simple PRINT statement.

According to the CBBS Sysop, that hardware configuration precludes any reduction in the time the system takes to answer the phone. Perhaps somebody in the club would be interested in modifying AUTODIAL to include parameters for each telephone number listed. Then the pgrogram could automatically set up the Hayes MICROMODEM appropriately configured for the system being dialed. This could include parity, number of bits, baud rate, ring delay, etc. The program could inform the user of the configuration selected. Any volunteers to write it - you could easily submit such a program to Call A.P.P.L.E., the Hayes people, Nibble, Byte, Micro, etc.!

This same CBBS system may soon include a download capability for CP/M programs. This might interest those with or contemplating a purchase of the Z-80 card. The sysop is also interested in providing capability for uploading and downloading Apple programs. Anyone interested in helping in that endeavour is encouraged to communicate with the CBBS.

Perhaps one day we can have the Mini'app'les library on-line!!!!!!!!!

---->> System Commands

```
E   = Enter a message into system.
F   = Features, articles, excerpts.
G   = Goodbye. Leave system. (hangup)
H   = Help with various functions.
I   = Information about system.
K   = Kill a message from the files.
M   = Message alert. Messages for you?
N   = News -- System news.
O   = Other systems current summary.
Q   = Quickscan of message headers.
R   = Retrieve a message from the files.
S   = Scan of message headers.
SR  = Selective message retrieval.
T   = Time, date, and connect time.
U   = User modifiable system functions.
X   = eXpert user mode. (on/off toggle)
Z   = Continue message entry after abort.
?   = Prints list of commands.
*   = Flagged message memory retrieval.
ALT = Switch msg file. (toggle)
TEST = Modem continuous test loop.
USERS = File of system users/interests
NEWCALL  = Information for new callers.
AUTOLOG  = Change your autolog defaults.
GENERAL 14 = Dnload programs.
GENERAL 15 = Upload programs/files.
```

Command ?E

To ?ALL APPLE USERS
Subject ?MINI'APP'LES MEETING DEC
C/r to end.

```
1
?Next meeting is on Dec 17th
2
?at Minnesota Fed Sav & Loan in Hopkins
3
?Program includes;
4
?Winning 3M Program from competition
5
?Weingartner on Apple Stock
6
?Some new games and other Christmas things.
7
?
```

(A,C,D,E,H,I,L,S,W,?) ??

---->> Message entry commands

```
A = Abort message. Return with Z.
C = Continue entry.
D = Delete line (Dx)
E = Edit line (Ex)
H = Help with message entry functions.
I = Insert a line (Ix)
L = List lines from specified # (Lx)
S = Save completed message to disk.<<<
W = reWrite an old message.
```

effeciently, and cut down your time on for each call. This
will be especially helpful for long distance callers.

The biggest time saver is the ability to flag messages
while you are scanning with the Q or S command. Simply by
typing the letter R AFTER the header of the message you would
like to read, will flag that message (I.E. during display of
the following header). The acknowledgement of the flagging
will occur after that following header. After you've flagged
all you want to retrieve, just type * and they will be read to
you in date sequence. Type H;ctrls for details on this and
other control functions.

If you would like to search for a certain subject, name or
even date, use the SR command (Selective Retrieval). SR looks
thru the entire header of each message for whatever you type
in, and then will automatically retrieve all messages whose
headers contain a match. In either of these last two modes, if
you exit the retrieval you can pick up where you left off by
typing * again. More details by typing H;sr.

Use the ? (question mark) for a list of commands available
at whatever level of operation you are currently in.

If you need information on a particular command, use H;
followed by the command you want info on. For instance H;C
would give you info on the C command etc. To display a list of
all possible help commands, simply type H.

The way out of any command or series of commands is a
single carriage return (C/R). If you are more than one level
deep, a c/r for each level will bring you back to command
level.

INAUG

INAUG stands for InterNational Apple Users'
Group. According to their circular, INAUG is
an organization dedicated to increasing
information flow between Apple computer
users' throughout the world. They say, "We
acknowledge the fact that the local users'
groups are essential, but at the same time, a
united group is a must to insure that all
users are kept up to date on Apple
Information."

They plan 3 publications:
A Newsletter
A bimonthly magazine (MALUS) Latin for Apple
A tri-quarterly digest - Apple C.I.D.E.R.

