

ON THE BACK BURNER.....Jean Wilcox



Did you ever find yourself in possession of a brand new E/A program and didn't have the faintest idea how to start it after loading? The time-tested, but time-consuming, method has always been to get in there with a sector editor and hunt up the start word. I've recently come across a couple of alternate methods you might want to make a note of. The principle is the same in both versions. First load up the program, using the E/A environment of course, then exit all the way back to the TI color bar screen using Fctn Back and enter basic. Type in either of the following two short programs and run them. Somewhere in there with all the garbage

and symbols you should find a word that will work. It generally will be found right at the very end, but if any of those refuse to do the job for you it may be because it has been hidden very carefully somewhere in the middle. In that case, you may never find it, but given that situation you have a piece of copy written software you probably didn't pay for, so that's what you get for trying to get by with something. Shame on you. So here goes.....

```
10 FOR I=16128 TO 16308
20 CALL PEEK(I,A)
30 PRINT CHR$(A) ;
40 NEXT I
```

E/A-START

```
1 CALL INIT
2 CALL LOAD("DSKx.filename")
3 CALL PEEK(16176,A,B,C,D,E,F)
4 PRINT CHR$(A)&CHR$(B)&CHR$(C)&CHR$(D)&CHR$(E)&CHR$(F)
```

After the second of the two, the name will be printed and if you choose you can then add CALL LINK ("name"). Only don't put that period after it; that's for correct grammar, not correct computer syntax.

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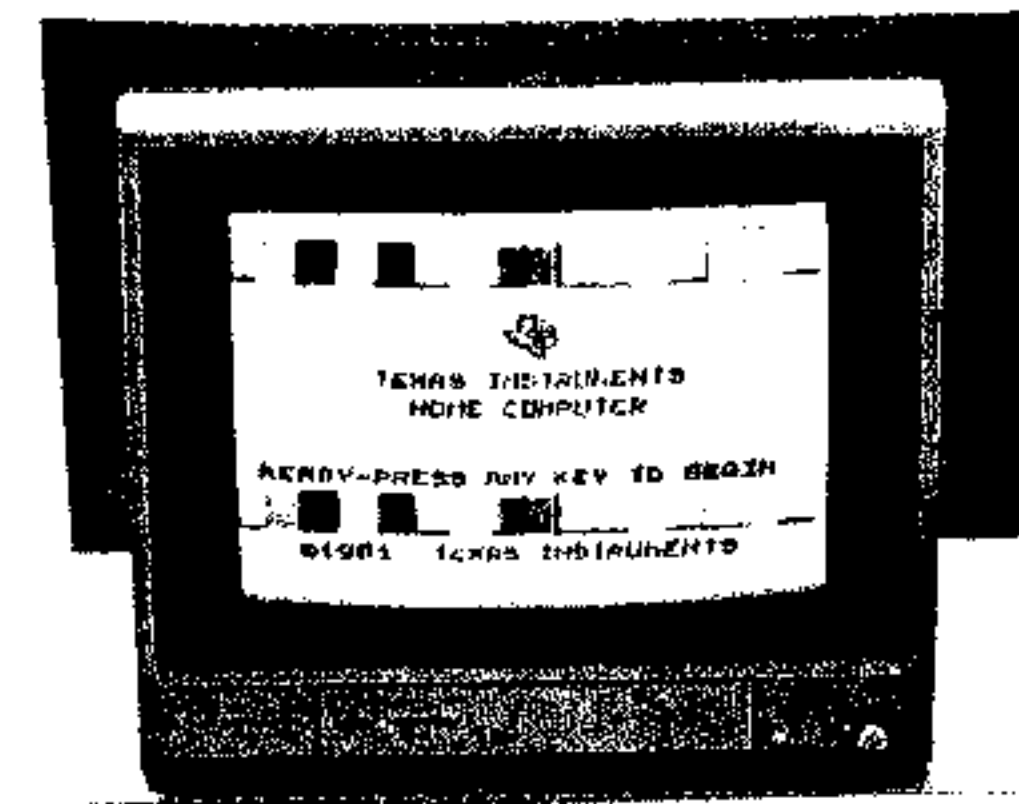
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TI INTERNATIONAL EXPO 89

When: Saturday, September 16, 1989

Where: Howard Johnson Inn
5821 Richmond Highway
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703-329-1400

Route 1 South and I-95 on the Capital Beltway - Exit 1, Route 1

Sponsored By:
Mid-Atlantic Ninety-Niners (MANNERS)

Show Time: 9:00 am - 5:00 pm
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Post-Show Reception: 6:00 pm Saturday

