3-24-89


LA 99er COMPUTER GROUP
VOL 8 NO 3 LOS ANGELES CA MAR 1989
Newsletter

TERRIES CORNER

SAN DIEGO, COME AND GONE

What a great Fest! Tons of credit has to go to the SCCG and the San Diego area User Groups.

This was certainly not the largest Fest ever, the attendance was good, several hundred. Vendor support was good, a few disappointments due to ill health, but so it goes.

A recent letter in MicroPendium suggested regional Fests moving from one city to another within the general area. Excellent idea, Fest-West has now been in three Southwestern US areas. Los Angeles, Las Vegas and San Diego. Plans for 1990 have penciled in Tucson. So you can see we agree. Northeast, Central and Southwest for starters.

I personally need the services of a willing, competent, reliable newsletter formatter. Residentially close to me is preferable. I am once again involved in the care of my grandchildren, as my daugterinlaw is once again hospitalized. 6 AM to 11PM 5 days a week plus care of my parents on the weekend, does not give one much time. This situation has a potential for at least 3 more months. So if you are willing to help please call me.

We now have people needing hardware. We once were reasonably able to provide this service, but the reliability of our suppliers leaves much to be desired. We are actively looking for new distributors willing to sell to us at dealers cost, so that we may pass a good discount onto our members. We are looking for Ram Disks, all Myarc products, etc. We still have a worthy and reliable disk drive distributor. Dhein's if you are interested please contact me.

We are hopeful that Glenn Davis will take over the missing Assembly language column, Mike Dodd having left for bigger and better things. Glenn???

Many newsletters lament the loss of membership, and failure of support for their Newsletter. I am more than happy to report that our club attracts new members all the time, and that our newsletter continues to be a good one. There certainly are people out there to reach, perhaps a different marketing scheme to find them is necessary. We signed up 10 new members during the San Diego FEST-WEST. Fred Moore successfully marketed the club with the Library. It is a two way street, we get the new members, they get this newsletter and the fine services of Fred Moore and his outstanding Library.

One last comment about Fests. Some clubs feel they are too small to support one. Not true! The last two FEST-WEST events were sponsered by smaller clubs. They were both EXCELLENT. Even in a large club, there are actually only a handful of doers. The footing really is equal. Try it you will be quite surprised.

## AN ARCHIVER CONTEST?

by Steve Mehr, UG member

San Diego is only but a memory, but what a memory it is. A very worthwhile fest to have been a part of. It was good to see some old faces as well as many, many new ones. My thanks to the Southern California Computer Group for putting on a fine fest.

* WHAT YOU MAY HAVE MISSED * at last months meeting was a look at configuring TELCO to your own system. I hope the demonstration provided enough information to help you get through it. As you saw, most of the defaults needn't be changed to get TELCO up and running but there are a lot of options available for those interested in exploring all of its potential.

Also we took a look at Archiver 3.02. We saw what the program can do and discussed just when you might decide to put it to work for you. Archiver may not be for everyone or necessary for every file transfer or disk mailing, but it sure can provide some interesting results, when used creatively.

For example, I will put out a challenge. The best compression I have been able to acheive is reducing 716 sectors down to 28 sectors. NO JOKE! The eight files I used are legitimate TI files and I showed the archived file catalog at the meeting. If you can come up with ACR (amazing compression results) mail me the archived file along with a small note explaining your entry. You can use any number of files, be for the 4/A or 9640, be data files or programs, or whatever. The only stipulation is that you can't play any nasty games to cheat. That's a no no. Only legitimate archives are allowed. Okay? Okay. Go for it and mail your results to:

Steve Mehr
633 Hollyburne Lane
Thousand Oaks, Ca. 91360
ATTN: Archiver Contest

The entry with the greatest compression will be considered the winner, and the winner's name will be published in the June newsletter along with an explanation of their entry. My archive will not be judged in this contest. Entries must be received by the end of April. And yes, I will also explain how I was able to acheive a 96% savings on my archive. Good luck!

* WHAT YOU MAY MISS * at the next meeting will be me! I will be involved in inventory at work and will miss the meeting. But don't you fret. Ed May and John Bohlier promise to have a real TD, (telecommunications demonstration, what a mouth full!) Two systems will be connected together through their RS232 ports and Ed and John will show just how easy it is to transfer programs to one another. The advantage of the demo will be the ability to see exactly what happens on both systems at the same time instead of just what you see on yours! Should be quite interesting. Be there!

P.S. Thank you for your response to my Fairware list offer. Soon I hope to be able to include a nice cross reference index created by Ken Gilliland. Also B.J. Mathis of the SouthWest Ninety-Niners has shown interest in collaborating with me on this project. With all the work she has done in creating their own library list using Dick's format, I know she will have a lot to offer. I look forward to this joint venture in strengthening Dick Altman's Fairware list.

P.P.S. Oh yes, this article wasn't "obviously done on a Mac." A look at the San Fernando Valley 99er's February newsletter, edited by Ken Gilliland, inspired me to try my hand at The Printer's Apprentice again. He authored a very informative tutorial on using TPA in that issue, reprinted elsewhere in this newsletter for your enjoyment. Thanks Ken!

FOUR-A/TALK
Random ramblings
about things TI.
by Bill Gaskill
March 1989

DISCOVERIES:

I received a call from Ed Edwards of the Cedar Valley 99ers in Cedar Rapids, Iowa the other night. Ed was calling on behalf of Jim Reiss, author of the excellent software program TYPEWRITER that is distributed by Asgard Software. The jist of the conversation involved Jim's concern over my comment in the January '89 Four-A/Talk article about TYPEWRITER not being compatible with any of the loaders I had except the E/A module. After some investigation and experimentation Ed and I discovered that the incompatibility occurred only when running Menu V6.4 on my Horizon Ram Disk. After installing JJ's V7.3 ROS, which I had simply been too lazy to do in the past, I discovered that TYPEWRITER worked flawlessly. So the message I would like to convey to all who read Four-A/Talk is that TYPEWRITER DOES work properly with all loaders available, including the John Johnson loader from the Horizon Ram Disk, FunnelWeb, E/A, Barry Boone's XB/EA loader etc. It does not work with the ROS that comes with Menu V6.4 for the Horizon Ram disk. Sorry Jim!

Along the same lines, I also received a letter from Chris Bobbitt of Asgard Software suggesting that the ROS may be the problem. But the real meat of the letter contained some interesting information about Jim Reiss and the future of his contributions to the 4A community. According to Chris, he met Jim on CompuServe some months ago and discovered that Jim, who is an under-graduate at Cornell University, was looking for a short project involving the TI-99. Since Chris had a few in mind the relationship was off and running. TYPEWRITER apparently is only the first (but hopefully not the last) Jim Reiss product that we will see. I also discovered from Chris' letter that TYPEWRITER will be available in module form shortly and will be introduced in the March 1989 Triton catalog. I hope that we provide the support needed to keep Jim and others with his kind of talent interested in writing for our community.

OTHER DISCOVERIES:
Jeff Bunting of the Roanoke Valley 99ers Box 12522 Roanoke, Va. 24012 has written an assembly language cryptogram solver that you may purchase for a $5 ShareWare fee. Jeff gives credit to Leonard Morgan Jr., Barry Traver and Wayne Stith for help with the project. I am not familiar with Leonard Morgan, but everyone knows who Barry Traver is of course and Wayne Stith is fast becoming another of the movers and shakers in the community. His KwikFont tutorial stands out as the best novice's introduction to assembly language programming I have ever seen, and now he has introduced TRIAD, the disk manager, text editor and telecommunications package rolled into one. The end result of the collaboration for the Cryptogram solver is a neat looking program. If you are a cryptogram buff, you need Jeff's offering.

Mike Wright, 45 Centerville Drive, Salem, New Hampshire 03079 has produced a booklet that is a must for every 99er. It is over 40 laser printed pages listing 99/4A books and their descriptions, disk, tape and module software produced by TI, the 1983 price list for 99/4A products before the bailout, information on the Valu-Paks TI offered and more. I

picked up my copy at the Fest-West for $5.ØØ. I would guess that you can order yours from Mike for $5.ØØ plus around $2.ØØ more to cover the cost of packaging and mailing. It is a superb $7.ØØ investment.

TI-BASE:
Alan Coleman of Cincinnati, Ohio, who does his computing on the 9640, wrote me a few weeks back asking for some help on a student grading program he was trying to write in TI-Base. The task that he wanted to accomplish was two-phased. First it involved entering five different grades in a record then summing them, dividing the results to get an average and then storing the average in a seperate field in the same record as the original five grades. The second part involved entering five quiz scores into a record along with two test scores. Alan then wanted the quiz scores summed and averaged and the results placed in a seperate field within the same record just as he did on the first part of the task. But then, the average of the five quizzes and the two test scores also had to be summed and averaged and the results of that computation written to a seperate field in the same record. It was a fun challenge that turned out quite nice. About a dozen TI-Base command files were used to create a menu-driven system to get the job done. Alan was quite pleased and was gracious enough to send me a few dollars for my time and effort, which I REALLY appreciated. Thanks Alan!

Anyway, out of the entire effort came a command file for TI-Base that builds a MENU that I thought I would share with you, since menus are always a useful tool in any computing environment. The file that follows is actually an abbreviated version done so to save space. But the concept and technique used are what's important. The menu can be expanded to include many more options.

In the MENU the CHOIRENT, CHOIRUPD, GMUSENT and GMUSUPD names listed after the DO statements are other TI-Base command files that are "RUN" by the menu. Each of those command files end with a RETURN that causes the MENU file to be re-RUN upon exiting any of the menu options. Any number keyed in that is outside of the valid options listed causes the MENU file to be executed again, so you can't make a mistake that will crash the file.

```
* menu
SET TALK OFF
SET RECNUM OFF
SET HEADING OFF
CLEAR
LOCAL A C 2
WHILE A <> "Ø"
CLEAR
WRITE 2,8  "     MAIN SYSTEM MENU"
WRITE 3,8  "     ---------------"
WRITE 5,8  "1 - Enter Choir data"
WRITE 6,8  "2 - Update Choir data"
WRITE 7,8  "3 - Enter Gmusic data"
WRITE 8,8  "4 - Update Gmusic data"
WRITE 9,8  "Ø - Exit"
WRITE 19,6 "Selection Number:"
READSTRING 19,18 A
IF A = "Ø"
CLEAR
RETURN
```

```
ELSE
DOCASE
  CASE A="1"
    DO CHOIRENT
    BREAK
  CASE A="2"
    DO CHOIRUPD
    BREAK
  CASE A="3"
    DO GMUSENT
    BREAK
  CASE A="4"
    DO GMUSUPD
    BREAK
  CASE 1=1
    REPLACE A WITH "X"
    BREAK
  ENDCASE
  IF A<>"X"
  CLEAR
  ENDIF
ENDIF
ENDWHILE
RETURN
```

FEST-WEST '89:
I spent a weekend in San Diego February 18-19 at the beautiful Clarion Hotel, meeting scads of neat people at the 1989 version of Fest-West. What a great time! If you have never been to any of the major TI faires like the TICOFF in New Jersey, the Chicago Faire in Illinois or the Fest-West which is always somewhere in the western states each year, you really should go to one. Aside from the fabulous products and seminars available, you will usually rub shoulders with most of the movers and shakers in the TI community. Many of them were in attendance at Fest-West '89. Regena, Barry Traver, Steve Mehr and Roger Merritt from Comprodine, Terrie Masters and Fred Moore from the LA Users Group, Jerry Price from Tex Comp, Tom Freeman and Jim Lohmeyer from T and J Software, Rich Carroll from DIJIT, Mike Wright representing Peter Hoddie's Genial Computerware, John McDermott from Rave99, Ray Kazmer of WoodStock fame, T.A.P.E. with their innovative mouse system and other goodies for the 99 was there as were B.J. and Jack Mathis from the SouthWest 99ers in Tucson. The Mathis family members were featured in the December 1988 edition of PC Computing magazine in a marvelous article about orphaned computers entitled "Gone But Not Forgotten".

