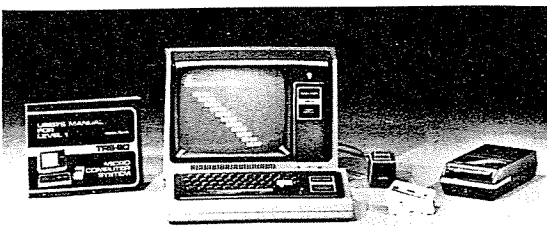
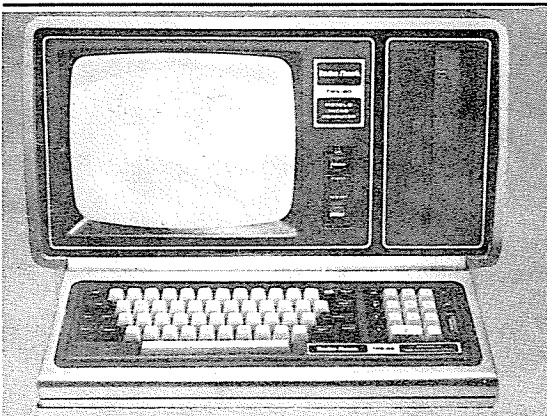
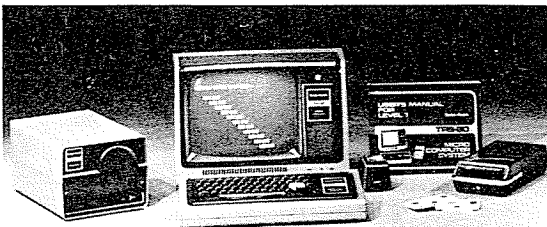
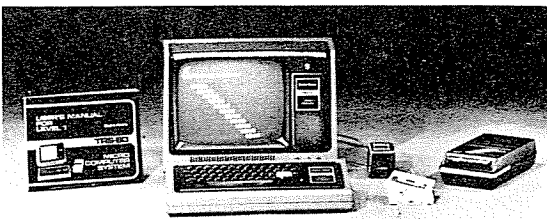


RADIO SHACK COMPUTER OWNERS

TRS-80TM MONTHLY NEWSLETTER



**ISSUE NUMBER 7
JANUARY, 1979**



- **PRACTICAL APPLICATIONS**
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-
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NEWSLETTER INFORMATION

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THE PURPOSE OF THE **TRS-80 MONTHLY NEWSLETTER** IS TO PROVIDE AND EXCHANGE INFORMATION RELATED TO THE CARE, USE AND APPLICATION OF THE TRS-80 COMPUTER SYSTEM.

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HAVE ANY URGENT QUESTIONS? WE HAVE **SATURDAY** TELEPHONE HOURS - 9:00-11:00 (mornings) and 3:00-6:00 (afternoons). OTHER TIMES, LEAVE A MESSAGE ON OUR ANSWERING MACHINE. WE WILL PROMPTLY RETURN ALL CALLS (COLLECT).

LOCAL TRS-80 CLUBS

TRS COMPUTER CLUB OF ORLANDO (FLORIDA) - Contact M. Scott Adams - (305) 862-6917.

TRS-80 USER'S GROUP OF CHICAGO (ILLINOIS) - Contact John C. Longstreet, 1201 W. Chase Avenue, Chicago, Illinois 60626 or call 761-2742.

TRS-80 USER'S GROUP OF WALNUT CREEK (CALIFORNIA) - Contact John Snyder, 712-C Country Wood, Walnut Creek, California 94598 or call (415) 938-9669.

INLAND COMPUTER SOCIETY - Contact Sandy Sparks, 3359 Second Street, Riverside, California 92501 or call (714) 256-5319 or (714) 784-3499.

TRS-80 USER'S GROUP OF SANTA ANA - Contact Arnold Vagts, 3713 S. Parton Street, Santa Ana, California 92707 or call (714) 549-7021.

TRS-80 BUG INC. OF FLORIDA - Contact Larry J. Harrell, 2100 N. Atlantic Avenue #402, Cocoa Beach, Florida 32931 or call (305) 784-0456.

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\$150 PER PAGE . . . \$75 PER HALF PAGE . . . \$40 PER QUARTER PAGE . . . \$20 PER EIGHTH PAGE. THESE PRICES ARE VALID FOR ISSUES 7 AND 8 **ONLY**. ADS MUST BE SUBMITTED BY THE 10th OF EACH MONTH IN ORDER TO APPEAR IN THE FOLLOWING MONTHS ISSUE.

BITS AND PIECES

by

HOWARD Y. GOSMAN

OUR NEW LOCATION

We are extremely cramped for space and are in the process of moving to a new and larger facility. As of January 1, 1979, our staff has doubled in size in order to keep up with the increasing demand for the Newsletter and Software. We will publish our new address next month. Please continue to send all mail to our postal box (P.O. BOX 149). Anyone wishing to visit or purchase software may drop by after February 1.

24 HOUR SERVICE ON SOFTWARE ORDERS

All orders placed after January 1, 1979 will be processed within 24 hours. You will no longer have to wait for software shipments. All phone orders will be processed immediately.

OUR SOFTWARE GUARANTEE

Any software purchased from H & E COMPUTRONICS INC. may be returned. To my knowledge, we are only company offering a return policy on software. We do charge a 10% penalty for returns (\$3 minimum). For example, if you return a \$100 business package, we will send you a \$90 refund. We are trying to sell high quality software. We do request (not demand) that you give us a short explanation with each return. This will help us improve the quality of our software. Also remember, **WE DO NOT CHARGE FOR POSTAGE OR HANDLING**. We do charge tax on any order sent to New York State addresses. There are no additional charges for VISA or MASTERCARGE orders. We do add a \$5 postage and handling fee to C.O.D. orders.

A SALUTE TO RADIO SHACK

The new RADIO SHACK TRS-80 MICROCOMPUTER CATALOG indicates that RS is working hard to please both future and past customers. When you get your new catalog, make sure that you get the one with the gray and black four page insert stapled to the center of the catalog.

The new catalog is so convincing that I feel like ordering another machine. In addition to the new products listed on page 70 of this Newsletter, RS has announced some new products via their catalog insert.

(1) RS is now selling 16K RAM for the expansion interface for \$199. That's a \$100 reduction in price and does seem to eliminate most of the competition from independent companies selling 16K RAM for \$79-\$149. By buying the \$199 RS RAM's, you are keeping your guarantee. . . getting proven quality RAM's . . . and in an emergency have a place to complain to.

H & E COMPUTRONICS INC.

MATHEMATICAL APPLICATIONS SERVICE™

(2) For your CPU, a 16K Kit with Numeric Keypad. The price is \$290 including installation. The 12 key numeric keypad allows for calculator style numeric entries (no computer functions are change). The keypad is placed to the right of the present keypad (where the RS emblem is located). If you already have 16K in your CPU, RS will install the numeric keypad for \$89. By the way, to cutting is involved. You are just given a new keyboard bezel.

(3) The TELEPHONE INTERFACE II is \$199. This will allow your TRS-80 to act as two terminals. You can also send data or programs from one machine to another by telephone. H & E COMPUTRONICS will soon be offering programs over the telephone.

(4) The LINE PRINTER STAND sells for \$99. It matches the TRS-80 System Desk and allows for tractor-fed paper from a box under the stand.

(5) A TRS-80 VOICE SYNTHESIZER sells for \$399. Now your TRS-80 can talk! It attaches to any Level I or II system and responds to 62 phonemes to create any English word. Speaker, amplifier and volume control are included. A complete instruction manual and demonstration cassette come with it. This addition to the TRS-80 system has a fantastic potential in education and business.

(6) New software includes **Micromusic** (\$14.95), **Level II Basic Course** (\$14.95), **Level II Basic Advanced Course** (\$19.95), **Double Precision Subroutines** (9.95), **Mailing List** (\$39.95), **General Ledger-I** (\$99.95) and **Advanced Statistical Analysis** (\$39.95).

Other products include line printer ribbons, fanfold paper, carrying cases, blank diskettes (with reinforced rings to prevent disk crunching) and a new (or updated) disk manual.

FROM THE CRYSTAL BALL

PLEASE REMEMBER!!!! - OUR CRYSTAL BALL DEPARTMENT DOES NOT PRESENT VERIFIABLE FACT. WHAT FOLLOWS ARE RUMORS FROM WHAT WE CONSIDER TO BE RELIABLE SOURCES (or otherwise stated).

THE NEW RADIO SHACK COMPUTER - This rumor comes from an extremely reliable source. RADIO SHACK will soon announce (possibly in March) a new computer. It may be called the TRS-70. It will enhance the features found in the TRS-80 and meet the needs of business men who have needs beyond the TRS-80. It will support diskettes capable of handling 256K each. The TRS-70 (or whatever it may be called) is designed to hit a market between the low priced TRS-80 and the Tandy 10 (see page 6 of the TRS-80 MONTHLY NEWSLETTER).

