

ENTRIES! TENTRIES! WE'VE GOT ENTRIES!

by Steve Mehr, UG member
Good news! Although my mailbox isn't quite overflowing yet, entries are starting to come in
for the current Program Line Contest (you know who you are). What I've seen so far is quite
interesting. Come on... Get in on the fun... Give it your best shot. Oh, did I forget to mention?
Maybe, just maybe, some kind of prize might be awarded for the winners. Just a minute... I'm
back. The postal carrier just delivered another bag of contest entries. Word travels fast so
don't be left out!

* WHAT YOU MAY HAVE MISSED * at the May meeting was none other than Tom Rosqui, star of stage and screen. You may remember Tom from both Godfather movies. Tom also starred with Steve McQueen in The Thomas Crown Affair and was the star of Crazy Quilt, along with many of his other fine films. We all welcome Tom to the L.A. 99er's as a true "TI Guy".

Also appearing in our star studded production was Ken Gilliland. Ken demonstrated the wonders of The Printer's Apprentice (with which the article you are now reading was printed) and even showed us some newsletter pages that he produced using the program. Ken is currently producing TWO newsletters each month using TPA! Be sure to take notice of Ken's tutorials currently being reprinted in our newsletter to get the most out of using TPA. Ken's tutorials were originally published in the newsletter of The San Fernando Valley 99er's and I thank them for publishing them in the first place.

Ken also showed us Disk of Pyrates, the latest in his "Disk of" series published by Asgard. Disk of Pyrates follows his latest release, Disk of Dinosaurs, a very successful two disk package full to the hub rings with dinosaur animation, dinosaur TI Artist pictures and instances, and hours and hours of good clean fun! Disk of Pyrates will include actual histories of many of your favorite pyrates, pyrate sing-a-longs, a pyrate game, and of course tons and tons of pyrate TI-Artist art. Ken excels his graphic flavor in this (his best to date) "Disk of". Don't miss this four disk pyrate adventure soon to be available from the L.A. 99er's marketplace or order directly from Asgard.

Asgard Software, P.O. Box 10306 Rockville, Md 20850. Disk of Pyrates, \$14.95 + .75 5&H

Ken is now working on "Disk of The Old West" for his next "Disk of" release. Plans for this package will include a graphic wanted poster to which you can add your own name! Wow!

And that's not all! Close your eyes just for a moment and dream. If you could... 1) take all the best features from all the casino type games you have ever played (on ANY computer), 2) add all the features you could ever think of, 3) integrate the games together (just like walking away with you winnings from Blackjack to go play Roulette), 4) have the program actually write you a check (if you happen to actually come away ahead), 5) and have ken Gilliland write the programs for you. I know, I'm just asking too much this time. It was a nice dream though... DREAM NO MORE! Comprodine is proud to announce one of its next releases, TI Casino by Ken Gilliland. Ken showed us a glimps of this soon to be released package. TI-Casino will include Blackjack, Poker, Keno, Roulette, Acey Ducey, and Baccarat and will be a "must have" for the casino game enthusiast.

Don't forget that Craig Miller will be at the June 28th meeting. This is your last reminder for this special event. Plan to attend. Show your spirt. Be there!

<PAGE 2>

* * TopIcs - LA 99ERS * *

FOUR-A/TALK

Random ramblings about things TI.

by Bill Gaskill

June 1989

AAARRRGGGHHH!!!

Once again I come to you on bended knees, begging your forgiveness for not keeping my promise (sort of) on the Genial Traveler Diskazines, and borrowing a title for this edition of Four-A/Talk from best friend Steve Mehr to express my frustration at having to admit the error of my ways once more. When I "really" got into the GT disks I discovered so much wonderful material that I realized each disk could easily fill an entire Four-A/Talk article, which would leave room for nothing else. Since your newsletter editor likes to spice up each edition with a variety of articles, by different authors, they would have had to cut the Four-A/Talk information down to a portion of what it should be. So, I have decided to do the GT reviews as separate articles. If room permits, you will find my overview of GT Volume 1 numbers 1 and 2 in this newsletter. If not, perhaps it will appear in a future edition.

WHAT'S HOT:

- TI-SORT from Inscabot Inc., Art Green's TI-Writer (re-write) V4.3 (no it's not a typo, V.2 was covered last month), Jim Peterson's Public Domain Catalog, TimeLine99, Marty Kroll's CATLIB V1.5 and CATCOM companion to CATLIB, Randy Moore's Sector Editor for hard or floppy disks and Page Pro 99 from Asgard.

DISCOVERIES:

-The wizards from Florida, Inscebot Inc., namely Dennis and Chris Faherty, have done it again! They have created an assembly language sort program that is without equal in the TI Community. The version that I beta-tested sorts TI-Base files, fixed length files from any program, delimited files from any program and data files created from Basic (and Xbasic) programs.

I was purposely given the file without any documentation and still managed to figure the program out in less than five minutes. It uses many of the familar TI-Base interface routines, so it wasn't too difficult. A nice touch.

From what I can tell, TI-SORT is limited to 99,999 records in a file. No, that is not a typo. TI-SORT can order a data base that is one record short of one hundred thousand records. It uses a disk-caching method to sort large files, where blocks of data in 180 record increments are sorted (which takes 3-5 seconds per block!) and then a temporary file is written to disk for each block of data. When all records have been sorted the temporary files are used to reference the correct order of the records for the write to disk of the sorted file. This does make the program disk intensive, but 99,999 on 24K of RAM? Come on! I'm not going to complain, are you?

I performed a few benchmarks to give you an idea of the speed of the program. I sorted a 2990 (999 sector) record file on my hard disk by a single field (you can sort by up to 8 fields). It took 13:49. The actual sorting of data took about 6:28. The remaining time was consumed in writing the sorted file back to disk. That might seem like a lot of time, but 3000 records is a pretty hefty data base by 99/4A standards.

I then took a TI-Base file that was 800 records long (268 sectors) and sorted it on a floppy disk. It took 13:03 to get the job done. The exact same file sorted by the exact same field on may hard disk took 3:03. So as you can see, the type of disk drive you use makes a substantial difference in sort speed. Using the hard disk saved a full ten minutes. A ram disk would be slightly faster than the hard drive.

TI-SORT works off of a floppy, ram disk or hard drive. As you can see from the benchmarks, it also sorts data that resides on any of the same media. The commercial release of TI-SORT is scheduled for the end of June. The price tag will be \$14.95 plus \$2.50 to cover shipping and handling. If you are interested in this jewel of a utility, write to;

Inscebot Inc. Box 291610 Port Orange, Fl. 32029

You may also call them at 904-767-3922.

-Art Green's Macro Assembler is now in Version 7, with continued performance improvements. The TI-99/4A Object Code Linker is now in Version 3.

-Dick Altman's Fairware List, now managed by Steve Mehr, hasn't been updated since 1987. Steve is in need of some honest help from us in bringing the list up to snuff. If you have a program that you would like on the list, or if you know (from your own experience) that a particular piece of software that used to be fairware, is no longer fairware, or if you know that a fairware author's address has changed, PLEASE contact Steve with the information. The address again is:

Steve Mehr 633 Hollyburne Lane Thousand Oaks, Ca. 91360

As an aside, you might be interested in knowing that I have put a little pizzaz into the Fairware List's organization. If Stave decides to go with it, folks who send for it may get the version that provides a menu of choices to browse through the list with, rather that the three TI-Writer files of the past.

NEWS:

-FEST-WEST '90 will be held in Tucson, Arizona February 17th-18th, 9am-5pm and 9am-3pm respectively. The Days Inn on Broadway in downtown Tucson has been chosen as the site. More on this in future columns. Thanks SouthWest 99ers!!!

-Art Green has released version 4.3 of his marvelous TI-Writer clone. The upgrade fixes a small bug in the indent routine that exists in V4.2 where you would save a file and the margins were not recalled when the file was reloaded.

-Inscebot's Dennis Faherty has begun work on a "fully" hard disk compatible version of TI-Base. He hopes to have it out by mid-summer or earlier if all goes well. Also in the works is a stand-alone report generator for TI-Base. For those who have wondered, among the other features planned for TI-Base V3.0 are a repeat key to speed up data entry and to save you from having to type in a command each time you want to perform a similar function from the dot prompt, and a new directive that will support string searches anywhere within a string.

-Inscebot's Chris Faherty is hard at work on TI-Artist Plus!, reported to be "much more" than just an upgrade to TI-Artist. No release date announced yet. See previous page for Inscebot's address.

