

# YESTERDAY'S NEWS

VOLUME 5 NUMBER 11 Established 2016 NOVEMBER 2020

## 30 Years Ago...

### Historical Information taken from Bill Gaskills TIMELINE

### NOVEMBER 1990:

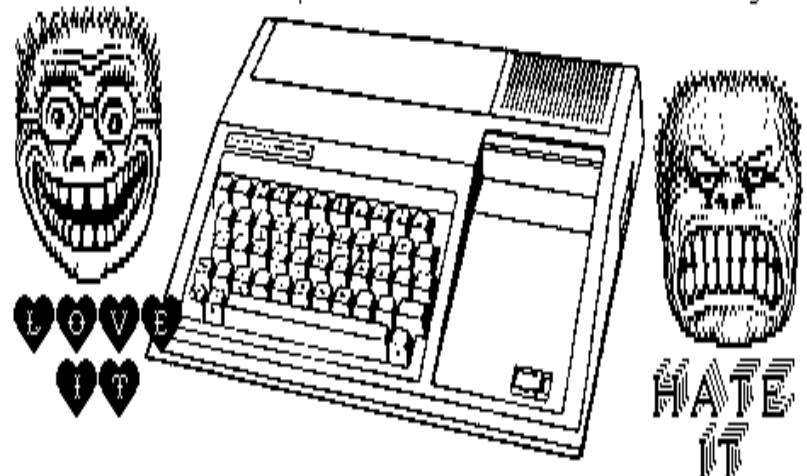
Asgard Software demonstrates MIDI Master musical interface card by Mike Maksimik at the Chicago TI Faire on November 3rd. The product supports up to 16 simultaneous polyphonic channels on multiple MIDI devices, enough music capability to handle a small band arrangement on a home computer.


Texaments releases CHECKtrack checkbook management program for TI-BASE v3.0 or higher. It is written by Bill Gaskill.

Gary Bowser of Oasis Pensive Abacutors in Ontario, Canada announces the release of the TI Image Maker (TIM), an internal 80-column display upgrade for the TI-99/4A.

Christopher Pratt, doing business as Electronic Systems Development Corporation (ESD), announces plans to develop a new hard and floppy disk controller that will be 99/4A compatible. The new controller will have an EPROM that allows upgrades to the operating system to be loaded from disk and the card will support four hard drives, four floppy drives.

Rave 99 owner John McDevitt reports a problem with the development of the new TI-99 compatible expansion box, and announces that it's planned introduction will be delayed.



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## BRUKENBOX



MICROPENDIUM  
February 1994 - Volume 11, Number 1  
By Charles Good

This is not your typical arcade action boxing simulation involving two players with joysticks trying to knock each other out in an on-screen boxing ring. Instead, you pick two contestants from a list of real heavyweight boxers and have them fight each other. The computer determines the outcome of each round based on the contestants historically determined strengths and weaknesses in various categories.

Some of the 51 boxers you can choose are Muhammed Ali, Max Baer, Jack Dempsey, Ingemar Johansson, Joe Louis, Max Schmeling, Ken Norton, Floyd Patterson, George Foreman, etc. Since many of these individuals are not contemporaries and never fought each other, you can play what if games, matching two great boxers from different time periods, such as Ali and Schmeling. Each boxer is rated as either poor, good, excellent or superior in each of the following categories: style, control ability, take punch, power, endurance, defense and toughness. Some are noted to be better against a power boxer or better against a strategy boxer. These ratings largely determine the outcome of a fight, but the computer adds an element of chance as well. Several fights between the same two boxers do not always produce the same winner.

Players determine the number of rounds for the match, and at the beginning of each round the preferred strategy of each boxer. Strategies are Cover Up (reduce chances of Knock down), Fight Inside (go for the body), Dance and

(See Page 3)