In as much that IAC claims similar goals to
that of INAUG, we must wait and see what they
have to offer.

Command ?N

----->> System news >last update 8 Dec 80

>>--Access the alternate message file with the ALT command.
    Use the ALT message file just like the regular message
    file.

>>--Want to freeze the screen output? -- Type 's' to freeze.

>>--USERID callers can scan or retrieve starting at the highest
    numbered messasge present in the system during their LAST
    call, with the s;! and r;! commands. This marker will be
    updated for the next call whenever these commands are
    accessed. Also the AUTOLOG command has been dropped since
    this automatic update has been added.

>>--Search "o" command by system name or area code.
    Type "o;search" where search is what you are looking for.

>>--Nulls? 2 nulls for each 'N' typed.

>>--Use 'X' as unconditional abort and return to COMMAND level.
>>--Use 'K' to jump to next logical operation.

>>--Use the 'F' command to list special features and articles.

>>--First time users, type NEWCALL for information to help you
    operate the system more effeciently.

>>--Type '?' wherever you are, for info on all commands that
    are available at that level.

>>--All control functions are supported by UPPER or lower case
    case equivalents. See H;ctrls for details.

>>--Type H;SR for information on selective message retrieval.

>>--Use 'R' to flag messages during a scan or quickscan,
    for retrieval later with the * command.

>>--Specify number => highest message number in system for
    reverse scan, or add a "-" to the message number to scan.

>>--Type H;E for information on entering security or private
    access messages into system.

>>--Help keep our system clean. Kill messages when you are
    through with them unless the information would be helpful
    to other users.

Command ?NEWCALL

    Welcome to PMS! There are several commands that you may
not be familiar with, but will help you use the system more

Tricks of the Trade
by John Risken
Personal Business Systems, Inc.

Sorry about last month. We were so busy planning our second store (which opened December 8th at 2225 White Bear Avenue) that I didn't get a chance to write.

This month I'll talk about the EXEC command, one of the most powerful and least understood features of Apple's Disk Operating System. Once you fully understand this command, you can automate many things that you now do by hand, including writing programs.

What the EXEC command does is simple: it lets you pretend that your disk drive is pounding away at your keyboard.

Let me say that again. What the EXEC command does is downright confusing: it lets you pretend that your disk drive is pounding away at your keyboard.

Getting Started

The EXEC command always works with a TEXT file, sucking one line after another out of that file. So to do anything with the command, you need to have put something _into_ a text file first. Here's how:

```
10 D$ = CHR$(4)
20 PRINT D$ "OPEN MYNE"
30 PRINT D$ "WRITE MYNE"
   .
50 PRINT "CATALOG"
   .
100 PRINT D$ "CLOSE MYNE"
```

After you have written and RUN the above program, you will have a TEXT file on your disk with one line in it - the word CATALOG. You can use the same little program to create and fill other text files. Between lines 30 and 100, each PRINT statement will send out to the text file another line.

The Simplest Case

For the moment, though, let's stick with MYNE, the one line text file you just created. After you have run the little program above, save it under some name, then type NEW to clear out your current program.

Now type

```
EXEC MYNE
```

The disk will whir briefly, and then a catalog of your current disk will appear on the screen. Why?

When you told your Apple to EXEC MYNE, you were telling it to: (a) find a TEXT file called MYNE, (b) see if there were any lines in it, and (c) treat each of those lines as though you had been typing them on the keyboard. Of course in this case, MYNE had only one line, the word CATALOG, and the Apple behaved as though you had typed CATALOG on the keyboard.

A Tougher Case

Now, delete MYNE, reload your little text-making program, and modify it to include these lines:

```
40 PRINT "RUN"
50 PRINT "CATALOG"
```

RUN the program, which will create a new MYNE with two lines in it. Then type NEW and enter the following one-line program

```
10 PRINT "TYPE IN A WORD"
20 INPUT A$
30 PRINT "YOU TYPED " A$
```

Now, the next time you type EXEC MYNE what will happen? Will you see a catalog of the disk on your screen? Try it.

What should have happened is that the disk will have whirred and your Apple will have said "YOU TYPED CATALOG". Why?

Remember that the EXEC command tells the Apple to treat the lines in MYNE as though you were typing them in from the keyboard. The first line that the Apple found was RUN so it began to run your three line program. But then it got to an INPUT statement. Here it expected some more keyboard input, so it looked to see if there were any more lines in MYNE. Sure enough, there was CATALOG, so it acted as though you had typed in CATALOG in response to the INPUT command.

