



# The Ottawa T.I.99/4 Users' Group



VOLUME 4/NUMBER 03.....MARCH 1985

## C o n t e n t s

### **NEXT MEETING.....**

THURSDAY the 4th of APRIL, starting at 7:30pm at the Merivale High School, 1755 Merivale Road in Nepean.

### **EXECUTIVE NOTES.....**

LLOYD GALENZOSKI to look after memberships... Poor S/W sales at last meeting... Big grand prize for all entrants of the software contest... The first annual rummage sale at the next meeting.

### **FEATURE ARTICLES.....**

B. CARON has the last part (part 5) of his directory entry series... R.A. GREENE continues with part 3 on the PRK module... PRIOR PATTERNS gives us a CORCOMP update... B. BOONE has the latest on the library and a quick look at a TIBBS... S. MILLAR keeps us posted on all the up to date scores... Feature interview this month is with CHUCK HUMPHREY of NAVARONE INDUSTRIES, INC.

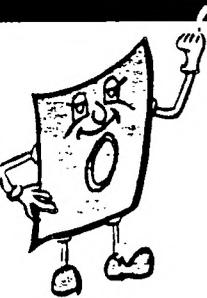
### **DEADLINE.....**

The 12th of APRIL is the cutoff date for submissions.

The Ottawa T.I. 99/4 Users' Group - 2144 Station D Ottawa, Ontario

**THE FIRST ANNUAL RUMMAGE SALE**

# Mr. Diskette



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## CHAIRMAN'S TWO CENTS WORTH

by Bill Sponchia

### General Meeting

Thanks goes out to Bob Boone and Bruce Caron for their fine demonstrations on hardware maintenance. For those who missed the meeting it is my opinion that you missed alot.

Our next meeting, to be held on April 4th, will be the first of what we hope will become an annual event. Taking off from a suggestion made by one of the members a couple of meetings ago we have decided to hold the First Annual Rummage Sale. If you have something to sell (or trade) bring it out. The more participation we have the better it will be. In fact if you have a friend bring him out too (no, not to sell - to participate in the buying). Everyone is welcome, members and non-members alike.

### 1985 Memberships

If you know anyone who hasn't renewed his membership yet remind him of what he is missing. Sofar we have reached about 130-140 so things are going just great.

### Tutorial/Workshops

Advanced and Forth tutorials are being run are being run on alternative Tuesdays at Merivale High School. If further information is wanted on either of these please contact Berry Minuk at 234-5472.

Beginners and Intermediate tutorials are presently not being run but either will be restarted should the demand arise.

The Multi-Plan workshop is still operating. For full information on this please contact John Altorio at 224-8440.

RUMMAGE SALE...APRIL 4TH - RUMMAGE SALE...APRIL 4TH - RUMMAGE SALE...  
IL 4TH - RUMMAGE SALE...APRIL 4TH - RUMMAGE SALE...APRIL 4TH - RUMMAG

NOTE TO ALL READERS: The reason for the inferior setup of this page (as compared to the balance of the Newsletter) was that due to the slowness of myself this page was done (setup and printed) by myself and should in no way reflect on our Editor who is doing a fine job. Paul, please accept my apologies. Bill.

# HOTLINE NUMBERS

The executive has expressed a desire to assist all members should you have some problems or have some questions, do some library swapping or borrow a book. This will be the place to look. Of course if you wish to be placed on the list just give me a call...I know there is a lot of expertise within our Group. I hope to add to this list and improve the coding. Please respect normal hours unless you specifically know that someone doesn't mind a call at 3am or use the BBS to leave a message at 738-0617, 24 hours a day, 7 days a week.

BILL SPONCHIA.....CHAIRMAN.....TUTORIALS, B, Ls, XB..... (M) 523-0878  
BERRY MINUK.....V/CHAIRMAN...TUTORIALS, ASL, B, F, XB..... (M) 234-5472  
JOHN ALTORIO.....TREASURER....FINANCES, B, CC, L, MBX, Mmp, XB..... (M) 224-8440  
JANE LAFLAMME.....SECRETARY....RECORDS, B, BBS, Lb, Lc, Ls, MBX, Mwp. (M) 837-1719  
BOB BOONE.....P/CHAIRMAN...U/G CO-ORD, CC, I, Ld, Ls, S, SS..... (M) 623-7841  
BRUCE CARON.....SYSOP.....ASL, BBS, CC, I, R..... (M) 733-7675  
PAUL BERLINGUETTE.EDITOR.....NEWSLETTER, CC, I, Lb, R..... (M) 741-6175  
TONY HOPKINS.....ADVERTISING..BUSINESS, Lb, Ld..... 746-4463  
SHAWN MILLAR.....YOUTH CO-ORD.SCORES..... (M) 684-3466  
MAURO TOMIETTO....LIB.CHRMN....OTIUG SOFTWARE, Ls..... (M) 729-4519  
LLOYD GALENZOSKI..MEMBER/CHRMN.MEMBERSHIPS..... (M) 830-1522  
CLIFF PROCTOR.....Mp, S..... (M) 824-0056  
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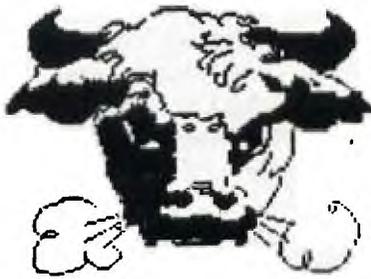
\*HARDWARE AND SOFTWARE REPAIR DEPOT IN RICHMOND HILL (TORONTO)\*

