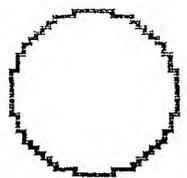


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VALLEY OF THE SUN
TI 99 USERS GROUP

newsletter

VOL. 3

SEPTEMBER 1987

NO. 9

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Advertising rates are as follows:

Commercial:

Full Page \$10.00
Half Page \$ 7.00
Quarter Page \$4.00

Personal:

Four lines,
30 Characters/line
\$1.00
\$.20 per line
over four.

All rates are for ONE issue only!

Programs are available from the
USERS' GROUP LIBRARY at the follow-
ing rates:

SS/SD Disk \$2.00
DS/SD Disk \$4.00

If copying of documentation is
required, it will be at the rate of
\$.10 per page. If the User Group
supplies the disk, please add \$1.00
to the above charges. An exchange
program for free programs is also in
effect. Please contact the librarian
for further information. A complete
list of what is in the library is
available on 2 disks free of charge
if you supply the disks or for \$1.00
per disk if the User Group supplies
the disks.



The VAST 99 USERS' GROUP is a
support group for TI 99 Home Comput-
er users. Our regular meetings are
on the second Saturday of the month.
This month's meeting is being held in
the Int'l Heritage Hotel at 401 n.
1st. St. in downtown Phoenix. The
meetings start at 10:00 AM and
continue until 11:00 AM with
socializing starting at 9:00 AM. The
yearly membership fee is \$6.00.

All meetings are open and anyone
may attend. Only dues paying mem-
bers may vote in elections and ob-
tain programs from the Users' Group
library.

The current officers are:

President
Bob Nixon.....838-8608
Vice-President
Ike Van Kampen.....934-5164
Secretary
Stu Olson.....846-7624
Treasurer
Earl Bonneau.....269-3802
User Group Librarian
Earl Bonneau.....269-3802
Newsletter Editor/BBS SysOp
Jim Ely.....921-3375

The Users' Group's BBS is now in
operation 24 hours a day. Contact it
at (602) 437-4335. There is a lot of
interesting conversation and informa-
tion available here so give it a try.

Deadline for submission of art-
cles or advertising for the News-
letter is the last Saturday of every
month. Articles may be submitted in
any form, however, the preferred met-
hod is by phone transfer directly to
the Editor.

M I N U T E S

for

AUGUST 8, 1987

The August meeting of VAST 99 was held on Saturday August 8, 1987, at the Int'l Heritage Hotel at 401 N. 1st St, Phoenix. Stu Olson conducted the meeting as interim president starting at 10:06 a.m.

a motion to dispense with the reading of minutes from the previous meeting was presented and seconded. Motion carried. A financial report was not given as the treasurer was not at the meeting.

Bob Koons gave an incorporation progress report. We need to change to constitution prior to incorporation to meet state mandated requirements. Bob requested us to see if we could find a attorney to do this for us for a very reasonable fee.

Stu announced that the election would not be held for officers under the new club structure. Ballots were distributed to all paid up dues members for voting. Election results were announced by the Secretary as follows:

Pres. Bob Nixon
Vice-Pres. Ike Van Kampton
Sec. Stu Olsen
Treas. Earl Bonneau

Stu thanked the nomination committee for an excellent job in getting candidates to run.

Jim (Sysop) Ely will be moving to Tempe soon, so the BBS will be down for awhile. Watch for the dates on the BBS. Jim notified the club that if we wanted to keep the same number an additional monthly charge of \$21.61 would be required. Motion, second and carried to keep the same number.

Motion and second to approve purchase of hard drive controller for the BBS when it becomes available. Discussion centered around advantages of hard disk over ram disk. Hard disk won out because it does not lose data during power outages. Motion carried.

Bob Koons requested members to be generous in contributions to the various kitty's to help support the group and keep our dues low.

Business session closed at 11:00 a.m.

Dan Shell made a limited presentation of the new Geneve 9640 computer.

Bob Nixon
Secretary.

Treasurer Report.

August 12, 1987.

