

# VAST



# NEWS

VOLUME 12 NUMBER 4

Established 1984

APRIL 1996

The Newsletter of the VALley of the Sun TI99/ers

## THANKS BILL!

I want to thank Bill Gaskill for yet another "care package" that VAST just received in the mail. It is another diskful of articles that I can use in the VAST NEWS newsletter. I started running Bills great articles way back in June 1994 when he sent me 3 disks packed with neat stuff. His support of the TI community and VAST is much appreciated!

## VAST SCSI UPDATE

We finally received the necessary EPROM for the SCSI controller card and hard drive VAST won way back when. We will be installing and trying this device at our meeting this month. Keep your fingers crossed!

## THANKS BRUCE!

Thanks also go to Bruce Harrison for the recent disks he sent to VAST that contain INSTANCE EDITOR and WORD SEARCH. Both are written in assembly language (of course!) and are excellent. I will turn these disks over to Wallace for addition to the club library. I commend Bruce for all the fantastic programs he has written for TI'ers everywhere.

## VAST 99 CONNECTION

Business is picking up some on the VAST 99 CONNECTION. There have been comments made from some IBM people that our BBS is one of the best in town. Well heck, we knew that already, didn't we? Anyway, we are still lacking activity from club members and Jim Ely would sure like to see that change. Even I haven't been calling much lately due to big changes happening at my work place and all I am thinking about when I get home is sleep. I hope to be back to my usual daily call soon though. Why don't you do the same?

602-267-1419

### INSIDE INFORMATION

ITEM	PAGE	ITEM	PAGE	ITEM	PAGE
SEC. SLATE.....	2	THINGS.....	3	WHEREFORTH.....	5
CHARLIES PAGE...2		BILL GASKILL...3		COMPUTER TUTOR..5	

### DISCLAIMER

the VAST COMPUTER USERS GROUP can assume NO responsibility for the accuracy of the information in this newsletter or for the programs or for construction projects tried by its members or others. YOU try them at your own risk!

Material contained herein may be republished as long as credit is given to the original source.

# SECRETARYS SLATE

**MINUTES**

**VAST COMPUTER USERS GROUP**

March 9, 1996

The president, Ralph Rees, called the meeting to order at 1:00 P.M. MARCH 9, 1996 at the home of Walt Brown with many thanks. He has offered the use of his home until a permanent place is located for our meetings.

Some catalogs of Competition Computer were sent to the club by the new owner. New places are being checked for our monthly meetings. A couple of clubs are folding or at least discontinuing to publish newsletters. These clubs have been staunch TI 99/4A backers and we hope some of the individuals who continue using this machine will keep in touch with the rest of the TI community. The FestWest 97 is now being organized.

The treasurer's report was given with a balance of \$645.55 prior to this month's newsletter expenditures.

It was announced that MICROpendium is once again considering adjusting the price of the TI magazine, or looking into other ways of cutting costs such as sending every other month or cutting the size of it. Let them know of your thoughts. Most of our club felt every other month or 9 months of the year but no increase in price.

Mike Grogan was welcomed back. He hadn't left us he just had been a busy person, so that is one more member to this dwindling club. It was announced the SCSI card will be demonstrated at the April meeting. Walt Brown announced he and Vi have their marriage license but the date has not been set. Charles Bradbury announced he has put our VAST BBS number on some of the other BBS' he visits with his IBM.

After a short discussion, it was decided to only sell the Page Pro CUT OUTS and Cards through the Newsletter and future FESTs rather than listing them in a Catalog.

We then had a short break and went to our DEMO (the BBS). Jim Ely the Sysop was at the BBS location and a lively Chat was had with different members in attendance.

VAST Secretary, Hazel Knight



BY CHARLIE BRADBURY

I would like to take this opportunity to talk about Bill Gaskill, not just Bill Gaskill, but his programs. His programs are very excellent, and unlike some programmers these days, he stands behind his work. He has some very useful material out there now including Mailing List Manager, and Card File. Some of his programs are Freeware, but others you must pay a small fee to be able to use.

At the Fest West '96 my Father purchased his newest program Card File v.3.1. After getting home and trying to copy it so we would have a backup copy, we copied over the original disk. We wrote Bill and explained the problem and requested another copy. Without asking for the old one back or questioning the matter, he sent us a new copy within a week of our letter going out.

Another one of his great programs he has out is called Mailing List Manager. This program sorts, prints, saves, recalls, and organizes your addresses and phone numbers in any way you want. There is a selection for Group on it and you can sort your data by group. For example, Under the name John Doe you can put in the group Employees, along with Jane Doe. When you go to print out the group Employees, it will print Jane, and John along with any other people in that group. You can print out by last name, first name, and other similarities that some of your data may have.

As you can see Mr. Gaskill has some very, very excellent software. If you need a piece of software for a specific job and are not sure where to get it ask Bill and I'm sure he will be able to help you. Thank you for all of your contributions to the TI world, and please continue your services for long as you are able.