SOFTWARE:::ASL=ASSEMBLY LANGUAGE  
B=BASIC  
F=FORTH  
L=LOGO  
Lb=BOOKS/MAGAZINES  
Lc=CASSETTE LIBRARY  
Ld=DISK LIBRARY  
Ls=U/G SOFTWARE SALES

Mp=PLATO  
Mea=EDITOR ASSEMBLER  
Mmm=MINI-MEMORY  
Mmp=MULTIPLAN  
Mwp=TI WRITER  
S=SALES  
XB=EXTENDED BASIC

HARDWARE:::BBS=SYSTEM OPERATOR  
CC=CORCOMP EQUIPMENT  
I=INSTALLATION  
M=MODEM EQUIPPED

MBX=VOICE RECOGNITION  
MY=MYARC EQUIPMENT  
R=REPAIRS  
SS=SALES



## EDITOR COMMENTS

Well I sure felt better after reading BOB's article on CORCOMP and the survey done on the SOURCE dispells any notion of widespread problems. BOB has received his 9900 sysytem again, and the ALMONTE USERS GROUP is testing their new controller card out. JOHN and I are still waiting for ours so stay tuned for more news and speaking of news there is a ton of it around. Beside me I have eleven issues of TI-LINES from the OXON TI USERS GROUP in OXFORD, ENGLAND, MARCH N/L from STICC(SASKATOON TEXAS INSTRUMENTS COMPUTER CLUB),the CORCOMP CURSOR VOL.II,RYTE DATA COMPUTING N/L,VOL1.1 and 1.2, 4 big BBS FILES(15 to 20 pages each),the latest COMPUTER SHOPPER and the new HOME COMPUTER MAGAZINE...a whole days reading coming up,just full of TI goodies!!!Thanks B.B. Speaking of TI,TONY HOPKINS our super advertiser chaser has been talking to RICHMOND HILL (TI REPAIR DEPOT IN TORONTO) and they claim to be the same old gang and will support us 100% with any of our hardware or software problems...nice to know so if you want more info please contact TONY...TVM

The BBS news(NORTH AMERICAN) coverage is superb and I urge all members to indulge in this. BOB BOONE,BOB PICARD,LLOYD GALENZOSKI and company (MUCH NEWS MORE OFTEN) are doing a heck of a job and only can continue with our support....lets give it to them!!! Our own BBS is doing great and it is again listed in BRIAN GREINERS' article in the MARCH 85 issue of COMPUTING NOW!. Rumour has it there are more changes due to be on line shortly so watch for them. The executive is looking for some answers from you on the BBS...Do you feel that the private message option is necessary???

A very good meeting last month with at least a dozen new members in attendance,and again we were over the 70 mark. BRUCE and BOB stole the show with their hardware demo as sales were down everywhere including U/G software. I can only hope that all cassette based users give BOB the answers he requires. For next month well it should be another good one as we try the FIRST ANNUAL RUMMAGE SALE, so dust off some of your old modules,software and if you have any extra hardware bring it in and sell it or trade it, you never know just what people are looking for. It's open to everyone and this might be your chance to upgrade as the first batch of incume tax checks are already in according to local reports!!!.

A SOFTWARE CONTEST is planned with all entries to be submitted before a MAY deadline date which is to be set later and with all entrants to be eligible for the GRAND PRIZE DRAW to be held at the MAY meeting for a MILTON BRADELY VOICE RECOGNITION SYSTEM. Sharpen your pencils and clean off your flowcharts and lets get cooking as there will also be individual prizes for different catagories to be announced later...

With a 130 paid members and prospects of 150 soon to be reached and with a 113 questionnaires being answered we are well on our way to another banner year as we are ahead of last year at this point in time. We finished the year over the 200 mark and with LLOYD GALENZOSKI taking the membership drive in hand this year it certainly looks like we will reach that mark again and maybe even surpass it. How many TI 99/4a's were sold in the OTTAWA area anyway????

On the USED EQUIPMENT SALE in the last newsletter I received excellent response. Everything is spoken for except a DISK CONTROLLER CARD(TI),DISK DRIVE and joysticks so I will wait till this N/L makes the rounds and then see what happens to be fair to all who have ordered and to the seller. If I'm successful in selling the remaining equipments I'll call you immediately.....TVM

RANDY HOLCOMB writes in the COMPUTER SHOPPER and he had his CORCOMP CONTROLLER card fail in the DD format and the MYARC card that he was testing wouldn't format a disk in either mode....We are still watching very closely. AEC INC., is a company in CORONA N.Y. who upgrade drives like our single sided one to a double sided one for \$89.00 US, does anyone know of a local CANADIAN company who does work like this and what would be the price??? The big question is will we see the 99/128? There is a lot of talk and hype but will the money be there to get it off the ground. I'm going to start a poll...what are your thoughts? Would you buy one? Give me a call and let me know and I'll start one on our BBS just to see what the response would be.....SURVEY SAYS.....