The previous paragraph is important: many people have the impression that EXEC always acts as though you were typing things in at one of the BASIC programming cursors -] or

>. An EXEC can be used there, but it also works wherever the Apple is expecting input from the keyboard.

Self-writing Programs, simple case

Delete MYNE again, load your file-making program again, and change it to include these lines.

```
40 X = 5
50 PRINT X;"TEXT:HOME"
60 PRINT X+5;"PRINT 12345678"
70 PRINT "RUN"
```

Now, RUN this program, type NEW. Type LIST to assure yourself that the program is gone, then type EXEC MYNE again.

After the disk is done, your screen should have blanked out, and the number 12345678 should appear in the upper left hand corner. Type LIST, and the following program should appear:

```
5 TEXT:HOME
10 PRINT 12345678
```

Where did the program come from? In this case, most of the 'magic' occurred when you created MYNE. Line 50 actually sent a line that looked like "5 TEXT:HOME" out to MYNE. And line 60 sent out a line that looked like "10 PRINT 12345". Later, when you typed EXEC MYNE, the Apple read those lines out of MYNE, just as though you had typed them in at the keyboard. The last line of MYNE is treated, of course, as a RUN command, and it RUNS the two lines of code that "you" have just typed "in" at the keyboard.

So the basic rules for making self-writing programs are:

1. Write a BASIC program that will create a TEXT file, and have this program PRINT numbered lines of BASIC code out to that file.

2. Clear out this first BASIC program, and EXEC the TEXT file. This will create a new program as though you had typed it in at the keyboard.

Self-writing Programs, tougher case

The following short program will let you design screen displays for the text page, and will locate them anywhere in your program that you want them located. Explanatory comments follow the program.

```
10 TEXT : HOME :D$ = CHR$ (4)
15 INPUT "WHAT PROGRAM LINE TO START NUMBERING AT";N
20 PRINT D$"OPEN TEMP"
30 INPUT "WHAT SCREEN LINE TO WRITE ON ";L$
40 INPUT "WHAT POSITION ON THAT LINE";P$
50 PRINT "WHAT TO WRITE THERE?"
60 INPUT S$
70 PRINT D$"WRITE TEMP"
80 PRINT N"VTAB "L$;" HTAB "P$;
90 PRINT " CHR$ (34)S$ CHR$ (34)
90 N = N + 10
100 PRINT D$:
105 PRINT "MORE LINES?": GET A$
110 PRINT : IF A$ = "y" THEN 30
120 PRINT D$"CLOSE"
```

Lines 70 and 100 are very important: even though line 20 OPENed the text file, PRINT statements aren't automatically sent to it. Thus lines 30 and 40 are PRINTed to the screen. Line 70 redirects PRINT statements to the text file, and line 100 reverses the effects of line 70. This is how questions can be PRINTed on the screen for the user and the results of those questions can be PRINTed to the text file.

Line 80 is the heart of this program since it takes the user's input and creates a BASIC line to send to the text file (for later retrieval with the EXEC command). Let's look at it in detail.

```
80 PRINT N"VTAB "L$;" HTAB "P$;
   PRINT " CHR$ (34)S$ CHR$ (34)
```

The N is the line number, which we increment in line 90. VTAB will be a command it will be followed by the vertical position stored in L$. Then we send a colon to end the VTAB command, and follow it with HTAB and follow that with the horizontal position we stored in P$.

Now the tricky part! We send the following characters as a part of that line:

```
: PRINT
```

This gives a colon to end the HTAB command and starts a PRINT command. Then we send a CHR$(34) which is the code for a quotation mark. We couldn't include the quote mark directly because BASIC thinks that quote marks are a part of its own punctuation.

Then we send the string that we want enclosed between the quotation marks, and another CHR$(34) which is a closing quotation mark.

TURNING THE PAGES WITH DAVE LADEN

BYTE -- DECEMBER 1980

Editorial: What's Wrong with Technical Writing Today? by Chris Morgan. Pages 6-12 and 294.

Product Review: A Stellar Trek by Harold Nelson. Pages 78-82.

Product Review: Odyssey: The Compleat Apventure by Harold Nelson. Pages 90-92.

