

NEWSLETTER

Vol. 5 - No. 6 JUNE 1989 \$ 1.25

RE M I N D E R ■ R E M I N D E R

| | | |
|---|--------------------------|---|
| E | NEXT MEETING | E |
| M | ***** TUESDAY 6/27/89 | M |
| I | 7 ' O C L O C K P . M . | I |
| N | ROUND TABLE PIZZA | N |
| D | WEST 4TH & VINE | D |
| E | RENO, NEVADA | E |

RE M I N D E R ■ R E M I N D E R

***** IN THIS ISSUE! *****

- ‡ SHORT BYTES
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- ‡ ASSEMBLY LANGUAGE CORNER #1
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- .IF'ing TIW
 How to use Include File
 Courtesy: Jack Sughrae - IMPACT 99
- ‡ TIPS FROM THE TIGERCUB #50
 Courtesy: Jim Peterson (Tigercub Software)
- ‡ SOME UNUSUAL COMPUTER LANGUAGES
 Courtesy: Doug Bohrer and Ted Bear - (Copy provided by Rob Cook - member OH-MI-TI, via NORTHWEST OHIO 99'ER NEWS / Jan 86)
- ‡ NO IBM!
 Courtesy: Kawartha 99'ers - KAWARTHA KRONICLE / V7 No.1
- ‡ BATMAN!
- ‡ WORD SAFARI
 Word Puzzle (Theme: Diskettes)

** MEETING MINUTES - 5/30/89 **

The meeting was called to order by the president, Dic Slunaker, at 7:07 P.M. at the Round Table Pizza parlor with 16 active members present.

** OFFICER'S REPORT **

The president asked the group if there were any corrections to be made to last months meeting minutes, as reported in the newsletter. No errors were found, and the minutes were adopted.

There was no Treasurer's Report, due to the absence of the treasurer.

The Program Librarian, Jack Fay, can no longer continue his duties for the group because of his present work schedule which requires him to be out of town on an ongoing basis. Therefore, the office of Program Librarian has been delegated to Ed Conradt. Welcome aboard, Ed!

** OLD BUSINESS **

A question was raised by Jerry Cohen as to the purpose and validity of listing the names of inactive members in the newsletter. After a brief discussion, it became clear that this was a one-time-only listing, meant only to update a sorely neglected membership list and to let others know about their present status. No such listings will appear in future editions of the newsletter, nor will they be necessary, since color-coded mailing labels will now be used. GREEN highlight = renewal fee due; YELLOW = renewal fee overdue - 1 month; RED = renewal fee overdue - 2 months, and "Final Notice".

** NEW BUSINESS **

A 1200 baud modem has recently been purchased by the group and is available for loan to the membership, through the Lending Library. Also on hand is a 300 baud modem. Do yourself a favor and check 'em out!

Do you have a request for special programs, classes, or demonstrations which you would like to see at our future meetings? If so, please contact any one of your local board members as soon as possible with your suggestions and they will put your ideas to good use! After all, this is YOUR user group and YOUR valuable time. So why not make the most of it?

A motion was made, seconded, and unanimously passed, to continue our monthly group meetings throughout the summer. (Either none of us has anyplace to go, or, we really love our TI!)

** DISK'S OF THE MONTH **

The give-away programs featured this month were two companion disks to compliment the TI-Artist graphics environment. These came from the group's Program Library: Disk #38A and disk #38B.

WANT TWO FREE DISKETTES FULL OF PROGRAMS? Then have we got a deal for you! Simply grab two blank, initialized disks of your own, show up at our next meeting, and we'll SWAP you! That's all there is to it! If you're fresh out of disks, or if you forget to bring 'em along, we'll sell our disks to you for the paltry sum of 50 cents! Now, is is that a deal, or what?

DISK'S OF THE MONTH for June will have the following programs:

Disk #1 - XB Utilities/Graphics/Adventure.

Filename:

- ARCI - Barry Boone's latest ARCHIVER program
- ARCHXBLDAD - Extended Basic Loader for ARCHIVER
- BID+ - Terry Staph's Biorythya program
- COLTEXT3_1 - Ron Prewitt's text columnizer
- DSKCAT - Disk cataloger
- HAUNTED - Text adventure game
- MAZEMAKER - Maze-making program
- MDCOPY - Mike Dodd's disk-copier
- SHUTTLE - Screen graphic of space shuttle in flight

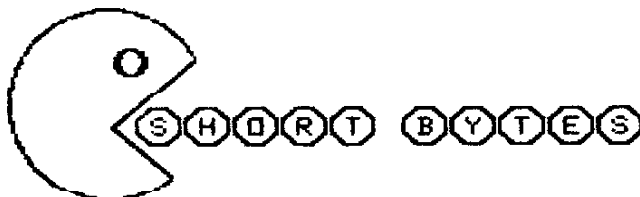
Disk #2 - 5 XB Games from England - R. Johnson

1. 3D NOUGHTS & CROSSES (3D TIC-TAC-TOE) w/ speech
2. BLACKJACK w/ speech
3. POKER w/ speech
4. IMPERIUM ROMANUM (Roman Wargame)
5. TEXAS FROG (Fropper-style game w/ speech)

The above programs will be demoed after the formal meeting has adjourned. They are all FAIRWARE, and members are gently, but firmly, reminded to PAY the authors' of each program you put to good use. FAIRWARE allows you the opportunity to test the software BEFOREHAND to see if it meets your requirements. Let's not abuse the privilege!

MONTHLY RAFFLE

This month's prize was a CURTIS Universal Printer



ASCII MICROTUTORIAL - While tinkering around with PLUS!, I found three small errors on my hard copy of the PLUS! documentation for the reference sheet dealing with Graphic Key Structure (Check your own copy of: BOX/REF BORDERS AND BOXES to see if it is complete.)

Here are the errors:

Key number 46, the "." (period) key, which is supposed to produce character style #174, the "•" symbol, is missing entirely from the chart.

And, the sign for key number 38, the "&" (ampersand) key, does not have anything printed after the character style #166. The symbol should be, "•".

Also, the sign for key number 64, the "@" (at) key does not have anything printed after the character style #192. The symbol should be, "•".

For more information on Special Character Mode, read

Stand won by Roland Chapman. (Thanks, Kevin, for selling me the winning ticket!)

Next month's prize will be a NEW TI Editor/Assembler Package. Included are the following: E/A cartridge, two diskettes, E/A manual, Keyboard strip, and Tombstone City game.

If you still don't have this module, now is your CHANCE to own it for only \$1.00! See you at the meeting!

CLOSING

The formal meeting was adjourned at 8:00 P.M.

EDITOR'S NOTE -

Your humble newsletter editor is soliciting the talents and know-how of our membership for articles to include in YOUR newsletter. Have you purchased a game or utility program that you found didn't come up to your expectations? WRITE ABOUT IT! Get it off your chest! How about a program or peripheral device that you came across that is simply THE best thing to come along since the PET ROCK! TELL US ABOUT IT! Did you attend one of the TI Fairs recently? PASS ON WHAT YOU SAW! Got any questions that no one has been able to answer! ASK ABOUT IT! (Remember, our group exchanges newsletters with 30 other Users' Groups, so they can help you out too!) Programmed anything lately in Extended Basic, C99, A/L, or any other language? WHY NOT SHARE IT WITH EVERYONE?

