## SCOTTIE WILLIFORD ... PRESIDENT

JESSE JOLLY ... VICE PRESIDENT<br>STEUE THORPE ... UICE PRESIDENT<br>KING FORKNER ... TREASURER

JERRY ROTHWELL ... SECRETARY CHARLES STRINGER ... LIBRARIAN
GEORGE KORNFELD ... EDITOR

## 

THE PRESIDENT'S KEYS

The Decatur 99er's Users group, will be meeting at the First Congregational Church. Please be there on MARCH 15.1990 at 6:30
pm, so we may start the program earily. This months program will be on TI-BASE with Arbury Johnson and Ray Fisher. You will just come to the meeting to see what it is all about.

Once again Asgard Software. The MAG that Asgard Software has been publishing quarterly, will be published bimonthly. Asgard will also be picking up Barry Traver's column. I know that the magazine was $\$ 9.00$ per year. If I have more information on the magazine I will tiell you at the meeting on March 15th. in the mean time,Here is the address:

> Asgard Software P.O.Box 10306 Rockville, MD 20849 $703 / 255-3085$ (They do not have a toll free \#)

While we are on Barry's column I also find that COMPUTER'S BUYER'S GUIDE will also doing his column here is the address:

$$
\begin{aligned}
& \text { Computer Buyer's Guide } \\
& 2 \text { Riverchace Office Plaza } \\
& \text { Birmingham, AL } 35244 \\
& 1-800-366-0676 \text { (ask for Mr. Kilarski) }
\end{aligned}
$$

Tips: When your keys get dirty, take your keyboard apart, and clean them, with a $Q$-tip. I found that if your put a little alcohol on the Q-tip it will clean the keys better than just a rag. Remember where the keys go.

NEWS OF THE LIBRARY
This month's featured disk is a collection of utilities (plus a few other things) put together by CONNI (the acronym of Central Ohio Ninety-Niners Inc). It contains a bunch of things that will stretch both your mind and your skills if you learn to use them. One of them (Birdwell's Disk -Utilities v4.12) plays a central role in the demonstration for April ('Elective Surgery'). Some of us may want to get a bit familiar with the program during the next several weeks.

There are also a couple of recreational programs : MAXRLE, KALSCOPE and a queer bit of Australian whimsy called BUGSINGAL ("Bugs in the Gallery"). If I were to choose a new title, it'd be called 'BARF!'

The whole package contains nearly 700 sectors, and will be distributed as two SSSD disks. If you want them, PLEASE INITIALIZE AND VERIFY YOUR BLANK DISKS BEFOREHAND. It's wasted time and effort to copy onto flawed disks, which we encounter fairly frequently these days. The copying program we use at club meetings (REDISKIT) doesn't test for copy errors and it doesn't copy the comment lines thoughtfully tucked into the directory sectors as a reminder of each program's function.

The Librarian has been UNDERwhelmed by the recent responses to the offer of having VERIFIED disk copies, with comments in place, ready for those that call ahead. But the offer still stands. Again, please initialize and verify the disks you intend to give the library in exchange. It's your library.

A challenge: The name of one of our club members is buried somewhere on the current disk. Is it you? A free disk with the program of your choice if it's YOU and you can tell me HOW you found it!

The following text is a nearly-verbatim print-out of the file ! README found on the disk. It gives you a bit more information about the various programs.

8 March 1990
CS Stringer

## '!README' UPDATED 04/14/89

This disk has been compiled by Members of the Central Ohio Ninety Nines. Many of the programs on this disk are Fairware. The authors are asking for a small amount of money if you use their programs. Please send the requested amount if you regularly use any of the programs.

Here is a brief look at the files on the disk.
2-PASS is a program that allows you to copy a disk easily and quickly if you have only one disk drive.

ARC303, JUST RELEASED on 4/12/89, may be used to compress or decompress files. Files may be compressed to save space or to send to friends over a MODEM. You may then decompress the file to restore the programs to their original form. For more information on ARC3OJ see ARC3/DOC on side 2 of this disk.

