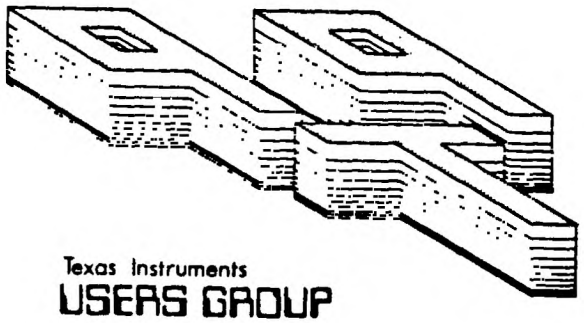
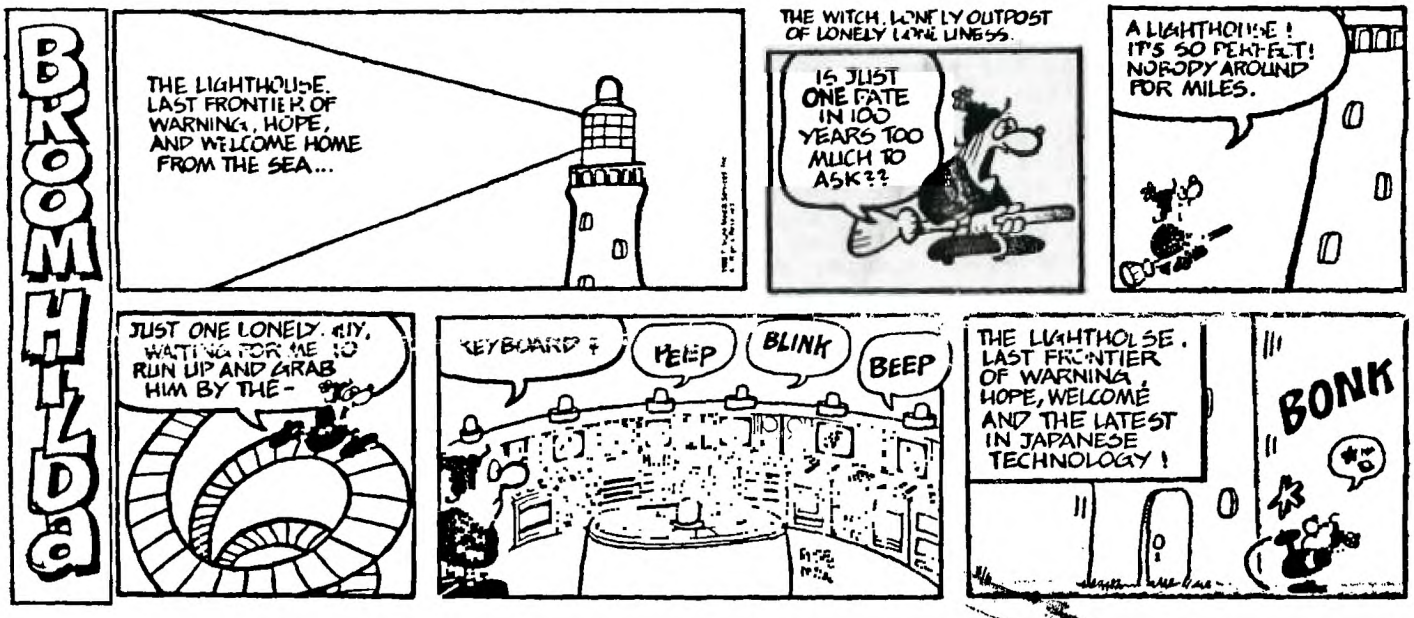
Newsletter

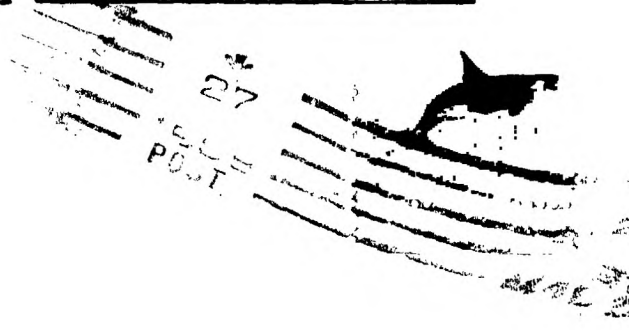


Texas Instruments
USERS GROUP
TORONTO

FOR THE TI-99/4A COMPUTER
and compatibles

NOVEMBER 1988 ISSUE





FROM:
99 Users Group
109-2356 Gerrard St.E.
Toronto,Ont.,M4E-2E2
CANADA

TO: Edmonton 99' er Users Soc
P. O. Box 11983
Edmonton, AL T5J 3L1

9 T 9 U S E R S G R O U P

E X E C U T I V E C O M M I T T E E

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VICE-PRESIDENT Neil Allen 255-8606

SECRETARY/MEMBERSHIPS Randy Rossetto 469-3468
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M E M B E R S H I P F E E S

FULL MEMBERSHIP	$30.00 / year
NEWSLETTER SUBSCRIPTION	$20.00 / year

"If you are so worried about computer security, why don't you try using a password other than Open Sesame?"

All memberships are household memberships. An newsletter subscription is only for those who do not wish to attend meetings, but wish to receive our newsletter and have access to our library. You are welcome to visit one of our general meetings before joining the group. If you wish more information contact either our president, in writing, at the club address on the front cover or phone him.

The meetings are usually held on the last Thursday of each month, unless stated otherwise. Consult this issue of Newsletter 9T9 for the date and time of the next meeting. Meetings are held at the third floor meeting room of Canada Remote Systems, 4198 Dundas St. West,(Dundas, one block east of Royal York Road), starting at 7:30 PM and ending at 10:30 PM. No meetings are held in the months of July and August. December's meeting usually takes place the second week of the month.

C O M M E R C I A L A D V E R T I S I N G

Any business wishing to reach our membership may advertise in our newsletter. The rates are as follows. (height by width):

FULL PAGE	(10" x 7")	$50.00
HALF PAGE	(5" x 7")	$25.00
QUARTER PAGE	(2 1/2" x 7")	$15.00

Please have your ads camera ready and paid for in advance. For more information contact the editor.

Don't forget, that any member wishing to place ads, may do so free of charge as as long as they are not involved in a commercial enterprise.

N E W S L E T T E R A R T I C L E S

Newsletter 9T9 is published ten times a year by the 9T9 users group. Members are encouraged to contribute to the newsletter in the form of articles, mini programs, helpful tips, hardware modifications, jokes, cartoons and questions. Any article may be submitted in any form by mail or modem. We welcome the reprinting of any article appearing in this newsletter providing credit is given to the author and 9T9. If more information is required, call the editor. The name **9T9, Nine-T-Nine, Newsletter 9T9, Nine-T-Nine Users Group,** and **9-T-9 Users Group** are Copyright,(c), 1986, 1987, 1988 by the 9T9 Users Group, all rights reserved.

D I S C L A I M E R

9T9 Users Group is an independent, non-profit association of Texas Instruments TI-99/4A and Myarc 9640 users, and is not a part of Texas Instruments. Opinions expressed in this newsletter are those of the writers and are not necessarily those of the 9T9 USERS' GROUP. 9T9 cannot assume liability for errors or omissions in articles, programs or advertisements. Any hardware modification or project is presented for informational purposes, and the author, newletter editor, and/or 9T9 Users Group cannot be held liable for any damage to the user's equipment. All such projects are done at your own risk!

C L U B B B S

The 9T9 Users Group sponsors the TI Tower BBS, (416)921-2731, 300/1200/2400 BPS, 24 Hrs. Sysop: Gary Bowser.

TId Bits #23

-By Steve Mickelson, President 9T9 Users Group, Toronto
Compuserve 76545,1255; Delphi SMICKELSON; GEnie S.MICKELSON
(TId Bits is Copyright 1986, 1987, 1988 by Steve Mickelson)

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Newsletter 9T9
109-2356 Gerrard St. East
Toronto, Ont., M4E-2E2
CANADA

Renewals & Elections:

Just a reminder that membership renewals and elections are just around the corner.

New 9T9 SIGS:

Mark Gregory has agreed, some time ago, to manage our Tape library, which Randy is in the process of collecting from Sean Wainstein. I would like to suggest that any member who has any Basic, X-Basic or Mini-mem programs suitable for a console type system, please contact Andy or Sean, as we hope to update our library. The program can be either on tape or disk.

Eric Wiclund recently called to tell me that he has purchased a Geneve. This makes eight members, that I know of, with 9640's. Wes Shunk suggested, long ago, that the club should make available the latest version of the MDOS and utility software, so as to pool our collective resources. Frequently, a few of us users waste time and money downloading duplicate software, someone else has already downloaded. I've asked Blair MacLeod to assemble whatever is the most current version of the operating system, JJ menu/loader, etc. These diskettes will be added to our library and available through Gary. We hope to include this files in our library listing. If you have a utility, GIF, or program you would like to contribute to our library, please contact Blair.

If you can't get in touch with either Mark or Blair, please contact one of our executive with contributions, requests, etc.

Gift ideas:

As the gift-giving season is almost upon us, we again look for that special gift or gift-request. Besides suggesting a gift subscription to the newsletter, (only $20. Canadian, for a gift that gives throughout the year, I've tried to include in this and the next issue of the newsletter, as many press releases and software/hardware reviews, as I can find. If you look at some of the fair reports, you will see more mention of what is new to our computer community.

Speaking of gift, I received a phone call, from a TI user in Burlington, who has a TI-99/4A, which is used by his disabled son. He asked if there is an exchange for TI command cartridges or whether any other user might be interested in exchanging cartridges. I referred him to Triton and sent him a copy of our summer double issue newsletter, which includes a list of what software is available, and where to purchase it. If any readers have any spare or extra cartridges collecting dust, and feel in the giving mood at this time of season, then why not send the cartridge to him. He is looking primarily for game or early educational-type modules. Here is his address:

Mr. R Gupta
2178 Cartier Cr.
Burlington, Ont.
L7P-2Z5

Corrections & Updates:

There are several items in past issues of the newsletter which require an update. Last spring, I mentioned the possibility of having a computer fest here in Toronto, even though Lou Phillips told me he planned to attend,(he had heard the rumour elsewhere, as well), the 1989 fest will be held late April, in Ottawa. So much for rumours. I mentioned a Swedish version of Turbo Pascal, this was downloaded from the computer "Language" SIG of TIIN on Delphi, I regret the error, particularly to a few individuals who searched through the GEnie databases for this file. Recently, I uploaded this file to GEnie, giving credit to Delphi, the original source.