\*\*\*\*\*

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- \* \*
- \* NB: Prices do not include Shipping and handling or Provincial \*
- \* sales tax; where applicable. \*
- \*\*\*\*\*

In this last part of the series we will be looking at the file directory entries. Each and every file or program that you have stored on a diskette must have a directory entry. The entry is a 256 byte block of data, that is normally stored on sectors >02 through >21 (2-33). To find out where all the entries are just look in the Directory Link Map sector (1). If you have more than 31 files on a diskette the entries may be located on any sector except 0 and 1.

A directory entry contains everything you ever wanted to know about a file, but didn't know what to ask. Rebuilding a directory entry from scratch is quite a job, but it is by no means impossible. Here's whats where, and whats what on a directory entry.

ADDR	SIZE	DESCRIPTION
0000	10	Filename
000A	2	Unknown (always set to >0000)
000C	1	File Flags
000D	1	Number of records per disk sector
000E	2	Total number of sectors in the file
0010	1	End of File offset
0011	1	Record size
0012	2	Number of records in file, with the order of the bytes reversed.
0014	8	Unknown (always set to >0000)
001C	3	Block Link - 3 byte clusters for each fraction of a file

The directory entry specifies the type and location of files currently on the disk. The two areas that I have marked unknown in the directory entry have been filled with >00 on every disk that I have ever examined, I really don't think they are used for anything.

>0000 FILENAME: 10 characters (no spaces or periods), if someone wants to be tricky they can put a DEL character here (Fctn V) and it won't be displayed on the screen when you catalog a disk.

>000C FILE FLAGS: The file flags are actually bits in the byte, you have to take the byte apart to find out what they all mean. The bits are numbered 0 to 7, and they are laid out from left to right.

Bit 0 : Type of record. 0=Fixed length records  
1=Variable length records

Bit 1 : Not Used  
Bit 2 : Not Used  
Bit 3 : Not Used

Bit 4 : Protect Flag      0=Not delete/write protected  
                             1= delete/write protected

Bit 5 : Not Used

Bit 6 : Basic file information    0=Display format  
                                     1=internal format

Bit 7 : Type of file      0=Data file  
                                     1=Program Image

>000D NUMBER OF RECORDS PER SECTOR : This byte is supposedly used only for fixed length records, however I have seen cases where this byte is used with variable length records.

>000E TOTAL NUMBER OF SECTORS IN THE FILE : When you catalog a diskette this is the word (2 bytes) that tells you what size the program or file is. The value that you see on a catalog (Size), is always 1 more than this value because you have to add 1 to account for the directory entry.

>0010 END OF FILE OFFSET : This byte is not used with fixed length files. For variable length files it points to the end of file marker (>FF) for the last sector in the file. For program image files it points to the byte that follows the last data byte in the file.

>0011 RECORD SIZE : For fixed length records it contains the actual record length. For variable length records it contains the maximum record size allowed. Not used for program image files.

>0012 NUMBER OF RECORDS IN FILE : The total number of records in the file with the order of the bytes reversed. For example if a file contains 423 records (>01A7) the entry would be >A701. Not used for program image files.

>001C BLOCK LINK : The block link is a three byte entry that gives you the exact location of the program or file on the diskette. When you store a file on a freshly initialized disk the controller puts the information down on a sector and continues to write the info on each consecutive sector until finished. If you remove a file from a disk that is partially full you will end up with holes where a file is no longer present. The controller stores the info on a first come first serve basis, so it will fill in these holes then it will look for free space elsewhere on the diskette. When a program is stored in this fashion it is said to be a FRACTURED FILE. Interpreting these fractured files is probably the most difficult thing to grasp.

To interpret a block link requires a little bit of manipulation and an open mind. Who ever invented this format was probably high on something at the time. Here goes..

Unlike the bit manipulation, this requires a little nybble manipulation. What is a nybble? Good question. A byte is made of 8 bits, the left 4 bits is called a nybble, and the right 4 bits is also a nybble. Got that! OK.

```
>FF =  1 1 1 1   1 1 1 1
        nybble   nybble
```

The nybble order in the 3 byte Block Link has to be changed around somewhat to make any sense out of it.

```
Nybble order :  SS2 SS1 - R01 SS3 - R03 R02
Change to     :  SS3 SS2 SS1 - R03 R02 R01
```

These 3 byte clusters point to the Start Sector (SS) and the highest Record Offset (RO) in the cluster. For example suppose we have a block link with the values >26 >90 >02. Convert them to the order that we can read

```
SS2 SS1 - R01 SS3 - R03 R02 = >26 >90 >02
SS3 SS2 SS1 - R03 R02 R01  = >026 >029
```

We end up with the values >026 and >029. The Start sector address is >026 and it continues for >029 consecutive sectors. Thats all there is to it.

On the next page are examples of 4 different directory entries. I have only included the first 128 bytes of each entry so I could fit the 4 of them on the same page. Examine them and you should have no problems identifying the various bytes and there functions.

