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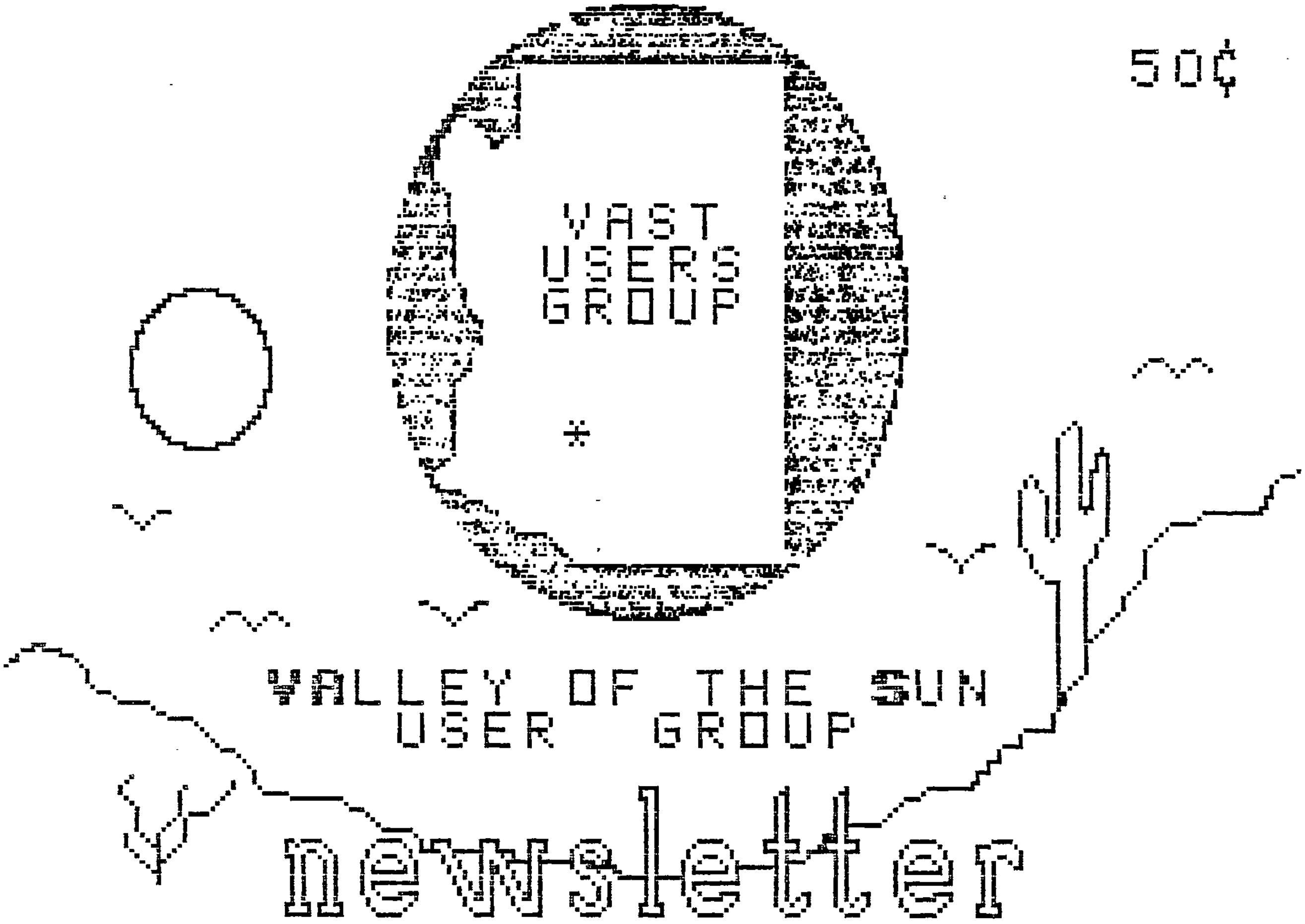

VALLEY OF THE SUN USER GROUP newsletter

VOL.4 JUNE 11, 1988 NO. 6

CONTENTS

VAST BBS (602) 437-4335

VAST INFORMATION

The VAST USERS' GROUP is a support group for Home Computer users. We primarily support the TI-99 Home computer and compatables, but all computer users are welcome. Our regular meetings are on the second Saturday of the month. We meet in downtown Phoenix at the Park Inn International Hotel at 401 N. First Street in the Phoenician Room. 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 members may vote in elections and obtain programs from the Users' Group library.