The new DISK MANUAL will be shipped this month. This manual (and probably many new manuals) will be shipped in binders. The actual format will be similar to the newsletter (3 hole-punched) allowing for the easy inclusion of updates and revisions. Beginners will not find much help in learning how to use their disk system from the manual. It will probably be along the same lines as the present manual. I did hear that a manual for beginners is on the way. . . or being considered.

The 2.2 DOS is just about ready to be announced. No big changes. There are some corrections and improvements over the 2.1.

The 3.0 DOS will be ready in February or March. Both the 2.2 and 3.0 disks will be sold. While 2.2 is an update and improvement over the original 2.0 diskette, 3.0 will have new features. The 3.0 will have an editor-assembler included as well as some additional utilities: (1) CHAIN-You can specify a file of commands to be executed in sequence. Used with AUTO, you can create a sequence of programs which are to be run without user interaction. (2) DEVICE-Will allow you to redefine input and/or output to the line printer. (3) ROUTE-routes specified I/O to a designated device. (NOTE (1), (2) and (3) in the above paragraph comes from information printed by CHICATRUG, a Newsletter printed by the Chicago TRS-80 Users Group. . . see inside front cover)

Look for other versions of the D.O.S.. In the works are CPM and PASCAL. FORTRAN is already available (but not from RADIO SHACK).

END THE DOUBLE LETTER PROBLEM

Have you been having problems with double letters? Almost all TRS-80 users have several keys that often print a letter twice. Zeke Bogossian (RS store manager, White Plains Mall, N.Y.) taught me how to eliminate the problem. Its easy to do. I tried it. . .and it works. (1) Use a screw driver to pry off each key cap (of the troublesome keys). (2) Spray a little ARCHER COLOR TV TURNER CLEANER (available at RS for \$1.59) between the contacts. (3) Snap key covers back on.

CTR-80 CASSETTE RECORDER

The CTR-40 and CTR-41 have been replaced by the CTR-80 cassette recorder. The CTR-80 is very similar to the CTR-41. It has a tape counter and FORWARD and REVERSE that will always operate under manual control. It does not have a tone control. The tone has been preset to maximize computer input output efficiency. The actual sound quality of all three tape recorders are equal.

CORRECTIONS

RANDOM ACCESS MAILING LIST PROGRAM - In an attempt to save a couple of lines of space, several lines were incorrectly changed. Remove the RETURN commands on lines 4010 and 5120. Add two additional lines.

4030 RETURN

5130 RETURN

An updated version of the MAILING LIST PROGRAM for disk is available from H & E COMPUTRONIX for \$19.95 (on diskette). The updated version includes a faster sorting routine and eliminates the space between first and last name. It also includes an INVOICING routine.

16-DIGIT ACCURACY FOR SQUARE ROOTS (Page 106) - Change the following lines to:

40 $Y\# = (X\# / Y\# + Y\#) / 2$

60 IF $Y\# = A\#$ GOTO 80

70 $A\# = Y\#$:GOTO 40

INVENTORY CONTROL (Page 82) - The line between lines 5010 and 5020 should begin with RA(I) **not** A(I). The line between lines 5110 and 5120 should begin with RA(I) not A(I).

Page 96 top should read - IT WILL BE ASSUMED THAT YOU DO NOT HAVE RADIO SHACK RAMS. Insert the word NOT between DO and HAVE.

RADIO SHACK TO OFFER LOWER CASE OPTION?

New RS TRS-80 COMPUTERS will have plug-in chips. This means that repairs and modifications can be made instantly (and possibly in the store). This also opens the possibility of quick conversion to lower case letters (see Issue #6).

MODIFICATION TO THE BAR GRAPH PROGRAM

From Gary L. Wood (#7706) - "Concerning your BAR GRAPH program in your Issue #5, November, 1978. When the program is run, an error message appears about 30 seconds after the bar graph is completed. This can be avoided by changing step 275 to read:

275 GOTO 275

and then omitting step 280, which will freeze the display. Also, at most 9 classes can be displayed unless you add a semi-colon to the end of line 270. Then, 10 classes can be displayed."

THE TEXAS INSTRUMENTS TI810 PRINTER

From David Bradfield (#7789) - "Just a note. In your August-September Issue you were talking about hooking up a TRS to a SELECTRIC. Well, I just hooked up a TEXAS INSTRUMENTS 810 LINE PRINTER to my TRS. The TI810 is a bidirectional 150 character per second printer that will take 15½ inch tractor fed paper. Works great. I bought the parallel port option for the TI-810 printer and the Centronics cable. Just plugs right in. The printer, by the way, sells for about \$1900.

CAUTION ABOUT THE RAM TEST

The RAM TEST found in this issue requires some additional instructions. DON'T USE THE RAM TEST WITH DISK BASIC. Upon turning on your machine, respond to the MEMORY SIZE? with **18000** (instead of pressing ENTER). PRESS ENTER after typing in 18000.

\$100 CASH REWARD

...For information leading to the successful interfacing of an 80 column card reader to a TRS-80 LEVEL 2/32K/2 DISC system with an RS232 Card in expansion interface. . .Prefer to use a "Documation" reader. . .however, will try any brand. . .For more information contact JIM GILLEM. . .CALL COLLECT (415) 935-2500 or NITES (415) 938-0307.

TRS-80 DISC INTERFACING GUIDE

A TRS-80 DISC INTERFACING GUIDE is available for \$5 from MICRO APPLICATIONS, 24232 Tahoe Court, LaGuna Niguel, CA 92677. The book is highly technical and would only be of interest to advanced programmers.

INTERFACE MODIFICATIONS

There are now two modifications available for the interface. The first one makes it easier to load tapes. The second solves many disk problems. New interfaces come equipped with the new modifications. If your disk keeps returning you to the D.O.S. mode. . .or if you keep getting alot of I/O errors, you should bring in your interface for the modification.

CREATIVE GRAPHICS

BY DENNIS MEIXSELL. . . "Here is a very short program that I'm sure your readers will want to try out. It is designed to give the user a chance for some creative graphics. Use the arrow keys with and without the shift key.

```
5 CLS
10 POKE C,32
15 A$=INKEY$
20 PRINT A$;
30 A=PEEK (16417)
40 B=PEEK (16416)
50 C=A*256+B
60 POKE C, 42
70 FOR T=1 TO 20: NEXT
80 GOTO 10
```

OUR NEW WORD PROCESSOR

Next month we will publish our new word processor for disk or the program is available FREE of charge on cassette with your subscription renewal.

SEND US YOUR PROGRAM

If your program is published by the TRS-80 MONTHLY NEWSLETTER, it will appear in our MASTER PAC II. You will also receive a free copy of the MASTER PAC II.

BOOKS FOR LEVEL-II BEGINNERS

BASIC FOR HOME COMPUTERS-A SELF-TEACHING GUIDE is one of the best. The book is published by Wiley and sells for **only** \$5.95. It is easy to understand and is very comprehensive.

INSTANT BASIC by Jerald R. Brown and published by Dilithium Press is another essential book for beginners. It's easy to follow and very comprehensive.

THE ABOVE TWO BOOKS WERE CHOSEN VERY CAREFULLY. There are hundreds of books that teach you how to use basic. The above two are superior to many other BASIC teaching guides.

COMPUTER RESOURCE BOOK-ALGEBRA by Thomas A. Dwyer and Margot Critchfield and published by Houghton Mifflin is highly recommended for anyone teaching algebra or students taking an algebra course.

DRESSING UP AND SPEEDING UP

The article appearing on the following page was reprinted from the TRS-80 USERS GROUP NEWSLETTER. You can subscribe to the TRS-80 USERS GROUP NEWSLETTER by sending \$24 to the address below.