General Fund:

	Previous Balance \$	546.51
Income		

Aug 8 News Letter Sales	18.70	
Aug 8 Donations (Kitty)	9.00	
Aug 8 Coffee (kitty)	0.00	
Aug 8 Dues	54.00	
Aug 3 Library Proceeds	0.00	

Total	\$	628.21
	=====	

Paid Out:

Jul 23 Postage (News L.)	\$	49.30
Aug 8 Heritage Inn	42.24	
Aug 12 Postcards	8.40	
Aug 12 To BBS Fund	30.00	
Current Balance	498.27	

Total	\$	628.21
	=====	

BBS Fund:

	Previous Balance \$	210.25
Income:		

Aug 8 Donations (Kitty)	22.30	
Jul 11 From General Fund	30.00	

Total	\$	262.55
	=====	

Paid Out:

Aug 1 Phone for July	\$	17.84
Aug 12 Electricity Aug.	10.00	
Current Balance	234.71	

Total	\$	262.55
	=====	

Actual Amount on Deposit with First Interstate Bank:

Balance General Fund	\$	498.27
Balance BBS Fund	234.71	

Total	\$	732.98
	=====	

WRITER MNEMONIC (MEMORY) TRICKS

=====

From ROM Users of Orange County, Ca- Oct 85

CTRL	MNEMONIC	FUNCTION	ALTERNATE
A	ADVANCE DOWN	ROLL DOWN	FCTN(4)
B	BACK UP	ROLL UP	FCTN(6)
C	COMMAND MODE	COMMAND MODE	FCTN(9)
F	FLYAWAY CHARACTER	DELETE CHARACTER	FCTN(1)
G	GET A HOLE FOR CHAR	INSERT CHARACTER	FCTN(2)
H	HOP BACK TO LAST	LAST PARAGRAPH	CTRL(6)
I	INDENT	TAB	FCTN(7)
J	JUMP TO NEXT	NEXT PARAGRAPH	CTRL(4)
K	KILL TO END OF LINE	DELETE TO END OF LINE	-----
L	LEAP HOME	HOME CURSOR	-----
M	MAKE NEW PARAGRAPH	NEW PARAGRAPH	CTRL(8)
N	NO MORE LINE	DELETE LINE	FCTN(3)
O	OPEN BLANK LINE	INSERT BLANK LINE	FCTN(8)
P	PAGE BEGINNING	NEW PAGE	CTRL(9)
R	REFORMAT	REFORMAT	CTRL(2)
T	TAB BACK	BACK TAB	-----
V	VEER TO LEFT	CURSER TO LINE START	-----
W	WORD TAB	WORD TAB	CTRL(7)
Y	YANK MARGIN CONTROL	LEFT MARGIN RELEASE	-----
Z	ZIP IT BACK	OOPS!	CTRL(1)
-	-----	SCREEN COLOR	CTRL(3)
-	-----	DUPE LINE	CTRL(5)
-	-----	NEXT WINDOW	FCTN(5)
-	-----	WORD WRAP	CTRL(0)
-	-----	LINE NUMBER ON/OFF	FCTN(0)

NOTE: THE ARROW KEYS WORK THE SAME WITH EITHER
THE CONTROL KEY OR THE FUNCTION KEY.

ASS'T EDITOR'S NOTEBOOK

Before we get too far along with this month's production, I should point out that this edition of our rag is not being produced by Jim (how could you tell!). I hope you will forgive any slips, goofs or mis-prints along the way, we are dealing with the handicapped here(mentally).

I think that this is a good lesson for me however. We all take this newsletter for granted. Every month like magic it appears on a table or in a mailbox and we pick it up and read it without even a thought to what it took to produce. Well, let me tell you friends...this is a real BEAR!!!

I have more respect now than ever before for Jim's effort!
You do great work Jim....THANKS!

TMS 9900 ASSEMBLY LANGUAGE TUTORIAL PART 8

Your Own VDP Utilities
by Steve Royce WNY 99'ERS

In this installment, I present a working version of the VDP routines, VSBW, VMBW, VSBR, VMBR and VWTR. Also, KSCAN is presented. You may question the value of these routines, as I initially did. You will find that their prime benefit is that you are able to define your own workspace for the routines, rather than using the normal workspace of >20 bytes beginning at >2038. How about using a 16 bit workspace in the scratch pad RAM for these utilities to speed up execution. As these are among the most common of utilities, putting them in the 16 bit bus makes a lot of sense. All you have to do is the copy the source code below as you are assembling a program, and assign a workspace address, using the label SUBWS. Do not REF the normal VDP utilities (ie REF VSBW,VMBW) in your program, or a duplicate label error will result. Have fun.