****

THE CURRENT OFFICERS ARE:

--- ------- -------- ----

President	
Bob Nixon	897-6204
Vice-President	
Ike Van Kampen	934-5164
Secretary	
Bill Wedmore	998-1821
Treasurer	
Earl Bonneau	269-3802
User Group Librarian	
Earl Bonneau	269-3802
Newsletter Editor/BBS SysOp	
Jim Ely	921-3375

****

Newsletter subscriptions are available for $12.00/year, First Class Mail. If a date appears in the upper right hand corner of your mailing label, this is your subscription expiration date. Address renewals to the return address on address page.

The Users Group's BBS is in operation 24 hours a day. Contact it at (602) 437-4335. There are 3 message bases, a TI specific download section, and a lot of interesting conversation and information available here so why not give it a try.

Deadline for submission of articles or advertising for the Newsletter is the last Saturday of every month. Articles may be submitted in any form, however, the preferred method is by phone transfer directly to the Editor.

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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!

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Programs are available from the USERS' GROUP LIBRARY at the following 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 SECRETARY S SLATE

MINUTES
VAST USER GROUP
MAY 14, 1988

The meeting was called to order at 10:15 A.M. by Ike Van Kampen, president Nixon being away on a camping trip. Curiously, also missing were Sue Miller and Stephanie Bannon... We all hope they had a good time...we missed them.

The meeting was sparsely attended. The golf cart from Sin City apparently did not make it so there was a smaller, if younger, crowd. Dan Shell and Co. also did not make it so the meeting was a dry affair (donuts, but no coffee).

The minutes from the previous meeting were not read since, although faithfully uploaded to the BBS by the past secretary, the incoming secretary did not have sense enough to bring them for reading.

Items Discussed:

Membership... Ways and means were discussed to recruit more new members into the group since membership is declining through attrition. Rene' LeBlanc knows of a small Amiga group that is in danger of folding due to insufficient numbers to sustain a nucleous. At their next meeting Rene' will attempt to bring some of these Amiga freaks into our fold. We'll know the success/failure of this venture at the next meeting.

Micropendium Review.... As promised, Hazel Knight gave an animated and stirring review of the most recent issue of Micropendium. It was well received and stimulated applause. Thanks Hazel.

Newsletter Exchange... The increasing cost of sending our newsletter to some 70-odd other TI groups is becoming a financial burden. Due to the large amount of redund in some of these publication has been suggested that we re those with whom we exchange reduce their number to 10 or that most represent a cr section of the group interest. will be further discussed by board members over the next m and recommendations will be p sented at next meeting.

Gayle Zickefoose, making one his rare visits to the meet suggested that the Newsletter uploaded to the BBS so that th who cannot attend have access it. It was pointed out that Newsletter is an important sou of club revenue and that making available on the BBS would red our funds from this source. Th was a suggestion to charge memb for access (the BBS sysop kno as a means of getting the reven A subscription arrangement also discussed but nothing clearly decided.

Ike declared the business meet closed.

Jim Ely was kind enough to h his TI to the meeting to give a torial on BBS operations, TI-sty Although there were no phone faci ties in the room we managed via considerable talents of Mr. Zic foose to bring in a temporary o from a neighboring room and get demonstration on the air.

Respectfully submitted:

Bill Wedmore, Secretary

HAVE A
SAFE
JULY 4

----Vol. 4 No. 6---June 11, 1988----

From the Editor's Desk

IN THIS ISSUE...

The latest edition of Computer Tutor this month discusses BRANCHING in a BASIC or Extended BASIC program and starts on page 5. Page 7 has a lighter look at how computer programming SHOULD be done. Several months ago, we ended a series of articles on Assembly Language programming. Page 8 of this newsletter has a tutorial that probably should have started the whole series as it deals on just how to use the Editor with the E/A cart and how to type in assembly language programs. You will see that they aren't much harder to type in than a program written in BASIC or X-BASIC. And that takes care of this issue of the newsletter.

THE BBS....

As you probably know if you use the BBS much, the board has been down since June 4. The reason was discussed at the last meeting, but for those that don't know, let me explain. The "clone" computer has had a problem since it was put into service. Should there be a power failure, when power is restored, the system would not self-re-boot as it should. The only way you could start the system was to re-boot it manually. I, therefore, delivered the system to Stu Olson who had made arrangements to get the clone fixed or replaced. Hopefully, the BBS will be back in operation by Sunday, June 12.