BOOT is a program that allows you to run the programs on this disk with the press of a key. Simply select Extended Basic from your Master Title Screen and BOOT will load in a few seconds. You may custom-tailor BOOT to your own needs. See BOOT-DOC. CHARAI is a file that is used by several programs including BOOT to determine the design of the characters displayed on the screen.

DSKU412 is a very useful utility which allows you to copy, compare, edit and otherwise manipulate disks and the files on them. It takes a considerable amount of experience to use many of the advanced features comfortably. You should experiment on a copy of a disk until you are familiar with DSKU. SEE *READ-ME and UPDATE4-1 for brief DSKU documentation.

IRFLREADER lets you read any text file (such as this one) quickly and easily.

LABELER lets you print labels on your printer using a variety of type sizes and styles.

LAR allows you to run Editor/Assembler Option 3 (dis/fix 80) files without having the E/A cartridge installed.

LOAD is the program that will run the BOOT program.
MAXRLE is a program that will display on your screen or send to your printer RLE pictures. There are 2 pictures on side 2 of this disk. See MAXRLEDOCS for help in running the program. The sample pictures are SWAN and DAFFY+.

DM1000 [v 3.8 i is a disk manager program. It allows you to copy disks or files, rename files, protect and unprotect files and has many other features. See MGR/DOC for more details.

S610, 10X, MX80 and OKIDATA are programs to setup your printer. OVERLAYER prints out keyboard strips for Ti-Writer, etc. KALSCDPE is a color demo with many changes. BUGSINGAL is another demo, a rather unusual one. ENJOY THE PROGRAMS!

I'm still wanting to hear from some of our members, telling us about some of their list experiences. If you can share with us some of your list experiences with the TI. Please write an article and we will get it in the news letter.
COME ON YOU PEOPLE WE NEED SOMETHING THIS YEAR. You do not have to have your name on the article. Use a pen name.
OK now we can get some of the other new members to tell us about their, new found friend the TI-99/4A.

Well, well someone out there has heard me. It's about time that we get someone to tell about our hst, experiences with their TI, but now wait there are people that worked with other 1 st computers. So let's hear from you also. Remember that it is you that are going to make or break us 99er's Next month meeting will be on APRIL 20,1990. See you then too.


OLD BUSINESS: SCOTTIE REMINDED US TO TRY AND PAY OUR DUES, WE NEED THE MONEY.

NEW BUSINESS: DI SUMPTER, A aRD. GRADE TEACHER FROM JOHNS HILL ATTENDED THE MEETING TO GET SOME IDEAS ON HOW TO USE SOME OF THE CONSOLES AT SCHOOL.

COMING SOON:
MAR. TI-BASE, RAY FISHER AND ARBURY JOHNSON.
APR. UTILI/DISK SURGERY. CHARLES STRINGER.
MAY. TI-WRITEER TIPS. CHARLES STRINGER.
JUN.
JUL. LOGO. JESSE JOLLY.

PROGRAM: HARRY YOUNG DEMONSTRATED SOME PROGRAMS FROM, "QUALITY 99 SOFTWARE". DISK MANAGER IV, AND DRAW PLOT. HE THINKS DRAW PLOT IS BETTER THAN THE TI VERSION: BECAUSE IT IS EASIER TO USE.

SYSTEM IN BLOOMINGTON, IL. FOR SALE.
B/S CONSOLE, P.E.B., RS232, D/S-S/D DRIVE, 32K, DISK CONTROLER, JOYSTICKS, SPEECH, E/A, $X / B$, MM, GAMES...