As far as the commercial Turbo Pascal is concerned, it is no longer available from Tenex, who I believe was the original source. I purchased Turbo Pascal from L.L. Conner Enterprises, 1521 Ferry St., Lafayette, In. 47904, U.S.A. This package includes a protected utility diskette, along with a back-up copy, and a fairly detailed manual.

I mentioned the Imagewise digitizer, which I've had running on my TI for a few months, now. I am still not satisfied with Steve Langguth's utilities which shrink the origional picture data file down to a tenth its original size, to produce a RLE. It is for this reason I've not given a demo of the hardware, until I get software that produces something of a higher resolution. I have sent away to Steve Langguth, a request for the "GRAB" and "CONVERT" programs for his Imagewise Digitizer utilities. Here is the letter he sent me concerning this software:

2956 South Barnes
Springfield. MO
65804

Dear ImageWise User,

February 28, 1988

It has recently been brought to my attention that some people have been having trouble using the programs I wrote for use with the ImageWise video digitizer. The problem arises when the the "GRAB" program attempts to write the picture data file to disk. If the disk drive specified is a mechanical drive (this is NOT a problem when using the Horizon RamDisk), the disk controller card light will flash, but the drive is never actually accessed.

After working with the program for a short time I WAS able to duplicate this problem, and there are a couple of easy solutions. First of all, if you have a Horizon RamDisk, dump your data files to it. (This makes the whole process a lot faster, anyway.) If you don't have a RamDisk or don't wish to use it for collecting your picture data, just make sure the filename you enter at the prompt (when using "GRAB") is exactly EIGHT characters long ("DSKx." plus the eight character filename gives a total of 13 characters). The program will work correctly and access the proper disk drive if this is done.

Unfortunately, I no longer have my TI 99/4A, so I can't make a more "aesthetic" correction to the problem. But, if you would like a copy of the source code, simply send me a letter stating so, and I will send you a disk with the source for both the "GRAB" and the "CONVERT" programs.

Sorry if this has caused you any inconvenience.

Sincerely,

Steve Langguth

Steve Langguth

Though not an assembly programmer, I hope to gain enough insight from the documentation assembled so far and other references, to convert either the GRAB or the CONVERT utility, to end-up with a GIF file. Stay tuned.

Newsletter Submissions:

The last issue of Hardcopy brought up the question of deadline and format for submissions to the newsletter. I did cover submissions, way back in the October 1986 issue of Newsletter 9T9, (page 4). However considering the fact that some members have joined the 9T9 users, plus the fact some of the qualifications for submissions have changed, I think it's time for an update.

Please submit your article either double spaced type written, (acceptable), or a file written by TI Writer or TI Writer software clone,(preferred). You may submit the TI Writer file on disk, cassette, or by modem. Submissions could be made through TI Tower BBS,(see inside cover of the newsletter for details).

The article can be any length, within reason, preferably a couple of pages maximum, for a single topic; though several tips or subjects/reviews may be longer.

Deadline is the first Saturday of the month.

TI Overseas:

Recently, I downloaded an interesting series of articles, from GEnie, from Stephen Shaw, from a TI users group, in the U.K. I've included some of the Shaw upload in this issue, as there is information of general interest to most users. I will print more in future issues of the newsletter.

Writer's Woes:

Last month's HARDCOPY contained some BBS comments from Stu Olson regarding the pleasure and aggravation of writing software in our community. It is amazing how many people have unrealistic expectations from the writer, plus the fact that many people contacted Stu to complain about the shortcomings of his work, rather than praise his efforts. Eventually the burden of the negatives outweigh the positives, and a talented writer hangs-up his hat as a creative force in the TI Software community.

Being a writer or newsletter editor in our community has the same love/hate relationship. I can't tell you how many times I've spent hours edting, writing, cutting and pasting together a labour of love. Then rushing to a local copy shop to have it printed. Finally picking-up the bundle of newsletters, and carting them to a meeting, only to have some Bozo stand-up and point-out a typo on page ten or comment how the columns on page four weren't exactly parallel to the edge of the page. I must confess that there are a few members who appreciate the effort and do make a positive commentary on an article or the newsletter, in general. Ron Albright has been a real encouragement to me personally, ironically more so than any member of the 9T9 Users Group. Ron has taken time to acknowledge this editor's efforts twice, publically in his Computer Shopper bi-line,(Aug.1987 - see reprint P.6 Newsletter 9T9 July-August 1987 issue), and in a personal letter, (reprinted page 4, January 1988 issue of the newsletter).

It is with regret, I must report that the November 1988 edition of Computer Shopper, will be Ron Albright's last. John Zittrain will be joined by Barry Traver,(an ideal choice). Ron mentioned how, having been a newsletter editor for two and a half years, a writer for MICROpendiun for a year and half, and then the Shopper's TI FORUM, for the last couple of years, he felt, like Stu Olson, a bit burned out. I can't help but wonder, whether this was a result of a cynical readership, as I have found. Even with Barry's contribution, Ron will be missed. Though this may sound like a requiem, I feel with the loss any such talented positive personality, the TI world dies a little bit.

Last month, I reprinted an article from Asgard News, a commentary as to how delicate and tenuous the balance point is maintained between the survival or death of a user group; and how the survival of both the TI community and its commercial suppliers depends on the viability of the user group.

Therefore, i would like to reprint Jonathan Zittrain's part of of the August/'87 edition of TI FORUM, from Computer Shopper, on the same topic:

COMPUTER SHOPPER, AUGUST 1987

TI Forum

by Ron Albright and
Jonathan Zittrain

Insight: The Users Group

Ever since the very beginning of the 99/4, users groups have played a major role in the development and survival of the machine. Perhaps it is because of the hobbyist nature of the owners that users groups have been so much more numerous and active than those for other computer brands. When TI pulled out, the users groups filled the void. Today, many remain strong—but declining.

"Users groups are needed more than ever," said Barry Traver, founder and past president of the Philadelphia TI Users Group. "Without them, the TI community would have disappeared long ago."

According to Traver, the Philadelphia group has experienced a slight decline in membership of late, drawing between seventy five and a hundred people to its monthly meetings. "But of those people," he notes, "many more have disk systems or even two consoles."

Madonna Nordaker of the Central Iowa 99/4A Users Group sees a similar trend in her area. "We have about fifty or sixty active members," she said. "Two or three are interested in the Myarc computer...and everyone will wait until fall to see what develops."

J. Peter Hoddie co-directs the Boston Computer Society TI-99/4A Users Group with Justin Dowling, and has been at his post for several years. "Our membership has declined to about 310 on the list, fifty to seventy five at the meetings," he said.

Every users group has to deal with apathy—but some find it easier than others. "I've been lucky," said Hoddie. "We can call on someone the night before a meeting to bring a console or a TV set, and he'll come through." Hoddie attributes the high level of member activity to several causes. "I get up there and

cry...I guess they've taken pity after seeing me do it for the past forty months." On a more concrete level, Hoddie has two tips for users groups who wish to have more active members. "If someone does somethng for us, we do something back," he said. "Be it a free disk of software or the mention of the names of those who helped out, people enjoy receiving something tangible in return for their work." Another incentive is about ten dollars worth of snacks made available at the end of each meeting. "The members will stick around for the end of the meeting and get to know each other better when there's something to eat," Hoddie said. "And it keeps 'em buying disks," he added, noting that the sale of disks of public domain and fairware programs has kept the BCS group solvent. "We pulled in $500 at the Los Angeles fair and $1200 in Boston."

Not only can users groups keep the flow of information going by offering disks of software, but they can use the collective bargaining power of their members for group purchases. Traver explained that the Philadelphia Users Group has made several bulk disk drive purchases on behalf of members. In both cases, everyone benefits—the group and its users.

As far as group participation goes, Bill Whitmore, founder and past president of the Washington, D.C. Area TI Home Computer Users Group said that his group has had some trouble. "Nobody wants to do anything," he said. "Our current president, who was to only serve for a year, is on his third year...and is getting burnt out." Almost every users group has a small core of extremely interested and active members, who also tend to be very knowledgeable about the machine. "Many of our best people have moved on to Big Blue or clones," Whitmore said. Without an influx of new, dedicated members, users groups could be in trouble. "We peaked at about a thousand members, and now have a little over two hundred," added Whitmore.

As users group memberships slowly decline, unity among groups becomes even more important. A few years ago the D.C./Baltimore/Virginia area groups came together enough to publish a common newsletter under the banner of the "Mid Atlantic Ninety-Niners," or MANNERS. But coalitions like MANNERS are uncommon in the TI community. Users groups usually stay in touch only by sending one another copies of newsletters. Often a particular users group will find itself mailing more newsletters to other groups than to local members.

Newsletter editors welcome the exchange, since original material can be easily passed along from group to group. "Our newsletter was 99% our material until recently," said Whitmore, who is currently newsletter editor for his group. "Last month it was 99% copied from other newsletters. This month will probably be 50-50."

While information makes its way around the country through newsletter exchanges, it can quickly become distorted. "Some users groups change the facts altogether," said Hoddie. "One person might not understand a program and give it a bad review." Such a review—or random parts of it—could spread throughout the country, with no one newsletter being exactly sure where it came from. Hoddie recalled one incident where a supposed "tip" involving the PI operative had been passed around that claimed to allow users to distinguish versions of BASIC and Extended BASIC from one another. "It simply didn't work," said Hoddie, "and if someone had taken the time to sit down and try it out, that would have become apparent."

What advice do these leaders offer to other users groups? "Don't forget the basics," said Traver. "Sometimes the plain user is forgotten." Traver has helped the Philadelphia group institute classes where members can learn how to load, run, and use canned software. "Programming has its place, too—but not in a class like that," Traver said.

"Sit tight," advised Nordaker. "Computers are changing so quickly...why not keep what we have until the next big leap (in computers)?...the TI is a little slower than some of the new models, but it does just fine."