THINGS THAT HAVE COME AND GONE AND SOME THAT NEVER WERE
--

article by Bill Gaskill

April 1996

**OLDIES BUT GOODIES:** If your newsletter editor has the space, I've sent a couple of flyers again. One is a really neat and informative technical type drawing of a Shugart style floppy disk drive. The other flyer contains a really great illustration of TI's TI-74 BASICALC programmable calculator. I included it for you "Anything TI" buffs like me to enjoy. It comes compliments of Houston User Group member Richard Lumpkin.

**TI MINI-WRITER WORD PROCESSOR** - Among the first "serious productivity" packages I ever purchased for my TI-99/4A was the TexComp Mini-Writer Word Processor, with TI's Mini Memory cartridge and the Axiom GP-100TI unidirectional printer, sold as a package for \$249.95. It was GREAT! I'd never seen anything quite so neat.

Too many years ago to even think about, I sold the entire setup to another 99er in town and moved up to a fully packed Peripheral Expansion Box, TI Writer, an Epson, EX-800 printer and all the other "goodies" I could throw into my word processing efforts. In the interim I have tried a variety of other word processors, and found that all have strengths and weaknesses. Among my favorites are Companion, which I found on the GiveAway table at Fest-West '94 in Tucson, and Bruce Harrison's Word Processor, which is just about the easiest piece of software I have ever owned.

Recently, Jim Reynolds, a good friend and former 99er from Martinez, GA sent me a package full of 99/4A goodies that he no longer uses. Among them was a copy of Mini-Writer v1.0 copyright 1983 by Model Masters (Bill Moseid)! Boy was that a neat gift and a great surprise! Needless to say I pulled out my handiest Mini Memory cartridge, loaded the Mini-Writer software from its cassette using my original TI PHP 2700 program recorder into the Mini Memory and proceeded to crank out a quick letter. It was that easy.

Like Navarone's Console Writer, or their Homework Helper, which are essentially the same program, Mini-Writer holds about a page and a half of text before you need to save it and start on another file for the next page. The drawback is that, unlike TI Writer, you never know how close you are to the end of that 1 1/2 pages limit until you hit it. Regardless, because it was written in 100% assembly language it is so much more sophisticated than ANY of the Extended BASIC word processors it is a true joy to use.

It sports a 24 line by 48 character window and uses most

see "THINGS", page 4

ARTICLE BY BILL

# GASKILL

©1995 BY BILL GASKILL

## TI-BASE PROGRAM SEGMENTS

If you were to catalog the TI-Base program disk you would see a file named OURLAY/P listed amongst the 20 some files in your printout or display. OURLAY/P contains the "added features" that TI-Base supports such as CATALOG, CHANGE, CONVERT, COPY, FORMAT, LIST and TRACE and other features that operate as if they are a part of the main program but are not, such as AVERAGE, COLOR, DELETE, MEMORY, PACK, PRINTER, RECALL, SNAP and SUM.

Because the OURLAY/P file is not maintained in active memory, but is instead read from disk whenever one of the features listed above is called, it must be accessible to the drive that is designated as the program disk (the PRGDISK) drive whenever you try to use it. For multiple disk drive owners this is not a problem since the TI-Base disk will normally remain in the designated PRGDISK drive throughout data management operations. But for single disk drive owners, the need to be able to access OURLAY/P can be both an inconvenience and a limitation.

A partial solution for single drive owners is to copy the OURLAY/P file from TI-Base to the data disk. That way you will have access to the file, but you suffer the inconvenience of losing 48 sectors of disk storage in V2.0 AND 70 SECTORS IN V3.0. There are also some limitations that single drive owners must tolerate. These are discussed in the program segment listings below. Where the description states that single drive owners have access to a particular OURLAY/P feature, it is assumed that the OURLAY/P file has been copied onto the data disk prior to the feature being "called".

AVERAGE-fully accessible with 1 drive.

CATALOG-fully accessible with 1 drive.

CHANGE-fully accessible with 1 drive.

COLOR-fully accessible with 1 drive.

CONVERT-while the Convert program segment is fully accessible to a single disk drive owner, you must have enough space on a single disk to accomodate the source file and the target file as well as the OURLAY/P file.

see "GASKILL", page 4

GASKILL continues

**COPY**-fully accessible with 1 drive, but only for COPYs from one file name to another file name on the same disk. COPY has no provision for pausing or disk swapping. It also does not use any dynamic memory for buffer space, but instead makes a sector-by-sector clone of the source file.

**DELETE**-fully accessible with 1 drive.

**FORMAT**-cannot be used with a single drive. The problem is that FORMAT needs to be accessed at the beginning and end of the disk initialization process. You could begin the formatting by having the OURLAV/P file on the disk to be initialized, but since it would be erased during the formatting process, OURLAV/P would not be available to close the operation. The end result would be a "device error" message and a disk that was unusable.