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DRESSING UP AND SPEEDING UP

by
GARY WILLIS and MERLE M. HARRIS

In most of your business application programs it is standard procedure to have a "menu" or "selection routine" printed on the video screen along with a graphics border of some sort. The Radio Shack TRS-80 LEVEL II has some special graphic character sets stored in ASCII CODE from 129 to 191. (Refer to your owners manual - page C/2). To see what these look like, type in and RUN the short program below.

```
10 CLS
20 FOR N=129 to 191
30 FOR Z=1 to 500:NEXTZ
40 PRINT"ASCII CODE #";N
50 FOR X=1 to 64
60 PRINT CHR$( N);
70 NEXTX
80 NEXTN
90 END
```

After looking at the graphics type NEW to clear the above program and type and RUN the below listed program.

```
180 CLS
190 FORX=0 to 127
194 RESET(X,16)
196 RESET(x,46)
200 SET(X,0)
205 SET(X,15)
210 SET(X,47)
220 NEXTX
230 FORY=0 to 1047
240 SET(0,Y)
245 SET(1,Y)
250 SET(127,Y)
255 SET(126,Y)
260 NEXTY
270 PRINT@655, "PRESS BREAK KEY TO END DISPLAY";
280 GOTO280
```

The above procedure gives a nice border and is used by a lot of programmers. But let's look at how we DRESS UP and SPEED UP by using the ASCII CODES. Type NEW to clear the above program and type and RUN the below listed program.

```
290 CLEAR 500
300 CLS:FOR I=1 to 15: PRINTTAB(0)CHR$(149);:PRINTTAB(62)CHR$(149);+CHR$(24):NEXT
310 PRINT@0,STRING$(62,183);:PRINT@321,STRING$(61,131);:PRINT@960,STRING$(63,131);
320 PRINT@655,"PRESS BREAK KEY TO END DISPLAY";
330 GOTO330
```

CATALOG

by
JEFF STANTON

The program below was submitted by Jeff Stanton (#1249), Chairman of the Science Department of the Pennfield Schools.

"I am enclosing a short program that may be of use to those TRS-80 owners who have a disk drive.

One of the more annoying aspects of the disk operating system is the fact that, in order to find out what programs are present, one must enter CMD"S" (to get into the operating system), then DIR (to get a directory listing), and then reload BASIC before the program can be loaded and run.

My program, which I call CATALOG, is run immediately after powering up and loading BASIC (by entering RUN "CATALOG"), and allows the user to select and immediately execute any program contained on the disk.

The program can be easily modified to accommodate additional programs by changing the number of programs in line 50 and 130, and adding the program names in additional DATA statements. The names in the enclosed listing happened to be those currently on my second diskette.

I hope you can use this program and that it will encourage other readers to submit programs designed for disk-based systems."

```
10 DIM A(35), N(35), A$(20)
20 PRINT TAB(20); "** CATALOG FOR DISK D-2 **"
30 PRINT "THIS DISK CONTAINS THE FOLLOWING:"
40 PRINT
50 FOR N=1 TO 10
60 READ A$(N)
70 PRINT N;"-";A$(N),
80 NEXT N
90 PRINT:PRINT
100 PRINT TAB(5); "EXECUTE WHICH PROGRAM";
110 INPUT A
120 LET A=INT(A)
130 IF A > 10 THEN 100
135 CLS
140 RUN A$(A)
200 DATA "ADDSUB", "CASHREG", "CUPIDITY", "GRADEAVG", "GRMATH"
210 DATA "MATHPRAC", "MATHTEST", "MATHWORK", "MULTPRAC", "QUADRAT"
400 END
```

ADDING TIME

by

PRIMERO CONSULTANTS INC.

While the computerized adding of dollar amounts is simple under the decimal system of notation, the adding of units of time becomes more complicated because of the type of notation whereby 60 seconds equals 1 minute, 60 minutes equals 1 hour.

One method of adding minutes and seconds using the decimal system would be to convert the number of seconds to decimal portions of a minute. This, however, lends itself to error through rounding. Depending on the degree of rounding, 31 seconds, for instance, becomes .516667 of a minute, and could become 1 full minute. Adding two 31 seconds under this system, therefore, would produce an answer of 2 minutes, whereas in reality it is 1 minute and 2 seconds.

The following sub-routine overcomes that problem. Two points should be observed. In entering the number of minutes, if the number is less than 10, a leading zero should be inserted. Thus 9 minutes must be entered as 09. The second is that the minutes-and-seconds should be entered in the format 09.23 not 09:23.

In order to illustrate this sub-routine, an arbitrary number of 5 has been selected for the number of "time"s to be added.

```
10 FOR Q = 1 TO 5
20 INPUT "DURATION "; C$(Q,1)
30 NEXT
40 FOR Q=1 TO 5
50 C1$=RIGHT$(C$(Q,1),2)
60 A=VAL(C1$)
70 X=X+A
80 C2$=LEFT$(C$(Q,1),2)
90 B=VAL(C2$)
100 Y=Y+B
110 NEXT
120 IF X>59 THEN X=X-60: Y=Y+1: GOTO 120
130 PRINT "TOTAL DURATION IS";Y;" ";X
```

LINE RUNUMBER PROGRAM

THE PROGRAM BELOW WAS SUBMITTED BY GERALD SABIN. THE PROGRAM WORKS WITH ANY 4K, 16K, 32K OR 48K COMPUTER USING LEVEL II BASIC. IT WILL NOT WORK IN DISK BASIC WITHOUT A MODIFICATION IN LINE 100000 (NOT AVAILABLE AT THIS TIME). THE PROGRAM WILL MODIFY ALL LINE NUMBERS. IT WILL NOT MODIFY LINE NUMBERS CONTAINED IN GOTO AND GOSUB COMMANDS.

THERE ARE TWO WAYS TO USE THE PROGRAM.

METHOD 1

WRITE ANY PROGRAM. MODIFY THE LINE NUMBERS. ENTER THE PROGRAM BELOW AFTER WRITING YOUR PROGRAM. ENTER RUN 100000. ENTER THE LINE NUMBER THAT YOU WISH THE RENUMBERING TO START AT, FOLLOWED BY A COMMA, FOLLOWED BY THE INTERVAL THAT YOU WOULD LIKE BETWEEN EACH. FOR EXAMPLE, TO NUMBER YOUR LINES STARTING AT 10 WITH AN INTERVAL OF 20 BETWEEN EACH LINE, ENTER 10,20.

METHOD 2

FIRST ENTER THE PROGRAM BELOW (CLOAD FROM TAPE)... THEN WRITE YOUR PROGRAM. TO RENUMBER YOUR PROGRAM LINES ENTER 100000 AND FOLLOW INSTRUCTIONS AS IN METHOD 1 ABOVE.

OLD AND NEW PROGRAM LINES ARE DISPLAYED ON THE VIDEO. IT IS IMPORTANT TO REMEMBER THAT YOU WILL HAVE TO MANUALLY MODIFY ANY LINE NUMBERS USED AFTER GOTO AND GOSUB INSTRUCTIONS. ALSO MAKE SURE THAT THE LINE NUMBERS THAT YOU USE DO NOT CONFLICT WITH THE LINE NUMBERS BELOW.

```
10000 K=17129
10010 DIM A(400,2)
10020 INPUT L1,L2
10030 FOR I=0 TO 3
10040 X(I)=PEEK(K+I):NEXT
10050 L=X(3)*256+X(2):IF L=>10000 GOTO10140
10060 A(I0,1)=L:A(I0,2)=L1:I0=I0+1
10070 GOSUB10110
10080 POKE K+2,L3
10090 POKE K+3,L4
10100 K=X(1)*256+X(0):GOTO10030
10110 L4=INT(L1/256)
10120 L3=L1-L4*256
10130 L1=L1+L2:RETURN
10140 FOR IX=0 TO I0:PRINT A(IX,1);A(IX,2):NEXT
```

RAM TEST

THE PROGRAM BELOW CAN BE USED WITH ANY 16K, 32K OR 48K RADIO SHACK COMPUTER. THE PROGRAM WAS OBTAINED FROM RADIO SHACK COMPUTER SERVICES.

```

10 DEFINT I
20 CLS:PRINT"16K TEST"
30 REM-FOR TESTING 16K RAM
50 FOR I=18001 TO 32766:GOSUB 110:NEXT I:GOSUB 110
60 REM-FOR TESTING 32K RAM
70 PRINT"32K TEST":FOR I=-32768 TO -16385
75 GOSUB110:NEXT I
80 REM-FOR TESTING 48K RAM
90 PRINT "48K TEST":FOR I=-16384 TO -1:GOSUB110:NEXT I
100 END
110 PRINT @448, I)
115 POKE I,170
120 IF PEEK(I)<>170 THEN PRINT I):RETURN ELSE RETURN

```

NORMAL CURVE DEMONSTRATION

THE PROGRAM BELOW WAS SUBMITTED BY GARY WOOD (MEMBER NUMBER 7706. IT GRAPHICALLY REPRESENTS THE NORMAL CURVE BY DROPPING RANDOM 'BRICKS' ONTO A PILE.

```

5 REM *** A NORMAL DISTRIBUTION BY GARY WOOD ***
10 CLS:RANDOM
20 FOR X=1 TO 127
30 SET (X,0):SET (X,45):NEXT X
50 SET(64,46)
90 X=64 : FOR P=1 TO 127
95 IF POINT(P,2) THEN 999
97 NEXT P
100 FOR Y=1 TO 44 : RESET(X,Y-1)
110 R=RND(3) : X=X+(R-2)
130 IF POINT(X,Y) THEN SET(X+2-R,Y-1) ELSE 200
140 FOR W=1 TO 99: IF POINT(X+2-R,Y+W-1) THEN 90
150 RESET(X+2-R,Y+W-2) : SET(X+2-R,Y+W-1) : NEXT W
160 IF POINT(X,Y) THEN 90
200 SET(X,Y): NEXT Y
300 GOTO 90
999 GOTO 999