Hoddie believes that publicity outlets are often under-utilized by TI groups. "We've gone to some local general computer shows," he said, "and although we'll clear only $100 profit or break even, we sign up a few new members."

Computer Shopper and other publications also stand ready to help keep 99'ers together. "You've got to keep reaching out, or it'll dry up," warns Hoddie.

The next few months will prove to be crucial ones for the TI community. Some believe that the Myarc computer is too late to gather a significant following; others feel that it might even end up competing with the current 99/4A owners. Users groups helped the 99/4A get on its feet. Now they are vital in keeping it standing.

Ron's Part

I couldn't agree with JZ more in his comments about the importance of users groups. They are the lifeblood of the TI user base and, if you don't belong to one, write to JZ and I. Include a self-addressed, stamped envelope and we'll get you in touch with one. You need to belong! 'Nuff said.

"I thought you said you had the television set fixed?"

Windy City News:

Randy Rossetto, Gary Bowser, Wes Shunk, and John Van Weelie, together, comprised a delegation of 9T9er to attend the Chicago TI Fair. Hopefully, we will have a reort, in the form of an article, from someone, at the next meeting. It is hoped, also, that we will have a look at some of the latest software, purchased there.

Bob Boone:

I found out, too late for the last issue of the newsletter, that Bob Boone will attend this, the November meeting. Hopefully, we can spread the word to as many users as possible, providing that his attending is confirmed.

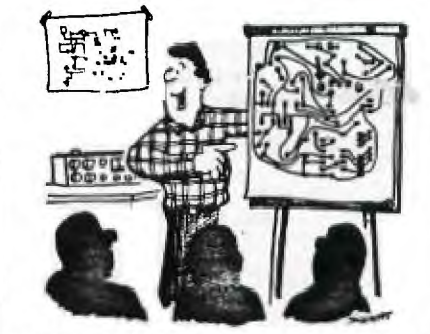
Cribbage 280 And Other Loose Ends:

I now have my Geneve back and running, 64K 0-wait and all. I was dismayed to find that my Magnavox Pro Multi monitor still stared at me with a mocking blank screen. I successfully hooked-up the Geneve to my old Amdek 80-column composite monitor. Thanks to Blair, for allowing me to haul my Geneve, monitor and cables over to his place to determine where the problem existed. It was pointed-out to me by a friend that if I was getting a composite picture, that the RGB portion of the 9640's video circuit should be o.k., as the R.G. & B. signals are combined into a composite signal. Final result: Geneve o.k.,(both RGB and composite), cable o.k., monitor **not** o.k. I will ask a friend of mine who runs a video game to have a look at the monitor, before I considering out of warranty repair.

We did manage to get a working version of MDOS 1.08 and Myword 1.2, between the files we had between us. I am amazed how Lou and the gang continues to refine and improve this software. To use the JJ GPL menu program, we wrote a small batch file to be used as your "AUTOEXEC" file, which I would like to share with you:

Newman/The Listener/London

```
TIMODE
ECHO OFF
LASTDRIVE = J
RAMDISK 90
ASSIGN A=DSK1:
ASSIGN B=DSK2:
ASSIGN C=DSK3:
ASSIGN D=DSK4:
ASSIGN E=DSK5:
ASSIGN F=DSK6:
ASSIGN G=DSK7:
ASSIGN H=WDS1:
ASSIGN I=WDS2:
ASSIGN J=WDS3:
PROMPT GENEVE$B$V$B$T$B$N$G
MODE 80
ECHO
ECHO ************************************************
ECHO *                                              *
ECHO *              9T9 GPL AUTOEXEC                *
ECHO *                    By                        *
ECHO *          B.Mac Leod/S.Mickelson              *
ECHO *             9T9 U.G.,Toronto                 *
ECHO *                                              *
ECHO * Use CONTROL C to return to MDOS command mode *
ECHO *                                              *
ECHO * Otherwise hit any key to boot GPL and MENU *
ECHO *                                             *
ECHO * Use spacebar to toggle between menu screens *
ECHO *                                              *
ECHO ************************************************
ECHO
ECHO
ECHO
ECHO
PAUSE
GPL DSK1.MENU
```



Ok guys, here's the map to the club picnic.

We found that the last line of the above AUTOEXEC will automatically loads the GPL and then the MENU program, after the pause. This only works with the latest version of MDOS.

Even more interesting was a modified version of the GPL batch files. In this case, TI Basic has been removed and replaced with a variation of the JJ loader. This loader is now option #1, on the old TI power-up menu screen. This menu works the same as the GPL version, with the exception that it will load both Editor Assembler #5 files **and** Gram Kracker Cartridges! It even builds its own menus!

Good news on the Cribbage front. An E-mail message from Don McCutcheon, via GEnie mail, informened me that he has a Cribbage game, that is somewhat slow, and a bit buggy, he and asked whether I am interested. Don asked whether I'm interested. Since Cribbage is not only my f a v o r i t e card game, my reply is **yes!**

I had some problem typing a reply to Don, or any other message, on GEnie. At first, I thought it was either the sticking keys on the my kid's TI system, which I used while my Geneve was "in the shop", or the modified Fast Term,(JPH version). However, I replaced the keyboard and used Mass Transfer, with the same results. I have the same problems with my newly repaired Geneve and Mass 80. I, therefore, think it may the local number used to access GEnie, as I can access both Compuserve and Delphi at 2400 BPS,(vs 1200 BPS for GEnie), with no problem, other than usual dumb user,(that's me), type of things. It may be that I should re read my GEnie manual, but I find I type messages, on both the TI system and Geneve, using the echo and get my everything "echoed" back o.k., but when I try to list my message, all kinds of characters have been dropped.

To Barry and Scott, please be patient, I'll re-read the manuals and check with local GEnie users, to find out what the heck is going on.

As far as Z80, no news, yet. Jeff Guide, has asked me to help host a conference on Delphi, with Gary Bowser and Jim Ballantyne as guests. This will be an opportunity for all those technical questions to be answered.

That's it for this month's TId Bits. BFN.

HARDCOPY

BY STEVE FINDLAY

Hello... hello... hello... I know someone must read my column but my request for criticisms or praises fell on deaf ears. Does anyone besides our editor care if I continue this column? I do enjoy reading the other group's newsletters but I do find that I continually have to make the mad dash for each issue's deadline. Is this exercise a wasted effort?

Micropendium has even referred to this column by mentioning one of the mouldy oldie BBS messages pertaining to slashing the zero in MultiPlan. This reference even brought a letter to the editor of Micropendium telling how to slash the reverse video zero character.

Come on people... speak up and let me know of any improvements you think might be viable.

Quite a few months ago someone in our group asked me why, in Extended BASIC, program disk files larger than a certain size switched from PROGRAM image type files to INT/VAR 254 type files. I couldn't answer that question at the time but I have run across an answer in an old copy of Craig Miller's "The Smart Programmer" (July 1984). Here is part of that description:

"If you are using a cassette based system when you SAVE a program the line number table and crunched program are moved into VDP RAM and then saved to cassette. If the program is too large to fit in VDP RAM the computer returns an ERROR and you can not save it without editing out some code. What this means is that with a cassette system and memory expansion your program size is limited to the size of VDP RAM. However, your programs can contain a greater amount of string and numeric variables since the symbol tables for these are generated AFTER you type in RUN."
"If you have a disk system and memory expansion you are able to write and save large programs that can use most of the 24K high memory expansion. With a disk system, if you save a program that is too large to fit in VDP RAM it changes it from a PROGRAM (memory image) type file to a INT/VAR 254 type file and writes out 1 record at a time. When this happens the save and load times are much longer and you will notice that your disk controller light and 32K light alternately blink on and off. If you load a PROGRAM type file you will notice that the disk controller light blinks rapidly. Then, after the program has finished loading into VDP RAM, the 32K light will blink on when the program is tansferred to high memory expansion."
"Due to the nature of the TI operating system and the Disk Controller DSR any PROGRAM type file MUST fit into VDP RAM in order to SAVE or LOAD it."

Now, on with the show...

BINDER #1 (supplementary)

* a hardware project for installing a REAL TIME CLOCK in the speech synthesizer case. (Sooner 99ers - Jul 88)
* instructions for wiring up an A-B SWITCH which will allow users to connect two printers to a single computer or two computers to a single printer. (Sooner 99ers - Jul 88)

BINDER #7

* a listing of two BASIC programs which will enable users to run a text file

though it for speech readout - seems perfect for proof-reading programs - called Speak-N-Proof. (Cin-Day - Nov 84)
* a listing for a BASIC program that allows you to printout program listings in 28 columns. (Cin-Day - Feb 85)
* a PRBASE enhancement that adds a PRBASE BASIC UTILITIES menu to the PRBASE loader. (Cin-Day - Nov 86)
* a series a BASIC listings for programs that assist in preparing text files for publication. (Cin-Day - Dec 86)
* a listing for a BASIC program that converts DECIMAL NUMBERS to ROMAN NUMERALS up to decimal 399999. (Cin-Day - May 87)
* a modification to add a foot switch to activate the function key instead of some of the weird finger twists that are sometimes required.
(Cin-Day - May 87)
* a do-it-yourself hardware project for construction of a Module Port Expander.
(Cin-Day - Jun 87)
* a c99 listing for a label printer program. (Cin-Day - Aug 87)
* a BASIC listing for a program that SINGS... Twinkle Twinkle Little Star. The program allows the use of both the TE-II cartridge or the Text-to-Speech files from Extended BASIC. (Cin-Day - Sep 87)
* a hardware project on how to build a disk drive power supply.
(Cin-Day - Sep 87)
* a MAX-RLE help card that lists ALL the commands available with MAX-RLE.
(Cin-Day - Jun 87)
* a very clear and easy to understand flowchart for both the Funnelweb menu (V4.0) and the Configure program. Worth photocopying for your own use.
(Cin-Day - Jun 88)
* an introduction to c99 called EASY TO C by Ron Albright of Computer Shopper fame. (San Antonio)
* a large collection of the Tigercub articles. (San Antonio 1986 issues)
* an ongoing series of articles on Forth called Going Forth that include modifications to the system disk. (San Antonio - Dec 84 to Oct 85)
* three tutorial articles from Funnelweb Farm on Extended BASIC.
(San Antonio - Aug 86 to Oct 86)
* an article on the TI 99/8 computer by John Phillips. (San Antonio - Feb 87)
* two articles by Tony McGovern containing miscellaneous ramblings about the TI99/4A and the TI community. (San Antonio - Apr 87 and Jul 87)

BINDER #8

* a hardware modification to add a switch to a DSSD disk drive to force it to act like two SSSD drives. (Tacoma - Jan 87)
* a BASIC program listing for a Stock Trend Analyzer. (Tacoma - Feb 87)
* an article on how to modify a console to add 32K memory on a 16 bit bus internally. From other articles I have read, I believe this modification speeds up the memory access time so much that some programs will not perform properly because of timing requirements. (Tacoma - Jun 87)
* an assembly language listing for an Extended BASIC sort routine called XBSORT.
(P.U.G. - Jul 83)
* a tutorial on how to adjust the TI RF modulator to eliminate background noise and hum on your television set speaker. (P.U.G. - Oct 85)

And now... another blast from the past... a vintage BBS message.