The Twelve Computerized Days of Christmas by Teri Li and Elizabeth Cooper. Page 94.

Product Review: Sargon II An Improved Chess-Playing Program for the Apple II by John Martellaro. Pages 114-118.

A Simplified Theory of Video Graphics Part 2 by Allen Watson III. Pages 142-156.

On the Road to Adventure by Bob Liddil. Pages 158-170.

Zork and the Future of Computerized Fantasy Simulations by P. David Lebling. Pages 172-182.

BASIC, Computer Languages, and Computer Adventures by Jerry Pournelle. Pages 222-238.

Product Review: Microsoft Adventure by Bob Liddil. Pages 264-266.

Lost Dutchman's Gold by Bob Liddil and Teri Li. Pages 268-280. This is an adventure game written in Applesoft BASIC.

Product Review: Computer Bismarck by Peter A. Ansoff. Pages 282-286.

COMPUTE -- NOVEMBER/DECEMBER 1980

Computers and Society by David D. Thornburg and Betty J. Burr. Pages 10-15.

Music and The Personal Computer by Frank Winter. Pages 18-21.

Al Baker's Programming Hints: Apple. Pages 42-43.

The Anatomy Of A Word-Research Processing Program for the Apple (A Model for Structured Programming) by Derek A. Kelly. Pages 44-49.

Hard Disks For The Apple by Phillip Castevens. Pages 50-52.

Machine Language Addressing Modes by Jim Butterfield. Pages 98-100.

Nuts and Volts by Gene Zumchak. Pages 116-121. This months discussion centers on parallel interfacing and handshaking techniques.

CREATIVE COMPUTING -- NOVEMBER 1980

Man-to-Man Combat for the Apple by Randy Heuer. Page 28. This is a review of "Computer Ambush."

On Effective Documentation by Michael Robinson. Pages 30-32.

Systems Analysis and Small Computers by William R. Feeney. Pages 43-51.

The Bleak Future of Small Business Computing by Paul F. Doering. Pages 52-53.

Interactive Systems And The Design Of Virtuality by Ted Nelson. Pages 56-62.

How to Solve It - With the Computer Part Three by Donald T. Piele. Pages 66-71.

Bombproof Data Entry by Greg Kielian. Pages 102-104. Two Applesoft routines are included.

Apple-Cart by Chuck Carpenter. Pages 172-180. This months topics include 6502 "Indexing Principals," and 6502 interrupts.

KILOBAUD MICROCOMPUTING -- DECEMBER 1980

A Short History of Computer Music by Dennis Bathory Kitsz. Pages 27-28 and 30.

Music Glossary. Page 30.

The GI Programmable Sound Generator by Robert Urschel. Pages 134-140. This is a build it yourself project for the Apple. Hardware diagrams and source listings are included.

Computerized Project Management by Derek A. Kelly. Pages 142-148. This program is written in Applesoft BASIC.

Apple II Plus Plus by John W. Davison. Page 214. The author talks about the Auto-Start ROM Package for the Apple.

MICRO -- NOVEMBER 1980

How to Use the Hooks by Richard Williams. Pages 7-9. This article discusses Apple's hooks.

Step and Trace for the Apple II Plus by Craig Peterson. Pages 61-63.

ON COMPUTING -- WINTER 1980

Product Review: Apple and Dow Jones: Cornering the Market by Pamela E. Valentine. Pages 28-34.

The 7 Basic Features of Structured Programming by Derek A. Kelly. Pages 72-75.

PERSONAL COMPUTING -- DECEMBER 1980

Required Reading: Storing Information in the Classroom by Keith N. Schlarb. Pages 68-71. Includes a program written in Applesoft.

RECREATIONAL COMPUTING -- NOVEMBER/DECEMBER 1980

Dozo in Pascal by Stephen R. Berggren. Pages 32-36. An Apple Pascal program listing is included.

Remember, magazine subscriptions make nice Christmas gifts. Have a very MERRY CHRISTMAS and a HAPPY NEW YEAR. Look forward to turning more pages next year!

SARDINE CAN by your President.

Those of you who attended the November meeting will understand the analogy in the above caption. We were overfull that night.

First of all, I hope that those of you who attended for the first time will not be discouraged. We have recognized this problem for some time. Up 'til now it has often been crowded but never quite like on Nov 19th. The club is growing. That, plus the attraction of MECC, was the straw that broke the camel's back.