FILENAME	FLAG	REC/SECT	SIZE	EOF	REC/SIZE	REC/FILE	SS
HOROSCOPE	09	N/A	0023	6F	N/A	N/A	1BE
DRAW/O	08	03	0025	N/A	50	006E	0E1
PRGLIST	82	04	0017	A9	3C	0017	022
TYPING	01	N/A	0019	01	N/A	N/A	(1)

(1) FRACTURED FILE	START SECTOR	OFFSET	LENGTH
	051	006	007
	081	00F	009
	138	010	001
	007	011	001
	00D	012	001
	00F	018	006

I hope this series of articles has shed a little light on what used to be a big secret by TI. I enjoyed writing this series, and I'll probably continue to write a few more. See you all at the next meeting.

SAMPLE DIRECTORY ENTRIES

ADDR	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	INTERPRETED
0000	=	484F	524F	5343	4F50	4520	0000	0900	0023	HOROSCOPE *****							
0010	=	6F00	0000	0000	0000	0000	0000	0000	0000	0000	BE21	0200	o*****>!**				
0020	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0030	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0040	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0050	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0060	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0070	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							

PROGRAM IMAGE FILE

ADDR =	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	INTERPRETED
0000	=	4452	4157	2F4F	2020	2020	0000	0803	0025	DRAW/D *****%							
0010	=	0050	6E00	0000	0000	0000	0000	E140	0200	*Pn*****a@**							
0020	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0030	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0040	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0050	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0060	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0070	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							

DIS/FIX 80 FILE

ADDR =	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	INTERPRETED
0000	=	5052	474C	4953	5420	2020	0000	8204	0017	PRGLIST *****							
0010	=	A93C	1700	0000	0000	0000	0000	2260	0100	)<*****" '* **							
0020	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0030	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0040	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0050	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0060	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0070	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							

INT/VAR 60 FILE

ADDR =	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	INTERPRETED
0000	=	5459	5049	4E47	2020	2020	0000	0100	0019	TYPING *****							
0010	=	0100	0000	0000	0000	0000	0000	5160	0081	*****Q '* **							
0020	=	F000	3801	0107	1001	0D20	010F	8001	0000	p*B***** *****							
0030	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0040	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0050	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0060	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							
0070	=	0000	0000	0000	0000	0000	0000	0000	0000	*****							

FRACTURED FILE BLOCK LINK

# LIBRARY CORNER BY BERRY MINUK

As you all know Bob Boone has been supplying the members with programs on disk and cassette at our regular monthly meetings. In addition the library committee has been trying to make other programs available and has had a disk of utility programs available at the last two meetings. Elsewhere in this newsletter you will find details of a plan to have these programs at certain locations throughout the area.

There have however been some requests for programs in console BASIC for unexpanded machines. The committee has therefore prepared 2 sets of programs from the book TI-99/4A:24 BASIC PROGRAMS by Carol Ann Casciato and Donald J. Horsfall. This book is already in the library and available for loan by any member.

The programs will be available on either tape or disk at the next meeting and are as follows:

## PART A

### Side 1

- |                            |                                       |
|----------------------------|---------------------------------------|
| 1 Bagels                   | The Classic Guessing game of logic    |
| 2 Blackjack                | A Text version with Las Vegas rules   |
| 3 Extra Terrestrial Typing | Game which helps you practice typing  |
| 4 Planetfall               | Good graphics lunar lander simulation |
| 5 Space War 7              | Star Trek Variation                   |
| 6 Tic-Tac-Toe              | 2 players or you versus the TI        |
| 7 Wumpus                   | Another Classic Computer Game         |

### Side 2

- |                    |                                       |
|--------------------|---------------------------------------|
| 1 Loan             | Allows you to check loan alternatives |
| 2 Mortgage         | US law but has good printer option    |
| 3 Present Value    | Useful financial program              |
| 4 Auto maintenance | Stores all info to data file          |
| 5 Future Value     | Useful financial program              |
| 6 Checkbook        | Fancy balancing program               |
| 7 Wallpaper/Paint  | Useful home program                   |

In addition to the above tape the second tape will have the other 10 programs plus some educational programs from another book. These will include some other home use programs, an address book and some programming utilities.

```
*****
*
*           Commoner's Books
*       432 Rideau St.,      233-4997
*
*   The How-to-Bookstore    also available
*   in OTTAWA                HOME COMPUTER MAGAZINE
*   offers T.I books        past & present
*
*   T.I Games Programs $14.95
*   Sprites & T.I Logo $19.95    20% discount for group members
*
*****
*
*           Cheriton Graphics
*       432 Rideau St.,      238-3699
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*   Mailing Lists, Document Storage
*
*****
```

# SPOTLIGHT ON YOUTH by SHAWN MILLAR

Well the Tennis championship is a blow out. I didn't get any responses from anyone. Maybe I can organize a championship for a game that does not take very long to play so we can have it at a general meeting. As you can see, most of the game players are in the 11-15 age group. It would be nice if we had some more 16-20 age group entries. We now have a total of 15 people and games listed. Keep those scores coming in! I thought I would give you a tip for all of you who can't get by screen 3 on Miner 2049'er. You have to have your feet hanging off the edge before you jump or you will miss the next square. If you have any tips on games please let me know so I can let everyone else know about them. If you have anything to give me either give me call at 684-3466 or tell me at a meeting. Have fun gaming!