As an information item for you PR BASE V2.1 users, Jack Mathis has re-written the PR BASE utilities programs by John Johnson to work with the Mike Dodd V2.1 version. If you are interested in procuring a copy write to Jack care of the Southwest 99ers, Box 17831 Tucson, Az. 85730. Jack is an up and coming assembly language programmer who I hope to hear more from in the future.

I never asked about the actual attendance figures, but I can reasonably say that attendance was well into the hundreds. It was so neat to be apart of it all. Fest coordinator Woody Wilson even let me give a seminar on TI-Base on Saturday afternoon. Other seminars were given by Regena, Barry Traver and Woody himself. The Fest was sponsored this year by the Southern California Computer Group, Box 21181 El Cajon,

Ca. 92Ø21. Thanks to the ladies and gentlemen of the SCCG for their hard work and excellent organization. It was a GREAT event! There is talk already of Fest-West '9Ø taking place in Tucson. I hope so. I've never been to Tucson and I can't think of a better excuse to go than a TI Faire.

COMPRODINE:
Comprodine is an acronym for COMputer PROgrammers DIstribution NEtwork. The firm is owned by Rodger Merritt and Steve Mehr. Thanks to the programming wizardry of Rodger and the marketing where-with-all of Steve, the company offers some of the neatest graphics oriented software ever produced for the 99/4A. Besides the PRINT-IT program I already own from them, I was able to pick up Form Shop, Jiffy Card and Jiffy Flyer. If you ever need to produce professional printed material for any purpose, Comprodine is the company to contact. If you are a Computer Shopper subscriber you can read all about Form Shop in the February 1989 edition in the TI Forum column authored by Barry Traver. Comprodine's address is 1949 Evergreen Ave., Fullerton, Cal. 92635.

TRIVIA:
Talk about off-the-wall trivia! Did you know that California Dreamers Inc., Chicago, Illinois 6Ø61Ø, produced a beautiful greeting card that features the beige version of the 99/4A console on the front of the card, with a message inside the card that reads, "I'd love to program your software"? Unreal! The layout was designed by Jim Lienhart, who may be a 99er, but it is not a name that I have ever seen anywhere. The card is copyrighted 1984, which means it was done after the "bailout" by TI. Wonder why he chose our machine? Glad he did at any rate.

MICROdex for TI-Base:
In the January '89 Four-A/TALK I introduced the MICROdex program and data base for publications referencing. This time I am going to tell you about MICROdex for TI-Base.

Because I find TI-Base to be the most powerful and flexible data base management system available for the TI, and because there are over 1ØØØ copies of it out there in the community already, I have written the MICROdex library files in TI-Base format. This means that TI-Base owners can now have access to the thousands of indexed items that are found in the MICROdex libraries. The MICROdex for TI-Base system contains TI-99/4A indexes for 99er/Home Computer Magazine, Compute! magazine, MICROpendium and miscellaneous files for Enthusiast 99, Super 99 Monthly, The Smart Programmer and others.

MICROdex for TI-Base is entirely menu driven with no command file programming required. It performs some of the fastest searches available in any 99/4A data base and supports both displayed and printed output. If you have ever read something on the 99/4A or Geneve and wanted to find it again, this is the tool for you. Aside from being an excellent reference library, it also gives you a host of TI-Base command file examples that you can modify for other uses. MICROdex for TI-Base will be available through Texaments in the next couple of weeks. Look for it.

NEXT MONTH:
Myarc's HFDC card is discussed. Until then...

# TI-BASE TUTORIAL PART 4
by Bill Gaskill

**STRING MANIPULATION:**

TI-Base offers a TRIM directive that allows string data to be concatenated (joined together). Detail for TRIM is found on page 3-9 of the manual.

**THE STATUS BAR:**

The Status Bar is the inverse video bar at the base of the screen when TI-Base is in the command (dot prompt) mode. The information that it displays can be extremely valuable and warrants explanation.

The bar consists of 40 characters that display the following information in each position number, reading from left to right;

| Pos# | Operation/Function |
|---|---|
| 01-08 | The name of the command file that is currently in use. |
| 09-11 | The command file line number being executed. |
| 12- | Blank |
| 13- | The slot number that is currently active. |
| 14- | Blank. |
| 15-22 | The name of the active data file. |
| 23-27 | The number of the record being read or written to. |
| 28- | A slash separater between the active record and the file size. |
| 29-33 | The file size in number of records. |
| 34-36 | Blank. |
| 37-39 | Insert Mode toggle indicator. |
| 40- | Operation indicator; C-close, O-output, R-read, S-sort, W-write. |

**CLOSING NOTES:**

One thing that I have not mentioned just may be one of the most important attributes that TI-Base has to offer and that is FUN! To the inexperienced user that might seem a little ridiculous, but to the intermediate or advanced user it will become a byword. TI-Base is simply a rewarding program to use. It is challenging and stimulating to the point that a feeling of achievement pervades when one creates successful command files and begins to learn how this marvelous piece of software can turn boring and rudimentary data management tasks into pure soul satisfaction. This is a claim that few applications available to the TI Community can claim. In the data management arena I think TI-Base has the FUN market cornered.

These few pages have been but an introduction into some of the finer points of TI-Base. I hope that you have enjoyed them as much as I enjoyed learning the program so that I could share the experiences with you. The potential for really in-depth use of TI-Base has not even been covered. Perhaps a future article can be put together on advanced usage in the relational management of data area. For now I am looking forward to decreasing the learning curve for myself even more and then I have version two to look forward to. Hope you can join me.

**BEGINNING FORTH #10** **By Earl Raguse**

STILL MORE GRAPHICS

This lesson includes example programs for a few more of the graphics words available in Forth. I hope you are studiously reading Chapter 6 of the TIFM. I find that this is one of the best written. in spite of my complaint about DCOLOR. After this lesson, we will have exercised a lot of Forth graphics words. but there are still Forth graphics words we will not get to; ie Sprite words SPRGET, SPRPUT, SPTDIST SPTDISTXY. SPRPAT, SPRCOL, SPCHAR, COINC, COINCALL. JOYST, multicolor words MULTI, MCHAR, MINIT, and bit map words DRAW, UNDRAW, and DTOG, and also BEEP, HONK. GCHAR. I think that the TIFM is pretty clear on how they work, and you have had a pretty good grounding in graphics. so go to it.

Screen #63 is based on a graphics program by Ed York of the CIN/DAY UG which was printed in the Smart Programmer. this is what got me started in Forth graphics. I copied it and it worked! I immediately began to analyze what Ed had done to get that rather startling effect from just straight lines. As soon as I understood what the program was doing, I started trying to enchance it.

To envision what is going on here, imagine a yard stick on the floor, perpendicular to and touching a wall. Now take the wall end and slide it up the wall until it is vertical. Very simple, now do mirror images of this on the other walls and on the ceiling and also in the adjacent room, and you have it. I don't remember whether the original did the ceiling or not, but I know I added the color to it. I can rememoer how amazed I was, the first time I saw this effect in a Forth demo by Bruce Carson. I was truly impressed. I didn't know at the time that he had gotten it from the Smart Programmer and that I would soon be doing it also.

The display comprises eight stand alone segments. The segments are drawn by loops labeled A1 thru A8. A1, for example, draws a line from pixel coordinates X=0, Y=191 to X=128, Y=191; this repeats 16 times. ending at X=128 (0 I 8 * +), Y=191 to X=128, Y=63 (191 I 8 * -). The others follow in the same pattern. A0 sets up GRAPHICS2 mode, sets DCOLOR (via D) to white, and the SCREEN to black. all in HEX. GO puts it all together in the white on black version. GC does it for the color version. The rest of the screen is words in the immediate mode so that when loaded, the program automatically executes. Until you are sure of what is going on, I think you should not type in the last six words. so that they do not automatically execute, unless you are of the "go for broke" type.

You must have my UFW's from lesson #4 loaded, because these programs use FG, AT, MS, WAIT, DEC etc. You must also have defined IT on Screen #3. I will not keep repeating this. So if Forth says WAIT ? or something similar. its just saying that it has not been informed of these very useful words. Do it NOW. If you do not have DIR you can just leave it out, see the comments on that below.

The best way to test to see if you have any typing errors is to execute A0 A1 TEXT. if that works try A0 A2 TEXT and so on. A0 must be included each time. or leave off TEXT and type blindly.

I think this is a pretty powerful display for one Forth screen. Admitedly, its rather crowed, but quite readable except perhaps for all the HEX's and DEC's.

An example which illustrates several new graphics words while having a little fun, is WORMY STUFF on Screens #64 and #65. Note that these are all in HEX. If you have any trouble and Forth breaks with an error message, you will still be in Hex and Forth will not understand your decimal instructions until you enter DECIMAL.

What happens here, is that the CODEIT loop redefines 12 of the non-printing characters 17 thru 28 (HEX 11 to 1C) using the word CHAR and the data loaded on the stack from Screen #65 (HEX 41), see WORM1. Then the SHIFT loop reads the patterns at 11-1C with I CHARPAT and copies them into the 12 characters located at 61-6C, with I 50 + CHAR. EMITIT prints a set of these charcters to the CRT and PAINT uses EMITIT to paint the whole CRT screen with them.

So far so good, we are now ready to go. WORM calls RAND to get a random number from 1-12 which is added to 60 to get the address of one the modified characters at 61-6C, reads its pattern to the stack with CHARPAT and CHARs it into a random character position in the originally modified set of 12 characters at 11-1C, thus modifying the screen pattern everywhere that character is located.

Notice that WORM ends with the word COLR which, in turn, uses COLR1 and COLR2 to randomly change the foreground color of character sets 2 and 3, which, by more than mere coincidence, are the 12 modified characters at 11 thru 1C. Because the colors for COLR1 and COLR2 are randomly selected, the character sets may have the same color. Note the delay of 100 MS in COLR; Forth is so fast that we need a delay, or there will be only a blur.