```

GRAPHICS ON THE TRS-80

BY
ALBERT S. ADAMS

TO DISPLAY, ONE AT A TIME, THE ASCII GRAPHICS CODES, 129-191. DISPLAY GIVES THE ASCII NUMBER, THE GRAPHIC EFFECT BY ITSELF, THEN INSIDE A BOX TO SHOW RELATIVE POSITION OF THE SIX IN A BOX, A ONE LINE, A TWO LINE AND A THREE LINE RUN OF THE GRAPHIC.

```
10 CLS
20 Y=129
30 POKE 15400,191
40 PRINT@64,Y
50 POKE 15442,Y
60 POKE 15463,191
70 POKE 15464,Y
80 POKE 15465,191
90 POKE 15528,191
100 FOR X=15631 TO 15666
110 POKE X,Y
120 NEXT
130 FOR X=15823 TO 15858
140 POKE X,Y
150 NEXT
160 FOR X=15887 TO 15922
170 POKE X,Y
180 NEXT
190 FOR X=16079 TO 16114
200 POKE X,Y
210 NEXT
220 FOR X=16143 TO 16178
230 POKE X,Y
240 NEXT
250 FOR X=16207 TO 16242
260 POKE X,Y
270 NEXT
280 PRINT@960,"TO CONTINUE, PRESS ENTER");
290 INPUT Z
300 Y=Y+1
310 IF Y=192 END
320 CLS
330 GOTO30
340 END
```

FEDERAL INCOME TAX (1978)

by

DR. PETER SHENKIN

The Income Tax Package developed here consists of three separate programs. The first program completes FORM 1040, Page 1 and Schedule B (if necessary). The second program completes Schedule A (itemized deductions). The third program completes FORM 1040, Page 2. In the present version all other forms and schedules must be prepared before their totals are needed on FORM 1040.

In order to use this Package it is absolutely necessary that you have the appropriate Federal Tax Forms and Schedules in front of you. These programs do not actually print out results on the line printer but they do tell you what numbers to place on various lines of the different forms and schedules. The proper order of execution of the three programs is 1. FORM 1040, Page 1: 2. SCHEDULE A: and finally 3. FORM 1040, Page 2.

There isn't enough room in this issue of the Newsletter to go through an entire tax return so we shall just go through the beginning of FORM 1040, Page 1 of an imaginary return. This, however, is sufficient to display all special modes of program operation. Except for these few points, all that is necessary to compute your tax bill is the ability to follow written directions on your CRT screen and on the instructions in the Tax Package sent to all taxpayers by the IRS. On trying these programs, you will probably find that it will no longer be necessary for you to stay up all night computing your tax bill. These programs are a great aid in speed and accuracy.

The return we shall begin to complete on these pages is that of a person with three jobs. The wages for the jobs were \$20962.38, \$2543.99 and \$3962.11. This person had interest income of \$135.99 from the FIRST BANK and of \$350.00 from the SECOND BANK. Dividend income consisted of \$221.63 from some AT&T stock. There is no other income.

In the following all machine queries and output will be CAPITALIZED, all of our replies to machine queries will be in ' ' marks and all our comments will be in (comment) - parentheses. Let's begin and RUN the FORM 1040, Page 1:

1040 AND SCHEDULE B COMPUTATION

PRESS ENTER TO BEGIN? (We press ENTER)

INCOME AMOUNTS

INPUT WAGES, SALARY, TIPS, & OTHER COMPENSATION, 1 BY 1 OR SUMMED

SEE 1040 INSTRUCTIONS, P.8 FOR CLARIFICATION

ENTER 99999 WHEN DONE OR 88888 TO CHANGE

AMOUNT 1=? '20962.38'

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AMOUNT 2 =? '135.99'

AMOUNT 3 =? '88888' (Amount 2 was in error. It should equal 2543.99)

WHICH NUMBER DO YOU WANT TO CHANGE? '2' (Change the amount with the error.)

COST 2 =? '2543.99'

AMOUNT 3 =? '3962.11'

AMOUNT 4 =? '99999' (we are at the end of our list. Many inputs consist of a list of several quantities which must be summed. The machine does the summing and tells where to print the results as follows:"

FILL IN THE FOLLOWING LINES ON FORM 1040

LINE NO.	AMOUNT
8	*\$27468.48

PRESS ENTER TO CONTINUE? (We press ENTER)

ENTER INTEREST INCOME AMOUNTS 1 BY 1.

SEE 1040 INSTRUCTIONS, P.9 FOR CLARIFICATION

ENTER 99999 WHEN DONE OR 88888 TO CHANGE

AMOUNT 1 =? '135.99'

AMOUNT 2 =? '350.00'

AMOUNT 3 =? '99999'

FILL IN THE FOLLOWING LINES ON FORM 1040

LINE NO.	AMOUNT
9	***\$485.99

THESE AMOUNTS MUST BE REPORTED ON SCHEDULE B

SCHEDULE B LINE 2 SHOULD BE \$485.99

PRESS ENTER TO CONTINUE?

We press ENTER. The statement about Schedule B was printed because total interest exceeded \$400. The itemized interest amounts must be entered on PART I of Schedule B along with the names of the payers. In general, when a long list of items must be entered, not corresponding to numbers on the Forms, the program will do necessary arithmetic but it is up to the program user to enter the individual items. The program, as done above, does direct input to all numbered lines.

ENTER ORDINARY DIVIDENDS 1 BY 1.

SEE 1040 INSTRUCTIONS, P. 9 FOR CLARIFICATION

ENTER 99999 WHEN DONE OR 88888 TO CHANGE

AMOUNT 1 =? '221.63'

AMOUNT 2 =? '99999'

INPUT CAPITAL GAINS DISTRIBUTIONS?'0' (We could have just pressed ENTER without the 0 for additional speed.)

INPUT NONTAXABLE DISTRIBUTIONS? '0'

(And so on. There should be no problems in doing the rest of this program and the other two.

GOOD LUCK!!!!!! GET A HUGE REFUND!!!!!!!!!!!!!!!!!!!!!!