Banquet: 7:00 pm Saturday

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Booth Rates - User Groups

Contact EXPO 89 for details

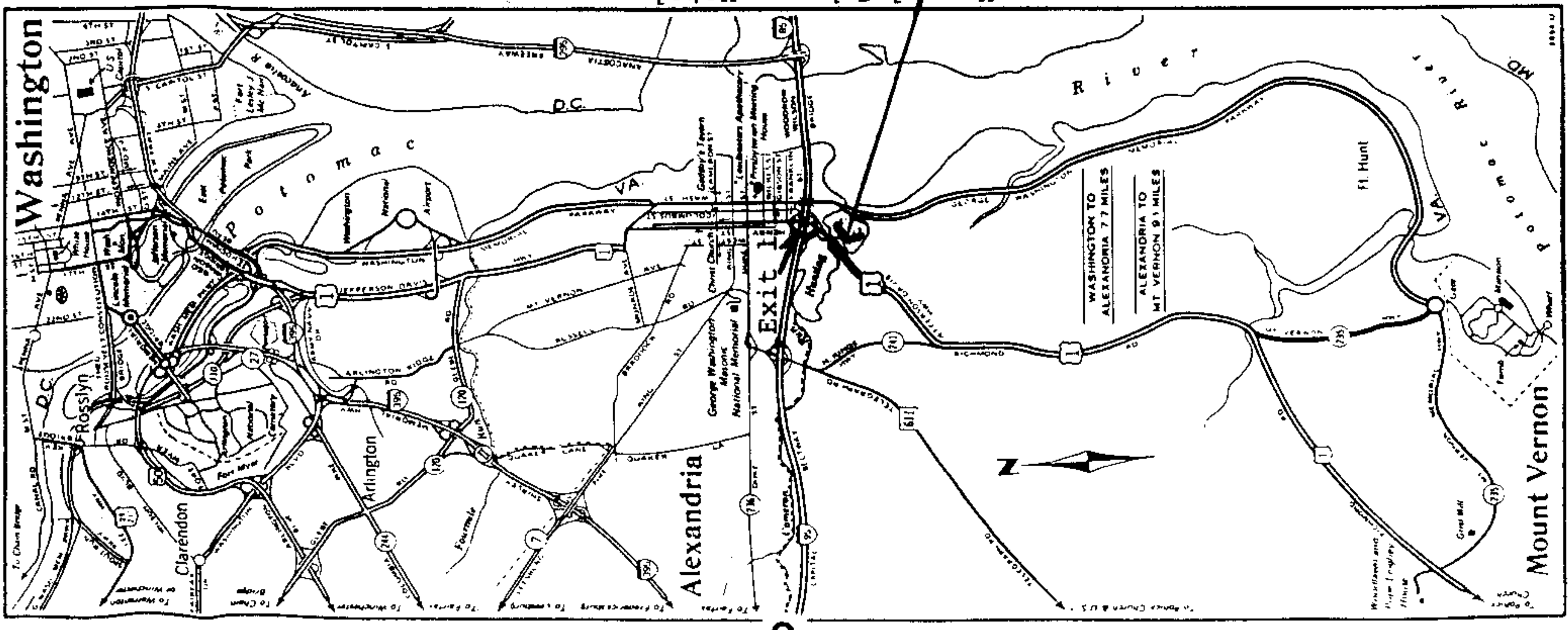
Show Rates for Hotel:

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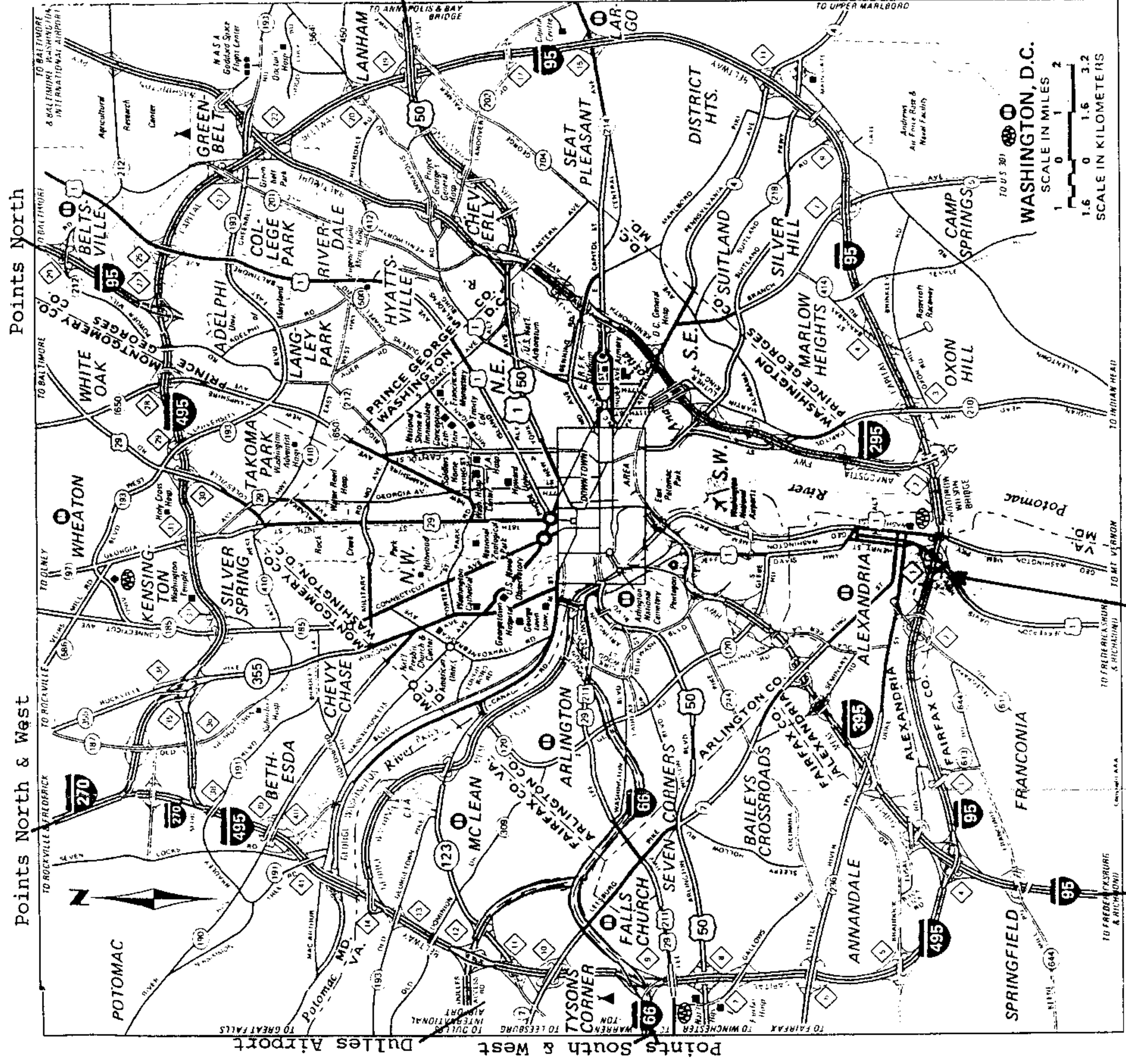
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Food: Howard Johnson restaurant and other local establishments a short walk or ride away.



Expanded view of map on right



Howard Johnson Hotel

The Lighter Side

(Reprinted from the *QB Monitor*, newsletter of the QB 99'ers, Bayside, NY. Credited to the Cedar Valley 99'er U.G. Newsletter.)

We can all relate to the following from Sister Pat Taylor:

IT'S LATER THAN YOU THINK...

- ▣ If you remember ages ago when boot referred to footwear, not a program coming on a computer.....
- ▣ Or the days when a bulletin board was simple school equipment and not electronically sent messages.....
- ▣ Or times when we spoke of animation in reference to a person's enlivened spirit, not a screen imitating life.....
- ▣ Or those eons ago when conversations were political or religious, not binary or ASCII.....
- ▣ Or utilities were electric bills, not terrific helpers to aid a floundering computer novice.....
- ▣ Or when default referred to a failure to meet an obligation instead of a comfortable choice made for you.....
- ▣ Or another century when alpha and omega were companions in speech instead of alpha and lock.....
- ▣ Or a time in the past when dip referred to a condiment and switches were a tool for chastisement.....
- ▣ When strings were musical instruments, not a sequence of characters.....
- ▣ When terminals were bus and train depots, not input/output devices.....
- ▣ When a buffer shined one's floors, and was not a temporary storage device.....
- ▣ When bugs were insects, not errors in a computer program.....
- ▣ Or when monitors watched school halls and lavatories instead of you watching a screen performance.....
- ▣ When emulation was striving to excel, not computer imitating computer....
- ▣ Or a bus was transportation, not a circuit.....
- ▣ When call meant to phone, not to branch to a subroutine.....
- ▣ When a dump took care of waste material, and was not a lovely print-out.....
- ▣ When address was where you lived, not an operand portion of a computer instruction.....
- ▣ When memory belonged to people, not computers.....

Those belonged to another day, another year, and even at times, another century!!! Is it later than we thought or is it simply a question of the past not quite yet converted to the future!!! Can it be only a year ago when computerese first overwhelmed me!!!

TI STILL CARES...

TI-CARE FORUM

(Reprinted from *The SNUGLETier*, newsletter of the Southern Nevada Users' Group. Credited to the *Net99er News* of the Hurst (Texas) Computer Users' Group. No author stated.)

As part of a continuing effort to enhance support services, TI-CARE has introduced an on-line bulletin board that gives customers technical assistance and the latest news about TI-CARE and TI.

The board, called the "TI-CARE Forum," is a multi-line system which permits simultaneous access by multiple users. It is available 24 hours a day, seven days a week, and can be accessed using almost any Bell 212a compatible modem at baud rates of 300, 1200 and 2400.

Any user who dials up the forum can peruse general information about TI, its products and services; view product demonstrations; and read important announcements.

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TI-CARE expects users to enjoy the Forum's advantages of immediate access to information, instead of waiting for assistance over the phone. In addition, the Forum allows customers to obtain selected TI owned software product updates electronically, saving the mail time of conventional distribution.