K1 and K2 are just messages. WORM1 and WORM2 sort of orchestrate the whole thing. If you have not yet installed (and why haven't you?) a disk DIRectory, leave out the word DIR in WORM2. It also may be a good idea to put ABORT in this place until you are certain that everything works, or you will do a lot of chasing back and forth.

The word STOP? uses the Forth word ?TERMINAL to check if you are pressing FNCT 4 and if so will ABORT after restoring the TEXT mode. You may wish to change ABORT to DIR, after you are through testing this screen.

I had intended to include a grapgics screen that was based on things like square root, sines and cosines, but on second thought, that would take a lot of explaining of Floating Point Arithmetic, and that would certainly make this article much too long, thus it will have to wait. Until then,

C U next time, May the FORTH be with U.

```
SCR #63
 0  ( GRAPHICS FROM ED YORK CIN DAY UG )  FG IT  : IT ;
 1  ( MODIFIED BY E RAGUSE 12 24 84)  HEX  : D DCOLOR ! ;
 2  : A0 GRAPHICS2 F0 D  0 DMODE ! 1 SCREEN  ;  DEC
 3  : A1 17 0 DO   0 I 8 * + 191 128 191 I 8 * - LINE LOOP ;
 4  : A2 16 0 DO 255 I 8 * - 191 128 191 I 8 * - LINE LOOP ;
 5  : A3 17 0 DO 128 I 8 * + 191 255 191 I 8 * - LINE LOOP ;
 6  : A4 17 0 DO 128 I 8 * - 191   0 191 I 8 * - LINE LOOP ;
 7  : A5 17 0 DO   0 I 8 * +   0 128   0 I 8 * + LINE LOOP ;
 8  : A6 16 0 DO 255 I 8 * -   0 128   0 I 8 * + LINE LOOP ;
 9  : A7 17 0 DO 128 I 8 * +   0 255   0 I 8 * + LINE LOOP ;
10  : A8 17 0 DO 128 I 8 * -   0   0   0 I 8 * + LINE LOOP ;
11  : A9 20 0 DO 254 190 I 10 * -  0  0 I 10 * + LINE LOOP ;
12  : GO A0 A1 A2 A3 A4 A5 A6 A7 A8 1 WAIT TEXT ;       HEX
13  : GC A0 60 D A1 30 D A2 50 D A3 70 D A4 90 D A5
14       B0 D A6 D0 D A7 20 D A8 1 WAIT TEXT ;     TEXT CLS
15    C B AT ." GRAPHICS DEMO" 600 MS GO GC F0 D   DEC  DIR

SCR #64
 0  ( WORMY STUFF  EGR 1/3/85)  FORGET IT  : IT :  HEX
 1  : GR      GRAPHICS ;  RANDOMIZE  : RAND 0C RND  1+ ;
 2  : STOP?   ?TERMINAL IF TEXT ABORT THEN ;
 3  : COLR1   0D RND 2 + 1 2 COLOR ;
 4  : COLR2   0D RND 2 + 1 3 COLOR ;
 5  : CODEIT 1D 11 DO I CHAR LOOP ;
 6  : EMITIT 1D 11 DO I EMIT LOOP ;
 7  : SHIFT   1D 11 DO I CHARPAT  I 50 + CHAR LOOP ;
 8  : PAINT   40 0 DO EMITIT  LOOP ;
 9  : COLR    100 MS COLR1 COLR2 ;
10  : WORM    RAND 60 + CHARPAT RAND 10 + CHAR COLR ;
11  : K1      CLS 0A 0C AT ." THIS IS WORMY STUFF " ;
12  : K2 06   0E AT ." HOLD <FCTN 4> TO QUIT EARLY " CR CR ;
13  : WORM1   K1 K2 41 LOAD GR CODEIT SHIFT 1 SCREEN PAINT ;
14  : WORM2   WORM1 40 0 DO WORM STOP? LOOP TEXT DIR ;
15    DEC     TEXT WORM2


SCR #65
 0  ( WORMY DATA LGR 1/3/85)  HEX
 1  9818 3CFF FF3C 1010
 2  1818 1818 0F07 0000
 3  183C 7EE7 C300 0000
 4  1830 70E3 C70F 1C18
 5  1838 78FC DC0C 1C18
 6  1830 70E0 E070 3810
 7  181C 0EC7 E370 3818
 8  181C 0ECF FF78 3000
 9  0000 00C3 FF7E 3C18
10  0000 FFFF FF00 0000
11  001C 3EFF F370 3818
12  181C 0E0F 0F0E 1C18 DEC
13
14
15
```

HI DOWN THERE

BY

GEORGE F. STEFFEN.

LATE LA 99er.

Hi, I'm sorry not to have writen an article in time for your early date line this month, but young Pete's got a piece I wrote a while back and he has said he would use that.

Up here we are hard at it getting ready for the Boss Mans birthday party. I just thinking all those candles are going to make it as hot as the other place I've heard about.

Produced for George with kind permision of the GENIAL TRAVeLER.

## COMBINING ASSEMBLY LANGUAGE WITH EXTENDED BASIC

I have seen and appreciated the program XBALSAVE which puts assembly language (A/L) programs into Extended Basic (XB) programs for loading. My principal objection to the program is that it moves the A/L program to low memory expansion before running it, thus wasting memory by having the same program in two places. I prefer to leave the program where it is and run it directly from high memory.

There are several factors to be considered when using this method. First, how do we get the program into the high memory along with the XB program. Second, how do we link to the routines within the program since there is no REF/DEF Table. Taking these in the order mentioned--since the first is much more straight- forward--let me explain methods I have used successfully.

There are three locations in scratch pad RAM which are pertinent to the loading of XB programs. These are: >8370, top or high memory; >8330, beginning of line number table; and >8332, end of line number table. When the command NEW is executed, it copies the data from >8370 into >8330 and >8332. This shows that the line number table has zero length and the operating system decides there is no program present.

Normally, >8370 contains >FFE7. The area above >FFE7 is used by the operating system. If we wish to reserve some space for an A/L program, we merely have to change the contents of >8370 to a lower value. To store the A/L program along with the XB program, we change the contents of >8370 back to >FFE7. Following is a step-by-step explanation of how to combine the programs.

First, write the A/L program and program and assemble it in relocatable code. If you include the following lines just ahead of the END directive, you will establish the location for the next step. Be sure to make a list because you will need some information for future steps.

```
PRGLEN EQU  $-start   start  is  the
*                    first  line  of
*                    the  program
HITOP  EQU  >FFE7-PRGLEN
       END
```

On the list, HITOP will show the address just below the program. The program should start one higher than this in order to end at >FFE7. Add an AORG with this address and reassemble the program. Now, go into XB and in the immediate mode do CALL INIT :: CALL LOAD("the assembled program"). The assembled program is now loaded at the top of high memory. We now need to calculate the address below this program so that the extended basic program we will be using will not overwrite this program. First we must convert the hexadecimal HITOP address to decimal and then subtract 1. Next, we must convert this address to two byte values by dividing the result by 256. Let us call the INT of the result HH. Now multiply HH by 256 and subtract the result from the original HITOP and this will give us the low byte which we can call LL. Converting >8370 to decimal (and proper TI notation) with my handy dandy Casio CM-100 Computer Math calculator gives the value of -31888. Now, by doing, still in the immediate mode, CALL LOAD(-31888,HH,LL), any XB program we load or write will be below the A/L program. It will remain that way until we go back to the title screen or change the value at >8370.

When we have the XB program complete, we again, in the immediate mode, do a CALL LOAD(-31888,255,231). This will restore the top of memory pointer at >8370 to >FFE7 and the A/L program will then be stored and loaded right along with the XB program. The XB program can be loaded, saved, edited, resequenced, etc., without ever affecting the A/L language. The only way you might know it is there is by examining memory directly or by examining the disk on which the program is stored. Of course, if you have a 90 sector program on your disk and it shows only a three line XB program, you should know that something is hidden.

Now comes the part that is more complicated. There are many ways of setting up the link from the XB to A/L. Which one we choose depends on how many different routines we need to access and whether or not we wish to be able to load different XB Programs while leaving the A/L portion intact. Each of the methods has its own advantages and disadvantages.

When we CALL INIT in XB, certain data is loaded in the

low memory. Pertinent addresses and their contents are: >2000 (8192)=>205A, Link Routine pointer and >2004 (8196)=>4000, Top of Low Memory. Note that the top of low memory pointer points to the byte after the top whereas the top of high memory pointer points to the last byte. We can fool the machine into doing things never contemplated by changing the values at these addresses. With this background, we can now discuss how to set up the linkage from XB to A/L.

Approach #1: Quick and Dirty. If we change the data at >2000, we can determine what will happen when we do a CALL LINK in XB. In effect, we have rewritten the subprogram LINK to do what we desire, not what TI had in mind. Since this is now our program, we determine what parameters, if any, are necessary. Normally, nothing will be required so the statement is merely "CALL LINK" and then on to the rest of the program as desired.

If the XB program is serving merely as a loader for the A/L program, we need have no worry as to the effects of our changes on the XB environment. Assuming that HH and LL are, respectively, the high and low bytes of the start address of our A/L routine (converted to decimal), we do CALL INIT :: CALL LOAD(8192,HH,LL):: CALL LINK. Control has now passed to our A/L program and it will execute just as it would if XB had loaded it and then jumped in with a normal CALL LINK. However, we cannot come back to XB and expect things to function normally. We must exit XB through the title screen.

Approach #2: REF/DEF Table in High Memory. When the link routine searches for start addresses, it keeps searching until it reaches >4000. If we have it start the search in high memory, it will work without a problem unless it does not find the name for which it is searching. Therefore, we can build a REF/DEF table as part of the A/L program and change the pointer at >2004 to point to the start address of this table. This has the disad- vantage of disrupting any further loads of relocatable object code from disk until you again CALL INIT. This uses the same amount of space in XB that Approach #1 does, but it does require the construction of a REF/DEF table within our A/L program.

The REF/DEF table is constructed by a series of TEXT directives with the names of the desired routines (padded to six bytes with spaces) each followed by a DATA directive with the entry address for that routine.

The table is the same as the one normally appearing at the top of low memory, although it is in a strange location. Using HH and LL as the converted high and low bytes of the start of the REF/DEF table and START as the name of our A/L program, our XB program becomes: CALL INIT :: CALL

LOAD(8196,HH,LL) :: CALL LINK ("START"). We still cannot expect to return to XB successfully.

Approach #3: REF/DEF Table in Low Memory. To be completely compatible with normal TI procedures, we must set up the REF/DEF table just below the top of low memory and change the top of low memory pointer at >2004 so that it allows for the table. We can use Tom Freeman's ALS/CL program on the object file of our AORGed A/L program to take care of this without a lot of work on our part or we can calculate the CALL LOADs ourselves. This requires that we convert all names to series of six byte values, convert start addresses to two byte values, calculate where to start the table so it will end at >3FFF. We must then put all the CALL LOAD state- ments in the XB program, including one to change the pointer at >2004. The length of this program depends on the number of entries in the REF/DEF table. However, this table will appear in both the A/L program and the XB program thus wasting space.