EXPANSION INTERFACE TEST SEQUENCE

THE PROGRAM BELOW IS APPARENTLY ONE OF THE TESTS USED BY RADIO SHACK REPAIR CENTERS TO CHECK OUT THE OPERATIONS OF THE EXPANSION INTERFACE. THE PROGRAM APPEARED ON ONE OF OUR DISKETTES WHEN OUR DISK SYSTEM WAS REPAIRED BY A LOCAL REPAIR CENTER. ALL INSTRUCTIONS APPEAR WITHIN THE PROGRAM.

```
10 CLS:PRINT@10,"EXPANSION INTERFACE TEST SEQUENCES. "
12 PRINT@132,"1. LOWER 16K MEMORY TEST. "
14 PRINT@196,"2. FULL 32K MEMORY TEST. "
16 PRINT@260,"3. PRINTER TEST SEQUENCE. "
18 PRINT@324,"4. PRINTER INTERFACE DEBUGGER. "
20 PRINT@388,"5. FLOPPY CONTROLLER I. C. CHECK. "
22 PRINT@452,"6. NOTES ON EXPANSION INTERFACE. "
24 PRINT@580,"INSERT DIGIT CORRESPONDING TO"
26 PRINT@644,"DESIRED MODULE & DEPRESS 'ENTER'."
28 PRINT@772,"TO EXIT ANY OF THE ABOVE, DEPRESS 'X'."
29 PRINT@836,"TO STOP (AND THEN CONTINUE), HIT SHIFT-Q. "
30 INPUT A1:IF A1=6 THEN 100
40 IF A1<>1 THEN 50
45 CLS:PRINT@10,"EXPANSION LOWER 16K MEMORY TEST. "
47 M=-16384:GOTO200
50 IFA1<>2 THEN60
55 CLS:PRINT@10,"FULL EXPANSION 32K MEMORY TEST. "
57 M=0:GOTO200
60 IF A1<>3 THEN 70
65 CLS:PRINT@10,"PRINTER TEST SEQUENCE. ":GOTO300
70 IF A1<>4 THEN 80
75 CLS:PRINT@10,"PRINTER INTERFACE DEGUgger. ":GOTO 350
80 IF A1<>5 THEN 100
85 CLS:PRINT@10,"FLOPPY CONTROLLER I. C. CHECK. ":GOTO 400
100 CLS:PRINT@10,"EXPANSION INTERFACE NOTES:"
102 PRINT@128,"32768 = 8000 HEX EXPANSION INTERFACE RAM
    LOWER LIMIT. "
103 PRINT@192,"49151 = BFFF HEX EXP. 16K RAM UPPER LIMIT
    ADDRESS. "
104 PRINT@256,"65535 = FFFF HEX EXP. 32K RAM UPPER LIMIT
    ADDRESS. "
105 PRINT@384,"14304 = 37E0 HEX DRIVE SELECT LATCH (WRITE)
    & INTERRUPT BITS. "
106 PRINT@512,"14308 = 37E4 HEX B0 IS CASSETTE SWITCH
    (WRITE ONLY). "
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```
10 REM ***INCOME TAX FORM 1040 AND SHEDULE B***
20 REM ***BY***
30 REM ***DR. PETER SHENKIN***
200 CLS:PRINT "1040 AND SCHEDULE B COMPUTATION"
210 PRINT "PRESS ENTER TO BEGIN";:INPUT Z9
220 CLS:GOTO 7000
1300 REM
1310 PRINT:PRINT"INPUT ERROR! TRY AGAIN!":FOR K=1TO300:NEXT K
1320 RETURN
1350 REM DELAY SUBROUTINE
1360 FOR I=1TO500:NEXT I
1370 RETURN
1400 REM
1410 PRINT "ENTER 99999 WHEN DONE OR 88888 TO CHANGE""
1420 RETURN
1450 REM RESET COUNTER
1460 I=1:FOR J=0TO60:C(J)=0:NEXT J
1470 RETURN
1500 REM SUM VARIABLES
1510 T=0:FOR J=0TOI:T=T+C(J):NEXT J
1520 RETURN
1550 REM INPUT AMOUNT SUBROUTINE
1560 PRINT"AMOUNT ";I;"="):INPUT C(I)
1570 IF C(I)=99999 I=I-1
1575 IF C(I)=88888 I=I-1:GOSUB 1800
1580 RETURN
1600 REM FORMAT VARIABLES
1610 F$(1)=" LINE NO. AMOUNT !"
1615 F$(2)=" ## *****.##"
1620 F$(3)=" %.% *****.##"
1650 RETURN
1700 REM
1710 INPUT"PRESS ENTER TO CONTINUE";Z9
1720 RETURN
1750 REM PRINT SUBROUTINE
1760 CLS:PRINT "FILL IN FOLLOWING LINES ON FORM 1040"
1770 PRINTUSING F$(1);Z7$:RETURN
1800 REM CHANGE SUBROUTINE
1810 PRINT:INPUT"WHICH COST NUMBER DO YOU WANT TO CHANGE";Z1
1820 IF Z1<0 OR Z1<>INT(Z1) OR Z1>I GOSUB 1300:GOTO 1810
1830 PRINT "COST ";Z1;"="):INPUT C(Z1)
1840 PRINT:RETURN
7000 REM FORM 1040 COMPUTATION
7002 DEFDBL C,T,B
7005 DIM C(60),T(66)
7010 PRINT "INCOME AMOUNTS"
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7020 PRINT"INPUT WAGES, SALARY, TIPS, & OTHER COMPENSATION
      1 BY 1 OR SUMMED
7030 PRINT"SEE 1040 INSTRUCTIONS, P. 8 FOR CLARIFICATION
7040 GOSUB 1400:GOSUB 1450
7050 GOSUB 1550
7060 IF C(I+1)=99999 GOTO 7080
7070 I=I+1:GOTO 7050
7080 GOSUB 1500
7090 T(8)=T
7100 GOSUB 1600:GOSUB 1750:PRINTUSING F$(2);8,T(8)
7110 GOSUB 1700
7200 CLS:PRINT"ENTER INTEREST INCOME AMOUNTS 1 BY 1.
7210 PRINT"SEE 1040 INSTRUCTIONS, P. 9 FOR CLARIFICATION
7220 GOSUB 1400:GOSUB 1450
7230 GOSUB 1550
7240 IF C(I+1)=99999 GOTO 7260
7250 I=I+1:GOTO 7230
7260 GOSUB 1500:T(9)=T
7265 GOSUB 1750:PRINTUSING F$(2);9,T(9):PRINT
7270 IF T>400 PRINT:PRINT "THESE AMOUNTS MUST BE REPORTED
      ON SCHEDULE B
7280 IF T>400 PRINT "SCHEDULE B LINE 2 SHOULD BE $";T
7290 GOSUB 1700
7300 CLS:PRINT"ENTER ORDINARY DIVIDENDS 1 BY 1.
7310 PRINT"SEE 1040 INSTRUCTIONS, P. 9 FOR CLARIFICATION
7320 GOSUB 1400:GOSUB 1450
7330 GOSUB 1550
7340 IF C(I+1)=99999 GOTO 7360
7350 I=I+1:GOTO 7330
7360 GOSUB 1500:B(4)=T
7370 PRINT:INPUT"INPUT CAPITAL GAINS DISTRIBUTIONS";B(5)
7380 INPUT"INPUT NONTAXABLE DISTRIBUTIONS";B(6)
7390 B(7)=B(5)+B(6):B(8)=B(4)-B(7)
7400 IF B(8)<400 GOTO 7450
7410 PRINT "SCHEDULE B PART II MUST BE COMPLETED. "
7420 PRINT:PRINT"FILL IN FOLLOWING LINES ON SCHEDULE B"
7430 GOSUB 1770
7440 FOR J=4 TO 8:PRINTUSING F$(2);J,B(J):NEXT J
7445 GOSUB 1700
7450 PRINT:INPUT "INPUT YOUR EXCLUSION AMOUNT";B(9)
7460 T(10)=B(8)-B(9):IF T(10)<0 THEN T(10)=0
7470 GOSUB 1750:PRINTUSING F$(3);"10A",B(8)
7480 PRINTUSING F$(3);"10B",B(9):PRINTUSING F$(3);"10C",T(10)
7500 GOSUB 1700
7510 CLS:PRINT"INPUT S & L INCOME TAX REFUNDS(IF ITEMIZED) 1 BY 1
7520 GOSUB 1400:GOSUB 1450

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```
7530 GOSUB 1550
7540 IF C(I+1)=99999 GOTO 7560
7550 I=I+1:GOTO 7530
7560 GOSUB 1500:T(11)=T
7570 PRINT
7580 INPUT"INPUT TOTAL ALIMONY RECEIVED":T(12)
7590 INPUT"INPUT BUSINESS INCOME(LOSS)-SCHEDULE C LINE 34":T(13)
7600 INPUT "INPUT CAPITAL GAIN(OR LOSS)-SCHEDULE D LINE 23,24":T(14)
7610 PRINT:PRINT"INPUT TAXABLE PART OF CAPITAL GAINS DISTRIBUTIONS
7615 PRINT "NOT REPORTED ON SCHEDULE D(SEE P.9)":INPUT T(15)
7620 PRINT:PRINT"INPUT NET GAIN(LOSS) FROM SUPPLEMENTAL SCHEDULE
7625 PRINT"OF GAINS AND LOSSES(ATTACH FORM 4797)":INPUT T(16)
7630 PRINT:PRINT"INPUT FULLY TAXABLE PENSIONS & ANNUITIES NOT REPORTED
7635 PRINT"ON SCHEDULE E":INPUT T(17)
7640 PRINT:PRINT"INPUT PENSIONS, ANNUITIES, RENTS, ROYALTIES, PARTNERSHIPS
7645 PRINT"ESTATES, TRUSTS, ETC. (ATTACH SCHEDULE E)":INPUT T(18)
7650 PRINT:INPUT"INPUT FARM INCOME OR LOSS(SCHEDULE F)":T(19)
7660 CLS:PRINT"INPUT OTHER INCOME 1 BY 1 OR SUMMED(P.10 INSTRUCTIONS)
7670 GOSUB 1400:GOSUB 1450
7680 GOSUB 1550
7690 IF C(I+1)=99999 GOTO 7710
7700 I=I+1:GOTO 7680
7710 GOSUB 1500:T(20)=T
7720 T=0:FOR J=8 TO 20:T=T+T(J):NEXT J:T(21)=T
7730 GOSUB 1750
7740 FOR J=11 TO 21:PRINTUSING F$(2);J,T(J):NEXT J
7750 PRINT:GOSUB 1700
7800 CLS:PRINT "ADJUSTMENTS TO INCOME":PRINT
7820 INPUT"INPUT MOVING EXPENSE(ATTACH FORM 3903) ":T(22)
7830 INPUT"INPUT EMPLOYEE BUSINESS EXPENSES(FORM 2106)":T(23)
7840 INPUT"INPUT PAYMENTS TO AN IRA(P.10 INSTRUCTIONS)":T(24)
7850 INPUT"INPUT PAYMENTS TO A KEOUGH PLAN":T(25)
7860 INPUT"INPUT SUM OF EARLY WITHDRAWAL INTEREST PENALTIES":T(26)
7870 INPUT"INPUT ALIMONY PAID ":T(27)
7880 T=0:FOR J=22 TO 27:T=T+T(J):NEXT J:T(28)=T
7890 T(29)=T(21)-T(28)
7900 INPUT"INPUT DISABILITY INCOME EXCLUSION ":T(30)
7910 T(31)=T(29)-T(30)
7920 GOSUB 1750
7930 FOR J=22 TO 31:PRINTUSING F$(2);J,T(J):NEXT J
7940 PRINT:PRINT
7950 AGI=T(31):REM ADJUSTED GROSS INCOME
7960 F$(4)="YOUR ADJUSTED GROSS INCOME = **$####. ##"
7970 PRINTUSING F$(4);T(31)
```