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For more information, you may dial directly into general information section of the Forum at (512) 250-6112 - modem. Or if you would like to discuss the forum, please call (800) 847-5757 - voice.

TI-CARE "Forum" - (512) 250-6112



THE KIDDIE CORNER
by Sue Harper
Pittsburgh User's Group



For kids of all ages, a series of articles on how to get started making your own programs.

Today we are going to take a quick look at the music that the TI can make. The computer understands the command CALL SOUND to make sound, and asks for three numbers. Here is a sample CALL SOUND statement:

```
10 CALL SOUND(1000,440,15)
```

Each of the numbers is important, and each number does a different thing. The first number tells the computer how long to make the sound last. This first number is measured in milliseconds, so 1000 equals one second. As you can see, using a small first number will get only a short peep. Type in the command above, and RUN this short program. Then change the first number to 5, or 7, or 250, or any other number. Compare how long the note lasts. The first number can be any number from 1 to 4275.

Now, let's look at the second number. In our example, the number used is 440. This number is the measure of cycles per second or Hertz (Hz). 440 happens to equal middle 'A' on a keyboard. If you have an instrument at home, see how close the computer and your instrument are in tuning. They should be the same! You TI can sound notes from 110 (A below low C) up to 44000 Hz, which is above the human ability to hear.

Play around with the second tone, and see what notes sound pleasing to you. A note for those who are really into sound - the TI is continuous as opposed to discrete in the music area, and thus you can type in and will receive a different sound for 440, 441, 442, and so on. Keep this in mind if programming the computer to play a song. Numbers close together are usually hard for the human ear to tell the difference, but unless you are 'into' dissonance, try to use the correct number.

The third number in the command tells the computer how loud to play the note. This number can range from 0 to 30. One confusing part of this is that 0 is the loudest, and 30 is the softest! Sounds a little backwards to me!!!!

Another way of changing the volume is the control knob on your monitor, but the command mode will let you put expression in your compositions.

Here is a program that will play the C scale:

```
10 CALL CLEAR
20 CALL SOUND(500,262,15)
30 CALL SOUND(500,294,15)
```

```
40 CALL SOUND(500,330,15)
50 CALL SOUND(500,349,15)
60 CALL SOUND(500,392,15)
70 CALL SOUND(500,440,15)
80 CALL SOUND(500,494,15)
90 CALL SOUND(500,523,15)
```

Type in this program and sing along. Do, re, ee, fa, sol, la, ti, do!

Here is another program with some commands that may confuse you, but the result is that you can use the TI to compose a song. Just use 1 for Do or C, 2 for Re or D, and so on. Have fun! See you next month. . .

```
10 CALL CLEAR
20 PRINT "INSTRUCTIONS:"; "USE
THE CHART BELOW TO KNOW WHI
CH NUMBER EQUALS EACH ";
NOTE."
30 PRINT "SORRY, THERE ARE N
O SHARPS"; "OR FLATS IN THIS
PROGRAM."
40 PRINT " 1 = C"; " 2 =
D"; " 3 = E"; " 4 = F"
;" 5 = G"; " 6 = A" 50 PRINT " 7 = B"; " 8 =
C"
60 CALL KEY(0,K,S)
70 IF S=0 THEN 60
80 IF K=49 THEN 170
90 IF K=50 THEN 190
100 IF K=51 THEN 210
110 IF K=52 THEN 230
120 IF K=53 THEN 250
130 IF K=54 THEN 270
140 IF K=55 THEN 290
150 IF K=56 THEN 310
160 GOTO 60
170 CALL SOUND(250,262,15)
180 GOTO 60
190 CALL SOUND(250,294,15)
200 GOTO 60
210 CALL SOUND(250,330,15)
220 GOTO 60
230 CALL SOUND(250,349,15)
240 GOTO 60
250 CALL SOUND(250,392,15)
260 GOTO 60
270 CALL SOUND(250,440,15)
280 GOTO 60 290 CALL SOUND(250,494,15)
300 GOTO 60
310 CALL SOUND(250,523,15)
320 GOTO 60
```



This program can only be stopped by using the FCTN key and the number 4 key. Hope you make beautiful music!