**INSTALL**-fully accessible with 1 drive.

**LIST**-fully accessible with 1 drive.

**MEMORY**-fully accessible with 1 drive.

**PACK**-fully accessible with 1 drive.

**PRINTER**-is the PRINTER data base on the program disk. It is fully accessible to the single drive owner if the program disk is inserted before the CALL is made to the PRINTER data base.

**RECALL**-fully accessible with 1 drive.

**RECOVER**-fully accessible with 1 drive.

**SNAP**-fully accessible with 1 drive.

**SUM**-fully accessible with 1 drive.

**TRACE**-fully accessible with 1 drive.

=eof=

THINGS continues

of the familiar TI Writer commands to move about the screen, it has full Insert and Delete capabilities, Block Copy and move, prints to any device, so you can save to PIO, RS232, or DSK# devices, and it allows you to include printer format control codes. All-in-all, one really neat package for the bargain-basement word processor in 1983.

The instruction manual, written by Bill Moseid, is clear, concise and well illustrated. In fact, compare to some of his later documentation creation efforts, I would say it was among his best.

**CHANGING TI WRITER COLORS:** This is among my oldest of favorites, which I first learned from Tim McEachern, the author of Wycove FORTH. It shows how easy it is to change the default monitor display colors that pop up in TI Writer when you first load it.

1. Initialize a new disk.
2. Copy the EDITA1 file onto the newly initialized disk.
3. The EDITA1 file will be saved beginning at sector >22.
4. Load you favorite sector editor and go to sector >22.
5. Beginning at address 00F4 you will see 5 hexadecimal numbers.

87F4 - White characters on blue background.  
 8713 - Black characters on green background.  
 87F3 - White characters on green background.  
 8717 - Black characters on cyan background.  
 87F1 - White characters on black background.

6. To alter the colors, change F4 or 13 or F3 or 17 or F1.

7. Below is a listing of the 16 available colors in hexadecimal codes.

0 - Transparent	8 - Medium Red
1 - Black	9 - Light Red
2 - Medium Green	A - Dark Yellow
3 - Light green	B - Light Yellow
4 - Dark Blue	C - Dark Green
5 - Light Blue	D - Magenta
6 - Dark Red	E - Gray
7 - Cyan	F - White

Change the codes to the desired color combinations and write the new sector to disk. You are done except for copying EDITA2 and the format programs to the new disk.

**CALL LOADS** - Here's a quick collection of some of my favorite and most useful XB CALL LOADs. Most if not all you have seen before, I just wanted to make sure they didn't get lost in the shuffle of old newsletters that never get read. Unless you have the Triton/MG Super Extended BASIC command module, I will assume that you have already typed in CALL INIT prior to trying each CALL LOAD.

CALL LOAD (-31931,0) - unprotected an Extended BASIC program that has been saved with the SAVE PROGRAM,PROTECTED command.

CALL LOAD (-31806,16) - disables the QUIT Key so you can't accidentally hit it and loose all of you programming in memory.

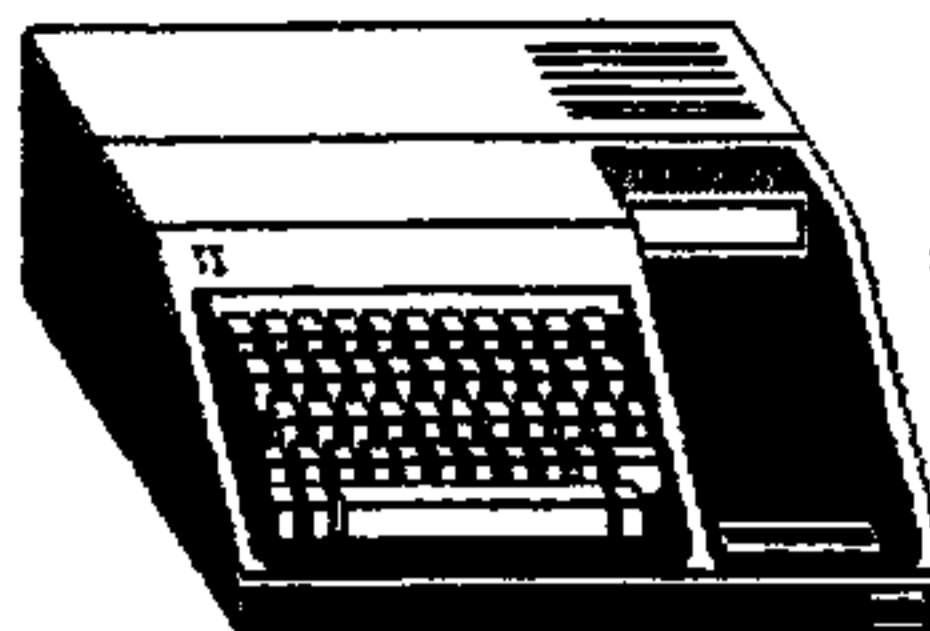
CALL LOAD (-31806,0) - re-enables the QUIT Key.