Approach #4: The Master Inter- face. Any of the above methods is suitable for use by a program that is complete in itself. In other words, a program where the XB does not use any other A/L programs and the A/L program is not used by any other XB program. The most common occurrence of this is an XB program which has incorporated some A/L routines for speed of execution.

They also could be quite useful in those cases where there is a short short XB program which does nothing but load an A/L program and pass control to that. They will operate much faster since the A/L program will be part of the XB program being loaded rather than an object code file which must be loaded separately. If the A/L program is not relocatable, MG's DISkASSEMBLER by Tom Freeman could be used to create the file to be included in the XB program or a short move routine could relocate it to its proper spot although this would result again in the same program residing in two places in memory.

The method I prefer may seem a little strange, but it is more versatile. It will allow you to use the A/L with other XB programs and allow any of the XB programs to use the A/L routines. It does not waste time and memory by copying the A/L routines from high memory into the usual location in low memory. I forget the program in which I first saw this used, and I do not know why its use has not become more popular. Perhaps it is because it contaminated the environment and is useful only as an XB loader for A/L programs.

My personal contribution to this is to have the link routine restore the pointer to the original LINK, build the REF/DEF table and, if I wish the A/L routines to be available

to other XB Programs, to change the pointer at >8370 so that they will not be overwritten when these programs are loaded. To restore the link pointer, I include in the A/L program one data word SAVLNK. I examine the final assembled version for the address of this word and then convert it to a decimal address to be used in the XB Program. The first line of the XB Program is then written as follows, with SAVLNK being the converted address and HH and LL being the converted high and low bytes of the start address of the restoration routine.

```
CALL INIT:: CALL PEEK(8192,A,B):: CALL
LOAD (SAVLNK,A,B):: CALL LOAD(8192,HH,
LL):: CALL LINK
```

LINK has no parameters. The restore routine starts by moving the data from SAVLNK back to >2000 (8192). This is just like A/L routines which move the contents of R11 to a certain place, do a BL and then restore R11 before returning to the main routine except that, in this case, the save is done in XB and the restore in A/L. The restore routine should move the REF/DEF table into its proper location and set the pointer at >2004. It is then ready to set the top or high memory pointer. If this is left at >FFE7, any XB programs loaded will overwrite the A/L language. If it points to the start of the A/L portion, we will be wasting some memory because the REF/DEF table will exist both in high memory and in its proper place. The ideal solution is to have the restore routine be complete in itself, including the REF/DEF table and SAVLNK and be located at the beginning of the A/L language program. We then load >8370 with the address of the last byte of this routine. Now, the next XB program we load will overwrite the no longer needed portions of the A/L while leaving the needed portions and the rest of the environment intact. There are no special precautions to be taken in the XB programs to be loaded and used with this program. A/L object code programs may be loaded and run in the normal manner and they may use routines already loaded.

This method is ideal for menu driven XB programs where one calls another and all make use of the same A/L routines. One example that I am familiar with is the MYARC original Hard Disk Manager routines. (Incidentally, I have not taken the time to use this on those routines and get mad at myself every time I see "PROGRAM LOADING" on the screen while I wait.) One problem left is that, if we get out of this series of programs into some which do not use the A/L routines, we have wasted space. Another is that if these XB programs use some CALL LOADs to a particular address expecting a certain line to be there (as do a great many MENU programs) they will not work. The cure for this of course is not to allow BREAK in any of the programs in the series and force an exit through a routine which restores >8370 to >FFE7 or which goes back to the title screen.

# A CASH BOOK

# FROM

# MULTIPLAN.

# BY

# PETER GLEED

This and future articles on MULTIPLAN are being presented at the request of Rick Lilley of Ontario Canada.

So that past readers will understand I will not be using the words hit, push or slap that damn key but if a key has to be operated I will use the following <A> means press key A, <2> means press key 2. Read this next direction carefully <sb> means press the space bar. <fX> means press function and the X key together. Similarly <c2> means the control and the 2 key are pressed at the same time. You will find also that I use the [] and this is for owners of the RAVE KEYBOARD. I have found that the use of HORIZON RAM CARDS speeds up MULTIPLAN quite a lot. If you have or at a future time obtain one please don't do as I did and spend hours trying to make it operate Multiplan, without first reading the the explicit instructions that come with the RAM CARD.

Here is what you do, address the card to 1000, it should come at that address, if not just switch the first address switch ON all others to OFF. then in configure call the disk TIMP. Then use disk manager to load the files of MULTIPLAN into disk 3 TIMP. When that is done get back to your menu screen and <B> or [B] and then <CALL AU> or [CALL AU] <enter> [enter] on doing this the old TI screen comes up. <sb> [sb] now <2> [2], and virtually instantaneously the MULTIPLAN prompt appears so you <enter> [enter] and low and behold you have your overlay on the screen and without the time lag you are so used to. The Ram Disk also speeds up the other functions.

Now down to business. to start off with we shall construct a month by month cash book, I strongly advise that you don't make pages longer than one month otherwise you could over run out of memory.

I will make the cash book 136 columns wide, which will entail using the PICA font on your printer in the compressed mode. If your printer cannot be set by printer buttons, then get hold of a copy of plus and setup the printer by first of all using FUNNELWEB and load a file from PLUS called F this gives you a fine print condensed. Save this to a disk under the file name of MPRNTCT. and every time you use MULTIPLAN load this file through FUNNELWEB formatter with the printer switched on, once loaded do not switch the printer off until you have finished and have obtained your hard copy. One of my printers is a STAR COLOUR NX1000, so I can control the print commands from the printer. DUN"T forget when you have rinshed to cancel you printer commands.

Berore we start actually typing in our spread sheet. we should map out with pen and paper how we want it to look and function, so please do not just copy exactly what I am doing but alter some of the functions to fit in with your own requirements.

We shall now start. So insert the MULTIPLAN Cartridge in the cartridge slot. and the MULTIPLAN Disk in drive 1. Switch the TI on and then <enter> or [RETURN]. Once the overlay is displayed <O> <N> [O] [N], this stops the Computer doing calculations whilst you are entering DATA. It saves a hell of a lot of time.

You will notice that the cell pointer cursor is illuminated at row 1 column 1. We require it at row 1Ø column 1. to achieve this at this early stage of using MULTIPLAN I suggest that you use the down arrow ie. <fX> or if you have a RAVE KEYBOARD <da>, (this means down arrow) until the cell pointer is at row 1Ø column 1. Once there we shall start doing the formatting of the sheet by <F> [F] on doing this a menu appears at the bottom of the screen asking you to select either Cells Default Options Width we want width so <W> [W]. Another menu appears asking you to fill in or change the default column widths default is 8 and we need only 4 which is the smallest width obtainable. so <4> [4] then <c2> [tab]. on doing this two things are apparent one the column has got smaller, and the cursor in the window at the bottom of the page has shifted to the prompt column 1 as we are only concerned with column 1 at this time <c2>, the cursor now moves to to the prompt through 1, we shall need 1ØØ rows and seeing that we are holding the 1Ø rows at the top of the screen for the title we <11Ø> [11Ø] and <enter> [return]. To finish the formatting of this column <F> [F] then <C> [C], The window has now changed to Cells aling: C Gen L R this allows you to choose between haveing every thing you enter into column 1 either automatically centered, left adjusted, or right adjusted we will use the automatic centering so <C> [C] and <enter> [return].

We can now give column a title. So make sure your cell pointer is at row 11 column 1 and <A> the bottom menu has now changed to ALPHA and the menu cursor is now waiting for you to type in your first word so <DATE> <enter> [DATE] [return]. You find that as long as you typed in the word DATE and paused after typing D you should have the word date displayed in row 11 column 1. If this is not so please go back and read this tutorial again. how ever if you are the possessor of an 1Ø or 2ØØ it will be as I have said, and we can now go and type in the word JAN at position row 12 column 1. Do this exactly as you did the word DATE, but please alter your key strokes to <JAN><enter>

Now is a good time to have a cup of tea or coffee', berore this we shall have to save what we have so far achieved. on the bottom menu you will see the word Trans this will prompt us into the load or save file function of MULTIPLAN, and as we wish to save what we have done <T>, the bottom menu now reads Load Save as it is the latter we want

<S> the menu now shows TEMP and underneath enter a file name I suggest the file name CB/TEMPLT so <CB/TEMPLT> [CB/TEMPT]. I do hope you had inserted a freshly initalised disk into disk drive 1. Oh what bad luck, never mind the drink can wait whilst you do and <CB/TEMPT> [CB/TEMPT] again. Switch off the computer and have a drink because after the drink you will be very nearly on your own.

Now that you are rested how about initalising six disks as you will need them, and call them MP1 through to 6.

Column 2 will be 10 columns or characters wide, so do this operation on your own, similar to column 1. format the cells left. You managed that, so <A> [A] and <CLIENT> [CLIENT]. The third column is again 10 wide. By the way you know how to get from column to column is by the use of <fS> or <fD> and if using a RAVE keyboard <arrow left> or <arrow right>. After the column width is finished <F> <C> and the menu is now C Gen L R <R> <c2> [tab] now <sb> [sb] six times until the menu cursor is on $ <enter> [return] you are now asked by the menu how many decimals you require so <2> [2]. If you are lucky enough to have a RAVE key board you will only need one key stroke. The third column is 10 wide, so do that, and <INVOICE> [INVOICE] now goto row 12 column 4 and <NUMBER> <enter> [NUMBER] [RETURN]. I advice you to use invoice numbers such as 890112/11 this means the invoice was made out on the 12 day of January 1989 and it was the 11th invoice of that day.

The next column is 10 wide and headed amount, do that on your own.

The fith column is simple just four wide and left empty, to separate income from expediture, so go ahead and format column 5.

Column 6,7,8,9,10,11,12,13,14,15,17, are all formatated 8 wide, R, $, .00, column 16 is 10 wide, R, $, .00. The headings that I have used are printed below they are self explanatory, but you can change them for your own circumstances.

Next months tutorial will be filling in all the data of one months business and all its formula. Till then have a HAPPY NEW YEAR.

# MULTIPLAN CASH BOOK

BY

PETER GLEED.

Last month we put in the column headings, so as promised we shall put in the day to day figures, and also the TITLE OF THE PAGE.

Don't forget to have the MULTIPLAN DISK AND MODULE INSERTED and your CB/TEMPT DISK. After getting the MULTIPLAN screen up on your monitor load CB/TEMPT as showen last month, and also switch off the option. Now goto column 1, all the directions for doing this were given last month and seeing as I have to type this out I'm not giving them twice, so look up last months magazine. You should position the cursor one row below JAN. <Ø3> [Ø3] or any other day you wish to start your accounts, <enter> [enter] or to save a Key Stroke <fd> [ra].

For column 2 I will assume you have recieved some cheques in the mail so this is what we are now going to enter. The first cheque is from XYZ ENGINEERING INC this is to large for the column space so we will call it XYZ ENG, to do this <A> [A] <enter> [return]. Now <XYZ ENG> [XYZ ENG] <enter> [return].