# TI CLASSROOM



**TIPS FROM THE  
TIGERCUB**  
By Jim Peterson

NUMBER  
18



Improved 28-Column Converter. The version published in Tips #15 was a horrible example of sloppy programming, so I have rewritten it entirely.

```
100 DISPLAY AT(1,4)ERASE ALL
:"28-COLUMN CONVERTER" :: DI
SPLAY AT(3,12):"by Jim Peter
son"
110 DISPLAY AT(5,1):" To con
vert a program, saved":"with
LIST ""DSK1\FILENAME"","":i
nto 28-column format which":
"can be merged into the text
```

```
120 DISPLAY AT(9,1):"buffer
of TI-Writer\"
130 DISPLAY AT(11,1):" Optio
nally with transliter-":"ate
d (, , !, ~ and \ for":"pri
nting from formatter":"mode\
```

```
140 DISPLAY AT(16,1):" Progr
am should be RES in":"steps
of 10 starting at 100":"befo
re LISTING to disk\"
150 DISPLAY AT(20,1):" Do yo
u want to print the":"file f
rom the":" (E)ditor?":" (F)o
r matter?"
```

```
160 ACCEPT AT(24,1)VALIDATE(
"EF")BEEP:Q$
170 LN=100 :: CALL CLEAR ::
INPUT "What is the FILENAME?
DSK1\":FN$ :: FN$="DS
K1\")FN$ :: PRINT :
```

```
180 INPUT "what is the new F
ILENAME? DSK1\":PN$ :: PN$
="DSK1\")PN$ :: OPEN #1:FN$,
DISPLAY ,VARIABLE 80,INPUT :
: OPEN #2:PN$,DISPLAY ,VARIA
BLE 80,OUTPUT
```

```
190 IF Q$="E" THEN 200 :: PR
INT #2:"\TL 126:94;" :: PRIN
T #2:"\TL 123:64;" :: PRINT
```

```
#2:"\TL 125:38;" :: PRINT #2
:"\TL 124:42;" :: PRINT #2:"
\TL 92:46;" :: PRINT #2:"\NF
"
```

```
200 IF EOF(1)=1 THEN 300 ::
LINPUT #1:A$
210 IF LEN(A$)<80 THEN LN=LN
+10 :: GOTO 260
```

```
220 LINPUT #1:B$ :: IF POS(B
$,STR$(LN),1)=1 THEN FLAG=1
:: LN=LN+10 :: GOTO 260
```

```
230 A$=A$&B$ :: IF LEN(A$)<1
60 THEN LN=LN+10 :: GOTO 260
```

```
240 LINPUT #1:B$ :: IF POS(B
$,STR$(LN),1)=1 THEN FLAG=1
:: LN=LN+10 :: GOTO 260
```

```
250 A$=A$&B$ :: LN=LN+10
260 S=1
```

```
270 L$=SEG$(A$,S,28):: IF Q$
="E" THEN 280 :: GOSUB 320
```

```
280 IF L$<>" THEN 290 :: IF
FLAG=1 THEN FLAG=0 :: A$=B$
:: GOTO 210 :: ELSE GOTO 20
0
```

```
290 PRINT #2:L$ :: S=S+28 ::
GOTO 270
```

```
300 IF Q$="E" THEN 310 :: PR
INT #2:"\FI;AD;"
```

```
310 CLOSE #1 :: CLOSE #2 ::
END
```

```
320 DATA (see instructions be
```

```
330 RESTORE 320 :: FOR W=1 T
O 5 :: READ CH$,R$
```

```
340 X=POS(L$,CH$,1):: IF X=0
THEN 360
```

```
350 L$=SEG$(L$,1,X-1)R$)SEG
$(L$,X+1,LEN(L$)):: GOTO 340
```

```
360 NEXT W :: RETURN
```

The DATA elements to be typed in line 320, separated by commas, are - the "at" sign above the 2, the left brace on the front of the F Key, the ampersand above the 7, the right brace on the front of the G, the carat

sign above the 6, the tilde on the front of the W, the asterisk above the 8, the whatsit? on the front of the A, the period, and the backslash on the front of the Z. If you don't want to revert to FILL and ADJUST, delete the second statement in line 300.

Beware the A6 bug! The asterisk in the above program is transliterated because of an odd quirk of TI-Writer which causes it to change A:256 into A6! It happened to me, and I've seen it in two published programs.

If my Autoloader gives you a couple of asterisks instead of the number of sectors, it's because you have files over 99 sectors long. You can change the image in line 170 to ### if you want to.

