24 DEC 87

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VOL. 6, NO. 11-12
NOV/DEC 1987

LA 99er COMPUTER GROUP Newsletter

HAPPY HANUKKAH

Merry Christmas

HAPPY NEW YEAR

Apologies

This as you can very well see is a combined November and December issue. I (Terrie) take full responsibility for the failure to get the November issue out. (Tom - I think we could have gotten something out by the end of November but we weren't happy with the quality and so I suggested making a double issue - the total information you get will be the same) Chick DeMarti was quite willing to step in, but even with his enthusiastic help it was just too much to do. Both my parents were hospitalized in far separated facilities, for rather serious illnesses. Most of my time was spent on the freeways. I was able to bring both home for Thanksgiving, and we really had something to be thankful about. My fathers most recent stroke has severely impaired his memory and the anxiety over it is taking its toll on my mother and me. I have had to scale back some on my availability to the club and if I promised something and have not followed through, please let Tom or me know. Thank you.

GIFTS and GIVING

We are once again asking those of you attending the December 23 meeting to remember to bring some packaged and/or canned food that we can contribute in the LA 99er name to the needy. We have made this an annual donation and know you will once again participate. Another annual Holiday Season event, is the exchanging of a small computer related gift among ourselves. Everyone attending is asked to bring along a wrapped gift, and we will then exchange these during the meeting. It has been fun in the past so let us enjoy it again.

FAIRS, FESTS, AND EXPOS

T&T made the trek East alas without the pleasure of George's company. We once again shared good times and friendships old and new and made our own good time in

Chicago. We also went on to Milwaukee and once again noted the much friendlier climate there. Validation of the old Hertz and Avis theme.

I was prepared to make some comments, but the grapevine tells me most of it has already been done, so why bother to rehash. I will tell you this, we were very favorably impressed with some of the new hardware and software we saw there. No way is this a dying market. New software by J. Peter Hoddie and Mike Dodd were very popular sellers there, especially after the fine presentation Peter made. He focused on several previously unknown people recently surfacing in our community, and the very fine work they are doing. It was a very upbeat presentation. One person Peter mentioned is Alan Beard, he is the author of the Fortran Compiler now being marketed by Tenex. Peter gave it a very high grade. Mike Dodd's PC-TRANSFER was also identified as an excellent program for those of you who have both a 99/4A *with a double density controller and a PC clone.* A surprising bit of news about a Gram Kracker like device was also in Peter's bag of goodies. A young Gent from Massachusetts way, Mark von Caponelle demonstrated to Peter his GRANULATOR, and for those of you who missed the opportunity for the GK, despair not, watch these pages for further news SOON! As water seeks its own level, these talented 4Aers find one another. Stay tuned.

LAS VEGAS TI XPO 88 FEST WEST

It is now time to commit to attend this "FEST". We *plan to fully support this fine effort by SNUG (Southern* Nevada User Group). We will have a booth there and hope to see ALL the faces we saw in Los Angeles in '86 and '87. For User Groups in the Western area look for the form in this newsletter and join in. SNUG has supported us and certainly we can do the same. What a great time we can all have. Several of the vendors who had booths on the main floor have plans to attend. So there will be good prices on many items. We of course are putting in a request for great warm weather to warm our Eastern visitors. So leave the woolies at home and pack the bikinis and see you in Las Vegas.

SEEDS SOWN, CANCERS GROWN

I try to be reasonably fair, sometimes I manage and sometimes I don't. Retrospectively, with brutal honesty, I let seeds sown by others interfere with my natural instinct to evaluate speeches worth. I then asked a loaded question and got the expected brush-off, and was duly huffy about it. I was wrong in my approach and it caused some deep soul searching and the following commentary.

Why does this community have such a strong need to test beyond the limit those attempting to contribute to it. The last couple of years have had some pretty heavy bloodletting. Why, why, why? The seeds of discontent have been flowing like Niagra Falls. It is no longer only petty jealousy, or rampant greed. Lately a few with individual, private grievances have been less than prudent in seeking support for their position. Some of this has been misinterpreted and used as ammunition, in an ill-advised smear campaign. It is unwise, unhealthy, and UNPRODUCTIVE. Can you imagine if the same amount of energy was used in a supportive and positive way? I momentarily allowed myself to get caught in this vortex. I am sorry, I apologized, I hope I was forgiven. I hope others will do the same.

RAFFLE RAFFLE RAFFLE

[Tom again]

Those of you who were at the October meeting know that Gail Fair won the Rave keyboard. Now some may find it suspicious that a Club officer won this raffle (and it's not the first one that Gail has won!) but let me clue you in folks. The reason that Gail was victorious here is that he gave himself the best statistical chance of winning by buying FOUR times as many tickets as anyone else. The raffle for December will be for a very nice USRobotics Sportster 1200 modem. This modem is very compact, is auto-answer and auto-dial, and of course is Hayes Compatible. In order to induce all of you to buy as many tickets as possible, we have decided that *multiples of five dollars will not just buy you a* multiple of 3 tickets. There will be an extra ticket tacked on with each increase in donation, so that one ticket costs two dollars, but for fifty dollars you get fifty tickets, i.e. only one dollar each!

By the way, mention of Gail Fair leads me to want to say this: Gail has been one of the hardest working members of this Club for quite a number of years, as Chairman of the Sales Committee, and has been quite underappreciated by the general membership. Gail has ALWAYS pitched in to help whenever help was needed;, from *our two FESTs, to each show at the Shrine, to swap meets,* and wherever else we show up. I would like to say this publicly: "Thanks Gail, you are a great friend and a great person!"

NEW PRODUCTS

As you can see if you examine the MarketPlace this month, we have added a new "line," the programs from Ryte-Data. Bruce Ryan has been at our FEST and we have also met with him at the Faires in Chicago and Boston. He is a fine fellow and Ryte-Data's catalog, although small, has FINE programs in it. Bruce has had some trouble keeping up with deliveries to some people, we have heard, but we trust that will not happen with us. If you send us an order that we think we cannot fill fairly quickly, then we will either return your check to you, or at least hold it uncashed (and let you know as much) until the product is delivered.

PICASSO

Our feelings that this was NOT a fairware program have proven true, please read Jim Peterson's GROWL inside *to find out more about this.*

SEASON'S GREETINGS

As we come to the end of 1987, both of us would like to extend to all in the TI community the warmest of holiday wishes and a happy new year. May the next year be ever so much better than the last, and may all our squabbles be settled. May the number of orphan users grow, and most of all, MAY THE SOFTWARE AND HARDWARE INCREASE!!!

CHICAGO FAIRE REPORT

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November 15, 1987
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The Chicago faire, November, 1987: now I know why they call Chicago "The Windy City". They don't lie. At all. Despite that, the faire was wonderful (after all, it was inside). Here is a list (by no means complete) of some of the vendors and what they offered. I took no notes, so this is taken from memory.

Genial Computerware, represented by J. Peter Hoddie, Corson Hyman, Mike Wright, and Mike Dodd (who's he??). Genial had its entire product line there, including XBasher, an Extended BASIC compactor written by some Dodd character ($10); XB:Bug, a _fabulous_ Extended BASIC debugger by Peter Hoddie ($15); GRAM Packer, a program written by Peter Hoddie which packs assembly programs into GRAM for instant loading ($10); Remind-Me!, a calendar program by John Johnson, which sold out in Chicago! ($15); and three new releases: 1) PC-Transfer, a program to convert text files from IBM to TI disks and back. Works on CorComp and MYARC disk controllers and includes links to add future utilities to convert anything from graphics to spreadsheets. Written by yours truly, the cost is $25. 2) Graphics Expander, a $10 program by Peter Hoddie that enlarges, rotates, and inverts fonts and instances. It enlarges fonts in either width and/or height by a factor of 1-9. Written totally in assembly language. 3) Genial Font Packs 1 and 2. The packs are two disks each and have many fonts of excellent quality. The sizes range from tiny to huge. In addition, unlike many fonts, most of these fonts have the entire ASCII character set (upper and lower case letters, numbers, and symbols). $10 each. All programs are compatible with both the 99/4A and the Geneve 9640. Mike Wright, by the way, is an active member in the Boston Computer Society who was very helpful in manning the table when the other three skipped out on him. Thanks, Mike!!! I'll try to stop before this becomes an advertisement (who said "too late"!?!).

Asgard Software, represented by Chris Bobbitt. Asgard had its entire line there (I think), including (but not limited to - I don't remember them all) Font Writer II, Pre-Scan It!, Legends, Total Filer, Artist Enlarger, and EZ-Keys. Legends, $27.95, is a graphics adventure game by the author of Old Dark Caves II. Legends has gotten some very high marks from reviewers. EZ-Keys is an interesting program that allows the use of macros in Extended BASIC. For instance, you can define CTRL 3 to type SAVE DSK1.LOAD. I believe it allows up to 36 definable keys. The program has some other features which are rather impressive. EZ-Keys sells for $14.95. Artist Enlarger, $9.95, is an Extended BASIC program that enlarges or reduces fonts or instances by a factor of two.

MYARC, Inc, represented by Jack Riley, marketing director. MYARC had the Geneve 9640 computer and associated software, plus the MY-Art / Mouse combo. The MY-Art / Mouse package, available for around $100, was available from several dealers at the faire, and quickly sold out. MY-Art is a drawing program which allows the use of the mouse to draw very impressive pictures. At least, it is possible to draw impressive pictures with it. I personally can't (draw anything), but I have seen people draw some incredible pictures with the program. The swan that appears on powerup of the Geneve was drawn with MY-Art. I should say that I have been able to draw some figures using the mouse, much easier than with a joystick. I can't do _anything_ with a joystick. MDOS, which has been released on CompuServe and GEnie, was running at the faire. The latest version, v0.99b, is essentially finished on the user level. There are some additional subroutines that can be accessed from assembly programs which will be implemented in v1.0 of MDOS. When everything is complete, MDOS 1.0 as well as the other Geneve software will be mailed out to all users.

Great Lakes Software was there and had some very interesting programs available. The company had available the Joypaint 99 package, which has won rave reviews from many people. Great Lakes also had Certificate 99, a very interesting program which creates certificates with various borders and fonts. Certificate 99 costs $20.

Horizon Computers was present with a vengeance. They brought with them a one megabyte Horizon RAM-disk. My one complaint with the Horizon had been its size (too small for me!). However, a one megabyte could prove useful (to say the very least). Its compatibility with the Geneve has yet to be established. The biggest complaint I have with the card as it now stands is the way the DSR was written. Since there's no way you can have a one megabyte RAM-disk and still maintain the TI standard in the sector layout, they set it so you could partition it - that is, set it up as multiple disk drives. For instance, you could set a one megabyte Horizon as two 363K (1440 sector) RAM-disks and one 334K (1216 sector) RAM-disk. Or any number of smaller partitions. 368K per disk is the maximum, however, which is unfortunate - the bitmap actually has room for 400K (observe the MYARC 512K card). My complaint has to do with the way to access the "disks". One is set as DSK5 (or DSK7, if you have multiple RAM-disks in the PEB). The other "disks" get swapped around DSK6 (or DSK8). To swap a RAM-disk, you access it by volume name (e.g. DSK.PRBASE.LOAD). That disk will be swapped into DSK6. This could create problems with sector-based programs, such as PRBASE, disk managers, and sector editors - if you entered one of those programs, you would have no way to swap DSK6 from there - you would have to exit the program, swap the disk, and reload. Of course, in some instances that will be impossible. Say, for instance, you wanted to copy some files from the second "disk" (DSK6) to the third "disk" (also DSK6). You could load the disk manager, but from there, you can't swap DSK6 around to copy the files - you'd have to copy to a physical disk or DSK5 (the first "disk"), exit the DM, swap the disks, reload the DM, and copy the files. It would have been much easier, I think, if they had written the DSR so that you could set the RAM-disks as any drives. I, for one, have only two physical drives, so I could set the RAM-disks up as DSK3, 4, 5, 6... 9. Of course, this problem won't apply to everyone, and if you aren't one of them, then go ahead and buy it. Since the

source code is included and is stored on a RAM-chip, perhaps some programmer will change this. The parts cost $439 from Bud Mills Services, or you can buy a pre-made board for $459 (I forget from whom).

Bytemaster Computer Services was there, represented by Richard Mitchell. Bytemaster publishes the excellent Smart Programmer newsletter and sells an unprotected version of MG Explorer. Bytemaster had a new release at the fair, as well.... (drum beat, please)... **String Master** Which is, all things considered, extraordinary. String Master, which does to arrays everything I can think of off hand (or off leg, off side, off arm ....), is written in assembly language and is callable from Extended BASIC with CALL LINK commands. Immediate reaction from many users: - a CALL LINK!!. Actually, CALL LINKs are not at all difficult to use. You type CALL CLEAR all the time, so what is so difficult about typing CALL LINK("CLEAR"). The CALL LINK command was a great idea of TI's - pity they gave it all of an entire 1/4 page description. There is no way I can remember everything about String Master (it does far too much). It does include routines for sorting, searching, appending, and I don't know what else. The append is an astonishing function. It will append two arrays together, append parts of arrays together, extract a part of an array and append it to another, and more. The copy protection is a simple one - the documentation. Without it, you'll _never_ figure out how to use some of the functions. Bytemaster is crazy enough to sell this program for the incredible price of only $19.95. Personally, I can't even imagine doing the work Richard did and selling it for that price. I suggest we all take advantage of him at the earliest possible opportunity .

Rave 99 was there, selling its speech interface card (allows you to plug the speech synthesizer into the Peripheral Expansion Box - absolutely required if you wish speech with the Geneve), as well as the Rave keyboard, which gives you an IBM-type keyboard on the 99/4A.

Dijit.Systems was there, right next to the Genial Computerware table. They were selling the AVPC - Advanced Video Processor Card. This is a 9938-based card that plugs into the PEB and gives you 80-column capability, not to mention some really hot graphics. The 9938 is the VDP chip used in the Geneve 9640. They were showing a version of Multiplan modified to run in 80 columns. I hear that someone (I think the McGoverns) is doing an 80 column version of TI-Writer for the card. The cost was around $250, I believe.

Disk Only Software and Compuserve were there, represented by Jim Horn, head SysOp on CompuServe. D.O.S. had their many offerings available, and Jim had a terminal where anyone could use CompuServe for free. Compuserve is very nice, with a lot of offerings as far as messages and programs in the TI Forum. Rates for CIS are $6.25 / hour at 300 baud, and $12.75 / hour at 1200 baud. I had met Jim before in Boston, but it was nice meeting him again .

GEnie was there, represented by Scott Darling, head honcho (SysOp) on GEnie. Scott also had a computer running GEnie with a free flag. I had talked to Scott before, but this was the first time I'd met him. GEnie looked very impressive, with many people on it. The rates are the lowest of all the information networks: $5/hour at 300 or 1200 baud. If only GEnie would break down and install a node near me... (the closest node is long distance). HEAR THAT, SCOTT!?!

Ryte Data, represented by Bruce Ryan and Monty Schmidt, was there. They were selling all of their releases, including a Basic Compiler, a GPL assembler, and Command DOS, by Monty. Command DOS is a program that resides in the Supercart or GRAM Kracker that gives the 99/4A many new MS-DOS-like commands. If you don't have a Geneve (which includes MDOS, an MS-DOS-like Compiler, a GPL package), Command DOS looks well worth the money.

DataBioTics was almost there.... Bill Mosied didn't come, but he paid someone from the Chicago Users' Group to man his table, which had DataBioTic's "new" games avaiable. DataBioTics is supposedly designing the fabled *Grand-RAM card, which has been advertised in MICROpendium* for several months. The problem? Grand-RAM isn't ready yet - they're working on it, but it could be a while before it's finished. If Grand-RAM would ever become available, it could be an excellent product. But that's a big if. The price looks cheaper than the Horizon, as well.

John Koloen, publisher of MICROpendium, was there. I had the chance to meet and talk with him. He seems like a very nice person. Let's face it - without MICROpendium, I seriously doubt the TI community would be as strong as it is today. MICROpendium is planning to do a big expansion of their Geneve coverage, starting in the first part of 1988. Not at the expense of the 99/4A pages, though - they will be adding pages to the magazine *for the Geneve.*

There was a schedule of talks during the day, but the schedule turned out to be very unrealistic as far as times went - consequently, many people missed the talks they were hoping to attend. I did get to attend J. Peter Hoddie's talk, though. His was, as are all of his talks, extremely entertaining. Peter talked about how he got sucked into being an active member of the /4A community, and talked about some of the programmers who have surfaced in the last year or so, such as Al Beard, who wrote Fortran; John Johnson, author of the Horizon RAM-disk menu program and very successful Remind-Me! program; Curtis Provance, author of Enhanced Display Package (a 40 column display package for XB) and Textloader; and (cough) some 15-year old named Mike Dodd.

I also had the chance to meet Warren Agee. Warren is well known for many things, such as being the author of Total Filer (from Asgard Software). He is also very active on CompuServe (personally, I think he must have a $300 CompuServe bill per month). Warren may very well be the world's greatest expert on c99. He is currently working on a database program, which, from what I saw of it, *should blow away every other database available for* the 99/4A. No kidding. People have been crying out for a decent database program for ages; now it may be almost here.

Another attendee was Jim Peterson, of Tigercub Software. He was offering all of his excellent packages. Jim is one of the most under-supported persons in the /4A community, considering what he does. Jim has made available many programs available on cassette or disk, and also sells his three amazing Nuts and Bolts packages, each of which includes many (over 100) Extended BASIC MERGE subroutines. Sure was nice getting to meet him.

Sunday, we trekked up to Milwaukee for that faire. The Milwaukee faire was much smaller and slower paced. After all, being held just 90 miles away and 24 hours *after the Chicago faire, how big could it be? Most of*

what was there had been in Chicago the day before, and, as a result of that, people had already bought what they bought in Chicago. Consequently it was sort of a letdown, both from the viewpoints of the buyer and seller. Personally, I'd have preferred it if the faire had been kept at one day in Chicago.

We stayed at the O'hare / Kennedy Holiday Inn, the offical hotel for the faire. The place was very nice, although everything in there was obnoxiously expensive, in my opinion. Nor did I think too much of the hotel staff. But what can I say - it was a place to sleep (for about twelve hours over three days - you call that sleep?!?) and a place to talk, which is nice.

I would like to thank some of the people who helped me out in some way while in Chicago: D.R. Fudge, Carl Hinton, R.D. Newman (the three I drove up with), J. Peter Hoddie, Mike Wright, Corson Wyman, and all the members of the Chicago Users' Group for putting on the faire.

Here are the addresses of some of the vendors, organizations, and individuals at the faire (in no particular order). In some cases, phone numbers are listed.