see "THINGS", page 6

# WHEREFORTHS OF FORTH

PART 4

BY RENE' LEBLANC



# COMPUTER TUTOR

In "WHEREFORTHS #3" I provided a block diagram of the Forth Virtual Machine (FVM). The diagram shows five major FVM components: (1) Parameter Stack, (2) Return Stack, (3) Dictionary, (4) Disk & Keyboard Input Functions and (5) Output Functions.

In this issue there is a figure on page 9 showing a memory map of where these things reside in the TI-99/4A Expansion Memory. The FORTH INNER KERNEL routines in the lower expansion memory are assembly language routines that are executed to support the higher-level FORTH DICTIONARY KERNEL words.

Note that the Return Stack is at the top of the lower expansion memory area and grows downward toward lower memory addresses. The Parameter Stack is near the top of the upper expansion memory, just below TIB, and also grows downward toward lower memory addresses.

The FORTH DICTIONARY KERNEL words occupy >A000 - >BC80. The top word in the Kernel is the dummy word TASK. As user extension and application words are compiled into the dictionary, it grows upward toward high memory. The word HERE returns the first available word above the top of the dictionary. The PAD area "floats" >60 bytes above the top of the dictionary.

The top of the stack is an address that is stored in a USER variable called DP (for Dictionary Pointer). All the word HERE does is to fetch that value and put it on top the stack. The colon definition for HERE is simply:

```
: HERE DP @ ;
```

Since the PAD area is only used during execution, and not during compilation, the fact that it floats at the top of the dictionary is not a problem.

Forth USER variables are special variables that do not allocate space in the dictionary. Instead, they are allocated in a special area as shown. Although, there is a little spare room for additional USER variables, most of these are already defined for system use. They might more properly be called SYSTEM variables, but that's not the way they are called. You can find a list of them in Appendix E of your TI-Forth manual.

Another important USER variable is IN. IN is shown in the FVM diagram of the last issue. It is an offset either into a disk buffer being read, or into TIB when input is from the keyboard. We will see more about how the FVM works in future issues of "WHEREFORTHS".

see "WHEREFORTHS", page 9

## 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 2 kinds of branching statements: conditional and unconditional. One example of an unconditional branching 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.

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 of "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 aren't limited to using the equal sign (=) to set up the condition. The inequality symbols may also be used (<,>,<=,>=,<>) as shown below:

```
40 IF A >10 THEN 200      100 IF T <>2 THEN 10
70 IF X <=50 THEN 250    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 CAPITAL OF PA."
20 INPUT C$
30 IF C$ = "HARRISBURG" THEN 60
40 PRINT "INCORRECT. TRY AGAIN."
50 GOTO 10
60 PRINT "RIGHT ON!"
70 END
```

see "BASIC", page 9

CALL PEEK(2,A,B) :: CALL LOAD(-31804,A,B) -  
causes a program to quit to the 99/4A's Color Bar  
screen.

#### ORPHAN CHRONICLES:

Many will remember the tremendous success that Ron Albright achieved with his ORPHAN CHRONICLES book, but few recall the followup book of sorts named THE ORPHANS SURVIVAL HANDBOOK which showed up in late 1986-early 1987. Here's the text of the "book's" official release announcement.

ANNOUNCING THE NEW  
ALL DIFFERENT BOOK  
BY  
RON ALBRIGHT

#### "THE ORPHANS SURVIVAL HANDBOOK"

Ron Albright reports...

"The first book, "The Orphan Chronicles", was ABOUT you-the Texas Instruments 99/4A enthusiast. Now, there is a book BY you. The "Orphans Survival Handbook" is the one-stop information source for the TI User.

"The ORPHANS SURVIVAL HANDBOOK" was both easier and harder to put together than was the 'Orphan Chronicles'. Easier in that it was already written! It is an anthology of material gleaned from literally hundreds of user group newsletters and hundreds of hours of downloaded filed (sic) from bulletin board systems. It is the "Best of" you the TI user group members, hackers, programmers, newsletter editors. Why, then, was it difficult? There was so much quality material available! The hardest thing was not finding enough material, it was deciding what I could leave out!"

"The "ORPHANS SURVIVAL HANDBOOK" is a 200-page plus compendium of TI material. It is filled with schematics, hardware hacks, program tips, and tutorials from all across the country. Where to call, where and what to buy, and what to read. Moreover, it contains new, "never-before-seen" material from some of the brightest minds in the TI Community (too numerous to name them all). Looseleaf and three-hole punched, the manual can be placed conveniently in a binder for easy access. And updates (which are planned for registered owners) can be easily incorporated into your "Handbook" as new insights and developments become available. While I can't guarantee the "Handbook" will have "everything you wanted to know", I can assure you that it has most everything I could think of, NOW AND LATER. This handbook will continue to grow..in comprehensiveness and in its personal value to you.!"