Jokes, puzzles, cartoons... ANYTHING! You can type it, handwrite it, put it on a disk in D/V 80 format, telephone it in (by Voice or Modem), record it on a tape recorder, FAX it... WHATEVER!

The only thing asked of you is to try and get your original article into the editor by the 15th of the month so that the deadline can be made. ~ SUBEND.

Reference Guide, page 98, of the TI-Writer manual. And, study the Quick Reference, page 146. For more insight, read your printer handbook, specifically the section on ASCII Codes. (If you have a STAR 96-10, look at pages 129 thru 134, appendix B and appendix C, respectively. And, if you have a STAR Gemini 10X, look at pages 226 thru 240.)

Now that you understand (?) it somewhat, let's experiment! Insert the PLUS! disk in drive one. Now, load in the program - DESKCAL. DO NOT type - RUN! Instead, type: 680, then push the <FUNCTION> key and the "X" key (Line 680 of the program will appear). Change the part of the line that reads: CHR\$(160) to: CHR\$(224). Now, type: SAVE DSK1. DESKCAL. Then, after the cursor returns to the screen, type in: RUN <ENTER> and follow the prompts of the program. After entering a title for your calendar, use: "1989" and "7" for the YEAR and MONTH. When asked whether or not you wish to enter a message, type in: "4" for the DAY, then, at the next prompt, enter: "HAPPY FOURTH OF JULY!" Print the calendar. Notice anything different... like, no more "JJ"'s after your messages? Gee! I wonder how that happened? (Read the PLUS! reference sheet and find out what the symbols are for character styles #160 and #224.) ~RC~



JACK SUSHRUE, teacher, author of IMPACT/99 articles, and, most notably, the creator of the word processing environmental disk, PLUS!, was recently involved in a car crash and sustained numerous head injuries. His injuries are being attended to and the prognosis appears good at this time.

Jack,

From all of us at 4N, we wish you all the best & a speedy recovery.

GET WELL SOON!

Mr. Harry T. Brashear, newsletter editor for the W.N.Y. 99'ers, is leaving his TI users' group. He announced this in the June 89 INTERFACE. After six years with them, he has decided to call it quits; mainly due to the lack of support and involvement from his fellow members.

Harry has written articles for Micropendium (Micro-Reviews) and Asgard News. He promises to continue writing articles for the TI community at large. Meanwhile, he will be devoting most of his time to a novel which he has been working on for some time.

(The following three infoBITS comes from the W.N.Y. 99'ers INTERFACE/Jan 89-Courtesy: Harry T. Brashear. -Ed.)

*****No new information on TI-Artist II yet. I have spoken to the one that should know, and he won't tell me nothing. I'm not going to commit to something, and then have to write some stupid letter to Micro explaining why I can't keep my promise", was the quote I got. However, I did get enough to know that the author is going positively ape on new functions. I am betting on a mid-summer release, at least by Chicago Fair time.

*****Where's PRESS? Aha, that haunting question still needs to be answered, but here's the latest... I understand that all the modules are finished, and are being tied together at this moment. A few less important items are being dropped and a couple of new ones added. It seems to be a give and take with the end user in mind. There were a couple of items that slowed things down a bit, so they are putting in a toggle to go between regular text mode and the what-you-see-is-what-you-get mode. Sounds ok to me. Frankly, at this point, I'd be willing to just look at the menus and wait for the next version to get it to do something.

*****While you're sitting around waiting for the Zeno board, consider this. There is a design coming in from Australia for a multi-function board for the P-box. It will consist of 32K, RS232, and DSDD disk controller on one board. It could come in kit form. We'll keep our

eyes open and let you know more on it, as rumor progresses.

(# Editor's note) - For those of you who don't know what the Zeno Board is, it is a piece of hardware being designed and developed by Eric Zeno of the West Penn 99'ers that will fit INSIDE THE CONSOLE! It will most likely be in kit form and have the following specifications:

- # Fits inside console above CPU board and solders directly to back of GROM connector with just a few wires to the CPU board.

- # Requires no additional power

- # Includes RESET circuit

- # Can be expanded or configured as the user requires.

- # 32K static RAM

- # Battery-backed clock

- # Speech synthesizer

- # Extended Basic

- # Additional switch selectable GROM.

If you are interested at all in the ZENO BOARD, you can write or call Eric Zeno for more information at:

414 Highland Rd.
Pittsburgh, PA 15235
(412) 371-4779
(SASE)

(This 'BIT comes from Ray Langevin from the North Eastern 99'ers Newsletter, dated April 87. -Ed.)

One of the best features of GRAPHX are those grey boxes that you use as a grid when drawing. Here are the steps you can take so you can use these handy boxes on TI-Artist:

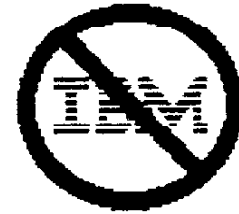
1. Load GRAPHX 2. Select "CLEAR SCREEN" option on main menu 3. Select "CLEAR TO GREY BOXES" 4. Return to main menu 5. Select "READ OR SAVE TO DISK" 6. Select "SAVE CURRENT SCREEN" 7. Enter and save to disk DSK2.6GRID 8. End session 9. Load TI-Artist 10. Select "(4) CONVERSIONS" from first menu 11. Select "(L) LOAD PICTURE" 12. Select "(5) GRAPHX(TM)" 13. Enter DSK2.6GRID 14. Select "(5) SAVE PICTURE" 15. Select "(1) TI-Artist(TM)" 16. Enter DSK2.6GRID 17. <Function> + to return to menu.

The above steps put the grids into TI-Artist. Now we'll show you how to get them when you need them:

1. Load TI-Artist 2. At first menu, select "(1) TI-Artist" 3. Select "S" or STORE on menu 4. Select "(L) LOAD PICTURE" 5. Enter "DSK2.GRID" 6. Depress space bar for main menu 7. Select "B" for Background color 8. Select the color WHITE from the color bar 9. Depress space bar. You are now done!

If you use the color BLACK to draw with, then you may clear the blocks by using "<Control> B".

This newsletter was compiled with #
FUNNELWEB, TI-Artist, and PLUS! #



IMFACT/99
by Jack Sughrue

IFFING TIW

JUST SAY NO!

Courtesy: Kwantha 99'ers

To what state have we arrived, jargonwise, when such a title as IFFING TIM has some meaning?

If you use T.I. WRITER or any of its improved versions (T.K. WRITER, R.A. WRITER, or - by far the most superior - FUNNELWEB), you may have become familiar with the Include File structure. This Include-filing process (known as IFFing) allows some extraordinary things to happen to your word processor. It automatically brings up a file into your text that will let you access, simply, some very complex things.

Like what?

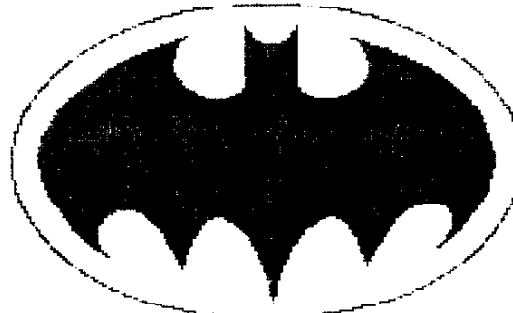
♥ Like that, for example; but let's say you'd like to have a term-paper style format (centered heading, right justification, wide margins, double spacing, along with an active transliteration key to underline, double strike, super/sub script and so on at will WITHIN YOUR DOCUMENT AND OPERATED FROM KEY PRESSES!), then IFFing will give it to you. Then lets say that part way through this term paper you need a large indentation and condensed type to offset that piece from the rest of the paper. And then go back to the original structure. IFFing does that by just adding a few characters before the offset piece and a few characters to return it, right in the text as you are typing.