-I've also heard that Martin Smolley of the NorthCoast 99ers has come up with some neat TI-Base routines to print graphic labels by manipulating the codes in the PRINTER driver file. What an innovative user he is. I'll bet he could write a book on all of the things that can make TI-Base do, if he could just find the time to write it.

-Accombly language wizard Marty Kroll is considering a hard disk version of his CATLIB disk library utility. More on this in a future Four-A/Talk hopefully.

-I just received a copy of Page Pro 99 from Asgard and will feature it in the next Four-A/Talk, or perhaps MICROpendium if John and Laura are interested. I can tell you already, from about 30 minutes of using it, that it is FUN!!!! The program is destined to be a hit in the TI Community, guaranteed. The price is \$24.95 plus \$.75 shipping and handling. If you are interested, Asgard may be contacted at;

Aggard Software Box 10306 Rockville, Md. 20850

HARD DISK USER TIPS:

-Much to my delight, I have discovered that Myarc's MDM5, V1.28, the disk manager for my 20mb hard drive, may be accessed from FunnelWeb V4.10 that is being run off of the Horizon Ram Disk. Probably because of the way I have the HFDC configured (I use it only for the hard disk), I always had a problem getting MDM5 to perform properly when booted from the E/A5 loader in JJ's Menu on my Horizon Ram Disk. The program would load, but disk management functions would not work correctly. To get MDM5 to work properly I had to insert the Editor/Assembler module in my console and load MDM5 from it, after shutting the auto-boot feature of JJ's Menu off. Now, I just load FunnelWeb, access the E/A loaders, select loader three (3) and type in the correct directory and file name (WDS1.UTIL.MDM5 in may case). Program performance is flawless and the access to it is ram/hard disk fast. I believe that I would never have truly been able to equate power computing with the 99/4A had I not purchased Myarc's HFDC and a hard disk. What a marvelous addition to my hardware!

THIS MONTH IN TI-99/4A HISTORY:

1979:

The TI-99/4 is unveiled but doesn't actually make it to market until early 1980 because of pre-production bugs that couldn't be worked out in time for the Christmas season.

-The new computer has a chiclet style keyboard and no lower case letter set, and it is supported by a line of stand alone peripheral devices that have to be "chained" together.

1981:

The TI-99/4A is unveiled at the Summer Consumer Electronics Show in Chicago. It has a suggested retail price of \$525 for just the console.

-Additional releases at the '81 Summer CES were TI LOGO, TEXNET, TEII, the Scott, Foresman ADDITION and SUBTRACTION I modules and the EDITOR/ASSEMBLER package.

-An external keyboard interface for the TI-99/4 is designed, and the plans introduced to the public by Mike Kovacich in May of 1981, only weeks before TI introduces the 4A with its improved keyboard.

-Denali Data, Oklahoma City, Oklahoma introduces a joystick adapter so that Atari joysticks can be used on the TI-99/4 Home Computer.

1982:

TI issues a full page ad in the Summer Consumer Electronics Show trade paper warning third-party software developers of possible legal action if they produce "unlicensed" software for the 99/4A.

-TI UK announces that the PE box is to be available in England by August.

1983:

Plans to introduce the TI-99/8 (the 64K upgrade computer for 99/4A owners) are shelved indefinitely. The beige colored, plastic cased version of the 99/4A, with the new GROM, is released.

-Jim Peterson, 156 Collingwood Avenue Columbus, Ohio 43213, issues "Tips From TigerCub" #1.

-Prostick II joystick released.

1984:

Myarc releases MPES expansion system with DS/DD disk controller card.

-SunWare, a Lubbock, Texas firm, offers cartridge making service to programmers of 99/4A applications.

-TI establishes 800-TI-CARES phone.

-Assembly language DEBUGGER program is released to the public domain.

- -HOMEWORK HELPER released by Navarone.
- -Phil Barnes releases 99CALC, the first XB spreadsheet available for the TI-99. The program is advertised in the June issue of Computers and Electronics, on page 117.
- -"32 Basic Programs for the TI-99/4A" book by Dilithium Press debuts.
- -"The TI-99/4A Idea Book" book by David Ahl debuts in Creative Computing.

1985:

Great Lakes Software, Howell, Michigan announce the release of JOYPAINT 99, a graphics drawing program to compete with TI-ARTIST and the Australian produced GRAPHX.

- -Nutmeg 99ers in Waterbury, Connecticut are formed with David Gallegher as the person to contact for membership.
- -Harold Simmons, 9818-49th Avenue, in College Park, Md. 20740-1432, starts an all TI-99/4A museum.
- -Millers Graphics releases EXPLORER.
- -Navarone Industries releases Console Writer word processor in a module.
- -Mark Summer, CSI Design Group, who is later to become the first TI99/4A Sysop on GEnie, releases "WINDOWS" for the TI Home Computer. The program is actually written by Ken Dibble.

1986:

Craig Miller sells the rights to The Smart Programmer to Richard Mitchell, Super 99 Monthly publisher. The two journals are merged under one name, The Smart Programmer, which will be published from Sulphur, Louisiana.

-Tenex Computer Express begins offering MS-DOS and Apple clone computers in their TI-99/4A catalog.

1987:

Myarc receives an award from the Front Range 99er Computer Club of Colorado in appreciation for its support of the TI- 99/4A computer community.

- -Ryte Data's R/D Computing publishes a 64K memory map modification project.
- -Ryte Data announces that it has a poor subscriber base for the R/D Newsletter, and that operations will cease if more interest is not generated.
- -Monty Schmidt releases GPL assembler / linker for the 99/4A.

1989:

DataBiotics announces that the long-awaited GRAND RAM card for the PE Box will ship in July.

-Pilgrim's Pride, a long-time supplier and supporter of 99/4A products, closes its Hatboro, Pennsylvania retail store. Mail-order business is retained.

TRIVIA.

Did you know that;

-It is the "A" in the TMS9918A Video Display Processor chip that gave the 99/4A its name. The 99/4's screen controller chip is the TMS9918. Both are 40 pin silicon chips but the TMS9918A chip has a bit map mode that the TMS9918 does not.

-The TI-99/8 came with Extended Basic and Pascal in ROM chips like the 4A has TI Basic.

-In July of 1981 TI Engineer Richard Tarrant submitted plans for the TI-99/7? The 99/7 was an upgrade plan to the 99/4 that provided software compatibility with the 99/4 but had 512 bytes of scratchpad workspace instead of the 256 bytes found on the 99/4, 90K of internal GROM instead of the 18K found on the 99/4, a 58 key keyboard with 4 rocker switches, instead of the 99/4's 40 key keyboard, bi-directional cassette interfacing, designed I assume to allow any cassette recorder to be used with the 99/7 instead of the limited number of recorders the 99/4 supported, 64K of expansion memory, support for an 80-column printer rather than the 32 column thermal printer that was the standard for the 99/4 and a disk controller that would handle 3 SS/SD or DS/SD diskettes. A new 300 baud modem was also planned that would support originate/answer capabilities rather than the originate only capabilities of the existing modem available for the 99/4. The 99/7 also featured a Pascal Interpreter built in, the same concole Basic as the 99/4, a cooling fan with system shut-down capabilities in overheat situations, a keyboard with 55 keys in a row/column matrix, a Fctn key, a Ctrl key, four function rocker switches and an LED indicator for modem carrier detect and software monitoring. One of the four rocker switches provided hardware selectable originate or answer status for the modem. I am unable to determine what the other three were designed for.

-MG's ADVANCED DIAGNOSTICS, written by Steve Mildon, was originally called MEMORY and DISK DIAGNOSTICS?

-Craig Miller was involved in a project in 1984 to create a SCI TECH Ram disk for the 99/4A that never came to fruition? The product was to have been available in 248, 504, 760 and 1016 sector models. It was also slated to have a 32K add-on feature that would allow for expansion memory directly on the ram disk instead of having to use the TI 32K card. Mention of it is made in MINI-MAG 99, along with Renoir and some other projects that MINI-MAG editor Leslyn Tepper was made privy to through her association with Jerry Price of TEX-COMP and and Bill Moseid of Model Masters.

-Bill Moseid's MINI-WRITER word processor for the Mini-Memory module, later marketed heavily by TEX-COMP as part of an AXIOM GP-100TI printer and MINI-WRITER word processing package, was originally slated to be picked up and produced by TI as a licensed word processing program for the 99/4A. The '83 bailout quashed the plans apparently.