Message #2131
From:ED50
Sub:DF80 FILE NAMES
To:ALL
Date: 6/08/87 Time: 8:26:45 pm

THIS IS JUST A NOTE TO ANYONE WHO HAS EVER LOADED UP A DF80 FILE AND DIDN'T KNOW THE NAME TO MAKE IT RUN!
IF YOU LOAD UP TI BASIC FROM EITHER E/A OR MINIMEM YOU CAN DO THE FOLLOWING 4 STEPS TO FIND THE NAME:
1) CALL INIT
2) CALL LOAD("DSKx.filename")
3) CALL PEEK(16176,A,B,C,D,E,F)
4) PRINT CHR$(A)CHR$(B)CHR$(C)CHR$(D)CHR$(E)CHR$(F)
THE NAME WILL BE PRINTED AND IF YOU WANT TO RUN IT YOU CAN USE:
CALL LINK("name")
HOPE THIS CAN HELP SOMEONE ED
'TIL NEXT MONTH... CALL LOAD(-31932,32)

Editor's note: Unfortunately, I discovered this after editing, cutting & pasting this article; please note that step #4 ,(above), should read as follows:

4) PRINT CHR$(A)&CHR$(B)&CHR$(C)&CHR$(D)&CHR$(E)&CHR$(F)

Ignore the underline which TI Writer interprets as a command to "underline", which can be avoided by typing & twice.

I personally feel Steve Findlay's efforts to bring us his HARDCOPY is by no means trivial. I think many readers find his bi-line informative and timely. Also, I think that editors and library directors for newsletters on our exchange list don't mind all the little gems uncovered here. If so, please drop Steve a line c/o the club's address. - S.M.

RAMBLES.

Welcome to the July 1988 issue of RAMBLES by Stephen Shaw.
Your letters are always welcome, on any subject. Ask me anything you like, I can always say I know nothing, but you wont know if you dont ask! Anything you'd like to see in Rambles perhaps? The address follows, and is the same address as your Group's disk based library- send two disks and return postage for a copy of our disk library list in DV80 format.

10 Alstone Road, STOCKPORT, Cheshire, UK, SK4 5AH

CHANGES, CHANGES....
If you look back to Issue 19, you will see a notice inside the front cover that we are not affiliated to TI etc etc. That notice was removed from Issue 20. This does NOT mean we are NOW affiliated to TI etc etc....
This is a history lesson.... when the first ever UK TI User Group was founded, Texas Instruments Inc were extremely protective not only regarding information on their new computer, but also on the use of their name, including the use of the initials TI within the magazine name, which was then TIdings. Their legal department insisted on the disclaimer and who are we to argue with a corporation that big! WE are not suggesting that ANY user group was EVER affiliated to TI - we were merely doing what TI insisted we do.
Since those balmy days, TI has every appearance of having lost interest in their home computer, its programs and even their initials! And as one UK user took umbrage at our using the ENFORCED disclaimer, we have dropped it to avoid causing offence.... (Yes, I know every good UK citizen regards the initials TI to stand for Tube Investments, but Texas Instruments were very very protective back then!!).
You can spot the older User Groups by looking for a non-affiliation disclaimer in their newsletters...

CORRECT TO N PLACES....
Rounding is easy- just use:

```
RESULT=INT(NUMBER+0.5)
```

But if you want to display a number correct to a certain number of digits? A little more difficult but not impossible.
The GENERAL format is:

```
RESULT=INT(NUMBER * P +0.5)/P
```

Where P=the power of ten of the number of places to be rounded.
Thats easy isn't it? To round to two places, P= 100 (10^2).
The general format will only work for positive numbers. For numbers which may be either negative or positive, the formula becomes:

```
RESULT=INT(ABS(NUMBER)*P+0.5)*SGN(NUMBER)
```

Here us a tiny utility sub program for you- for TI BASIC just remove the first and last lines and GOSUB instead...

```
100 SUB PLACES(NUMBER,PLACES,RESULT)
110 P=EXP(PLACES*LOG(10))
120 RESULT=INT(ABS(NUMBER)*P+0.5)/P*SGN(NUMBER)
130 SUBEND
```

Now to find out what 23456 rounded to 3 places is you would use:

```
1 CALL PLACES(23456,3,RESULT)
2 PRINT "Result:":RESULT
3 STOP
```

MAURICE E T SWINNEN of Mid Atlantic 99ers. 1986

MACHINE CODE FROM TAPE:
Did you know that CALL INIT:: CALL LOAD("CS1") works! Of course first you have to transfer those DF80 files from disk to cassette. And some of the lines may need shortening (you do remember that cassette data files don't use 80 byte records!)- dropping off the checksum is a good start there!

```
eg from ..9BD3A87F131F      0001
        ..5A47F196F         0002
        ..A127F1BFF         0003
shorten to:
        ..9BD3A8F           0001
        ..5A4F              0002
        ..A12F              0003
```

-eg remove the 7 tag and the next four characters. Leave the final F.

Read each record from disk and transfer the first 64 characters to tape- you will need to note how many lines are to be transferred or use the EOF finction. The tape file is saved as DISPLAY,FIXED 64. You will also need to know the starting name to LINK to.
Then of course, there is the TIME element. Take a look at how many lines your average DF80 file has... a 54 line file, loaded from tape, takes 6 minutes. Now work out how long it is going to take to transfer SUPER DEMON ATTACK this way... and WHERE are you going to find a cassette THAT long!

Just one more capability the TI99/4A has that has not been documented. Now we have the FUNLWEB LOAD program, tape owners can find it much easier to load machine code into their 32k rams using memory image files. Much faster. Editor Assembler module owners can just use the LOAD PROGRAM FILE option and indicate CS1. - it really was clever of TI - the ONLY loader that TI supplied to enable cassette owners to load machine code into expansion ram, and it is sold on a high priced package- module, huge manual, and two disks.
Thanks to George Meldrum, TIsHUG. May 1988.

==========

SOURCE CODE. Author and original publication not known.
Assemble this little utility into a non-compressed DF80 file and you can load it into XB with a CALL LOAD. Then it will auto-boot "DSK1.LOAD" whenever a running XB program breaks for ANY reason - a little more powerful than ON BREAK NEXT. Try it!

```
       DEF  CHECK
CHECK  MOVB @>8344,@>8344  * >8344 IS 0 IF XB NOT IN RUN MODE
       JEQ  NORUN
       B    *R11           * EVERYTHING OK SO RETURN ELSE:

NORUN  CLR  @>83C4          * TURN THIS ROUTINE OFF (ISR HOOK)
       LI   R1,>6372        * XB GROM START
                            * MAY NOT WORK WITH SOME XB VERSIONS
       MOVB R1,@>9C02       * WRITES >63 TO GROM WRITE ADDRESS REGISTER
       SWPB R1
       MOVB R1,@>9C02       * WRITE >72 TO GROM WRITE ADDRESS REGISTER
       B    @>006A          * EXECUTE XB
       AORG >83C4
       DATA CHECK           * PLACE THIS ROUTINES ADDRESS AT >83C4
       END
```

==========

"We do not know what is going on in England. we know the Queen is still kicking and alive (God save Her!), but we are afraid the TI-99/4A is dead there." Huh? Written by Paolo Bagnaresi, Milan, Italy, in August 1986, to Ottawa, Canada. Guess our reputation hasn't got to Italy just yet then!

==========

INFOCOM adventures are not all FULLY logical- there is a RANDOM element in some of them which means that sometimes you die and sometimes you live... and an interesting command to type in to your INFOCOM adventures is $VE try it! There is a #RAND command in Lurking Horror, which expects a number before/after it, not sure what it does but I think it may determine the path when you come to a random choice. HITCHHIKER has a total vocabulary of 969 words- have you found them all yet? KILL ADAMS? Some odd commands, purpose unknown include XYXXY and ZZMGCK - the latter may just be an end of file dummy. SUSPENDED has a vocabulary of 680 words, but you can complete it with just 35, that's real overkill!

==========

MICROPENDIUM:
If you don't yet subscribe to MICROpendium, why not? The cost is reasonable- pries advertised in March 88 copy (I get mine by seamail!) are US$23.50 per year by sea mail and US$37 by airmail. Send US$ International Money Order, bought from Lloyds or Barclays Banks, to:
MICROpendium, P O Box 1343, Round Rock, TX, USA, 78680.
This is no fly by night magazine. The March 88 issue is their 50th monthly issue.
Regular articles on Basic, c99, Geneve, and plenty of reviews. Back issues are $2 each by seamail to subscribers only.

