



# mini'app'les

apple computer user group newsletter

APRIL 1979 ISSUE

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PAGE

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6	*	*
6,7	* NEW MEETING NIGHT	*
7	*	*
7	* NEW LOCATION	*
8	*	*



\*\*\*\*\* ANNOUNCEMENT - NEXT MEETING \*\*\*\*\*

WEDNESDAY APRIL 18 (NOT APRIL 11) AT 7:30 pm

MINNESOTA FEDERAL SAVINGS AND LOAN - 31 9TH AVENUE SOUTH, HOPKINS, MN

ELECTION OF OFFICERS & PROGRAM EXCHANGE NIGHT (see below for details)

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SEE BACK PAGE OF NEWSLETTER FOR MAP ON HOW TO GET TO THE MEETING PLACE

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MINI'APP'LES MEETING PLACE From now on, starting with this month's meeting, our meeting place will be the Minnesota Federal Building in Hopkins (see above and back page for map on how to get there). Computerland have kindly accomodated us til now, but their store is a little crowded for holding meetings. MinnesotaFed are providing their community room at no charge - there is room for about 50 sitting and another 50 at a squeeze. Because the room was not available on the 2nd Weds of the month, we have moved the meeting to the 3rd Weds of the month. It is hoped that this will not inconvenience to many people ? Subsequent meetings will also be held on 3rd Weds.

PROGRAM FOR NEXT MEETING As scheduled the election of officers will be held at this coming meeting. See inside this newsletter for details. Following the business portion of the meeting we plan to conduct a program exchange evening ! We plan to have 6 to 8 Apples there. (anyone who can conveniently transport their computer, please call D. Buchler at 890-5051). ALSO EVERYONE BRING YOUR PROGRAMS - DISK OR TAPE. The purpose of the evening is to have a free exchange of programs among the MINI'APP'LES members (see below) and to see what the other users are doing. It will also allow us to build up the user bank.

MINI'APP'LES MEMBERSHIP. To participate in the program exchange either now or in the future you must become a member . To become a member you must fill in the form on the 2nd last page of this newsletter and pay your dues of \$10. Forms may be brought to the meeting or mailed to the president (nominee or elected) or treasurer (nominee or elected). Name and adresses of nomininated president and treasurer are same as editors shown above. Payment of dues will also provide assurance that you will receive your newsletter up to and including the Dec 1979 issue. If you don't join MINI'APP'LES you wont know about our meetings, our program bank which will grow real fast in the next few months, or be able to read about all the fantastic ideas which will appear in subsequent editions of the newsletter.

TENTATIVE BYLAWS (to be approved and expanded as required at a subsequent board meeting )

1. The elected officers of the MINI'APP'LES users' group are:
  - President
  - Secretary
  - Treasurer
2. Board members will be nominated by the President and approved by the officers and other previously nominated and approved board members. Duties of new board members will be debated by the officers and the board, and approved or amended. New duties may be assigned to officers instead of nominating a new board member. Details of nominees and their duties will be presented to the membership at large during a regular club meeting. Membership may register objections at such time, those objections being considered prior to any formal approval by the board.
3. The duties of the officers are in general:
  - To administer the bylaws of the club
  - Perform the prescribed duties of the office as follows:
    - President
      - Presides over officers and the board members.
      - Nominate board members
      - Chairs MINI'APP'LES meetings
      - Resolves political and other club problems
    - Secretary
      - Writes the minutes of meetings for publication in newsletter.
      - Corresponds with other user groups and interested persons.
      - Stands in for president in that persons absence
    - Treasurer
      - Keeps the clubs financial records
      - Maintains a membership roster
      - Produces an annual budget forecast.
  - All officers are signatories of the clubs bank account.
4. The club will maintain a savings account at a local bank. Two signatures of officers are required to disburse funds from that account. The treasurer may settle from petty cash, individual items. Payments for items in excess of \$99.99 require the approval of the club membership by a simple majority at a club meeting.
5. All officers are elected for a term of one year. The term runs from May 1st to April 30th . Board members are appointed for a term of one year. All such appointments automatically expire on April 30th., unless renewed by the new officers during the period Jan 1st to April 30th.
6. The club will charge dues for membership in MINI'APP'LES. The dues structure will be reviewed annually by the officers and the board. Membership is for the period Jan 1st to Dec 31st.
7. Members joining on or after July 1st will pay 50% of the current dues. Members joining on or after Oct 1st may pay full dues and thus be entitled to membership through Dec 31st of the following year.
8. Membership includes a subscription in the newsletter. All subscriptions expire on Dec 31st.
9. Membership in MINI'APP'LES entitles the member and his immediate family to access to the user software bank. Exchange of programs is controlled by an appointed board member. Members must pay any direct costs associated with the distribution of programs. The software bank will be maintained by an appointed board member.
  - Every attempt will be made to exclude copyright programs from the bank. If copyright programs are inadvertently included and are subsequently identified as being copyrighted, then they will be immediately delted from the bank.
10. Monthly meetings will be held.