Genial Computerware, Boston branch (use for ordering all products except Genial TRAVeler), P.O. Box 183, Grafton, MA 01519

Genial Computerware, Philadelphia branch (use for ordering Genial TRAVeler), 835 Green Valley Dr, Philadelphia, PA 19128, 215/483-1379

Mike Dodd, 116 Richards Dr, Oliver Springs, TN 37840, 615/435-4169

J. Peter Hoddie, 12 Paul Revere Rd, Lexington, MA 02173

Bytemaster Computer Services, 171 Mustang St, Sulphur, LA 70663-6724

Dijit Systems, 4345 Hortensia St, San Diego, CA 92103, 619/295-3301

Rave 99, 112 Rambling Rd, Vernon, CT 06066, 203/872-9272

Los Angeles 99ers, P.O. Box 3547, Gardena, CA 90247-7247

DataBioTics, P.O. Box 1194, Palos Verdes Estates, CA 90274

MYARC, Inc., P.O. Box 140, Basking Ridge, 07920-1014, 201/766-1701

Tigercub Software, 156 Collingwood Ave, Columbus, OH 43213

Asgard Software, P.O. Box 10306, Rockville, MD 20850, 301/559-2429

Chicago TI Users' Group, P.O. Box 578341, Chicago, IL 60657

Horizon Computers, P.O. Box 554, Walbridge, OH 43465

Bud Mills, 166 Dartmouth Dr., Toledo, OH 43614

MICROpendium, P.O. Box 1343, Round Rock, TX 78680, 512/255-1512

Great Lakes Software, 804 E. Grand River Ave, Howell, MI 48843

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

Ryte Data, 210 Mountain St, Haliburton, Ontario, Canada, K0M 1S0, 705/457-2774

NO SLOW GO WITH LOGO

by Steve Mehr, UG Member

Having been an Extended BASIC programmer for all my TI life, I have never really delved too much in any other language. Oh sure, I've accomplished little things in Assembly like adding Auto Starts to source code, but mostly I've just been linking to E/A routines. Barry says that's O.K., and so do I. In fact, if it wasn't for Craig Miller showing me the powers of Forth, E/A required, I'd have purchased the E/A package much later than I did. With so many languages available for the TI, what direction does one take when deciding on another programming language? During the last meeting we were given a taste of one of the oldest but more popular languages, Logo.

Our introduction to Logo for the evening was by Fred Steinbrener, nephew of our own Fred Moore. Mr. Steinbrener is a Professor at Pepperdine's Graduate School of Education and Psycology in West L.A. He explained in great detail the strong points of Logo from a teachers perspective. Having a guest speaker like Fred at the meeting, who is not directly involved with the TI computer, was a refreshing as well as informative experience. Logo is indeed a very powerful language and we all benefited from Fred's talk very much. Thank you.

Next was Fred Moore demonstrating what his nephew just discussed. Fred knows Logo like the back of his hand (that's a freckle, Fred) and we all were amazed as he wizzed through several commands as that souped up "turtle" danced across the screen! Very nice Fred, thanks.

Ken who? Hamai? What!?! Solder what to where? Void the warranty! Too late, Ken! What's next, 19 meg on the bus? I'm glad someone finally did something creative with that ol' Super Sketch! Kinda makes ya' wanna' pull out that ol' cassette recorder, doesn't it? Splat! Not another tomato! Just kidding folks. If you weren't at the meeting, for all you newsletter exchange and out of town members, you missed a real treat. Ken taped a demo of his on VCR tape and played it for us at the meeting. It was a picture of the "No Ghosts" symbol from Ghostbusters created with Super Sketch, being loaded with, you guessed it, cassette, as the theme to Ghostbusters played in the background. Very creative, Ken! He also showed us how to test your memory expansion with the Mini Memory module using the test program TI recently released. Another good show Ken. Yes Ken, Thousand Oaks IS before Santa Barbara! See ya' there!?!

P.S. Seriously Ken, I know that everyone would surely benifit from your terrific demos if you decide to come to a T.O., SFV or TICO meeting someday. You know you are more than welcome!

FROM THE DISK OF...

Mike Dodd

Time once again for an unparalleled example in meaningless writing. Why do I write it? Because if I didn't, certain prominent members in the LA Users' Group might fly to Tennessee and issue some horrible punishment (e.g. death) (grin).

I have a new phone number. Formerly 615/435-1667, it is now 615/435-4169.

M-Copier has been updated. I think it actually works now. It will appear on Genial TRAVelER V2#1. There are two major differences between the "final" version and the version which was referenced in the September '87 Topics. They are: drive selection is allowed, from 1-9; and it now <u>does</u> waste a sector inbetween files on 80 track disks. Sorry, folks, but if I didn't, codifying or deleteing a file on the M-Copied disk would have unpredictable results (e.g. blowing the disk). Oh well.

The fabulous Disk Utilities program, written by John Birdwell, has been massively updated. Now in V4.0, the program may be the best all-around disk utility program around. It includes, as did its predecessors, many sector-related tools, e.g. sector editor, compare disk, etc. V4.0 improves on many of these, and adds a complete (and I mean complete) disk manager. Wow! The DM has a file editor similar to that in DM1000, that allows you to rename, copy, delete, or change protection. It also initializes a disk, renames a disk, and more. Very impressive. Even more impressive is that the total program is only 91 sectors. How John did it, I don't know. Oh yeah, V4.0 is 100% compatible with the MYARC Geneve 9640 computer. I have just two complaints with this otherwise excellent program. One; the response to keypresses seems slightly sluggish, and two; the disk manager, due to the method used to access the files, is not as fast as other manager programs (e.g. MYARC DM III, DM1000). This problem is especially noticable on disks with many files. Despite this, DSKU is still very much recommended. *Paid up users can receive the update* by sending $5 <u>or</u> a disk, mailer, and stamps. Those who (foolishly) have not paid can get the update by sending $15, disk, mailer, and stamps, <u>or</u> $20 for the whole thing. John Birdwell, 7952 Springhill Circle, Eden Prairie, MN 55344.

A good source for cheap disks (in cost, not quality) is MEI. They sell 200 disks for $50, plus $5 shipping for the first 200 disks and $4 for each additional 200. The disks are quite good, and come with sleeves and write-protect stickers. They do <u>not</u> come with labels, however. For more information, or to order, call 1-800-634-3478. According to their latest ad, the offer expires November 30. The ad the month before that had the same price expiring October 31. The month before that (same cost) expired September 30. And so on. In other words, don't feel that you have to buy disks RIGHT NOW because the price will supposedly end at the end of the month. I believe that this price has been going on for about a year now. In all other respects, this is quite a good company.

Here's another example of the wonderful dedication of our US Mail systems. In late August, I mailed a disk to Barry Traver. October 15, he received it. I could have crawled there on my hands and knees and gotten it to him sooner than that. Sheeez.

Barry Traver is either a) one of the most generous and dedicated persons ever, b) insane, or c) both. For $36, he mailed out six 720-sector disks (over one megabyte!) full of some of the most useful programs ever. Those were part of the subscription. Then, he mailed out no less than <u>three</u> bonus (read: free) disks, all 720 sectors. Total: 6480 sectors, well over 1 1/2 megabytes. At $36 for the lot, that comes to just over 1/2 cent for each sector. When you figure that many Users' Groups charge $3-5 for a 360 sector disk, Barry's $2 / 360 sectors looks real good. PLUS, he mailed out two or three (I forget which) postcards informing the subscribers of various things. Once he mailed out a set of postcards apoligizing for the lateness of V1#6. How many magazines do you know of that do that?!? (Ask Gary Kaplan if he does that.) Just recently he sent a three-page letter (printed both sides, total of five pages) to all subscribers apoligizing for the lateness of V2#1 and explaining what he intended to do about it. Then add in the fact that he mails the disks in thick mailers (postage: $.56/disk). Now, is he a generous person trying to help the community, insane, or both? I vote for both. He deserves our support (not to mention sympathy). To subscribe to this overly worthwhile project, send $36 for either volume one or two, or $65 for both, to: Barry Traver, Genial Computerware, 835 Green Valley Dr., Philadelphia, PA 19128, phone 215/483-1379. Two related notes: one; for all Genial Computerware products other than TRAVelER, write the Boston Branch - Genial Computerware, P.O. Box 183, Grafton, MA 01519. Two (and by far the most important); in early November, Barry entered the hospital for emergency eye surgery (detatched retina). Barry is back home now, and is doing better, but won't know anything for sure until the end of November - and maybe not even then. Until then, his computer use is (understandably) somewhat limited, but the man is still crazy enough to try to work on the next issue of TRAVelER. Here's hoping that Barry has a quick recovery (and that he doesn't kill himself first!).

FROM THE DISK OF...

Mike Dodd

All of a sudden, we have two compressor programs available for the 99/4A. Both are based on the original Archiver concept by Barry Traver. The two are written by Al Beard and Barry Boone. The former is written in Fortran, the latter in assembly. I have not had the opportunity to use the Fortran-based compressor program yet, but I have used Boone's. Beard's program takes a group of files and compresses them into one packed file - a combination of archiving and compressing. Since it uses the Huffman compression algorithm, it requires two passes and, coupled with the fact that it is written in Fortran, is rather slow. Boone's program (named Archiver II V2.3), on the other hand, is quite fast. It uses the LZW compression algorithm which, in addition to being a more efficient compression method than the Huffman algorithm, also requires only one pass, and thus has the potential to be faster. I say potential because, currently, Boone has made the archiver and compresser parts of his program separate - first you archive the program, then you compress it. The end result is: two passes. Boone says that he is working on Archiver III, which will combine the functions into one pass, as well as be even more efficient in its compression. Arc II is especially helpful on telecommunications networks and BBSes, where on the former, time literally is money, and on the latter, space is always scarce. Already CompuServe is adopting Arc II, and many BBSes that I have seen are using it. Arc II is available from the networks and BBSes, and it may be published on Genial TRAVelER V2#1.

Warning: if you don't like sermons, skip to the end of this. The topic of today's sermon (hey, come on... this is the first sermon I've written for Topics!) is all those people who seem to complain about everything. I'll give a personal example: when the Geneve started being widely shipped, many people cried out that they wanted FBASE to work on the Geneve. None of the existing versions would, and many people had numerous data files on that program that they could no longer access. With the help of Barry Traver, I was able to aquire the source code to FBASE and promptly started work on making it compatible with the Geneve. The reason for the incompatibility was that FBASE used a non-standard header in sector 0, and, because of that, MDOS couldn't read the disk. The only way to fix the problem was to move the FBASE data sectors up two sectors, so they started on sector 2 as opposed to sector 0. Sectors 0 and 1 could then be used for a standard disk header. I finished the work, told a few friends, sent it to a few people. No big deal.

One night, someone named Ron Baker called me. He had heard from Peter Hoddie that I had written a FBASE for the Geneve and Ron desperately wanted it, so I sent him the files. Ron had no complaints, but did have some helpful suggestions - i.e. writing an explanation of how to convert the old data disks to the new format, and modifying the loaders to correctly load V2.1. I did so, spending a reasonably large amount of time on the whole project. Keep in mind that I asked for no money - I was doing it for the good of the community. Ron uploaded it to GEnie, where Walt Howe then took it to the other three networks. All was fine.

Then I started getting phone calls and letters. To my astonishment, the great majority of callers and writers were complaining about it! The complaints were "why didn't you fix this bug?" or "why didn't you add this feature?" or "why didn't you write a program to automatically convert the data?" Many of the callers wanted me to convert their data disks for them, or were just assuming that I would add some major new feature and wanted to know why I didn't.

What has been accomplished by all this? One very simple thing: I have sworn that never again will I release a version of a program that I have made minor changes to, such as FBASE V2.1. If I had followed that philosophy several months ago, I would have given my FBASE revision to a few close friends, and the general population would not be running FBASE on the 9640. If a situation like that comes up again, that is exactly what will happen.

The FBASE revision is not the only example of this - I have also seen it in some Users' Groups, where some members fall into the role of doing little or no work, yet attack those who do the work. In at least one case, those who were attacked eventually resigned. That is not beneficial to that group, and even hurts the TI community at large.

This is not a general condemnation of the entire TI community, nor a personal attack on any one person. There were some people who were quite happy with my revision, and said so. I appreciate those people. People like that are the reason I stay in the TI community. To those people, I thank you.

End of sermon Version 1.0

An introduction..... of the Doctor. That is to say, D.R. Fudge, newest author for Topics. D.R. was my co-editor in my Users' Group, and wrote many articles for it (entitled "The D.R. is in...."). He now plans to devote his writing efforts to LA. D.R. is, in my opinion, an excellent author, not to mention being extremely funny. Hope you like them.

I've been calling the LA 99er BBS quite a bit as of lately. The board really has a lot of potential. Its biggest problem is the fact that few people out there know the board exists, so it does not have as many callers as it could have. It has a message base and the download disks, plus the sysop (Danny Nelson) is almost always available for a chat, to answer a question, or just to talk. The number is 213/755-7239. There is also another LA 99er BBS, run by Steve Chaloraft (213/864-2488). Both are accessible from PC-Pursuit. My user numbers are 36 and 67 on the two boards, respectively.

DISK OR DUMP?, a preliminary review

by D. R. Fudge

I guess this shows that you can't get rid of me no matter how hard you try. The TI world is still infected with the DR's disease. So, throw away your pills and potions and learn to live with it while retaining a sense of humor. I am sometimes prone to pulling legs while examining them, so don't be too surprised if what I say isn't what I say. Remember, I am in that wondrous world of users (I hope there are others!) where some things I say may sound advanced to the beginner, and humorously simple to the myriad of users who think of me as a novice.

I promised myself I wouldn't wander too far afield but would dive right in to the purpose of this article. So, here goes.

I recently got a copy of *Font Writer* from Asgard Software. While I have scarcely gotten into the many facets of the program, I have begun to use the "DISK DUMP" portion of the program and thought I would share some of my thoughts and non-thoughts as well as my experiences with you the unlucky reader.

First, I think we'll load and run the program and then look at some of the features and other things we run across.

While in XB or some other compatible language for loading, we load the program. Then we select option **4 Disk Dump**. The first thing to happen is a prompt for the "Input Drive". Having cheated somewhat and read through the instructions in the manual beforehand (A dubious practice at best.), We realize that we are going to read data from a disk and dump it somewhere. Knowing this, we opt to remove the Font Writer program disk and replace it with a disk containing fonts and graphics, and input "DSK1." as our input drive. Then we are asked for an output filename. Being somewhat slick (like the tires on a car) We type "DSK2.DUMP", and then even remember to insert a panic-searched-for initialized disk in drive 2. Great! Disk Dump is cataloging the disk in drive 1. We must have done something right! Next comes this menu allowing us to search for all or any of the options available at this point. These are CSGD Fonts, TI-Artist Fonts, TI-Artist Instances, TI-Artist Pictures, Graphx Pictures, Single Density and Frame Pictures. This is a wonderful menu as it lets you tailor the search for only the things you have on the disk. But, wouldn't you just know it, We have forgotten what is on this disk so we opt to leave the options all on including single density print out and framing. Nothing says whether or not this slows things down, but while we are trying this out time is not a big issue anyway or we would have gotten someone familiar with it to show us in the first place. After pressing enter, we are pleased to see the output disk being written to.

Here comes our first sign of things not going to go as we expected. When the new file is completed we are prompted to return to the main menu. Since the instructions say to do so we select Y and press ENTER. Oh no! WE FORGOT TO REPLACE THE DATA DISK WITH THE PROGRAM DISK! After a few valiant tries we get the old familiar XB "ERROR on line xx" and the program has to be reloaded. O.K. Now we have it running again and the main menu in front of our eyes. Then as instructed we select option **2 Formatter**. We then press ENTER for the name of the font file as instructed and enter the name of the output file created by the Disk Dump program and get a wonderful print out of the file that was created but not font one! Then, being the astute users we are, we realize "We should have replaced the program disk with the data disk again!" This time we get what we wanted. A beautiful print out of each font and graphic file name and the complete font (including all characters in the file) or the complete picture in single density complete with frame. An almost insignificant glitch allows some font file names to be at the end of one sheet of paper while the font itself is (after form feeding) on the next, but since we are going to 3-ring binder this anyway, all we have to do is put the pages in proper order and it's no big deal. Later, printing out pictures, we find that some pictures are printed right across the perforations and the form feed (after every 4th? picture) then causes a large gap which forces the next picture near the bottom to print across more of the perf, etc.

Well, after a few minor problems, we managed to get a nice printout and we really love this feature of Font Writer. So now while we have it loaded and have the disk swapping and other things fresh in our heads, lets dump and print out some other disks of fonts and pictures which are at hand, and almost none of which we can remember what they looked like. So, having returned to the main menu, we select Disk Dump again. ANOTHER CRASH! Know why? We forgot to replace the data disk with the program disk before attempting to reload the dump program. O.K. Disk Dump is finally reloaded. Now we stick in another data disk and name the new file DUMP1. The program catalogs the disk and....., What's this? It's asking for the filename again. Well maybe the catalog and file were too large to include in one file dump. So we name this part DUMP1A. The program catalogs the disk and.....file name prompt again! After several tries and several filenames we get the idea that maybe something is not altogether according to Hoyle and give up.

Later we pick up the disk again, load Font Writer and Disk Dump and they work like champs (we even remember to switch disks at the proper times. So we try a second disk (actually our third) and again we are asked again and again for the filename. Apparently on my copy of the program, at least, the only way to dump a second disk is to completely reboot the whole thing from the title screen or maybe it's from the on/off switch. I can live with the other inconveniences, but I hope Asgard rapidly comes up with a solution to this last one as I hate to reboot every time I want to dump a disk! I have every confidence that the rest of the Font Writer program is a wonderful experience and will attempt to report to you as I try them out, but this portion could use a little work.

In my previously biased opinion, anything by J. Peter Hoddie has to be worthwhile, but this portion (Disk Dump) needs a little help in the "Idiot screen department" and definitely needs to work more than once per load.

P.S. For anyone who is or isn't interested. I am now back into instrumentation at my place of employment and back on straight days. So if JPH wishes to lambast (does that have anything to do with putting melted butter or sauce on a ewe's offspring?) me in person. I can now be reached at sane talking hours. But he'll have to get my number from MU, 'cause I ain't talkin'.

Did you know that...?

by Chick De Marti

This month I would like to share with you several short programs. Some you may have seen before, but in different versions. Take this first one...a B A R C H A R T ... by the Northern Alabama 99 Computer User Group. It produces a multicolored vertical bar chart

```
100 CALL CLEAR
110 FOR SET=1 TO 31 STEP 2
120 CALL COLOR(SET/2,8,8)
130 A=INT(RND)+1
140 CALL VCHAR(25-A,SET,SET*
8+31,A)
150 CALL VCHAR(24-A,SET+1,SE
T*8+31,A)
160 NEXT SET
170 FOR X=1 TO 16
180 CA ! COLOR(X,X,X)
190 NEX; X
200 GOTO 200
```

NOTE--> Line 130 controls the size of the bars. Change the value to change the hight of the chart.

<*><*><*><*><*><*><*>

RUNNING TI-WRITER "PROGRAMS"

```
70 REM FROM BITES & PIECES
      FOX CITY U.G.
80 REM CONVERT TI-WRITER PRO
GRAMS TO EXTENDED BASIC MERG
E PROGRAMS
100 OPEN #1:"DSK1.AAAA",INPU
T,DISPLAY
110 OPEN #2:"DSK1.MMMM",OUTP
UT,DISPLAY,VARIABLE 163,SEQU
ENTIAL
120 IF EOF(1)<>0 THEN 230
130 IF LEN(A$)=0 THEN 120
140 B=POS(A$," ",1)/1
150 IF B<1 THE 230
160 C=INT(VAL(SEG$(A$,1,B))/
256
170 D=VAL(A$,1,B))-(C6)
180 B=B+1
190 E=LEN(A$)/B+1
200 A$=CHR$(C)&CHR$(D)&SEG$(
A$,B+1,LEN(A$)-1)&CHR$(0)
210 PRINT #2:A$
220 GOTO 120
230 PRINT #2:CHR$(255)&CHR$(
255)
240 !
250 CLOSE #I
260 CLOSE #2
270 END
```

TRACKBALL TIP

The following article was on a disk someone sent me and was written by Rick Kellogg. I do not know where he can be reached. HE KNOWS NOW! (ED.)