Or say you have a series of sections to a long piece of writing; a novel perhaps. You have six chapters written, you want to load up the disk and print all six chapters saved under different filenames. With the flick of an IFFing switch you can print them ALL while you're off having dinner or taking your dog to the cheese factory. When you return your novel (to this stage) is printed out. That's IFFing.

First, you must build a file to be IFFed. Ninth easiest thing in the world. (We'll discuss the other eight in another column some time, but I will mention that breathing is Number One. So you can see the competition.)

```
.FI;AD;LM 4;RM 75;IN +3
.TL 1:27,52
.TL 2:27,53
.TL 3:27,83,0
.TL 4:27,83,1
.TL 5:27,84
.TL 6:27,66,3
.TL 7:18
.TL 8:27,87,1
.TL 9:27,87,0
.TL 19:27,66,2
.TL 20:18
.TL 12:7
.TL 21:27,45,1
.TL 22:27,45,0
.TL 15:27,71
.TL 16:27,72
.TL 17:27,69
.TL 18:27,70
```

THE BATMAN



SOMETHING

Above, for example, is a code template I use in the PLUS! companion disk I wrote and edited for the Fairware market. As template codes go it is fairly simple. The first line FIlls, ADjusts (for right justification), Left Margins (in 4), Right Margins (in 75), and INdents (3 in from ANY Left Margin I establish during my document). This, I would assume, would be a reasonable standard for most text. I could have added (and DID on other templates) double spacing, automatic page numbering, a pre-designed HEader, or many other things. The template above is primarily to activate the TL key. After this template is SAveD as a file (Do not type in the > sign. Begin each line with the period.), it is best to keep that tiny file on your main FUNNELWEB (or whatever) disk under a quick title. I refer to it as C3 because it is the third template I created. C2, for example, will automatically let me type out in condensed at 132 columns wide with all the TL keys intact. C4 will give me the term-paper structure I mentioned above. C1 is

strict TL. My margins and indents will be my own problem. And so on.

Okay. Let's say you've typed in and SAVED that exact file under the filename C3 on your FUNNELWEB on DSK1.

Now, whenever you load your wordprocessor and the cursor awaits your initial command, type T <ENTER>. Then put an L on 1, and I on 5, and an R on 38. This will set your screen margins within the width of the screen and will automatically create an indentation at the start of each paragraph. You'll be able to read everything ON your screen - no more windowing.

Next, press FCTN/0. This will rid the screen of line numbers and let you view your literary masterpiece unfettered.

Now your cursor is sitting in the upper left corner of your screen rarin' to go. Type the following without the parentheses: (.IF DSK1.C3) and press ENTER.

Type whatever text you want, viewing it perfectly on your screen. Feel free to use the TL keys to underline, enlarge, condense, doublestrike, superscript, italicize, letter quality, elite, whatever, whenever you wish.

The code is sitting there to automatically FORMAT this text into the original FILL/ADjust etc. you wanted. And, even though the template is tiny, you have the most extraordinary other things built in.

The TL chart is mnemonic. I built it that way when I first began to use the TL key in 1981 to help myself remember. It has been very easy, very faithful.

With that C3 sitting in DSK1., all you do to automatically call up any of this stuff is type the following: CTRL/U, SHIFT/n, CTRL/U. n is the letter that turns ON the desired printer code. The following ALPHABETICAL letter, using the same CTRL/U, SHIFT/n, CTRL/U will turn off the code.

An example would be if you wanted some words doublestruck for emphasis. You would type along regularly. Then when you came to the word or words you wanted doublestruck you would type CTRL/U, SHIFT/O, CTRL/U. Then type all the things you want in dark type. Then type CTRL/U, SHIFT/P, CTRL/U. That will shut it off, and you can go on typing to your heart's content. If O turns it on, P turns it off. Italics is turned ON by A, so B turns it off. Underlined is turned on by U, so V turns it off. If you wanted some words underlined and doublestruck and in italics with the above template, you would type CTRL/U, SHIFT/UA, CTRL/U. To turn this batch off type CTRL/U, SHIFT/VPB, CTRL/U.

Meat, eh?

(At the end of this article is the complete mnemonic code Quick Reference Chart for the FUNLPLUS! Template C3 shown above.)

(The TL key, by the way, can do MUCH, MUCH more than just activate printer codes in this way. But that will have to be another column.)

Now back to our text. You've type all you wanted (let's say a two-page letter) and you're ready to print. Type SF. Type DSK2.WHATEVER. After the file is SAVED to another disk, go back to the Command line (FCTN/?) and type 0 <ENTER> and E <ENTER>. If you are using FUNNELWEB you are back to the menu. Type 2 (FORMATTER). When the file comes up it'll say DSK2.WHATEVER. Turn on your printer. Press the keys all the way down and watch your printer PRINT out full-width, right-justified, fully-coded text!

But what if you wanted to print lots of files? There are lots of ways of doing this. Whatever is convenient for you.

I took the C3 template above and added the following for a special project:

```
.HE Poetry Book:THE LINK by Jack Sughrue
.FD Page 1
.IF DSK2.THE/LINK1
.IF DSK2.THE/LINK2
.IF DSK2.THE/LINK3
.IF DSK2.THE/LINK4,
```

This printed out each file of my book after first going back to DSK1.C3 to see what was expected of the FORMATTER. But it would go to DSK2 to get each file itself.

I could even add

```
>.IF DSK3.THE/LINKS
>.IF DSK1.LAST/POEM
>.IF DSK.BOOK.CREDITS
```

if I wanted to, because the original IFfer will sort it all out for me. If one file is on DSK3 and another on DSK1 and another in ANY drive as long as the disk name is BOOK, it will find the file and PRINT it out.

Isn't that extraordinary?

With IFFing you can expand the horizons of your FUNNELWEB (or whatever TIM processor you're using) to exciting new dimensions. I have used the IFFing so much over the years, I have even created LF templates that make the LOADING even faster. I have a file called Z, for example, that automatically loads up the C2 code and the first few lines including condensed FORMAT codes which can't be replicated in this article. But you could actually create the following file and call it J (because it will draw up C3) in the automatic process:

```
.IF DSK1.C3
.CE 4
FUNLPLUS! v. 4.4
*****
by Jack Sughrue
*****
```

This automatically loads the IF and CEnters the next four lines which act as a quick heading for letters about Version 4.4. From there I can type the notes or comments or letters or article and SAVE it by its new name. When I print it out, it will call up C3 and PRINT out all my text within the C3 structure. This is great because you are automatically at the Command Mode when you enter FUNNELWEB. Just typing DSK1.J loads up everything shown above AND the Tabs I had previously set. Thus, no more TABbing; no more typing the IF info, no more setting up the text structure. It's all in one number - J. And all the FORMATting code is in C3. Beautiful.