TITL '*VDP ACCESS UTILITIES V 2.0 9-6-84 SJR *'

```
*
KSCAN DATA SUBWS,$+2    WORKSPACE ENTRY POINT
      LWPI >83E0        LOAD GPL WORKSPACE
      MOV R11,@SUBWS+22  SAVE RETURN
      BL @>000E         BL TO SCAN ROUTINE
      LWPI SUBWS        RELOAD SUB WORKSPACE
      MOV R11,@>83F6    RELOAD RETURN
      RTWP

*
VSBW  DATA SUBWS,$+2    WORKSPACE ENTRY POINT
      BL @$+86          BL TO POINT 'A'
      MOV @2(R13),@>8C00 WRITE BYTE
      RTWP

*
VMBW  DATA SUBWS,$+2    WORKSPACE ENTRY POINT
      BL @$+70          BL TO POINT 'A'
      MOV *R1+,@>8C00   WRITE BYTE
      DEC R2             DEC BYTE COUNT
      JNE $-6           IF NOT DONE, JMP BACK 2 LINES
      RTWP

*
VSBR  DATA SUBWS,$+2    WORKSPACE ENTRY POINT
      BL @$+58          BL TO CLR R1, POINT 'B'
      MOV @>8800,@2(R13) READ BYTE
      RTWP

*
PAGE
VMBR  DATA SUBWS,$+2    WORKSPACE ENTRY POINT
      BL @$+42          BL TO CLR R1, POINT 'B'
      MOV @>8800,*R1+   READ BYTE
      DEC R2             DEC BYTE COUNT
      JNE $-6           IF NOT DONE, JMP BACK
      RTWP
```

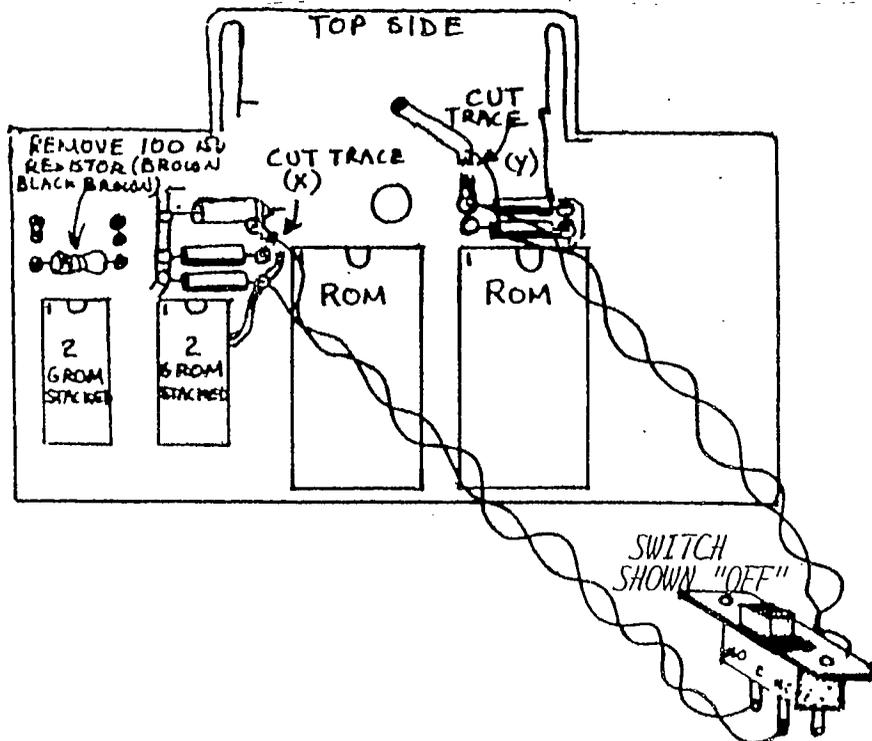
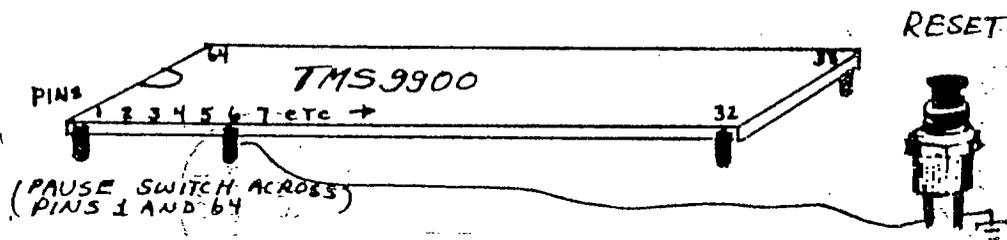
```

*
VWTR DATA SUBWS,$+2    WORKSPACE ENTRY POINT
MOV  ,R1                GET REG # AND VALUE
MOVB @1(R13),@>8C02    VDPWA WRITE OUT VALUE
ORI  R1,>8000           SET FOR WRITE TO REG
MOVB R1,@>8C02        WRITE OUT REG #
RTWP

*
*
SET WD ADDRESS

LI  R1,>4000           ' A ' PREP R1 FOR WRITE TO VDP
JMP $+4
CLR R1                ' B ' SET TO READ FROM VDP
MOV *R13,R2          GET VDP ADDRESS
MOVB @SUBWS+5,@>8C02  WRITE LOW BYTE
SOC  R1,R2           ADJUST WRITE BIT
MOVB R2,@>8C02        WRITE HIGH BYTE
MOV  @2(R13),R1      GET CPU RAM ADDRESS
MOV  @4(R13),R2      GET BYTE COUNT
B
RETURN TO CALLING ROUTINE