TI 99/4A DRAWING PACKAGES - COMPARISON CHART

FUNCTION	JOYPAINT JoyPaint Pal	BITMAC	TIARTIST Artist Extras	GRAPHX	DRAM 'N PLOT	PAINT 'N PRINT + disk	SUPER SKETCH Sketch	MASTER PAINTER	DRAM A BIT Prnt-Bit	MORTON GRAPHIC PACK
Program Focus	E,T	E,T	T,E,U	E,T	U,T,E	E	E,T	E	E,U	U
Requirements	Any	IB EA MM	Any	IB EA MM	IB	StdAlet	StdAlet	IB EI MM	IB	IB
Ease of Use	6	3	5	5	4	4	6	2	2	1
Method of Operation	Icons, Menus	Icons FcnKeys	Menus Icons	Menus Keys	Menu Keys	Keys	Menus	Icons Fcn Keys	Menu Fcn Keys	Menu/Keys
Joystk Control	Required	Required	Optional	Required	Optional	Required	No	No	Optional	No
Cursor Speed Cnt	No	5 speeds	2 speeds	5 speeds	2 speeds	No	No	No	No	
Brush Styles	7	9	8	1	1	32	9	4	1-pixel	3
Automatic Draw Functions	Lines, rectngls, ellipses	Lines, Circles, Rectngls	Line, Ray, Circles, Rectngls	Lines, Ellipses	Lines	Line, Ray, Circles, Squares	Line, Ray, Rectngls	Lines, Rays	Lines, Rays, Arc	Lines, Parabola, ellipses
Fill Shade, Depth	AutoFill 24 Patrn AirBrush	Manual Color Life	AutoFill Col/Pat Yes	SemiAuto Color No	SemiAuto Solid No	SemiAuto Yes	AutoFill Col/Pat Yes	No	Manual	No
Reflections	No	No	Yes	No	No	Yes	No	No	No	No
Move, Copy	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No
Flip, Hor/vert	Yes	H only	Yes	No	No	Yes	No	No	No	No
Rotate	90 deg.	90 deg.	Slides	No	No	No	No	No	No	No
Invert	Swappits	Yes	Yes	No	No	Yes	No	No	No	No
Magnify, Reduce	Yes	Yes	Magnify	No	No	No	No	No	No	No
Text handling Special fonts	Yes Yes	Yes No	Yes Yes	Yes Yes	Yes No	Yes Yes	No No	No No	No No	No No
"Zoom" Mode	Fatpixel	No	Yes	Yes	No	Magnify	No	No	No	No
Scratchpad Mem ("Clipboard")	Cut and Paste	Store B. input	Instance Clipped Slides	Clipboard	No	Yes	No	Symbols, Store	Palette	No
Use of Color	No	Full Use	Full Use	Full Use	Limited	20 colors	Full Use	Full Use	Full Use	No
Slide Show	No	Yes	No	No	Yes	No	No	No	Yes	No
Undo	Yes	No	No	No	No	No	No	No	No	No
Spec. Features	Larger Wrk Spce Pat Edt	CoProcr CrarRprt Pic.Scri	Instance customize	Animate frm Clpb GridTool	9 Addl Commands For IB	PatrnEd Rainbow Colors	Touch Tablet		Redraw Connect-Bots	Cassette version tool
Printer	Epson Axion	Epson, TI 850/5	Most Printers	Epson	Epson	Most Printers	Epson	Epson	Epson	Most Printers
Screen Dumps	2 sizes 2 dnty	Small 80 Med. 80	Wide Ch Size, Ben	2 Sizes 2 Dnty	1 Med	1 Large	1 Large	1 large	2 sizes 2 dnt	No
Disk Catalog	Yes	No	Yes	No	No	No	No	No	No	No
File Convr Ftr	Yes	No	Yes	No	No	No	No	No	No	--
F/Portability	Not at Present	Limited	Easily	Prog Skl in Assm	Prog Skl in IB	No	No	No	Prog Skl in Assm	Easily to IB
Addl Support	Some	No	Lots	Lots	Some	No	No	No	No	No

* Starred features are found on the companion disk listed under the main package

** See chart notes



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programming. No. 4 contains Tips newsletters Nos. 46-52. These were prepared for user group newsletter editors but are available to anyone else for \$5 each postpaid.