-The famous Ashton-Tate firm that markets dBase for IBM and compatibles never had an Ashton? The firm was started by Larry Tate after he purchased the rights to market Wayne Ratliff's data base program. Larry gave it the name dBase, not Wayne. Tate has since died and the firm now is a corporation, but there never was anyone named Ashton. Mr. Tate just thought that the name had a certain ring to it.

ŀ		,					
	PRESIDENT TERRIE MASTERS	213-271-6930	EQUIPMENT CHAIRPERSON JOHN BOHLIER:	213-324-6534			
	VICE PRESIDENT TERRIE MASTERS	213-271-6930	MARKETPLACE FRED MOORE	213-670-4293			
1 1 1 1	SECRETARY Doug Moore	213-451-1069	PROGRAM LIBRARY FRED MOORE	213-670-4293			
	TREASURER ALAN WHITEMAN	213-379-8031	NEWSLETTER LIBRARY Lester Smith				
	NEWSLETTER EDITOR TERRIE MASTERS		MEMBERSHIP CHAIRPERSON HAROLD JEFFERY 213-372-7795				
1	PROGRAM CHAIRPERS	SON 805-379-2937	THE CLUB'S RIGHT ARM GAIL FAIR	213-326-6660			

Note from Tarrier

As of Tosay June so. my Father has been hospitalized sweeks the is exitical not expected to survive
Thanks for the support I have received - and please weeks my absence.

M.U.N.C.H. 560 LINCOLN ST. P.O. BOX 7193 WORCESTER, MA. 0160**5**-7193

TO THE USERS' GROUP ADDRESSED:

I am sorry to inform you that Jack Sughrue (Box 459, East Douglas Ma. 01516) was recently in a car crash that involved numerous head injuries. These injuries will be operated on soon and the prognosis appears good.

Jack is the creator of the environmental disk called PLUS! (now in version 2.0), and he is the author of IMPACT/99 articles and many other text and public domain files.

He wishes to thank all the 99ers from around the country who have sent so many cards and letters. He won't be able to take any more calls, unfortunately. He asks that editors keep sending those "great newsletters," and says, "I'll be up in no time and back to Tling as soon as possible."

Though new IMPACT columns will be delayed, all orders for PLUS! (\$10.00 fairware) will be filled in fairly short order.

I am sure everyone in the TI community joins me and the members of M.U.N.C.H. in sending Jack our best wishes for a complete and speedy recovery.

Sincerely,

James W. Cox

Treasurer/Editor,

M.U.N.C.H.



(Did You Know ... cont.)

Thirty BBS Commandments (Part 2)

- 11. Thou shalt spell thy words correctly.
- 12. Thou shalt delete thine own mail
- 13. Thou shalt delete thine olden messages.
- 14. Thou shalt help other users.
- 15. Thou shalt not post anonymously when offering criticism.
- 16. Thou shalt keep thy foul language to thyself.
- 17. Thou shalt not occupy thy BBS with thine arguments, for verily, I say unto thee that thou shalt maketh a fool of thyself.
- 18. Woe be unto the user who attempts to crash thy BBS, for he or she shall be cast out from the sanctuary of thy hobby and must repent by doing forty day and forty nites of voice only communications.
- 19. Thou shalt first dial BBS numbers during the day by way of the voice line to assure correct numbers.
- 20. Thou shalt not post other usres' real names.

<< Last installment next month >>

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

Using <u>RUN</u> within your program

Many times at the end of a program we will ask the user to play again, and if they do we will have to reset all variables to zero. For example:

800 INPUT "Play again (Y/N): ":YN\$ 810 if YN\$="Y" then score=0

:: GOTO 100 ! start of game

If you change line 810 to read: 810 IF YN\$="Y" THEN RUN

all variables are set to zero. Try

this little program:

10 CALL CLEAR
20 PRINT TAB(5); "This is you r program."
30 FOR N=1 TO 10 :: SCORE=SC ORE+N :: PRINT
40 NEXT N
50 PRINT "Your score is"; SCO RE :: PRINT
60 INPUT "Try again (Y/N) ": YN\$
70 IF YN\$="Y" THEN RUN ELSE END

Here is a cute little routine that can be used to spice up any program.

TWO WAY PRINT by Jim Peterson

100 CALL CLEAR 110 DATA "This is a demonstr ation", "of the", "Tigercub So ftware", "Two-Way print outli ne" 120 FOR T=1 TO 4 130 READ M# 140 IF LEN M\$/2=INT(LEN(M\$)/ 2) THEN 160 150 GOTO 170 160 Ms=Ms&" " 170 L=LEN(M\$) 180 C=16-L/2 190 FOR J=L/2 TO 1 STEP-1 200 CALL HCHAR (10+T*2, C+J, AS C(SEG\$(M\$,J,1))) 210 CALL HCHAR (10+T+2, 16+L/2 -J, ASC(SEG#(M#,L-J,1))) 220 NEXT J 230 NEXT T

"Only those who attempt the absurd achieve the impossible" Anon (from Jim Swedlow's MORE QUOTES)

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

I'm out of coffee, see you next month

\*- - C H I C K - -\*

### Did you know that...?

### by Chick De Marti

June 1989



#### WE WANT YOU

The Marines are looking for a few good computer operators. Over two years ago, career Marines, attending a conference, were warned by the speaker, "If you intend to pursue a career with the Marines, you must know computers!" His insight has proven itself true. Today's Marines are using computers in all aspects of their daily operations. Some of the Marines' applications of computers are:

Word processing, database management, accounting, personnel management, briefings, transportation, maneuvers ship to ship communication. Also equipment and purchasing.

#### TI-Writer Hint

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

The Formatter makes sure you have two spaces after each period. This can cause such strange strings as:

Mr. Smith 1023 N. Fargo Street

These extra spaces jump off the page to the reader as simply wrong. The easiest way to solve this, I have found, is to use the ^ sign to control the spacing. For example:

Mr.^Smith

1023 N.^Fargo Street.

(Thanx * CIN-DAY * newsletter) (Via North County U.G.)

"Computers are charting a new course in human history fran the age of the muscle to the age of the mind." Anon

(Greater Akron 99er - Nov 98)

From jshug NEWS DIGEST (Australia)

MAIL TO :ALL
MAIL FROM: LARRY
LEGENDS 1.1 has a bug in it. The
is in line 1200 of the file LGDN/MON.
The line reads:

1200 OK=K :: DISPLAY AT(22,1) DUSING 9:"WESTERN PORTAL", etc.

The bug is "OK=K". There is no variable "K". Change it to read:

1200 OK=F :: DISPLAY AT...etc.

(from <u>PC WORLD</u> Magazine)

PC WORLD is starting a column by and for User Groups. It will feature a selection of original tips that would be helpful to other people and they will pay \$25 for each one used. The limit is 25 to 100 words. Address is:

PC WORLD Magazine G/O Tips from User Groups Matthew Lake, Editor 501 Second Street San Francisco, CA 94107

ODE TO A COMPUTER

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

Little Miss Odem
Purchased a modem
Sending out words every day.
Alas, her computer
Didn't quite suit her,
Now her keyboard
She's given away.

A. Nony Maus

#### Genial Traveler Diskazines

Volume 1 Numbers 1 and 2

Overview by Bill Gaskill

The idea of a diskazine or magazine on disk is not a new one and it didn't start with the Genial Traveler issues. Apple owners had the heralded MICROzine product 2-3 years before the GT issues ever came to life. Nonetheless, Barry Traver can certainly be credited with bringing the concept to the 4A community, and with style.

Genial Traveler first appeared on the scene in September of 1985 with advance notice to the TI Community being published in a variety of locations including MICROpendium, Tiger Cub Software flyers and more. Currently, there are nine Genial Traveler flippies available, at a cost of \$36 per year. If you are not a GT subscriber, you REALLY should be. Some of the best information and public domain or fairware programs appear first in Genial Traveler. Contact;

GENIAL COMPUTERWARE 835 Green Valley Drive Philadelphia, Pa. 19128 215-483-1379

After wrestling with a variety of ways to present the information, I have decided to do a disk at a time, with commentary on each of the files or programs contained on the disk being discussed. I hope that you find the information of use. Perhaps you will discover something truly useful that you didn't realize even existed. I did.

TRAVELER11-side one of the GT Volume 1 Number 1 flippy diskette.

2FONTS/S1 -assembly language source code files for 2FONTS/O program 2FONTS/S2 found on back side of GT Volume 1 diskette.