```



INSTALLING EXTENDED BASIC INSIDE YOUR CONSOLE

For many of us there has been much frustration over the last several years about the "HANG UPS" that occur to the TI when using Extended Basic. They always seem to come at the worst possible time. In the vast majority of cases the cause for the lock up is the gram/connector cartridge connection. So for those of you that would like to eliminate that problem, We offer a method of moving your extended basic out of the cartridge port and on board the console.

REMEMBER...WE MAKE NO WARRENTEES....
DO THIS AT YOUR OWN RISK!!!

PARTS:

- 1 36 lead ribbon cable or 2 lengths of 25 lead cable
- 1 Extended Basic cart(shell removed)
- 1 Dbl-pole/sngl-throw slide switch (for enabling and disabling ext basic)

Solder iron cutters etc.

I won't go into too many details about removing the CPU from the console. If you don't know how to do this, you should not be fooling around with this project. Get someone else to help you.

Remove the Grom Connector from the unit and attach the ribbon cable to the pins of the rear of the circuit card that the Grom Conector is attached. Attach all but pins 4 and 6 to the ribbon cable. 4 and 6 are not used here. Now, keeping the length of wire to less than 8", attach the other ends of the corresponding wire to the Ext Basic card edge connector leads, remembering the relationship between the two, i.e.: pin 1 must go to pin 1, 2 to 2 and so on. (but not 4 or 6).

Before you attempt any further modification to the machine, reassemble and see if Extended Basic boots on the menu, and still functions. If everything still works...continue.

Remove the 100 ohm resistor indicated and cut the two traces where shown. Now you may solder 4 equal lengths of wire to the switch (not longer than 10 inches in length). Attach two of the wires across the cut in the trace (X) and the other two across (Y), making sure that the pairs are on the same switch pole set. Now test the results again. If the Extended Basic works when the switch is closed and the cartridge slot will accept cartridges (meaning that a variety of GROM/ROM carts will function), when the switch is open, then you're almost home. Mount the switch in a convenient location, and insulate the bottom of the Extended Basic cartridge and locate on TOP RF SHIELD to the left of the grom conn. Reassemble. It would also be a good idea at this time to install a reset button across pin 6 of the CPU chip and ground. Trust me!. The reset switch will be useful in that you will not be able to reset the machine by inserting the Extended Basic cartridge. You may find that without the RESET switch, you may have to turn the power off and on to change from Extended Basic to other cartridges. This is an easy option to install with a momentary contact switch across pin 6 on the CPU chip (TMS9900) and ground. See fig. 1. Figure 2 shows where the two traces are that must be cut and identifies the 100 ohm resistor that is removed. Figure 3 will assist you in locating the switch wires in the circuit. Attach pairs of wires across the trace cuts.

This project came to us from the West Penn 99 newsletter and was written by John Willforth. I have not made the modification and don't know if it works. Please remember that before you try it yourself. It does look interesting though.

The Elements of Basic

Part 2

By Dave Howell

Courtesy Erie 99'er Newsletter

EDITING ON THE TI

Most everyone at one time or another makes mistakes! Bugs in recorded programs show up when they are least expected. Fortunately, correcting these errors is simple on the TI-99/4A.