I don't know of another wordprocessor that allows such wonderful flexibility and speed.

This system of templates would be even greater with RAMdisk and DSDD drives, of course, but all my system had when I first created and used these codes was one SSSD drive, and it sure is easy and fun.

[Jack Sughrue, Box 459, E.Douglas MA 01516]

FUNLPLUS! QUICK REFERENCE CHART (TEMPLATE - C3)

>.FI;AD;LM4;RM75;IN+3

Fills line, ADjusts (justifies) margins. Left Margins at column 4, Right Margin at column 75, INdents 3 beyond any Left Margin.

Following are the transliteration codes (Each .TL 27 sets printer):

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
% SHIFT .TL CODE % SHIFT .TL CODE % SHIFT .TL CODE %
% KEY & FUNCTION % KEY & FUNCTION % KEY & FUNCTION %
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

| | | |
|---|---------------------------------------|--|
| >.TL 1:27,52 AITALICS on | >.TL 7:18 GCONDENSED off | >.TL 21:27,45,1 MUNDERLINE on |
| >.TL 2:27,53 BITALICS off | >.TL 8:27,87,1 HENLARGED on | >.TL 22:27,45,0 NUNDERLINE off |
| >.TL 3:27,83,0 CSUPERSCRIPT on | >.TL 9:27,87,0 IENLARGED off | >.TL 15:27,71 ODOUBLESTRIKE on |
| >.TL 4:27,83,1 DSUBSCRIPT on | >.TL 19:27,66,2 JELITE on | >.TL 16:27,72 PDOUBLESTRIKE off |
| >.TL 5:27,84 ESUPER/SUB off | >.TL 20:18 KELITE off | >.TL 17:27,69 QEMPHASIZED on |
| >.TL 6:27,66,3 FCONDENSED on | >.TL 12:7 LSOUND BELL | >.TL 18:27,70 REMPHASIZED off |

TIPS FROM THE TIGERCUB

#50

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TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213

Distributed by Tigercub Software to TI-99/4A Users Groups for promotional purposes and in exchange for their newsletters. May be reprinted by non-profit users groups, with credit to Tigercub Software.

Over 120 original programs in Basic and Extended Basic, available on cassette or disk, NOW REDUCED TO JUST \$1.00 EACH!, plus \$1.50 per order for cassette or disk and P&H. Minimum order of \$10.00. Cassette programs will not be available after my present stock of blanks is exhausted. The Handy Dandy series, and Color Programming Tutor, are no longer available on cassette. Descriptive catalogs, while they last, \$1.00 which is deductible from your first order.

Tigercub Full Disk Collections, reduced to \$5 post-paid. Each of these contains either 3 or 6 of my regular catalog programs, and the remaining disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - they are a free bonus!

TIGERCUB'S BEST, PROGRAMMING TUTOR, PROGRAMMER'S UTILITIES, BRAIN GAMES, BRAIN TEASERS, BRAIN BUSTERS!, MANEUVERING GAMES, ACTION GAMES, REFLEX AND CONCENTRATION, TWO-PLAYER GAMES, KID GAMES, MORE GAMES, WORD GAMES, ELEMENTARY MATH, MIDDLE/HIGH SCHOOL MATH, VOCAB-

ULARY AND READING, MUSICAL EDUCATION, KALEIDOSCOPIES AND DISPLAYS

NUTS & BOLTS DISKS

These are full disks of 100 or more utility subprograms in MERGE format, which you can merge into your own programs and use, almost like having another hundred CALLs available in Extended Basic. Each is accompanied by printed documentation giving an example of the use of each. NUTS & BOLTS (No. 1) has 100 subprograms, a tutorial on using them, and 5 pp. documentation. NUTS & BOLTS No. 2 has 108 subprograms, 10 pp. of documentation. NUTS & BOLTS #3 has 140 subprograms and 11 pp. of documentation. NOW JUST \$15 EACH, POSTPAID.

TIPS FROM THE TIGERCUB

These are full disks which contain the programs and routines from the Tips from the Tigercub newsletters, in ready-to-run program format, plus text files of tips and instructions.

TIPS (Vol. 1) contains 50 original programs and files from Tips newsletters No. 1 through No. 14. TIPS VOL. 2 contains over 60 programs and files from Nos. 15 thru 24. TIPS VOL. 3 has another 62 from Nos. 25 through 32. TIPS VOL. 4 has 48 more from issues No. 33 through 41. NOW JUST \$10 EACH, POSTPAID.

\$ NOW READY \$
\$ TIPS FROM TIGERCUB VOL.5 \$
\$ Another 49 programs and \$
\$ files from issues No. 42 \$
\$ through 50. Also \$10 ppd \$

TIGERCUB CARE DISKS #1, #2, #3 and #4. Full disks of text files (printer required). No. 1 contains the Tips news letters #42 thru #45, etc. Nos. 2 and 3 have articles mostly on Extended Basic

programming. No. 4 contains Tips newsletters Nos. 46-52. These were prepared for user group newsletter editors but are available to anyone else for \$5 each postpaid.

This educational program is a much expanded version of a routine I published before.

100 DIM M\$(100)
110 GOTO 150
120 S,K,A\$(1),J,M\$(1),Y\$,Z\$,Z,
X,ING\$,A,ANG
130 CALL CLEAR :: CALL COLOR
:: CALL SCREEN :: CALL CHAR
:: CALL KEY :: CALL ING ::
CALL HCHAR
140 !@P-
150 CALL CLEAR :: FOR S=0 TO
12 :: CALL COLOR(S,2,8):: N
EXT S :: CALL SCREEN(5):: DI
SPLAY AT(3,1):"LEARNING TO "
"ING" IT V.1.1"
160 CALL CHAR(64,"3C4299A1A1
99423C"): DISPLAY AT(5,1):"
@ Tigercub Software 1987 for
free distribution - no price
or copying fee to be charged
"
170 CALL KEY(3,K,S)
180 A\$(1)="No, if the word d
oes not end in B, D, G, H, N
, P, R or T you always just
add ING"
190 A\$(2)="No, if the last le
tter is not E and the next-t
o-last letter is not a v
owel, just add ING"
200 A\$(3)="No, if the word h
as two vowels just befor
e the last letter, just add
ING"
210 A\$(4)="No, if a word end
s in B, D, G, H, N, P, R or
T with one vowel (but not tw
o vowels!) just before it, y
ou must double the last
letter and add ING"
220 A\$(5)="No, if the word e
nds in IE, change the IE to
Y and add ING"
230 A\$(6)="No, BE is an exce
ption to the rules,"
240 A\$(7)="Some dictionaries
give EYING but EYEING is be
tter"
250 A\$(8)="No, if a word end
s in E (ex-cept BE and words