ARTICLES -an X8 program that loads the ARTICLES/O file below, and then reads the DV/80 file called MENU which contains the items listed on screen for you to select from. The ARTICLES program is a neat example of how extended basic and assembly language can be used together. There are CALL LOADS to change from the 28 column graphics mode to the 40 column text mode, display text in 40 column mode, routines that show how arrays created in extended basic can pass or retrieve data from assembly and more.

ARTSTGRPHX -article by Ron Albright on the plusses and minuses of TI-Artist and Graphx and how each can be used in conjunction with the other to benefit the user. A nice idea I suppose, but how many users own both programs?

DOUBLETEXT -article by Tom Freeman on how to print text files in double column.

DSRLNK/S -the source code for a Device Service Routine link for extended basic. This means that an extended basic program can gain access to the device polling routine inside the computer that controls input/output devices such as the RS232, your disk drives and the like. The file is the work of Texas Instruments and John Clulow.

FRIEND -a short note from Barry Traver asking subscribers not to pirate the GT disks for friends.

GENIAL -a text file authored by Barry Traver explaining the name GENIAL for the GT diskazines.

GOOD/GUYS -a list of popular TI vendors including Barry's favorite Pilgrim's Pride, which has since closed its store front operation and gone to mail order only.

LOAD -XB loader that boots the WELCOME/O file and then the ARTICLES/O file for menu display.

mENU -the menu system for access to the programs and files on side 1 of the disk. I puts the screen in 40 column (text) mode and also contains a new CALL LOAD that emulates the NEW command.

RAW/S -source code for Barry Travers Read And Write A/L utility.

RS232/AL -=ource code file for the tutorials found in RS232/TXT1 and RS232/TXT2. Authored by Mack McCormick, former technical editor for MICROpendium.

RS232/TXT1 -assembly language tutorial explaining how to by-pass the RS232 ROM by programming at the chip level.

RS232/TXT2 -part 2 of above tutorial.

SIDEWYSTXT --documentation for SIDEWYS/CH and SIDEWYS/SC files on flip side of GT disk. Authored by Tom Freeman.

TIMESAVING -tips for saving money when using CompuServe.

WELCOME/O -uncompressed object code file that is booted by the LOAD program on the GT disk. Displays the smiley faces and erases them when sprite collision occurs.

WELCOME/S -source code for the WELCOME/O file above that explains its origin in Peter Lottrup's Mini-Mem assembly book. It is the file used to set up the LOAD screen that erases the smiley faces. Good assembly language tutorial for sprite use.

XBALT/DIR -directions for using Todd Kaplan's XBALT/O file that is found on Traveler12 (the flip side of this disk).

TRAVELER12

2DRIVECOPY

-an extended basic utility that copies the entire contents of a SS/SD diskette in one disk drive to a pre-formatted diskette in another drive.

2FONTS/0

-a machine code program that allows the XB programmer to switch between the standard TI character set and a true lower case set that appears on screen just like the first TI-Writer true lower case upgrade in the CHARA1 file. Ugly but functional.

2FONTSDEMO

-XB demo program for 2FONTS/O. CALL LINK("NEWSET")
displays the true lower case letters, CALL LINK("OLDSET")
restores the standard character set.

CATALOG

-another neat XB utility that provides disk cataloging to screen or printer or filename. Written by assembly language wizard Todd Kaplan.

CHAR/O

-an assembly language object code file that redefines the upper case character set so that upper case letters are instantly redefined as larger letters like those that appear in the Home Financial Decisions module. The assembly language programming was done by John Bohos. The file is accessed via a CALL LINK from any XB program. Very attractive and nicely done.

CHARDEMO

-the XB demo program for CHAR/O.

CHGE/TO/O

-an XB program containing a CALL EUAD statement that will change the first line number in your program to zero. Changes only one line of Basic or XB code, not the entire program.

DEFTABLE

-Basic program to PEEK into memory and display or print the first and last addresses of the code that is currently in low memory. Reads E/A, Mini-Mem and XB module addresses. If you run the program from GT's menu you will see that the CHARA1 file and Barry's CHAR routine are in low memory from the CALL LOADs that occur when the GT LOAD program is booted.

DOUBLEPRNT

-the actual Tom Freeman program to print two column text.

FIREBUTTON

-a Barry Traver "Micro Tutorial" on how to detect which firebutton, on which joystick has been pressed. Presented as an XB program.

HIDESECTOR

-an XB program that allows you to place information from another disk or that you enter from the keyboard, into an unused sector on another disk. Makes use of the RAW utility, calculates the bit map of the target disk. Excellent example of how TI Disk Controller formatted disks are read, written to etc. Program contains typical example of Barry Traver humor along with CALL LOAD examples.

HOLEYMOLEY

-an XB game by John Behnke of the Chicago TI Users Group. It pits you as the farmer against a mole who is trying to eat all of your carrots. I recall seeing an Atari 2600 game of a similar vein years back. Good graphics and support for speech. Requires a joystick to play it. We don't see much from John these days, since he joined Chicago's finest. Probably stuck on the graveyard shift.

LOAD

-an interesting program that emulates the GPL coded color bar screen that appears each time you turn your computer on. But for the fact that it tries to fake you out by telling you that "all circuits are busy", you couldn't tell the difference between it and the real thing. You would probably think that something has gone wrong with your console when you tried to load GT and had it return to the color bar screen. Cute program. Originally authored by John Hoge in 1980, modified by Barry Traver in 1984.

LOCKITUP

-an XB/AL utility to make your floppy disks unreadable to others. Actually, I think it moves the contents of the File Allocation Table in sector 1 so that there are zeros in the first 3-4 bytes, thus preventing the disk from being cataloged, but still allowing you access to the files/programs because you know the names of them. Same type of thing can be done with a sector editor, but with a great deal more effort, or with Advanced Diagnostics with less effort. AD just takes longer to load than LOCKITUP does.

MAKE/DATA

-a utility to create the ASCII bit coding for sideways characters that are used by your printer. Companion program for Tom Freeman's SIDEWYS programs on the flip side of the GT1 disk.

MENU

-XB program that lists/runs the contents of GT side two.

MULTIPLIBI

-one of the MOST interesting programs on the disk. It demonstrates a method of multiplying large numbers that I have never seen before (so-called Russian Multiplication?). The multiplication is actually done by division and addition. The method works with small numbers too, but would not be needed. Of course if you use a calculator you don't need to learn this method either. But if you are interested in mental gymnastics involving numbers you will want to look at this program.

PENNEYTOSS

Ta game program that must be rigged! I played the computer and lost EVERY time. Fun to play though. No graphics, just text with minimal color. Written in TI Basic by Barry Traver.

PROTECTOR

-XB/AL utility to write protect all files on a disk.

RAW

-an XB/AL utility that allows you to Read And Write to a single disk sector at a time. Authored by Barry Traver with credit for assistance in the development given to; Michael Riccio, Todd Kaplan, Paul Charlton, Chris Faherty and a couple of the other assembly language wizards that the TI Community has been blessed with.

RAW/MENU

-XB program that loads all of the RAW-based utilities on the GT1 disk.

RAW/O

-an assembly language object file that provides Read And Write capabilities to from and to a floppy or ram disk. Written by Barry Traver himself. The file is used throughout GT Volume 1 in many of the other programs. It was also used by John Johnson when he created the utilities for Bill Warren's PR-Base V1.0. A very useful utility for the extended basic programmer.

SEARCHMAZE

-one of the best TI Basic games you will ever see, second only to Worm of Beemer I think. It has great graphics and is fun to play. You must search for and destroy a host of X's that are placed at various locations within a maze, all within 5 minutes. Written by Barry Traver from an idea in Craig Miller's Smart Programmer's Guide To Sprites book. It obviously doesn't use sprites though.

SECTORZERO

-simply the best program available to explain the use of sector zero on a floppy or ram disk. Runs out of extended basic and even allows you to analyze your own disk, down to the byte level. Neat, informative and very useful.

SHOW/DV80

-an XB/AL program that invokes the 40-column text mode and then provides the ability to display text files of up to 30 sectors in length. Line feeds and carriage returns should be removed from the text file first.

SIDEWYS/CH

-XB program that prints a text file sideways with true lower case letters based upon the CHARA1 file coding used in TI-Writer.

SIDEWY8/SC

-X8 program that prints a text file sideways using small capital letters for the lower case set.