A few months ago I purchased a trackball for my computer. I planned to use it with a few of the games that I had and with 'TI ARTIST'. Being somewhat lazy, I soon grew tired of switching the trackball and joystick plugs. Then an idea came to me. I pulled out my old (ahem!) ATARI 2600 and took the "Y" adapter. Lo-and-behold, when this adapter was hooked up to the TI joystick port, I could plug in both my TI joysticks and the trackball at the same time. Not only was this convenient, but at any time I could switch from joystick 1 to the trackball and not even loose a life

in a game. For those of you who use ATARI compatible joysticks, all you have to do is plug your TI "Y" adapter into the ATARI "Y" adapter and you are all set. You 'TI ARTIST' fans will love it.

Thanx to CINDAY User Group

LITTLE KNOWN FACT ON FUNNELWEB

If you have a program and you don't know whether it's an IB or E/A program file, load the Funnelweb EDITOR and enter the SD function. After the directory is displayed, press FCTN = and the program will read the disk directory and tell you if a program file is IB or E/A. Just look in the REC colum for the BX or EA marks

Found in the "COMPUTER VOICE" of the Southern California Computer Group

(Did You Know ... cont.)

PRBASE COMMANDS

A Add Record	L Print Labels
B Boot Data Base	N Go to Screen #
C Control Codes	O Program Options
D DElete Record	P Print Screen
E Edit Record	Q Quit PRBASE
F Find String	R Print Reports
G Global Search	S Sort Index
H Display Commands	U Use Index to Find
I Build New Index	V View Index

FCTN X Scroll to next screen
FCTN E Scroll to previous screen
FCTN D Next Alphabetical screen
FCTN S Previous Alphabetical screen

CTRL X Rapit scroll screen 1 - End
CTRL E Rapid scroll screen End - 1
CTRL D First Alphabetical Screen

-- This handy little chart courtesy --
T I T E X N E W S L E T T E R

<*><*><*><*><*><*><*>

CASE OF THE MISSING DISK NAME

by John F. Willforth
PUG Peripheral, Pittsburgh PA

Last night I accidently missed typing in the DISK NAME when I began to move files from one disk to another. Everything continued fine, and when I was done, I tried out the disk to see if it worked ok, and all appeared fine.It wasn't until I went to print a label, that I found the disk could not be cataloged, copied or even a name changed!

What could I do? I'll tell you what I did... if you know the disk is DSDD, just get one of the same density and sides and insert it as if you were going to rename it. Do everything you are asked up to the point where the disk manager is about to write the new name to the disk, then pull the matching density disk out of the drive and insert the one that can't be cataloged or re-named, and press the enter key. ZAP0! The previously un-named disk now has a name, and then can be dealt with in the usual manner. There is no easier way!

As I was copying the files above, the second disk was not yet formatted, and that is where the problem occured with DM1000 v3.5. It is my belief that this may also occur with other disk managers.

(This item I found in the SFV 99er TImes.)

<*><*><*><*><*><*><*>

ARROWS

This is another demonstration of the almost unbeleivable power and capabilities of 99/4A sprites in Extended Basic

```
1 !!!!!!!!!!!!!!!!
2 ! BY DANNY COX !
3 !!!!!!!!!!!!!!!!
4 !
5 CALL MAGNIFY(4):: CALL CLE
AR :: CALL SCREEN(2)
6 CALL CHAR(96,"FFFFFFFFFFFF
FFFFFF7F3F1F0F07030180C0E0F0
F8FCFEFFFFFFFFFFFFFFFF")
7 FOR X=7 TO 4 STEP -1
8 R=190 :: C=250
9 FOR I=1 TO 25 :: CALL SPRI
TE(#I,96,RND*13+3,R,C):: R=R
-X :: C=C-7 :: NEXT I
10 R=190 :: C=250
11 FOR I=25 TO 1 STEP -1 ::
CALL SPRITE(#I,96,RND*13+3,R
,C):: R=R-X :: C=C-7 :: NEXT
 I
12 NEXT X
13 FOR X=5 TO 7
14 R=190 :: C=250
15 FOR I=1 TO 25 :: CALL SPR
ITE(#I,96,RND*13+3,R,C):: R=
R-X :: C=C-7 :: NEXT I
16 R=190 :: C=250
17 FOR I=25 TO 1 STEP -1 ::
CALL SPRITE(#I,96,RND*13+3,R
,C):: R=R-X :: C=C-7 :: NEXT
 I
18 NEXT X :: GOTO 7
```

A9CUG CALL NEWSLETTER

Well, I'm out of coffee. See you next month
Chick

KIDS **********

A L P H A - B L A S T

```
100 GOSUB 510
110 RANDOMIZE
120 DIM N(3)
130 CALL CLEAR :: CALL SCREEN(16)
140 CALL HCHAR(8,5,120,24):: DISPLAY AT(10,4):"A L P H A -- B L A
S T" :: CALL HCHAR(12,5,120,24)
150 CALL MAGNIFY(2):: FOR L=1 TO 28
160 CALL SPRITE(#L,INT(RND)+65,INT(RND)+3,INT(RND)*8+1,IN
T(RND)*8+1,INT(RND)-30,INT(RND)-30)
170 IF L=25 THEN DISPLAY AT(21,10):"GET READY!"
180 NEXT L :: CALL DELSPRITE(ALL):: CALL CLEAR :: HS=0
190 CALL COLOR(12,6,1)
200 DISPLAY AT(1,6):"HIGH SCORE:";HS :: U=0 :: R=0 :: SC=0
210 U=H+.03*SGN(1-U):: R=R+1 :: DISPLAY AT(5,14):"ROUND #";R :: DI
SPLAY AT(2,6):"SCORE:     ";SC
220 FOR I=6 TO 21 :: CALL HCHAR(I,6,128):: NEXT I
230 FOR I=5 TO 7 STEP 2 :: CALL VCHAR(5,I,95,17):: NEXT I
240 FOR I=3 TO 9 STEP 6 :: CALL VCHAR(4,I,120,20):: NEXT I :: CALL
HCHAR(4,4,120,5):: CALL HCHAR(23,4,120,5)
250 FOR I=0 TO 3
260 N(I)=INT(RND)+65
270 FOR J=0 TO I-1 :: IF N(J)=N(I)THEN 260
280 NEXT J :: NEXT I
290 CALL SPRITE(#6,42,3,97,153)
300 CALL SPRITE(#2,N(0),14,57,153):: CALL SPRITE(#3,N(1),14,97,201
):: CALL SPRITE(#4,N(2),14,137,153):: CALL SPRITE(#5,N(3),14,97,10
5)
310 ROW=21 :: A=-1 :: B=-1 :: C=-1 :: D=-1
320 T=0
330 CALL JOYST(1,X,Y):: IF ABS(X)-ABS(Y)<>4 THEN CALL HCHAR(ROW,6,
32):: ROW=ROW-U :: IF ROW <5 THEN 400 ELSE 330
340 IF (X=0)*(Y=4)*(A)THEN CALL PATTERN(#2,32,#6,43):: V(T)=0 :: A
=0 :: GOTO 390
350 IF (X=4)*(Y=0)*(B)THEN CALL PATTERN(#3,32,#6,43):: V(T)=1 :: B
=0 :: GOTO 390
360 IF (X=0)*(Y=-4)*(C)THEN CALL PATTERN(#4,32,#6,43):: V(T)=2 ::
C=0 :: GOTO 390
370 IF (X=-4)*(Y=0)*(D)THEN CALL PATTERN(#5,32,#6,43):: V(T)=3 ::
D=0 :: GOTO 390
380 CALL HCHAR(ROW,6,32):: ROW=ROW-U :: IF ROW<5 THEN 400 ELSE 330
390 CALL SOUND(-10,200,2):: CALL PATTERN(#6,42):: T=T+1 :: IF T=4
THEN 450 ELSE 330
400 DISPLAY AT(22,11):"YOUR TIME IS UP !"
410 CALL SOUND(800,110,5,120,5):: FOR I=1 TO 200 :: NEXT I
420 DISPLAY AT(24,10):"PLAY AGAIN(Y/N)?" :: IF SC>HS THEN HS=SC
430 CALL KEY(0,KEY,ST):: IF ST=0 THEN 430
440 IF (KEY=89)+(KEY=121)THEN CALL CLEAR :: CALL DELSPRITE(ALL)::
GOTO 200 ELSE 560
450 REM
460 FOR T=0 TO 2 :: IF N(V(T))<N(V(T+1))THEN 480
470 SC=SC-INT(1.5*R*ROW):: GOTO 490
480 SC=SC+INT(R*ROW)
490 NEXT T
```

(Cont. Page 14)

DISK DISCUSSION

From the Aug.'86 SHOALS TIdings by "Gil" Gilmore

I've heard several questions lately about how to tell what's on a disk. You can get a pretty good idea just by looking at the catalog. Most of this information has appeared in various newsletters and I don't make amy claims to anything startlingly new or different. To me, most of what I've read is backwards; it tells what a particular type of program will look like on the disk catalog.

Here is what to expect when looking at a disk catalog...like when you get a disk from the library and don't quite know what you've got.

PROGRAM... This is the most commonly found type and also the least informative type description. You can, however, get some hints from the size of the program:

- 33 Sectors... Probably an assemblylanguage program. Try option 5 of the Ed/Assem cartridge, especially if there's another title that is the same except for the last letter or number of the file name.
- >33 Sectors... Try Basic or XB. You may have to free up some extra memory with CALL FILES(1) NEW OLD DSKn.name RUN.
- <33 Sectors... Try in order B, XB, and A/L
- 52 Sectors... Tunnels of Doom programs generally use this format for data files.
- 54 Sectors... The Soott Adams adventures use this format.
- Other Program Files... It's likely that you have found a data file for another program. Don't erase it or you may find something else wont't run right.

DIS/VAR 80... These are usually documentation files to explain one or more major programs on the disk. Usually they'll have a name similar to others on the disk except ending in DOC. You can read these by using a TI-Writer type program (TK-Writer, BA-writer, FUNLWRITER, etc.) or by using EDIT from the editor/assembler cartridge.

DIS/VAR 163... Most likely a MERGE format file in extended basic. Check it by entering MERGE DSKn.name and LISTing it.

DIS/FIX 80... These are assembly language programs which can easily be run if you know the program start name. Start out with the LOAD and RUN option of the E/A or MiniMem modules. When asked for the file name enter DSKn.name and press enter. Sometimes it will load and start running. More likely it will ask for a file name again and you will just press enter. Here's where it gets tricky. The next question will be PROGRAM NAME. Often someone will have scratched it in beside the name on the catalog on the disk jacket. if not, try some of the more likely choices such as START, BEGIN, RUN, LOAD, GAME, the file name, etc. Check the documentation files on the disk; it may be included in that file. (If all else fails, read the directions.) If you have a disk manipulator type program you can often find the starting name by searching the last five sectors of the program. (See additional info on assembly language programs at the end of this article.)

(continued)

INT/VAR 254... These are usually more than 50 sectors long and are usually a long extended basic program. You'll likely need to have at least 32K of memory expansion.

A few notes... Console basic and extended basic programs will load and run ok through XB; the most likely failure will be a crash with a BAD VALUE IN xxx message. It probably had used characters above 143 which aren't available to XB. Another problem is in CB use of colons as print line feeds. XB interprets them as statement separators and sees a syntax error. Iif you try to run an XB program in CB you'll probably get a FOR-NEXT ERROR IN xxx because the NEXT part of the sequence had been ignored when it comes after a double colon statement separator. Any commands that are XB only will be read as garbage in CB.

Any of the above types of files can and are used as data files. Have fun running all of those good programs and improving some of the rest.

DISK DISCUSSION II

From the 99er OUTPUT of Waco, TX:
There are 3 forms for an assembler program: TAGGED OBJECT, COMPRESSED TAGGED OBJECT, and MEMORY IMAGE.

TAGGED OBJECT is stored in a "DISPLAY/FIXED 80" file on disk only. It's in HEXADECIMAL for easy E/A editing. It can be loaded via "CALL LOAD" in XB, option 3 using E/A, option 1 using Mini-memory, or using "CALL LOAD" in TI-BASIC with either the E/A or MM module. It can be "ABSOLUTE" or "RELOCATABLE". The absolute code must always be loaded at the same place in memory while relocatable code can be loaded anywhere. If the Tagged Object file has references to other files or sub-routines, they will be resolved by the loader except in the case of an XB loader.

COMPRESSED TAGGED OBJECT code is like Tagged except that the program data is saved in bytes allowing it to load faster but it cannot be loaded from XB. Both forms are produced with the E/A asembler from source code.

The **MEMORY IMAGE** form is the most compact and fastest loading of assembler programs and can be stored on disk or cassette. It is identified as a "PROGRAM" file in a disk catalog and can be loaded with Option 5 using E/a, or Option 3 using TI-WRITER. Please note that the screen will go blank and must be turned back on by the program itself. Memory Image files are produced using the "SAVE" utility on the E/A disk 'B'. Memory Image files like BASIC programs, can be accessed from/to any I/O device with a single I/O call. That is why they load so fast.

(continued)

There is a size restriction to Memory Image files of 2400 bytes, although the E/A and TI-WRITER modules will load multiple Memory Image files to make a larger program. The loader does this by looking for files, after the initial file is loaded, whose filename is similar except for the last letter which is incremented by one. Example: The file "GAME" is loaded. The loader then looks for "GAMF", "GAMG",etc. if such files are required due to program size.

Memory Image files have a three word header followed by the data to be placed in memory as follows:

(1)The first word is a "flag". If it is not zero (i.e. FFFF) then this file is not the last in a multi-file program. For example, if the flag for "GAME" is FFFF then there HAS to be at least a file named "GAMF",etc.
(2)This word is the length of the Memory Image file in bytes, including the six byte header.
(3)This word is the CPU address where the file is to be loaded. Execution always begins at the first byte of the first segment loaded.

◆ ◆

(KidsKorner)

```
500 CALL DELSPRITE(ALL):: GOTO 210
510 REM
520 CALL COLOR(14,9,1)
530 CALL CHAR(120,"007E7E7E7E7E7E00"):: CALL CHAR(128,"")
540 CALL COLOR(12,6,10):: CALL COLOR(13,1,9)
550 RETURN
560 CALL CHARSET :: CALL CLEAR :: CALL DELSPRITE(ALL):: CALL SCREE
N(16)
```

◆ ◆

RS232_to_MODEM_CABLE:

Making a cable is relatively inexpensive and easy to build. Items needed are:

2 - DB 25 Male connectors
2 - DB 25 Connector hoods (optional)
5 - Wires (about 3 feet long)
Soldering Pen and Solder

After you have all the necessary parts and tools, you are ready to make your cable. All you have to do, is solder the wires exactly the way they are shown in the diagram below. If you have any questions, call me at 775-0499. Good luck and happy TI'ing.

RS232 (connector)		Modem (connector)
PIN #2	----------	PIN #3
PIN #3	----------	PIN #2
PIN #6	----------	PIN #20
PIN #7	----------	PIN #7
PIN #20	----------	PIN #6

Thanx to Great Lakes Computer Group, Inc.

Then there is the MULTICOLOR mode. I've seen those 'crazy quilt' demos but what else it might be used for, I don't know. A character consists of 4 pixels, thus there are 48 lines of 64 'blocks'. Each of them can be set to a different color. Use MULTI to enter.

Highest resolution is obtained with the bitmap mode. Each of the 256 pixels in the 192 lines can be controlled individually. There is only on drawback in that there is no automotion for sprites. But because there normally aren't any ASCII characters either, TI has provided SPLIT and SPLIT2, which enable bitmap and text combined. This is extremely helpful when in interactive mode: you can see what you are entering and the resulting display. I used

SPLIT to revise John Volk's Diamond Draw program. It was originally all bitmap and I could not remember which keys to press for the various options, so I used SPLIT to display them on the bottom of the screen. The words to activate the bitmap modes are GRAPHICS2 (for full screen bitmap), SPLIT (text on bottom) and SPLIT2 (text on top).

Study chapter 6 thoroughly. You will notice that: a) all you need to know is there, b) you are already familiar with most commands, c) if you have absorbed enough Forth, it's not hard to see that the real difference is that the parameters (in typical Forth style) go on the stack first before the operative word is invoked, and d) for sprites a little additional work is required.

If you want to use sprites, pay particular attention to the section on Sprite Initialization beginning on page 8 (Ch.6). Here is a short routine that illustrates how a sprite is set up:

```
 0 ( SPRITE SAMPLE )
 1
 2 BASE->R  HEX
 3 : SETUP
 4         GRAPHICS ( enter standard graphics mode )
 5         2000 SSDT ( move sprite desriptor table )
 6         1028 4482 4428 1000 2A SPCHAR ( define the character )
 7         3F 2F 0F 2A 1 SPRITE ( sprite loc.,color, char, no. )
 8         15 0 1 MOTION ( motion parameters )
 9         2 #MOTION ; ( set it in motion )
10
11 DECIMAL  R->BASE
12
13 SETUP
14
15
```

This example is for the standard graphics mode. If you wanted to use bit map, line 4 would have to read GRAPHICS2, or SPLIT or SPLIT2, line 5 would have to include 3800 ' SATR !, and lines 8 and 9 would be superfluous. If you load this screen, SETUP (line 13) displays a sprite. Once it is on display you can enter TEXT and return to text mode. Entering SETUP will again produce the sprite.

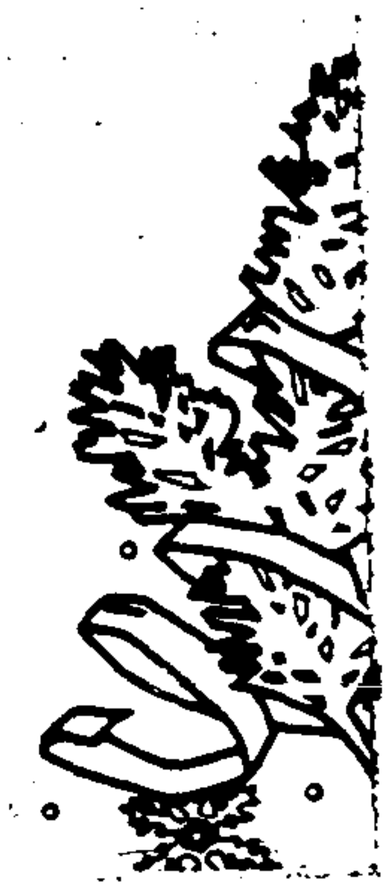
Play around with the various graphics modes. Remember that practice is the only way to become proficient, and before long you will be able to use Forth's graphics capabilities to their full extent.