========

DV80 FILES TI WRITER CAN'T READ:
Any time you see a Display Variable 80 file on a disk, it is always a good idea to take a look at it with TI Writer, as there is a good chance it is either documentation or source code-which may contain documentation. In almost every case a DV80 file should load with TI Writer, whatever is in it, text or data or anything.
However, there are a few text files coming out of Europe that you CANNOT load with our version of TI Writer- our European friends are using a different and incompatible version of TI Writer, VERSION 2.0. If their text files are saved to disk with PF there is no problem, but using SF adds tab information.
In order to produce those odd European characters, printers use ASCII codes outside the usual range of Vn 1 of TI Writer, so Vn 2 was modified to accept them, and the tab info had to be modified as well. And as their tab data is outside the capabilities of our version to handle, the result is a console lock up. Curing the problem was difficult, until our membership secretary dealt with it...
In the April 88 issue of EAR99'ers newsletter, he presented a program to amend the tabs on a Vn 1 TI Writer file- largely to demonstrate the way the tabs are saved. What was interesting was that by appending a new tab set, the original set is "replaced". If it works for version one, why not try appending a version one tab set onto the end of a version two file?
It works! The following routine is a much modified form of his program. If you cant load any DV80 file, amend it with this trifle and try again!

```
100 REM MAKE VN 2 TI WRITER
    FILE ACCEPTIBLE TO VN 1
    based on an idea by
    Peter Walker. UK. 1988.
110 DISPLAY AT(2,2)ERASE ALL
:"INPUT NAME OF FILE TO BE":
"MODIFIED:"
120 DISPLAY AT(6,2):"DSK1."
130 ACCEPT AT(6,5)SIZE(-12):
FILE$ :: FILE$="DSK"&FILE$
140 OPEN #1:FILE$,DISPLAY,VA
RIABLE 80,APPEND
150 A$=CHR$(128)&CHR$(134)&C
HR$(128)&CHR$(212)&RPT$(CHR$
(213),16)&CHR$(128)&CHR$(136
)
160 PRINT #1:A$
170 CLOSE #1 :: PRINT "DONE"
180 END
```

==========

PR BASE HINTS:

Sorting and so on are based on an ASCII STRING and everything works according to the ASCII values of the characters. Thus while 4 comes after 2, 22 will come before 4. Use leading zeroes on numbers you are sorting by- then you will correctly find the sort as 02,04,22.

Selective Indexing search works on your input UP TO the first space, so that "good day" will only work on "good". To use the whole thing, you must insert a question mark, thus "good?day".

PLEASE will someone write tutorials for us for PRBASE and CFS!

==========

AXIOM PRINTER?

By this time some owners of AXIOM printer may discover that their printers are not entirely behaving themselves. In particular, your computer may give you error messages indicating the printer isn't there! The problem lies in the thin fiddly wires they used which are PUSH FITTED in their little connectors. In due course the wires will either pull out, or more likely, break near the end, and contact is lost.

The solution is to remove the whole ribbon, remove about a half inch off the end, and then refit- soldering is recommended, but CAREFULLY.

==========

MINI MEMORY PROBLEMS?

As the battery wears out, the voltage drops, and in the end, the dead battery actually stops the module working- it will not retain data even inserted in the console, even though the battery is only for "back up". A quick solution is to open the module up and snip one of the battery wires- the module will now work in the console! For battery back up, take advantage of the offer advertised in this magazine for several years now for ni-cad replacements.

======

CASSETTE CARE:

The Manchester Central Library have published an excellent leaflet on care of cassettes and cassette players, which is highly relevent to Cassette Users. I have extracted the juicy bits for you...

MUSTS:

1. CLEAN your recorder regularly- if you use a "wet cassette" you must still clean separately the capstan and pinchwheel, as these special cleaning cassettes only clean the heads properly. See notes later!
2. Keep cassettes in cases, away from heat and magnetic fields and damp.
3. Before putting a cassette in the machine, rotate a spool with your finger to make the tape fully taut.
4. Never use C120's and for best results stick to C60s or shorter. C120s are very likely to stretch and snap, and even C90s may come apart quite quickly. The thinner tapes are more likely to snarl up your machines.
5. Cassettes are not hammers. Observe care.

Detail:

A cassette tape is a VERY thin thing, coated with aneven thinner oxide coating, and even under the best conditions, the best tape will shed its coating little by little... onto the surfaces of your recorder, where they stick and begin to scratch your tapes and even more coating comes off....

The PINCHWHEEL is the larger rubber-like wheel which rotates pulling the tape onto the take up spool, while the CAPSTAN is the thin metal wheel which presses the tape against the pinchwheel. If you dont clean these properly, tape is liable to snarl up in your player. The only way to clean them is with COTTON BUDS, dipped in special head cleaning fluid or meths. Some alcohols may be suitaable but NOT isopropyl alcohol, widely used for cleaning disk drives!, as isopropyl alcohol can cause uneven swelling in the pinchwheels.

Clean the heads to avoid undue wear, and losses of audio quality (dullness) which may stop the player being computer compatible.

CLEAN EVERY 10 HOURS PLAYING TIME.

If you use a head cleaning tape, discard it after ten uses, after that it just spreads dirt around.

Tape heads become magnetised over a period of time- as the tape passes over them, the heads gradually build up a magnetic charge from the tape. This could produce increased background hiss, and might eventually result in tapes becoming partly (and irrevocably!) erased while being played. Demagnetise your heads AT LEAST once a year. Special cassette-shaped devices can be bought and are safest to use.
(With thanks to Manchester City Council-Cultural Services)

==========

ATARISOFT BUG:

In case you just find one, the early Atarisoft modules for the TI99/4A do not all work properly in SOME consoles. Atari downloaded the "large character set" from grom 0, but used a direct address instead of the indexed address, and yep, some consoles are 4 bits out on the direct address. It means those characters look kinda Japanese...

=====

MILTON BRADLEY BUG (and others):

Some MB games intended to use speech have a bit of a problem when loaded from disk dumps into the 32k ram. The delay in testing for speech is just not long enough (see EdAs manual pages 349/350), so sometimes the games will fail to identify that you have a speech synth, and give no speech.

======

TI FORTH DEBUG

The following corrections have just surfaced from Ottawa- passed on without testing. Change a COPY of your Master Disk!

Screen 58 line 10 to read:
VDPMDE @ 4 < IF SMTN 80 0 VFILL 300 ' SATR ! ENDIF
Screens 53,54,54 line 1 should end SET\DP2.
Screen 59 line 9 change 00FF to 00FE

============

TENEX are beginning to upset me. I wrote in Feb 88 asking for a catalogue. No reply. I wrote again in April for a catalogue. No reply. Last chance: wrote again, May 16th 1988. Result: catalogue POSTED May 17th received May 26th. WITH NO ENVELOPE OR WRAPPER and nothing holding the outer edges of the pages together. Delivery address and stamps at the bottom of the back cover. Delivery can best be described as a miracle- fortunately they wrap products up a lot better. If you write, I suggest you ask as strongly as you can that your catalogue is honored with an ENVELOPE wrapped around it!!!

Again some nice goodies, and order sent airmail May 31st, including a couple of copies of SPAD XIII for members, who asked for them at the AGM.

Have sent for a freeform database, an alternative spreadsheet, and one or two other goodies, watch for reviews as they arrive here in Stockport.

Prices of many products continue to fall. TENEX have a good range of NEW items, both disk and module software and peripherals.

For older modules, TEX COMP in California LIST the most, while PARCO has good stocks of the older modules and even some of the very latest.

==========

WHAT'S IN A FILE?

Disks for the TI can have a number of different file types, which can serve several different purposes. How can you tell which is which? In some cases, you are reduced to trial and error! But the following notes may help:

PROGRAM FORMAT:

Unwisely named, as not all PROGRAM files are programs. This type of file is better described as MEMORY IMAGE- just a byte by byte image of a particular area of memory in the computer, which MAY be a program in basic or machine code, or some kind of data- graphics, adventure data and so on.

FUNLWEB will identify basic and most machine code images for you- use SD from TI Writer, and once the directory is on screen press the equals (=) key. The right hand column will now be marked BA or EA as appropriate.

Other memory image files can be identified as follows:

File name ends in _P or _C: A picture to load with TI Artist or MAX/RLE.
File is 54 sectors long: MAY be a picture to load with Graphx or MAX/RLE.
File is 25 sectors but doesn't end in _P or _C: MAY be graphics for CERT99.
File is 8 sectors: May be a graphics screen for Fractal Explorer.
File names are identical except for last letter:

Type 1:	TYPE 2:
INVADERS	INVADERS
INVADERT	INVADERS1
INVADERU	INVADERS2
Ed/As Option 5	Gram Kracker
Machine Code program	Machine Code program.

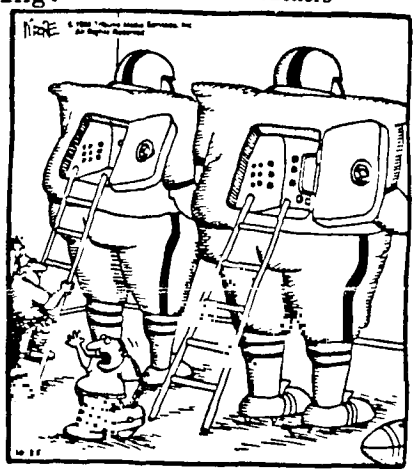
If you place the files on a blank new disk, and inspect the header (first 3 bytes) on Sector 22, with a sector editor, as supplied with Funlweb, you may also determine:

TUNNELS OF DOOM: 0406 0504 0400
Scott Adams Adventures: 2020 2020 2020
Module ram required: If third byte is >8000 or >7000
If the first byte is 0000 you MAY be dealing with graphics such as a CHARA1 file or a GRAPHX picture.

On standard E/A Option 5 files, where there is more than one file, eg INV1,INV2 and so on, the first byte on the LAST file is >0000 while all preceding files have a first byte of >FFFE (Gram Kracker files are >FF05,>FF06 etc).
***
DISPLAY VARIABLE 80
Almost all DV80 files can be loaded into TI Writer for inspection. If they won't load they may have been prepared with the European version of TI Writer, just use the little utility program given elsewhere in this issue to force them to load!
DV80 files are most commonly:
TEXT- documentation.
SOURCE CODE - which may contain instructions!
GRAPHICS:
Files ending _I, _F, _S are for TI ARTIST.
5 sector and 2 sector files MAY be for Picasso.
Files may be RLE graphics.
***
DISPLAY FIXED 80:
Usually used for machine code object files, to load with XB or EA modules. Can also be loaded into TI Writer for inspection.
36 and 68 sector files MAY be fonts for THE PRINTERS APPRENTICE.
***
DISPLAY FIXED 128:
Used for RLE GRAPHICS.
MAY be ARCHIVED files which need unpacking.
Could be a special format machine code file requiring a special loader.
***
INTERNAL FIXED 128:
Used for JOYPAINT FONTS.
Also used for COMPRESSED ARCHIVED files which need uncompressing.
***
DISPLAY VARIABLE 163:
Used for Extended Basic MERGE files.
type MERGE DSK1.FILENAME.
***
DISPLAY FIXED 254 is used for Draw a Bit graphics.
***
INTERNAL VARIABLE 254 is used for:
LONG Extended Basic programs.(Use OLD DSK1.FILENAME as usual)
Data for Creative Filing System
Data for TRIO SINGS program.
Data for CSGD- watch for file names ending in /CH and /GR etc
***
DISPLAY FIXED 255:
Used for INFOCOM data files, usually GAME1 and GAME2.
Used for Super Disk Cataloguer data files.