Someone wanted a program to teach how to make change.

```
100 CALL CLEAR
110 DEF I$(X)="&SE6$(STR$(X),1,POS(STR$(X),".",1)+2)
120 CALL COLOR(1,2,8,2,2,8,3,2,8,4,2,8,5,2,8,6,2,8,7,2,8,8,2,8,9,2,8,10,2,8,11,2,8,12,2,8)
130 CALL SCREEN(5):: D$=RPT$( " ",112)!programmed by Jim Peterson Apr. 1988 for the public domain
140 GOTO 180
150 CALL KEY :: CALL CLEAR :: CALL SOUND
160 A,P,C,6,T,F,0,Q,D,M,S,TT,X,B$,QQ,K,M$,J
170 !@P-
180 DISPLAY AT(2,8)ERASE ALL:"MAKING CHANGE":;:" by Jim Peterson" :: RANDOMIZE :: CALL KEY(3,K,S)
190 DISPLAY AT(6,1):"Do you want to":;:" (1) Input amounts":;:" (2) Use random amounts" :: ACCEPT AT(6,16)SIZE(1)V ALIDATE("12")BEEP:A :: CALL CLEAR
200 IF A=2 THEN 240 :: DISPLAY AT(2,1):"Price of item? $":;:::; :: ACCEPT AT(2,17)V ALIDATE(NUMERIC)BEEP:P :: IF P<0 THEN 200
210 DISPLAY AT(4,1):"Amount offered by customer?": "$" :: ACCEPT AT(5,2)VALIDATE(NUMERIC)BEEP:C
220 IF C<INT(C)AND P-INT(P)<>C-INT(C)THEN DISPLAY AT(23,1):"Even dollars please!" :: GOTO 210
230 IF C<P THEN DISPLAY AT(23,1):"Not enough!" :: GOTO 210 ELSE IF C=P THEN DISPLAY AT(23,1):"No change needed!" :: GOTO 200 ELSE GOTO 260
240 RANDOMIZE :: P=20*RN0+.01 :: P=INT(P*100)/100 :: DISPLAY AT(2,1):"Price of item" :: DISPLAY AT(2,16):I$(P+.001)
250 C=INT(4*RN0+1)*5 :: IF C
```

```
<=P OR C=15 THEN 250 :: DISPLAY AT(4,1):"Customer offers $" :: DISPLAY AT(4,18):STR$(C)
260 G=C :: C=C-P :: T=INT(C/10):: C=C-T*10 :: F=INT(C/5) :: C=C-F*5 :: D=INT(C):: C=C-D :: B=INT(C/.25):: C=C-B*.25 :: D=INT(C/.1):: C=C-D*.1 :: N=INT(C/.05)
270 C=C-N*.05 :: X=C*100 :: TT=0
280 DISPLAY AT(7,1):"OK, start adding change from the price until you reach the customer's amount." :: TT=P+.001
290 IF X=0 THEN 330 :: GOSUB 640 :: IF B$(">")P THEN M$="No, give pennies to reach "&I$(TT+X*.01):: GOSUB 670
300 DISPLAY AT(11,1):"How many pennies?" :: ACCEPT AT(11,19)VALIDATE(NUMERIC)BEEP:QQ
310 IF QQ=X THEN 320 ELSE IF TT+QQ*.01>G THEN GOSUB 680 :: GOTO 300 ELSE GOSUB 690 :: GOTO 300
320 DISPLAY AT(7,1):"You have reached "&I$(TT+X*.01):::; :: TT=TT+X*.01
330 IF N=0 THEN 380 :: GOSUB 640
340 IF B$(">")M THEN M$="No, if the cents portion is .10 or .20 or .35 or .45 or .60 or .70 or .85, add a nickel" :: GOSUB 670
350 DISPLAY AT(11,1):"How many nickels?" :: ACCEPT AT(11,19)VALIDATE(NUMERIC)BEEP:QQ
360 IF QQ=N THEN 370 ELSE IF TT+QQ*.05>G THEN GOSUB 680 :: GOTO 350 ELSE GOSUB 690 :: GOTO 350
370 DISPLAY AT(7,1):"You have reached "&I$(TT+N*.05):::; :: TT=TT+N*.05
380 IF D=0 THEN 430 :: GOSUB 640
390 IF B$(">")D THEN M$="No, add dimes to reach .25 or .50 or .75 or .00" :: GOSUB 670
400 DISPLAY AT(11,1):"How many dimes?" :: ACCEPT AT(11,19)VALIDATE(NUMERIC)BEEP:QQ
410 IF QQ=D THEN 420 ELSE IF TT+QQ*.1>G THEN GOSUB 680 :: GOTO 400 ELSE GOSUB 690 ::
```



```

60TD 400
420 DISPLAY AT(7,1):"You hav
e reached "&I$(TT+D$.1);;:
;: :: TT=TT+D$.1
430 IF Q=0 THEN 480 :: 60SUB
640
440 IF B$<>"Q" THEN M$="No,
add quarters to reach an eve
n dollar." :: 60SUB 670
450 DISPLAY AT(11,1):"How ma
ny quarters?" :: ACCEPT AT(1
1,20)VALIDATE(NUMERIC)BEEP:Q
Q
460 IF QQ=Q THEN 470 ELSE IF
TT+QQ$.25>6 THEN 60SUB 680
:: GOTO 450 ELSE 60SUB 690 :
: GOTO 450
470 DISPLAY AT(7,1):"You hav
e reached "&I$(TT+Q$.25);;:
;: :: TT=TT+Q$.25
480 IF Q=0 THEN 530 :: 60SUB
640
490 IF B$<>"D" THEN M$="No,
add dollars to reach a mult
iple of five dollars." :: 60
SUB 670
500 DISPLAY AT(11,1):"How ma
ny dollars?" :: ACCEPT AT(11
,19)VALIDATE(NUMERIC)BEEP:QQ
510 IF QQ=0 THEN 520 ELSE IF
TT+QQ>6 THEN 60SUB 680 :: 6
0TD 500 ELSE 60SUB 690 :: 60
TD 500
520 DISPLAY AT(7,1):"You hav
e reached "&I$(TT+D);;:;:
;: :: TT=TT+D
530 IF F=0 THEN 580 :: 60SUB
640
540 IF B$<>"F" THEN M$="No,
add a five dollar bill to r
each a multiple of ten." ::
60SUB 670
550 DISPLAY AT(11,1):"How ma
ny fives?" :: ACCEPT AT(11,1
7)VALIDATE(NUMERIC)BEEP:QQ
560 IF QQ=F THEN 570 ELSE IF
TT+QQ$5>6 THEN 60SUB 680 ::
GOTO 550 ELSE 60SUB 690 ::
60TD 550
570 DISPLAY AT(7,1):"You hav
e reached "&I$(TT+F$5);: TT=
TT+F$5
580 IF I=0 THEN 620 :: 60SUB
640
590 IF B$<>"T" THEN M$="No,
add ten dollar bills to reac
h"&I$(6);: 60SUB 670
600 DISPLAY AT(11,1):"How ma
ny tens?" :: ACCEPT AT(11,16
)VALIDATE(NUMERIC)BEEP:QQ ::