ending in IE, OE, UE AND YE)
you must drop the E and add
ING"
260 A\$(9)="No, if the word e
nds in EE, or OE or UE, just
add ING"
270 A\$(10)="No, QUIP, QUIT a
nd QUIL are exceptions to th
e rule. Double the last
letter and add ING."
280 FOR J=1 TO 100 :: READ M
\$(J):: NEXT J
290 FOR J=1 TO 100 :: Y\$=Y\$&
CHR\$(J):: NEXT J :: Z\$=Y\$
300 DISPLAY AT(3,1):Z\$: ""
:" Type the word with the
correct ING suffix"
310 RANDOMIZE :: Z=INT(RND*6
EN(2)+1):: X=ASC(SEG\$(Z\$,2,
1)):: Z\$=SEG\$(Z\$,1,Z-1)&SEG\$
(Z\$,Z+1,255):: IF LEN(Z\$)=0
THEN Z\$=Y\$
320 CALL ING(M\$(X),ING\$,A)
330 DISPLAY AT(12,1):M\$(X)::
ACCEPT AT(12,15):ANG
340 CALL HCHAR(15,1,32,280):
: DISPLAY AT(10,1):"" :: IF
ANG=ING\$ THEN DISPLAY AT(10,
10):"CORRECT!" :: GOTO 310
350 DISPLAY AT(15,1):A\$(A):"
":The word is "ING\$:: GOT
O 310
360 !@P+
370 DATA LODGE,BUY,HOPE,QUIP
,TITME,WISH,CUT,DRIVE,SEE,EY
E,GO,CRY,TRY,AGREE,QUIT
380 !@P-
390 DATA BOIL,COOL,HURT,BUTT
,CAGE,BE,ROVE,PITY,SAVE,COOL
,RULE,MEASURE,TUNE,RAVE
400 DATA RUM,BEG,STOP,THINK,
ERR,BORE,TEAR,BAR,CAGE,BARE,
BEAR,LET,QUIZ,MOOT,HEAT,CONE
410 DATA DREAM,TAKE,FRY,CADD
Y,FLEE,HOE,SEW,TRIP,HOPE,RIG
,DRAG,SUE,KNEE,BOO,BABY,MURS
E,CRUISE
420 DATA LIE,TIE,DIE,BELIE,V
IE,DODGE,LIVE,DRIVE,LOVE,LEA
VE,HUM,HOP,BEG,BEGIN,BOMB,BO
B
430 DATA ADD,AID,BAT,BOAT,PR
AY,LAY,QUOTE,SNORE,STARE,HIR
E,FIRE,LINE,CRY,SAY
440 DATA BOOGIE,RAGE,RATTLE,
GRATE,LEAVE,STRIVE,DRAN,WRIT
E
450 !@P+
460 SUB ING(M\$,ING\$,A):: E\$=
SEG\$(M\$,LEN(M\$),1):: F\$=SEG\$

```

(M#,LEN(M#)-1,1):: A$="ING"
:: C$="BDEGHMPT" :: V$="AEI
OU"
470 GOTO 500
480 C$,E$,ING$,M$,A$,V$,F$
490 !@P-
500 IF LEN(M#)=4 AND SEG$(M#
,1,3)="QUI" THEN ING$=M$&E$&
A$ : A=10 :: SUBEXIT
510 IF POS(C$,E$,1)=0 THEN I
NG$=M$&A$ :: A=1 :: SUBEXIT
520 IF E$="E" THEN 530
530 IF POS(V$,F$,1)=0 THEN I
NG$=M$&A$ :: A=2 :: SUBEXIT
540 IF POS(V$,SEG$(M#,LEN(M#
)-2,1),1)<>0 THEN ING$=M$&A$
:: A=3 :: SUBEXIT ELSE ING$
=M$&E$&A$ :: A=4 :: SUBEXIT
550 IF F$="I" THEN ING$=SEG$
(M#,1,LEN(M#)-2)&"YING" :: A
=5 :: SUBEXIT ELSE IF F$="E"
OR F$="O" OR F$="U" THEN IN
G$=M$&A$ :: A=9 :: SUBEXIT
560 IF M$="BE" THEN ING$="BE
ING" :: A=6 :: SUBEXIT
570 IF M$="EYE" THEN ING$="E
YEING" :: A=7 :: SUBEXIT
580 ING$=SEG$(M#,1,LEN(M#)-1
)&A$ :: A=8
590 !@P+
600 SUBEND

```

I still have a sort of an old-fashioned idea that the computer can be a useful educational tool -

```

100 CALL CLEAR :: FOR SET=0
TO 12 :: CALL COLOR(SET,2,8)
:: NEXT SET :: CALL SCREEN(5)
:: DISPLAY AT(3,6):"NOUN TO
ADJECTIVE" :: CALL KEY(3,K,
9)
110 CALL CHAR(64,"3C4299A1A1
99423C"):: DISPLAY AT(5,5):"
@ Tigercub Software": "" for
free distribution - no pr
ice or copying fee to be ch
arged."
120 DISPLAY AT(12,1):" One m
oment...loading memory"
130 DATA ROGUE,ROGUISH,MOG,M
OGGISH,PIG,PIGGISH,SWINE,SWI
NISH,THIEF,THIEVISH,KNAVE,KN
AVISH,BRUTE,BRUTISH or BRUTA
L
140 !@P-
150 DATA FAME,FAMOUS,TUMULT,
TUMULTUOUS,RIOT,RIOTOUS,SCAN
DAL,SCANDALOUS,MOUNTAIN,MOUN

```

```

TAINOUS,ODOR,ODOROUS or ODOR
IFEROUS
160 DATA CAVERN,CAVERNOUS,VI
LLAIN,VILLAINOUS,DANGER,DANG
EROUS,PERIL,PERILOUS,ADVANTA
GE,ADVANTAGEOUS
170 DATA BARB,BARBED,FORK,FO
RKED,BORDER,BORDERED,WHEEL,W
HEELED,HUNGER,HUNGRY,ANGER,A
NGRY
180 DATA PARLIAMENT,PARLIAME
NTARY,PLANET,PLANETARY,LEGIS
LATURE,LEGISLATIVE,PARISH,PA
ROCHIAL
190 DATA CONGRESS,CONGRESSIO
NAL,ELEPHANT,ELEPHANTINE,FAN
TASY,FANTASTIC,BULL,BULLISH
200 DATA GIRL,GIRLISH,BOY,BO
YISH,BABY,BABYISH,AMATEUR,AM
ATEURISH,FEVER,FEVERISH,DEVI
L,DEVILISH,FOOL,FOOLISH
210 DATA OAF,OAFISH,SHEEP,SH
EEPISH,CHILD,CHILDISH or CHI
LDLIKE,VIRTUE,VIRTUOUS,PRIDE
,PROUD or PRIDEFUL
220 DATA HATE,HATEFUL,DOUBT,
DOUBTFUL,THOUGHT,THOUGHTFUL,
SHAME,SHAMEFUL,FEAR,FEARFUL,
SORROW,SORROWFUL
230 DATA WISH,WISHFUL,PEACE,
PEACEFUL,EVENT,EVENTFUL,TRU
TH,TRUTHFUL,SKILL,SKILLFUL,MA
N,MANLY
240 DATA WOMAN,WOMANLY,FATHE
R,FATHERLY,MOTHER,MOTHERLY,B
ROTHER,BROTHERLY,SISTER,SIST
ERLY
250 DATA NIGHT,NIGHTLY,HOUR,
HOURLY,MONTH,MONTHLY,ORDER,O
RDERLY,SERIES,SERIAL
260 DATA TIME,TINELY,GRAVEL,
GRAVELLY,FRIEND,FRIENDLY,WOO
L,WOOLLY,YEAR,YEARLY,SOUTH,S
OUTHERN or SOUTHERLY
270 DATA NORTH,NORTHERN or N
ORTHERLY,WEST,WESTERN or WES
TERLY,EAST,EASTERN or EASTER
LY
280 DATA CHARITY,CHARITABLE,
TERROR,TERRIFIED or TERRIBLE
,HORROR,HORRIFIED or HORRIBL
E or HORRIFIC
290 DATA RAG,RAGGED,MILITARY
,MILITARISTIC,ART,ARTISTIC,C
AT,CATTY,BOG,BOGGY,FOG,FOGGY
,SUN,SUNNY
300 DATA BAG,BAGGY,LEG,LEGGY
,BOG,BOGGY,STUB,STUBBY,FUN,F
UNNY,FUR,FURRY,GUM,GUNNY,AVA
RICE,AVARICIOUS