MEETING WAS ADJOURNED 8: 3OPM
RESPECTIVELY SUBMITTED,
JERRY ROTHWELL
3-11-90

## INTRODUCING DAD TO THE TI-S9/4A

In 1986 I had the opportunity to purchase a new TI-99/4A. I gave it to my son as a Christmas present. My son had already been using computers in school for over four years. At the time I purchased the 99/4A I also located a malfunctioning 99/4A. I purchased it along with a TI cassette recorder, connecting cable, and several game modules. My son was overwhelmed to have his own computer. We spent about three hours that Christmas night getting acquainted with the 99/4A. My son discovered that there were some differences in operating the 99/4A as compared to the computers he had trained in in achool. I had the opportunity to read the TI basic manual before hand so I was able to do some effective sideline coaching. Before the evening was over my son had even recorded one verse of a difficult Christmas hymn and stored it on tape.

One of the greatest difficulties I had in learning to use the 99/4A was focusing my bifocals on the fuzzy screen of our 23" console TV and then coming back to the keyboard and remembering what to do next. The taped Basic lessons were helpful, but we found it frustrating to make several attempts to read the tape material into the console memory.

A letter to Texas Instruments netted us the address of then TI User Group President Larry Livergood. We have found the club members most helpful in getting acquainted with and expanding our system. Charles Stringer has been most patient and helful in answering redundant question and duplicating materials for us.

Through the DECATUR 99er HOME COMPUTER USERS GROUP we have been able to build up a complete TI-99/4A, system including an expansion box with two half-height drives, a Sakata color monitor, Star NX-1000 printer, and a TI modem.

My son and I have developed a special computer bond. I built the"Y" power connector cable when we converted the PE Box to two half-height drives. He and a friend took care of unboxing and setting up the printer. When I have been away from the system I have to go back to my son and review what steps I must go through to use FUNNELWEB, my favorite word-processing program, and the procedures for saving and printing my efforts.

Banner-making, computer chess, and monoply are some of my sons favorite 99/4A activities. Even his older sisters have learned to type resumes on the system. You might say we are almost desktop publishers. Thanks alot DECATUR 99er HOME COMPUTER USERS GROUP!

Thim lettor wam oent to mo by, Loonhard Mau. Letie nave mome
more, on your firet experiences with the TI-99/4A.....日00ttie
neede the lettere the clup noede the lettere.

# TI-BASE - From INSCEBOT 

 tutorial 14.2.1 By Martin Smoley NorthCoast 99'ers - Dec. 16, 1999 Copyright 1989 By Martin A. SeoleyI an reserving the copyright on this saterial, but I will allow the copying of this aterial by anyone under the following conditions. (1) It wast be copied in its entirety with no changes. (2) If it is retyped, credit wust be given to ayself and the MorthCoast 99ers, as above. (3) The last wajor condition is that there aay not be any profit diractly involved in the copying or transfer of this saterial. In other words, Clubs can use it in their newsietters and you can give a copy to your friend as long as its free.


This is a continuation of last eonth tutorial. The Databases I used last eonth are not iaportant, and you need not type the in. I hope that ay raebling explanations of the II-Base language mill give you enough inforeation to adapt the CFs I present to your own Bos, without the need to create all ay examples. I also hope to give you sore information about how I wite ay own CFs, find bugs in those CFs and reconstruct those CFs to produce the end results which are needed.