## Age group 6-10

Game	Score	Name	Age
1--Guardian	12,470	Mike Berlinguette	8
2--Pole Position	28,300	Mike Berlinguette	8
3--Hustle	19,900	Tanya Craig	10

## Age group 11-15

Game	Score	Name	Age
1--Dig Dug	23,070	Kathy Berlinguette	11
2--Barrage	483,590	Phil Hopkins	14
3--Miner 2049'er	15,865	Shawn Millar	14
4--TI-Runner	43,800	Shawn Millar	14
5--Starfort	12,150	Shawn Millar	14
6--Defender	252,650	Dominique Laflamme	14
7--Hen House	56,330	Dominique Laflamme	14
8--Burgertime	13,950	Steve Howard	14

## Age group 16-20

Game	Score	Name	Age
1--Parsec	369,000	Benoit Tanguay	18

## Age group 21 and over

Game	Score	Name	Age
1--Jumpy	130,700	Jim Jones	38
2--Pole Position	90,920	Paul Berlinguette	37
3--Pinball	98,620	Paul Berlinguette	37

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The following article was written by Robert Coffey and was submitted by Lloyd Galenzoski who obtained it from the Tonawanda, New York BBS, telephone (716)837-6635.

Have you ever tried to produce sounds that you have heard either around the house or in the arcade? I tried many different routines to produce sounds that I have heard but I usually come up empty. How they produce those guns shots, explosions, etc. are beyond me. I guess they have A LOT OF FREE TIME (but then they get paid for it [designers of cartridges] ). I stumbled onto a routine that will produce many interesting sounds. Lets take a look....

```
100 CALL INIT
110 FOR C=1 TO 4
120 FOR Z=1 TO 400 STEP .8 :: CALL LOAD(-31744,Z*(-1 C)):: NEXT Z
130 NEXT C
140 CALL SOUND(1,1000,0)
150 END
```

If you want to change the duration of the sounds then just change the STEP in line 120. The 'CALL SOUND' statement at the end of the program is necessary so the sound processor will turn off, without it, the last sound will go indefinitely. Once you fiddle around with the above routine you should be able to get any ONE of the sounds that you desire.

Processing a PRK data base

Your TI BASIC program can process a PRK data base. By process, I mean that you can read records from, update records in or add records to the data base. First, however, you must use the PRK module to create and save the data base or a model (i.e. empty) data base.

Next, when using your TI BASIC program to process the data base you must have the PRK module plugged in. You select TI BASIC from the master title screen, and in BASIC command mode you enter:

```
CALL FILES(n)          (for disk users only)
NEW
CALL P(size)
OLD program-name
```

where:

- n - is the number of disk files your program requires (minimum of 1),
- size - is the amount of VDP RAM to reserve for the PRK data base.

Then you can run your TI BASIC program.

The value for "size" requires some experimentation. Your BASIC program and the PRK data base must share the VDP RAM. A large value for "size" means that you can have only a small program. A small value for "size" means that only a small data base can be processed. A value of about 8000 is a good starting point; you can adjust this up or down depending upon the size of your program and data base.

You may find that it is convenient to segment your processing of a data base into three separate TI BASIC programs.

First, a program to "convert" your data base into an ordinary BASIC file. This program could be very small thus allowing a large data base.

Second, a program to process the BASIC file, generating an updated BASIC file. This program can be completely independent from PRK. In fact, it could be written in any language available on the TI 99/4A.

Third, a program to "convert" the updated BASIC file back to a PRK data base. This program, like the first one, could be very small allowing a large data base.

Subsequent articles will describe other PRK subroutines.



## FEATURE INTERVIEW: NAVARONE Industries by Bruce Caron

For this month's interview I called Navarone Industries and had the pleasure of speaking with the president of the company, Mr. Chuck Humphrey. Chuck has been in the software business for the past 25 years and his first contact with the TI-99 was when he wrote the "Super Bugger" assembly language debugger, which has since been released to the public domain by TI.

Navarone is a privately owned company that has been in business for the past 2 1/2 years, and employs about 12 people, including outside contractors. All their products are made locally except for the "Widget" cartridge expander, which is made in Hong Kong. Most of their products are designed by individuals outside the company based upon a particular function or specification set by Navarone.

I asked Chuck what kind of sales figures that his company was enjoying and he refused to comment on that question; however he did say that sales of the cartridge expander have not dropped off in the past 12 months, and that sales have actually increased. The 3 biggest products in terms of sales for Navarone have been the "Widget", "Disk Fixer", and "Console Writer". Disk Fixer is now sold along with the Powers of Disk Fixer manual and Chuck says that this is currently a big seller.

Being in the software business I asked if they have been plagued with software piracy. Chuck responded with a comment that the original disk-based Disk Fixer program, of which a few hundred were sold, has probably found its way to every user group in the world. Since then they have gone to a cartridge system to distribute their software. These cartridges are re-programmable so they don't have to worry about having large amounts of inventory around. They simply take the order and program a batch of cartridges and send them out. The cartridges have an added bonus as they are less likely to be copied by the average home computerist.