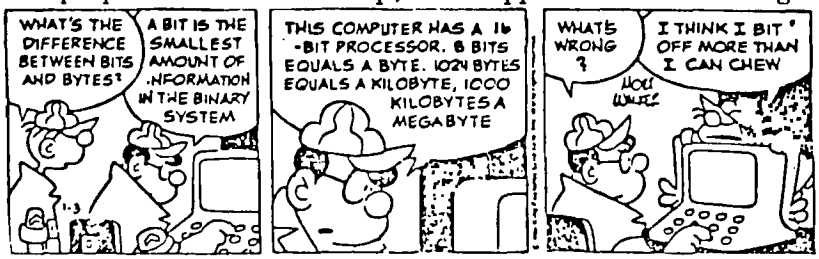
That will give you a start anyway!
==========

In The Bleachers



"See ya next Sunday, Bill."

CORRECTION: ISSUE 20 : PAGE 42.
Beamheadings Program: Hmmm. Can't find any 1/2 or 1/4 keys on my keyboard... these odd characters, inserted in the listing by a daisywheel printer, should be characters 123 and 124 respectively- you noticed them redefined at the start of the listing didn't you! Sorry 'bout that- program was printed by us in the form it was received!
=====
SECOND HAND PRICES
What is a good price for second hand geear? What somebody will pay for it... seriously, I have seen adds quoting prices which seem intended to stop anyone even haggling, so high are the prices asked.
If you are selling TI gear, consider what YOU would NOW pay for it yourself! When five hundred will pay for a complete computer with monitor disk drive and eerything else, with high res graphics, faster processor and so on than the TI, why should you expect a TI owner to lay out nearly a thousand on a fully fitted FDB! Everything you are selling is likely to be AT LEAST five years old and probably heavily used! May I suggest a limit of 25% of purchase price for second hand goods- many will be worth very much less than this though. New games and educational modules are readily available NEW for under three pounds!
AND if any members ARE giving up their TIs (shame shame) please do consider donating your equipment to the Group, in support of remaining members.
=====



```
!************************
!*                      *
!*     BRIGHT EYES      *
!*FROM: "WATERSHIP DOWN"*
!*                      *
!*    BY MIKE BATT      *
!*                      *
!* CONVERTED BY R DUNLOP*
!************************
 AF0=779 :: A0=825 :: AS0,BF0=875 :: C0=982 :: CS0,DF0=1040 :: D0=1102 :: DS0,
EF0=1168 :: E0=1237 :: F0=1311 :: FS0,GF0=1389
 CALL CLEAR :: A1=110 :: AS1,BF1=117 :: B1=123 :: C1=131 :: CS1,DF1=139 :: D1=
147 :: DS1,EF1=156 :: E1=165 :: F1=175 :: FS1,GF1=185 :: G1=196
 A2=220 :: AS2,BF2=233 :: B2=247 :: C2=262 :: CS2,DF2=277 :: D2=294 :: DS2,EF2
=311 :: E2=330 :: F2=349 :: FS2,GF2=370 :: G2=392
 A3=440 :: AS3,BF3=466 :: B3=494 :: C3=523 :: CS3,DF3=554 :: D3=587 :: DS3,EF3
=622 :: E3=659 :: F3=698 :: FS3,GF3=740 :: G3=784
 A4=880 :: AS4,BF4=932 :: B4=988 :: C4=1047 :: CS4,DF4=1109 :: D4=1175 :: DS4,
EF4=1245 :: E4=1319 :: F4=1397 :: FS4,GF4=1480 :: G4=1568
 G0=1471 :: GS0,AF1=1559 :: GS1,AF2=208 :: GS2,AF3=415 :: GS3,AF4=831 :: GS4,A
F5=1661 :: R=40000
 C=450 :: M=C*2 :: DC=C*1.5 :: Q=C*0.5 :: COUNT=0 :: FL=0 :: CALL MAGNIFY(4)::
 CALL PICTURE :: GOTO 27
 CALL SOUND(T,S1,V1):: RETURN !1 NOTE
 CALL SOUND(T,S2,V2):: RETURN !1 NOTE(S2)
 CALL SOUND(T,S3,V3):: RETURN !1 NOTE(S3)
 CALL SOUND(T,S1,V1,S2,V2):: RETURN !2 NOTES(S1,S2)
 CALL SOUND(T,S1,V1,S3,V3):: RETURN !2 NOTES(S1,S3)
 CALL SOUND(T,S2,V2,S3,V3):: RETURN !2 NOTES(S2,S3)
 CALL SOUND(T,S1,V1,S2,V2,S3,V3):: RETURN !3 NOTES
 CALL SOUND(T,S1,V1,S2,V2,S3,30,-4,V3):: RETURN !BASS +2 NOTES
 CALL SOUND(T,S3,30,S3,30,S3,30,-4,V3):: RETURN !BASS
 CALL SOUND(T,S1,V1,S3,30,S3,30,-4,V3):: RETURN !BASS +1 NOTE
 V1=10 :: V2=10 :: V3=6 :: T=Q :: S3=G0 :: GOSUB 25 :: S1=D2 :: GOSUB 26 :: S1
=G2 :: GOSUB 26 :: S1=D2 :: GOSUB 26 :: S1=B3 :: GOSUB 26
 S1=G2 :: GOSUB 26 :: S1=D2 :: GOSUB 26 :: S1=G2 :: GOSUB 26 :: GOSUB 59 :: V1
=0 :: V2=6 :: V3=6
 FOR COUNT=1 TO 2 :: V1=1 :: T=Q :: S1=B3 :: S3=G0 :: GOSUB 26 :: S1=D3 :: S2=
B3 :: T=C :: GOSUB 24 :: T=Q :: GOSUB 26 :: T=C :: GOSUB 24
 S1=B3 :: T=Q :: GOSUB 26 :: S1=D3 :: GOSUB 26 :: T=M :: S1=E3 :: S2=C1 :: GOS
UB 20 :: S1=D3 :: S2=G0 :: GOSUB 26
 S3=G0 :: T=2*M :: GOSUB 25
 S1=G2 :: S2=B2 :: S3=E0 :: T=C :: GOSUB 24 :: T=Q :: S1=B3 :: GOSUB 17 :: S2=
G2 :: T=C :: GOSUB 24 :: S1=G2 :: S2=B2 :: GOSUB 24
 S1=B3 :: T=Q :: GOSUB 17 :: T=M :: S1=C3 :: S2=C1 :: GOSUB 20 :: S1=B3 :: S3=
G0 :: GOSUB 26 :: T=1.5*M :: GOSUB 25 :: S3=G1 :: T=C :: GOSUB 19
 !@P-
 T=Q :: S1=A3 :: S2=FS2 :: S3=D1 :: GOSUB 23 :: GOSUB 23 :: GOSUB 23 :: GOSUB
23 :: S3=C1 :: GOSUB 23 :: S1=B3 :: GOSUB 23
 S1=C3 :: S2=A3 :: T=C :: GOSUB 23 :: S1=D3 :: S2=G2 :: S3=G0 :: GOSUB 24 :: S
2=B3 :: S3=A1 :: GOSUB 23 :: T=M+DC :: S1=G2 :: S2=C1 :: GOSUB 20
 T=Q :: S1=E2 :: S2=C1 :: GOSUB 20 :: S1=C3 :: S2=E2 :: S3=A1 :: GOSUB 23 :: T
=C :: GOSUB 23 :: T=Q :: GOSUB 23
 S1=FS2 :: S3=D0 :: T=M*2 :: GOSUB 26 :: S3=D1 :: T=M+Q :: GOSUB 19 :: S1=G2 :
: S2=E2 :: T=C :: GOSUB 23
 T=Q :: S1=A3 :: S2=FS2 :: GOSUB 23 :: T=C :: S1=B3 :: S2=G2 :: S3=G0 :: GOSUB
 24 :: T=Q :: S1=D3 :: GOSUB 26 :: T=C :: S2=B3 :: GOSUB 24
 T=Q :: S1=B3 :: GOSUB 26 :: T=C :: S1=D3 :: S2=B3 :: GOSUB 24 :: T=M :: S1=E3
 :: S2=C1 :: GOSUB 20 :: S1=D3 :: S3=G0 :: GOSUB 26
 T=M+C+Q :: GOSUB 25 :: S1=G2 :: T=Q :: GOSUB 26 :: T=M :: S3=E0 :: GOSUB 26 :
: T=Q :: S1=B3 :: S2=B2 :: GOSUB 24
 T=C :: S1=G2 :: GOSUB 24 :: T=Q :: S1=B3 :: S2=G2 :: GOSUB 24 :: T=M :: S1=C3
 :: S2=C1 :: GOSUB 20 :: S1=B3 :: S3=G0 :: GOSUB 26
 T=M+C+Q :: GOSUB 25 :: T=Q :: S1=G2 :: GOSUB 26 :: S1=A3 :: S2=FS2 :: S3=D1 :
: GOSUB 23 :: GOSUB 23 :: GOSUB 23 :: T=C :: GOSUB 23
 T=Q :: S3=C1 :: GOSUB 23 :: S1=B3 :: GOSUB 23 :: T=C :: S1=C3 :: S2=A3 :: GOS
UB 23 :: S1=D3 :: S2=G2 :: S3=G0 :: GOSUB 24
 S2=B3 :: S3=A1 :: GOSUB 23 :: T=M+DC :: S1=G2 :: S2=C1 :: GOSUB 20 :: T=Q ::
GOSUB 20 :: S1=C3 :: S2=E2 :: GOSUB 23
 T=C :: GOSUB 23 :: T=Q :: GOSUB 23 :: T=2*M :: S1=B3 :: S2=DS1 :: GOSUB 20 ::
 T=M :: S1=AS3 :: S2=CS1 :: GOSUB 20
 S1=B3 :: S2=D1 :: GOSUB 20 :: T=Q :: S1=C3 :: S2=FS2 :: S3=D0 :: GOSUB 24 ::
T=C :: GOSUB 24 :: S1=FS2 :: T=Q :: GOSUB 26