Last month I gave you FORTSTI. This sonth we have FRRTST9, I created this CF for your benefit, but I have done the same thing for ayself in the past. All nine statements will work if the asterisks are resoved froe the beginning of those lines, as in nucber (9). However, we'll start at the top. As I have stated previously, the first thing I like to do is CLOSE ML of the Dbs that I eay have forgatten in an apen condition. Next I USE CHKBK. In this may I have IIB keep track of mat I an doing and I also have a visual reference to the name of the DD (CAK累) this CF handles. Rememer, without changing the fieldnaces this CF or the comands in it will only work on the DB named CWXBK. "PRIMT (brft), (f)', is oy personal printer setup. (Drft), is ay comand to reset the printer back to a siaple draft mode and $(f)$ is ay comand to set the printer to condensed code. You will notice that before I leave this CF I reset oy printer and then set it to Emphasized (E) code. These are cy personal prefereaces, so you nay substitute your om or leave these lines out of the CF. Remesber, each of the nime comands in Foirsig can be used in a CF, as I have, or by themselves if typed in as a comand line. Cowand (1) is fairly simple. It says PRINT ALL of the fields that are contained in all the Records that have blank check nusbers,
 numers 85 throagh 97 would te printed. Suppose you wanted to see the Records for check numbers 270, 271, 272, 273, 274 and 275. Comand (2) will print those records for you. These comands are quite sieple but at the sace tise they are very very tricky, tecause you must tell ill (IEMCRy!!!)) mat to do. This EXACRY! business is the part that discourages any prograwers. Let's take a quick look at this EXMCTLY stuff. There is no way to tell IIB (in loose teres), that I mant to see the data from 270 through 275. I know that these nusbers fall between (but do not include) 269 and 276, notice the (and). Retween 269 and 276 sounds grasatically correct, between 269 or 276 does not. It's aore coeplicated than that, but this is a good may to keep yourself straight as far as . AWD. and .0R. are concerned. . Mid., will give you the records between 269 AND 276, but . DR. (in this case), mould give you all the records in the 㫙. So now we have two distinct qualitications for a record to be printed. It's CHMOM eust be greater than ( ()) 269 and less than (<) 276, or CWWMO)269 and CHKwo<276. 'Sounds pretty close doesn't it? Well it's not." For one thing we oust tell IIB every detail about the data it will macounter in the chemo field. For instance the quotation aarks, ('1234"). The quotation marks tell IIB that when it looks into the CHWMO field it will see a character (C) type field. IIB mast know this. If you look at the end of Comand (6) you will see (DEP'CREDITS .Oll. In that comand IIB will be looking for a nueeric (M) type field and the quotes aust not be used. Also mote that the CHKW field is 4 characters wide, with a space in coluen one (' $269^{\circ}$ ).

TI-BASE - From INSCEBOT TUTORIAL 14.2.2 By Martin Smoley NorthCoast 99'ers - Bec. 16, 1989 Copyright 1989 By Martin A. Seoley

Both the width and justification of a character type field are ieportant. III mould not fied a match for "273 ", because the space is in the woas place. Ils also needs to know that (CHK $\left.{ }^{(2)}\right)^{\circ} 269^{\circ}$ ) is one seall but complete question which it wst answer. Thus the reason for the parenthesis. I have also placed parenthesis around the upper search liait (CHKMOく" $276^{\circ}$ ), and for eyself, I placed parenthesis around the whole thing. The outer parenthesis are halpful wen are quiries are added to are ; FOf clause. Take a look at nucber (3). I took a copy of nueber (2) and changed our field of interest. My idea was to find everything ldeposits, debits etc.) for March (03/nn/nn). Because February could have 29 days, I set our low lisit to "02/29/89". I then set the high liait to April (04/00/89). Because I did not mant items from either Feb. or April, I ade the comand (DATE)"February") and (DATE ("April"). I told TIB that it mould be looking for a date (D) type field "nn/nn/nn" and I used quotation earks. Note: All nine of the comands in FOATST9 mork, but they are to desonstrate the alakeup of comand lines and not necessarily to find reaningful data. You should also take note of the way 1 break ey lines in this CF. The Comand Processor will only read lines up to 40 characters in length. You can coatinue a comand line, in a CF, up to 255 characters by placing a senicolon at the end of each lime ( 40 chars, or less) and continuing on the next lime dow, as you see in Fgaisig. II does not require that you start the next line at the very beginaing or far right coluan, see (2) and (3). Se this is the way I like things. If you do not need every space then den't fill every space, waste space. Stop a line before colum 40 at a convenient, easy to read, easy to understand, eye pleasing spot. Start and stop the next line under the sam conditions. You will notice in (2) and (3) that I have even lined up the parts of ay; $F D P$ linits directly above and belom each other. This allows ee to easily see what I ao doing and to check for eatching quotation earks or pareathesis. Wile you are witim the progral you will reseaber everything, hut if you mat alke a change six eonths after the pogra is finisted, youmen't have the slightest idea mat you hat in oind som you mote it. OK, back to the CF. Mucher (4) is a slightly eore coeplicated set of lisitations. You should see that (4) is a direct copy of (3) with the addition of ".00. (CHMmbe" ${ }^{\circ}$ )", wich is actually the saee as numer (1). In eany cases mere I have complicated probleas I find it easier to solve pieces of that problem separately, such as (1) and (3), and theo coabine the pieces, such as (4), to haulle the wole problea in ane shot. Mucber (4) will print all records for March "03/ma/mn' and it will also print all records that have no check mumber (CHMOO). You should think of ".OR." as "Either Or" and you should think of ".AMD." as "Must satisfy both, or core thas one requiresent". In this comand TIB will think (if the record is either for March OR it has ao check nucber priat itl. Morried within the statement on the left hand side is the March lisitation, which says that the DATE eust fall above "02/29/89" and below "04/00/89". "Figuring out these examples is eaking ee crazy, it oust be doing the same thing to yow." I created nuaber ( 5 ) to reinforce the thought that an .And. requires aore than one portion of the clause to be true. I have molosed the two itese that are diractly related to the . AND. in parenthesis.