FUNCTIONS OR DUTIES OF APPOINTED BOARD MEMBERS:

The nominated president has tentatively identified 6 board positions. These positions have been discussed with candidates for those positions. The following summarizes the duties or functions identified for those proposed board positions.

Librarian: -Maintains the master users' group program bank (floppy disk)  
 -Maintains an archival users' group program bank; disk or tape. Only the Librarian has access to the Archival bank  
 -Provides copies of the Master disk and/or controls the copying of that disk.  
 -Sets software and documentation standards for submission of programs to the users' bank.  
 -Provides catalogs and abstracts of programs on the bank. Maintains related documentation as required.  
 -Defines techniques for submission to and distribution from the bank.

Program Editor: -Recipient of submittals to the users' bank.  
 -Examines submitted programs and reports on quality of programs & doc.  
 -Provides advice to Librarian for acceptance or rejection of submittals.  
 -Deals with technical problems, if any, raised by examination of submittals.  
 -Supports Librarian as needed.

Technical Adviser: - Acts as a resource person for Program Editor & Librarian  
 -Acts as a source of expertise for those in the club who wish to submit programs  
 -Acts as a source of technical expertise for those in the club who have technical problems.  
 -Reports on technical matters to the Newsletter Editor so that all may benefit from his experience.

Newsletter Editor: - Edits Newsletter of MINI'APP'LES  
 -Co-ordinates production, distribution and mailing of newsletter.  
 -Co-ordinates printing and distribution of documents of general interest to club members (e.g. WOZPAK)

Activity Co-ordinator: -Arranges programs for monthly meeting  
 -Advises on extraordinary events such as public displays, conventions, etc.

Bibliographer: - Identifies sources of information on Apple Computer software and hardware. Catalogs that information. (Said information may be ultimately published in full or abstract form).  
 -Compiles lists of software or hardware detail. Example PEEKS and POKES addresses in a particular ROM.  
 -Assists Program Editor and Technical Adviser as appropriate.  
 -Provides Newsletter editor with master copies of documents of general interest which are candidates for reproduction.

All Board members and elected officers:

- Participate in board meetings
- Document items of interest to members so that they may be published and distributed.
- Vote on appointment and duties of newly nominated board positions and persons

CANDIDATES for OFFICE IN MINI'APP'LES

President: D.Buchler

Secretary: C.Boody

Treasurer: C.Thiesfeld

BOARD MEMBERS NOMINATED BY OFFICER NOMINEES

Librarian: K.Madonna

Program Editor: R.Wentworth

Technical Adviser: J.Henke

Newsletter Editor: C.Thiesfeld

Bibliographer: D.Anderson

Activity Coordinator: D.Buchler

MINUTES OF MARCH 14th MEETING

1. Discussion on copyrights. It was agreed that users' bank should not contain copyrighted material.
2. Discussion on whether a nominal charge should be made for programs on bank. Suggestion that contributors of programs should benefit by receiving programs at lower charge, Counter-suggestion that new users have not experience to contribute. Issue left unresolved.
3. Discussion on officers for club as published in March Newsletter. No new suggestions.
4. It was agreed that a new membership list be established as the new organization takes effect.. That is , payment of dues would be the criteria for membership.
5. Volunteers for a candidate nominating committee were requested. Tim Weldon volunteered..(Note subsequent to meeting nominations for officers were received - see elsewhere in this newsletter)
6. It was suggested that there be a way for persons to obtain copies of user bank software without necessity of that person becoming a member..It was tentatively agreed that stores in the area be permitted to sell copies of the user bank, from which the MINI'APP'LES would receive a royalty.