Projected retail price is \$16.95.

PUBLISHED BY:  
Disk Only Software  
P.O. Box 244  
Lorton, VA 22079

1-800-446-4462. At the tone, enter 897335 for message.  
Voice information is (301) 348-7179.

NEW PROGRAMMING LANGUAGES: The following article excerpts were written by Doug Bohrer and Ted A. Bear. They originally appeared in a DEC Users Group newsletter then wound up in the February 1986 issue of Don and Lucy Veith's National 99er, which you may recall was published out of Bakersfield, CA. I have only included one portion, VALGOL, from the original article. I found it the most humorous.

VALGOL - From its modest beginnings in Southern California's San Fernando Valley, VALGOL is enjoying a dramatic surge of popularity across the country. VALGOL commands include REALLY, LIKE, WELL, V\*KNOW. Variables are assigned with =LIKE and =TOTALLY operators. Other operators include California Gooleans, AX and NOWAY. Repetitions of code are handled in the FOR - SURE loops. A sample program is shown below.

LIKE, V\*KNOW (I MEAN) START

```
IF PIZZA      = LIKE BITCHEN AND  
GUY           =TUBULAR AND  
VALLEY GIRL  =LIKE GRODY**MAX(FERSURE)**2
```

THEN

```
FOR I = LIKE 1 TO OH*MAVBE 100  
BARF(I) = TOTALLY GROSS(OUT)
```

SURE

```
LIKE THIS PROGRAM  
REALLY  
LIKE TOTALLY (V*KNOW)  
INXSURE  
GOTO THE MALL
```

#### NAVARONE DATA BASE MANAGEMENT SYSTEM:

This month we'll begin discussing the Navarone Data Base Management System and how you can get the most out of it for your money. Section 1 this month deals with what I call the "Quick-Start" section that lets you get the program up and running without having to read the manual.

## QUICK START-File setup:

The next few pages provide a step-by-step method for getting DBMS up and running (using a sample data base) without having to read through the entire manual.

- 1 - Have a newly formatted disk ready to use for data storage.
- 2 - Insert the DBMS module into the 99/4A's cartridge port.
- 3 - Power up your system in the normal fashion.
- 4 - Insert the DBMS program disk into drive 1.
- 5 - Press the number 2 Key to display the 4A's menu of options.
- 6 - Press option 3, DBM SETUP.
- 7 - Press <ENTER> when prompted for SETUP file name.
- 8 - Press <ENTER> when you see the cursor flashing in the middle of the top screen line, then hit the spacebar once.
- 9 - Type in the field name SUBJECT: and then press <ENTER> twice.
- 10 - Hit the spacebar once and then press Fctn 2 (INSERT) 30 times to create the data input block for the SUBJECT field. A solid red line should creep across the screen. Use Fctn 1 to delete spaces from the red line if you go too far.
- 11 - Press <ENTER> twice and then the spacebar once. Type in the word TYPE :. Note the three spaces between the end of the word and the colon.
- 12 - Use Fctn 2 again to insert a 22 character long data input block for the TYPE: field, starting on the same line, immediately after the colon.
- 13 - Press <ENTER> three times.
- 14 - Press the spacebar once. Type in the word SOURCE1:.
- 15 - Use Fctn 2 to create a 22 character long data input block for the SOURCE1: field.
- 16 - Press <ENTER> and hit the spacebar once then type in the word DATE :. Three spaces between the word and the colon again.
- 17 - Use Fctn 2 to insert a 5 character long data input block for the DATE : field.

18 - Move the cursor nine spaces to the right of the end of the red data input block for the DATE : field and then type in the word PAGE:.

19 - Use Fctn 2 to insert a 3 character long data input block.

20 - Press <ENTER> twice and repeat steps 14-19 so that you end up with a screen layout like the one illustrated below.

## Subject:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Type :XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Source1:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Date :XXXXX Page:XXX

Source2:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Date :XXXXX Page:XXX

Source3:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Date :XXXXX Page:XXX

Source4:XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Date :XXXXX Page:XXX

21 - Move the cursor to the left edge of the red colored data input block for the SUBJECT: field and then press Fctn 6 (PROC'D).

22 - Press <ENTER> once and then type in an UPPER case Y at the prompt asking "Is this a key field?".

23 - Press Fctn 6 to return to the layout screen, then press Fctn 9 (BACK).

24 - INSERT THE NEWLY FORMATTED DATA DISK INTO DSK1.

25 - Press Y at the "AUTO-SEQUENCE?" prompt.