We have no immediate solution. Volunteers are looking into-
(a) Meeting at the Univ of Minn
(b) Using public facilities such as Libraries
(c) Other possibilities such as Church Halls.
We have asked the membership on several occassions if they would be interested in having two meetings per month.
For example, we could have a Northside meeting on the 1st Weds, and a Southside on the 3rd Weds? To do such a thing requires volunteers to organize.
I detect a feeling that people are afraid that they might miss something if we had two meetings per month. There seems to be a leaning towards a better meeting place with perhaps seperate rooms for club business such as disk purchases! However, some people feel that the large size meetings are a disadvantage because of the lesser opportunity to communicate with fellow users, as they perceive it.

Another faction favors Special Interest group meetings. Again, we need organizers and, again some feel they might miss something.

Please let us know your feelings. Call me and discuss the subject. Something has to be done. Its your club!

SPEEDING UP THE 'REPT'

By Charlie Brown, Rochester, Mn

On page 102 of the current Apple II reference is a description of a small hardware change which causes the REPT key to repeat characters at a faster rate. This mod will not work on older Apples.

To bring the cursor speed on REPT on old Apples up to the Apple II+ speed, I recommend you parallel a 1 Megohm resistor across R4 and a 220 Kilohm resistor across R3. Refer to the Apple Keyborad schematic on page 101. I did the above, and it works great. Doing it as they said produces no apparent side effects.
WARNING--
When you disconnect the keyboard to mother board cable, take care. If you break a pin, it costs $10.40 to replace! (Experience talking)

NIBBLE SPECIAL INTEREST GROUP

Updated list:

Peg Bohannon	922-7063
Chuck Boody	933-5290
Charlie Brown	507-533-6510
Dan Buchler	890-5051
Max Coe	631-6667
	& 340-9237
Bill Decoursey	574-9062
Tom Edwards	927-6790
Judson Ellmers	N.J.
Peter Gilles	
Paul Jackson	
Mike Murrell	929-8861
Janelle Norris	920-1430
John Schoeppner	455-8613
Ken Slingsby	507-263-3715
Marilyn Thomas	872-7669

As stated previously, and reported to Nibble, we feel that subscribers to Nibble, who are also club members, may benefit from that mutual association, in that we will freely exchange disks so that only one person within the group need type in the program. Chuck Boody is currently acting as distribution chairman.

We already have persons typing in Concordance, AIM and changes to T.O.U.G.H.
We would like to take this opportunity to encourage Nibble to continue doing the good job that they have done to date.

Incidentily, for those of you unfamiliar with Nibble, I recommend it for beginners and advanced Apple users. Magazines like Call APPLE cater more to the advanced user. Apple Orchard also caters to the beginner and middle experienced user.

```
DUES
     DUES
          DUES
               DUES
                    are
                         are
                              are
                                   are
                                        DUE
                                             DUE


N   N  OOO   W     W
NN  N O   O  W     W
N N N O   O  W  W  W
N  NN O   O   W W W W
N   N  OOO     W   W
```

No matter how you look at it, we need your money to operate. 1981 is a new year. $10 will buy you membership through Dec 1981 and most members have received financial benefits many times their $10 dues. In these days of inflation, $10 is not too much to ask!

Please pay your membership by next meeting (Dec meeting) if possible and no later than end of month.

SPEECH INPUT by Jim White

Scott Instruments of Denton Texas have adapted their popular voice-entry terminal the VET-2 to the Apple. The firm's speaker

We plan to go presorted bulk mail for first edition of the Newsletter in 1981. This requires
1. That we get newsletter into mail at least 10 days before meeting instead of about 3 or 4
2. That the mail list be in perfect zip code order. We run the club with volunteers and we cannot update a 300 person+ maillist at the last minute!

S O S E N D $ 1 0 T O O U R

T R E A S U R E R B Y D E C 1 7 t h

NOTICE

MEMBERSHIPS, DISK PURCHASES OR FINANCIAL TRANSACTIONS will NOT BE UNDERTAKEN DURING THE FORMAL PART OF THE MEETINGS. This includes Business meeting and organized pogram. We open at 7pm, and such transactions may be made either before or after the meeting which starts at 7:30!

dependent Applevet recognizes as many as 680 words or utterances. It costs $895 and comes with a demo diskette, operator's manual and a noise-canceling microphone.