Here is probably the last word on the challenge to write a 1-line XBasic program which would scramble the numbers 1 to 255 into a random sequence without duplication. This one runs in 17 seconds!

```
100 ! FROM TISOFT (BELGIUM)
NEWSLETTER V\6 #4 JULY-SEPT
84 - ANONYMOUS
```

```
110 DIM R(255):: FOR I=0 TO
255 :: R(I)=I :: NEXT I :: F
OR I=0 TO 255 :: RANDOMIZE :
: CALL PEEK(-31808,J):: K=R(
J):: R(J)=R(I):: R(I)=K :: N
EXT I
```

```
120 FOR J=0 TO 255 :: PRINT
R(J):: NEXT J
```

I believe that Craig Miller is due the credit for publishing the PEEK used in that routine. He also found a PEEK to get two random numbers, which I fooled around with until I discovered I had a mosquito

trapped behind my TV screen.

```
100 ! MOSQUITO by Jim Peter
son from a PEEK by Craig Mil
ler
```

```
110 CALL CLEAR :: CALL SPRIT
E(#1,42,2,100,100)
```

```
120 RANDOMIZE :: CALL PEEK(-
31808,A,B):: CALL MOTION(#1,
A-128,B-128):: GOTO 120
```

If you're worried about the mosquito getting out, you can put a screen on the window by adding a statement to line 110 - CALL CHAR(32,"FF888888FF888888")

Here's one for the Kiddies -

```
100 REM - DANCING STICKMAN p
rogrammed by Jim Peterson
110 CALL CLEAR
```

```
120 DIM S(26),T(60),NN(60)
```

```
130 FOR CH=48 TO 80 STEP 8
```

```
140 CALL CHAR(CH,"000028107C
1028")
```

```
150 NEXT CH
```

```
160 GOSUB 590
```

```
170 FOR SET=3 TO 7
```

```
180 CALL COLOR(SET,1,1)
```

```
190 NEXT SET
```

```
200 DATA " H 000 P"," H
000 P"," H 0 P"," 00
000000"," 8 000 ("," 8
000 ("
```

```
210 DATA " 88 000 (("," H
HH000PPP"," H 8 ( P"," H
8 ( P","HHH 8 ( PPP","
8 ("," 8 ("," 888
```

```
((("
220 PRINT " dancing stic
kman" :: ::
```

```
230 RESTORE 200
```

```
240 FOR J=1 TO 14
```

```
250 READ A$
```

```
260 PRINT TAB(8);A$
```

```
270 NEXT J
```

```
280 CALL COLOR(3,16,5)
```

```
290 CALL COLOR(4,16,7)
300 CALL COLOR(5,5,16)
310 GOTO 690
320 ON INT(3*RND+1)GOSUB 340
,400,460
330 RETURN
340 CALL COLOR(4,1,1)
350 CALL COLOR(6,16,5)
```



By  
Harry  
Brashear

MICROPENDIUM  
March 1990  
Volume 7, Number 2

```

360 GOSUB 560
370 CALL COLOR(6,1,1)
380 CALL COLOR(4,16,7)
390 RETURN
400 CALL COLOR(5,1,1)
410 CALL COLOR(7,16,7)
420 GOSUB 560
430 CALL COLOR(7,1,1)
440 CALL COLOR(5,7,16)
450 RETURN
460 CALL COLOR(4,1,1)
470 CALL COLOR(5,1,1)
480 CALL COLOR(6,16,5)
490 CALL COLOR(7,16,7)
500 GOSUB 560
510 CALL COLOR(6,1,1)
520 CALL COLOR(7,1,1)
530 CALL COLOR(4,16,7)
540 CALL COLOR(5,5,16)
550 RETURN
560 FOR D=1 TO 30
570 NEXT D
580 RETURN
590 F=262
600 FOR N=1 TO 25
610 S(N)=INT(F:\059463094~N
)
620 NEXT N
630 S(26)=40000
640 RESTORE 740
650 FOR J=1 TO 60
660 READ T(J),NN(J)
670 NEXT J
680 RETURN
690 FOR J=1 TO 60
700 CALL SOUND(T(J):100,S(NN
(J)),0,S(NN(J))+5,5)
710 GOSUB 320
720 NEXT J
730 GOTO 690
740 DATA 4,8,4,13,4,13,4,15,
4,17,4,13,4,17,4,15,4,12,4,1
3,4,13,4,15,4,17,8,13,4,12
750 DATA 4,8,4,13,4,13,4,15,
4,17,4,18,4,17,4,15,4,13,4,1
2,4,8,4,10,4,12,8,13,4,13,4,
26
760 DATA 4,10,4,12,4,10,4,9,
4,10,4,12,8,13,4,8,4,10,4,8,
4,6,4,5,4,6,8,8
770 DATA 4,10,4,12,4,10,4,9,
4,10,4,12,4,13,4,10,4,8,4,13
,4,12,4,15,8,13,4,13,4,26