26 - Type in DSK1.INDEX for the Data File name, then press <ENTER>.

27 - Type in DSK1.INDEXSETUP for the SETUP file name. Press <ENTER>.

28 - Press Fctn = (QUIT) and then Y at the prompt asking if you really want to quit.

## QUICK START-Report definition:

To define a report for our sample data base you will need to insert the DBMS disk into DSK1 and then select option 4, DBM REPORTS, from the menu.

see "THINGS", page 8

The report generator program first prompts you for the SETUP file name. If you want to take existing fields from the record layout screen and cut and paste them to the report format, then enter the DSK1.INDEXSETUP file name. If you would like to create a custom report format from scratch then just press <ENTER> at the SETUP file prompt. I will tell you up front that it is much easier to use the existing SETUP file.

The cut and paste method loads the SETUP file (INDEXSETUP) and displays it on screen. To cut and paste you would simply press Fctn 7 (AID) to invoke the format editor and then move the cursor to the beginning of a field (the red bar area, not the field name) to be moved. Pressing Control or Fctn M will "grab" the field and then allow you to use the arrow keys to move it around the screen into the desired position. Once there, a Keypress of any un-Controlled or un-Functioned Key will drop the field at the position of the cursor. How's that for simplicity? Let's try it for our sample data base.

1 - Insert the DBMS program disk into DSK1 and then press any key to bring up the DBMS menu. Press 4 for DBM REPORTS.

2 - At the SETUP file prompt type in DSK1.INDEXSETUP and then press <ENTER>.

3 - Press Fctn 7 (AID) when the custom field layout screen appears.

4 - Use the arrow keys to move the cursor to row 1, column 8. Type in the word Subject: and then move the cursor to the first space in the red data input block for the Subject: field from the custom field layout.

5 - Press Fctn M. The cursor changes to a more or less oval shape. You have just "cut" the data input block.

6 - Use the arrow keys to move the data input block upwards to row 1, column 16. Press <ENTER>. You have just "pasted" the data input block into the new position. Note that the cursor has now changed back to its normal shape.

7 - Use the arrow keys to move down to the S in the word Subject: in the custom field layout screen area. Spacebar over the eight characters that make up that field name.

8 - Move the cursor to row 1, column 47 and enter the word TYPE:.

9 - Move to the TYPE: field data input block in the custom field layout screen area and press Fctn M to grab it. Carry it upwards to row 1 and then move to the right until the cursor is positioned over column 52. Press <ENTER>.

10 - Now move to row 3, column 8 and type in the word SOURCE1: and then move to row 3, column 44 and type in SOURCE2:.

11 - Move to row 4, column 8 and type in DATE:. Then to row 4, column 38 and type in PAGE:. On the same row move to column 44, type in DATE: and then type in PAGE: beginning at column 66 on row 4.

12 - Move the cursor down to the custom field layout screen area and then cut and paste the SOURCE1 and DATE and PAGE data input blocks for SOURCE1: so that they are positioned immediately after the colon for the appropriate field.

13 - When you are done with the cut and paste move back down to the custom field layout screen area and use the spacebar to erase SOURCE1 and its DATE and PAGE field names and then SOURCE2 and its DATE and PAGE field names.

14 - SOURCE3 and SOURCE4 go on row 6. SOURCE1 is positioned at column 8, SOURCE4 at column 44. The DATE and PAGE fields for each are positioned underneath the appropriate SOURCE(s) in row 7.

15 - Press Fctn 9 (BACK) and then type in DSK1.INDEXRPT1. Press <ENTER>. The custom report format is saved to disk for use now or at any later date.

#### QUICK START-Sorting files:

1 - Insert the DBMS program disk into drive 1 and then press any key from the color bar screen.

2 - Press 5 to access DBM SORT. When the SORT program is loaded insert the data file disk into drive 1.

3 - At the first prompt (ENTER SOURCE FILE) type in DSK1.INDEX and then press <ENTER>.

4 - Type in DSK1.INDEXSORT to name the output file that is created by the sort routine.

5 - Type in 1 for the position of the SORT SELECTION FIELD and then Press <ENTER>.

6 - When the prompt "STRING" scrolls up press <ENTER> again.

7 - Press <ENTER> to ignore the E for EQUALS or N for NOT-EQUALS prompt.

8 - Enter 1 at the SORT KEY: 1 prompt.

9 - Press <ENTER> again and then type in 30 at the LENGTH prompt.



WHEREFORTHs continues

10 - Press <ENTER> and then type in A for an Ascending sort at the DIRECTION prompt.

11 - Press <ENTER> and then <ENTER> again when prompted for the SORT KEY: 2 input. The sort process will then begin.

12 - When the sort is completed press Fctn = to quit.

BASIC continues

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

```

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

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

To stop 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.