```

```

IF QQ=T THEN 620
610 IF QQ>T THEN 60SUB 680 :
: 60TD 600 ELSE DISPLAY AT(1
4,1)BEEP:"That's not enough!
" :: 60TD 600
620 DISPLAY AT(7,1)BEEP:"You
gave the correct change!" :
"::"::"
630 DISPLAY AT(14,1):"
PRESS ANY KEY" :: DISPLAY A
T(14,1):" press any ke
y" :: CALL KEY(3,K,9):: IF S
=0 THEN 630 ELSE 200
640 DISPLAY AT(11,1):"Will y
ou now give:" (P)ennies:"
(N)ickels:" (D)imes:" (Q)u
arters:" (O)ne dollar bills
:" (F)ive dollar bills:" (
T)en dollar bills"
650 DISPLAY AT(19,1):""::"
"::"::"::"
660 ACCEPT AT(11,19)SIZE(1)V
ALIDATE("PNDQOFT")BEEP:B$ ::
DISPLAY AT(11,1):""::"::"
"::"::"::" :: RETURN
670 FOR J=1 TO 5 :: DISPLAY
AT(20,1):D$ :: DISPLAY AT(20
,1)BEEP:M$ :: NEXT J :: RETU
RN
680 CALL SCREEN(7):: FOR J=1
TO 15 :: CALL SOUND(-99,110
,0,-4,0):: DISPLAY AT(14,1):
"" :: DISPLAY AT(14,1):"You
gave too much change!" :: ME
XT J :: CALL SCREEN(5):: RET
URN
690 DISPLAY AT(14,1):"No, th
at's wrong!" :: RETURN

```

And here's a one-screen tinygram - you could convert this to speech and it would do a better job of making change than most clerks do nowadays!

```

1 !!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!$ CHANGEMAKER $
!$ TINYGRAM $
!$ by Jim Peterson $
!!!!!!!!!!!!!!!!!!!!!!!!!!!!
100 CALL CLEAR :: S$(1)="S"
110 DEF P$(X)="$"&SEG$(STR$(
X),1,LEN(STR$(X))-1)
120 DATA 10,5,1,.25,.1,.05,.
01,CENT,NICKEL,DIME,QUARTER,
DOLLAR BILL,FIVE DOLLAR BILL
,TEN DOLLAR BILL
130 PRINT TAB(8);"CHANGEMAKE
R";: :: INPUT "PRICE? " :P :
: INPUT "AMOUNT OFFERED? " :B

```

```

:: IF B<P THEN 130
140 PRINT :: C=B-P :: FOR J=
1 TO 7 :: READ X(J):: A(J)=I
NT(C/X(J)):: C=C-A(J)*X(J)::
NEXT J :: Z=P+.001
150 PRINT P$(P+.001);" OUT O
F ";P$(B+.001);:; :: FOR J=7
TO 1 STEP -1 :: READ A$ ::
Z=Z+A(J)*X(J):: IF A(J)>0 TH
EN PRINT "AND";A(J);A$&S$(-
A(J)>1))&" IS ";P$(I);:
160 NEXT J :: PRINT :: RESTO
RE 120 :: GOTO 130

```

The Extended Basic Manual did a very poor job of showing us how to use USING. My thanks to Karl Roastedt for telling me how to do it with DISPLAY AT - put a semicolon directly before USING -

```

100 CALL CLEAR :: DISPLAY AT
(12,5):USING "$$.##":1.23
Other commands can go
either before the AT or
after the parameters -
110 DISPLAY ERASE ALL BEEP A
T(12,5):USING "$$.##":1.23
120 DISPLAY AT(12,5)ERASE AL
L BEEP:USING "$$.##":1.23
However, to output to a
printer, put a comma before
USING -
120 OPEN #1:"PIO" :: PRINT #
1,USING "$$.##":1.23