```

```

310 DATA CLOUD,CLOUDY,RAIN,R
AINY,FLOWER,FLOWERY or FLORA
L,BREED,BREEDY,THIRST,THIRST
Y,AIR,AIRY,BUSH,BUSHY,FISH,F
ISHY
320 DATA SOUP,SOUPY,BLOOD,BL
OODY,FOAM,FOAMY,BEAD,BEADY,S
WAMP,SWAMPY,SILVER,SILVERY,C
OPPER,COPPERY,DUST,DUSTY
330 DATA DIRT,BIRTY,GUILT,GU
ILTY,SALT,SALTY,GRAIN,GRAINY
,OIL,OILY,TRICK,TRICKY,HILL,
HILLY,ROCK,ROCKY
340 DATA SAND,SANDY,SOAP,SOA
PY,SUDS,SUDSY,SILK,SILKY,WOO
D,WOODY,MODESTY,MODEST,PIETY
,PIOUS,DAY,DAILY
350 DATA TREE,TREELIKE,TOY,T
OYLIKE,FINGER,FINGERLIKE,SWA
N,SWANLIKE,NAR,WARLIKE,DISH,
DISHLIKE,PLATE,PLATELIKE
360 DATA SPOON,SPOONLIKE,BIR
D,BIRDLIKE,SNAKE,SNAKY,WIRE,
WIRY,BONE,BONY,SMOKE,SMOKY,F
LAKE,FLAKY
370 DATA NOISE,NOISY,BRINE,B
RINY,TASTE,TASTY,STONE,STONY
,WAVE,WAVY,GORE,GORY,PASTE,P
ASTY,BUBBLE,BUBBLY
380 DATA LABOR,LABORIOUS,ORN
AMENT,ORNAMENTAL,GOVERNMENT,
GOVERNMENTAL,CONTINENT,CONTI
NENTAL,MUSIC,MUSICAL
390 DATA MAGIC,MAGICAL,TOPIC
,TOPICAL,SENSATION,SENSATION
AL,LOGIC,LOGICAL,ALARM,ALARM
ING,ARTERY,ARTERIAL
400 DATA GOLD,GOLDEN,EARTH,E
ARTHEN,GLAMOUR,GLAMOURIZED,D
EPUTY,DEPUTIZED,ENERGY,ENERG
IZED,PART,PARTIAL,FIRE,FIERY
410 DATA ANGEL,ANGELIC,CHERU
B,CHERUBIC,BURDEN,BURDENSOME
,TROUBLE,TROUBLESOME,BEAST,B
ESTIAL
420 DATA HISTORY,HISTORICAL,
GEOGRAPHY,GEOGRAPHICAL,BOTAN
Y,BOTANICAL,BIOLOGY,BIOLOGIC
AL,LITURGY,LITURGICAL
430 !@P+
440 DIM A$(175),B$(175):: FO
R J=1 TO 174 :: READ A$(J),B
$(J):: Z$=Z$&CHR$(J):: NEXT
J :: Y$=Z$ :: RANDOMIZE
450 DISPLAY AT(7,1): "" : "Type
the adjective form of -": ""
460 X=INT(RND*LEN(Y$)+1):: Y
=ASC(SEG$(Y$,X,1)):: Y$=SEG$
(Y$,1,X-1)&SEG$(Y$,X+1,255)
: IF LEN(Y$)=0 THEN Y$=Z$

```

```

470 DISPLAY AT(12,1):A$(Y)::
ACCEPT AT(12,14):Q$ :: IF P
OS(B$(Y),Q$,1)=0 THEN 490
480 DISPLAY AT(18,1): "" : ""
: FOR D=1 TO 100 :: NEXT D
: DISPLAY AT(18,1): " That is
the word in my memory b
anks." : "" :: GOTO 460
490 DISPLAY AT(18,1): " The a
djective in my memory banks
is ";B$(Y):: GOTO 460

```

When one program is run from from another by RUN DSK., the screen is not cleared, sprites are not deleted, and screen color, character definitions and sprite magnification are not returned to the default values. This can cause some strange results, which can be prevented by CALLing CLEARALL just before the RUN.

```

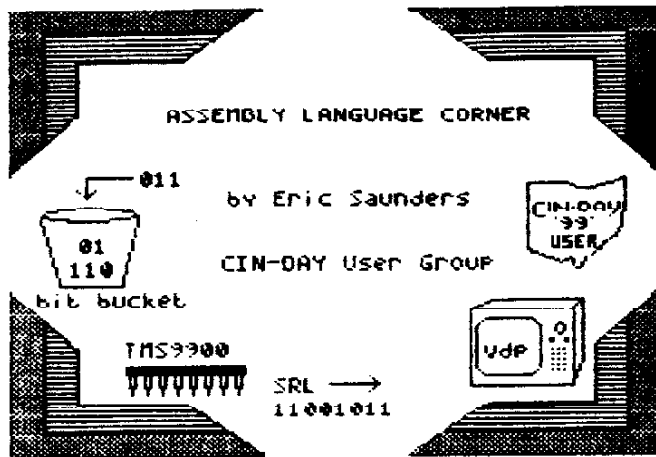
1000 SUB CLEARALL :: CALL CL
EAR :: CALL DELSPRITE(ALL)::
CALL SCREEN(8):: CALL CHARS
ET :: CALL MAGNIFY(1)
1001 FOR CH=65 TO 90 :: CALL
CHARPAT(CH,CH):: CALL CHAR
(CH+32,"00"&SEG$(CH,1,12)&S
EG$(CH,15,2)):: NEXT CH
1002 CALL CHAR(96,"000201008
",123,"0018202040202018",124
,"00101010001010100030080804
0808300000205408")
1003 FOR CH=127 TO 143 :: CA
LL CHAR(CH,"0"):: NEXT CH ::
SUBEND

```

The routine in line 1001 can be used, by deleting the +32 if necessary, to modify some of the character sets on my Nuts & Bolts disks.

From an idea in a program by Ed Machonis, here is an improvement to my 28-Column Converter published in Tips #18. After line 160, insert 165 DISPLAY AT(20,1):"Tab setting? " : ACCEPT AT(20,14)SIZE(-2)BEEP:T And change line 290 to - 290 PRINT #2:TAB(T);L\$: S=S+28 : GOTO 410

MEMORY FULL! - Jim P.



ALC #1: INTRODUCTION

WELCOME! This is the first of a series of columns focusing on the magic and wonder of assembly language programming. Before we even start, let me explain what I mean by magic and wonder; you don't have to be some computer genius or programming wizard to use assembly language. Learning assembly language (abbreviated AL) does take more discipline and patience than learning, say, Extended Basic (XB). However, you have complete control of your TI-99/4A and can access parts of your computer that you cannot get to from XB (such as the 32K of low memory in the 32K expansion card). And, of course, almost everyone has heard of the amazing speed with which AL programs run!