In the new product department Navarone is planning to introduce a new program to coincide with the release of the new Triton catalog on or about the 15th of April. The program is called Paint & Trim, a color graphics drawing program that uses a joystick or rollerball to paint on the screen, and boasts the ability to dump screen graphics to a color or black/white printer. Price will be \$39.95. Also due to come out shortly is a new word processor that uses windows and comes with a built in spelling checker. The product is said to resemble the "WordStar" program from MicroPro and will sell for around \$69.

In the special prices and discount department I was informed that Navarone just recently slashed prices on their products by up to 50%. They also offer a 10% discount to

user groups, however this requires a bulk purchase of the products. Due to the new low prices on their products, Navarone is not planning to offer any specials in the near future.

On the hardware side of the house, Navarone has chosen to discontinue production of the Grombuster, a device that allows you to play third party cartridges on the newer TI's, and are now negotiating with CorComp to manufacture it for them. Reason given was that Navarone wanted to specialize in the software line and the Grombuster just didn't fit right in.

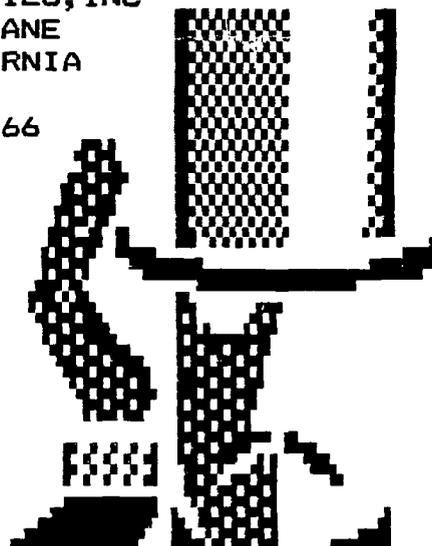
Navarone has pledged to continue support for the TI as long as the users keep asking for the products, they are also diversifying to provide cartridge expanders and software for both the Commodore 64 and the IBM PC Junior. In fact they are on a major push to get all their software translated to the two new formats. Additionally they have upgraded the instruction manuals and packaging for their product line.

With all this activity going on Navarone has found time to move their operations from Sunnyvale to Sonora, a distance of 180 miles east of Silicon Valley. The move took place a couple of months ago and the staff are happy to be out of the "smog belt". The new location offers them a reduction in operating costs for both personel and office space.

My hat's off to the people who have provided me with probably the two most useful additions that I have purchased for my TI, Widget and Disk Fixer. Lets continue to support the people that bring us new, useful, innovative products for our orphan. Lets hear it for Navarone Industries.....

The new address and phone number for Navarone is

NAVARONE INDUSTRIES, INC  
19968 ELRAY LANE  
SONORA, CALIFORNIA  
95370  
(209) 586-1766



My wife put in several long hours work making up 46 cassettes for our library committee to offer our members at the last meeting. Shawn Miller devoted a considerable length of time in making up 4 of the 5 master tapes of the new software that was offered at our last meeting. I came away from that meeting with 38 tapes.....only 8 were sold!!!

If you cassette users don't appreciate this honest effort and hard work being done on your behalf; please find some other way of telling us; your ignoring it hurts too much! Only 3 tapes were sold from Shawn's four masters; he gets a paltry \$1.50 for his efforts!! My wife doesn't even get the satisfaction of knowing she's gotten some software out to some program-hungry TI-ers. If we're not giving you what you want then tell us what you want and we'll all benefit! I'm not going to keep this effort up if I don't, at least, know its doing some good.

I've checked over the Games(04) disk and tape and found only 1 error; in the program 'GOLDRUSH'. All others looked OK to me. For anyone that wants to correct the mistake themselves; simply insert =1 in the 1st line of the Sub-program in the game and resave it. For those less adventurous; corrected copies of the disk and tape will be at the April meeting. Just return your tape or disk and trade it for a new one.

By the time you read this newsletter copies of the cassette library software will be available for members that can't come to meetings at two locations in the city! Jane LaFlamme and Bill Sponcia have agreed to hold limited numbers of cassettes in their homes for your convenience. Their phone numbers are on page 3 of the newsletter. Please call first to make sure its convenient for you to come over.

The April meeting, as you all know by now, should be an exciting one; with hopefully lots of new module software and hardware up for grabs!!! We plan to make this an open meeting, both to the public and to non-member TI-ers alike. Because we'll have so many new people there; and because we have a good number of new members in the group too; I thought it might be an excellent opportunity to re-offer what we have prepared to date, rather than prepare new stuff.

If you've found a bug in a program please don't come to the meeting with a chip on your shoulder; ready to take on the world! Tell us about it and give us a chance to correct the problem. THEN...if we don't come thru; feel free to climb all over us! I have a lot of software and neither the time nor the inclination to review every program I bring into the library. I do need to briefly load and run each program to determine its language, for cassette labels but errors like that in GOLDRUSH (above) can easily and innocently slip past me. Believe it or not I'm human too.

For your advance information: The May meeting will be an opportunity for you all to see exactly what I have available in my library! I'll have 3 complete copies of my library at the meeting and (we hope) enough systems for you to have a good opportunity to be exposed to most of it....

Have fun and see you all on April 4th or before!