```

```

1 REM SUNRISE
10 DATA 32,42,2,3,88,6,0,0,0
20 READ SKV,STAR,FGC,CHSET,S
UN,SUNRISE,SUNHI,ONN,OFF
30 CALL CLEAR
40 CALL SCREEN(2)
50 CALL COLOR(1,2,2)
60 CALL COLOR(2,16,2)
70 CALL COLOR(8,11,11)
80 FG$="FFFFFFFFFFFFFFF"
90 BG$="0000000000000000"
100 FOR DARK=1 TO 50
110 CALL HCHAR(23,1,SKV,32)
120 CALL HCHAR(23,RND*30+1,S
TAR,1)
130 PRINT :
140 GOSUB 440
150 NEXT DARK
160 BGC=FGC
170 DATA 14,9,11,4,5,6,6,6,
,0
180 READ FGC
190 IF FGC<>0 THEN 210
200 GOTO 200
210 CHSET=CHSET+1
220 IF CHSET<7 THEN 240
230 CHSET=2
240 CALL COLOR(CHSET,FGC,BGC
)
250 IF FGC<>SUNRISE THEN 270
260 ONN=1
270 FOR EIGHTH=1 TO 8
280 PATTERN$=SEG$(FG$,1,2*EI
GHTH)&SEG$(BG$,1,2*(8-EIGHTH
))
290 SKV=(CHSET+3)*8+EIGHTH-1
300 CALL CHAR(SKV,PATTERN$)
310 CALL HCHAR(23,1,SKV,32)
320 IF OFF+(1-ONN)THEN 400
330 SUNHI=SUNHI+1
340 SWIDE=SUNHI
350 IF SWIDE<5 THEN 370
360 SWIDE=9-SWIDE
370 CALL HCHAR(23,17-SWIDE,S
UN,2*SWIDE)
380 IF SUNHI<8 THEN 400
390 OFF=1
400 PRINT :
410 GOSUB 440
420 NEXT EIGHTH
430 GOTO 160
440 FOR TICK=1 TO 100
450 NEXT TICK
460 RETURN

```

How many times have you come across a program that you would like to run from a drive other than the one the program was written for?

How many of you RAMdisk owners have a drawer full of assembly language files that you would like to store and run from your RAMdisk, but cannot because these programs insist on loading from DSK1? The same thing holds true for those massive Extended BASIC programs with tons of I/O in the code.

Using BDC (Boot Disk Changer) you can change all the DSK references in your BASIC and Extended BASIC programs, program image assembly language files, and D/F 80 assembly language object files to whatever drive you wish to have them run from.

I know this sounds a little scary, but it seems to work. There may be some odd situations where things could go awry, but you should only work with copies of your programs anyway. That way you shouldn't have any problems.

BDC will only change references to DSK when it is followed immediately by a number from 1 to 9. For example, BDC will recognize and change DSK1, DSK5, DSK8, etc. but will ignore DSK.TEST.LOAD.

BDC will also change any references to DSK that are within the text of a program, for example:

```

10 CALL CLEAR
20 PRINT "Please insert disk into DSK1"
30 RUN "DSK1.BDC"

```

In this example, both the reference to DSK1 in the text of line 20 and the RUN reference in line 30 will be changed to the new DSK number.

A few of the more complex programs load their files by reading data on a sector by sector basis. In these programs, there are no references to DSK, and therefore BDC cannot alter these files. Fortunately, these loaders are few and far between.

To get the use of this bigger hammer, send \$10 to: Scott Morrow; P.O. Box 1763, CFPO 5056; Belleville, Ontario Canada, K0K 3R0.

Meeowww  
The Tigercub  
Jim Peterson

(Continued from Cover)

Sting (increase defensive ability), Just Dance (good defense but reduced Known down ability) and Go for Knockout (decrease defense ability). These strategy options are available for only half the rounds.

Once the fight begins the computer does all the work for you. There is no joystick action or player intervention during a fight. The computer provides a text description and optionally also a graphic display of the fight. This information includes type of punch, punch strength, knockdowns, fouls, cuts, clinches, etc., as they happen. If too many cuts or other injuries occur, the ref may call a TKO. At the end of each round you get a report of each fighter's condition (such as breathing heavily, cut above right eye ), and a point score awarded by each of the three judges.

BruKinbox is not fast. Written in Extended BASIC, it is slow to load and its optional graphic displays of the fight are small and jerky. The whole concept of the game is, however, unique. I know of no other direct comparison of historical boxers available on any other computer. Another first for the II!