SWEEP/DISK

-an extended basic utility that makes use of Barry's RAW (Read And Write) assembly routine to re-write the file alocation table on the disk so that it appears the disk is empty. Save you the time and bother of initializing the disk.

XBALT/O

-an assembly language utility to merge A/L code in with an XB program so that both are saved as an XB program., thus reducing disk space needed to store the program and load time since you don't have to CALL LOAD a DF/BO file. Although XBALT/O is the first of the two out of the gate, Barry Boone's SYSTEX is easier to use.

# BEGINNING FORTH #13 By Earl Raguse FILES AND STRING HANDLING

The Useful Forth Words of BFORTH #4 offered some words like GSTRs, GNUMB, PP, CSTRs. etc which were specifically for string handling, but no explanation or examples, this will be rectified in this article. GNUMB is for getting numbers as a string from the keyboard, then converting them to numbers to put on the stack after you had been prompted by a string to enter them. CSTRs will be used in some future column, and will permit comparing strings for "greater than", "equal to", or "less than", thus permitting us to test and change the order of file entries, in other words, SORTING. This article will use some of the above words so please refer to BFORTH #4, which includes most of my UFW's.

#### DISPLAY VARIABLE FILES

However to make any real use of this capability one should be able to create and read files in Forth, which we haven't covered yet. But files are not of much value unless they have some data in them. I have previously discussed, EDITing a screen as a way or entering file data for an application. Some time I will also show how to rewrite screens under program control. One reason for establishing file handling with Forth is so one can manipulate the data in a file, like sorting it for example. It would seem logical to use DV80 (Display Variable 80) format so that files could be more easily exchanged with other users and languages.

There are several Forth programs for converting a Forth screen to a DV80 file and vice versa. One of these was written by J W Vincent. It is shown on Screens #50-#52. The screen line numbers do not move because they are not a part of the actual screen. They are the result of a template provided by EDITOR. Notice that screens displayed by 64SUPPORT do not have line numbers either. All the screens you see in these columns have been transferred by this program to DV80 files and edited with TI Writer Replace String to restore the line numbers. That in itself is a neat trick, but since this is not a TIW article, we won't get into it.

One does not do that, however, if one intends to read the file with Forth which will automatically restore the line numbers when converted back to screen format. A common reason for putting Forth screens into DV80 format is to up or download them from one Forth user to another via a modem.

Next time I will provide examples of what

it takes to permit one to Open. Close , Read and /or Write to DV80 files in memory or on disk. After that I hope to make some constructive use of them.

Because the Forth EDITOR is far more convenient to use than entering text in the immediate mode, especially if you have installed the auto-repeat cursor, than is the limited editing capability of Forth in the immediate or execution mode; it seems appropriate to write new files on screens and then transfer them to DV80 files on disk for subsequent reading by Forth for whatever purpose. Of course, one could use Basic or TI writer to create the DV80 files on disk also.

#### BACK TO STRINGS

Before getting too carried away with handling of files I want to cover a little more about manipulation of the strings they contain, numbers are not prohibited, but they generally will be treated as strings.

Forth does not have number variables and string variables as BASIC and other high level languages do. It is up to the user to know what he/she puts into a variable. You may name a variable so that you know what you originally intended however. If you should try to multiply two strings, even if they are numerical, you are doomed to failure unless you ask Forth to convert them to numbers before treating them like numbers. The UFW GNUMB gets a number from the keyhoard, using QUERY, as a string and uses INTERPRET to convert the string to a number on the stack which can then be used in arithmetic operations.

Forth characterizes a string as an Address and a Count. Screen #37 defines some variables STR1 thru STR3. A variable is a word defined by VARIABLE and is simply an address in memory with two bytes reserved. The word ALLOT then insures that a specified additional space is alloted in memory for the variable. They are then initialized with BLANKS and a string by INIT. The Forth way to enter a string at an address is !" (store quote). If you do not fill the variable with blanks first, you can expect garbage. Notice that I initialized only the first 20 bytes of STR1 thru STR3 because that was more than I was actually using. I could have made the ALLOT smaller but I was thinking of defining general purpose strings. INIT uses (!") to load strings HOLY, COW, and BOY into these variables. As you will subsequently discover, a variable can contain more than one string.

The word TT, abbreviation for -TRAILING TYPE, for the "I hate to type crowd", is used to type any string given an address

and a count on the stack: the -TRAILING eliminates trailing blanks and spaces. The word .ST (print string) uses INIT to initialize the strings, then 3 CMOVE moves 3 characters from address STR2 to address STR1 offset by 4 byte positions. IT then types the first 20 characters at address STR1 which now contains the string "HOLYCOW" which has been concatenated from two strings. Not quite as simple as BASIC but not too tough. The word .ST1 then demonstrates this a little more by moving 3 bytes of STR1 to an offset of 7 bytes after start of STR1. The printed result is "HOLYCOWBOY".

The word .ST2 shows that after STR1 contains three strings you can extract and print the middle one (or any one for that matter).

Not very awesome, but try entering INIT between executing both the words .ST and .ST1. I hope you see that you would get "HOLY BOY". Spacing of words is adjusted by controlling the offset from

adjusted by controlling the offset from DSK 437 0 (STRING PRACTICE EGR 1 12 87) FG IT : IT ; CLS 2 O VARIABLE STRI 30 ALLOT 3 O VARIABLE STR2 30 ALLOT 4 0 VARIABLE STR3 30 ALLOT 5 : LOC CLS 10 12 AT : INIT STRI DAP 20 BLANKS !" HOLY" STR2 DAP 20 BLANKS !" CON" STR3 OUP 20 BLANKS !" BOY" ; 9 : IT -TRAILING TYPE ; 10 : ST INIT STR2 STR1 4 + 3 CHOVE STR1 20 TT : 11 : .ST1 STR3 STR1 7 + 3 CHOVE STR1 20 IT ; 12 : .ST2 STR1 4 + 3 TYP : 13 : PRIPT . " INPUT ACHAR TO PRT" CR GNUNB . " OFFSET " CR GNUNB ; 14 : ST3 : PRIMPT STR1 + SWAP LOC TT : 15 CR CR . \* TRY (.ST).(.ST1).(.ST2).(.ST3) \* U ( TO/FROM VAR 80 FILES 1/3 JWV:ncent 8/15/84) BASE-XA DECIMAL 16 SYSTEM O O GOTOXY FORSET IT : IT : FORTH Screens to/from VBO files " CR By J. W. Vancent ." These screens will read or write II warrable 80 files to or from II-FORTH " screens. If DISK HI equals DISK SIZE " 6 . Screens. If DISK HI equals DISK DIAG 7 . one drive will be used then using one drive, begin with PORTH loaded, you will be prospeed when to load each ." disk. If multiple drives are used put " " FORTH in #1 and the VGO files disk in "

" #2. V80 files read/written must/will "

" BOF will cause a disk error, after " --)

" be named SCRNXXX where xxx is the

14 . screen number. When reading a V80 file "

the beginning address of STR1.

The word .ST3 is a little more universal, it expects, on the stack, a count to type and an offset from address STR1. If you execute words .ST and .ST1 so that STR1 contains all three words, you can really forget the other two. Try it. 6 4 .ST3 types COWBOY, then 3 7 .ST3 types BOY, and 7 0 .ST3 types HOLYCOW. Get the idea? We did all that without special string handling words.

Forth may seem a little complex, but in XBASIC all the above would probably require ACCEPT AT. SEGS. LEN. DISPLAY AT. string concatenation & DATA, READ, FOR-NEXT.loops and CALL CLEAR at the very least.

In the next EFORTH I will present some special string words, like GLEN, SEGS. POS and CENTER.