Errors made BEFORE pressing ENTER may be corrected as follows:

Use the FCTN and left (S) or right (D) arrow keys to move the cursor to the error. To replace the character, simply touch the key of the correct character. To remove the character entirely, depress the FCTN and DELETE (1) keys. (Holding these two keys down will cause the cursor to "swallow" all of the remaining characters to its right.)

To insert new characters, move the cursor over to the desired location and depress the FCTN and INSERT (2) keys momentarily. Then type the desired character(s). The characters on the right will move over automatically as the new character(s) are entered.

Occasionally, it may be easier to erase the line entirely and retype it. To do this, any of the following steps will work:

1. Depress the FCTN and ERASE (3) keys and retype the line.
2. Touch ENTER and then retype the line.
3. Depress the FCTN and CLEAR (4) keys and retype the line. (The FCTN and CLEAR (4) keys will also "break" the program, ie: stop the program while it is running.)

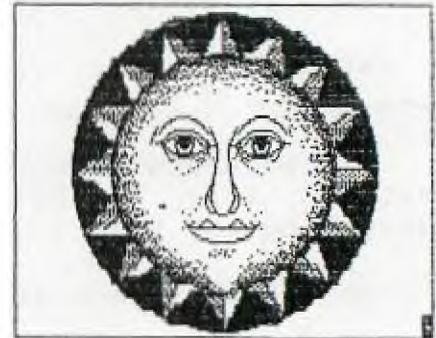
Errors made AFTER pressing ENTER may be handled in the following ways:

1. Retype the line.
2. Type EDIT followed by the line number and ENTER.
3. Type the line number followed by the FCTN and up arrow (E) keys.

If the line number in 2 or 3 above does not re-appear, the line as originally typed never reached the memory and must be retyped.

At any time, whether a program is finished or not, a line may be completely eliminated by simply typing the line number and depressing ENTER.

D.H.



WITH YOUR HELP

VAST WILL GROW.

BRING A FRIEND

TO THE NEXT

MEETING!

CONSTITUTION

ARTICLE I

NAME

The Valley of the Sun Users Group, hereafter known as the VAST Users Group, will be a non-profit organization incorporated in the state of Arizona and registered with the federal government.

ARTICLE II

GOALS AND PURPOSES

1. To encourage all efforts and activities in connection with the use of all types of computers with a special emphasis on the TI-99 and its compatible models.
2. To promote a full discussion and exchange of ideas regarding the planning and conduct of such activities.
3. The distribution of the significant results of all these efforts and activities.
4. To promote a better understanding and appreciation of the versatility and usefulness of computers.
5. To provide opportunities to learn or polish communications skills, including listening and making presentations, and to learn from the experience of others.
6. To represent our needs to vendors and suppliers and to encourage support of these computers by manufacturers.

ARTICLE III

1. Membership shall be open to anyone interested in the purposes and goals of this users group.

2. An annual fee, to be approved by a majority vote of the members, entitles individuals to full membership rights and privileges.

ARTICLE IV

OFFICERS

1. **President:** The President shall preside at all meetings of the user group; shall be the Chief Operating Officer; shall conduct all meetings in an orderly fashion; has the authority to sign on the VAST User Group bank account; and shall perform all such duties as are incidental to the office of and are properly required of the President.

2. **Vice-President:** In the absence of the President, the Vice President shall exercise all the functions and shall be vested with all the powers of the President.

3. **Secretary:** The Secretary shall be responsible for recording and maintaining the minutes of each meeting and reporting those minutes at the next succeeding meeting and shall be responsible for all VAST user group correspondence and maintaining an accurate and current membership list.

4. **Treasurer:** The Treasurer shall have charge of the funds of the user group, conduct its banking business, audit all accounts and shall prepare and present a complete report at each meeting and an annual report at the end of each fiscal year.

ARTICLE V

COMMITTEES

1. The President, with the approval of the other officers, shall appoint the committee chairperson of each standing committee and shall collaborate with each committee chairperson in selecting the members of that committee. He shall be an ex-officio member of all committees.
2. Standing Committees shall be:
 - A. TI-99/4A Committee: This committee will be in charge of development of presentations, workshops and special interest group sessions relating to the TI-99 computer and compatibles.
 - B. Other Computer Committee: This committee will be in charge of development of presentations, workshops and special interest group sessions relating to all other types of computers.
 - C. Library Committee: This committee will be in charge of software for the user group. The committee will catalogue and maintain the library, develop and implement check in/ check out procedures and policies and process new acquisitions and generally maintain the VAST user group library files in good order. The catalogue will be available to the membership at each meeting.
 - D. Information Committee: This committee will be in charge of all matters pertaining to the education of the members including the distribution of literature, newsletters and beneficial information to the members.
 - E. BBS Committee: This committee will operate, at the expense of the VAST user group, a 24 hour a day remote bulletin board service. All VAST user group members will have access to the user group message base and download

section.