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```
10 REM- *INCOME TAX COMPUTATIONS-1040 PAGE 2***
20 REM-----
300 CLS:PRINT "TAX AND PAYMENT COMPUTATION - 1040 P. 2"
310 PRINT "PRESS ENTER TO BEGIN";:INPUT Z9
320 CLS:GOTO 9000
1300 REM
1310 PRINT:PRINT"INPUT ERROR! TRY AGAIN!":FOR K=1TO300:NEXT K
1320 RETURN
1350 REM DELAY SUBROUTINE
1360 FOR I=1TO500:NEXT I
1370 RETURN
1400 REM
1410 PRINT "ENTER 99999 WHEN DONE OR 88888 TO CHANGE""
1420 RETURN
1450 REM RESET COUNTER
1460 I=1:FOR J=0TO60:C(J)=0:NEXT J
1470 RETURN
1500 REM SUM VARIABLES
1510 T=0:FOR J=0TOI:T=T+C(J):NEXT J
1520 RETURN
1550 REM INPUT COST SUBROUTINE
1560 PRINT"AMOUNT "; I; "=" :INPUT C(I)
1570 IF C(I)=99999 I=I-1
1575 IF C(I)=88888 I=I-1:GOSUB 1800
1580 RETURN
1600 REM FORMAT VARIABLES
1610 F*(1)=" LINE NO.      AMOUNT      !"
1615 F*(2)="      ##          ***$####. ##"
1620 F*(3)="      % %          ***$####. ##"
1650 RETURN
1700 REM
1710 INPUT"PRESS ENTER TO CONTINUE";Z9
1720 RETURN
1750 REM PRINT SUBROUTINE
1760 CLS:PRINT "FILL IN FOLLOWING LINES ON FORM 1040"
1770 PRINTUSING F*(1);Z7*:RETURN
1800 REM CHANGE SUBROUTINE
1810 PRINT:INPUT"WHICH COST NUMBER DO YOU WANT TO CHANGE";Z1
1820 IF Z1<0 OR Z1<>INT(Z1) OR Z1>I GOSUB 1300:GOTO 1810
1830 PRINT "COST ";Z1; " =":INPUT C(Z1)
1840 PRINT:RETURN
9000 PRINT " TAX COMPUTATION ":PRINT
9005 DEFDBL C,T,E
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```
9007 DIM C(60),T(66)
9010 INPUT"INPUT ADJUSTED GROSS INCOME-LINE 31, P.1 ";T(32)
9020 PRINT:INPUT"DO YOU ITEMIZE DEDUCTIONS (Y/N) ";Z9#
9030 IF Z9#="N" T(33)=0:GOTO 9080
9040 IF Z9#<>"Y" GOSUB 1300:GOTO 9020
9050 PRINT:INPUT"INPUT AMOUNT ON SCHEDULE A,LINE 41";T(33)
9080 T(34)=T(32)-T(33)
9090 GOSUB 1600:GOSUB 1750
9100 FOR J=32 TO 34:PRINTUSING F$(2);J,T(J):NEXT J
9110 GOSUB 1700
9120 CLS:INPUT"WHAT FILING BOX DID YOU CHECK ON P.1 OF
1040(1-5)";FS
9130 IF FS<>INT(FS) OR FS<1 OR FS>5 GOSUB 1300:GOTO 9120
9140 IF FS=2 OR FS=5 T9 = 40000 ELSE T9=20000
9145 IF T9<=T(34) GOTO 9250
9150 INPUT"DID YOU USE SCHEDULES D OR G OR FORM 4726 (Y/N)";Z1#
9160 IF Z1#<>"Y" AND Z1#<>"N" GOSUB 1300:GOTO 9150
9165 IF Z1#="Y" GOTO 9250
9170 INPUT"HOW MANY EXEMPTIONS DID YOU CLAIM";T(7)
9180 IF T(7)<>INT(T(7)) OR T(7)<0 GOSUB 1300:GOTO 9170
9190 IF T(7)<=3 AND FS=1 PRINT"COMPUTE TAX USING TAX
TABLE A".GOTO 9300
9200 IF T(7)<=9 AND (FS=2 OR FS=5) PRINT"COMPUTE TAX USING
TAX TABLE B":GOTO 9300
9210 IF T(7)<=3 AND FS=3 PRINT"COMPUTE TAX USING TAX
TABLE C":GOTO 9300
9220 IF T(7)<=8 AND FS=4 PRINT"COMPUTE TAX USING TAX
TABLE D":GOTO 9300
9250 PRINT "YOU MUST COMPUTE TAX USING TAX RATE SCHEDULES AND
9260 PRINT "SCHEDULE TC.
9300 F$(5)="COMPUTE TAX ON AN AMOUNT OF ***####. ##"
9305 PRINT:PRINTUSING F$(5);T(34)
9310 PRINT:INPUT"INPUT YOUR COMPUTED TAX ";T(35)
9315 GOSUB 1700
9320 PRINT:PRINT"INPUT ADDITIONAL TAXES 1 BY 1 OR SUMMED"
9330 GOSUB 1400:GOSUB 1450
9340 GOSUB 1550
9350 IF C(I+1)=99999 GOTO 9370
9360 I=I+1:GOTO 9340
9370 GOSUB 1500:T(36)=T
9380 T(37)=T(35)+T(36)
9390 GOSUB 1750
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9400 FOR J=35 TO 37:PRINTUSING F$(2);J,T(J):NEXT J
9410 GOSUB 1700
9500 CLS:PRINT "CREDITS ":PRINT
9510 INPUT"INPUT CREDITS FOR CANDIDATES FOR PUBLIC OFFICE ";T(38)
9520 INPUT"INPUT CREDIT FOR ELDERLY(ATTACH SCHEDULES R & RP)";T(39)
9530 INPUT"INPUT CREDIT FOR CHILD & DEPENDENT CARE
EXPENSE(FORM 2441)";T(40)
9540 INPUT"INPUT INVESTMENT CREDIT(FORM 3468) ";T(41)
9550 INPUT"INPUT FOREIGN TAX CREDIT(FORM 1116) ";T(42)
9560 INPUT"INPUT WORK INCENTIVE(WIN) CREDIT(FORM 4874)";T(43)
9570 INPUT"INPUT NEW JOBS CREDIT(FORM 5884)";T(44)
9580 INPUT"INPUT RESIDENTIAL ENERGY CREDITS(FORM 5695)";T(45)
9590 T=0:FOR J=38 TO 45:T=T+T(J):NEXT J:T(46)=T
9600 T(47)=T(37)-T(46):IF T(47)<0 THEN T(47)=0
9610 GOSUB 1750
9620 FOR J=38 TO 47:PRINTUSING F$(2);J,T(J):NEXT J
9630 GOSUB1700
9700 CLS:PRINT "OTHER TAXES ":PRINT
9710 INPUT"INPUT SELF-EMPLOYMENT TAX(SCHEDULE SE)";T(48)
9720 INPUT"INPUT MINIMUM TAX(FORM 4625)";T(49)
9730 PRINT"INPUT TAX FROM RECOMPUTING PRIOR-YEAR INVESTMENT CREDIT.
9735 PRINT"      (FORM 4255)";:INPUT T(50)
9740 INPUT"INPUT NON-REPORTED FICA TAX ON TIP INCOME(FORM 4137)";T(51)
9750 INPUT"INPUT NONCOLLECTED FICA & RRRA TAX ON TIPS(FORM W-2)";T(52)
9760 INPUT "INPUT TAX ON IRA(FORM 5329)";T(53)
9770 T=0:FOR J=47 TO 53:T=T+T(J):NEXT J:T(54)=T
9780 GOSUB 1750
9790 FOR J=48 TO 54:PRINTUSING F$(2);J,T(J):NEXT J
9800 GOSUB 1700
9820 CLS:PRINT "  TAX PAYMENTS  ":PRINT
9830 PRINT"INPUT FEDERAL INCOME TAXES WITHHELD 1 BY 1 OR SUMMED
9840 GOSUB 1400:GOSUB 1450
9850 GOSUB 1550
9860 IF C(I+1)=99999 GOTO 9880
9870 I=I+1:GOTO 9850
9880 GOSUB 1500:T(55)=T
9890 CLS:PRINT"INPUT ESTIMATED TAX PAYMENTS & CREDIT FROM 1977 RETURN
9900 PRINT"EITHER 1 BY 1 OR SUMMED. "
9910 GOSUB 1400:GOSUB 1450
9920 GOSUB 1550
9930 IF C(I+1)=99999 GOTO 9950
9940 I=I+1:GOTO 9920