**THE FIRST ANNUAL RUMMAGE SALE**



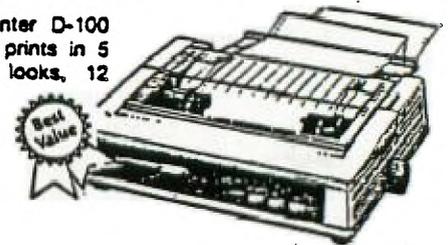
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\*\*\*\*\*



**TRADING POST**



- \* 1. WANTED; HOUSEHOLD BUDGET MODULE; CONTACT DAVID WALKER.....825-4451 \*
- \* 2. WANTED; PER. RECORD KEEPING MOD; CONTACT RICK GORDON.....827-0108 \*
- \* 3. WANTED; PER. REPORT GENERATOR MOD; CONTACT " " ..... "..... \*
- \* 4. WANTED; HOUSEHOLD BUDGET MODULE; CONTACT " " ..... "..... \*
- \* 5. FOR SALE; TI CONTROLLER CARD; \$145. CONTACT LARRY SABO.....836-1519 \*
- \* 6. FOR SALE; DUAL DISK DRIVES W/CABINET AND POWER SUPPLY....."..... \*
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- \* 7. FOR SALE; TI MODEM BRAND NEW; \$100. CONTACT PAUL.....741-6175 \*
- \* 8. FOR SALE; TI EDITOR ASSEMBLER \$60. " " ..... "..... \*

\*\*\*\*\*

PRESS For (Notes)

(A)lter screen/text color (TE-2 only)	:	
(B)ulletins from the SysOp (21 Jan)	:	SAMPLE OF A TIBBS(tm) MAIN MENU
(C)hat with SysOp	:	*****
(E)nter messages	:	-Pay close attention to:
(F)ile UP/DOWNload	:	NEWSLETTER SUBSYSTEM;
(G)oodbye (Disconnect from TIBBS)	:	BULLETIN SUBSYSTEM;
(H)ard/Software for sale (29 Jan)	:	HARDWARE/SOFTWARE may also
(L)ocal BBS Systems (30 Jan)	:	turn up hidden treasures
(M)essage count/System status	:	only available locally...
(N)ewsletter section (7 Feb)	:	THEN GO THROUGH THE MESSAGE
(O)ther TIBBS(tm) systems (14 Jan)	:	BASE TO SEE WHAT THE AREA
(P)assword change	:	Tiers ARE EXCITED ABOUT.
(R)ead messages	:	
(S)earch/Scan messages	:	NOTE: TIBBS has a 'SKIP' feature
(T)ime & date information	:	activated by pressing 'N'
(X)pert user mode ON/OFF	:	if you wish to skip non-TI
(?)Prints this list	:	messages.

You are on the GENERAL board.

TI SOURCE's (tm) Main Menu

[A]ccess level	[1] General	:	MAIN MENU OF A TI SOURCE(tm) BBS
[C]hat with SysOp	[2] Assembly	:	*****
[D]U Loading	[3] Pascal	:	THE LEFT HAND SIDE OF THIS MENU
[F]antasyland	[4] Forth	:	IS WORTH CONCENTRATING ON HERE;
[G]oodbye	[5] Hard/Software	:	IN PARTICULAR...THE NEWSROOM
[H]elp!	[6] Adventure	:	OPTIONS M,T,ZEE AND \$ ARE LIKELY
[L]ist user log	[7] Auction Block	:	BOARD SPECIFIC AND ARE SOMETIMES
[N]ewsroom	[8] Simply Basic	:	FACINATING READING TOO. LOOK FOR
[M]Feedback	[9] Haunted Mansion	:	THESE TYPES OF FILES ON OTHER
[P]ok!		:	SOURCE SYSTEMS TOO.
[T]examents	[B] Message Status	:	OPTIONS 1-9 ARE MESSAGE SUBSYSTEMS.
[U]tilities	[E] Enter message	:	THE BOARD NAME IN THIS CASE WILL
[Z]ee file	[K] Kill message	:	INDICATE THE MAIN TOPIC OF MESSAGES
[!]Name toggle	[Q] Quick scan	:	ON THAT PARTICULAR BOARD.
[\$]Donations!	[R] Read Messages	:	YOUR OPTIONS ON THE MESSAGE SUBSYSTEM
[*]Quick log off	[S] Search	:	ARE ESSENTIALLY THOSE IN THE LOWER
		:	RIGHT SECTOR OF THIS MENU.

TI SOURCE's (tm) Newsroom

[A]bort	[B]ulletins	:	AS YOU CAN SEE, THIS PARTICULAR BBS
[C]onfiguration	[N]ews flash!	:	HAS A REAL GOLDMINE OF INFO!!!
[D]own/Uploading	[F]The Forth Pad	:	YOU'LL HAVE TO PLAY THIS ONE BY EAR.
[H]aunted Mansion	[P]oll Results	:	GO WHERE YOUR HEART LEADS YOU BUT
[L]ogin Bulletins	[R]eview Stand	:	TRY YOUR DAMNEDEST TO KEEP TRACK OF
[O]ther TI boards	[T]I Newsletter	:	WHERE YOU'VE BEEN.
[S]Forum SIB Topic	[W]riter Wanted	:	
[U]ser Group Info	[X]Adventure Tip	:	TIME WILL BE OF THE ESSENCE ON A
[Z]Adventure Cheats	[3]Peeks & Pokes!	:	BBS LIKE THIS AND YOU'LL PROBABLYA
[1]Disk Format Info	[3]Peeks & Pokes!	:	HAVE A SEVERELY CONSTRICTING TIME
[2]Assembly Corner	[4]Disk Fixer	:	LIMIT. THE MOST IMPORTANT PIECE OF
[5]Forth Copy'er	[6]Mini Invaders	:	ADVISE I CAN GIVE HERE IS...HAVE A
[7]The Real PRK!	[7]Rom Cartridges	:	SYSTEM!!! TRY TO AVOID REPRINTING
[*]Fast Log Off	[9]Forth Corner	:	THE MENU EACH TIME YOU COME OUT OF
		:	A FILE.