HELPHELPHELPHELPHELPHELPHELP

Does anyone out there have a standalone RS232 they would like to part with? If you do contact Bernie Levine ... at 3743 W 171st St. Torrance Ca Vip 90504 or 213-329-2328

For those of you that played around with the "MYSTERY PROGRAM"
here's one that I guarantee DOES NOTHING!

```
10 ! * * DON'T TOUCH * *
20 !
30 ! Transcribed from an IBM program
40 !      by  Chick De Marti
50 !
60 N=1 :: X=6 :: GOSUB 320
70 N=2 :: X=27 :: GOSUB 320
80 N=3 :: X=28 :: GOSUB 320
90 S$=RPT$(CHR$(32),32):: CALL COLOR(2,16,1)
100 CALL CHAR(42,"FFFFFFFFFFFFFFFF")
110 CALL CLEAR :: CALL SCREEN(2)
120 FOR I=4 TO 13 :: CALL COLOR(I,2,16):: NEXT I
130 DISPLAY AT(8,4):"*Don't*touch*any*key*"
140 CALL KEY(0,K,S):: IF S=0 THEN 140
150 CALL CLEAR
160 FOR I=1 TO 9 :: CALL COLOR(I,16,1):: NEXT I
170 FOR J=1 TO 20
180 CALL SOUND(30,INT(RND*1000)+500,INT(RND*15))
190 CALL SOUND(30,15000,30)
200 K=INT(RND*8)+1
210 R=INT(RND*22)+1 :: C=INT(RND*28)+1
220 IF K>5 THEN 260
230 DISPLAY AT(R,C):M$(1);
240 NEXT J
250 GOTO 280
260 DISPLAY AT(R,INT(RND*9)+1):M$(2);
270 GOTO 240
280 FOR RX=1 TO 20 :: DISPLAY AT(24,1):S$ :: GOSUB 350
290 DISPLAY AT(24,1):M$(3):: GOSUB 350 :: NEXT RX
300 FOR DX=1 TO 600 :: NEXT DX
310 CALL INIT :: CALL LOAD(-31961,51)
320 FOR Y=1 TO X
330 READ D :: M$(N)=M$(N)&CHR$(D)
340 NEXT Y
350 RETURN
360 DATA 72,65,45,72,65,46,73,32,75,78,69
370 DATA 87,32,89,79,85,32,67,79,85,76
380 DATA 68,78,39,84,32,82,69,83,73,83,84,33
390 DATA 77,65,67,72,73,78,69,83,32,65
400 DATA 82,69,32,83,85,80,69,82,73,79
410 DATA 82,32,84,79,32,77,65,78,67,72
420 DATA 73,67,75
```



Did you know that...?

by Chick De Marti

An Apology to Chick De Marti and the LA Topics

In our September and October issues, I talked about a program I had keyed in from the August issue of the LA Topics that said it was going to destroy my disk and went out and did it. I was wrong. For some crazy reason, my disks were trashed, but Chick's program had nothing to do with it. I never really looked the program over thoroughly until after I published it in last month's newsletter. I then discovered it is completely harmless, code to the speech synthesizer in a way you do not know what the computer will say until it does it. What a weird quirk of fate that Chick and I would be victims of such circumstance - he published a harmless but interesting program and I have a crash at such a time.

I apologize to Chick for even thinking he would publish a harmful program. And once again I've learned to believe the old adage "Don't believe anything you hear (and only half of what you see)".

Mike

[Thanx to Mike and the Jackson County 99ers for the kind words. C.D.]

<*><*><*><*><*><*><*>

From the Pueblo (Colorado) 99ers U.G.
(as discribed in MICROpendium)

If you have transliterated about all the keyboard characters you fell can be spared for printer codes, and still need another,at least temporarily, try this. On my printer CHR$(144) produces a small heart.

```
.TL 76:144
I   my TI-99/4A
.TL 76:76
LLL

I ♥ my TI-99/4A      (as you can see,
                      (my printer does
LLL                   (not print one.)
```

The capitol L (CHR$(76))was 'borrowed' for a line, used to print the heart, and translit-erated back to into an 'L'."

BRAIN TEASER TIME

Thanx to LIMA 99/4A U.G.

#1.

A	B	C
1	4	7
2	5	8
3	6	9
6	15	24

Move one number from one coluen to another coluen so all columns will add up to the same number.

#2. Arrange the numberals 1 thru 9 so that when added, they will equal 100.
HINT: some have to be double digit.

#3. What is the largest sum of money in current United Staes coins (not including silver dollars) that a person can have in his/her pocket, without being able to give change for a dollar, half dollar,quarter,dime or nickle?

#4. What do the following words have in common...

DEFT,FIRST,CALMNESS,CANOPY,LAUGHING, STUPID,CRABCAKE,HIJACK?

<*><*><*><*><*><*><*>

Also from the LIMA 99/4A U.G. Sept.'87

3.5_INCH_DRIVES_FOR_THE_99/4A

"We ran across an ad on page 211 of the Sept. issue of Computer Shopper offering a Toshiba 3.5 inch drive and conversion kit for the TT 99/4A for $125. This is said to work with Myarc or CorComp controlers (no mention of TI controlers in the ad). For more Info call or write:

Alpha Scientific
P.O. Box 626
Chesterfield, MO 63006
phone 314-878-7117

(Did You Know ... cont.)

MORE FROM THE NEWSLETTERS

This reminder from PILGREM'S PRIDE Catalog:

"If ir becomes tedious to type the word PRINT over and over again, (instead) hold down the CTRL key and press ";" at the same time. (It will not appear on the screen, but it will be in the program!)

(And their TIPS & TRICKS #4)
IF you (are using) PARSEC and prefer to use the keyboard instead of joysticks...the FIRE keys ("Q" or "Y") will not work while you are moving vertically. If you try the "." (period you will find that you can fire and also move vertically at the same time.

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

BUG NEWS, November, thanx Roger Merritt.

TI ARTIST TIP...if you have a design you want to work out some fine details on, ZOOM into the arear and save it to disk. Now, bring it back from disk and ZOOM it again. Still not big enough?

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

OH-MI TI, thanx Kent Sheets:

When using TI-Writer, sometimes when trying to read a file, or you want to add to a file, you may get a "buffer is full" error message. To find out the size of the file, in the FI mode, you'll get a buffer full at 92 sectors, about 3600 words. In NF mode, you'll get the buffer full error at 119 sectors (3900 words) BY using a catalog prog. to check the number of sectors, you'll be able to determine how much memory you have left.

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

MID SOUTH 99ers, excerped from an article, "Converting to Cassette".

CALL FILES(1) ... What does it do?

CALL FILES(1) actually tells the computer you are only going to have a maximum of ONE data file thus it releases some of the memory that it had reserved for more files. By the way, when you go back to the Title Screen, the CALL FILES command is reset to normal.

IT'S BOO BOO TIME

Last month the Topics shared with it's readers a TINYGRAM called "TINYSTOMP" by Mike Stanfill. One of our club members contacted me because he couldn't get it to run. There were several errors (sorry about that)!

Line 3: CALL COLR should be CALL COLOR (easy)
Line 6: CALL LOCATE(#! should have been:
CALL LOCATE(#1 (someone still had the Fctn key depressed).
Line 5: GOTO 4 ELSE 4 should be GOTO 4 ELSE 6

It should run now. While we are on this program, there also was an optional line 7 in cluded (a great improvement) EXCEPT it was a little too noisy for my taste. So here's another optional line 7:

```
7 J=J-H :: NEXT Z :: CALL SO
UND(-90,110,Z*6,-5,Z*7):: CA
LL VCHAR(1,Y,32,23):: CALL L
OCATE(#1,1,Y*8-15):: GOTO 5
```

(All I did was move the CALL SOUND command to AFTER the 'NEXT Z' ... cd)

<*><*><*><*><*><*><*>

N E W - N E W - N E W

A LOTUS 1-2-3 look alike for the TI can be ordered from: DATAX Company, 1923 LInden street, Ridgewood, NY 11385

I understand MECHATRONICS just released an 80 column expansion system. It displays a screen 80 columns by 26 lines.

Answers to BRAIN TEASERS

#1. Move the 9 from column C to column A and all the columns will add up to 15!
(Remember the rule "READ! NEVER ASSUME!" C.D.)

#2. 15 + 36 + 47 = 98 + 2 = 100
"See! It was easy, wasn't it?"
(I think that's cheating! C.D.)

#3. $1.19 - a half dollar, a quarter, four dimes and four cents.
(If you said $1.24, the nickle will make change for a dollar. C.D.)

#4. They all conatin three alphabetical letters in sequence.

Well, I'm out of coffee. See you next month.
Chick
~~~~~~~~~~~~~~~

REPRINTED FROM SAN DIEGO TI - SIG NOVEMBER, 1986

C H R I S T M A S C A R D P R O G R A M

Here's a quick but not so dirty Christmas card program.
To make Christmas cards with program follow these steps:

1. Fold an 8 X 10 sheet of paper like you would to send a letter for mailing in an envelope. (Indeed, that's the way it will be mailed!)
2. Unfold it and place it in your printer, with the sheet sideways.
3. Load program one and print on end of the sheet.
4. Fold sheet again, place in printer so "inside" sheet can be printed.
5. Load second program and print. Please, however, use your own name.

```
100 REM CHRISTMAS CARD PROGRAM -- PART-1 -- DSK1.TREE-1
110 REM SAN DIEGO TI SIG, CHRISTMAS 86
120 REM BY HO HO JOHNSON IN XB
130 REM CHANGE LINE 140 TO YOUR OWN PRINTER DEFAULT
140 OPEN #1:"PIO" :: CALL CLEAR
145 PRINT #1:CHR$(10)&CHR$(10)&CHR$(10):: PRINT #1:"       *"
146 PRINT #1:"     *                    *":: PRINT #1: CHR$(10)
150 PRINT #1:"*                  *" :: PRINT #1:CHR$(10)&CHR$(10)
155 PRINT #1:"        *        *":: PRINT #1:"                    * "
156 PRINT #1:"           *"
160 PRINT #1:"          *" :: PRINT #1:"  *  " :: PRINT #1:" *          *"
165 PRINT #1:"        -|-     *"
170 PRINT #1:"   *     !" :: PRINT #1:"       / \" :: PRINT #1:"       /  o\"
175 PRINT #1:"       /o o  \" :: PRINT #1:"       /  o\"
180 PRINT #1:"  *   /o  o \" :: PRINT #1:"     /  o  o \"
185 PRINT #1:"  / o  o  o \":: PRINT #1:"    / o  o   \"
190 PRINT #1:"    / o o   o \" :: PRINT #1:"   /   o o   o \"
195 PRINT #1;"/  o  o   o    \"
200 PRINT #1:"     !xxxx!" :: PRINT #1:"      !    !" :: PRINT #1:CHR$(10)
210 PRINT #1:CHR$(10)&CHR$(10)&CHR$(10)&chr$(10)&chr$(10)
220 PRINT #1:"H O L I D A Y  G R E E T I N G S" :: CLOSE #1
230 END:: REM DON'T HESITATE TO ADJUST THE DISPLAYS!
```

```
10 REM CHRISTMAS CARD PROGRAM -- P...T-2
20 REM SAN DIEGO TI SIG,          CHRISTMAS 1986
30 REM BY YO HO JOHNSON (Ho Ho's brother). --  IN XB  -- DSK1.TREE-2
40 A$="H O L I D A Y  G R E E T I N G S" :: B$="We're Wishing You a"
45 C$=" MERRY, MERRY CHRISTMAS"
50 D$="B E S T  W I S H E S  I N  1 9 8 7"
55 E$="            The Johnson Family"
110 REM If you have trouble aligning the branches, etc. don't hesitate to put in
120 REM some special debug "markers" -- to show relative position of mistakes!
130 REM Change line 140 to your own printer default(s)
140 OPEN #1:"PIO" :: CALL CLEAR
145 PRINT #1:CHR$(10)CHR$(10):: PRINT #1:"       *" :: PRINT #1:CHR$(10)
150 PRINT #1:"*                  *" :: PRINT #1:CHR$(10)&CHR$(10)
155 PRINT #1:"        *" :: PRINT #1:" *                    *" :: PRINT #1:"
156 PRINT #1:"     *           *":: PRINT #1:" *                  *"
160 PRINT #1:A$ :: PRINT #1:"  *  " :: PRINT #1:" *                  * "
165 PRINT #1:"           *":: PRINT #1:"       *          *"
170 PRINT #1:"   *" :: PRINT #1:"    *      " :: PRINT #1:"*                  *"
175 PRINT #1:"*              *":: PRINT #1:"       *            *"
180 PRINT #1:"  *      *         *" :: PRINT #1:"*        *"
185 PRINT #1:"*       *" :: PRINT #1:"              *             *"
190 PRINT #1:CHR$(10):: PRINT #1:" *                  *" :: PRINT #1:CHR$(10)
195 PRINT #1:"     *                  *   "
200 PRINT #1:CHR$(10)&CHR$(10)
210 PRINT #1:B$ :: PRINT #1:C$ :: PRINT #1:CHR$(10):: PRINT #1:E$
260 PRINT #1:CHR$(10):: PRINT #1:D$ :: CLOSE #1 :: END
```

FORTH

This item courtesy of
OTTAWA TI-99/4A Group
-*- Thanx -*-

FORTH TO YOU, TOO! SESSION 7

This is in answer to questions regarding the use of sprites and other graphics capabilities of the 99/4A with Forth. As we all know, we got a pretty good deal because TI built a fair amount of graphics into this little machine. Anyone who has seen PARSEC etc. can vouch for that. And all of them can be utilized in TI-Forth, with commands (statements) which are very similar to the ones employed in BASIC and XBASIC.
However, there are a couple of things which must be done in order to use any of the available VDP (graphics) modes. First of all, the appropriate LOAD OPTION must be booted, i.e. -GRAPH and -VDPMODES. If you are using the 64 column editor you only need to boot -SPLIT2, the rest of them are already booted. Another thing you will have to do is to fix a bug in line 10 of screen number 58. It should read as shown below:

VDPMDE 4 IF SMTN 80 VFILL 300 ' SATR ! ENDIF
(in other words the ! after 300 should be a ' (tick)).And while you are at it, fix line 1 of page 10 in Chapter 6 of the manual to read: HEX 3800 ' SATR ! Also, on screens 53, 54 and 55, last word of line 1 should be SETVDP2, not VDPSET2. For some strange reason it is correctly shown on screens 51 and 52. Finally, on screen 59, line 9, change the 00FF to 00FE.

Now let's take a look at what is available in Forth. I have drawn up the following chart for easy reference:

VDP MODE	ASCII CHARS	CHAR DEF?	FG/BG	MCHAR VCHAR	SPRITES	SPR. MOT.	DISPLAY SIZE
TEXT	YES	YES	NO	YES	NO	NO	40 X 24
GRAPHICS	YES	YES	YES	YES	YES	YES	32 X 24
MULTI	NO	NO	NO	NO	YES	YES	64 X 48
BITMAP	NO	NO	NO	NO	YES	NO	256 X 192
SPLIT	same as BIT-MAP with 8 lines text on bottom						
SPLIT2	same as BIT-MAP with 4 lines text on top						

There are essentially four display modes, but one of them, bitmap, comes in three versions. When you boot FORTH, you are put in TEXT mode. 24 lines of 40 characters each. This mode is also used by the 40-column editor. New characters can be defined, but all characters have the same FG/BG color. In other words, you can not control individual character sets. The easiest way to set text and background color in the text mode is nn 7 VWTR (see tutorial 1). If -TEXT is booted, you can enter text mode by invoking TEXT.

The screen display of the GRAPHICS mode is identical to that of XBASIC: 24 lines of 32 characters. And, as the chart shows, its features are also the same. But beware! If you want to change the FG/BG colors of a character set, they start with set 0 at ASCII 0. That's ZERO. The first set to contain printable characters (from space thru ') is number 4 in Forth. Appendix A (ASCII KEYCODES) does not refer to character sets, but if you divide each column into 4 sets and number them starting from 0, you'll avoid confusion. If -VDPMODES is booted you enter this mode by invoking GRAPHICS.

FORTH

FORTH FOR FUN

Paul Newmeyer, Northcoast 99ers

A quarterback received the snap from center, positioned the ball in his grip, and dropped back to pass. As he did, he trained vision scanned downfield searching for the open man. His eye hit the clearing; he cocked his arm and let'er go. With the trajectory of a blazing bullet, the ball hit it's spot--the only clear area on the field--and bounced aimlessly until it rested alone, like a lifeless tombstone in a silent graveyard.

He had wasted a down, the team had expended great effort for nought and achi~~e~~d no forward progress.

Now, what would you think of a quarterback who would purposely execute that way, play after play? Perhaps he'd do better if he quit football and threw rocks at a barn, or shot sparrows in a straw stack.

Look at this matter another way. Would you continue to make phone calls to someone if they never answered? Wouldn't you eventually conclude that there's no one home?

In the same fashion, I wonder, Who out there is into Forth?. Is there anyone home out there?

I know you all have a lot of things to do with your TI. You enjoy everything from fiddling at a simple 16K console to collecting megs of ramdisks; for learning basic to mastering Forth, C, Pilot, Pascal or Assembly; from plotting printers to manipulating modems; from playing games, using educational tools, engineering, spread sheets, and data bases, to word processing; from placing characters on the screen to unfurling bit map graphics; from soldering chips toconnecting cables; from disks to drives; from ware socieites of users' groups to helpful special interest instruction; from economical software to freeware; from a silver console to a beneve; from spools to secretaries; from clocks to certificate makers.

Hey, you know what? I think I just talked myself out of writing to an IBM! What more could one want, than what we have?

But, let's get back to my original point--namely, What about Forth in all this exciting array of innovation and developent?. Is anyone out there into Forth at all? Or am I passing footballs into the open field, and no one's there to receive?

I don't ask this rhetoically. If I am to search for Forth materials and attempt to cultivate Forth interest, I need at least a few live bodies at the keyboard doing something with the language. Otherwise, I'll selfishly enjoy my Forth materials in the solitude my own domain.

I'll just go ahead and relish in this wonderful sea of language that's faster than XB and close to assembly. In fact, I'll swim on merging assembly with Forth with the speed and control no language outside of assembly enjoys. I'll enjoy all by myself, writing an uncomplicated and powerful program that occupies very little memory. I'll delight in controlling graphics and music in ways that XB can't approximate.

Do you know, that Forth gives you greater music control? For example, in XB multiple CALL SOUNDS are often executed with loops, and its slow speed of execution breeds the necessary delay. However, in Forth, running of loops happens so fast that if one does not insert another procedure into the loop, the note duration is barely discernable.

Forth is easier to program in than assembly, and anything you can do in assembly you can do in Forth.

Another Forth feature I enjoy is saving my programs in binary code. When thus saved, they load much faster than other languages can make them do. Forth usually runs fast enough for our needs, but to make it faster, you can integrate machine code into it. How about that!

I can feel more in charge of my computer when using Forth. I can better understand the happenings in software or change them, and documentation is easier.

In upcoming articles we can share information regarding how to improve the Editor, BSAVE a screen, configure the system to DS/DD, incorporate assembly code, tie separate programs together into a menu driven whole, change the screen/print color, copy screens or disks, produce a Forth catalog, etc.

But, all this energy and output would be wasted if no one's out there. If you're out there, flip the ball back please.

$$$$$$FORTH AID$$$$$

How do you get out of Forth without turning off the computer? Several methods exist: 1. If you have a widgit, push the restart button. 2. MON is a Forth word you can use. Try this little definition --: BYE FLUSH MON ; .

After putting the definition on line, by entering BYE, the current screens will be saved and then the computer will return to the title screen.

(FORTH is not dead...it may be resting a bit. It is true that the number of articles in the various newsletters has dropped dramatically, but so has articles on Logo, and/or Assembly. Below are two articles you might be interested in. (P.S. The LA 99ers have a series of 7 FORTH compilations).

A note from Mike McCann:
(from the OMAHA TI-Users Group)

For all you TI-FORTH enthusiasts, Glenn E. Davis has a very important article in the 1987 Computer Shopper. The article shows the words necessary to upgrade TI-FORTH to 83 Standard language. The article will be continued in the January 1987 issue. Glenn has, once again, done a great service for our community and should be applauded.

PRBASE ENHANCEMENT: by Bill Zaebst *from Byte-Line*

PRBASE IS A NICE PROGRAM SO NOTHING DRASTIC NEEDS CHANGING. BUT SINCE COPY UTILITIES WERE NOT INCLUDED ORIGINALLY BUT ADDED LATER IN THE FORM OF AN EXTENDED BASIC PROGRAM, NOTHING IS PROVIDED TO AUTOMATICALLY LOAD THAT PART OF THE PROGRAM.