```

The trouble with PRINT USING "\$\$.##" is that it will print nothing but asterisks if the integer contains more digits than the number of # left of the decimal, and will leave blanks between the \$ and the first digit if the integer contains less digits than the number of ## left of the decimal. This algorithm will correctly print dollars and cents values of ANY size, rounded off to the nearest cent and with the dollar sign directly before the first digit or decimal.

```

100 INPUT A :: PRINT USING "
$"&SEG$(RPT$(" ",LEN(STR$(IN
T(A))))-1-(INT(A)=0),255)&".
##":A :: GOTO 100

```

Thanks to Ed Machonis for

some of these improvements to the Printall program which was published in Tips #45 -

```

171 DISPLAY AT(8,12):"V.1.2"
190 DISPLAY AT(18,7):"TURN P
RINTER ON!";:"SET TOP OF FO
RM HALF INCH BELOW PERFS"
200 DISPLAY AT(23,8):"PRESS
ANY KEY" :: DISPLAY AT(23,8)
:"press any key" :: CALL KEY
(O,K,S):: IF S=0 THEN 200 EL
SE CALL CLEAR
330 IF P=1 AND S$<>"Y" THEN
DISPLAY AT(12,1):"EMPHASIZE
D? (Y/N) Y" :: ACCEPT AT(12,
19)VALIDATE("YN")SIZE(-1)BEE
P:E$ :: IF E$="Y" THEN PRINT
#1:CHR$(27);"E";
390 IF NC=1 THEN 410 :: AV=I
NT(TA/(NC-1)):: DISPLAY AT(1
2,1)ERASE ALL:"COLUMN SEPARA
TION?":"MINIMUM 2":"MAXIMUM
"&STR$(AV)&" AVAILABLE ":"2"
400 ACCEPT AT(15,1)VALIDATE(
DIGIT)SIZE(-2)BEEP:CS :: IF
CS<2 OR CS>AV THEN 400 ELSE
S$=RPT$(" ",CS)
450 LSP=12 :: DISPLAY AT(10,
1):" ":" ":"LINES PER PAGE?
60":" ":" ":" :: ACCEP
T AT(12,17)VALIDATE(DIGIT)SI
ZE(-3):LP :: IF LP<61 THEN 4
90
460 !DELETE
470 !DELETE
480 LSP=72/(LP/10):: PRINT #
1:CHR$(27);"A";CHR$(LSP)
510 DISPLAY AT(15,1):STR$(LP
)&" lines per page":"with "&
STR$(INT(LSP))&"/72 line spa
cing"
640 !DELETE!
650 IF LEN(M$(IP))<=CW THEN
670 :: T$=SEG$(M$(IP),1,CW):
: CALL SOUND(1000,110,0,-4,0
):: DISPLAY AT(12,1):M$(IP);
" OVER";CW;"CHARACTERS":"TRU
NCATED TO ";T$;"OK?"
660 CALL KEY(3,K,S):: IF S=0
THEN 660 ELSE IF K<>89 THEN
STOP ELSE M$(IP)=T$

```

MEMORY FULL!



Jim Peterson

AUGUST 8, 1989 HAPPY COMPUTING !!

MUNCH OFFICERS AND NUMBERS (all in 508 area unless noted)

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+++++++	Jack Sughrue	476/7630

JULY MEETING. President Corson Wyman called the meeting to order at 7:00 P.M. with the announcement that he is officially engaged. Congradulations Corson! Bruce Willard informed the group that he had talked with Jack Sughrue and hiss recovery continues at a good pace. We expect to see Jack back at the meetings this fall, which isn't that far off. There was an interesting disscussion by the members of the pros and cons of the Turbo XT enhancement for the 99 4/A. The concensus of the membership was that this is a very high priced aand unnecessary add on. Lou Holmes demoeed a number of games and Dan Rogers led the assembly group.

AUGUST MEETING. This month we will have the usual up;to the minute TI news and demos of soe interesting programs. Lou will have some of the disk library available for members, exactly what will be a surprise.

HELP NEEDED. I have received a request for any information about a cribbage program by Corey Cheng. If you have any knowledge about this program, I would appreciate the information.

RAFFLE. Each month we have a raffle and the dollar donation per ticket helps to cover the monthly fee to rent the hall. This month's raffle will have a box of ten flippies and a game program. The number of prizes depends on the number of tickets sold.

MONTHLY SALES. At each meeting you have the opportunity to buy and/or sell new or used hardware, software, books and original programs. Please have prices marked on any items you have to sell.

LIBRARY NOTICE. Please return any items borrowed from our library. If you can not come to a meeting or give these items to someone who will be at the meting, please mail any library items to the group address which is listed on the cover of this newsletter. There are no late fees, we don't care how long they have been out, please return these items.

REPRINTS. Reprints of any items in this newsletter is permitted as long as credit is given to M.U.N.C.H.

ARTICLES. I am always looking for articles for this newsletter, anything which interests you will probably interest other members of the TI community, so please share your ideas and opinions with all of us.

NEWSLETTER EXCHANGE EDITORS. Please note our corrected address on the front cove of this issue.

BEST WISHES TO JACK FOR A SPEEDY RECOVERY.