CU next time; May the Forth be with U.

```
SCR #51
  0 ( FILE TRANSFER to/from V80 2/3 JWVincent )
  1 . which the FORTH disk should be loaded 2 . and the FLUSH command executed. 3 . The word format is :
       " nl n2 WAITE-V80 (nl-start scrn ) "
 ni READ-V80 (n2-end scrn)
6 (68 CLOAD STAT 84 CLOAD message)
7 O VARIABLE DF O VARIABLE BUFR 78 ALLOT
  8 PABS 6 10 + BUFR 6144 FILE V80 V80 SET-PAB VRAL 80 REC-LEW
  9 F-D" DSKa. SCRIboox"
10 : DRIVE-NO DISK_HI @ DISK_SIZE @ - IP O ELSE 1 THEN OF !
11 : WNO-DSK OF & IF ELSE CR . " LOAD VNO DISK" CR KEY DROP THEM :
12 : FTH-DSK OF & IF ELSE . " LOAD FORTH DISK " CR KEY DROP THEM :
13 : PII-MAME DRIVE-NO PARS & DP & 49 + OVER 23 + VSBN OVER 100
 14 /MOD 48 + ROT 29 + VSBN 10 /MOD 48 + PABS 0 30 + VSBN 48 + PABS
15 0 31 + VSBN V80-QSK ; -->
 0 ( FILE TRANSFER to/from V80 3/3 JWVincent )
 1 : R-LEM OMP 63 + 64 0 00 1 OVER OVER - C8 32 = IF 1 63 ( IF
 2 DROP THEN ELSE LEAVE THEN LOOP SWAP DROP 64 SWAP - ;
3 : WRITE-16 16 0 DD DUP BUFR 64 CHOYE R-LEN WRT 64 + LOOP DROP ;
  4 : WRT-WBO CASE 1 OF 1 ENDOF 2 OF SWAP 2 ENDOF 3 OF SWAP ROT 3
 5 ENDOF 4 OF SWAP ROT >R ROT R> SWAP 4 ENDOF ENDOASE 0 DO
        WRITE-16 LOOP :
 7 : SCR-RD OVER OVER 4 + > IF DUP 4 + OVER 1 ELSE 0 THEN PF !
  8 0 ROT ROT DO I BLOCK SWAP 1 + LOOP :
 9 : WRITE-VEO 1+ SWAP DUP >R SCR-RD R> PIX-HAME DROP OPW BESIN
10 WRT-W80 PF & WHILE FTH-DSK 4 + SCR-RD V80-DSK REPEAT CLSE ;
11 : READ-4 8210 OVER 4 + ROT DO DUP 1024 BLANKS 16 0 DO RD DUP 64
       > IF DROP 64 THEM I IF ELSE OVER J 32768 OR SWAP 2 - ! THEM
13 OVER BUPP SWAP ROT CHOVE 64 + LOOP 4 + LOOP DROP PTH-DSK PLUSH;
14 : READ-WOO FIX-WANE OPN BEGIN DUP READ-4 4 + WOO-DEK AGAIN :
        EMPTY-BUFFERS
                                      R-)BASE
```