```
100 !**************************
110 !*                        *
120 !*    Generated By        *
130 !*    SysTex  V1.0        *
140 !*      (C) 1985          *
150 !*   By Barry Boone       *
160 !*                        *
170 !* Hold Space Bar To      *
180 !* Load Copy Utility      *
190 !*                        *
200 !**************************
210 CALL KEY(0,K,S):: IF S=0 THEN 270
220 FOR I=1 TO 8 :: CALL SCREEN(5)
230 CALL COLOR(I,16,1):: NEXT I
240 DISPLAY AT(2,4):"PRBASE COPY UTILITIES"
250 DISPLAY AT(6,4):"LOADING, PLEASE WAIT"
260 IF K=32 THEN RUN "DSK1.PRBUTL/BAS"
270 CALL INIT :: CALL LOAD(8196,254,0)
280 CALL LINK("SLOAD")
290 CALL LINK("ENTRY")
```

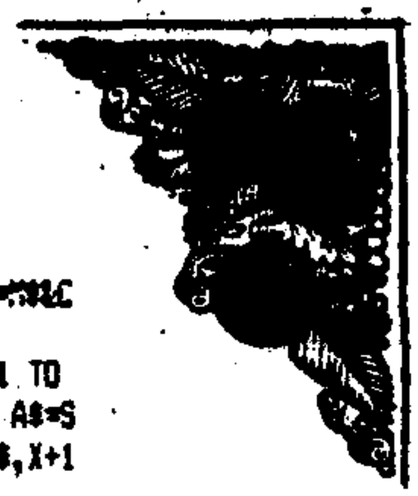
THE MAIN MENU IS IN ASSEMBLY AND CANNOT LOAD XBASIC. HOWEVER THE LOAD PROGRAM THAT LOADS THE ASSEMBLY CAN BE USED TO LOAD THE COPY UTILITIES BEFORE YOU GET TO THE MAIN MENU. ANOTHER MENU COULD BE PROVIDED BUT IT IS SIMPLER TO USE A CALL KEY TO DETECT DEPRESSION OF THE SPACE BAR AND AS A RESULT AUTOMATICALLY LOAD THE COPY UTILITIES. SINCE THE LOAD PROGRAM DID NOT PREVIOUSLY DISPLAY ANYTHING IT HAS BEEN CHANGED TO PROVIDE SCREEN COLOR TO MATCH THE BALANCE OF PROGRAM AND TO DISPLAY THE LOADING MESSAGE AS IT TAKES ABOUT FIFTEEN SECONDS TO LOAD.

THE ABOVE LOAD PROGRAM INSERTS THE WORD COPY IN THE TITLE TO MORE ACCURATELY DESCRIBE IT'S FUNCTION. LINE 150 OF THE PRBUTL/BAS PROGRAM SHOULD ALSO HAVE COPY INSERTED AND HAVE COLUMN NUMBER ADJUSTED ACCORDINGLY.

```
150 K=1 :: L=2 :: DISPLAY AT(2,4)ERASE ALL:"PRBASE COPY UTILITIES" :: CALL HCHAR
(4,1,45,32):: CALL HCHAR(21,1,45,32)
```

IN ORDER FOR THE TITLE NOT TO BE CLEARED THE CALL CLEAR IN LINE 100 MUST BE CHANGED TO A DISPLAY AT():""(NOTHING) TO ONLY CLEAR THE ONE LINE ON WHICH THE LOADING MESSAGE IS DISPLAYED.

```
100 CALL LINK("CHARDF"):: CALL SCREEN(5):: DISPLAY AT(6,1):"" :: FOR A=0 TO 14 :
: CALL COLOR(A,16,1):: NEXT A :: OPTION BASE 1 :: ON ERROR 1280
```



(MORE ON) SHUFFLING

by Jim Peterson

The September 1987 issue of the Topics newsletter of the LA 99er Computer Group has an interesting article by A.S. Whiteman on the subject of random number assortment, with additional comments by Tom Freeman, and another article on the same subject by Howie Rosenberg.

The algorithm necessary to perform this operation is typical of the short routines which can be written as subprograms and saved in MERGE format, to be MERGEd into any program and CALLed as needed, as I have done with my Nuts Bolts disks.

Whiteman first discusses the algorithm in which each random selection is checked against all previous selections, to avoid duplication. Rosenberg refers to this as selection without replenishment. This algorithm is often found in Basic programs written in the early days, but it is extremely inefficient when selecting more than a few numbers, as this demo will show.

```
90 DIM NN(199)
100 INPUT "HOW MANY NUMBERS?
":N :: RANDOMIZE :: FOR J=1
TO N
110 X=INT(RND*N+1):: FOR L=1
 TO J-1 :: IF X=NN(L)THEN 11
0
120 NEXT L :: NN(J)=X :: PRI
NT NN(J);:: NEXT J :: GOTO 1
00
```

Rosenberg discusses the problem in relation to shuffling a deck of cards. He considers the possibility of simulating an actual overhand or riffle shuffle, and concludes that such an algorithm would be difficult to write and most likely slow. Actually, by using string manipulation, the algorithm is not difficult but the results are indeed slow. This routine simulates an overhand shuffle of 5 passes, with the deck being cut before each pass, and with randomly 1 to 5 cards transferred on each move.

```
100 FOR J=1 TO 52 :: M$=M$&C
HR$(J):: NEXT J :: RANDOMIZE
110 FOR J=1 TO 5 :: X=INT(10
*RND)+20 :: M$=SEG$(M$,X,255
)&SEG$(M$,1,X-1)
120 X=INT(5*RND+1):: C$=SEG$
(M$,1,X)&C$ :: M$=SEG$(M$,X+
1,255):: IF LEN(M$)>0 THEN 1
20
130 M$=C$ :: C$="" :: NEXT J
140 FOR J=1 TO 52 :: PRINT A
SC(SEG$(M$,J,1));:: NEXT J
```

It will be seen that the overhand shuffle is an extremely poor method of mixing cards. If the cut is omitted, by changing line 110 to just FOR J=1 TO 5, the results are even worse. The riffle shuffle does a better job. This algorithm simulates a riffle shuffle of 5 passes, with the deck being cut into packs of 22 to 26 cards and 0 to 4 cards dropped from each half each time.

```
100 FOR J=1 TO 52 :: M$=M$&C
HR$(J):: NEXT J
110 RANDOMIZE :: FOR J=1 TO
5 :: X=INT(4*RND)+22 :: A$=S
EG$(M$,1,X):: B$=SEG$(M$,X+1
,255)
120 X=INT(5*RND):: C$=C$&SEG
$(A$,1,X):: A$=SEG$(A$,X+1,2
55):: X=INT(5*RND):: C$=C$&S
EG$(B$,1,X):: B$=SEG$(B$,X+1
,255)
130 IF LEN(A$)>0 OR LEN(B$)>
0 THEN 120
140 M$=C$ :: C$="" :: NEXT J
150 FOR J=1 TO 52 :: PRINT A
SC(SEG$(M$,J,1));:: NEXT J
```

That method provides a better mix, but is still slow. Simulation of a physical operation is seldom the most efficient method of accomplishing the operation by computer.

Rosenberg then visualizes an algorithm in which a card is selected at a random location in the deck and the positions of that card and the top card of the deck are switched; the same is done with another random location and the second card, etc. through the deck. This would be a very unhandy way of physically shuffling the deck, but is a very fast and efficient computer method.

```
100 DIM N(52):: Z=52
110 FOR J=1 TO Z :: N(J)=J :
: NEXT J
120 RANDOMIZE :: FOR J=1 TO
Z :: X=INT(RND*(Z+1-J)+J)::
T=N(X):: N(X)=N(J):: N(J)=T
:: NEXT J
130 FOR J=1 TO Z :: PRINT N(
J);:: NEXT J :: PRINT :: GOT
O 110
```

This algorithm can also be used to directly shuffle a string array, and is much more efficient than the method proposed by Whiteman.

```
100 DATA SPADES,HEARTS,DIAMO
NDS,CLUBS
110 DATA ACE,DEUCE,TREY,FOUR
,FIVE,SIX,SEVEN,EIGHT,NINE,T
EN,JACK,QUEEN,KING
120 DIM CARD$(52):: Z=52
130 FOR J=1 TO 4 :: READ S$(
J):: NEXT J
140 FOR J=1 TO 4 :: SUIT$=S$
(J):: RESTORE 110 :: FOR L=1
 TO 13 :: X=X+1 :: READ CARD
$(X):: CARD$(X)=CARD$(X)&" O
F "&SUIT$ :: NEXT L :: NEXT
J
150 FOR J=1 TO 52 :: PRINT C
ARD$(J):: NEXT J
160 RANDOMIZE :: FOR J=1 TO
Z :: X=INT(RND*(Z+1-J)+J)::
T$=CARD$(X):: CARD$(X)=CARD$
```

```
(J):: CARD$(J)=T$ :: NEXT J
170 FOR J=1 TO Z :: PRINT CA
RD$(J):: NEXT J :: PRINT ::
GOTO 160
```

Tom Freeman suggests an algorithm using an ASCII string. This is the method which I have normally used.

```
100 FOR J=1 TO 52 :: A$=A$&C
HR$(J):: NEXT J
110 RANDOMIZE :: FOR J=1 TO
52 :: X=INT(RND*LEN(A$)+1)::
 Y=ASC(SEG$(A$,X,1)):: PRINT
 Y;:: A$=SEG$(A$,1,X-1)&SEG$
(A$,X+1,255):: NEXT J
```

This method has the disadvantages that it is limited to 255 records, the maximum allowable length of a string (a more complex algorithm can handle more), and it cannot shuffle strings directly. It has the advantage that values can be selected as needed - in effect, dealing from random locations in the deck rather than shuffling and then dealing from the top. In this case, no array is needed and the savings in memory are significant - 255 bytes as compared to 2048 for an array of 255 values.

In this method, a string is built consisting of the ASCII characters from 1 to the highest value needed. A random number is selected within the length of that string, and the value of the ASCII at that position is taken as the first value. The string is reassembled to consist of the ASCII up to that character, and the ASCII following that character, thus deleting the ASCII which was selected so that its value cannot be taken again. This demo will make it clear -

```
150 FOR J=65 TO 90 :: A$=A$&
CHR$(J):: NEXT J :: RANDOMIZ
E :: FOR J=1 TO 26 :: PRINT
A$;
110 X=INT(RND*LEN(A$)+1):: Y
=ASC(SEG$(A$,X,1)):: PRINT T
AB(27);CHR$(Y):: A$=SEG$(A$,
1,X-1)&SEG$(A$,X+1,255):: NE
XT J
```

When used as a utility library subprogram, this algorithm can be speeded up by using a "program that writes a program" to create an ASCII string of all 255 characters.