This should reaind se that they must both be true. Comand number (b) is to deconstrate that several .AND. 5 or . OR. 5 can be used in the same statement. In the case of number (6), all four of the requirements wast be true before a record will be printed. In number (7) thres iteas aust be true. The two DATE iteas aust be true and either the (CHOMO=" ") sust be true .DR. the (DEP'CREDITK .01) eust be true. Muaber (8) is roughiy number (1) and nuaber (9) is roughly number (7). In these two I as aerely showing that DISPLAY is interchangable with PRIMF, and that you can request that specific fields be DISPLAYed or PRINTed rather than the coaplete record. It's interesting to note that (REMARKS="Gas ,"I will be found if REMARKS has no characters other than bas ,. 1 an covering this as thoroughly as possible and I will probably cover it again because the logic used with the ; FOR clause is the same as that used with IF or *ILE statements. They oust be understood clearly if you are to recognize the logic mich is built into II-gase.

## - MOVE MMMBERS TO CHKBK FLCKBKP/C

SELECT 2
USE CHKBK
SELECT 1
USE BILLS
WHILE .NDT. (EOF)
SELECT 2
PRINT
FIND 1. PCHK

* NOTE: TIB is looking through CHKBK
* and attempting to find a match for
* PCHK, which is the Phone Check No. - in BILLS. CHKBK must be SORTed ON - CHKNO for FIND to work.

PRINT

```
            IF .NDT. (EDF)
                REPLACE 2.DATE WITH 1.MODATE
                REPLACE 2.PAY"DEBIT WITH 1.PHONE
                REPLACE REMARKSS WITH "Phone ,"
            ENDIF
        GELECT 1
        MOVE
    ENDWHILE
    CLOEE ALL
RETURN Copyright Martin A. Smoley 1989
```

PRINT

Let's go back to the CF named FLCHWBXP/C for just a moment or two. Then 1 first wrote it, it was a piece of junk. It wasn't worth beans. I got a "database not sorted" error eessage, I selected the wong slots and I was trying to cove data to and froe the wrong fields. If you think that you are the oniy one mo eakes eistakes, your mong. Hy fayorite debugging tool, aside from watching the screen for asterisks and error messages, is PRINT. If you place the comand PRIMT at a key, or problee spot in the CF, TIB will print out the DS Heading and the complete record it is using at that soment. I fiad this technique to be cost melpful after a SELECT or SELECT, MNE. I match the CF scroll up the scraen and when ay printer ducps sooe data I hoid the spacelar to stop the CF. I can then observe the CF on the screen and read the record wich has been printed, to see if the CF is actually mere I thought it was. I can then press the $S$ key to get 118 started again.