 T=M*2 :: S1=G2 :: S3=G0 :: GOSUB 26 :: T=M :: S3=G0 :: GOSUB 25 :: T=Q :: S1=
B3 :: S2=G2 :: GOSUB 24
 S1=D3 :: T=C :: GOSUB 24 :: T=2*M+Q :: S3=B1 :: GOSUB 21 :: T=DC :: S1=G2 ::
S2=C1 :: GOSUB 20 :: S1=C3 :: S2=G2 :: S3=C1 :: GOSUB 23
 T=Q :: S1=B3 :: S2=E2 :: GOSUB 23 :: S1=A3 :: GOSUB 23 :: S1=B3 :: S2=FS2 ::
S3=D1 :: GOSUB 23 :: S1=A3 :: T=2*M+DC :: GOSUB 23
 S1=B3 :: S2=FS2 :: S3=D0 :: T=Q :: GOSUB 24 :: S1=D3 :: T=C :: GOSUB 24 :: T=
2*M+Q :: S3=G0 :: GOSUB 26 :: S1=G2 :: S2=E2 :: S3=C1 :: T=Q
```

```
52 GOSUB 23 :: GOSUB 23 :: GOSUB 23 :: T=DC :: S1=C3 :: S2=G2 :: GOSUB 23 :: T=Q
 :: S1=B3 :: GOSUB 21 :: S1=A3 :: T=2*M+Q :: S3=A1 :: GOSUB 21
53 T=2*M :: GOSUB 19 :: T=Q :: S1=B3 :: S2=FS2 :: S3=DS0 :: GOSUB 24 :: GOSUB 24
 :: GOSUB 24 :: T=DC :: S3=E0 :: GOSUB 24
54 T=Q :: S1=G2 :: GOSUB 26 :: S1=D3 :: S2=A3 :: S3=FS0 :: T=DC :: GOSUB 24 :: T
=Q :: GOSUB 24 :: T=DC :: GOSUB 24
55 S1=G2 :: S2=D2 :: S3=G0 :: GOSUB 24 :: T=Q :: S1=C3 :: S2=G2 :: S3=C0 :: GOSU
B 24 :: GOSUB 24 :: GOSUB 24
56 T=DC :: S1=D3 :: S2=E2 :: S3=C1 :: GOSUB 23 :: S1=E3 :: T=C :: S2=G2 :: GOSUB
 23 :: T=DC :: S1=A3 :: S2=E2 :: S3=A1 :: GOSUB 23
57 IF COUNT<>1 THEN 70
58 T=Q :: S1=C3 :: S2=FS2 :: S3=D0 :: GOSUB 24 :: T=C :: S1=B3 :: GOSUB 24 :: T=
M*2+Q :: S1=G2 :: S3=G0 :: GOSUB 26
59 V1=10 :: V2=10 :: V3=6 :: T=Q :: S1=D3 :: S2=B3 :: GOSUB 24 :: S2=G2 :: GOSUB
 24 :: S2=D2 :: GOSUB 24 :: S2=G2 :: GOSUB 24
60 S2=B3 :: GOSUB 24 :: S1=E3 :: GOSUB 24 :: S1=FS3 :: GOSUB 24 :: S1=G3 :: GOSU
B 24 :: T=C :: S1=A4 :: S3=E0 :: GOSUB 24
61 T=Q :: S1=G3 :: GOSUB 24 :: T=C :: S1=B3 :: S2=G2 :: GOSUB 24 :: S2=E2 :: T=Q
 :: GOSUB 24 :: S1=G2 :: GOSUB 24 :: S1=E2 :: GOSUB 24
62 S2=G2 :: GOSUB 24 :: S2=E2 :: GOSUB 24 :: S2=B2 :: GOSUB 24 :: S2=E2 :: GOSUB
 24 :: S1=G2 :: S2=E2 :: GOSUB 24 :: S1=A3 :: GOSUB 24
63 S1=G2 :: GOSUB 24 :: S1=A3 :: GOSUB 24 :: S1=G2 :: S2=R :: S3=C1 :: GOSUB 23
 :: S2=C2 :: GOSUB 23 :: S2=E2 :: GOSUB 23
64 S2=C2 :: GOSUB 23 :: S2=E2 :: GOSUB 23 :: S2=C2 :: GOSUB 23 :: S2=G1 :: GOSUB
 23 :: S1=C2 :: GOSUB 23 :: S2=E2 :: GOSUB 23
65 S2=C2 :: GOSUB 23 :: S2=E2 :: GOSUB 23 :: S2=C2 :: GOSUB 23 :: S2=E2 :: GOSUB
 23 :: S1=A3 :: GOSUB 23 :: S1=G2 :: GOSUB 23
66 S1=A3 :: GOSUB 23 :: V1=0 :: V2=6 :: V3=6 :: IF COUNT=0 THEN RETURN
67 !@J'+
68 NEXT COUNT
69 !@P-
70 T=Q :: S1=C3 :: S2=FS2 :: S3=D0 :: GOSUB 24 :: T=C :: S1=B3 :: GOSUB 24 :: T=
M*2+Q :: S1=G2 :: S3=G0 :: GOSUB 26
71 !@P+
72 IF FL=1 THEN 76
73 FL=1
74 !@P-
75 T=M :: GOSUB 25 :: T=Q :: S1=B3 :: S2=G2 :: GOSUB 24 :: GOTO 49
76 !CODA
77 T=C :: GOSUB 25 :: T=Q :: V1=8 :: V2=10 :: V3=7 :: S1=B2 :: GOSUB 26 :: S1=D2
 :: GOSUB 26 :: S1=B2 :: GOSUB 26 :: S1=D2 :: GOSUB 26
78 S1=G1 :: GOSUB 26 :: S1=B2 :: GOSUB 26 :: T=C :: GOSUB 25 :: T=Q*1.1 :: GOSUB
 26 :: T=T*1.1 :: S1=D2 :: GOSUB 26
79 T=T*1.1 :: S1=G1 :: GOSUB 26 :: T=T*1.1 :: S1=B2 :: GOSUB 26 :: T=T*1.1 :: S1
=D2 :: GOSUB 26 :: T=T*1.1 :: S1=G2 :: GOSUB 26
80 V1=4 :: V2=4 :: V3=4 :: T=2*M :: S1=B3 :: S2=D2 :: S3=G0 :: GOSUB 24
81 !@P+
82 FOR DEL=1 TO 1500 :: NEXT DEL
83 CALL CLEAR :: CALL DELSPRITE(ALL)
84 END
90 SUB PICTURE
100 CALL SCREEN(7):: DISPLAY AT(2,10):"BRIGHT EYES" :: DISPLAY AT(21,13):"FROM"
:: DISPLAY AT(22,8):"WATERSHIP DOWN"
105 CALL CHAR(96,"0000000107 0F3F7F",97,"FFFFFFFFFFFFFFFF",98,"000000E0F0F8F8AC",
99,"ACFE8EFEFEFEFCFC")
110 CALL CHAR(100,"FFFFFFFFFFFFFFFF",101,"FFFFFFFFFFFFFFFF",102,"FCFCFCF8F8F8F0F
0",103,"F0E0E0E0E0C0C0C0")
115 CALL CHAR(104,"FFFFFFFFFFFFFFFE",105,"FEFEFCFCFCF8F8F8",106,"C0C080800000000
0",107,"0000000000000000")
120 CALL CHAR(108,"0000000000000000",109,"0000031F7FFFFFFF",110,"03060E3F7F7F7F7
F",111,"7FFFFFFFFFFFFFFF")
125 CALL CHAR(112,"0000000000000000",113,"0000000000000000",114,"0000030F1F3F7F7
F",115,"7F7F7F7E7C391103")
130 CALL CHAR(116,"0000000000000000",117,"01030307070F1F3F",118,"070F1F3F7F7FFFF
F",119,"FFFFFFFFFFFFFFFF")
135 CALL CHAR(120,"FFFFF7E7CF9F3F7F",121,"FFFFFFFFFFFFFFFF",122,"FFFFFFFFFFFFFFF
F",123,"FFFFFFFFFFFFFFFF")
140 CALL CHAR(128,"0101010101110909",129,"09080C0405020000",130,"000000000000402
0",131,"108844FF42210000")
145 CALL CHAR(132,"00301D0F1622528A",133,"060908FF80000000",134,"8080008080402000
0",135,"088A96D421400000")
150 CALL CHAR(136,"0000000000000000",137,"0000000000000000",138,"000000005000C04
0",139,"5088829084A090A2")
155 CALL SPRITE(#28,96,2,41,145):: CALL SPRITE(#27,100,2,73,145):: CALL SPRITE(#
26,104,2,105,145):: CALL SPRITE(#25,108,2,57,113)
160 CALL SPRITE(#24,112,2,81,81):: CALL SPRITE(#23,116,2,113,81):: CALL SPRITE(#
22,120,2,89,113)
165 CALL COLOR(12,2,2):: FOR COL=15 TO 19 :: CALL VCHAR(16,COL,124,3):: NEXT COL
 :: CALL HCHAR(18,19,124)
170 CALL SPRITE(#10,128,13,121,97):: CALL SPRITE(#11,132,13,121,129):: CALL SPRI
TE(#12,136,13,89,129)
1000 SUBEND
```

9T9 LIBRARY listing and notes if any. Compiled by Gary Bowser on Oct. 19 1988

Incase you may want more info on a disk/program before buying a copy, please don't hesitate to talk to me at one of the meetings, or even drop me a line to the club's address,or in rush cases phone me. (Number is on first page of newsletter).
You can also order advance before a meeting, and pay for the readymade copies at the meeting, this is helpful if you can't wait at the meeting for a copy to be maded.

==========

Library disks are $2 each. DOM's 'Disk of the month' are $3. Prices are a buck less if you supply the disk. All disks & DOMs are available the following ways: 1: All club meetings. 2: By mail with a list of disks and a cheque/money order. 3: By calling Gary Bowser at 960-0925 & arranging to pick them up at his place.