The game is fairware and comes on a SSSD disk with documentation. If you send the requested \$15 registration direct to BruKin the company will send you the latest version of the game and mail you notification of future updates. Registered users can purchase for a small additional fee data files for actual historical light heavyweight, middleweight, welterweight and lightweight boxers.

LIST OF AVAILABLE BOXERS FOR BRUKINBOX

- |                 |                  |               |
|-----------------|------------------|---------------|
| 1. ALI          | 18. HOLMES       | 35. MOORE     |
| 2. BAER         | 19. JACKSON      | 36. PATTERSON |
| 3. BRADDOCK     | 20. JEANNETTE    | 37. QUARRY    |
| 4. BRION        | 21. JEFFRIES     | 38. CHMELING  |
| 5. BURNS        | 22. JOHANSSON    | 39. SHARKEY   |
| 6. CARNERA      | 23. JOHNSON      | 40. SHAVERS   |
| 7. CHARLES      | 24. JONES        | 41. SPINKS    |
| 8. CHUVALO      | 25. LANGFORD     | 42. STRIBLING |
| 9. CORBETT      | 26. LASTARZA     | 43. SULLIVAN  |
| 10. DEMPSEY     | 27. LISTON       | 44. TERRELL   |
| 11. ELLIS       | 28. LOUIS        | 45. TUNNEY    |
| 12. FIRPO       | 29. MACHEN       | 46. CUDAN     |
| 13. FITZSIMMONS | 30. MARCIANO     | 47. WALCOTT   |
| 14. FOREMAN     | 31. MARTIN       | 48. WILLIAMS  |
| 15. FRAZIER     | 32. MCVUEY       | 49. WILLARD   |
| 16. GALENTO     | 33. MILDENBERGER | 50. WILLS     |
| 17. HART        | 34. MISKE        | 51. NORTON    |



CONSOLE  
BASIC



By Kemp Software

# RACING

You control the speedster. Direction Keys are "S" & "D". If you hit the gateposts or go off the track, you will crash! If you go off the screen you must re-enter "RUN"!!! The shoulder of the road is ok to travel on, but be careful! Every game is different and you can customize the track for even more variety.  
SCORING: The middle of the gate is worth 15 points. The track is 350 car lengths long. YN



By Randy Holcomb

by INTELLESTAR

EXTENDED  
BASIC

Computer Shopper  
June 1985

A program that has really caught my attention is Heart Attack, which depicts a simulation of the human circulatory system. Through the graphics and the well-thought out instructions you are then thrown into a simulation of the various functioning parts of the circulatory system on a low level.

Various indicators of oxygen level, heart rate, blood level, body temperature, blood output and a pictorial flow of the heart in action provide for quite an insight as to our inner workings.

At your disposal are various functions that you can perform: you can induce white blood cells to kill germs caused by an infection, platelets to stop bleeding, and neurons to control the various functioning parts of the system. The instructions included comes with some very good examples on how these function.

It was really interesting to see how some of these relationships dramatically alter the entire circulatory

system. If you let things get too out of control you will start getting warning tones, and if left to their own, a heart attack occurs with the message "USEPADDLES" which gives you the option of shocking the heart back into sync or letting it die. There are 9 levels of the same, with 1-3 providing an "occasional" attack, 4-6 moves things along, while the last 3 levels(7-9) challenge you to see how long you can keep the heart going before it eventually dies.

Heart Attack must be seen to be appreciated. If there is any down side to the program is the fact that it's written in Extended Basic, which makes the program suffer a tremendous speed penalty. But don't let the lack of speed distract you from looking at Heart Attack. YN

## **SUPERBASIC** MICROPENDIUM Feb 1989 Volume 6, Number 1 By John Koloen

Superbasic, by Steven Karasek, has been around since 1987, but for one reason or another it hasn't enjoyed wide distribution. Perhaps one of the reasons is that it includes a hardware protection device that prevents the 22-sector Superbasic program from being used without the device. A plug is attached to the joystick port prior to loading Superbasic. Without the plug, the program won't load.

This method of protection is used in the PC world, but such Keys, as Karasek refers to them, usually plug into a parallel or RS232 port. In any case, the Keys are generally very effective at protecting the author's software distribution rights since the software is useless without the hardware protection device.

The most likely reason as to why Superbasic is such a well-kept secret is that it simply hasn't been exposed to the TI community. (It is scheduled to be shown at the Lima User Group fair in May.)