F. Newsletter Committee: This committee will publish a monthly VAST User Group Newsletter that contains articles, programs and information of general interest to the membership. A fee in addition to the membership fee may be charged for this group publication.

3. The President is empowered to appoint such special committees as are deemed necessary at any time or at the majority vote of the members at any regular meeting and shall appoint such committees as the members direct.

4. Officers may also serve on committees or as chairperson of committees.

ARTICLE VI

MEETINGS

1. General VAST User Group meetings are to be conducted once per month by the President or designate under Roberts Rules of Order.

2. While it is recognized that not all agenda items will have an active input at each meeting, the following ordered list of topics are to be presented by the chair:

- A Call to order
- B Reading and acceptance of minutes by the secretary
- C Treasurers report
- D Standing Committee reports
- E Old Business
- F New Business
- G TI-99 Presentation
- H Other Computer Presentation

ARTICLE VII

ELECTION OF OFFICERS

1. The term of office for all officers shall be for one year and such term will conclude on April 30th regardless of when elected.

2. Nominations for office will normally be made during the course of business with elections held the following month. Annual elections shall be held no later than April meeting of each year. Should the President declare an emergency situation, nominations and special elections may be held during the same business meeting. Nominations normally shall be presented at the March meeting.

3. Voting shall be limited to members in good standing and will be conducted by secret ballot.

4. Absentee ballots shall be available to members in good standing upon their request.

5. The majority of the ballots cast shall determine the outcome of all elections. In the event of a tie, a runoff ballot shall determine the election result.

6. Election results will be announced by the secretary.

7. Term of office for all positions shall begin with the May meeting except for special elections.

8. Special elections may be held during any monthly meeting. Special elections shall be held as soon as possible in the event any duly elected officer becomes incapacitated, resigns, or is unable to serve the normal term of office for any reason.

ARTICLE VIII

DISCIPLINARY ACTIONS

1. Any officer guilty of theft, malfeasance, or other gross misconduct may be impeached by a two-thirds majority vote of the active members.

2. Any member guilty of theft, malfeasance or other gross misconduct may be censured and barred from further participation in the group by a two-thirds majority vote of the active members.

3. VAST User Group will not condone copyright infringement of any material and encourages individual members to reimburse the authors of freeware, shareware or other commercially sold programs.

ARTICLE IX

LIABILITIES

1. No officer or member shall be personally liable for any bills or obligations of the VAST User Group, past or present, except for the payment of personal membership dues/fees.

2. No officer or member of the VAST user group shall disburse any funds or monies in his keeping and belonging to the group without authorization from the other officers, and such authorization must be confirmed by the President and Treasurer of the VAST User Group.

3. The officers of the group are authorized to spend a maximum of \$50.00 per month on group business without prior approval of the membership.

4. No officer or member shall be personally liable for the individual actions of any other member.

5. No person shall use the name or mailing list of the VAST User Group for any purpose other than those purposes which are strictly those authorized by the group. This authorization is to be confirmed in writing by the secretary of the group.

This constitution may be amended by a two-thirds vote of the members in good standing who are present in person or represented by a proxy at any regular business meeting. No amendment shall be voted upon unless written notice is given at least one week in advance to the active members.

ARTICLE X

DISSOLUTION OF GROUP

1. In the event of the dissolution of the VAST User Group, the group assets will be distributed as follows:

A. Bank accounts will be closed after all outstanding debts have been paid and remaining cash assets distributed equally to the members in good standing.

B. Property will be inventoried by the current officers of the group and the inventory list published to all members in good standing. Sealed bids for each piece of property will be solicited from members in good standing. At the first meeting following 30 days from date of inventory publication, the bids will be opened and the property will be distributed to the highest bidder for each item. Payment for such property must be in cash at the time of bid opening. The resulting cash from the property auction will be distributed among the members in good standing. Any property not claimed will be disposed of at the discretion of the current President.

**DON" T FORGET
NEXT MEETING
SATURDAY
OCT 10, 1987**

ARTICLE XI