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```
9950 GOSUB 1500:T(56)=T
9960 PRINT:INPUT"INPUT EARNED INCOME CREDIT";T(57)
9970 INPUT"INPUT AMOUNT PAID WITH FORM 4868(EXTENSION REQUEST)";T(58)
9980 CLS:PRINT"INPUT FICA WITHHELD 1 BY 1 OR SUMMED"
9990 GOSUB 1400:GOSUB 1450
10000 GOSUB 1550
10010 IF C(I+1)=99999 GOTO 10030
10020 I=I+1:GOTO 10000
10030 GOSUB 1500
10040 IF T(1070.75 T(59)=0 ELSE T(59)=T-1070.85
10050 CLS
10060 PRINT"INPUT CREDIT FOR FEDERAL TAX ON SPECIAL FUELS & OILS
10070 INPUT" (FORM 4136) ";T(60)
10080 PRINT:INPUT"REGULATED INVESTMENT CO. CREDIT(FORM 2439)";T(61)
10090 T=0:FOR J=55 TO 61:T=T+T(J):NEXT J:T(62)=T
10100 GOSUB 1750
10110 FOR J=55 TO 62:PRINTUSING F$(2);J,T(J):NEXT J
10120 GOSUB 1700
10150 CLS:T=T(54)-T(62)
10160 IF T>0 T(66)=T:GOTO 10250
10170 T=-T:T(63)=T
10180 F$(6)="YOU OVERPAID ***#####.##. ENTER ON LINE 63"
10190 PRINTUSING F$(6);T(63)
10200 INPUT"HOW MUCH OF LINE 63 DO YOU WANT REFUNDED TO YOU";T(64)
10210 IF T(64)>T(63) GOSUB 1300:GOTO 10180
10220 T(65)=T(63)-T(64)
10230 GOSUB 1750
10240 PRINTUSING F$(2);64,T(64):PRINTUSING F$(2);65,T(65)
10245 END
10250 F$(7)="BALANCE DUE = ***#####.##. ENTER ON LINE 66"
10255 PRINTUSING F$(7);T(66)
10260 PRINT" AND MAKE CHECK PAYABLE TO 'INTERNAL REVENUE SERVICE"
10280 END
```


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```
10 REM      ***INCOME TAX-SCHEDULE A***
20 REM-----
100 CLS:PRINT"    SCHEDULE A COMPUTATION"
110 PRINT "PRESS ENTER TO BEGIN":INPUT Z9
120 CLS:GOTO 3000
1300 REM
1310 PRINT:PRINT"INPUT ERROR! TRY AGAIN!":FOR K=1TO300:NEXT K
1320 RETURN
1350 REM DELAY SUBROUTINE
1360 FOR I=1TO500:NEXT I
1370 RETURN
1400 REM
1410 PRINT "ENTER 99999 WHEN DONE 88888 TO CHANGE"
1420 RETURN
1450 REM RESET COUNTER
1460 I=1:FOR J=0TO60:C(J)=0:NEXT J
1470 RETURN
1500 REM SUM VARIABLES
1510 T=0:FOR J=0TOI:T=T+C(J):NEXT J
1520 RETURN
1550 REM INPUT COST SUBROUTINE
1560 PRINT"COST ";I;"=":INPUT C(I)
1570 IF C(I)=99999 I=I-1
1575 IF C(I)=88888 I=I-1:GOSUB 1800
1580 RETURN
1600 REM FORMAT VARIABLES
1610 F$(1)=" LINE NO.      AMOUNT      !"
1615 F$(2)="      ##      **$####. ##"
1620 F$(3)="      % %      **$####. ##"
1650 RETURN
1700 REM
1710 INPUT"PRESS ENTER TO CONTINUE":Z9
1720 RETURN
1750 REM PRINT SUBROUTINE
1760 CLS:PRINT "FILL IN FOLLOWING LINES ON SCHEDULE A"
1770 PRINT USING F$(1);Z7$:RETURN
1800 REM CHANGE SUBROUTINE
1810 PRINT:INPUT"WHICH COST NUMBER DO YOU WANT TO CHANGE":Z1
1820 IF Z1<0 OR Z1<>INT(Z1) OR Z1>I GOSUB 1300:GOTO 1810
1830 PRINT "COST ";Z1;"=":INPUT C(Z1)
1840 PRINT:RETURN
3000 REM SCHEDULE A CALCULATION
3005 DIM C(60),M(60)
3010 INPUT"INPUT ADJUSTED GROSS INCOME(FORM 1040, LINE 31)":AGI
3020 IF AGI<0 GOSUB 1300:CLS:GOTO 3010
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```
3025 PRINT"WHICH FILING STATUS BOX ON FORM 1040 DID YOU CHECK?
3030 INPUT"IS IT LINE 1,2,3,4 OR 5";F5
3032 IF F5=2 OR F5=5 M(40)=3200
3034 IF F5=1 OR 4 M(40)=2200
3036 IF F5=3 M(40)=1600
3038 IF M(40)<1600 GOSUB 1300:GOTO 3025
3039 PRINT
3040 PRINT "CALCULATION OF MEDICAL AND DENTAL EXPENSES":PRINT
3050 INPUT"INPUT TOTAL INSURANCE PREMIUMS PAID FOR MEDICAL
    CARE")P(1)
3060 IF P(1)>300 M(1)=150 ELSE M(1)=.5*P(1)
3070 M(5)=P(1)-M(1):GOSUB1350
3110 CLS:PRINT"INPUT COSTS OF MEDICINES & DRUGS 1 BY 1 OR SUMMED
3115 PRINT"NEGATIVE COST = INSURANCE REIMBURSEMENT.
3117 GOSUB 1400
3120 GOSUB 1450:REM SET COUNTER=1 EXPENSE VARIABLES=0
3130 GOSUB 1550
3140 IF C(I+1)=99999 GOTO 3180
3150 I=I+1:GOTO 3130
3180 GOSUB 1500
3200 M(2)=T:M(3)=.01*AGI:M(8)=.03*AGI
3210 M(4)=M(2)-M(3):IF M(4)<0 THEN M(4)=0
3220 GOSUB 1350:CLS
3230 GOSUB 1600
3232 GOSUB 1750
3235 FOR J=1TO 5:PRINTUSING F$(2);J,M(J):NEXT J
3238 GOSUB 1700
3240 CLS:PRINT"INPUT COSTS OF DOCTORS,DENTISTS,NURSES,ETC.,1 BY 1
3245 PRINT"OR SUMMED. NEGATIVE COST=INSURANCE REIMBURSEMENT.
3250 GOSUB 1400:GOSUB 1450
3270 GOSUB 1550
3280 IF C(I+1)=99999 GOTO 3300
3290 I=I+1:GOTO 3270
3300 GOSUB 1500
3310 M(45)=T:REM LINE 6A
3330 CLS:PRINT"INPUT HOSPITAL COSTS,1 BY 1 OR SUMMED
3335 PRINT "NEGATIVE COST=INSURANCE REIMBURSEMENT
3340 GOSUB 1400:GOSUB 1450
3360 GOSUB 1550
3370 IF C(I+1)=99999 GOTO 3390
3380 I=I+1:GOTO 3360
3390 GOSUB 1500:M(46)=T:REM LINE 6B
3395 CLS:GOSUB 1750
3396 PRINTUSING F$(3); "6A",M(45)
3398 PRINTUSING F$(3); "6B",M(46)
```

```
3399 GOSUB 1700
3410 CLS:PRINT"INPUT LINE 6C ITEMS 1 BY 1. "
3415 PRINT"WRITE THESE ITEMS ON LINE 6C
3420 GOSUB 1400:GOSUB 1450
3440 GOSUB 1550
3450 IF C(I+1)=99999 GOTO 3470
3460 I=I+1:GOTO 3440
3470 GOSUB 1500: M(47)=T
3480 M(7)=M(4)+M(5)+M(45)+M(46)+M(47)
3490 M(9)=M(7)-M(8):IF M(9)<0 THEN M(9)=0
3500 M(10)=M(1)+M(9):M(33)=M(10)
3510 GOSUB 1750
3520 PRINTUSING F$(2);7,M(7)
3530 PRINTUSING F$(2);9,M(9)
3540 PRINTUSING F$(2);10,M(10)
3550 PRINTUSING F$(2);33,M(33)
3570 GOSUB 1700
3600 CLS:PRINT"CALCULATION OF TAXES"
3610 PRINT"INPUT STATE & LOCAL INCOME TAXES,1 BY 1 OR SUMMED. "
3620 GOSUB 1400:GOSUB 1450
3640 GOSUB 1550
3650 IF C(I+1)=99999 GOTO 3670
3660 I=I+1:GOTO 3640
3670 GOSUB 1500
3680 M(11)=T
3690 CLS:PRINT"INPUT REAL ESTATE TAXES PAID,1 BY 1, OR SUMMED.
3700 GOSUB 1400:GOSUB 1450
3720 GOSUB 1550
3730 IF C(I+1)=99999 GOTO 3750
3740 I=I+1:GOTO 3720
3750 GOSUB 1500
3760 M(12)=T
3770 CLS:PRINT"INPUT S & L GASOLINE TAXES(TAX TABLE P.16)
3780 PRINT"THIS MAY BE DONE CAR BY CAR OR SUMMED.
3790 GOSUB 1400:GOSUB 1450
3810 GOSUB 1550
3820 IF C(I+1)=99999 GOTO 3840
3830 I=I+1:GOTO 3810
3840 GOSUB 1500
3850 M(13)=T
3860 CLS:PRINT"INPUT GENERAL SALES TAXES,TOTAL OR 1 BY 1"
3870 GOSUB 1400:GOSUB 1450
3890 GOSUB 1550
3900 IF C(I+1)=99999 GOTO 3920
3910 I=I+1:GOTO 3890
```