Now again <A> [A] We are using the Alpha Mode because in these two columns there will be no Formula used. So we have to expect that the invoice was sent out out last month and the invoice number was 881208. Therefore <881208> [881208] then <enter> [return] or <fd> or [ra].

This paragraph and the others following it will deal with figures that are connected to a formula. So before you go on please read the instructions at least twice (I bet they don't George).

In column 4 we have to insert the amount of the cheque so <V> or [V] this gets us into the value mode, which allows a formula to be used. Let us now assume that the cheque was worth nine hundred and ninetynine dollars and ninetynine cents, to get this in our column we just <99999> <enter> or [99999] [return] easy isn't it. You do not have to put in dollar signs or decimal points, the formating that we did last month does it for you. Thats one time saver with MULTIPLAN.

Now back to column 2 <cs> thats right <cs> or [f23], go on do it and see what happens. The curser has shifted 3columns at one key stroke, now that is a time saver, and another one is only type in what is really necessary, so if you have more than one transaction on the same date there is no need to fill in column 1 more than once. Whilst we are on time savers, I hope none of you are actualy using the figures that are shown in this article (their is a silly lump of a girl in BEVERLY HILLS that is Pete I can see her from up here, now she is going all red, just like a young teenager.)

These figuars are only for guidance, you have to substitute your own proper accounts.

If your accounts have wages to pay on this day they are entered like this <SELF> <enter> or [SELF] [return] then <fd> or [f24] until you come to the wages column <V> or [V] <500.00> or [500.00] <enter> or [return]. Now get over to the next to last column by using <fd> or [f24] now insert the amount of all the wages paid with that one cheque. This is done by using the following formula <V> or [V]. Have another look at you screen to make sure your curser is under the next to last column and on row 14. <R14C6+R15C6> <enter> or [R14C6] [return], you will now find that where your cuser is positioned the total now appears. Handy this formulation isn't it. That is the first piece or formulation that you have done.

Now by looking at the sample in this tutorial go and fill in your own accounts, but do not do any more formulations yet. whilst you are filling in the cash book let me expain something to you if you have only one transaction in a day enter it that day, leaving it gets into a bad habit and in the end nothing gets done. One other thing the manual tells you not to overwrite a disk file, well I always over write mine and touchwood I have not had any accidents, just thought I would let you know.

Let us now assume that the cash book for January is filled in but the totals are not, you have filled in column 15 though havent you, in row 16 I used the formula <V> <R16C10 + R16C11> or [R16C10+R16C11]. In column 2 row 26 you will find the letters EOW EXPEND this means end of week expenditure and in row 26 column 15 you will find the amount of the expenditure for that week, the formula for getting this is <V> <SUM (R13C15:R25C15)enter> or [V] [SUM(R13C15:R25C15)enter] "To paraphrase one of our politicians who sometimes loses his pants LIFE WAS MEANT TO BE EASY." By using the formulations that you have learnt in this months tutorial you should be able to get all of your totals.

I know some of your bottom columns come like this ######## this means the column was not formatted wide enough so goto column 17 and formulate by using <F> or [F] then <W> or [W] and change the 8 to a 6, you can also go to column 5 and <D> or [D] then choose column by <C> or [C] and <enter> or [return], you can use this idea of decreasing column width in an area that does not require the width of the original set up to increase the width of columns that do require extra width. Do not forget though do not exceed 136 columns in width overal as it will not print out on your printer.

Have fun and keep on filling the cash book, next month we will do a goods inward journal, using the basis of what we have done this month.

PETER GLEED.

# Did you know that...?

by Chick De Marti

Mar. 1989

## OZARK 99er NEWS

An item in "FROM THE EDITOR'S CONSOLE" reminds us that...

When a carriage return is needed in text already typed, use Ctrl-U, SHIFT "M", Ctrl-U. "Press the alpha lock dow if you need several, move to any location where you need a

carriage return:

Press Ctrl-U, "M" and move to the next location, etc.When all the carriage returns you need have been entered, press Ctrl-U, to turn off 'special' character mode.

This is very useful when text has been received via the modem,and has no carriage returns but needs to be reformatted. Also with text that has been keyed in with the editor in editor assembler (which uses no word wrap or carriage returns).

~~~~~~~~~~~~~~~~~~~~

## Telecomputing Troubleshooting

Problem: You can't see anything on the screen as you type!

A. The remote system isn't echoing your keyboard strokes back to your computer. Toggle your duplex command from half to full, or the other way if you are already at full.

Toggling from half to full duplex usually solves the problem of double letters as you type.

Problem: While receiving data from another computer, every new line sent prints itself over the previous line.

A. You are experiencing a LINEFEED problem. Sometimes, you have to insert the linefeed from your end. It is done through your communications software.

Problem: When receiving data from another computer, some letters and words get clipped.

This is a LINE DELAY (or character delay) problem, which is solved with you communication software. Usually preset at 0 (zero), try a higher number start at 8 and if need be, increase it in increments of two (2).

~~~~~~~~~~~~~~~~~~~~

## TI-WRITER reminders

For a heading on each page:

.HE Ctrl-U, shift "N", Ctrl-U (Enter title here) Ctrl-U, shift "T",Ctrl U

For a numbered footer:

.FO^^^^^^^^^^^^PAGE% (the percent sign)

And this reminder from Jack Sughrue, of IMPACT-99

How many of you know you can use an "I" with the TAB instructions to automatically Indent each new paragraph? (I have used "L" and "R" for left and right margins, but was unaware of the Indent option)... I now use:

L on 1, I on 5, and R on 38.

This sets the margins at the width of the screen, and indents each new paragraph. You'll be able to read everything ON your screen - no more windows.

~~~~~~~~~~~~~~~~~~~~

## GOVERNMENT BBS NUMBERS

DEPT. of the NAVY
Navel Observatory (Washington, D.C.)
Data: (202) 653-1079
Voice: (202) 653-1522
Sysop: M. Miranian
Enter @TCO for Command Directory
Public access: No limitations specified.
~~~~~~~~~~~~~~~~~~~~

## INTERESTING NOTE

SFV Times )from Sept 7th Commercial appeal of Memphis, TN.).

A recent article had a headline saying "Computer disease hospitalizes man". The story read:
A young man became so mesmerized by his computer that he had to treated for a "computer syndrome" that made him unable to distinguish between the real world and computer progs.

The 18 year old was diagnosed as psychodic by 3 doctors from Copenhagen's Nordvang Hospital, apparently because he spent 12 to 16 hours a day in front of the computer.

The doctors said the young man began to think in programming language, waking up in the middle of the night thinking: "Line 10 GOTO BATHROOM" : "20 NEXT" He also told the Doctors he "discovered that man is only a machine..."...Gary Cox

~~~~~~~~~~~~~~~~~~~

## DID YOU EVER NOTICE...

by Don Hicks (CALL SAV newsletter)

When you use "Dupe Line" (Ctrl-5) in TI-Writer, the line number of the target line changes to the same number as the line above which has been duplicated, until the display is scrolled up or down (and the lines are forced to update), or until you press ENTER.

That the TI-Writer quick-reference Card does not mention Fctn-8 or Ctrl zero as the Insert line function,but mistakenly call Fctn-2 and Ctrl-G "Insert Blank" line, instead of "Insert Character"?

That you cannot use Fctn-0 to view the line numbers in TI-Writer if the cursor is less than 7 columns from the right margin?

That if you press P after doing a Show Directory (to print the dir.), the "printout" will go to the last print device specified in the editor even at the end of a file that has been saved to disc with Print File in the Editor (to save it without the tabcodes attached). (Fortunately, this did not wipe out the desired file in my experience!)

That this is the best-written newsletter you have ever read?? <grin>

~~~~~~~~~~~~~~~~~~~

Dallas 99 Interface Oct 1988

## Technology In Computer Science

Here come the pocket computers.
A Japanese Co. "said" they have a chip about the size of a period, that has 1A megabytes of RAM. This is equal to:
about 10 minutes of audio...
or 90 double sided disks.
A U.S.Company has developed that can find a bit of information in:
20 billionths of a second, or...
the time it takes light travel
about 3/16ths of an inch.
A magnetic storage medium, called the "DATA CARD" has been invented. It is business card size and holds up to:
200 megabytes of information...
uses laser disk technology to write the the information on the card. It does not spin, the reader electronically scans the card.

CD-ROMS are still in the news. The inventor of the home computer is coming out this fall with a CD drive which will not only read to the computer, but with an optional set of chips and headphones, can use it as a commercial CD music player.

~~~~~~~~~~~~~~~~~~~

I love Jim Swedlow's
QUOTES OF THE MONTH

My favorite (this month) is...

"Only those who attempt the absurd
achieve the impossible" ---Anon

Out of coffee,
See you next month...Chick
~~~~~~~~~~~~~~~~~~~

## KIDS ##########

### FLY CATCHING FROG

From the ALOHA 99/4A newsletter, reprinted from the ROM NEWSLETTER (May 1985).

by NEWT ARMSTRONG

The original intent of the article was as a Basic programming tutorial. He and Scott, a grandson, decided to create a program that featured a "fly-chasing frog". It uses arrow keys to control the frog (the fly moves randomly). I left all the explanations in so the listing will still be valuable as a tutorial. Remove them to run in Basic. (See if you can tell how to determine that the fly is caught).

-*-chick-*-

```
100 REM FLY CATCHING FROG
105 REM BY NEWT ARMSTRONG
110 CALL CHAR(35,"2810387C6C
"!---FLY
120 CALL CHAR(38,"3C3CFFFFFF
FF7E3C")!---FROG
130 CALL CLEAR
140 RANDOMIZE
150 X=12
160 Y=12
170 CALL HCHAR(X,Y,38)!---
---frog on screen
180 FOR T=1 TO 10 !limit fly
to 10 moves a
190 R=INT(RND*24)+1 !---Row
 limit 24 TO 1 for fly--
200 C=INT(RND*32)+1 !---Col
 limit 32 to 1 for Frog--
210 CALL HCHAR(R,C,35) !put
 fly on the screen
220 FOR I=1 TO INT(RND*75)+2
0 !Random timer for fly..21
counts MIN, 96 MAX---
230 CALL KEY(3,K,S) !-Check
for frog move command---
240 IF (K>7)*(k<12)THEN 300
 !Fall through if no command
250 NEXT I
260 CALL HCHAR(R,C,32) ! ---
remove fly from screen
270 NEXT T
280 PRINT TAB(11);"FLY WON";
 :
290 GOTO 510
300 CALL HCHAR(Y,X,32) ! ---
remove frog from screen
310 ON K-7 GOTO 320,360,400,
440
320 X=X-1 !---move left
330 IF X>0 THEN 470
340 X=31
350 GOTO 470
360 X=X+1 !---move right
370 IF X<32 THEN 470
380 X=1
390 GOTO 470
400 Y=Y+1 !---move down
410 IF Y<25 THEN 470
420 Y=1
430 GOTO 470
440 Y=Y-1 !---move up
450 IF Y>0 THE 470
460 Y=24
470 CALL GCHAR(Y,X,F)
480 CALL HCHAR(Y,X,38)
490 IF F=35 THEN 500 ELSE 25
0 !If fly got caught fall th
rough
500  PRINT TAB(11);"GOTTEM";
 :
510 INPUT "   WANT TO GO AGA
IN? Y/N ":Q$
520 IF (Q$="Y")+(Q$="y")THEN
 130
530 END
```


Don't be in a hurry to grow up!