MARCH 14th PROGRAM NOTES:

C.Boody gave a presentation on a Music Synthesizer board for the Apple. Chuck had seen a version of a Music Synthesizer board made by ALF of Colorado. This board was for S100 8080 type systems. In ensuing months, he played a major role in persuading ALF to make an Apple version of their music synthesizer board. Chuck's interest in this has always been only academic and since he was an Apple owner he wanted such a board for himself. Chuck has a Ph.D. in Musicology and teaches music; so he saw the synthesizer has a great teaching aid.

Apple has approved the board. It is currently available from ALF for \$265 including the supporting software. Apple may eventually sell the board in the same way that they sell Mountain Hardware products.

Chuck has one of these boards now and gave us a delightful demonstration.. The board provides

- (1) 3 voices i.e. 3 notes can be created simultaneously
- (2) The user has some control of the waveform. ie. the attack and release envelopes(The purist must be tolerant of this writer's ability to write accurately about this subject)
- (3) Volume
- (4) Speed - the user can change the rate at which the music is played without changing the frequency of the notes - you can't do that with a tape recorder since if you speed up the recorder by a factor of 2, the music does go twice as fast- but the notes all go up one octave !
- (5) Frequency - one can adjust the pitch without changing the speed..
- (6) Stereo- provision is made to allow up to 3 boards in the Apple at a time providing 9 voices and also the ability to feed the music to separate speakers.. Chuck described some interesting experiences in which such arrangements can be almost hypnotic. when the power of a computer allows control of the music.

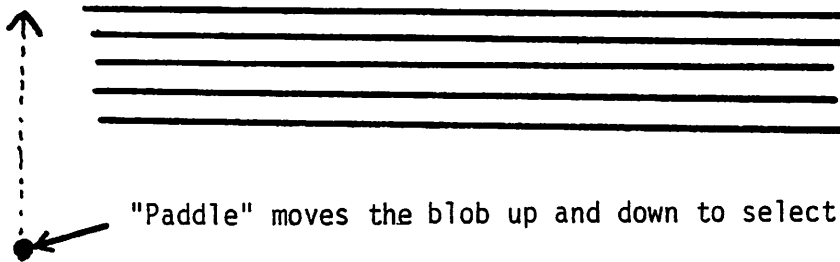
- (7) Accuracy- 1.5 cents in 8.5 octaves (A cents is 1/100 of a semitone)

The above specs tell you little really. The quality is magnificent. This is a true synthesizer- it uses tones constructed from square waves . It is not a D-to-A converter so, it does'nt tie up the computer to keep the music going. . . You can do other things at the same time the music is being generated. The quality does depend on your playback system. The output of the board is through a user provided amplifier and speaker system i.e. you use your own HI-FI system.

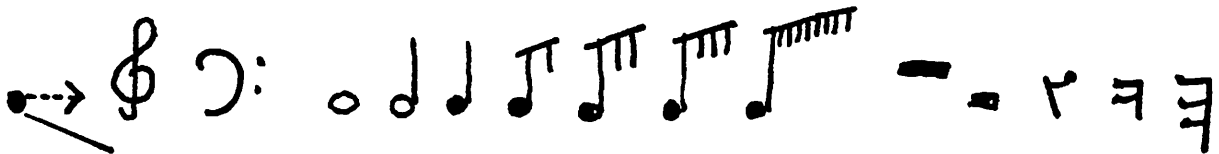
The software that comes with the boards has to be seen to be appreciated. One version of music creation software provides a screen (see sketch overleaf).Using the paddles, a pointer is moved to the note or notation required and to the type of note wanted (eg quarter note). On pressing the button, the note is placed on the stave and it is also played back via board. Bars are created automatically.

MARCH 14TH PROGRAM NOTES (Continued)

HIRES DISPLAY FOR ONE OF ALF'S MUSIC PACKAGES (Done from Author's memory so isn't too accurate)



"Paddle" moves the blob up and down to select pitch of note



"Paddle" moves this blob left and right to select note or rest and its length

BLACKBOX by DICK MEYER, OWATONNA, MN.