UPCOMING ARTICLES

Some articles I have scheduled for later issues include one on TOKENS and how to use them in programming, one on the c99 programming language, some tips on using the Special Character Mode of TI-Writer and a series of articles on telecommunications.

My special thanks to Hazel and Wallace Knight for their continuing great help in getting these articles ready for publication.

NEWS......

(From MICROpendium, May, 1988)

I guess the biggest news is "Why haven't you gotten your new Myarc Hard and Floppy disk controller yet?" Well, it seems that the controller, designed to work with the Myarc 9640 computer, won't work with it! Interestingly enough, it will work fine with the TI-99/4A. $250,000 worth of these are stock-piled at Myarc. The PROBLEM? Version 1.1 of MDOS is not completed yet and the DSR's (Device Service Routines) that enable the controller to work properly aren't ready. Since a number of other routines are also missing, development of other Myarc 9640 specific software is also threatened.

If you had planned to use the controller in the /4A configuration, you might want to contact your dealer or Myarc to have your order expedited.

By the way, a recent survey (conducted by Ali Ulgen of another User Group) indicated that about 70 percent of those responding had no plans to purchase a Myarc 9640 computer. Since only three people in our group have purchased the 9640, I'd say that average is pretty accurate....if not down-right generous.

A year or so ago there was a flap about whether the disk manager program DM1000 was a freeware program or public domain. The president of the Ottawa TI-99/4A User Group, the group whose members have improved DM1000 to the latest version 4.0, reiterate that even if the program is given as a bonus or free program by some software distributors, it IS freeware and the suggested donation of $10 should be sent to the Ottawa User group, if

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The Lighter Side

PROGRAMMING TIPS

by Jim Beck

From the *Edmonton 99'er Computer Users' Society* Newsletter
99'ER ONLINE

These 15 basic steps will help you to become a better programmer.

1) Never comment your code: it only helps people find redundancy in it.

2) Remember: If it ain't a game, it ain't worth programming. (Unless someone pays you.)

3) Never work on a program for more than four hours. If it takes that long, save it on disk, place it in your disk box (preferably at the back) and forget about it. Plan on finishing it between now and the death of your great grandchildren.

4) Never use structured programming techniques. All programs should look sloppy, confusing, and completely unreadable. When programming in BASIC, every third statement should be a GOTO. This, when others look at your listings, will make you look like a genius. (Which, in most cases, is a sharp contrast to reality.)

5) Never organize your disk. Remember: A tidy disk box is the sign of an exceptionally weak mind.

6) Debugging is to programs as decaffeinating is to coffee! Never keep your source code after you've compiled it. Only an idiot puts out later "bug-free" versions.

7) Always use global variables. Programmers have enough problems without passing parameters.

8) Never make flowcharts or pseudo-code. A program should come from the top (or in some cases the bottom) of your head. It should never do what was planned for it and should seldom, if ever, do what it does completely correctly.

9) Try not to use descriptive variable names. In languages that require you to predefine your variables, predefine all possible combinations of letters and save as a template for all your programs. This allows you to use whatever variables you want without having to go back and insert.

10) Never spill Coke on your keyboard more than once a week.

11) Only use disks as coasters under cold drinks.

12) Always have an excuse if things don't work properly. Some good examples are: "It's not supposed to do that! ","The instructions were unclear/unreadable/completely wrong" and, of course, "This computer is broke! "

XX) Never use the number 13 in your programs: it's unlucky. Define it as a constant, such as "XX".

14) Do not hit your computer with objects like wooden baseball bats. Use aluminum ones: you'll have less problems with static.

15) Never, but NEVER read the instructions. If it does not work, plug it in, fix it, or bang it against a wall.

P.S. By the way, if your computing teacher says anything contrary to these basic rules, calmly point it out to them. If they still disagree, then ask them why they make their living teaching instead of programming, if they're so smart!

J.P.

NEXT MEETING...