	LA99 USERS GROUP MARK June 1 1989			CE	TT	
	NAME DISTRIBUTOR	TAX	USA	CAN.	EUR.	AUS.
	19 ADVANCE DIAGNOSTICS Millers Graphics 18.50 By Craig Hiller- All of the commands to change, edit, check, copy, read, write or ch	1.25 leck the sp	.90	. 99 disk.	2.63	3.33
	71 ARTIST BORDERS #1 Asguard Software 7.00  By Robert Coffey- Add borders to your II-Writer or Foat Writer II pictures. 40 famous	.46 w classic	.70	. 77	1.57	1.79
	72 ARTIST BORDER #2 Asguard Software 7.00  By Robert Coffey- 40 more fancy, classic, soisticated borders to dress up your flyer	. 46	. 70	. 77	1.57	1.79
-	90 ARTIST ENLARGER Asguard Software 9.00	. 59	.70	.77	1.57	1.79
<b>→</b>	By Howard Umas- Enlarge, reduce, stretch or squeeze any font or picture as many time 81 ARTIST INSTANCES \$1 Asguard Software 7.00	.46	.70	.77	1.57	1 32K. 1.79
<b>~</b>	TI-Artist format-16 Inimals \$1: Ant Bee Bird Battfly Cow Deer Dove Dragafly Lion Liza 82 ARTIST INSTANCES \$2 Asguard Software 7.00	rd. Use 1 .46	I-krtist . 70	or Foat W	riter II. 1.57	1 70
	TI-Artist format-18 Animals #2: Duck Fish Fox Grasshopper Moth Penguin Roach Spider S	tarfish To	ucan Whi	tcat.		1.79
	83 ARTIST-INSTANCES #3 Asguard Software 7.00 TI-Artist format-22 Holiday-Basket Bell Candle Church Cupid Flag Heart LibertyBell X	. 46 Mas NewYea	.70 Ir Thankq	.77 ive ImasTr	1.57 ee Wreath	1.79 Vine.
<b>→</b>	84 ARTIST INSTANCES #4 Asquard Software 7.00 TI-Artist format-27 Home-Apple Bandaid Birthbath Book Bow Broom Camera Castle Cheese	.46	.70	. 77	1 57	1 79
<b>→</b>	85 ARTIST INSTANCES \$5 Asguard Software 7.00	. 46	.70	.77	1.57	1.79
<b>&gt;</b>	TI-Artist format-15 People 1-Clown Drummer Penale fifer gaspunp EGWells indian male: 87 ARTIST INSTANCES \$7 Asguard Software 7.00	. 46	.70	.77	er MORE. 1.57	1.79
4	TI-Artist format-9 People \$2-Dwarfs Girl Godzilla Knight Knight2 Mickey and Minne People 88 ARTIST INSTANCES 48 Asguard Software 7.00	asaats Sno . 46	white Wiz		1.57	1.79
	TI-Artist format-10 Aminals #3-Anglefish Birds Cat Cougar Eagle Impala Ottor Soal Swi	an Turtle.				
	57 ASSEMBLY DIGEST LA99 Users Groups 2.50  By Chick DeMarti- & collection of articles, tutorials and Programs from Newletters,	. 16 magazines	.70 and books	.77 3 about 2/1	1.57 N.	1.79
	77 BATCH-IT Asguard Software 18.00 By Bentley/Earl- Automate your programs. Program your programs like TIV, PRBase, Telegram (18.00 PRBase).	1.27	.90	. 99	2.06	3.33
<b>→</b>	92 BEYOND VIDEO CHESS Asguard Software 9.00	. 59	.70	.77	1.57	1.79
	By Harry Wilheim- Companion to TI Video Chess module. Save load games to disk or print BROWSE Genial Computerware 9.00	inter move: .59	by Joys .70			it. 1.79
<b>→</b>	By Peter Hoddie- A utility to manage text files. Print, view, combine and browse files.					3.07
	By Bobbitt/Johnson-Month or year between 1600-2400 with notes or pictures. Some font	ts picture:	s manual	2 d15k5 p1	rovided.	•
	By Ken Gilliand- Two disks set full of Dinosaurs, prehistoric backdrop, hunting licen			oons useir	2.06 ng TI-Artis	3.33 t.
	20 DISKASSEMBLER V1.0 Millers Graphic 18.50  By Tom Freeman- Disassemble assembly language object code. A learning tool to invest					3.07
	70 DISKASSEMBLER V2.0 T and T Software 18.50  By Ton Freeman Disassemble assembly language object code. A learning tool to invest	1.20 1	.10 1	L.15	2.55	3.07
	33 DISPLAY MASTER Inscrebot Inc. 12.00	. 78	.70	.77	1.57	1.79
	By Christ Faberty- Slide shows, demos, displays in sequential manner TI-hrtist pictur 23 EXPLORER Millers Graphics 20.00				3.83	4.89
	By Craig Miller- Convents your 4A into a programmer's instrument. Extended Basic, Ba 78 EZ-KEYS PLUS Asquard Software 14.00	sic or Ass	embly La	aguage und	er control	
	By Harry Wilhelm- Define marco keys as if they were little programs. Customize chara	cters, col	or, and h	as screen	dump.	
	O9 FIRST BASE Genial Computerware 41.00  By Warren Agree- I data base program create, browse, query, sort, update, defines, ha					7.37 S.
	13 FONT PACK #1 Genial Computerware 9.00  By Peter Hoddie- Fonts Upper or lower case, numbers and different sizes. Used with 7	. 59	.70	.77	1.57	
	14 FONT PACK #2 Genial Computerware 9.00	. 59	.70	.77	1.57	1.79
	By Peter Hodie- 19 more foats in TI-artist format as above foats. Both foats \$1 and 34 FONT WRITER II Asguard Software 19.00					3.33
	By Peter Hoddie- A atility to extend the usefulness of TI-Artist. Create fonts in va 65 FORM SHOP Comprodine 14.00		<b>s</b> .			
	By Roger Merritt- Create Bargraph, Maps, Calendars, Forms, Receipts, anything that re	quire line	s or box	.77 1 85.	3/ .	1.79

```
1.79
                                                                2.50
                                                                        .16
                                                                               .70
43 FORTH BEGINNERS
                                  LA99 Users Group
By Chick DeMarti- An introduction manual Forth lecture to help you in understand how to program in this language.
                                                                                      .77
                                                                              .70
                                                                                             1.57
                                                                2.50
                                                                        .16
44 FORTH NOTES #1
                                  LA99 Users Group
By Chick DeMarti- A 10 page booklet of notations, comments, and hints from Newletters around the country. Vol. 1 NO. 1
                                                                                      .77
                                                                                .70
                                                                                             1.57
                                                                2.50
                                                                        .16
45 FORTH NOTES #2
                                  LA99 Users group
By Chick DeMarti- A 13 page booklett of more motations, comments and hints from Newletters around the country.
                                                                                             Vol. 1 #6. 2
                                                                                       .77
                                                                                             1.57
                                  LA99 Users Group
                                                                2.50
                                                                        .16
                                                                                .70
46 FORTH NOTES 43
                                                                                             Yol. 1 NO. 3
By Chick DeMarti- A 19 page booklett of more notations, comments and hints from Newletters around the country.
                                                                2.50
                                                                        .16
                                                                                .70
                                                                                       .77
                                                                                             1.57
47 FORTH NOTES #4
                                  LA99 Users Group
By Chick DeMarti- A 20 page booklett of more notations, comments and hints from Mewletters around the country.
                                                                                             Val. 1 NO. 4
                                                                                       .77
                                                                                             1.57
                                                                                                      1.79
                                                                2.50
                                                                        .16
                                                                                .70
                                  LA99 Users Group
48 FORTH NOTES #5
By Chick DeMarti- 1 20 page booklett of more notations, comments and hints from Mewletters around the country.
                                                                                             Vol. 1 NO. 5
                                                                2.50
                                                                                       .77
                                                                                             1.57
                                                                        .16
                                                                               .70
                                  LA99 Users Group
49 FORTH NOTES 46
By Chick DeMarti- A 20 page booklett of more notations, comments and hints from Newletters around the country.
                                                                                             Vol. 1 NO. 6
                                                                        .65 2.50 2.75
                                                                                             5.11
                                                              10.00
50 FORTH NOTES [#1-#6]
                                  LA99 Users Group
By Chick DeMarti- 1 complete package of Forth notes Vol. 1-NO. 1, 2, 3, 4, 5 and 6. It a special price.
                                                                                             1.57
                                                                                                      1.79
                                                                               .70
64 GIANT ARTIST POSTER
                                  Comprodine
                                                              14.00
                                                                        . 91
By Paul Coleman- Print giant posters from 10 by 14 to 64 by 200. Different fonts and graphics. To be used with TI-Artist.
                                                                        .98 .70
                                                                                      .77
                                                                                             1.57
                                                                                                      1.79
15 GPL ASSEMBLER V2.1
                                  Ryte Data
                                                              15.00
By Michael Weiland- Assembling of GPL programs. Reads DIS/VAR 80 files created by editor programs for EDIT1 programs.
                                                                                      .77
                                                                                                      1.79
17 GPL LINKER
                                  Ryte Data
                                                              15.00
                                                                        . 98
                                                                              .70
                                                                                             1.57
By Monty Schmidt-Besigned to be use with the GPL ASSEMBLES. It allows you telead and run up to four GPL programs in MAN.
                                                              15.00
                                                                       .98 1.10 1.15
                                                                                             2.55
16 GPL OPCODES
                                  Ryte Data
 By H.Martin- Provides an overview of the TI-99/4h System and its internal operating system including the GPL interpreter.
                                                                                                      4.89
                                  Ryte Data
                                                              40.00 2.60 1.70 1.87
                                                                                             3.83
42 GPL SET (12,16,17)
The complete set of GPL-Assembler, Linker, Opcodes at a special price.
                                                                                                      6.71
                                                               10.00
                                                                        .65 2.65 2.97
                                                                                             5.11
59 GPL INTERN BOOK
By Heiner Martin- A soft cover book on the interworking of the 994/A GPL.
                                                                                              2.55
                                                                                                      3.07
                                                                         .33 1.10 1.15
54 Gram Kracker facts
                                                                5.00
                                  LA99 Users Group
By Mike Dodd- A 32 page booklett of articles and modification for the GRAM KACKER from Tom Freeman, Craig Miller, Walt Howe.
                                                                                      .77
                                                                                             1.57
                                                                        .59
                                                                               .70
                                  Genial Computerware
                                                               9.00
06 GRAM PACKER
By Peter Hoddie- Use with GRAM devices. Create custom mean of programs, cartriges, Writer, Term, DM1000, PR, Artist, other.
                                                                                . 50
                                                                                              1.05
                                                                                                      1.15
                                                              10.00
                                                                        . 65
21 GRAM UTILITY I
                                  Millers Graphics
 By Danny Michael- A summary to the Gram Kracker manual. Help explain the commands so you can better program the device.
                                                                                                      1.79
                                                                        .59
                                                                               .70
                                  Genial Computerware
                                                               9.00
05 GRAPHICS EXPANDER
 By Peter Hoddie- Enlarge, reduce, rotate 98, vertical banners, apsidedown, convert fonts TI-Artist, CSGD, FontWriter II.
                                                                                                      1.79
                                                                              .70
                                                                                      .77
                                                                                             1.57
                                                                2.50
                                                                        .16
52 HANDY REFERENCE
                                  LA99 Users Group
 By Chick DeMarti- 1 20 page guide booklett for the 99/41 from various Newletters and other sources.
                                  Chicago Users Group 6.50 .42 2.65 3.33
                                                                                                      6.71
61 HARDWARE REPRINT
 members- A 150 page book of hardware articles from others TI/99 Users Groups Newletters. An excellent work by Chicago U.G.
                                                                               .70
                                                                                      .77
                                  GENIAL COMPUTERWARE 16.50 1.07
                                                                                             1.57
04 HYPERCOPY
 By Nike Dodd- Fast disk copier. Copies SSSD in 35 sec. DSSD in 59 sec. Makes multiple copies with skew. For 9640
                                                                                                      1.79
                                                                        .91
                                                                               .70
62 JIFFY CARD
                                                               14.00
                                  Comprodine
 By Roger Merritt- Create and print a four fold professional looking greeting card. Very quickly and easily with graphics.
63 JIFFY FLYERS VS.O
                                                                          65
                                                                                 70
                                                                                              1.57
                                                                                                      1.79
                                  Comprodine
                                                               10.00
 By Hogert Merritt- Create and print a professional looking flyer. Very quickly and easily with graphics.
                                                                                                      3.98
                                                              20.00 1.30 1.30 1.43
                                  Asguard Software
80 LEGENDS
 By Grancos/Johnson- Amazing animated graphics adventure game. Two manuals and two disks. Takes months to solve.
                                  Great Lake Software 30.00 1.95 1.10 1.15
                                                                                                      3.07
38 JOY PAINT 99
 Creat your own signs, charts, diagrams, advertisements or any graphic by using a Joystick. Circles, ovals, lines, hoxes etc.
                                                                                      .77
                                                                                .70
                                                                                                      1.79
                                                                2.50
                                                                        .16
51 LOGO DIGEST
                                  LA99 Users Group
 By Chick DeMarti- 1 20 page booklett about TI-Logo II from various Newletters around the country.
                                                                                       ,77
                                                                                              1.57
                                                                                                      1.79
                                                                        . 78
                                  Genial Computerware 12.00
01 MAXFLIX
 By Peter Hoddie- View, print and save MacPaint graphics created by 'Macintosh' computer on your 99/4% computer.
                                                                                              1.05
                                                                                       . 55
                                                                                                      1.15
                                  Millers Graphics
                                                               18.50 1.20
                                                                                .50
22 MG GAMES
 By craig Hiller- A disk full of games in assembly language.
                                                                                       .99
                                                                                              2.06
                                                                                                      3.33
                                                                                . 90
                                  LA99 Users Group
                                                                2.50
                                                                         .16
55 NEWLETTER BEST
 By George Hutton- 1 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
    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
    Craig Miller- A 90 page book plus diskette. Tricks and methods in programing and playing multiple screen games.
> 37 NIGHT MISSION
                                      Millers Graphics
                                                                  18.50 1.20 1.90 2.09
                                                                                                 3.83
                                                                                                         4.89
    Craig Killer- 1 90 pager book plus cassette. Tricks and methods in programming and playing multiple screen games.
    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 99/4k Home Computer.
    39 ORPHAN SURVIVAL BOOK Genial Computerware 18.00 1.17 2.65 3.33
    By Ronald Albright, Jr., M.D. - A 212 page booklet containing: Helpful Reciept, Advice and other NOSTRUMS for TI 99/41 and Geneve.
    12 PC-TRANSFER
                                      Genial Computerware 21.00 1.37
                                                                                   .70
    By Nike Dodd- Hoves 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
    By William Gaskill- 120 page booklet plus disk for a home accounting system. Collect, save, capture, report on your finances.
                                                                                  .90
    40 PICTURE IT
                                      Rogers Merritt Inc. 10.00
                                                                           . 65
                                                                                          .99
                                                                                                 2.06
    By Roger Merritt- Converts, displays, view, print, or create a basser. Converts, display instances. Disk 1-2 of Ponts.
    02 PICTURE TRANSFER
                                     Genial Computerware 26.00 1.69
                                                                                   .70
                                                                                          .77
    By Paul Charfton- View 5 types of graphics, create slide shows, combine images, convert between formats. for 9640.
→ 93 PREDITOR
                                      Asguard Software
                                                                 17.50 1.14 .90
                                                                                        . 99
    By Tom Beatley-A text editor with two files, disk cataloger, configurable, search, replace, tab, window, macros, TI-Writer.
    66 PRINT-IT V3.0
                                     Rogers Merritt Inc. 12.00
                                                                          . 78
                                                                                  .90
                                                                                         . 99
                                                                                                         3.33
    By Roger Merritt- Create Letters, Labels small or large, Scrip, Graphics, etc. A complete package with six disks.
    74 QUICK RUN
                                      Asguard Software
                                                                           . 59
                                                                   9.00
                                                                                   .70
    By Travis Watford- Quick run Extended Basic programs no waiting when saved to disk. No initialize waiting.
                                                                                          .77
                                                                                                 1.57
    79 RAM*BOOT
                                      Asguard Software
                                                                   9.00
                                                                          .59
                                                                                   .70
                                                                                                         1.79
    By Watford/Bobbitt- & RAM disk manager Initialize, setup, execute, copy, and more automatically a Myrac 128K or 512K RAM disk.
    10 REMIND ME!
                                     Genial Computerware 12.00
                                                                          .78 .70
                                                                                        .77
                                                                                                         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
    A 19 page booklet of Assembly Language routines accessible from Extended Basic and handling macro.
    18 SUPER CLOCK SUPPORT
                                                                                                         1.79
                                    Ryte Data
                                                                 13.50
                                                                          .88 .70
                                                                                                1.57
    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.
    41 TECHNICAL DRIVE BOOK Ryte Data
                                                                 14.50
                                                                            .94 2.65 3.33
                                                                                                         7.37
    ByMonty Schmidt- The secrets about TI99/41, DSRs, Mini Memory, Corcomp Clock, Disk controller.
    91 TI ARTIST
                                     Inscrebot Inc.
                                                                 15.00
                                                                           .98
                                                                                   .90
                                                                                         .99
                                                                                                2.06
                                                                                                         3.33
    By Chris Faherty— 20 page manual + disk ¥2.01—6 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
    By Dave Rose- A flippie diskette with Characters Foats, Conversion Program, Input Device DSR'S, Pictures and Instances.
                                                                 20.00 1.30 1.50 1.65
    35 TI BASE V2.0
                                     Inscrebote Inc.
                                                                                                3.19
                                                                                                         3.98
    A complete manual and two disks data base program with tutoring, Language, custom report, math and host of others features.
    27 TPA APPRECTICE
                                                                 26.00 1.69 1.30 1.43
                                                                                                3.19
                                                                                                         3.98
                                     McCann Software
    By Mike McCann- The TPA produces excellent cards, adds, announcements, etc. 26 page booklet with 2 disks (fonts and programs).
    28 TPA FONTS #1
                                                                   9.95
                                                                                   .70
                                                                                         .77
                                                                                                1.57
                                     McCann Software
                                                                            . 65
    By Mike McCann- Disk of Ponts plus 10 page booklet displaying different fonts in this package.
                                                                           . 65
                                                                                  .70
    29 TPA FONTS #2
                                                                   9.95
                                                                                                1.57
                                                                                                         1.79
                                     McCann Software
    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 Hike McCana- A 20 page booklet and two disks package. Provides access to various programs in the TPA system.
                                                                                         .77
                                                                                                1.59
                                     Genial Computerware 16.50 1.07 .70
    03 TRIAD
    Wayne Stith- & Terminal Baulator (300,1200,2400), Configuration, Disk Manger and 40 column test editor. II-99/4% or 9640.
                                     Asguard Software
    75 TYPEWRITER 99 #1
                                                                 14.00
                                                                          . 91
                                                                                  .70
                                                                                         .77
                                                                                                1.59
                                                                                                        1.79
    By Jim Reiss-Turns your TI-99/4A and printer into a typewriter easier than word processors. Requires E/A or TIW, 32K, DISK.
    76 TYPEWRITER 99 #2 -
                                     Asguard Software
                                                                 22.00 1.43 1.10 1.15 2.55
    By Jim Beiss- Turns your TI-99/4h and printer into a typewriter. Requires Typewriter-99 Module.
```