AL programming is not for everyone, but I have always been fascinated with the thought of complete control over the computer, using every nook and cranny of the computer's memory, and accessing the true power of the 9900 microprocessor. If this sounds interesting to you, then give AL programming a try; but be warned -- you might enjoy it!!

In this series of columns I will explore as many facets of AL programming as I can. You'll find quick reference charts (I'm an information junkie!), basic definitions, short programs, long programs, supporting programs, etc. I'll explain how to use debugging tools such as Debug, Super Bugger, and Explorer. I'll pass along tips and tricks to speed up programs, save memory, and alternative methods to accomplish something. And I'll also explore some of the available AL routines such as STAR and PULSAR that are in the CIN-DAY library.

Before we start any programming, let's first define what we need to program in AL. Many of you probably started as I did -- with the Mini-memory (MM) module. Advantages -- you don't need extra memory or even an expansion system; you can store your program in the module after the power is off. Disadvantages -- you can only save programs to cassette; the assembler is a line by line assembler making changes difficult and documentation impossible; limited to about 700 bytes of program space; and the manual is a poor introduction to AL programming.

For those that only have a cassette system and MM, you might want to try the Dow Editor/Assembler by John T. Dow. Advantages -- frees up MM space allowing programs to use all 4K; AL code is much easier to edit than using the line by line assembler; you can save/load files to/from disk. Disadvantages -- since the program is written in BASIC it's slow when compiling AL programs; where you would normally use a comma, you must use a semi-colon. However, this is a good way to start AL programming.

Next is the Editor/Assembler (E/A) cartridge. Advantages -- you can use the full 32K expanded memory; complete use of assembler directives (more on that later); creation of program image files or tagged object code (again, more later). Disadvantages -- the manual is not written for beginners (or even AL programmers with some moderate experience -- but is a necessity no matter what you use to do 9900 AL programming); and you need the 32K memory and disk system.

And finally, you can program AL code within the higher level languages such as P-Code Pascal, Forth, and C. I've never used the p-card so I can't say anything there; programming AL in C is just like programming "normal" AL; and I've just recently looked into Forth and my first impression is that if you can do AL programming in Forth, give up Forth and go straight to AL! More on that as I learn.

Finally, after creating an AL program, you can run it using the MM or E/A cartridge, or LINK to it from BASIC (with the MM or E/A cartridge plugged in) or XB. Certain AL programs can also be accessed using the TI-Writer (TIW) cartridge. I will spend several articles explaining when you should use when and a list of advantages, disadvantages, and caveats.

Those careful observers out there will notice that I left out one BIG method of creating and running AL programs -- Funnelweb! Funnelweb (FW) is in a league of its own. Basically, FW is the E/A cartridge improved, expanded, and placed on a disk. You can run it using the XB cartridge and never use the E/A cartridge again (well, almost never). I use it to create my AL programs so let me wind up this first ALC column by going into some detail on FW. If you plan on doing some AL programming and have a disk system, 32K memory, and XB be sure to get this.

FW was created by Tony and Will McGovern of Australia (you read that right, mate) in protest to the high costs of TIW and E/A cartridges, and to show just what the TI-99/4A could do. And boy, did they ever show the TI world! FW is the TIW and E/A cartridges on a disk, but more. Each has enhancements and added features that make the TI a more useful tool than ever before.

There are a lot of files on the FW disk (a floppy) but we'll be concerned with the following ones:

AS - Assembler, Part 1
 AT - Assembler, Part 2
 CHARA2 - Enhanced character set for the editor
 EA - E/A Loaders
 ED - Editor, Part 1
 EE - Editor, Part 2

These files are all that's necessary to create and run AL programs. You create the program using the Editor (ED/EE), assemble it using the Assembler (AS/AT), and run it (EA). For a complete FW system, you should also include the following files:

LOAD - XB auto-loader
 QD - Quick Directory

There's a couple more FW files of interest, but since they are more advanced, we'll examine them later.

Now that you have an AL disk set up you're ready to explore the TMS 9900 assembly language.

(An Oldie But Goodie! Reprinted from Northwest Ohio 99'er News - Jan 86 -Ed)

SOME UNUSUAL COMPUTER LANGUAGES...

Copy provided by Rod Cook, Newark, OH / Member OH-MI-TI

(This article was keyed-in from a DEC Users Group newsletter. 75116,3407)

=====
Languages NOT included in the Commercial Language SIG or the Languages and Tools SIG

by
Doug Bohrer
Bohrer and Company
Near Chicago
and
Ted A. Bear
NCA Corporation
In the heart of Silicon Valley
and
A Usually Reliable Source
Digital Equipment Corporation
Somewhere in New England

APL, BASIC, COBOL, FORTRAN, PASCAL, RPG ... these programming languages are well known and (more or less) loved throughout the computer industry. There are numerous other languages, however, that are less well known yet still have ardent devotees. In fact, these little known languages generally have the most fanatic admirers. For those who wish to know more about these obscure languages -- and why they are obscure -- we present the following catalogues:

C-
This language is named for the grade received by its creator when he submitted it as a class project in a graduate programming class. C- is best described as a "low level" programming language. In general, the language requires more C- statements than machine code instructions to execute a given task. In this respect it is very similar to COBOL.

DOG0
Developed at MIT (Massachusetts Institute of Obedience Training). DOG0 heralds a new era of computer literate pets. DOG0 commands include SIT, HEEL, STAY, PLAY DEAD, and ROLL OVER. An innovative feature of DOG0 is "puppy graphics", a small cocker spaniel that occasionally leaves deposits as it travels across the screen.

FIFTH
FIFTH is a precise mathematical language in which the data types refer to quantities. The data types range from CC, GUNCE, SHOT and JIGGER to FIFTH (hence the name of the language), LITER, MAGNUM and BLOTTO. Commands refer to ingredients such as CHABLIS, CABERNET, GIN, VERMOUTH, VODKA, SCOTCH, BOURBON, CANADIAN, COORS, BUD, EVER-CLEAR and WHAT_EVERS_AROUND.

The many versions of the FIFTH language reflect the sophistication and financial status of its user. Commands in the ELITE dialect include: VSOP, LAFITTE, and WAITERS_RECOMMENDATION. The GUTTER dialect commands include: THUNDERBIRD, RIPPLE and HOUSE_RED. The GUTTER dialect is a particular favorite of frustrated FORTH programmers who end up using this language.

LAIDBACK
This language was developed at the Marin County Center for Tai Chi, Mellowness and Computer Programming (now defunct), as an alternative to the more intense atmosphere in nearby Silicon Valley.

The center was ideal for programmers who liked to soak in hot tubs while they worked. Unfortunately, few programmers could survive there because the center outlawed Pizza and Coca-Cola in favor of Tofu and Perrier.

Many mourn the demise of LAIDBACK because of its reputation as a gentle and non-threatening language since all error messages are in lower case. For example, LAIDBACK responded to syntax errors with the message:

"I hate to bother you, but I can't relate to that. Can you find the time to try it again?"