```
100 FOR J=1 TO 127 :: A$=A$&
CHR$(J):: B$=B$&CHR$(J+127):
: NEXT J :: B$=B$&CHR$(255):
: OPEN #1:"DSK1.STRING",VARI
ABLE 163,OUTPUT
110 PRINT #1:CHR$(0)&CHR$(1)
&"A$"&CHR$(190)&CHR$(199)&CH
R$(127)&A$&CHR$(0):: PRINT #
1:CHR$(0)&CHR$(2)&"B$"&CHR$(
190)&CHR$(199)&CHR$(128)&B$&
CHR$(0)
120 PRINT #1:CHR$(0)&CHR$(3)
&"A$"&CHR$(190)&"A$"&CHR$(18
4)&"B$"&CHR$(0):: PRINT #1:R
PT$(CHR$(255),2):: CLOSE #1
```

The resulting strange-looking unkeyable code can be MERGEd into memory and the necessary length of it extracted by SEG$, to eliminate the time spent in building the string.

There are many ways to skin the cat!

An Open Letter to the Ti Community

by Jim Lohmeyer

Recently, a few events have come to light and even though I am not a member of your group, I would like to share them with you.

During a whirlwind of activities that has come to be known as the Chicago TI Faire, I was prepared to sell the remainder of my TI system. I had previously sold all but my P-Box and its contents. The reason I cited at that time was "I need the money," but I had also given up hope. I had owned my system for 4 years and over that span of time had expanded fully (except modem). I quickly moved from Basic to Assembly and, by sheer grunt work, learned to understand it. Then, as I needed more information to continue my work, help was not there. For a time I had been in touch with Doug Warren, the author of "Explorer'." He helped some, and promised more. Then he moved and I didn't have any more help. About this time the Aussies vs. Miller debate heated up. Supporters of both sides fought and tossed barbs via 'editorials." It was a mess! The community shook because of greed, petty jealousy, one-upsmanship and just plain meanness. People were called "demigod worshippers." What a shame this happened. There was no "worshipping." It was actually something strange, something that the community had not seen much of. It was RESPECT! I was ready to give up hope on this community. Alas, I digress.

Back at the Faire I had the pleasure of meeting Terrie Masters, Tom Freeman (he remembered!), J.Peter Hoddie, Mike Dodd, Richard Mitchell and many others. After lunch with Terrie and Mike I felt bad about leaving. Then it happened, at a demo of a new GK type device (ask of info), Mark van Campenolle booted a cartridge to show how his baby worked. The cartridge he demoed was the version of Pinocchio I had fixed a year ago. Later Terrie and Tom corralled me and we talked. To make this long story story short (too late) I will be writing software for Bytemaster. I am waiting for my 9640 to be shipped. What I am trying to get across is this:

If these people can put trust in an unknown kid and take him under their wings then there is hope. I hope that everyone will put aside their petty differences for the good of the community. We will survive! With just a few words you will see how - sharing;, respect, love, and friendship. We are all in the same family. For this letter I may be considered an idle demigod worshipper, but you're wrong - it's respect.

I'm back! I say this proudly even though you never knew I was here.

THE TIGERCUB GROWLS

by Jim Peterson

GROWL #1. Arto Heino in Australia, being unemployed and in need of income, wrote a great program called Picasso Publisher. He is selling it in Australia through the Sydney User Group, and was hoping to find a U.S. software publisher to handle it in this country.

A user in Australia sent a copy to a user in California, and erroneously stated that it was fairware, although the program bears a copyright notice and no mention of fairware. The California user uploaded it to GENIE, the SYSOP of GENIE accepted it, and it has by now been downloaded and uploaded back to every BBS in the country!

So, another good programmer's livelihood has been ruined, and we will all suffer as a result. I am sure that Arto Heino will not be writing any updates to his program and will not be writing anything more for us.

Now, if you have Picasso Publisher in your files, and if you are one of the honest users among us, you have two choices. Delete it or pay for it. And don't just pay what you want to, because it is not fairware. The price is $29 Australian, which is $14.99 American if our dollar does not become even more worthless by the time this is printed. If you think that is too much, take a look in a computer magazine and see what such a program for any other computer would cost you. I hope that every user group will take up a collection and send it on to Mr. Heino.

GROWL #2. I recently found time to download a diskfull of programs from a BBS, and found that three of them had a Texas Instruments copyright notice staring at me from the screen. Two of them were old TI cassette programs which are still listed in the catalog of a major mail order house, the third was a ducped arcade game module.

Now, passing this stuff around is not hurting Texas Instruments, because they have unloaded all their stocks to retailers. It is hurting those retailers, who are still supporting us - and if they quit, we are really in deep do-do! Texas Instruments has stated that they are definitely defending their copyrights on that material, because they have an obligation to those retailers.

If the person who uploaded those programs obtained them legally - which I greatly doubt - he had a legal right to make one archive copy for his personal use. He did not have a legal right to make a copy to the program disk of a BBS, and he exposed himself to prosecution by doing so, because his user number was recorded as the uploader.

He also exposed the SYSOP of the BBS to possible prosecution. The BBS SYSOPs are giving a great deal of their time and equipment to providing us with a free service for our messages, and a source of free programs, and they should not be endangered by irresponsible individuals. There have have been repeated attempts to to restrict BBS operations by Federal legislation, to to curb the illegal activities of some individuals, so let's not add fuel to that fire! In my opinion, anyone who uploads copyrighted material should be permanently barred from the BBS.

GROWL #3. Programmers, please don't put a copyright notice on a program unless you really want to restrict its distribution! There are folks out there who are trying to avoid being involved in piracy, but you are making it difficult. If you're going to give the program to everyone, and you don't care who they give it to, don't label it as a copyrighted production of Super Fantastic Software Inc. If it is fairware/shareware, say so right on the title screen. If you want to give it away but you don't want somebody else selling it, or taking credit for it, or modifying it, say so on the title screen. After a certain Florida outfit started selling some of my public domain for more than I was charging for copyrighted programs, I started titling my more worthwhile efforts as "copyright Tigercub Software, for free distribution but no price or copying fee may be charged."

GROWL #4. Folks, when you upload something to a BBS, and you are prompted for a file description - won't you please give the complete program name, the author's name if possible, and the hardware required to run it? I'm getting awfully tired of spending an hour or so downloading and unpacking files, and finding nothing that I want because it is something I already have (sometimes something I wrote myself!), or requiring equipment I don't have - or copyrighted. Is "FILSORL, a great utility" worth downloading? Is "OTHELLO" one of the four versions I already have, or has someone perhaps written a better one? Is "the very latest version of Funlwriter" a later version than the one I have? (Please, at least mention version numbers, that's why the authors use them!) Are you one of the many who spent money downloading 200 sectors of TEXSRCS from GENIE, when you already had Barb Berg's TI-SINGS?

With the proliferation of programs being written for the Tool Shed, the Gram Kracker, the various new versions of Extended Basic, the Super Cart, etc., it is becoming very frustrating to even determine why a downloaded program won't run for you!

HIGH RES GRAPHICS AND THE 99/4A, PART I

by Ann Dhein

Introduction

There was a time when TI-99/4A owners felt abandoned. In place of the praising machine that had been purchased with such high hopes they had been left with an orphan. These users lived with the knowledge that they had a superb graphics system at their finger-tips, but unless they were good programmers, no way to conveniently access the graphics. Commercial graphics software was just not available. Now, a few short years later things have changed drastically. We are left on the other side of the fence wondering in amazement how we are ever going to figure out which of all that great-sounding graphics software is really worth investing in. What, actually, can be expected of a drawing program? Is there one perfect program out there, waiting for me to discover it? Or will I need several programs to meet all my needs? These are the topics that will be explored in this series. Part one takes a look at what graphics programs do, and what's on the market. Then a definition of a good, basic drawing program can be given.

Part two will compare the main programs. Parts three and beyond will examine support and companion packages, including the newer programs which allow text and graphics to be intertwingled. Finally, the various drawing packages and companions will be analyzed to see how they can be used together. With this knowledge you should be able to select the packages that best suit your needs, whether you have a particular application in mind or are just looking for a good general drawing program for the personal enrichment of yourself and your family.

Your Own Electronic Billboard

For graphics purposes, the 99/4A screen is simply a grid of blocks. Imagine a piece of graph paper and mentally mark off 32 little squares across the top .... Right underneath mark a second row of 32 blocks; then a third, and a fourth, until you have 24 rows, each with 32 squares marked off. Now you have a nice facimile of your TV or monitor screen as it is partitioned off in the standard graphics mode that we are most used to seeing. If you were to count all those marked-off squares, you would find you had 768 individual blocks (32X24=768). Each block is just the right size to hold one character that can be typed in from the keyboard. These are the normal, everyday letters, numbers and punctuation that you use all the time, but in computer terminology they are given a special name: "ASCII" characters. A programmer can effectively "erase" these ASCII characters and define a new pattern of his own choosing. This is done in Basic and Extended Basic with the Call Character subroutines. The programmer assigns each character block two colors (a foreground and a background) from the 16 colors that the TI computer has available.

In Extended Basic built-in sprites may be used as well. Sprites are character-sized graphics that have the capability of moving around the screen independently of the background. They can be defined to any shape, then colored and magnified. Such things as location, speed and distance can be easily manipulated. (They can also be present in high resolution graphics, but in this case can no longer move.)

An assembly language programmer also has access to the multicolor mode. Here, the display is divided into 48 rows, each containing 64 "boxes", or blocks. The blocks are not able to be defined in the manner of the larger, pattern mode blocks, but each of the 3072 blocks can be a separate color, chosen from any of the 16 colors available. Sprites can also be used in multicolor mode, but not text. The multicolor mode cannot be used in Basic except with assembly language software that uses a special module such as the Editor/Assembler, Mini Memory or Extended Basic.

Text mode is familiar to us through the use of such cartridges as TI Writer and Multiplan. Each of these programs employs a display that is 24 lines long, but the character blocks have been increased to 40 across which gives us 960 screen positions instead of 768. Although sprites cannot be used and only two colors (foreground and background) are allowed at one time, the text mode can be used for graphics. Still, text mode is most suited for just that - text.

In all three of these modes - pattern, text and multicolor - each block is composed of a number of dots. In the multicolor mode each block is 16 dots; 4 dots high and 4 dots wide. In text mode the character blocks are 8 dots high by 6 dots wide - 48 dots in each character. Pattern mode, with only 32 blocks across the screen, consists of 64 dots for each block - 8 across and 8 high. This means that there can be 64 times 768 dots on the screen at one time in pattern mode - 49,152 in all. Text mode has 46,080 of these dots (48 X 960=46,080), and either way you look at it, that's a lot of dots! In computer jargon these dots are called "pixels" (for PICture ELement) and are the smallest individual units on the screen. It is the 49,152 pixels from pattern mode that we are going to focus on, because in the high resolution (or "bit map") mode, each of these 49,152 pixels is able to be turned on and off individually. The whole idea of a drawing program is to let you do this quickly and easily.

With the high resolution in the bit map mode, the screen is considered to be a grid 192 pixels high and 256 pixels wide. That's still only 32 character blocks across and 24 blocks high, but now each pixel can be turned on or off (that is, drawn or erased) independently of any other pixel. For color the computer divides each pixel-row into 32 groups of 8 pixels. The computer can assign a background color and a foreground color to each 8-pixel group. This is what our electronic drawing board consists of in all the popular art packages we have today, and it is on these drawing programs that our interest will now focus.

In the Beginning...

When Texas Instruments first unveiled the TI-99/4 computer in June, 1979, there were only a handful of applications of any kind available - and all were in module format. One of these was Video Graphs which was billed as "an easy-to-use Graphics System which lets you draw in 14 colors on the screen with a whole new electronic paintbrush concept". This drawing can be done

in high resolution with a single pixel line width; or in the multicolor mode by placing 16-pixel colored dots anywhere on the screen. The user could also command the computer to create graphic images by using the Building Blocks section. Here, many graphic characters of various geometric shapes are located along the bottom of the screen. Select one, pick all or part of it up with the keyboard or joystick and place it where you want it in your picture.

Video Graph's demonstrations were impressive when the module was new, and although the bright, mosaic-like patterns may seem archaic by today's standards, the module actually contains the rudiments of the more sophisticated graphics systems we now have. High resolution drawing was there, as was the computer's less familiar multicolor mode. Even the concept of icons which is so popular in today's graphics software made its appearance here, in the Building Block section. This module was intended purely for personal enrichment, not as a tool. There is no way to use the graphics you create in your own programs, and no way to print them out. In fact, the only way drawings can be saved at all is on tape.

If you have Video Graphs you have probably seen for yourself the fascination it holds for children, even small ones. Children love to draw and this module provides a medium for creative expression unhampered by long lists of functions that must be remembered. Indeed, anyone with an unexpanded system will find that it can still provide hours of enjoyment and satisfaction.

No other drawing programs were ever released by Texas Instruments, but users themselves soon began circulating a number of very good programs made available through local user's groups and through the International Users' Group in Bethany, Oklahoma; or Aemion Helpline in Bakersfield, California. These first user-written programs were in Basic; mainly graphics screens but al... a couple of entertaining drawing programs such as Color Crayon which let you draw with colorful character-size blocks using the keyboard or a joystick. There were also utilities for designing graphics characters to be used in Basic (and later Extended Basic) programs. There was even a program or two for printing out banners if you were lucky enough to have a printer. When the Editor/Assembler package was finally released, program quality rose. Like 3rd party software, these user written programs have tended to become more and more sophisticated with time, and today some very good graphics programs are available for only a fraction of their worth.

The first high resolution graphics program to be put out by a 3rd party that I know of was introduced by Norton Software of Ontario, Canada. It was called, appropriately enough, Graphics Package. It was originally written in Basic, but that was soon dropped in favor of the faster, more easily used new Extended Basic version. With it, anything could be drawn anywhere on the screen in 3 levels of resolution, corresponding to the standard (or pattern) mode of 768 character blocks, multicolor mode, and high resolution, which has 49,152 accessible pixels. Circles, parabolas, boxes and lines could be drawn automatically. All the information making up the graphics could be saved on tape or disk to be incorporated into you own program. However, it wasn't easy. This program was not intended as entertainment but as a serious tool for Extended Basic programmers. For a long time, the Graphics Package was about the only way for the average programmer to access high resolution graphics. The package was disappointing to some, who would have liked to use it for drawing pleasure. The program was also excruciatingly slow, even in Extended Basic. But, it did everything it promised and is still the best graphics tool available for anyone with an unexpanded system.

In 1982, with the advent of the Editor/Assembler package, a new kind of program hit the market. Draw-A-Bit by Data Force of Illinois was an assembly language program which booted through Extended Basic. It allowed the user 100% keyboard access to the bit-map graphics mode. Using either the keyboard arrow keys or a joystick the user could draw on the screen in any of the colors with a line that was only one pixel wide. Colorful circles, lines and rays could be drawn automatically. Shapes could be filled with color with the press of a function key. Pictures could be added to by means of "palettes" created by the user and stored on disk. Using the Draw-A-Bit environment, advanced users could create and display complex plots in Extended Basic. Drawings too tedious to be drawn by hand could be coded in Draw-A-Bit format and displayed on the screen. Pictures could be saved on disk and reentered into the program, and they could also be transfered to Extended Basic programs. It is not only an extremely powerful tool for the more advanced programmer, but can provide hours and hours of entertainment to anyone who likes to draw and is willing to learn how to use the program's more than 80 functions. One entertaining and unique characteristic of this program is the ability to redraw a picture right before your eyes. The demo on the disk is positively addictive, as you watch each picture being rapidly built, line by line, color by color. I know of no other program that does this.

The original Draw-A-Bit was strictly for screen graphics but a companion disk, Print-A-Bit, was introduced to provide printer support. Data Force also released a Draw-A-Bit II but I never saw the second version. Print-A-Bit works with both versions.

Draw-A-Bit filled a real need for a graphics application which users could enjoy and yet get some use out of too. It is now recognized as the grandaddy of a new generation of graphics programs. Unfortunately, this excellent program never got the popularity it deserved. Perhaps it was ahead of its time - when it came out the vast majority of users still didn't have disk systems. At first glance the manual looks technical and hard to read; actually, the program is easy enough to begin using for pleasure almost immediately. Just don't try to learn all 80 functions at once!

One of the first commercial screen dump programs was introduced in 1983 by Extended Software. It was available on either tape or disk. The screen dump routine could be added to your Extended Basic program at the point where you wanted the screen to be saved. You would get a modest-sized 4 1/4 inches wide X 2 5/8 inches high duplicate of the screen, except that it wouldn't print sprites. This is still an excellent choice of software for those with unexpanded systems.