Superbasic isn't another version of Extended BASIC - no, there aren't any new graphics commands. In fact, it runs out of Extended BASIC. However, it does a nice job of enhancing Extended BASIC for programmers, regardless of their proficiency. Superbasic adds several commands to Extended BASIC and supports 32 user-programmable Keys. It resides in low memory after loading and all of its features may be accessed instantly at any time. Because of its memory location, it doesn't use any user-accessible RAM.

Most of Superbasic's functions are accessed without interfering with Extended BASIC programs in memory. A command such as DIRectory can be issued at anytime without interfering with the program in memory. DIR 2, for example, results in a directory of DSK2 appearing on the screen. After the directory is finished, any Key press



## **Custom keyboard makes computing more convenient**

Glenn Bernasek, of Strongsville, Ohio, is big on customizing his computer system. This month's System of the Month features a remote keyboard, which he built from an old TI and Televideo units. The TI99/4A console is at the right of the PEB (too dark in the photo to be seen) and includes a small 12-volt DC fan over the vent slots for additional cooling. He uses a 13-inch color TV as a monitor. His Panasonic KX-P1180 printer is partially visible at lower right. An unusual touch is the positioning of the Peripheral Expansion Box on its end in tower fashion. He says it works cooler and, of course, it takes up less space on the desktop.

The PEB operates three floppy drives — one 5.25-inch and two 3.25-inch. The PEB also contains a 384K Chicago RAMdisk. His modem of choice is an Identity ID2400-C modem, located on top of the PEB, which he uses with PC-Transfer and Telco to communicate with other Tiers.

returns the user to the point at which the directory call was initiated. One doesn't have to think long to discover how useful it is to call a directory without losing the program in memory.

As one would expect, commands such as DEL, RENUM, JOIN, ENTER and EDIT do have an effect on the program loaded into memory. If they didn't, these powerful commands would be useless.

Here is a list of the commands and their operations:

DEL rn-n deletes a range of line numbers between m and n;

RENUM m,n,new,(increment) resequences part of an XBASIC program. RENUM 100,200,1000,5 moves lines 100 to 200 to a place starting at line 1000 and incremented by 5;

JOIN n joins two XBASIC lines to save space;

FIND allows the user to locate patterns in programs. It is initiated by the slash character. For example, /PRINT would locate all lines that include the word GOSUB;

TEXT is similar to the FIND command but is used to locate text and is able to distinguish between THEN as used in an IF-THEN statement and THEN as used in a sentence;

DIR n was explained above;

TYPE filename displays a DU/80 file on screen;

COPY "filename1" TO "filename2" copies a DU/80 file to another file or to a printer (if a disk drive isn't specified, it defaults to the last drive number used);

APPEND "filename1" TO "filename2" adds the contents of a DU/80 file to a second file;

RENAME "filename1" TO "filename2" renames a file on a disk and can be used with any file type, including programs;

LOCK "filename",n turns on write protection for a file on drive n;

UNLOCK "filename",n unprotects file;

QOFF disables the FCTN-QUIT Key;

QON enables the FCTN-QUIT Key;

ENTER "filename" takes a DU/80 file and merges it into program memory. The lines are added to the program already in memory and may be saved as a program. This powerful utility allows you to load text files and save them as programs;

EDIT "filename" is used to edit a DU/80 file without leaving XBASIC. It loads the file into memory with each line preceded by a line number. This allows you to use XBASIC and Superbasic commands to edit a text file;

WRITE "filename" is used to write the file you are EDITing to disk without the line numbers;

KILL turns off Superbasic.

INSKEY,n,string is used to replace a single softKey definition, where n is the ASCII code for the Key and "string" is the new Key definition.

Many of the above commands may be accessed from within programs using CALL LINK commands.

Each of the 32 user-programmable Keys, called SoftKeys, can include a string of up to 30 characters. The Key definitions are written to a DU/80 file. In addition, there are six new function Keys that perform the following:

FCTN-5: Backwards tab (one-half line)

FCTN-6: Tab (one-half line)

FCTN-7: Lists the names of the new commands to the screen

FCTN-9: Clear to beginning of line

FCTN-0: Clear to end of line

FCTN-.: Recalls the last file name used in conjunction with OLD or SAVE

CTRL-1-6: Directory of drives 1-6

Those who are keen on translating BASIC programs, say from a PC to the TI, will find the ENTER command useful. By saving the BASIC program as an ASCII file, the user can "import" the file into Superbasic with this command. Of course, when Superbasic outputs the file in TI program format, untranslatable lines won't run. Such commands as MID\$ will have to be converted manually into a TI equivalent before the program is saved. The same goes for graphic commands. The ENTER command works similarly to the MERGE command in that the file is merged into any existing program in memory. By typing NEW before using the ENTER command, however, the command works like OLD in TI BASIC.