The black box is an 8-by-8 square in which several atoms are hidden. The object of the game is to determine their locations by projecting rays at them from the sides of the box, in as few tries as possible. A ray may stay inside the box (it is "absorbed"); it may come out where it enters ("reflected"); or it may come out somewhere else. There are simple rules for the atom/ray interaction, so the results of a number of trials can be used to predict atom locations.

The black-box is available as a board game by Parker Brothers and under the label Camera Obscura by McNally.

Implementation is loosely based upon an article in the May-June 1978 "Creative Computing" by Jeff Kenton, who credits the August, 1977 issue of "Games and Puzzles" for the game.

The game operates in low-resolution graphics from a "hot" key-board (the return key is not needed). At the start the player can select the number of atoms to be used in the range, 2 to 6. Four or five make the most challenging game.

A blinking cursor indicates the position inside or outside the black box array. Its movement is controlled by keying either arrow key or "U", "D", "L", "R" to move one square in appropriate directions. If the cursor position is outside the box, key "S" selects a ray to enter at that position; the results are indicated by color marks adjacent to the box.

If the cursor is moved outside the box the "E" and "P" keys can be used to eliminate or plot atom positions; color marks appear when this is done. A marked position can be erased by moving the cursor there and keying either the "E" or "P" again. When all atoms are thought to be plotted, type "G" to guess their locations and end the game. The actual locations will be displayed on the screen along with the final score. Each wrong location adds five to the score.

The game includes a training mode which is turned on or off by the "T" key. When on, the atom locations and ray paths are shown. Key "X" returns to integer BASIC.

BLACKBOX IS NOW ON THE USER BANK. GET YOUR COPY DURING OUR PROGRAM EXCHANGE NIGHT - APRIL 18TH.

LIST OF PEEKS AND POKES Our Bibliographer nominee is compiling a list of Peeks and Pokes which we will publish shortly. If any of you know of any that are not listed in the manual, please let one of the Board members know about it. This includes the MONITOR, INTEGER BASIC, APPLESOFT IN DOS, APPLESOFT II, APPLESOFT IN ROM, PROGRAMMER'S AID BOARD, ETC.

Example: POKE -16352,0 Will toggle the Cassette output in the same way as  
 POKE -16336,0 Will toggle the speaker. In that way you can feed your audio to the cassette or an external speaker/amplifier system  
 Note the above addresses are equivalent to C020<sub>16</sub> & C030<sub>16</sub>

APPLESOFT AUTO RUN FEATURE (Courtesy Call APPLE & POKE-APPLE )  
 If you have Applesoft in ROM, the program can be made to automatically run on loading. Load the program (disk or tape)

POKE 82,213

Save the program to tape. On reloading it will auto-run . Note the Tape Read/Write entry points in Applesoft ROM are Save: \$D8B0 Load: \$D8C9

LOWER CASE LETTERS AND OTHER ALPHABETS ON AN APPLE.  
 There are 3 ways (known to the editor) for doing this on the Apple short of writing your own software. These are:

- 1.SUPERCHIP - By ECLECTIC CORP of Dallas Texas( Computerland has one on its demo Apple)
- 2.UPPER /LOWER CASE BOARD.- By computer Components of Orange County and others.
- 3.A package of subroutines written by R.Wentworth available on the MINI'APP'LES bank.

The costs are: SUPERCHIP \$100 ;  
 UPPER LOWER CASE BOARD \$50;  
 SUBROUTINE PACKAGE ; FREE with membership in MINI'APP'LES

The SUPERCHIP is the most sophisticated and it costs the most. The ROM starts at location D400 and is 2000 bytes in size (type 2316 ROM). It in common with items 2 & 3 uses HIRES graphics to display the letters. Therefore, regardless of what is your application, the 1st 8k of memory is dedicated to the display. SUPERCHIP provides the following commands:

CNTL H	CURSOR LEFT	)	All of these commands are available under program control by issuing the appropriate control character in a PRINT statement.
CNTL U	CURSOR RIGHT	)	
CNTL F	CURSOR UP	)	
CNTL J	CURSOR DOWN	)	
CNTL G	BELL	)	
CNTL I	TAB (8 user settable positions)	)	