Late in 1983 TI made their now-famous anouncement that the 99/4A was being discontinued. Nevertheless, 1984 was a good year for 3rd party suppliers, and the graphics void began to fill. Some good, and some not-so-good programs were introduced that year; many of them improvements of older programs like Video Graphs, Draw-A-Bit and Screen Dump. Some were unique. Personal Peripherals came out with Super Sketch which can be likened to a vastly improved Video Graphs. Along with the cartridge came a tablet-like controller pad, complete with stylus. As the stylus is moved across the pad, an image is created on your computer video screen. Four push buttons at the top of the controller pad control the color selection and graphic functions of the stylus. Graphics may be drawn free-hand or traced from drawings clipped to the pad. Drawing with Super Sketch can be so simple that with a little instruction a six year old can use it. On the other hand, using the advanced features provided, an adult can also have hours of creative fun. Graphics are saved on tape, as Super Sketch is made to be used on an unexpanded system.

A companion disk, called Sketchmate, was introduced by Amerisoft International soon after Super Sketch came out. This software allowed the user to save Graphics to disk as well as tape and to print them out on an Epson or compatible printer. A unique feature of the printout is that each color is represented by a different shading, which gives the printout a very nice look. Navarone's Cartridge Expander (better known as the Widget) is a requirement of this program. The Super Sketch Cartridge is put into the cartridge expander with Extended Basic right beside it. When Sketchmate is loaded (via Extended Basic or Editor Assembler) you are then asked to switch to the Super Sketch cartridge. When you do, you are instantly ready to go, with never a sign of Sketchmate until you want to save or print a picture! Unfortunately, if you don't already have this fine software your chances of getting it are slim. Neither it nor Super Sketch are readily available any more.

Besides Sketchmate, Amerisoft International introduced several other graphics packages during 1984, most of which are now hard to find. Graphics Grabber is much like the earlier Screen Dump Utility from Extended Software except that this newer program is in assembly language and much faster. It can dump a screen either horizontally or vertically onto the paper, and the printout is larger. Master Painter 99 is a very useable drawing and painting program, but like Draw A Bit requires the remembering of quite a number of function key strokes in order to use. Like Draw A Bit, it also has a hard-to-read manual. A screen dump is on the disk.

3D World had a new twist. It allowed one to make complex, colorful, 3 dimensional designs that could be rotated, inverted or made partially invisible. Designs could be saved to disk or printed out. Programming experience is not necessary in order to use the program. Access to the image file for use in a Basic program is explained in the manual. Be prepared for a learning experience when you use this program. It's complicated, but very interesting if you have the time to spend.

Expanded Graphics Basic lets you add 30 new commands to either Basic or Extended Basic. After XGB is loaded into the computer the new commands can be accessed by a series of CALL LINKS right along with the regular programming language. Although not a drawing program per say, it does allow the programmer fairly easy access to the bit map mode and to screen drawing. The commands include graphing and plotting routines, and a screen dump. Like 3D World it is a fascinating educational experience to use this program if you have time to spend. It is an ambitious program, with nearly all available memory used up. If you aren't careful you may run into errors due to memory full, and lose your data.

Quality Software's Draw 'N Plot also lets you add a number of new graphics commands to your Extended Basic programs by means of CALL LINKS. But besides the eleven callable subroutines, Draw 'N Plot includes a drawing editor which allows drawing and erasing a pixel width line. Circles, squares, and lines between two points may be drawn automatically. Shapes may be filled in solid on command. Use of color is limited to two at a time - forground and background. Pictures may be saved to disk or printed. Although this package does not support some of the nicer frills such as magnification, rotation, etc., it is the best program yet for adding graphics to XB programs. However, like Expanded Basic Graphics, be warned that memory is a problem. You can crash the system if your program is too large!

A companion disk, Chart Maker, originally worked with Draw 'N Plot to create all kinds of charts and graphs. The newer version of Chart Maker only requires Extended Basic. Quality 99 Software has done an excellent job of keeping their programs revised and updated since they began putting them out in 1983. Their graphics programs also include a Banner Maker and a very fast Screen Dump which will even print module screens if an interrupt switch is installed on the computer.

With so much graphics software coming out so fast for awhile, it was hardly suprising that some of it would be obsolete almost before it hit the market. Navarone's Paint 'N Print cartridge was originally meant for the unexpanded system. Apparently not enough users were interested in a software package which only did about half of what competing programs could do. In an effort to save Paint 'N Print from complete obscurity, Navarone released a companion disk which greatly expanded Paint 'N Print's capabilities. But by that time there were many graphics packages on the market competing for the customer dollar. One of them was Graphx. Another was TI Artist, which, along with Graphx, would radically affect the 994/A graphics software market.

Graphx - The Giant of the Industry

Graphx got its start in Australia, and was such a good paint program that before anybody realized what was happening, the era of the TI 99/4A Paint Program was in full swing. With Graphx, freehand drawing and erasing in the bitmap mode are controlled by the joystick. It offers speed control and full color capability. Circles, boxes and lines can be drawn automatically. Shapes can be filled with built-in patterns as well as color. Portions of the picture can be copied and/or moved to another location in the picture, or even to an entirely different picture by means of the "clipboard" feature. Text may be incorporated into the drawing. A "zoom" mode lets the user view and edit a small portion of the picture that has been magnified to four times its original size. The resident screen dump prints to an Epson or compatible printer in four different formats. A

unique feature of Graphx is the aforementioned clipboard which lets you store and retrieve parts of pictures while you are working on them. Picture parts or special alphabets (fonts) can also be saved to disk to be incorporated into drawings whenever you want them. With the clipboard, you can also try your hand at computer animation. This program's not only easy to use but has an excellent tutorial/reference manual that comes with it. The manual even explains how to display a Graphx picture file in an assembly language program.

TI Artist, like Graphx, was a sleeper at first. But it quietly ran down competition until, today, it is the frontrunner of all graphics programs. Like Graphx, TI Artist can be used almost without ever referring to the manual. Drawing and erasing are done freehand in full color with various brush widths and with most of the frills that Graphx supplies plus some of its own. The screen dump is the best of any program around, and will work with practically any printer. Another thing that makes this program a winner is the ability to take files from other popular paint programs and convert them to be used with TI Artist. But the one feature that makes this program really outstanding is the ability to save any part of a screen as an "instance". This instance is saved in a display/variable 80 file format that can be looked at by TI Writer. When converted, the numbers in this file can be used for Call Character routines in Basic, or even for translitarate codes that will dump graphics into TI Writer files! These features make TI Artist the most versatile program on the graphics market, and have spawned a new type of software: Artist support packages.

As support packages pour out for Graphx and TI Artist, these two have become more and more established as the best paint programs for the 99/4A, and fewer paint programs are being introduced. Bitmac, which made its appearance in 1985 was another good program doomed to obscurity. Authored by David Vaughan, Bitmac was simultaneously introduced by Data Biotics and Vaughan Software, both of which claimed copyrights. Despite its cloudy beginnings it is a nice program with many of the features of Graphx and TI Artist as well as a couple new ones. This program is operated by icons which are pointed at with the Joystick. To select, the fire button is pressed. Besides the standard features you would expect a good drawing program to have, this one can reduce or enlarge your drawing for you - something neither Graphx or TI Artist can do at this point. A screen dump to Epson compatible printers and a Slide Show feature are also contained right within the program. Where Graphx has its Clipboard feature and TI Artist has its Instance file, Bitmac has its Boolean input. This option allows the user to overlay current screen graphics with graphics that are stored on a disk. For an advanced or specialized user the program also has an interesting coprocess feature which allows the use of a second computer, not necessarily a TI, to calculate plots for Bitmac. All you need for the second computer is an RS232 and the proper cable to interface it to the 99/4A's RS232/2 port. With this setup, very elaborate and beautiful graphics can be created on the 99/4A while the second computer manipulates data for business graphs, maps, satellites or a host of other things.

Because of their unique differences, Graphx and TI Artist have been able to flourish side by side, complimenting rather than competing with each other. As yet no other program has come close to replacing either of them, but there may be a contender in the newest paint program. Joy Paint, from Great Lakes Software has some impressive new features of its own. Like TI Artist and Graphx, it is a full-fledged paint program, with one exception: it has no color capability other than a choice of screen background color and black or white for the pencil. The lack of color is not necessarily a disadvantage - you may never use color anyway if your main objective is to dump the graphics to a printer. Painting here refers to filling in with patterns, and Joypaint has a large selection of patterns with which to paint. With the companion disk, Joypaint's Pal, you can even create and save you own patterns.

Joypaint is fully Joystick controlled. The drawing board features are accessed by pointing your drawing tool at the function you wish to use and pressing the fire button. Parts of drawings can be moved, copied and even enlarged, but only with 10,650 pixels at a time. Since there are somewhat under 30,000 pixels, that's just over 1/3 of the screen area. Joypaint employs a windowing technique that allows 92% more drawing space than just the normal screen. Joypaint's Pal allows files from other programs such as Graphx and TI Artist to be converted to the Joypaint format, and back again, so compatibility is carried on. This easy-to-use program is truly impressive! Whether or not it will catch up to Graphx and TI Artist in popularity may depend more on what kinds of companion disks become available for it than anything else.

Now a better definition of a drawing package can be given. As seen here, it is a program, or group of programs, that will allow users of the 99/4A to create high resolution graphics on the monitor or TV screen. The graphics should be able to be saved and later reloaded, edited, and, in most cases, printed to a dot-matrix printer. High resolution means that each pixel can be placed anywhere on the screen individually and removed (erased) as desired. We have seen that the programs discussed here can do this and much more besides.

The next thing to consider is, how the program is to be used. The program you buy for your own use should be a program which will best do the things you want and need a paint program to do. There are three distinct ways in which a drawing package can be of value: as a utility for adding graphics to your own programs, as a tool for designing slide presentations and printed material for business and home purposes, and last but not least, as personal enrichment. Using a drawing program in this manner can be rewarding and satisfying as well as simply entertaining. Each of the packages focuses just a little differently on these three aspects, and this is something that will be explored further in the next issue. Part 2 will set up a comparison chart that will let you see at a glance just what each of the 10 main drawing packages for the 99/4A can or cannot do, and how each can best be used. Following the chart, each function will be described in detail. As you go down the list you will see that each program has some features that no other program has, and which may make it the most important program for YOU.

[Part II will be in next month's Topics]

The Gramulator for the TI–99/4A

At last! A direct equivalent for the popular but out-of production Gram Kracker has been designed by an engineer in Massachusetts. It's called the Gramulator.

A wire-wrapped prototype was demonstrated to the Magnetic User Group in Andover, MA at their September meeting and it performed flawlessly. The Gramulator offers virtually all of the features of the Gram Kracker, but is targeted to cost less.

No production Gramulators have been built yet. To go from a prototype to a production model requires an investment of about $1,000. As with anything else, the more that can be made in one batch, the cheaper they will be.

You are invited to respond to this offer if you would consider purchasing this product. Technical questions are welcome. Please write to:

Mark Van Coppenolle
52 Audubon Road
Haverhill, MA 01830
(617) 372–0336

or sign the register at the booth where you picked up this brochure. Actual production of the Gramulator depends on the amount of feedback received – no feedback, no product.

Features:

The Gramulator simulates 64k of GRAM and 16k of RAM (in two 8k banks at >6000–>7FFF).

1) You can customize the built-in TI operating system in GROM 0 and TI Basic in GROMs 1 and 2.
2) You can backup your GROM and ROM cartridges to disk to protect your investment and reduce wear on the cartridge port. All TI, Atarisoft and Parker Brothers cartridges can be backed up. (Does not work with MBX).
3) Acts as a "Super Space" cartridge allowing you to run programs requiring RAM at >6000–>7FFF (including Myarc's XBII).
4) Allows you to use a customized GROM 0, or 1 and 2, while a cartridge is in the slot. One application is that you can use your own character set with a cartridge like TI-Writer.
5) Capable of loading user written GPL code.
6) A total of 80k of memory with lithium battery backup.

The software needed to load and save GRAM and GROM will be built-in for instant access. A memory editor, which will be supplied on disk, will allow you to alter and save any program loaded into the built-in GRAM or RAM. User documentation and technical information will be included.

Memory expansion and a disk drive are required to take full advantage of the Gramulator.

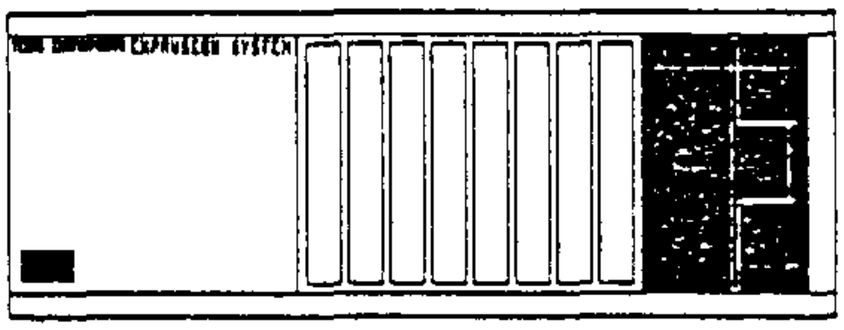
Atarisoft is a trademark of Atari Inc.
Gram Kracker is a trademark of Milton Graphics, MG has no connection with the design or production of the Gramulator.
MBX is a trademark of Milton Bradley Co.
Myarc XBII is a trademark of Myarc Inc.
GROM, Graphics Programming Language and 99/4A are trademarks of Texas Instruments.

JACKSON COUNTY 99ERS

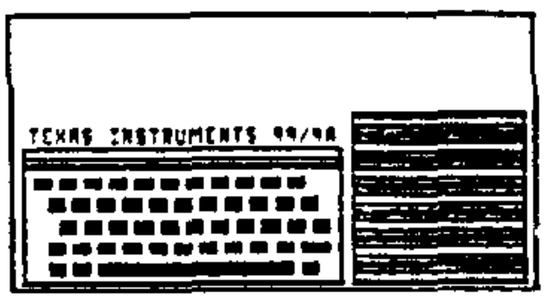
Transferring Your PERSONAL RECORD KEEPING Files

by Mike Enzmann

Over the last year or so, we have published several articles on getting your database files from one data base to another. In January Doug showed us how to convert Futura Mailing List to PRBASE, and in May Doug told us how to transfer ASCII files from PRBASE to an IBM clone. We have also covered transferring files from Multiplan on the TI into IBM clones. One transfer we have not covered, however, is from Personal Record Keeping into anything. Although a bit more complicated, here's one possible way.



When we got our first TI in the fall of '82, my wife put a lot of inventory records into what was then "THE" database for the TI, PRK. PRK has the best statistical functions of any database we have ever had, but it is --slow-- and severely limited in file size. For example, my wife "loves" to collect records, and her inventory list amounted to over 100 PRK files filling 2 DSSD disks. Sorting was a real chore - more work for the operator than for the computer. When new programs became available, we were foiled by the fact PRK keeps data in PROGRAM format and does not even allow you to "Print to Disk". We continued to keep the inventory in PRK rather than key the information in again. As a result, we became disenchanted with the amount of time needed to keep records up to date and let the inventory get out of date.



This spring when we published Doug's work on transferring database files I started thinking about the PRK files of ours languishing. PRK will output to a printer, and RS232 is the device for a serial printer. Why couldn't I just hook the serial port up to another computer and print the information to a disk file on it? The sending computer doesn't care whether it's a computer or printer hooked to the other end of the cable. Fortunately for me, I had my TI and my wife's IBM cabled together. I started the terminal emulator on the IBM and Personal Report Generator on the TI. Personal Report Generator is not necessary, but it gives a lot more output formatting options than you get with PRK alone. I entered my output device as RS232 and gave the correct baud rate and parity settings and let it rip. Voila! Neatly formatted text displayed across the IBM screen as it logged the data to disk. The hard part of the battle was done.

In our case, the data stayed with the IBM because after all it is my wife's computer. I "parsed" it into Lotus 1-2-3 (I thought I paid a lot for that program until I looked at my inventory and discovered I paid more for 10 TI game cartridges) and got 2 TI disks of information into 1 file. I then went on to prove it is nearly as easy to get it into PRBASE on the TI.

To load the information into PRBASE first transfer the text file from the other computer back to your TI. Incidentally, the other computer does not have to be an IBM or crAPPLE - you could just as easily transfer it to your spare TI (assuming your spare TI has a RS232). Then pull out your copy of the January JC99ers and look to "Convert Those FUTURA Files to PRBASE" by J. D. Gootee. Our file is a DV80 file similar to the FUTURA output except each field is separated by 1 or more spaces rather than ^1, ^2 etc. Call up your data with TI-Writer, remove any commas that are part of your data, and then manually add commas after each field. This is the most time consuming part of the task, and I'm sure there's an easier way for a programmer to get the job done. Anyway even this method beats the heck out of re-keying the data.

Once you have the comma separators in place, process your data with Doug's final steps and you are ready to go. If you don't have a second computer to use in the transfer, you might be able to borrow one from a friend. Or if you have a manual modem such as the TI Acoustic Coupler, you could transfer to a friend's computer over the phone and then .... but that's another project.

Mike

TI99/4A COMPUTER FOR SALE
PURCHASE ITEMS SEPARATELY OR
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MG GRAM KRACKER. 80K	$185.00	$135.00
Modem. Signalman 300 Baud	$150.00	$20.00
MYARC RAM Disk. 512K	$186.00	$135.00
PHP 1100 Joysticks	$26.00	$10.00
PHP 1200 Perioheral Box	$180.00	$60.00
PHP 1220 RS232	$126.00	$50.00
PHP 1240 Disk Controler	$180.00	$50.00
PHP 1250 Disk Drive	$287.00	$50.00
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SUBTOTAL	$1,898.00	$655.00

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Household Budget Mgt	$5.00
Mini Memory	$10.00
Multiplan	$25.00
Myarc Extended Basic II	$40.00
Parsec	$5.00
Personal Real Estate	$2.00
Terminal Emulator II	$10.00
TI Extended Basic	$25.00
TI Writer	$25.00
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CONTACT: R. KENT THOMSON
409 ELBERON AVE #2
SAN PEDRO, CA 90731
(213) 831-2498

TIXPO 88
TI LAS VEGAS FEST WEST

Southern Nevada Users' Group
P.O. Box 26361
Las Vegas, Nevada 89126-6361

cordially invites:

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to attend TIxpo88.

DATE and LOCATION:

The TIxpo88/TI-Fest-West Computer Exposition will be held during the weekend of February 27th and 28th, 1988 at the Palace Station Hotel and Casino; 2411 West Sahara Avenue; Las Vegas Nevada. The Hotel/Casino is conveniently located near the junction of Interstate 15 and Sahara Avenue.