## THE IBM CONNECTION

It is evident that many of our readers are exposed to more than one brand of computer almost on a regular basis. Some work in an office where they have access to computers, bringing work home is fairly common. Others, visiting friends and relatives, share their computing experiences and stories with , "on my xxx computer we can...etc, etc.". Ninety nine point nine of these "XXX" are not TI's. And many of us have more than one brand of computer in our home, weather it is to do company work at home, or just to continue our education ... (Let's not forget we can connect our TI to IBM via the TRITON TURBO XT and "Magic FM" (a prog.)

For the reasons listed above, I believe it's time to share our ideas shortcuts and information about some of the OTHER machines. Because I have an IBM (bite your tongue) I've chosen to start the, "THE IBM CONNECTION".

If you have something you would like to share, let me know and of course. I will include it (as usual you will be given full credit). Even if you have no intention of, "changing horses", I hope to make this an interesting way to broaden your education...and so, onward with our ... "IBM CONNECTION".

Q. What is a MACRO?
A. "MACRO" comes from the word macroinstruction. To you, it is a labor saver. It is a one or two key stroke command that will accomplish the same thing as a full sequence of instructions. On the TI, as a programmer, you may have learned to type ctrl-U instead of the word. "RANDOMIZE" (although as you typed. nothing appeared on the screen. when you LIST the program, RANDOMIZE would appear). Or (in your programming) instead of typing the word "PRINT", simply enter ctrl-; These are MACROs.

On the IBM, BATCH files are user created macros. For example: I have a word-processor on a separate directory (called WP), so anytime I want to use the processor, I must type:

```
CD\WP    (change directory to WP)
NOW      (run "WritNow)
```

Instead, create a BATCH file to use the letter "W" to do the same thing.

Exam.
```
COPY CON W.BAT
ECHO OFF
CLS
CD\WP
NOW
```
press ctrl-Z (to end the macro)

Hereafter, whenever I want the word-processor, I simply type "W" <enter>

Next month, I'll more completely describe a BATCH file. what it can do and give a few more examples. Please send me your ideas, comments and your questions. Until next time, enjoy.. ..yourself. -*-chic-*-

# George Steffan Memorial

The "George Steffan Memorial 99/4A Center" has been established at the The Special Awareness Center, a nonprofit organization in Simi Valley, California, providing computer training to handicapped and learning disabled children.

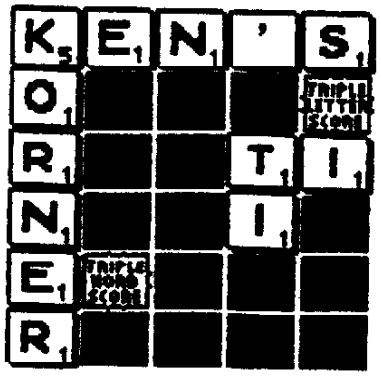
Tex-Comp donated two TI99/4A systems with color monitors, software and books for individual use along with computer software in Steffan's honor. Jerry Price, Tex-Comp vice president, said he had been seeking a way to honor Steffan, co-founder of the LA 99ers, who died September 29 of cancer.

Price says the Bearstalk Adventure marketed by Tex-Comp was originally an Apple freeware program which he asked Steffan to convert to Extended BASIC.

The center approached Price for a donation after one of its members demonstrated the use of the TI99/4A to the staff.

Steffan's name will be on a plaque affixed to the computer desk, Price says, noting that local TI users Ray Kazmer and Steve Mehr have agreed to lend assistance and CorComp, DataBioTics and Head Computer Products have donated products.

Tex-Comp plans a formal spring dedication. Software or products can be sent to The Special Awareness Computer Center, c/o Simi Valley Adventist Hospital, Simi Valley, CA 93062. Gifts are tax deductible and will be acknowledged.




# A TUTORIAL

by KEN GILLILAND

This tutorial is for the benefit of the users of the TI-994a and TPA Software series. This article may be reprinted for non-profit purposes provided proper credit is given to it's author. The font types used in this masthead are from ASGARD Software's "ARTIST FONTS, Vol. I", which were also created by the author. And yes, this entire Tutorial was done using TPA!

## TPA: The Quest for Keyboard Clatter

Let me start by saying that TPA (The Printer's Apprentice) is by far the best Desk-top Publishing Tool we have for the TI-994a. After several newsletters were printed using TPA, my friends with their IBMs and MACs started asking me how THEY could get a hold of the program. Of course, they were shocked to find it ran on my "toy" 99.

The Printer's Apprentice is a wonderful program. Is was written by Mike McCann of McCann Software. I believe many of the user groups and catalogs carry it, or I'm sure you can order it direct from Mike himself at P.O. Box 34160, Omaha, NE 68134. The current cost, I'm not really sure of.

Well anyways, I've owned TPA for many years, in fact about a year and a half BEFORE I ever used it. This program while being an incredible tool to use, does have a major flaw. That's right, the documentation. Actually the manual is quite complete and thorough and would be easy to understand if you were inside Mike's head. But we're not and this manual falls into the unfortunate ranks with the Editor Assembler Manual, it just fails to read easily. Sorry, Mike, I do love the program though. Now, with the news of my mastering TPA, I started getting phone calls from all around the country with questions, thus starts my tutorials. So let's stop wasting paper and get cracking!

The first thing we'll TRY to do, and hopefully even accomplish is to print something on our printers all in easy 1-2-3 steps!

1. Load TPA in Extended Basic, wait for the Menu Screen, get yourself a cup of coffee.
2. Hooray it appeared! Press "3" for "3. Formatter". Stir in the sugar and cream in your coffee, if desired.
3. Okay, let's first type something in! Press "J" for "JOTTER". Wow, it's another screen! Press "E" for "EDIT" and start typing something. The editor has word wrap so you don't have to worry about falling off the edge of the screen. Pressing the ENTER key, at anytime, will may a CR (carriage return). Press ESCAPE (FCTN 9) to exit the Edit Mode when your done.
4. Now let's do something so we can play with it later. Press "S" for "Save File". Blip! You should now have a prompt that says "DSK1.TEXT", press ENTER or alter it to change drive numbers or file names. It will save a FIXed 80 file, not a VARiable 80 file. This is important because TPA only wants to see FIX 80 files. You can use Funnelweb (aka TI-WRITER) to write the same thing you just did it the jotter. Just make sure when saving the file you use "PF", ENTER. Then "FDSK1.TEXT", ENTER. The "F" before the "DSK..." makes it a FIXed 80 file, too. VERY IMPORTANT: Always end your text file with a CR, or the last line won't print out.
5. Only now, press "B" for "Back" and voila! We have the Formatter Menu again. Now first press "P" for "Printer". This allows you to change your printer name. If it's okay then just press ENTER or else change it and then press ENTER.
6. Now press "B" for "Buffer". You'll notice that the "Txtfile DSK1.TEXT" has changed to "Buffer". This means you'll be reading what's in the Jotter rather than a text file. Ah-ha! Now you also see why we saved that FIXed 80 file too!

CONTINUED on NEXT PAGE

# TPA TUTORIAL

CONTINUED from PREVIOUS PAGE

7. Now press "F" for "Fontfile". This allows you to access one of the many font files. For starters, let's use what's in the default already, "DSK1.TYPER", press ENTER. If you feel adventurous and know what's on the disk, then try another one like "TREASURE".

8. Okay! Now we're ready for the dreaded "V", "Variables". Press the "V" key and we're blasted with a full set of choices.

9. Prntr Type- Eps Gem... Press "E" if your printer is Epson compatable or "G" if it's Gemini. If you're unsure, stick with the "E". Press ENTER.

10. Prnt Dnsy (Sd-Dd-Hs-Qd)... Chose your Print Density, for starters use "S" for Single Density. Press ENTER.

11. FontStyle (Sdsh-Oush)... To Oush or not, that is the question. Since we didn't pick a fontfile with an "OU" prefix, chose "S" and ENTER. The difference between the Sdsh and Oush besides the OU prefix and that the OU fontfile will appear much smoother and have a higher print quality. The Sdsh Fonts look nice but a bit blocky.

12. Linefeed Size... You can alter the Linefeed size between your text. "0" is default, but you could go up to 999 (if you only want two lines per page). Each increment is equal to a pixel. As a rule of thumb, in a standard Printer font height there's 6 pixels, thus a line feed size of 3 or less is usually more than enough.

13. Space (ASC 32) width... This allows you to change the spacing. The default value of 4 is pretty much normal. Again the standard width of a printer character is about 6 pixels.

14. Intercharacter width... Yes, that's right you can change the spacing between the letters in a word too. And again, the default is a normal choice.

15. Font-ASCII... This feature allows you to print whatever you have in the buffer or text file in the font file you chose or in normal printer type with the limits of the font file you chose. In other words if you choose, "A" for ASCII. Then it would print, in normal printer type, the file or buffer in exactly the amount of words per line measured in the font size you chose. It would do vertical spacing too, leaving you the same exact block-size of text the Font choice will give. So what's the value of that? Simply, that it will allow you to see if you've made any errors on margins or page length and will let's you see exactly where the text is going and what words are going to end up on what lines. This also will print out in one-tenth of the time the font file would take. But we're gluttons for punishment so let's choose "F" for Font and see what the real results will be!

16. Wrap-Fixed... Are simply what they say. If in the following commands you have tight margins, Wrap will allow the text to jump to the next line, Fixed won't. For most practical purposes you should always choose "W"rap.

17. Ragqd/Mcrojust... Choosing "R"agged will justify the left end of the margin and leave the right end ragged. Choosing "M"ircoadjust will justify both ends of the margins and proportionally space the letters in between. Proportional spacing is far superior to the TI-Writer's FORMATTER .FI;AD command because it not only fills pixels between the words but also between the letters of the words, making a much more naturally appearing sentence line. Choose "M", ENTER.

18. Left Margin... (and Right Margin...) These features will also help you make an incredible looking page. The defaults are 0 to 400. Ingore that. Using Sd your page will run from 0 to 425, using Dd or Hs your page will run from 0 to 950 and using Qd, you guessed it, from 0 to 1900. Now those numbers don't really allow for margins. Since we're just playing around and choose Sd, make Left Margin equal to 10 and Right Margin equal to 415.