```

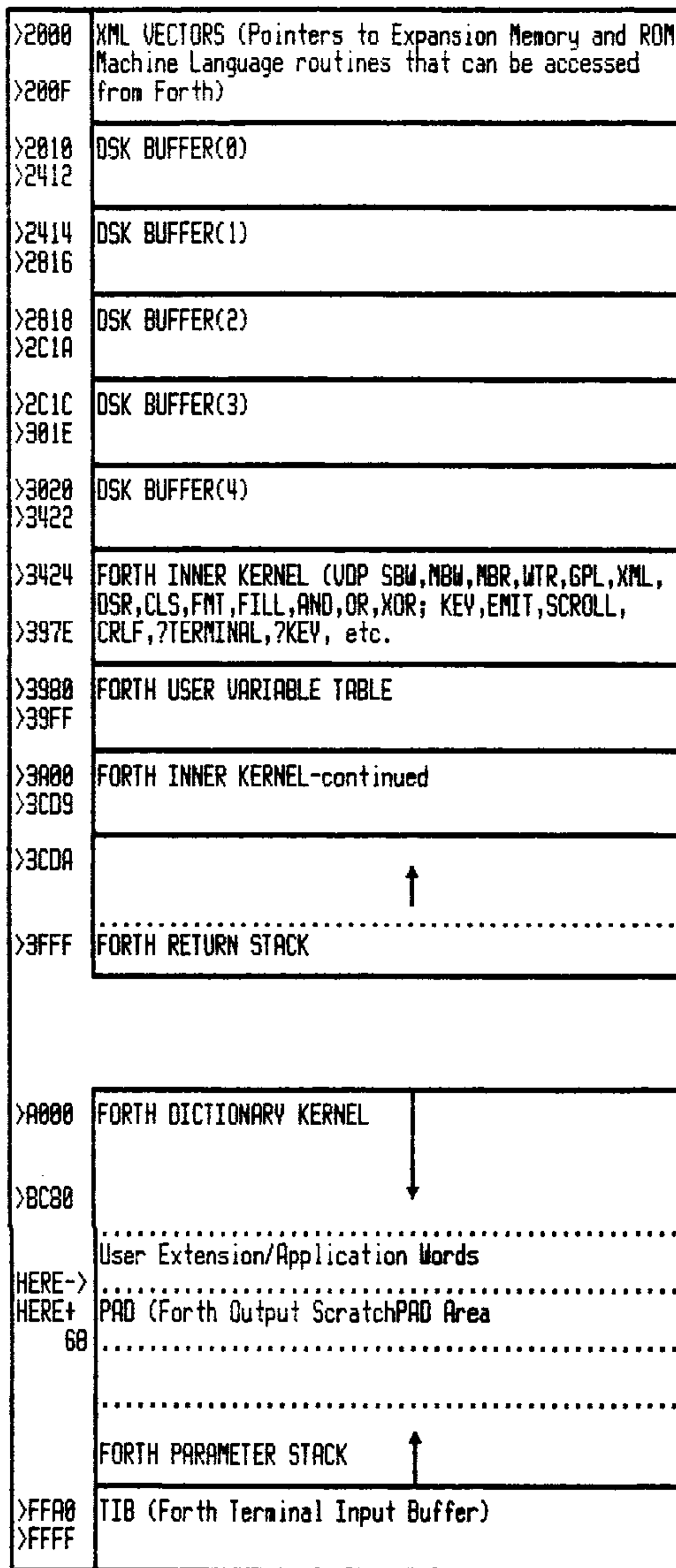
10 READ X              10 READ A$
20 IF X = 999 THEN 60  20 IF A$ = "STUPID" THEN 60
30 PRINT X             30 PRINT A$;
40 GOTO 10             40 GOTO 10
50 DATA 3,12,15,20,999 50 DATA DOC,SNEEZY,DOPEY,SLE
60 END                 60 END
                        EPY,SNOWWHITE,STUPID
    
```

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.

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

```

10 PRINT "WHAT IS THE NAME  40 PRINT "SO WHAT?"
OF THE FIRST ELECTRONIC CO  50 PRINT "YOU ARE A LOSER!
MPUTER"                     TRY AGAIN!"
20 INPUT N$                 60 GOTO 10
30 IF N$ = "ENIAC" THEN 70  70 PRINT "SMARTY PANTS!"
ELSE 50                     80 END
    