The Exposition will be located on the second floor, west end, in the Round House Meeting Center, tracks 4,5,6,and 7 and is tentively scheduled to run from 9 AM until 6 PM both days.

VENDOR BOOTHS:

Each booth will be approximately 8 ft wide by 10 ft deep, will be equipped with an 8 ft x 3 ft front table, 2 chairs, one duplex electrical outlet, and will share a similar sized side table with an adjoining booth. Also included is 1 TIxpo88 admission ticket for each registered Vendor (maximum 2 per booth).

SALES TAX:

All sales made at TIxpo88 will be subject to a 5.75% Nevada sales tax and a .25% Clark County/Las Vegas City sales tax. SNUG is making arrangements for a blanket sales tax form to cover all Vendors; however, individual Vendors will be responsible for reporting and making sales tax payments to the applicable tax department(s).

PALACE STATION SPECIAL ROOM RATES:

SNUG has made arrangements with the Palace Station Hotel for a special room rate of $42.00 per night, single or double occupancy, including one free meal. Add another 7% for Clark County's room tax. For reservations outside of Nevada call 1-800-554-2411, or in Nevada call 1-800-634-3101. This is an excellent weekend room rate and we highly recommend all potential TIxpo88 attendees make early reservations.

SPECIAL AIRLINES DISCOUNT:

Pacific Southwest Airlines (the official airlines of TIxpo88) is offering 35% discount airfares throughout their service area to all TIxpo88 attendees, with no penalties or restrictions. For reservations call 1-800-435-9772. Be sure to mention TIxpo88 and give them our "SMILE" number, N15865, to receive the discount.

TIxpo88

REGISTRATION FORM

Company Name _____

Your Name _____

Address _____

City _____ State _____ Zip Code _____

Phone (Business) _____ (Home) _____

___ I WILL ATTEND TIxpo88:
- ___ As a Vendor (Booth space is required).
- ___ As a spectator only (No booth space required).

___ I WILL NOT BE ATTENDING TIxpo88 AS A VENDOR:
- ___ Due to previous commitment(s).
- ___ Not interested.
- ___ Other _____

Even if you are not planning to attend TIxpo88, or you plan to attend only as a spectator, please return this registration form so that SNUG can track Vendor responses and plan for booth utilization.

BOOTH RESERVATIONS:

All fees are payable in advance, are due no later than 1 February 1988, and are non-refundable after 15 February 1988 (unless advance registrations exceed available booth spaces or the Exposition is cancelled). *Make checks payable to the "Southern Nevada Users' Group".*

Enter the necessary quantities:

___ Number of booths required at $49 each (includes maximum 2 TIxpo88 Vendor admission tickets per booth).

___ Number of persons manning vendor booth(s) (maximum 4 per booth).

___ Number of Extra chairs required (subject to availability.)

___ Number of Telephone Lines required at $140 per line/hookup. Vendor will bring his/her own phone, modular cords and accessories or make arrangements to borrow or rent them *during the Exposition.*

NOTE: Arrangements for telephone lines **MUST** be made by **15 December 1987**, to be sure of getting service.

ADVANCE GENERAL ADMISSION TICKETS:

General admission tickets will cost $5.00 at the door with a $1.00 discount to persons staying at the Palace Station Hotel. Patrons MUST show their room key or hotel receipt.

SNUG is extending a special offer to Vendors which allows them to purchase a MAXIMUM of 5 additional General Admission Tickets at $3.00 each for guests. This offer is only good through 31 January 1988.

___ Number of additional General Admission Tickets required at $3.00 each.

For further information contact the Southern Nevada Users' Group

or

John Martin...702-647-1062 (after 4pm PST)
Bob Bieber....702-878-3167 (anytime)

or

24 Hour on line information
300/1200 baud (702)-648-1247

- - - - - FROM THE LIBRARY CORNER - - - - -

The following information may help you figure out how to read some of the files and programs that are on the Library disks. There are several disks in the Library now that will read most of the files such as (2087) FILE READER (2118) FILE PRINT. The following type of files can be loaded directly into the computer and RUN.

PROGRAMS
DIS/VAR 80
DIS/VAR 163
DIS/FIX 80
DIS/FIX 128
INT/VAR 254

Let take each file one at a time.

1. PROGRAMS (PR) There are several options for running these most common used ffiles.

A. TI EXTENDED BASIC will load and run automatically when you select XB and the disk is in drive #1, or can be run by typing OLD DSKx.LOAD then RUN or typing RUN "DSKx.FILENAME". If program loads correctly but you get a BAD VALUE error when it runs you need to load the program into TI BASIC (no CHARS above 143 is allowed in EXTENDED BASIC). If the program file is more than 45 sectors and won't load you have to open up more memory in the computer you do this by typing the following:

CALL FILES(1)(enter)
NEW (enter)
OLD DSK1.FILENAME (enter)
RUN (enter)

B. TI BASIC Programs needs to be loaded by typing OLD DSKx.FILENAME and then RUN. Most TI BASIC programs will load and run in Extended Basic but not visa versa. If you get a FOR-NEXT ERROR in line XXX and when you edit the line and get a lot of nonsense then the progran is written in EXTENDED BASIC. The same is true if the sectors is greater than 45 more space is needed in the computer see CALL files above. If you still get a memory full and tried X/B then most likely it can only be run on tape (OLD CS1) without the "P" box turned on.

C. EDITOR/ASSEMBLER If a program file will not load and run in Basic or Extended Basic and gives an I/O ERROR 50 it likely to be an Assembly Language program and needs the EDITOR/ASSEMBLER module to run. Such programs as the Funlwriter or TI-WRITER can also be used. To run load the EDITOR-ASSEMBLER press #2 for Editor Assembler then #5 for RUN PROGRAM FILE then for type DSK1.FILENAME (enter) the program should load and run. Programs files listed in consecutive order such as MASS, MAST, MASU, or UTIL1, UTIL2, UTIL3 try E/A OPTION #5 enter the first file name of the sequence then (enter), the rest will automatically run. Programs files of 33 sectors are most likely an Assembly language program

D. OTHERS PROGRAMS FILES Some specialized program files can only be loaded from the special module such as ADVENTURE (54 sectors), PERSONAL RECORD KEEPING, STATISTICS, TUNNELS OF DOOM (52 sectors)

2. DIS/VAR 80 FILES (DV 80)

These are text or documenation files. When ever you have these files (DOCS, READ-ME, ETC) on the disk it is a good idea to print them out on a printer by useing the TI-Witer. The instructions on how to use the disk are in these files. These files can be read from the screen, edited, and printed. FUNLWRITER, E/A Option #1 (TO EDIT) DM1000 among many others can read these files.

3. DIS/VAR 163 FILES (DV 163)

This type of file is an EXTENDED BASIC subroutine in MERGE format. They can be merged into a program already in the computer memory. Type **MERGE DSK1.FILENAME** (enter). You must *do* this even if no program is in the computer memory. Do not use OLD with files such as these. To save a file in MERGE format type **SAVE DSK1.FILENAME,MERGE** in EXTENDED BASIC only, BASIC can not be used.

4. DIS/FIX 80 FILES (D/F 80) These files are ASSEMBLY LANGUAGE programs and can be loaded and run in several ways.

A. Need the EDITOR ASSEMBLY MODULE or any simular program such as FUNLWRITER use LOAD AND RUN option #3. Enter the disk drive and the file name (DSKx.filename) enter. When it ask for a second file name just press enter again with no entry. If the program does not run from that point, it will ask for a Program name. If you do not know the program name try some of these START, BEGIN, GAME, LOAD, RUN, FIRST, ETC. If still you can't find the program name search the last few sectors of the file with a sector editor such as DISCO and try a name that seams likely or read the documentation sometime the startup name is given.

B. If there are consecutive DIS/FIX 80 files on the disk such as FILE, FILE1, FILE2 FILF, FILG, ETC. load them into E/A OPTION #3. Load them in sequence. When all are loaded press ENTER to get them running. or the program name prompt as above.

5. DIS/FIX 128 FILES (D/F 128)

These are usally ARCHIVED files. They must be DE-ARCHIVED before you can identify the kinds of files they contain. Use a new disk for every DIS/FIX 128 file you intend to UNPACK. This will make sure there are not two files on the disk with the same name. There is an Excellent ARCHIVED Disk in the library number 2156 by Barry Boone.

6. INT/VAR 254 FILES (I/V 254) These files usually has greater than 45 sectors, and are EXTENDED BASIC programs requiring MEMORY EXPENSION. They do not require CALL FILES(1) to load and run. TI BASIC can not be used. The same commands are used such as RUN or OLD DSK1.FILEMAME. The programs are usually so long that they can not be saved to TAPE (SAVE CS1)

7. DATA FILES

File such as INT/FIX 108, INT/VAR 128, INT/VAR 64 are usually DATA files that is used by a program on the disk. They will not RUN and should be left on the disk with the others programs.

I hope these tips will be of some help to you in running the various files that may be on your disks that you obtained from the Library. If I can be of any help to you please feel free to call your.

THE LA99 LIBRARY WISH TO GIVE TO ALL A
VERY MERRY CHRISTMAS
BY OFFERING TO ALL MEMBERS A SPECIAL PRICE OF $2.00 PER DISK OF ANY DISK IN OUR LIBRARY FOR THE MONTH OF DECEMBER. PLEASE INCLUDE POSTAGE IF DISKS ARE TO BE MAILED.

Two copies Of all program disks will be made available to the members at the regular meetings. If you plan to obtain any disks from the library at the meeting it is best to phone or write the LIBRARIAN in advance to be sure they will be on hand. I will put your name on them.

0000 **LA99ers LIBRARY CATALOG** SPECIAL PRICE $1.00 + MAILING

NEW ADDS FOR NOV/DEC LA99 LIBRARY 1

2089 **FUNLWRITER V4.0** Freeware by Tony & Will McGovern 215 Grinsell St. Kotara, NSW 2288 Australia. This Version Greatly improves TI-WRITER, EDITOR ASSEMBLY , DISK MANGER 1000 (3.5) & UTILIT1. all interconnected with each other. Must read DOCS to get the complete infomation. 2(SSSD)700

2156 **ARCHIVER #2 V2.3** Freeware by Barry Boone P.O.1233 Sand Spring,OK 74063 Updated version PACK FILES, UNPACK FILES, CATALOG DISK, CATALOG ARC-FILES, **COMPRESS UTILITY**, & RETURN TO FUNLWRITER . This version will save sectors space on a disk up to 5 TO 1 when compressed . Compatiable with Barry Travers Archiver #1 #2143. auto load with E/A #5 Loader, or X/B (SSSD)31

2184 **DISK MANAGER IN FRENCH** freeware by Guy Boudreault 305 24th ST. Quebec, Canada G1L 1W4 : Simular to DM 1000 but written in FRENCH. (SSSD)112

2185 **TEXT LOADER** Freeware by Curtis Allen Provance, Paragon Computing, 17 Constance ST. Merrimack, NH 03054: An excellent Assembly Language program that converts text files (like TI Writer) to programs (like Extended Basic), merge and EA/5 Loader included. (SSSD)306

2186 **MENU MAKER** From Mickey Schmitt P.U.G. A program where you can generate your own menu with a one line discription and auto load from an existion disk. (SSSD)129

2187 **DSKU/4.0** Freeware by John Birdwell 7052 Springhill Circle Eden Prarie, MN 55344 An update of SISK UTILITIES 2149. An excellent Disk Utilities program that has FILE UTILITIES, DISK MANAGER, DISK UTILITIES, SECTOR SYSTEM SET UP. (SSSD)107

2188 **QUICKLOAD** Freeware by Robert Anenta 14 Greene Rd. Hillcrest, NY 10977 : Enable the quick loading of any program on the Disk along with comments. Can copy any file or all files quickly. (SSSD)28

2189 **MEGA MENU** Program to be used with SUPER SPACE II OR SUPER CART. PROGRAMS gives 3 pages of MENU of 9 items each. (SSSD)42

2190 **MENU** From M.U.G. 19301 NE 19th Ave. North Miami Beach, FL 33179. A program for the Horizon Ram Disk 256K-1024K where Batch MENUing system is used. (SSSD)304

NEW ADDS NOV/DEC LA99 LIBRARY 2

2410 **SCREEN DUMP V3.0** By Danny Michael. Two screen dump programs (Basic or extended Basic). 6 different types of printout. straight up, rotated 90 deg., double size, inverted (white or black). Read Docs. For Epson/Gemini Printer. Improved version (SSSD)

2446 **PRINTER CODES** By Bill Perreau: Codes for Epson and Epson compatible printers. SUPER 5 EN 1201, LOGITECH 5002, AMUST P88/2, PANASONIC 1091/1201, BMC 80, BROTHER M 1109, MITSUBOSHI MP100: A complete WALL CHART displaying the printers commands. (SSSD)122.

5035 **EDUCATION #33** 14 Educational programs from HUG Users Group. STATE CAPITOL (XB) Quiz naming Capitols, TIME CLOCK (B), teaches children to tell time, TENSE (B) learn verbs, COLOR MATH (B) 8 tO 11 yrs, FIRST ADDITION (B) simple, WORD TEACHER (TEII) spelling, STARS (XB) teaches stars in your location, TEST1 (B) make own test, TEST2 (B) make own test plus answer, VOCABULARY (B) expand word power, ASTROMONY (B) constellations, JR.HI CALCS (B) area volume circumference, READ FAST (XB) improve reading speed, WORD IQ BUILDER (B)call files (1) 1 to 4 players (SSSD)357

5036 **EDUCATION #34** 22 Educational program from HUG Users Group. SPEAK & SPELL (B TEII) flashes card & speak, SPELLING (B TEII) like speak & tell with printer results, GERMAN TUTOR (B) German to English, PRIME NUMBER 1 (B) display numbers 3 to 1770, PRIME NUMBER 2 (B) generates and prints numbers, FIRST AID 1 (XB) short course with graphic, FIRST AID 2 (XB) more tips and quizzes, ABC (XB speech) flashes alphabet & number speech, BASIC PRIMER II (B) TI Basic explained, MATH PROBLEMS (B speech) elementary, TI DIVISION (XB) elementary, SIMILARITY (B) triangles, PERIMETER (B) triangles, PRE SCHOOL ACTIVITIES (B TEII speech) introduction to the computer, ANGLES (B) determines supplementary, POLY ANGELS (B) isosceles triangle, CONE AREA (B) computes, DICE (B) gives random numbers, LET'S PLAY TRAINS (XB) pre school keyboard, ANIMAL (disk) guessing game, DISTANCE & BEARING LOCATOR (B) lati#udes & longitudes, MOON (B) figures position, (SSSD)360

5037 **EDUCATION #35** 20 Programs from H.U.G. +/- TEST (B) add & sub ??, CONVERT (B,XB) hex-binary convertion, FLIGHT SIMULATOR (XB J/S), FLORDIA QUIZ (B), GEORGIA QUIZ (B), HERO'S FORMULA (B) triangle calculations, LANGUAGE DEMO speaks 5 different, MATH DRILL (XB printer) all type of math, PLANET (XB) quiz on our Solar System, TI-TEST quiz on the 99/4A, TI-TUTOR (B) teaches the TI computer, WINDCHILL (B) calcultes temperature, WORLD (B) gives miles between any 2 cities.(SSSD)360

5038 **EDUCATION #36** 18 Programs from H.U.G : STORM (XB printer) Plots Hurricane of 1900, CHANGE (B XB) Making change for a dollar, REGULATOR (XB) calculates resistor useing LM317 or LM337, PLOTTER plots two points on x-y axis, ROMAN/ARABIC (XB) converts Roman Numbers to Arabic & visa-versa, ASTRO (XB) converts miles/kilometers, miles/light years, miles/astronomical, degrees, etc, MULTIPLICATION (B XB) help children, 3D/CURVE (XB) plot and draw a 3-D curve, VOLTAGE (XB) find % regulation of either 3 amp alternator or transformer, AREA (XB) area & volume of geometric figures, 555 (XB) calculates operating parameters of a 555, BINONIAL (XB) test on binomial distribution, POLYNOMIAL (XB) integate a polynonial, BORE (XB) calculates an orifice bore, CATTESIAN (XB) plots arbitary function, 301A (B) design a circuit useing the 301A, CLOSED LOOP (B) compute the variables in circuit, DIGITAL (XB) simulates logic in software. (SSSD)360

NEW ADDS NOV/DEC LA99 LIBRARY 3

6041 **BIBLE TRIVIA** By Steven DeSeare 3217 Peery Kanas City, MO 64127 : Learn more about the Bible. A true and false quiz on the following: OLD TESTMENT, NEW TESTMENT, PROPAETDS/PROPHESY, QUOTES, BIBLE BOOKS. (SSSD)125

9082 **GRAPHIC 812** From Steven Shaw 10 Alstone Road Stockport, Cheshire England SK4 3AH. A 2 bit map drawing program from France the resulting picture can be seen with either Max-Rle, TI-Artist, or Graphic, can also be dumped to a printer. This programs draws pictures from mathematical funtions. (SSSD)326

9076 **THE QUEST** (X/B) Freeware by Jim Beck 10947 36 Ave. Edmonton, Alberta Canada T6J 0B9 : A fantasy Adventure type game. Find the right equipment to fight and beat the Dark Lord. (SSSD)235

7050 **CHRISTMAS** (X/B) By James Rush 25 Songs for Christmas time: RUDOLPH, SILENT NIGHT, WE WISH YOU A MERRY CHRISTMAS, JINGLE BELLS, FROSTY THE SNOWMAN, THE FIRST NOEL, HARDROCK COCO AND JOE, JINGLE BELL ROCK, DECK THE HALLS, JOY TO THE WORLD, SANTA CLAUSE BETS YOUR LETTERS, JOLLY OLD SAINT NICHOLAS, O' CHRISTMAS TREE, HARK! THE HERALD ANGELS SING, UPON THE HOUSE TOP, WINTER WONDERLAND, THE TWELVE DAYS OF CHRISTMAS, LET IT SNOW LET IT SNOW, XMASTREE, ZIGGY CHRISTMAS, SLEDGE RIDE. (SSSD)247.

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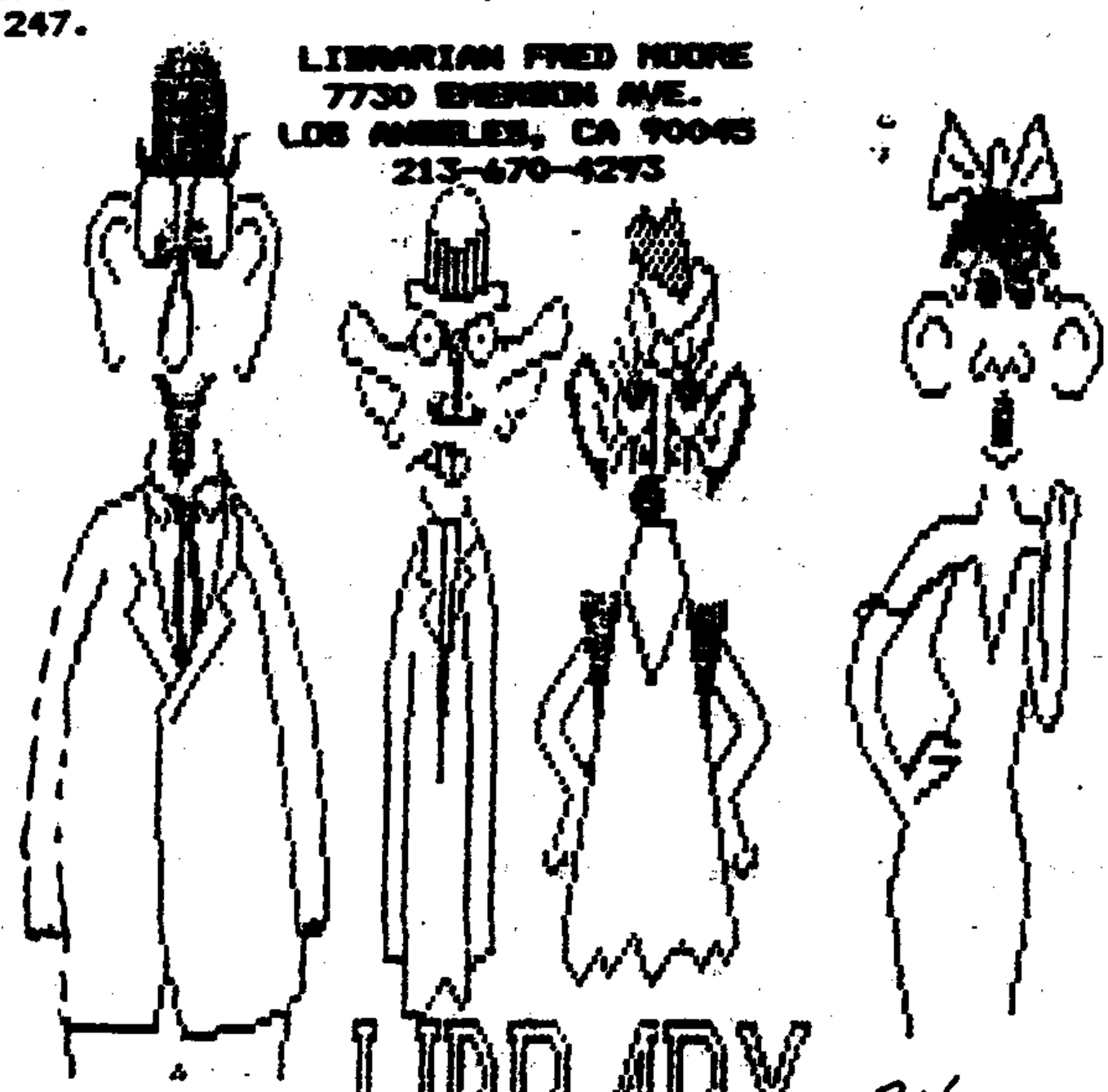


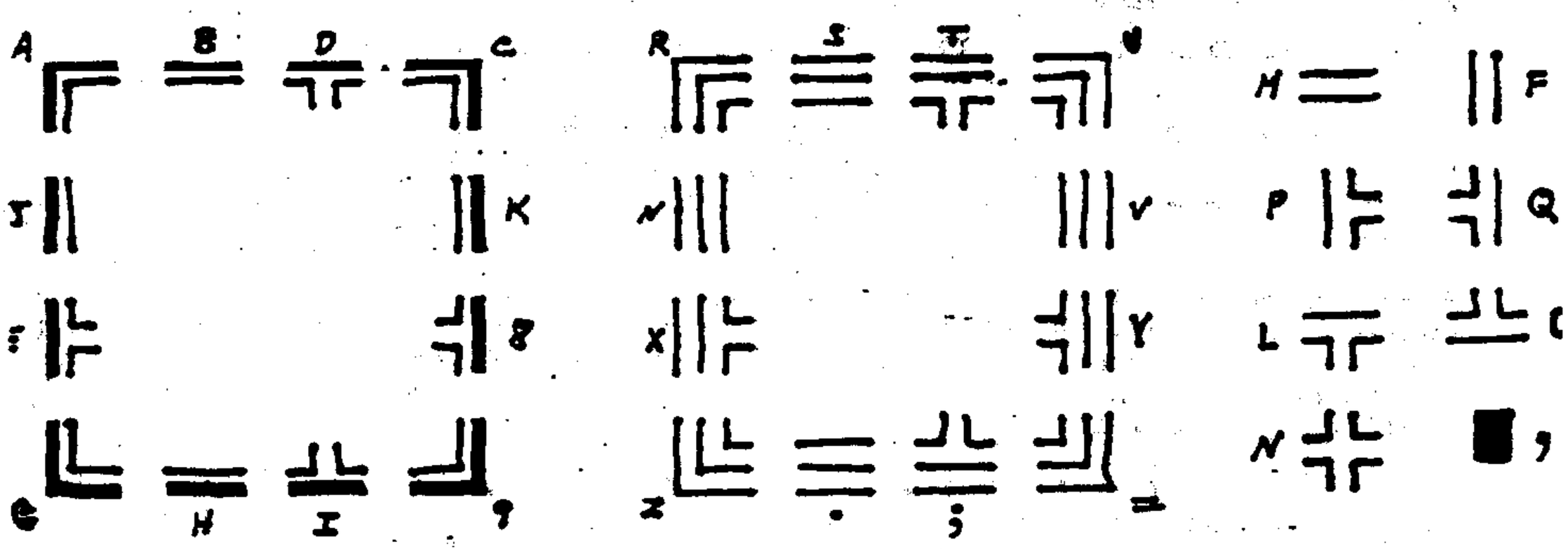
LIBRARY

BY DAN NELSON

LA99ERS COMPUTER CLUB

PHASE reference chart for "CREATE" subprogram
by VIC SCHAFFNER Sorry Source Unknown

Press <CTRL> and your letter choice to make graphic character shown.



Press <FCTN> key
and this key to get this operaton:

\/ \/

E ---------- UP CURSOR

S ---------- LEFT CURSOR

D ---------- RIGHT CURSOR

X ---------- DOWN CURSOR

1 ---------- Delete character under cursor

2 ---------- Insert space under cursor

3 ---DANGER---- Erase complete screen

4 ---------- Halt output to PIO or RS232

6 ---------- PROCEED after screen design is finished

9 ---DANGER---- Return to CREATE title screen. NO SCREEN IS SAVED

<ENTER> ------ Moves cursor to beginning of next line.

[ ] ------ All data entered between these is displayed as UPPER CASE

{ } ------ Data entered between these is displayed in UPPER and LOWER case.

SCREEN COLOR ------- CHOICE — While at "CREATE TITLE SCREEN" press "F" to select foreground color, and "B" to select background color.

MARKETPLACE

(the marketplace is a fund raiser for the club, that is, the "profit" goes to maintain the quality of this News- letter. In general the price listed splits the difference between cost and retail. Please help your Club.)

SPECIAL - SUPER EXTENDED BASIC by Triton - code by MG & friends 59.99
plus P&H 2.50

MILLERS GRAPHICS

DISkASSEMBLER	18.50	ORPHAN CHRONICLES (PRICELESS)	9.95
ADVANCED DIAGNOSTICS	18.50	NIGHT MISSION	18.50
GK UTILITY I	10.00	SMART PROGRAMMING FOR SPRITES	6.25

GENIAL COMPUTERWARE

XBasher (MIKE DODD)	9.00	XB:Bug (J.PETER HODDIE)	12.00
GRAM PACKER (JPH) "	9.00	REMIND ME! (JOHN JOHNSON)	12.00
PC TRANSFER (MD)	20.00	FONT PACK I (JPH)	9.00
GRAPHICS EXPANDER(JPH)	9.00		

RYTE-DATA

GPL SETS (INCLUDING ASSEMBLER AND LINKER, 4 DISKS	50.00	COMMAND DOS (MONTY SCHMIDT)	20.00
		SUPER CLOCK.SUPPORT	13.50
BASIC COMPILER	15.00		

BYTEMASTER (R. MITCHELL)

MG EXPLORER (UNPROTECTED)	20.00	STRINGMASTER	16.00
KRACKER FACTS (MIKE DODD, ED.)	5.00	UTILITIES DISK/DOCS (T FREEMAN)	8.00
ORPHAN SURVIVAL HNDBK(ALBRIGHT)	15.00	JOYPAINT	30.00
JOYPAINT PAL	7.50	PRE-SCAN IT! (J.PETER HODDIE)	10.00
FONT WRITER II "	19.00	PRINTER'S APPRENTICE (M.McCANN)	19.00

MYARC PRODUCTS, INCLUDING GENEVE - check for discount prices

INSCEBOT

TI-ARTIST	15.00	DISPLAY MASTER	12.00
ARTIST EXTRAS	6.00		

MEGATRONICS

EXTENDED BASIC II PLUS	72.50	INTERN (BOOK ON GPL)	16.50
128K GRAM CARD	227.50		

HARDWARE & SUPPLIES

TEAC 55BV DSDD DRIVES	90.00	DISKETTES DSDD	.50
TECHNICAL AND BUSINESS BOOKS	5.00		

REPRINTS

HANDY REFERENCE GUIDE	2.50	LOGO DIGEST	2.50
BEST OF NEWSLETTERS W/DISK	5.00	FORTH NOTES VOL 1-6 (2.50 EA)	10.00
BEGINNER'S FORTH NOTEBOOK	2.50	ASSEMBLY NOTES VOL 1	2.50

BACK ISSUES

SUPER 99 MONTHLY	1.25	MICROPENDIUM	1.25
SMART PROGRAMMER JUNE 1986	1.50		

(please send your order to the CLUB address, not the Librarian, and add $1.00 per disk for P & H ($2.50 for Super XB). CA residents add 6.5% tax).

RAFFLE RAFFLE RAFFLE RAFFLE

The Club Raffle for the months of November and December is for a US Robotics Sportster 1200 Modem. This is a very compact modem, but it is fully Hayes compatible, with auto answer and auto dial capabilities. "Bulletin Boarding" is one of the most enjoyable activities we can do with our computers, and all you need besides your RS232 card (which most of you already have) is this modem and a terminal emulator program, of which we have several in the library (!) .

In order to induce you to buy as many tickets as possible - this is after all a fund raising activity for the Club - the price of tickets has been modified so that the more you buy the cheaper each one becomes. Remember that the more tickets you buy the greater chance you have of winnning.

Because of the lateness of this issue the actual drawing will be at the January meeting. This gives our national and international members a chance to join in.

NAME _____

ADDRESS _____

CITY _____

STATE, ZIP _____

1	TICKET	$2.00 _____
3	TICKETS	$5.00 _____
7	TICKETS	$10.00 _____
11	TICKETS	$15.00 _____
15	TICKETS	$20.00 _____
20	TICKETS	$25.00 _____
25	TICKETS	$30.00 _____
30	TICKETS	$35.00 _____
36	TICKETS	$40.00 _____
42	TICKETS	$45.00 _____
50	TICKETS	$50.00 _____

REMEMBER NEXT MEETING - Wednesday Dec. 23, Torrance Public Library, 7 PM

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Membership in the LA 99ers, including subscription to Topics is $25.00 per year