JULY 9, 1988

HINTS AND TIPS

HOW TO TYPE IN AND RUN ASSEMBLY LANGUAGE PROGRAMS

(Without Learning How To Program in Assembly Language)

by Fred and Amy Mackey

From the PUG Newsletter May-June 1987

There are alot of people out there who know how to key in a program in Extended BASIC, but do not necessarily know how to program in Extended BASIC, or BASIC for that matter. But, alas, for some reason, those who don't know how to program in Assembly Language would never consider keying in a program that is written in Assembly Language. We hope that this article will challenge those "die hard" X-BASIC people to give Assembly a try.

With any language, such as BASIC or Assembly, a program must be translated into machine language before it can be excuted by the computer. T.I. BASIC makes this conversion all at the same time, but other languages, such as Assembly, do it in a two step process, which is to first "EDIT" and then to "COMPILE" the program.

With T.I. Assembly, you first enter the program with the EDITOR of the E/A module, called the SOURCE PROGRAM. Then that program is translated by the Assembler of the E/A module into the OBJECT PROGRAM. The object program is the program that you load and run from the Editor Assembler module.

When assembling a program, you will also generate a LISTING that includes the assembly language statements, the resulting machine code produced by these statements, the machine code memory locations, and other information.

Sound easy? Wait till you see just how easy it really is. You'll wonder why you never tried it before. Type in the following program using the step-by-step instructions below it. (The FCTN 7, "TAB", when editing will automatically move you to the correct columns in the program listing).

Editors note: Make sure your column spacing is correct or you will get errors as the Assembler is assembling your code!

```
       DEF   TRY
       REF   VMBW,VSBW
MYWS   BSS   32
TRY    LWPI  MYWS
       BL    @CLEAR
       BL    @PRINT
       LIMI  2
TRY1   JMP   TRY1
CLEAR  CLR   R0
       LI    R1,>2000
CLEAR1 BLWP  @VSBW
       INC   R0
       CI    R0,>0300
       JLT   CLEAR1
       B     *R11
STRING TEXT  'HI THERE!'
       EVEN
PRINT  LI    R0,>003
       LI    R1,STRING
       LI    R2,27
       BLWP  @VMBW
       B     *R11
       END
```

1. Turn on computer
2. Select Editor/Assembler
3. Press 1 for Edit
4. Press 2 for Edit
5. Press FCTN S to get line numbers on screen
6. Press ENTER to get cursor on line 1
7. Type in program above exactly as shown
8. Press FCTN 9 twice
9. Press 3 for save
10. Press Y for "Variable 80?" prompt

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THE ELEMENTS OF BASIC

by Dave Howell
(Courtesy Erie 99'er Newsletter)

Part 11

BRANCHING

A branch is an interruption in the numerical order in which statements in a program are executed. A branch causes a specified program line to be executed regardless of that line's location within the program.

For example, if line number 500 in a program causes a branch to line 1000, the statements in lines 501 through 999 will be ignored. The computer will resume at line 1000 and continue with the subsequent statements.

There are two kinds of branching statements: conditional and unconditional. One example of an unconditional braching statement is the GOTO statement. Unconditional branching statements are used to repeat a certain part of a program. Once the computer reaches such a statement, neither it nor the user has any choice. The computer must proceed to the line number specified in the branching statement. Since this column has already reviewed the GOTO statement in an earlier issue of the newsletter, we shall proceed to the conditional branching statements.

Conditional branches are used to branch a program if a specified condition is true. The IF...THEN statement is an example of a conditional branch. It is used to control the execution of a program. The following is an example of an IF...THEN statement.

```
30 IF A = 11 THEN 130
```

If the value for "A" is 11 when the computer reads line 30, the statement is considered true and the computer will go directly to 130. If "A" is not 11, then the computer ignores the THEN portion of the statement and proceeds with the very next line.

IF...THEN statements are not limited to using the equal sign (=) to set up the condition. The inequality symbols may also be used (<,>,<=,>=,<>) as in the following examples:

```
40 IF A >18 THEN 200
70 IF X<=50 THEN 250
100 IF T<>2 THEN 10
150 IF P$ = "ERIE" THEN 70
```

The last line illustrates that the variables and the values assigned to those variables may be strings.