## PRIOR PATTERNS By Bob Boone

Well folks...here we go again! We've just come through the worst storm of the season and I've decided to celebrate by cranking out a few more inestimable lines for your ultimate edification.

I was very pleasantly surprised yesterday to answer my phone and find myself talking to none other than the President of Corcomp. I had mailed a letter and copy of our February newsletter to Ms. Sagouspe late last month. This phone call was in response to my request for more info concerning our recent rash of Corcomp Disk Controller problems.

It seems the problem first occurred around mid-December last year; very soon after Corcomp had received a shipment of new Disk controller chips from their supplier; Western Digital(WD). It later came to light that engineers at WD had incorporated a basic design change into this latest batch of chips and not notified their customers. Understandably; personnel at Corcomp were scrambling for answers(thus the discrepancy in reports we were getting from them). However, after they discovered that their production people were not doing anything different they appealed to WD for the answer. It was then that Western finally admitted to their design change on the chip. To make matters even worse for Corcomp; the fix that the WD engineers came up with bombed too! It was at this point that Corcomp decided to re-engineer the card around the 1793 controller chip(which they've been enjoying great success with in their 9900 box). This chip needs fewer external components, thus should prove far more reliable. Jackirae assures me that our problems will soon be memories!

Another little bit of Corcomp news comes to us courtesy of Terry Atkinson of TI-Nova Scotia. After hearing of our problems with Corcomp's controller card he started an informal poll on the Source to find out how wide spread the epidemic was. Of the 76 respondents, an overwhelming 73 owners gave an unconditional endorsement to the product!!! The 3 with problems were similar to ours. I feel no qualms in saying therefore...

Stay behind them...they're still working hard for us!

I've recently contacted and begun correspondence with 3 User Groups in the U.K. Petr Arpin was good enough to make a few phone calls on our behalf while on a recent trip to England! Since his initial contact late in January, we've received no less than 12 newsletters from 2 of the 3 groups. Peter Brooks of OXON(Oxford 99ers) was good enough to send us all back issues of his fine booklet TI-LINES and I just received the February yesterday. Mr. Arpin's reward is to have his name in print both here and in the U.K. Are there any other world gad-about's that are eager to see their name in print? If so, give me a call prior to your trip and I'll do whatever possible to find you a contact at your destination or en-route. Peter Brooks has seen fit to grant our group honorary membership status in his organization. Thank you both, Peter!

Bob Picard and Jane Laflamme both get high marks for actions 'above and beyond the call of duty'. Bob has single-handedly supported a project near and dear to me for the entire month of February and discovered some very powerful sources of TI info along the way!(witness

the PRO-99er files on our BBS!) As a result of Jane's gracious hosting of the horde that came out to our BBS Tutorial in her home February 28, I now have 4 more eager 'Blitzers' and 8 more hopefuls. Thank you both for your support and my thanks too, to all who were interested enough to show up! I trust you'll all have less trouble coming on line than we did that night!

\*\*\*\*\*

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March 12, 1985

Mr. A. J. Hopkins,  
Canadian Marconi Company,  
141 Laurier Ave. W., Suite 903,  
Ottawa, Ontario.  
K1P 5J3

Dear Mr. Hopkins:

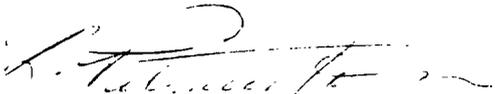
Ref: Ottawa TI 99/4 Users' Group Newsletter

Your letter of February 14, addressed to Mrs. C. Beirne has been forwarded to my attention:

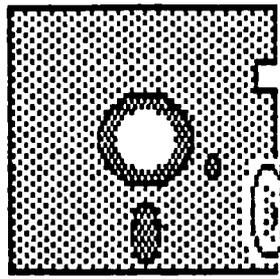
I found your enclosed TI 99/4 Newsletter very interesting and informative. However, as we are no longer in the home computer business, regretfully we must decline your offer to participate in an advertising capacity in your newsletter.

We wish your Users' Group continued success.

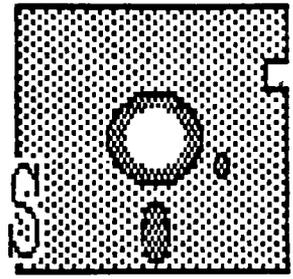
Yours very truly,  
TEXAS INSTRUMENTS INCORPORATED,

  
Lawrence Petrucco,  
General Manager,  
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/am



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