53 UTILITY PROGRAMS

LA99 USERS GROUP

8.00 .52 1.30 1.43 3.19 3.98

By Ton Freeman A 37 page booklet and disk. Quad Col, print sideways, variable col, call load, checksum, disk/tape, etc.

O7 XBASHER

Genial Computerware 9.00 .59 .70 .77 1.57 1.79

By Mike Bodd- Reduces the size of Extended Basic programs. Shorten variable and names, removes REM and !. TI-99/4A or 9640.

O8 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.

## → ITEMS MARKED WITH ARROWS ARE NEW →

#### NEW ADDS FOR JUNE. LA99/4A LIBRARY

0000 LA99/4A DISKS LIBRARY CATALOG June 89 : \$1.00 either DSSD(699) or 0000A(343) and 0000B(349) for SSSD systems. Special offering.

2466 MAILIST MANAGER Freeware by Bill Gaskill: A mail list program that can Add. Create. Exit. Find. Load. Print, Save, Utilities. No docs. SSSD(44)

2652D TELCO SUPPORT V1.4 Fairware by Dave Ratcliffe: A program that allow you to manipulate the TOS files used in TELCO. 88 entries, new pre-formatted doc file and a CONFIG/SYS file so you can match the program to your setup. X/B, 32K, printer OK with Myarc HFDC. SSSD(177).

2678 MX-DOS V3.0 Fairware by Milo Tsukroff- A graphic file system that can display, run, delete or print files or programs by using your keyboard or sit back and use your Joysticks on your TI. X/B 32K. SSSD(235).

2849 TRAFTRACK Freeware by Philippe Pair: A track utility and a printer code program written in French. SSSD(240)

4561 MISC 447 15 miscellanceous programs from Australia by J.W.Ryan: BAR GRAPH, BOXES, CITIES, DIVISION, ECLIPSES, FLAG ORAMA, HEARING TEST, MAZE PRINT, MORSE CODE, PATTERNS, PIANO, RESCURE, SNAKES, TASKFORCE, and VIDEO SSSD(345)

4562 MISC #48 20 miscellanceous programs from Australia by J.W.Ryan: 1440 SECTOR SD, PROBALITIES, RANDOMIZE, SLOT MACHINE, XB DIS ASS, TRANSLATE, KJ SHOW FILES, WORLD, BUBBLE AND SHELL SORT, CALCULATOR, CHECK, CHECK SUM, CLONE. DECIMAL-HEX. INSANITY. LOTTO SCAN. MEMORY TEST. WEATHER and Xmas Cards. SSSD(360)

4563 MISC #49 4 more programs from Australia by J.W.Ryan: Chainlink, supertrace, inverse, printer fonts and MENU SSSD(264)

5051 CRYPTOGRAPHER Fairware by Jeff Bunting: A program to aid one in solving simple substitution cryptograms as found in the daily paper. E/A #5. TPA to run. SSSD(37).

9091 GAMES 63 A medley of TI games from UK. 3D NAUGHTS AND CROSSES. BLACK JACK, POKER, IMPERIUM ROMANUM and TEXAS FROGS. SSSD(350).

9092 CRAZY DICE By James Sgriac: An X/B Dice game for up to 6 players. Computer keep each score. SSSD(66).

LIBRARIAN FRED MOORE 7730 EMERSON AVE. LOS ANGELES, CA 213-670-4293