In addition keyboard characters provide the following features:

MOVE CURSOR TO START of edit record	REVERSE VIDEO
MOVE CURSOR TO END of edit record	ROTATE character -90 degrees
DELETE Character	SUPER RESET
INSERT Blank over which another character may be typed.	ALTERNATE MODE (escape). For alpha characters this is the lower case character. Other keys also have alternate characters.
CLEAR and HOME	
LOWER CASE SET	
UPPER CASE SET	
SPECIAL CHARACTER(Outputs a char stored in position 0-7)	

A special EDIT routine allows a user to define his own character set at location 1000<sub>16</sub> instead of using the chip defined characters in the ROM. Each character is defined in an 8 x 7 matrix which includes the space between characters- so its equivalent to the 5 x 7 matrix used by the Apple character sets. Each character requires 8 bytes of memory. (RAM or ROM). The SUPER CHIP does support APPLESOFT and INTEGER BASICS. i.e. You can PRINT lower case letters etc.

Lower Case Letters and Other Alphabets on an Apple (cont)

THE UPPER/LOWER CASE BOARD is advertised as an assembled circuit board with sample software. We don't know anyone who has one - do you ?

Wentworth's package will provide many of the capabilities included in SUPERCHIP, but of course without the convenience of the ROM. His routine makes use of the fact that all character output funnels through the MONITOR subroutine 'COUT' which does a JMP (\$36). By changing what is at \$36 and \$37 the output is intercepted. Wentworth's routine picks up the character being output. Using a table in memory which defines the shape of the character to be displayed in an 8 x 7 matrix (just like SUPERCHIP), it selects the character to be displayed from that table according to it's ASCII code and displays it in the HIRES area. For each character being output, the position in the HIRES area is determined from the cursor information in loactions \$24 and \$25.

From the foregoing it is evident that the character which will be displayed depends on the character being output and the conversion table used. The user can select the appropriate conversion table by POKEing the base address of that conversion table into a specific location in the subroutine. This allows selection of lower case, italic, upper case or a user defined set ( The first three are supplied with the package ). For example, the user's program can test for a CTL I, and if detected, POKE into the subroutine the base address of the italic conversion table. The package does not provide scrolling capability. There is also a simple EDIT program which will build a user's own conversion table. In it , characters are displayed in large letters in which each dot is represented by an \* (asterisk).

DEGUGGING AID

The following idea was derived from Mike Palmore of the APPLE CORPS,Austin, Texas. I made a small modification. It is very simple and might be very useful to those of you who plan a large session at modifying a big program in APPLESOFT (Not Integer)

```
30000 HOME: PRINT
30010 REM THIS STATEMENT WILL BE REPLACED ON EXECUTION
30020 POKE 36,0 : POKE 37,0 : END
30030 HOME : PRINT
30040 PRINT " 30010 LIST      -":PRINT
30050 PRINT " RUN 30000"
30060 POKE 36,0:POKE 37,0 :END
```

Type in the above at the end of the program you are going to edit and debug . If 30000 is in use use a higher statement number.RUN 30030. Enter after the LIST : the starting and ending statement numbers that would roughly fill one screen of the section on which you are working. When you want to edit , type RUN 30000. The selected statements will appear with other garbage removed and the cursor in top left corner, convenient for modifying the ensuing lines of code.

## APPLICATION FOR MEMBERSHIP IN MINI'APP'LES

1. Name (if different from label on reverse) \_\_\_\_\_
2. Address (if different from label on reverse) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_ ZIP CODE \_\_\_\_\_
3. Telephone number \_\_\_\_\_
4. Signature \_\_\_\_\_