==========

DISK CODE: A)rtist	S)peech util's	U)tilities	C)atalogs soft/hard
G)ames J)unk misc.	I)nstructions	H)ome & finance	P)rogram langs/help
M)usic E)ducation	D)isk manips	W)ord manips	T)erm ems/help/BBS's

TYPE CODE :	TEXT-Dis/Var 80	EA -Editor/Assembler and 32K
MP -Multiplan	FRTH-Forth lang.	EAXB- (E/A or Extended Basic) and 32K
MM -Mini Memory	TE2 -Term Em. II	XB -Extended Basic
ART -pictures	9640-MYARC 9640	XB32-Extended Basic with 32K
LOGO-Logo II module		

SIZE is the number of disks needed. VER. is the version of the program. DATE is when this VER. was added to the library. Ones marked OLD are ready for deletion on next updata of library.

DISK	PROGRAM	SIZE	TYPE	VER.	DATE	
A001	RLEARTIST	>>>>	ART	>>>>	06/14/88	B/W TI-ARTIST pictures (26 disks so far)
A002	COLORPICS	>>>>	ART	>>>>	04/05/88	Color Pictures (02 disks so far)
A009	AUTO CAD	1	EA			Computer assisted drawing
A010	GRPHJACKET	1	XB			Prints a disk jacket using a GRAPHX
A011	JET SPRITE	2	XB			Sprite builder program
A015	TASS 2001	1	XB32	3.00	03/14/88	Tri Artist Slide Show 2001 (Gary Bowser)
A020	PICASSO	1	EAXB		11/16/87	Desktop Publisher
A025	PIX-SHOW	1	XB32		02/11/88	Picture show from PB (8 color pictures)
A026	ANIMATION	2	EAXB		10/19/88	Make your own Cartoons with Docs & Demos
D005	DISKM	1	EAXB	4.1	06/14/88	Disk manager/editor/reporter
D	ARCHIVER	-	EAXB	3.02	10/19/88	Archiver III with one step ARC & CMP
D006	MISCUTIL-A	1	EAXB	----	03/14/88	BT-LOAD,DISPA,CATLIB,DCOPY all with docs
D007	MISCUTIL-B	1	EAXB	----	04/05/88	DCLP,LABELER,GR EDITOR,GR VIEWER; + docs
G001	CHINACHESS	1	XB			A new game using icon control!
G002	CRAPS	1	XB32			Crap Game (very good game)
G003	FRENZY	1	EAXB		OLD	Space game very well done
G004	MONOPOLY	1	XB			Plays like the board game
G005	MS ADVEN	1	XB32			Text adventure game
G006	OIL INVAS	1	FRTH		OLD	Oil Invasion (a game in forth)
G007	TI99'OPOLY	1	XB32		OLD	A well done version of Monnpoly
G008	TRIVIA99er	1	XB32			Trivia Game
G009	WIT GAMES	3	XB			Scrabble type games
G010	WORD WIZ	1	XB32			A word game with text to speech
G011	IC-SAMPLER	2	EAXB		02/11/88	Infocom sampler of their adventure games
G012	TOD*BASES	2	EAXB		02/11/88	Tunnels of Doom with 10 games so far
G013	FROG	1	XB32		02/11/88	Frog jump type game from MicroPendium
G014	CHAINLINK5	1	XB32	5.0	02/11/88	Solataire type game by Walt Howe
G015	GERMAN/XB1	1	XB		10/19/88	Some XB games from Germany
H001	CHECK BOOK	1			OLD	Cheque Book and Budget Management
H002	FAST TRANS	2				Checkbook Recapper/planner
H003	MP-BUDGET	1	MP		09/29/87	Budget template for Multiplan
H004	PR BASE	3		2.1	11/16/87	A good personal data base program
H005	VCR-DB	1				A Database for your VCR Tapes
H006	RECORDS/+	1	XB32		12/09/87	Data Base type program (Records Plus)
H007	AMORTIZAT	1	XB		08/16/87	AMORTIZAT by Jiri Svoboda (9T9 UG)
H008	CFS	3	XB32	5.0	02/11/88	Creative Filing System by Mark Beck
H009	TI-LEDGER	1	XB32	1.2	02/11/88	Same as AUTOMATIC ACCOUNT on the IBM PC
H010	99-MAIL	1	EAXB		03/14/88	A forth mail list (710 records per SSSD)
H011	TAX87FORMS	1	MP		03/14/88	87 Canadian Tax forms with docs
H012	PERECORDFS	2	XB32		04/05/88	Personal Records Filing System
H013	CHEQ PRTE	1	XB32		04/05/88	Cheque Writer with docs
H014	BUDGPRNT	1	EAXB		10/19/88	Util Print Data from Home Budget Module
H015	GENEALOGY1	1	XB32		10/19/88	Complete Package to Record Family Roots
I001	FORTH DOCS	5	TEXT		OLD	Forth Manual on disk (incomplete)
I002	TI REWRITE	1	TEXT			Helper file for TI-WRITER commands.
I003	TYPETTE	1			04/05/88	A Basic course in Beginners Typing

I004	TUTORIALXB	1	XB		10/19/88	Tutorials for XB
I005	SPEEDREAD	1	XB32		10/19/88	Tutorial for SPEED READING with tests
J>>>	C99PROGS	1	EA		04/05/88	C99 Programs Disk A (temp disk number)
J>>>	ZODIAC	1	XB32		10/19/88	Zodiac Wheel of Fortune (temp disk #)
M001	4thMUSIC	1	FRTH			Music or Graphics Demo in Forth
M003	MUSIC#01	1	EA		OLD	Selection of EA Music
M004	SORGAN	1	EA			Makes Keyboard an organ
M "	AXLE F	-	EA			Music (Beverly Hills Cop)
M005	XBMUSIC#--	>>>>	XB	>>>>	12/09/87	XB music disks (5 disks so far) <
M010	MUSIC-MAN	1	XB32		02/11/88	The MUSIC MAN album
M011	S-PACIFIC	1	XB32		03/14/88	The SOUTH PACIFIC album (volume I)
M012	WIZARD/OZ	1	XB32		04/05/88	The WIZARD OF OZ album
M013	PATSYCLINE	1	XB32		04/05/88	The best of PATSY CLINE album
M014	STARTREK	1	XB32		06/14/88	The STAR TREK album
M015	BEATLES	1	XB32		10/19/88	The BEATLES album
P001	BEAXS	2	XB32			Editor Assembler on Disk Version
P002	STAR	1	XB32			Super TI Assembly Routines for XB
P003	TI FORTH	1	EA			TI FORTH programming language
P004	TI PILOT	2	EA			TI PILOT programming language
P005	TOOL KIT	1	XB32			A set of programming utilities
P006	cBASIC	2	EA		OLD	cBasic Language Compiler
P007	P-SAMPLER	1			11/16/87	Sample of different languages for the TI
P008	XB*TOOLS	1	XB32		11/16/87	Tools to assist the Extended Basic
P009	EDP 2.1	1	XB32	2.1	03/14/88	Enhanced Display Package
P010	UTILDISK-B	1	XB32		04/05/88	ACE,COLIST,DISK HACKER,DV>PGM,TEXT-BASIC
P011	PULSAR	1	XB32		06/14/88	Assembly Routines for X/B use
P012	LISP99	1	EA		06/14/88	LISP for the TI99
P013	FRACTUALII	1	EA32	2.0	10/19/88	FRACTUAL EXPLORER with docs/source/demos
P014	XBTEXTLOAD	1	XB32		10/19/88	Converts DIS/VAR80 to XB program
P015	GEE!	1	EAXB		10/19/88	Graphics GEE! Language with docs/demos
S001	SPEECH/01	1	TE2		09/29/87	Selection of speech programs (singing)
S002	TEXT=SPEECH	1	XB32		02/11/88	Text-To-Speech
T001	FT/OM/MT	2	EAXB	----	12/09/87	Fast-Term,Omega,Mass-Transfer term-progs
T002	TELCO	2	EAXB	2.2	10/19/88	A NEW VER. OF TELCO WITH MORE FEATURES
T004	DELPHI/AID	1	XB32		12/09/87	Explains the DELPHI system with XMODEM.
T005	PBBS	2	XB32		06/14/88	A good Assembly/XB BBS for smartmodems
U001	CALENDARS	1	XB			A set of different calenders progs.
U002	FACTAL	1	EA	2.1	03/14/88	Great new version of Fractual Explorer
U003	LABELER	1	XB		11/16/87	Prints labels with over 100 logos
U005	SCREENDUMP	1			OLD	Screen dump to printer
U006	SYSTEMTEST	1	XBMM		OLD	99/4A system test for XB or MM by TI!
U007	UTILDISK-A	1	EAXT	---	02/11/88	Seletion of Util's in XB and EA
U008	LOGODUMP	1	LOGO	---	06/14/88	Logo dump program (EA5 type loader)
U009	LOGOSTART	1	LOGO	---	06/14/88	Logo auto start program (EA5 loader)
W001	BA WRITER	2	EAXB	1.3	11/16/87	TI Writer on Disk Version and more!
W002	CRUNCH	1			OLD	Crunches Dis/Var 80 files
W003	FUNNELWEB	2	EAXB	4.1	05/24/88	TI Writer,E/A,Disk manager in one.
W004	FUNNELWEB+	2	XB32		06/14/88	Companion disk for FUNNELWEB

The following came from Delphi:

9640 News

Now Introducing the first disk newsletter specifically for the Geneve 9640 is "9640 News". "9640 News" will contain the latest information on advancements with the 9640 along with Geneve specific software. Soon to be released G-Base, a piece of software runnable from MDOS providing limited data base capabilities will be released and with your subscription to "9640 News", no freeware payments, etc will be required. The latest software and hardware hacks and advancements will be released by "9640 News".

As currently stated, only Geneve specific software and information will be available on the disk. No 4A compatible software will be included on the disk as I do not wish to compete directly with another fine Disk Magazine that is currently available for the 4A.

Contributions by software developers are welcome provided they are Geneve specific. The current subscription rate for 5 disk issues is:

$25 for U.S. delivery
$30 for foreign delivery surface mail
$38 for foreign delivery air mail

Outside U.S. pay postal or international money order, within the U.S., personal checks are welcome.

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Memphis, TN 38114
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