LITHP
This otherwise unremarkable language is distinguished by the absence of an "S" in its character set. Programmers and users must substitute "TH". LITHP is said to be useful prothething litht. This language was developed in San Francisco.

REAGAN
This language was also developed in California, but is now widely used in Washington D.C. It is the current subset of the international bureaucratic language known as DOUBLESPEAK. Commands include REVENUE ENHANCEMENT, STOCKMAN, CAP WEINBERGER, MALCOMB BALDRIDGE, CABINET, CHOP_WOOD, LAXALT and SCENARIO. WATT and BURFORD have been removed from the commands while there is a current effort to add MEESE.

The operating systems used is NEW_RIGHT and the designated memory is THE_RANCH. The compile SCENARIO is a compile with NANCY followed by link with BONZO resulting in a SNOOZE. COMMIES (program bugs) are removed with the GRANADA command.

A REAGAN program commences with LANDSLIDE and terminates with SENILITY.

RENE
Named after the famous French philosopher and mathematician, Rene Descartes, RENE is a language used for artificial intelligence. The language is being developed at the Chicago Center of Machine Politics and Programming under a grant from the Jane Byrne Victory Fund. A spokesman described the language as "Just as great as dis (sic) great city of ours."

The center is very pleased with progress to date. They say they have almost succeeded in getting a VAX to think. However, sources inside the organization say that each

time the machine fails to think, it ceases to exist.

SATRE

Named after the late existential philosopher, SATRE is an extremely unstructured language. Statements in SATRE have no purpose; they just are. Thus SATRE programs are left to define their own functions. SATRE programmers tend to be boring and depressing and are no fun at parties.

SIMPLE

SIMPLE is an acronym for Sheer Idiot's Monopurpose Programming Linguistic Environment. This language, developed at Hanover College for Technological Misfits, was designed to make it impossible to write code with errors in it. The statements are, therefore, confined to BEGIN, END, and STOP. No matter how you arrange the statements, you can't make a syntax error.

SLOBOL

SLOBOL is best known for the speed, or lack of it, of the compiler. Although many compilers allow you to take a coffee break while they compile, the SLOBOL compiler allows you to travel to Colombia to pick the coffee. Forty-three programmers are known to have died of boredom sitting at their terminals while waiting for a SLOBOL program to compile.

VALGOL

From its modest beginnings in Southern California's San Fernando Valley, VALGOL is enjoying a dramatic surge of popularity across the industry.

VALGOL commands include REALLY, LIKE, WELL and Y*KNOW.

Variables are assigned with the =LIKE and =TOTALLY operators. Other operators include the California Booleans, AX and NOWAY. Repetitions of code are handled in FOR - SURE loops.

Here is a sample program:

```
LIKE, Y*KNOW (I MEAN) START
IF PIZZA =LIKE BITCHEN AND
GUY =LIKE TUBULAR AND
VALLEY GIRL =LIKE GRODY $$$MAX(FERSURE)$$2
THEN
```

```
FOR I =LIKE I TO OH*maybe 100
DO$WAH - (DITTY$$2)
BARF(I) =TOTALLY GROSS(OUT)
```

SURE

```
LIKE BAG THIS PROGRAM
REALLY
LIKE TOTALLY (Y*KNOW)
IM$SURE
GOTO THE MALL
```

VALGOL is characterized by its unfriendly error messages. For example, when the user makes a syntax error, the interpreter displays the message:

GAG ME WITH A SPOON!!

(This article first appeared in the APL S16 newsletter THE SPECIAL CHARACTER SET (D. Bohrer, Editor) and has gained steam ever since.)

>>DISKETTES<<

WORD LIST

- BASF
- BONUS
- CENTECH
- CERTRON
- CONTROL DATA
- DENNISON
- ELEPHANT
- FUJIFILM
- KODAK
- MAXEL
- MEMOREX
- MEMTECK
- NASHUA
- PRECISION
- SONY
- SYNCOM
- TDK
- THREEM
- VERBATIM
- WABASH

DIRECTIONS: There are 20 words hidden in the puzzle. You may find them horizontally, vertically, or diagonally. They may also be either forward or backward. Circle each word as you find them. One word has been done for you. GOOD LUCK! (Answers on last page.)

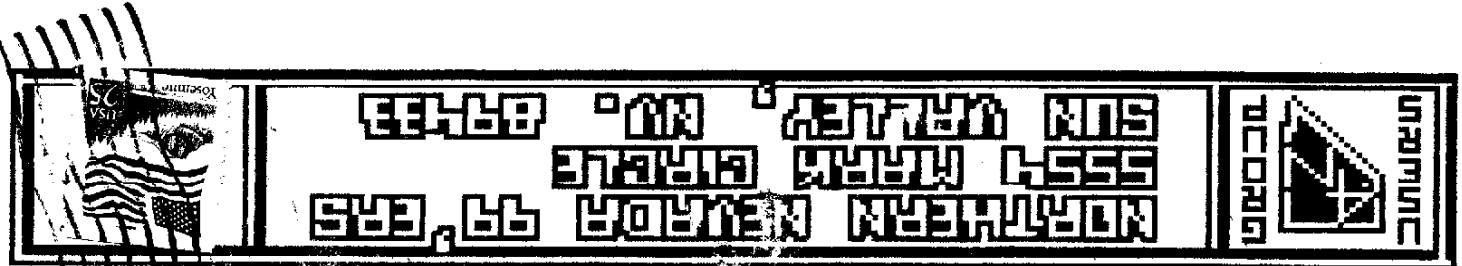
```

P H H N E G U R E I X N H O P O W U F E
M S U O F H Y R Z U E M I T A B R E U F
Q P M E M O R E X X E A O J H S A B A W
D K S D T H R E E M P P D W R V G G U U
R Q A N L W P I T K P Q A D I N J C O N
K X S N F A E E Q F J F U A S E D A L E
M S X M O S C A M D E N N I S O N D E L
C A R D Q K A S T Q F C P B Y G D O S E
N C X W X O S B X A E U N X B Q F L G G
Q X Z E Q Q U C M R D V J A I W A G O B
G Z Z I L R P C T I D Z L T I S I N R R Z
B F M W U K W R E N R A O N F H G J B C
I U J I X X O M O N Q Z M R A I U J V I
K D N F P N E I P G T N O U T H L A W S
W H L U C I S A M C Q E Z S Q N P M K A
A C N G S I C I P N B K C H O W O E K Z
B K A X C Z M O C N Y S O H L N Q C L I
I O N E S E W Q K N U O I F A T Y F A E
D X R O H E M L U G T U U K J H P W K S
S P L I F F Y E K A F U K Z T D K F W H

```

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T O E



ANSWERS TO DISKETTE WORD PUZZLE

```

. . . . . M I T A B R E U .
. . M E M O R E X . E . . . H S A B A W
. . K . T H R E E M . . . . .
. . A . . . . .
M . . D F . . E . . . . .
. . A . . . . . K A . T . F C . . . . .
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B . . . . . L . . . . . C T . . L T I S . . . . .
. . O . . . . . R E N . . . . . O N F H . . . . .
. . N . . . . . O . O N . . . . . R A I U . . . . .
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Group meetings are held on the last TUESDAY of each month at 7:00 P.M. at Round Table Pizza, W. 4th St. and Vine, Reno. Visitors are cordially invited to attend.