The version of Superbasic that I've been using is being updated to include PEEKV and POKFV commands, as well as a FORMAT command to initialize disks.

As a bonus, Superbasic also comes with the capability of processing batch files. The batch file is written in DU/80 format and run through Superbasic.

Ease of Use: Superbasic takes a little work to learn but it's pleasant work. I found myself getting excited with each new trick I discovered, whether redefining SoftKeys or playing around with the ENTER command. Everything works in a logical fashion.

Documentation: The documentation comes as a file on the distribution disk. It is thorough in terms of listing Superbasic's features and in most cases includes an example of how to use each command or function. The printout is six pages of single spaced text. It's definitely not fancy, and you have to read it thoroughly to make sure you don't miss anything.

Value: I highly recommend Superbasic to anyone who programs in Extended BASIC. It has a lot to offer, and the price of \$25 is hard to beat. Although I have a little hesitation regarding the hardware protection device. I understand full-well why it is necessary. If this thing weren't protected, it would be up on a lot of bulletin boards overnight, and the author probably would receive little for the effort he put into his program. YN

```

10 REM POOR MANS LOADER          $( " ",12-LEN(B$(0)))&"DISKNA
20 DISPLAY ERASE ALL :: PRIN    ME-"&B$(0)&CHR$(0)
T "PROGRAM STATUS.....WORK    90 C=8 :: FOR D=1 TO I :: PR
ING" :: A$="CLEAR" :: DIM B$    INT #2:C$(D+2)&D$(12+D-INT(I
(20):: OPEN #1:"DSK1.",INPUT    /2))&CHR$(199)&CHR$(3+LEN(B$
,RELATIVE,INTERNAL :: DEF C    (D))&CHR$(D+64)&"--"&B$(D)&
$(A)=CHR$(0)&CHR$(A)          CHR$(0):: NEXT D
30 DEF D$(B)=CHR$(162)&CHR$(    100 PRINT #2:C$(I+3)&CHR$(16
240)&CHR$(183)&CHR$(200)&CHR    2)&CHR$(240)&CHR$(183)&CHR$(
$(LEN(STR$(B)))&STR$(B)&CHR    200)&CHR$(2)&"24"&CHR$(179)&
(179)&CHR$(200)&CHR$(1)&STR    CHR$(200)&CHR$(1)&"1"&CHR$(1
(C)&CHR$(182)&CHR$(181)      82)&CHR$(238)&F$
40 DEF E$(A)=CHR$(132)&"K@    110 PRINT #2:C$(I+4)&CHR$(15
&CHR$(190)&CHR$(200)&CHR$(2)    7)&CHR$(200)&CHR$(3)&"KEY"&C
STR$(A)&CHR$(176)&CHR$(169)    HR$(183)&CHR$(200)&CHR$(1)&
&CHR$(199)&CHR$(LEN(B$(D-64)    0"&CHR$(179)&"K@&CHR$(179)&
+5)&"DSK1."&B$(D-64):: FOR D    "S@&CHR$(182)&CHR$(0)
=0 TO 20                        120 PRINT #2:C$(I+5)&CHR$(13
50 E=E+1 :: INPUT #1:B$(D),F    2)&"S@&CHR$(190)&CHR$(200)&
,G,H :: IF D=0 THEN 60 ELSE    CHR$(1)&"0"&CHR$(176)&CHR$(2
IF E>=127 OR LEN(B$(D))=0 TH    01)&C$(I+4)&CHR$(0):: FOR D=
EN 70 ELSE IF ABS(F)<>5 OR B    65 TO I+64 :: PRINT #2:C$(I+
$(D)="LOADER" THEN 50         D-59)&E$(D)&CHR$(0):: NEXT D
60 NEXT D                        130 PRINT #2:C$(2*I+6)&CHR$(
70 CLOSE #1 :: F$=CHR$(181)    132)&"K@&CHR$(190)&CHR$(200
&CHR$(199)&CHR$(28)&"PRESS <    )&CHR$(1)&"7"&CHR$(176)&CHR$(
EASE> TO END PROGRAM"&CHR$(0    (157)&CHR$(200)&CHR$(5)&A$&C
):: C=1 :: I=0-1 :: OPEN #2:    HR$(130)&CHR$(139)&CHR$(0)
"DSK1.CAT",VARIABLE 163 :: P    140 PRINT #2:C$(2*I+7)&CHR$(
RINT #2:C$(1)&CHR$(157)&CHR$    134)&CHR$(201)&C$(I+4)&CHR$(
(200)&CHR$(5)&A$&CHR$(0)      0):CHR$(255)&CHR$(255):: CLO
80 PRINT #2:C$(2)&D$(1)&CHR$    SE #2 :: CALL SAY("KEYBOARD
(199)&CHR$(28)&"CATALOG"&RPT  IS NOW WORKING"):: END