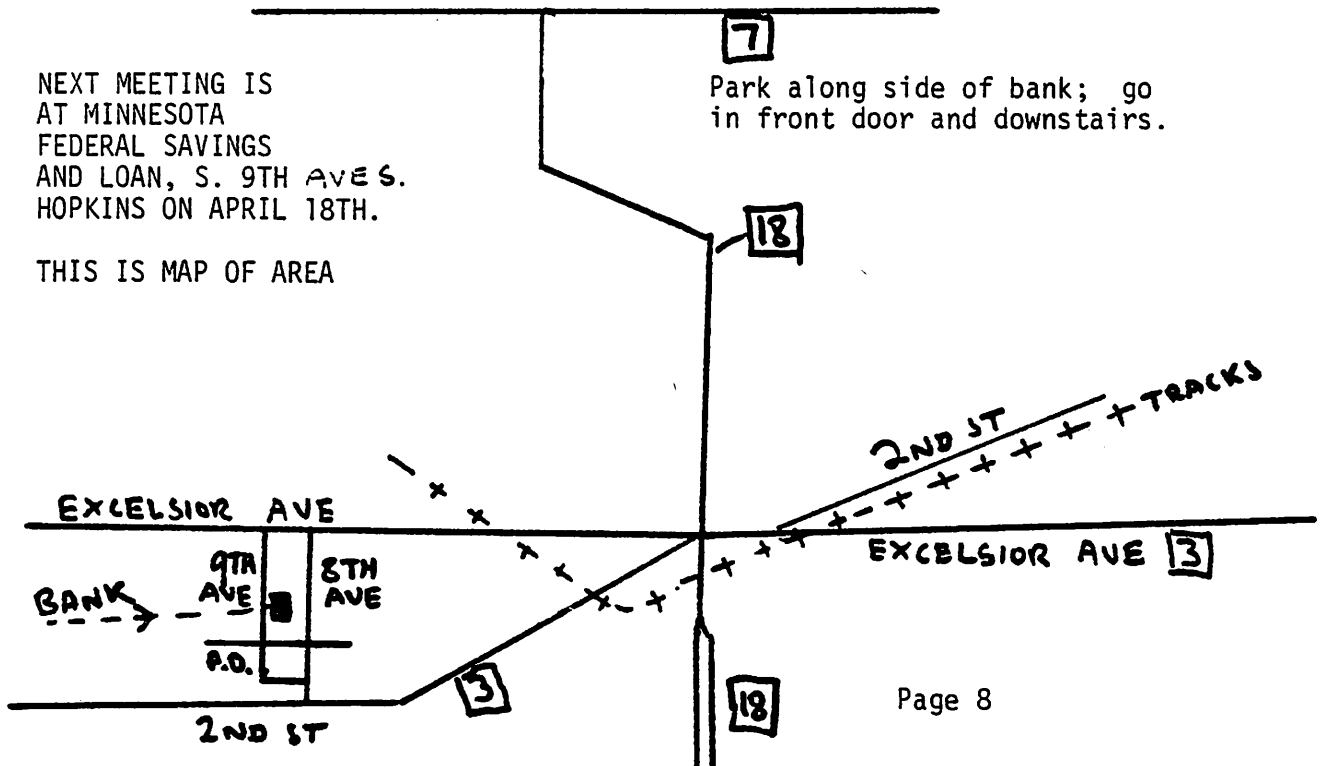
Please make checks payable to MINI'APP'LES. Your payment of \$10.00 entitles you to membership in MINI'APP'LES (Minneapolis and St. Paul Apple II Computer Users Group) through Dec, 1979. You will receive a subscription to the MINI'APP'LES newsletter for the same period.

WOZPAK

A copy to be used as the printing master has been ordered from A.P.P.L.E. in Seattle. We still do not have the exact page count. However, the price is estimated at \$7.00 to \$8.00. Payment will be required in advance of reproduction. It is hoped that the master will be here in time so that we can collect payment at the next meeting.

NEXT MEETING IS  
AT MINNESOTA  
FEDERAL SAVINGS  
AND LOAN, S. 9TH AVES.  
HOPKINS ON APRIL 18TH.

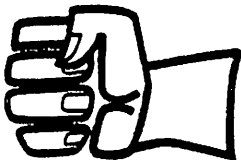
THIS IS MAP OF AREA



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MINI'APP'LES  
13516 GRAND AVENUE SOUTH  
BURNSVILLE  
MINN., 55337

**IMPORTANT**



If you throw this in your wastebasket unopened, a capsule of water inside will break, spilling onto a dehydrated gorilla. He will then jump out and hug you to death.