Continued Next Month.

It is easy to create bold colored title letters with this TI Extended BASIC program. All you have to do is enter up to 4 lines of text, with up to 15 upper-case alphabetic characters per line, and choose the colors for the titles and the screen. The computer automatically centers the words on the screen as it draws them. Your titles remain on the screen until you press a key. If you wish to redraw the same titles, use the Delete key to move the words back to the left margin so that the computer can automatically center them again. (Or, you could use the Erase key and re-type the titles).

You will find many uses for bold letters in your display. If you own a video recorder, add titles to your home movies by plugging your computer's video cable or modulater into your recorder and recording the graphics you have created. Also, as with the Color Bar Graphs program, you could photograph the titles from your monitor to make title slides for your audio-visual presentations. (Try slide film at 1/30 second shutter speed. Experiment with exposure settings.)

Another use, of course, would be to use these title graphics in your own programs. To do this, change the values of L1\$, L2\$, L3\$ and L4\$ in line 150 to the words you want to display. Set C and C1 to the color number that you desire for the titles and screen respectively. Delete lines 160, 180-270 and 320-340. The line number reference at the end of the program would need to GOTO the next line to be executed in your program. Alternatively, you could use just the CALL CHAR statements from this listing that correspond with the letters you will need to draw in your program and use your own CALL HCHAR statements to draw the titles. To end this program, you may press the Clear key.

```
100 REM HTI-TLES* TI EXTENDED EABIC
120 RIIM BY BRIAN MADIEAN & DANID MIEICOVEKY
120 REM FROM PROERAMS FOR THE TI HONE COMPUTER
130 REM COPYRIEHT (C) }1983\mathrm{ BY STEVE 
140 REM FOR AUTOMATIC CENTERINE, ENTER TITLEE AT LEFT MARGIN. PREES CLEAR TO END
    PROERAMM.
```



```
88 ENTER" :1 L4t="TO EEE THEEE" 1: C=2 11 CI=16
160 CALL CLEAR 1: COLL ECREEN(16):1 FOR X=Q TO 7 i: CRLL COLOR(X, 5, 1):1 NEXT X :
: DISPLAY AT(5, 1%):"TI-TLEE" i: FOR X=1 TD 150 is MEXT X
```



```
NEXT }
```



```
190 DISPLAY AT(1,2);"LINE 1,",LLS :1 DISPLAY AT(E,2);"LINE 2&"|LE% :1, DISPLAY AT
(3,2):"LINE 3:";LS* I: DIEPLAY AT(4, 2):"LINE 4;";L4*
200 CALL CHAR(140, "FFFFFFFFFFFFFFFOOFFE1B181818181FF")
218 DISPLAY AT(6,2):"N I: DI8PLAY AT (7, 2);"" II ACCEPT AT(1,9)VALIDATE (URLPHA)SI