19. Next breakpoint-Line at: 0... This feature will allow you to set the vertical length of your text and allow you to access all kinds of neat features I'll cover next time. Another rule,... an average page from perforation to perforation is approximately 2310 pixels long. So usually 2200 pixels is safe to not fall off the edge of the page. If you do this, when printing the file, at line 2200 (or thereabouts) you'll be prompted with a menu. At this time, move your printer paper to the next page, then press "C"ontinue. But for now, leave it at 0 which means no breakpoints. Press ENTER.

20. Hooray! We made it through the dreaded Variables! Now, pray, crack your fingers a couple times, pray some more and Press the "G" for "GO"! Your disk drive should start to go crazy and if all the files are on the right

CONTINUED on NEXT PAGE

# TPA TUTORIAL

CONTINUED from PREVIOUS PAGE

disks (and your printer's on) you'll start to see results. If there's problems, do a FCTN 4, check the drives for correct files, (You can use the "D"irectory command at the main menu), and read back through this tutorial, if you have real problems give me a call at (818) 951-2718 (but not collect, I'm far from wealthy! -grin-).

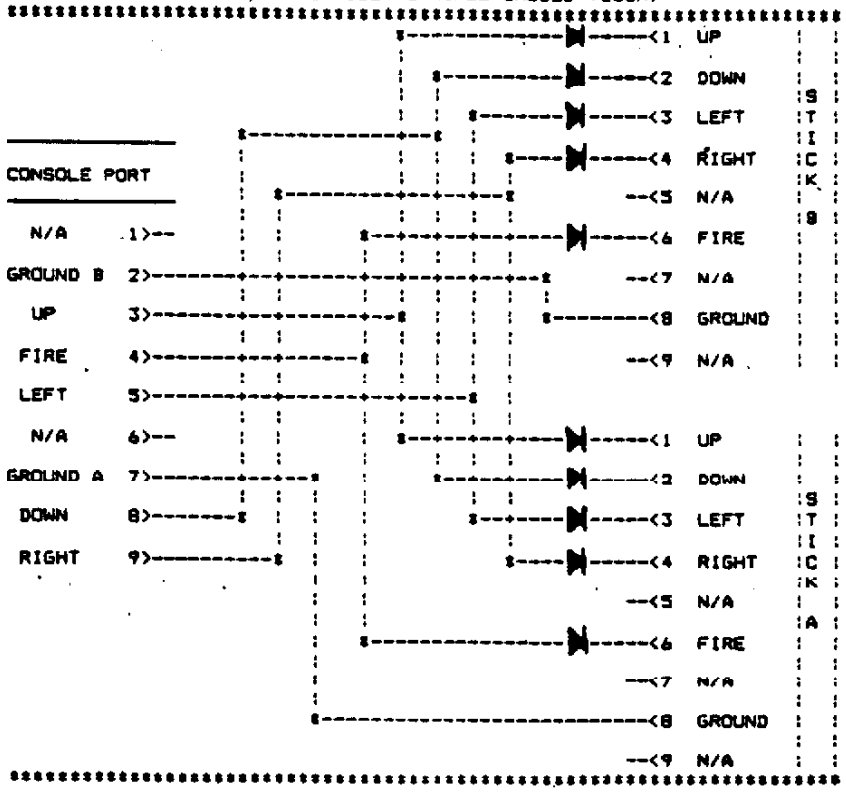
Next month, I'll cover the Mystery of the Externfile and the Deep Secrets of the Continue? Menu. Till then, happy keypunching!

# HARDWARE PROJECT

BUILD YOUR OWN JOYSTICK ADAPTER

THIS IS THE SCHEMATIC TO BUILD YOUR OWN JOYSTICK ADAPTER TO USE THE ATARI/COMMODORE COMPATIBLE JOYSTICKS. THE NUMBERS GO WITH THE PINS OF THE CONSOLE PORT AND THE JOYSTICK CONNECTORS. THE ▶| SYMBOL REPRESENTS A 1N914 DIODE (OR EQUIVALENT) WHICH CAN BE FOUND AT ANY RADIO SHACK. BE SURE TO INSTALL THE DIODES WITH THE BANDED END TO THE JOYSTICK SIDE.

THE BOX MENTIONED IN THE PARTS LIST REFERS TO ONE OF THOSE LITTLE PLASIC BOXES YOU GET AT RADIO SHACK. IN THE DRAWING BELOW, AN "*" DENOTES A CONNECTION, OTHERWISE NO WIRES SHOULD TOUCH.



# LA99 USERS GROUP MARKETPLACE

March 13 1989

| NAME | DISTRIBUTOR | $-SALE | CALIF TAX | MAIL USA | MAIL CAN. | MAIL EUR. | MAIL AUS. |
|---|---|---|---|---|---|---|---|
| 19 ADVANCE DIAGNOSTICS | Millers Graphics | 18.50 | 1.25 | .90 | .99 | 2.63 | 3.33 |
| By Craig Miller- All of the commands to change, edit, check, copy, read, write or check the speed of a disk. | | | | | | | |
| 57 ASSEMBLY DIGEST | LA99 Users Groups | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |
| By Chick DeMarti- A collection of articles, tutorials and Programs from Newletters, magazines and books about E/A. | | | | | | | |
| 11 BROWSE | Genial Computerware | 9.00 | .59 | .70 | .77 | 1.57 | 1.79 |
| By Peter Hoddie- A utility to manage text files. Print, view, combine and browse files and catalog. TI-99/4A or 9640. | | | | | | | |
| 20 DISASSEMBLER | Millers Graphic | 18.50 | 1.20 | 1.10 | 1.15 | 2.55 | 3.07 |
| By Craig Miller- Disassemble assembly language object code. A learning tool to investigate and modify codes to suit your need. | | | | | | | |
| 33 DISPLAY MASTER | Inscrebot Inc. | 12.00 | .78 | .70 | .77 | 1.57 | 1.79 |
| By Christ Faherty- Slide shows, demos, displays in sequential manner TI-Artist pictures. Provide captions. | | | | | | | |
| 23 EXPLORER | Millers Graphics | 20.00 | 1.30 | 1.90 | 2.09 | 3.83 | 4.69 |
| By Craig Miller- Converts your 4A into a programmer's instrument. Extended Basic, Basic or Assembly Language under control. | | | | | | | |
| 09 FIRST BASE | Genial Computerware | 41.00 | 2.66 | 2.65 | 3.33 | 5.75 | 7.37 |
| By Warren Agree- A data base program create, browse, query, sort, update, defines, has macro and print custom design reports. | | | | | | | |
| 13 FONT PACK #1 | Genial Computerware | 9.00 | .59 | .70 | .77 | 1.57 | 1.79 |
| By Peter Hoddie- Fonts Upper or lower case, numbers and different sizes. Used with TI-Artist, GRAPHX, CSGD, FontWriter II. | | | | | | | |
| 14 FONT PACK #2 | Genial Computerware | 9.00 | .59 | .70 | .77 | 1.57 | 1.79 |
| By Peter Hodie- 19 more fonts in TI-Artist format as above fonts. Both fonts #1 and Fonts #2 comes with a manual. | | | | | | | |
| 34 FONT WRITER II | Asguard Software | 19.00 | 1.24 | .90 | .99 | 2.06 | 3.33 |
| By Peter Hoddie- A utility to extend the usefulness of TI-Artist. Create fonts in various sizes. | | | | | | | |
| 43 FORTH BEGINNERS | LA99 Users Group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |
| By Chick DeMarti- An introduction manual Forth lecture to help you in understand how to program in this language. | | | | | | | |
| 44 FORTH NOTES #1 | LA99 Users Group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |
| By Chick DeMarti- A 10 page booklet of notations, comments, and hints from Newletters around the country. Vol. 1 NO. 1 | | | | | | | |
| 45 FORTH NOTES #2 | LA99 Users group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |
| By Chick DeMarti- A 13 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 2 | | | | | | | |
| 46 FORTH NOTES #3 | LA99 Users Group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |
| By Chick DeMarti- A 19 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 3 | | | | | | | |
| 47 FORTH NOTES #4 | LA99 Users Group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |
| By Chick DeMarti- A 20 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 4 | | | | | | | |
| 48 FORTH NOTES #5 | LA99 Users Group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |
| By Chick DeMarti- A 20 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 5 | | | | | | | |
| 49 FORTH NOTES #6 | LA99 Users Group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |
| By Chick DeMarti- A 20 page booklett of more notations, comments and hints from Newletters around the country. Vol. 1 NO. 6 | | | | | | | |
| 50 FORTH NOTES [#1-#6] | LA99 Users Group | 10.00 | .65 | 2.50 | 2.75 | 5.11 | 6.71 |
| By Chick DeMarti- A complete package of Forth notes Vol. 1 NO. 1, 2, 3, 4, 5 and 6. At a special price. | | | | | | | |
| 21 GRAM UTILITY I | Millers Graphics | 10.00 | .65 | .50 | .55 | 1.05 | 1.15 |
| By Danny Michael- A summary to the Gram Kracker manual. Help explain the commands so you can better program the device. | | | | | | | |
| 06 GRAM PACKER | Genial Computerware | 9.00 | .59 | .70 | .77 | 1.57 | 1.79 |
| By Peter Hoddie- Use with GRAM devices. Create custom menu of programs and cartridges. Writer, Tera, DM1000, PR, Artist,other | | | | | | | |
| 54 GRAM KRACKER FACTS | LA99 Users Group | 5.00 | .33 | 1.10 | 1.15 | 2.55 | 3.07 |
| By Mike Dodd- A 32 page booklett of articles and modification for the GRAM KACKER from Tom Freeman, Craig Miller, Walt Howe. | | | | | | | |
| 15 GPL ASSEMBLER V2.1 | Ryte Data | 15.00 | .98 | .70 | .77 | 1.57 | 1.79 |
| By Michael Weiland- Assembliing of GPL programs. Reads DIS/VAR 80 files created by editor programs for EDIT1 programs. | | | | | | | |
| 17 GPL LINKER | Ryte Data | 15.00 | .98 | .70 | .77 | 1.57 | 1.79 |
| By Monty Schmidt- Designed to be use with the GPL ASSEMBLER. It allows you toload and run up to four GPL programs in RAM. | | | | | | | |
| 16 GPL OPCODES | Ryte Data | 15.00 | .98 | 1.10 | 1.15 | 2.55 | 3.07 |
| By H.Martin- Provides an overview of the TI-99/4A System and its internal operating system including the GPL interpreter | | | | | | | |
| 42 GPL SET (12,16,17) | Ryte Data | 40.00 | 2.60 | 1.70 | 1.87 | 3.83 | 4.89 |
| The complete set of GPL-Assembler, Linker, Opcodes at a special price. | | | | | | | |
| 59 GPL INTERN BOOK | VTH | 10.09 | .65 | 2.65 | 2.97 | 5.11 | 6.71 |
| By Heiner Martin- A soft cover book on the interworking of the 994/A GPL. | | | | | | | |
| 05 GRAPHICS EXPANDER | Genial Computerware | 9.00 | .59 | .70 | .77 | 1.57 | 1.79 |
| By Peter Hoddie- Enlarge, reduce, rotate 90 degrees(vertical banners), upside down,convert fonts TI-Artist, CSGD, FontWriter II | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 52 HANDY REFERENCE | LA99 Users Group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |

By Chick DeMarti- A 20 page guide booklett for the 99/4A from various Newletters and other sources.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 61 HARDWARE REPRINT | Chicago Users Group | 6.50 | .42 | 2.65 | 3.33 | 5.11 | 6.71 |

members- A 150 page book of hardware articles from others TI/99 Users Groups Newletters. An excellent work by Chicago U.G.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 04 HYPERCOPY | GENIAL COMPUTERWARE | 16.50 | 1.07 | .70 | .77 | 1.57 | 1.79 |

By Mike Dodd- Fast disk copier. Copies SSSD in 35 sec. DSSD in 59 sec. Makes multiple copies with skew. For 9640

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 38 JOY PAINT 99 | Great Lake Software | 30.00 | 1.95 | 1.10 | 1.15 | 2.55 | 3.07 |

Creat your own signs, charts, diagrams, advertisements or any graphic by using a Joystick. Circles, ovals, lines, boxes etc

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 51 LOGO DIGEST | LA99 Users Group | 2.50 | .16 | .70 | .77 | 1.57 | 1.79 |

By Chick DeMarti- A 20 page booklett about TI-Logo II from various Newletters around the country.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 22 MG GAMES | Millers Graphics | 18.50 | 1.20 | .50 | .55 | 1.05 | 1.15 |

By craig Miller- A disk full of games in assembly language.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 01 MAXFLIX | Genial Computerware | 12.00 | .78 | .70 | .77 | 1.57 | 1.79 |

By Peter Hoddie- View, print and save MacPaint graphics created by 'Macintosh' computer on your 99/4A computer.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 55 NEWLETTER BEST | LA99 Users Group | 2.50 | .16 | .90 | .99 | 2.06 | 3.33 |

By George Hutton- A 28 page booklet of the best articles and programs from Newletters around the world. 1985 issue.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 56 NEWLETTERS + DISK | LA99 users Group | 5.00 | .33 | 1.10 | 1.15 | 2.55 | 3.07 |

by George Hutton A 28 page booklet plus a disk of the articles and programs from Newletters around the world. 1985 issue.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 24 NIGHT MISSION | Millers Graphics | 18.50 | 1.20 | 1.70 | 1.87 | 3.83 | 4.89 |

Craig Miller- A 90 page book plus diskette. Tricks and methods in programing and playing a multiple screen game.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 26 ORPHAN CHRONICILES | Millers Graphics | 9.25 | .60 | 2.30 | 2.53 | 4.67 | 5.79 |

By Ronald Albright,Jr.,M.D.- A 175 page book historical abstract of the history of the Texas Instruments 99/4A Home Computer.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 39 ORPHAN SURVIVAL BOOK | Genial Computerware | 18.00 | 1.17 | 2.65 | 3.33 | 5.75 | 7.62 |

By Ronald Albright,Jr.,M.D.- A 212 page booklet containing: Helpful Reciept, Advice and other NOSTRUMS for TI 99/4A and Geneve.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 12 PC-TRANSFER | Genial Computerware | 21.00 | 1.37 | .70 | .77 | 1.57 | 1.79 |

By Mike Dodd- Moves text files between a TI-994/A or MYRAC 9640 and an MS-DOS machine using a CorComp or MYRAC controller.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 60 PERSONAL AUDITOR | PRK DataBasic | 15.00 | .98 | 1.50 | 1.65 | 3.19 | 3.98 |

By William Gaskill- 120 page booklet plus disk for a home accounting system. Collect, save, capture, report on your finances

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 40 PICTURE IT | Rogers Merritt Inc. | 10.00 | .65 | .90 | .99 | 2.06 | 3.33 |

By Roger Merritt- Converts, displays, view, print, or create a banner. Converts, display instances. Disk A-Z of Fonts

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 02 PICTURE TRANSFER | Genial Computerware | 26.00 | 1.69 | .70 | .77 | 1.57 | 1.79 |

By Paul Charlton- View five different types of graphics, create slide shows, combine images, convert between formats. for 9640

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 27 TPA APPRECTICE | McCann Software | 26.00 | 1.69 | 1.30 | 1.43 | 3.19 | 3.98 |

By Mike McCann- The TPA produces excellent cards, adds, announcements, etc. 26 page booklet with 2 disks (fonts and programs)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 28 TPA FONTS #1 | McCann Software | 9.95 | .65 | .70 | .77 | 1.57 | 1.79 |

By Mike McCann- Disk of Fonts plus 10 page booklet displaying different fonts in this package.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 29 TPA FONTS #2 | McCann Software | 9.95 | .65 | .70 | .77 | 1.57 | 1.79 |

By Mike McCann- Disk of more fonts. More complete instruction TPA toolbox manual.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 30 TPA TOOLBOX | McCann Software | 19.50 | 1.27 | 1.10 | 1.15 | 2.55 | 3.07 |

By Mike McCann- A 20 page booklet and two disks package. Provides access to various programs in the TPA system.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 10 REMIND ME! | Genial Computerware | 12.00 | .78 | .70 | .77 | 1.57 | 1.79 |

By John Johnson- A graphic calendar with notes on any date. Helps you manage your monthly schedule. Manual + disk.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 25 SPRITE PROGRAM BOOK | Millers Graphics | 6.25 | .41 | 1.30 | 1.43 | 3.19 | 3.98 |

By Craig Miller- A 72 page book for TI-99/4 and TI-994A. A smart programming guide for sprites to help you understand sprites

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 36 STRING MASTER | ByteMaster Computer | 16.00 | 1.04 | 1.50 | 1.65 | 2.94 | 3.98 |

A 19 page booklet of Assembly Language routines accessible from Extended Basic and handling macro.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 18 SUPER CLOCK SUPPORT | Ryte Data | 13.50 | .88 | .70 | .77 | 1.57 | 1.79 |

By Monte Schmidt- a 16 page manual + disk designed to make use of your CorComp 9900 Clock or Triple-Tech card.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 58 SUPER EXTENDED BASIC | Triton | 50.00 | 3.25 | 2.65 | 3.95 | 8.31 | 11.26 |

A complete manual and Cartridge for the TI-99 computer. A greatly improved program over TI Extended Basic Cartridge.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 31 TI ARTIST | Inscrebot Inc. | 15.00 | .98 | .90 | .99 | 2.06 | 3.33 |

By Chris Faherty- 20 page manual + disk V2.01-G Create high quality graphic with ease display, save or print. Joystick or key.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 32 TI ARTIST EXTRA | Inscrebot Inc. | 6.00 | .39 | .70 | .77 | 1.57 | 1.79 |

By Dave Rose- A flippie diskette with Characters Fonts, Conversion Program, Input Device DSR'S, Pictures and Instances.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 35 TI BASE V2.0 | Inscrebote Inc. | 20.00 | 1.30 | 1.50 | 1.65 | 3.19 | 3.98 |

A complete manual and two disks data base program with tutoring, Language, custom report, math and host of others features.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 03 TRIAD | Genial Computerware | 16.50 | 1.07 | .70 | .77 | 1.59 | 1.79 |

Wayne Stith- A Terminal Emulator (300,1200,2400), Configuration, Disk Manger and 40 column test editor. TI-99/4A or 9640.

**41 TECHNICAL DRIVE BOOK** Ryte Data 14.50 .94 2.65 3.33 5.75 7.37
ByMonty Schaidt- The secrets about TI99/4A, DSRs, Mini Memory, Corcomp Clock, Disk controller.
**53 UTILITY PROGRAMS** LA99 USERS GROUP 8.00 .52 1.30 1.43 3.19 3.98
By Tom Freeman- A 37 page booklet and disk. Quad Col, print sideways, variable col, call load, checksum, disk/tape, etc.
**08 XB-BUG** Genial Computerware 12.00 .78 .70 .77 1.57 1.79
By Peter Hoddie- A debugging tool for Extended Basic programmer. View and modify variable value, search, display TI99/9640
**07 XBASHER** Genial Computerware 9.00 .59 .70 .77 1.57 1.79
By Mike Dodd- Reduces the size of Extended Basic programs. Shorten variable and names, removes REM and !. TI-99/4A or 9640.

## LA99/4A LIBRARY CORNER

Disks $2.00 **each** not programs. Many programs takes more than one disk. If you have a **SSSD** drive be sure you get all the disks needed to run the program usally **both A** and **B** disk if the program is over 360 sectors (if available). That comes to $2.00 **each** other wise get the DSSD disk. It pays to have a DSSD drive. And dont't forget to include postage if you want it mailed $0.25 for each disk.

0000 **LA99/4A DISKS LIBRARY CATALOG** FEB. 89 : $1.00 either DSSD(699) or 0000A(343) and 0000B(349) Special offering.

## NEW ADDS FOR MARCH LA99/4A LIBRARY

The Library Committee wish to give thanks to those who donated disks to our Library this month: Danny Nelson, Earl Raguse, Ray Kazmer, Chick De Marti.

2675 **MAGIC FILE MANIPULATOR** Fairware by Ben Hatheway : This program facilates the transfer of files between the TI on which it is running and another computer such as s a PC clone. The program is capable of speed up to 19200 bauds at 8N1. Files can be protected, unprotected, deleted ,remaned Up load or download. X/B SSSD(77)

2847 **CPU/PEEKER** 3 programs: PEEKER displays contents of memory in hex or decimal, CHANGE BASE gives equivqlent numbers in decimal, hex, and binary. PGM-SHRINK condences basic programs by removing REM, PROGRAM/SIZE gives start and finish lines. SSSD(43)

4544 **MISC 30** 20 utility programs: AC CONVERSION (B), ALPHA/SORT, BARGRAPHER (E), CALENDAR 1981-2000 (E), CHR/DEF, ENLARGER, ESCHER/ART, GOTHIC/CHR, LETTERHEAD, LOAD/CAT, LONG/LIST, MERGE/READ, MUSIC/DOC, MUSIC/WRITER, PLOT/FCTN, SLANT/CHAR, SNAKE/DANCE, TITLE/PAGE, TYPEWRITER, SCRATCH, SCRATCHPAD AND SPREDSHEET. SSSD(334)

7064 **NURSERY RHYMES #1** By Earl Raguse: A menu driven Forth music disk of nursery rhymes, lyrics appears while music plays. Selections are MARY'S LITTLE LAMB, JUST A SONG AT TWILIGHT, LITTLE BOY BLUE, LITTLE BO PEEP, BAA BAA BLACK SHEEP, WHAT CAN THE MATTER BE, HICKORY DICKERY DOCK, BASS NOTE DEMO, PLAYMATE DOCS. Runs from E/A DSK1.FORTH SSSD(360)

9089 **ST.VALENTINE CARD** Fairware by Ray Kazmer. A adventure type game try to rescure Woodstock from the "Maze of GROG".SSSD(215)

FRED MOORE 7730 EMERSON AVE LOS ANGELES CA 90045