```

INTERNATIONAL FUN & GAMES				
GAME TITLE	SCORE	JOYSTICK JOCKEY	TI CLUB	DATE
BACKSTEINE	155900	STEVEN JAKABFY	OSHTI UG	09/95
BIGFOOT	290500	DAVID HANDLE	OZARK 99	01/95
BLASTO	44880	MIKE CENDROWSKI	W/PENN 99	11/94
BREAKTHROUGH	1850	RAY FRANTZ	VAST	11/93
BURGER BUILDER	1000000	ELEANOR ZIC	W/PENN 99	03/94
BURGERTIME	82600	MICKEY CENDROWSKI	W/PENN 99	09/85
CAR WARS	6050	JIM WAYNE	VAST	11/93
CENTIPEDE	301930	MICKEY CENDROWSKI	W/PENN 99	01/87
COLORS	1000000	HARRY HOFFMAN	CLEVELAND	03/95
COMBAT	750	AIRSHACK	VAST	02/19
DIG DUG	262460	FRANK ZIC	W/PENN 99	03/94
ENTRAPMENT	3668	FRANK ZIC	W/PENN 99	11/93
HOPPER	4031826	TOM BEERSMAN	OZARK 99	06/94
HUSTLE	WON 52	ELEANOR ZIC	W/PENN 99	03/94
JAWBREAKER	15025	JIM WAYNE	VAST	11/93
JUMPY	131900	ELEANOR ZIC	W/PENN 99	03/94
MICRO PINBALL	1776500	NORM ROKKE	W/PENN 99	05/87
MIDNITE MASON	27100	FRANK ZIC	W/PENN 99	11/93
MOON PATROL	73150	MIKE SEALY	W/PENN 99	03/94
MUNCHMAN	202170	PAUL BROCK SR.	W/PENN 99	09/87
PACMAN	153000	GARY TAYLOR	W/PENN 99	09/87
PARSEC	47300	MICKEY CENDROWSKI	W/PENN 99	09/87
PKR SOLITAIRE	3790	JACKIE REMENSKI	VAST	11/93
POLE POSITION	57700	MICKEY CENDROWSKI	W/PENN 99	12/94
SUPER VAHTZEE	615	JACKIE REES	VAST	11/93
THE ATTACK	31800	JIM WAYNE	VAST	11/93
TI INVADERS	15930	PAUL BROCK SR.	W/PENN 99	09/87
TI TRIS	2208	FRANK ZIC	W/PENN 99	11/93
TOMBSTONE CITY	154400	DANNY MCGUIRE	OZARK 99	11/94
TRN SOLITAIRE	351	CAROL HOFFMAN	CLEVELAND	03/95
TREASURE ISLE	37800	MIKE CENDROWSKI	W/PENN 99	10/94
TRIS (ASGARD)	8393	MICKEY CENDROWSKI	W/PENN 99	12/94
YOUR GAME	0000000	YOUR NAME	GROUP?	00/00
YOUR GAME	0000000	YOUR HANDLE	STATE?	00/00
YOUR GAME	0000000	YOUR NAME	COUNTRY?	00/00
YOUR GAME	0000000	YOUR HANDLE	GROUP?	00/00
YOUR GAME	0000000	YOUR NAME	STATE?	00/00
YOUR GAME	0000000	YOUR HANDLE	COUNTRY?	00/00
YOUR GAME	0000000	YOUR NAME	GROUP?	00/00
YOUR GAME	0000000	YOUR HANDLE	STATE?	00/00
YOUR GAME	0000000	YOUR NAME	COUNTRY?	00/00
YOUR GAME	0000000	YOUR HANDLE	GROUP?	00/00
YOUR GAME	0000000	YOUR NAME	STATE?	00/00

**BOLD LINES INDICATE NEW HIGH SCORE OR GAME SUBMITTED**

Please submit all scores to SPARKDRUMMER via private message on the ATARIAGE TI-99/4a forum.