ZE(-15):LI% i: ACCEDT AT (2,9)VALIDATE (LALPHA) 3IZE (-15) :LE*
2EO ACCEPT AT (3,9) VALIDATE (UALPHA)8I2E(-15):L3: :1 ACCEPT AT (4,9) VALIDATE (LHALPHA
1812E(-15):L4*
230 DISPLAY AT (6, 2):"PREES R(EDO TO CHANEE DR" I: DISPLAY AT(7, 2):"PREES PROC'D T
- CONTIMLE"
240 COLL KEY(0,K, 8) : IF g=0 THMN E40 i: IF KNG THEN 210
Z50 IF K(12 THEN 240
```



```
140, X,(X*B)+42, 27):1 NEXT X
270 COLL PATTERN(#16,141):1; CALL COLOR(%16, 2):: FOR X=2 TO 16 i: DISPLAY AT(X+6,
3):X :1 NEXT X
```



```
1%88EG*(F;,1,21)
290 2=LEN(L2$):1 Z=15-2 :1 Z1=INT(Z/E):1 Z=15-(21+LEN(LE*)):1 LetmEEES(Fs,1,Z)&L
2%8SEEs(F;,1,21)
```




```
4888EGs (F4,1, 21)
320 ON WARNINB NEXT is DIEPLAY AT (10,10):"CHOOEE A COLOR" is DISPLAY AT(11,10):"
FOR THE TITLES;";C :% ACCEPT AT(11,26)SIZE(-3);C
330 DISPLAY AT(13,18):"FOR THE SCREEN:";C1 i: ACCEPT AT(13,26)gIZE(-3);C1
340 IF C) 16 THEN 320 ELSE IF C(2 THEN 320 ELSE IF C1)16 THEN 330 ELSE IF C1(2 TH
EN 33!
350 CALL DELSPRITE(ALL) : : CALL CLEAR i: CALL SCREEN(Ci):1 FOR X=1 TO 14 :% CALL
COLOR(X,C,1) : : NEXT X
```



```
21,1)="n THEN 380
378 Z=POS("ABCDEFEHIJKLMANPPQRSTUVWXYZ",SEG% (LS8, 21, 1), 1): & L(I,J)=A (z)
380 21=21+1 :1 NEXT J :% NEXT I
390 CALL CHAR(36,"gF3F7F7F7C7878787F7F7F7F78787878FOFCFEFESEIEIEIEFEFEFEFEIEIEIE
1E")
400 COLL CHAR(48, "7F7FTFTF78787FTFTFTF7S7B7F7F7FTFFAFCFEFEIEIEFEFGFBFEIEIEFEFEFC
F8*)
```



```
FC")
4E0 COLL CHAR(4B, "7F7FTFTF78787878787878787FFFFTFTFFOFCFEFESE1EIELELEIEIESEFEFEFC
F")
```



```
FC()
440 COLL CHAR(56, "7F7F7F7F78787F7F7F7F78787878787BFCFCFCFCQuenegEGEQE")
```



```
FEN)
460 CPLL CHAR(64,"7878787978787F7F7F7F7878787878781EIEIEIEIEIEFEFEFEFEIEIEIEIEIE
```



```
FB")
```



```
C*)
```



```
78*)
```



```
F8")
```



```
G*)
```



```
1E*)
53% CALL CHARCSE, "1FGFTFTFTC7878787878787C7FTF3F1FFAFCFEFESE1EIEIELEIEIESEFEFEFC
F8")
540 CALL CNAR(SU, "7F7FTF7P79787F7F7F7F78787878787BFQFCFEFE1E1EFEFEFCF")
```



```
EEE")
```



```
EIE")
```



```
CF8")
```



```
0c)
```



```
CF')
```



```
0C*)
```



```
FDF")
620 CALL CHAR(128,"787878787C3F3F1F1F3F3F7C787878781E1E1EIE3EFCFCFBFBFCFCUEIEIE1
E1EN)
630 CALL CHAR(132,"78787878787C7F3FGF030303030303031E1E1E1E{E3EFEFCFOCOCOCOCOCOC
0c*)
640 CALL CHAR(136;"7FTF7F7F00000103070F1F3E7F7F7F7FFEFEFEFE7CFAF0E0C0B00000FEFEF
EFE")
658 FOR I=1 TO 4 is FOR J=1 TO 13 :1 IF L(I,J)=0 THEN 670 :% X=((I-1)*3)+7 i: Y=
((J-1)*2)+2
```



```
)+2):: CALL HCHAR (X+1,Y+1,L(I,J)+3)
670 NEXT J : % NEXT I
680 CALL KEY(0,K,S):1 IF S=0 THEN 680 i: CALL CLEAR i: CALL CHARSET
690 FOR I=1 TO 4 i: FOR J=1 TO 15 i: L(I,J)=0 is NEXT J is NEXT I is GOTD 170
```


#  