IF...THEN statements have many uses. Here is one:

```
10 PRINT "HOW MANY STATES IN
 THE U.S."
20 INPUT S
30 IF S = 50 THEN 60
40 PRINT "NO TRY AGAIN."
50 GOTO 10
60 PRINT "THAT'S RIGHT!"
70 END
```

```
10 PRINT "WHAT IS THE CAPITA
L OF PA."
20 INPUT C$
30 IF C$ = "HARRISBURG" THEN
 60
40 PRINT "INCORRECT. TRY AGA
IN."
50 GOTO 10
60 PRINT "RIGHT ON!"
70 END
```

The IF...THEN statement can be used to limit or control a counting program such as:

SEE PAGE 6 >-->

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Computer Tutor Continues

```
10 LET P = 1
20 PRINT P
30 IF P = 20 THEN 60
40 LET P = P + 1
50 GOTO 20
60 END
```

In the above example, the computer was told to start counting with 1 in line 10. If line 10 was missing, the computer will automatically start counting with zero. Anytime a variable is left unspecified, the computer will assign the value of zero to it.

If the READ...DATA program below is RUN, the computer will run out of data after printing 3, 12, 15, 20.

After finding no more data, it will print the error message:

"OUT OF DATA IN 10."

```
10 READ X
20 PRINT X
30 GOTO 10
40 DATA 3,12,15,20
50 END
```

To prevent such error messages, the IF...THEN statement is used with a "flag" as in the following programs. As soon as the IF...THEN statement intercepts the "flag", the computer is sent to the end of the program.

```
10 READ X
20 IF X = 999 THEN 60
30 PRINT X
40 GOTO 10
50 DATA 3,12,15,20,999
60 END
```

```
10 READ A$
20 IF A$ = "STUPID" THEN 60
30 PRINT A$;
40 GOTO 10
50 DATA DOC,SNEEZY,DOPEY,SLE
EPY,SNOW WHITE,STUPID
60 END
```

Normally, when the IF statement is false, the computer will ignore the THEN portion of the statement and continue with the next line. In TI BASIC, the computer can be directed to some other place in the program when the IF statement is false, as in this example:

```
40 IF C=256 THEN 100 ELSE 2000
```

The ELSE statement can be included with IF...THEN statements in TI BASIC as follows:

```
10 PRINT "WHAT IS THE NAME O
F THE FIRST ELECTRONIC COMPU
TER"
20 INPUT N$
30 IF N$ = "ENIAC" THEN 70 E
LSE 50
40 PRINT "SO WHAT?"
50 PRINT "YOU ARE A LOSER! T
RY AGAIN"
60 GOTO 10
70 PRINT "SMARTY PANTS!"
80 END
```

D.H.

EDITOR'S DESK CONTINUES..... From Page 4

you are using the program with any regularity. The cost is very reasonable so DO IT!

Do you play computer games, especially TI-RUNNER? A TI-RUNNER Level Editor has been released by EB Software, 905 West Middlefield Rd. #953, Mountain View, CA 94043. Cost is $19.95 and the program requires 32K memory, disk drive and X-BASIC.

Several months ago, I mentioned in this column some on-going research and development into the manufacture of an item similar in operation to the MG GramKracker. The item was called a Gramulator and CaDD Electronics has announced it was to begin shipping the item in the middle of May. It is selling for $180. Contact CaDD Electronics at 52 Audubon Rd., Haverhill, MA 01830 if interested in this item.

One of the attendees of the TEXAS TI FAIRE was Jeffery Crump, Supervisor of the TI Technical Assistance Group (1-800-TI-CARES). To quell rumors that had been floating around about another TI computer, he made it very clear that TI has NO intention of getting back into the /4A market, but TI is still there to offer assistance to /4A computer users. Got questions or need information, give TI-CARES a call!

That's enough for this month. See you next month........

Jim Ely, Editor

HINTS AND TIPS CONTINUES..... From Page 8

11. Type in file name
12. Press FCTN 9
13. Press 2 for Assemble, Y for "Lc Assembler?"
14. Type in the filename in step 11
15. Type in a different filename
16. Type in your printer filename a a period.
17. Select your option. Type RCL then enter.
18. If it says 0000 errors, then gc to step 26
19. Press ENTER
20. Press 1 for Edit
21. Press 1 for Load
22. Type in the filename in step 11
23. Press 2 for Edit
24. Find the error and correct it
25. Go to step 8
26. Press ENTER
27. Press 3 for LOAD AND RUN
28. Type in the filename in step 15 then ENTER
29. Press ENTER again at the prompt
30. At PROGRAM NAME prompt type in TRY
31. If it does not work, reset computer, select Editor/Assembl and go to step 20
32. Listings by Mike Todd of Decatu 99ers.

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