```



FORTH EXPANSION MEMORY MAP

# VAST USERS GROUP INFORMATION

The **VAST COMPUTER USERS GROUP** is a support group for the Texas Instruments TI-99/4A Home Computer and Geneve.

The **VAST COMPUTER USERS GROUP** operates a BBS 24 hours a day, 7 days a week. the phone number is:

## CURRENT OFFICERS

**(602) 267-1419**

- PRESIDENT**  
Ralph Rees.....582-0800
- VICE PRESIDENT**  
Jack Workman.....437-3187
- SECRETARY/TREASURER**  
Hazel Knight.....938-5446
- LIBRARIAN**  
Wallace Knight....938-5446
- NEWSLETTER EDITOR**  
Ralph Rees.....582-0800
- BBS SYDOP**  
Jim Ely.....UNLISTED

**ADVERTISING:** There isn't any charge to paid members for **PERSONAL** advertising. Non-members will be charged at a cost of \$1.50 per ad.

**NEWSLETTER EXCHANGE:** We exchange club newsletters with many TI Users Groups. Contact Our secretary.

Send any correspondence to the address below.

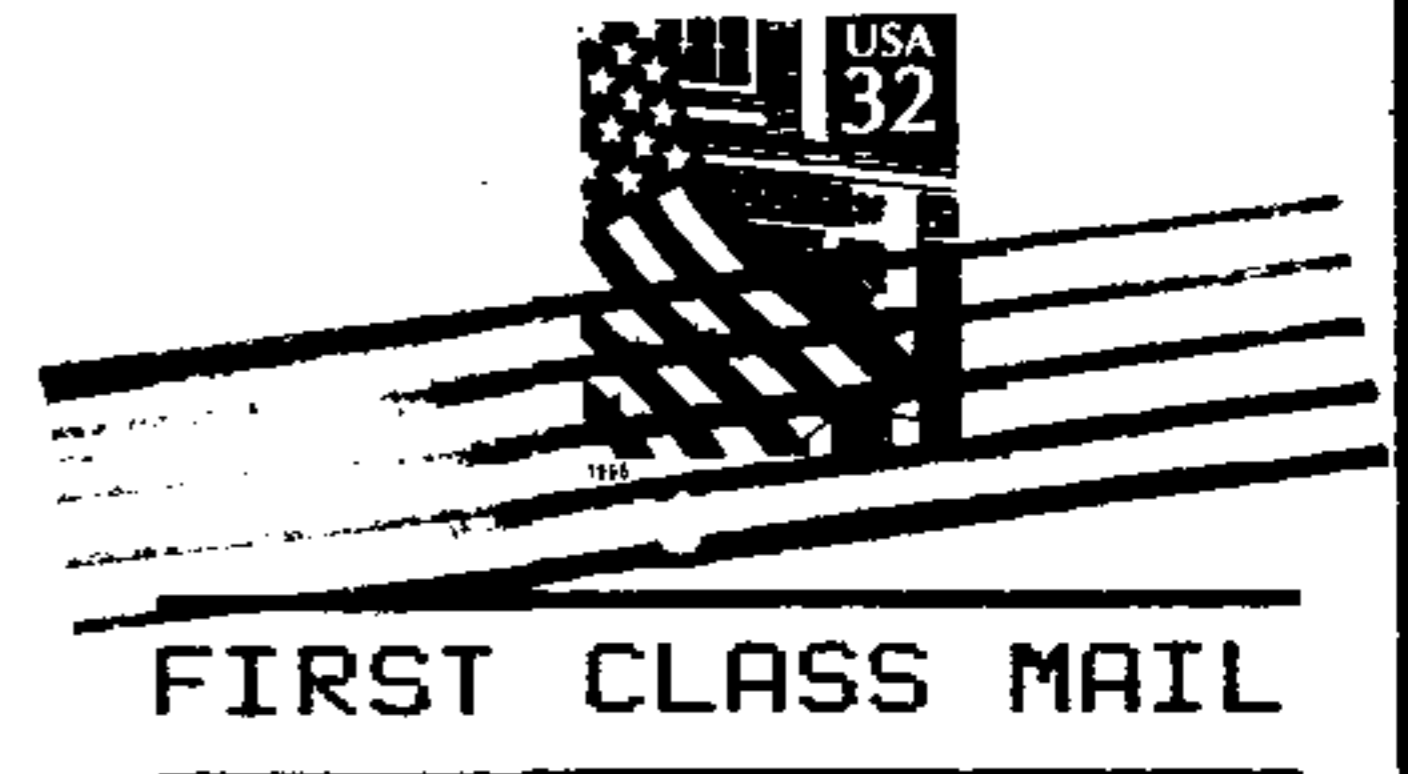
Opinions expressed herein are those of the writer and not necessarily those of the **VAST COMPUTER USERS GROUP**

**NEXT MEETING ?** WHO KNOWS? IF YOU DID NOT MAKE THE APR. MEETING YOU'LL NEED TO CALL AN OFFICER.

THIS NEWSLETTER IS COMPOSED IN ITS ENTIRETY USING A **TEXAS INSTRUMENTS TI-99/4A** COMPUTER.



**VAST NEWS**  
c/o Ralph E. Rees  
P.O. Box 37725  
Phoenix, AZ. 85069



Mr. BILL GASKILL  
2310 CYPRESS COURT  
GRAND JUNCTION, CO 81506

**FIRST CLASS MAIL**