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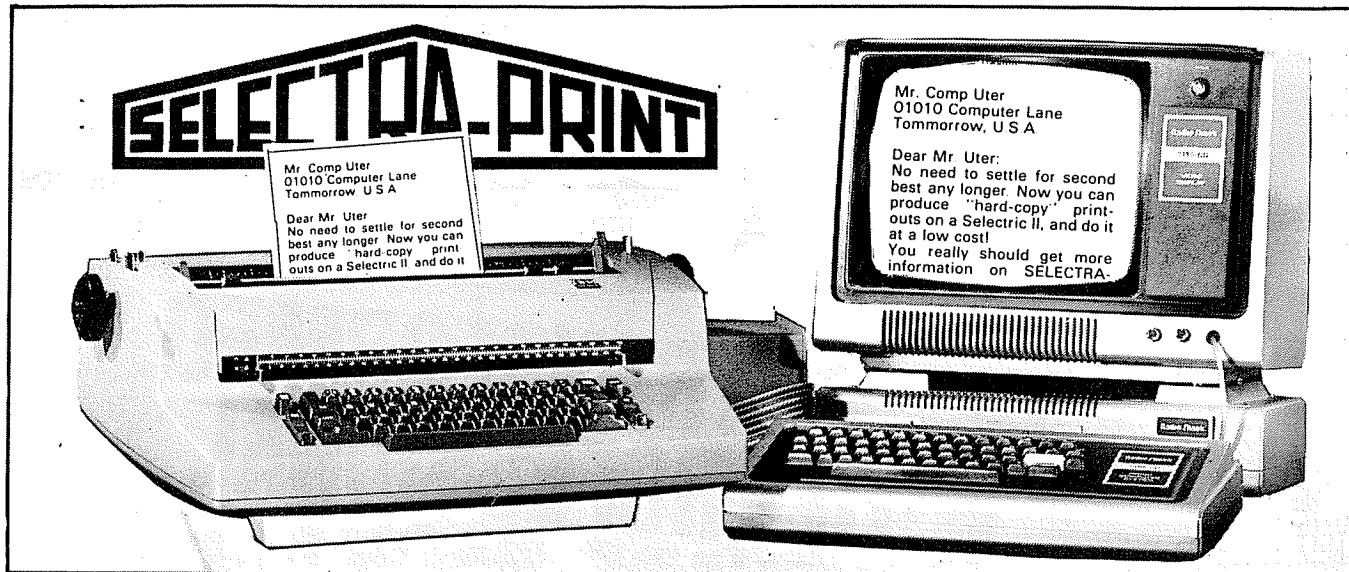
```
3920 GOSUB 1500
3930 M(14)=T
3940 CLS:PRINT"INPUT PERSONAL PROPERTY TAXES, 1 BY 1 OR SUMMED.
3950 GOSUB 1400:GOSUB1450
3970 GOSUB 1550
3980 IF C(I+1)=99999 GOTO 4000
3990 I=I+1:GOTO 3970
4000 GOSUB 1500
4010 M(15)=T:REM PERSONAL PROPERTY TAXES
4050 GOSUB 1750
4060 FOR J=11TO15
4070 PRINTUSING F$(2); J, M(J)
4080 NEXT J
4090 GOSUB 1700
4100 CLS:PRINT"INPUT OTHER TAXES, LINE 16, 1 BY 1. ENTER ON
      SCHEDULE A
4110 GOSUB 1400:GOSUB 1450
4130 GOSUB 1550
4140 IF C(I+1)=99999 GOTO 4160
4150 I=I+1:GOTO 4130
4160 GOSUB 1500
4170 M(16)=T
4180 M(17)=M(11)+M(12)+M(13)+M(14)+M(15)+M(16):M(34)=M(17)
4190 GOSUB 1750
4200 PRINTUSING F$(2); 17, M(17)
4210 PRINTUSING F$(2); 34, M(34)
4220 GOSUB 1700
4300 CLS:PRINT"CALCULATION OF INTEREST EXPENSE
4310 PRINT"INPUT HOME MORTGAGE INTEREST, 1 BY 1, OR SUMMED
4320 GOSUB 1400:GOSUB 1450
4340 GOSUB 1550
4350 IF C(I+1)=99999 GOTO 4370
4360 I=I+1:GOTO 4340
4370 GOSUB 1500
4380 M(48)=T: REM HOME MORTGAGE
4400 CLS:PRINT"INPUT CREDIT & CHARGE CARD INTEREST EXPENSE,
      1 BY 1 OR SUMMED.
4410 GOSUB 1400:GOSUB1450
4430 GOSUB 1550
4440 IF C(I+1)=99999 GOTO 4460
4450 I=I+1:GOTO 4430
4460 GOSUB 1500
4470 M(49)=T:REM CREDIT & CHARGE CARDS
4475 M(18)=M(48)+M(49)
4480 GOSUB 1750
4490 PRINTUSING F$(3); "18A", M(48)
```

```
4500 PRINT USING F$(3); "18B", M(49)
4505 GOSUB 1700
4510 CLS:PRINT"INPUT OTHER INTEREST EXPENSE, LINE 19, 1 BY 1
4520 PRINT"ENTER ON SCHEDULE A
4530 GOSUB 1400:GOSUB 1450
4550 GOSUB 1550
4560 IF C(I+1)=99999 GOTO 4580
4570 I=I+1:GOTO 4550
4580 GOSUB 1500
4590 M(19)=T
4600 M(20)=M(18)+M(19):M(35)=M(20)
4610 GOSUB 1750
4620 PRINT USING F$(2); 20, M(20)
4630 PRINT USING F$(2); 35, M(35)
4650 GOSUB 1700
4700 CLS:PRINT"CONTRIBUTIONS"
4710 PRINT"INPUT RECEIPTED CASH CONTRIBUTIONS, 1 BY 1 OR SUMMED
4720 GOSUB 1400:GOSUB 1450
4740 GOSUB 1550
4750 IF C(I+1)=99999 GOTO 4770
4760 I=I+1:GOTO 4740
4770 GOSUB 1500
4780 M(50)=T
4790 GOSUB 1750:PRINT USING F$(3); "21A", M(50)
4800 PRINT:PRINT"INPUT UNRECEIPTED CASH CONTRIBUTIONS, 1 BY 1
4810 PRINT "ENTER ON SCHEDULE A
4820 GOSUB 1400:GOSUB 1450
4840 GOSUB 1550
4850 IF C(I+1)=99999 GOTO 4870
4860 I=I+1:GOTO 4840
4870 GOSUB 1500
4880 M(51)=T:M(21)=M(50)+M(51)
4890 CLS:PRINT"INPUT OTHER THAN CASH CONTRIBUTIONS, 1 BY 1 OR SUMMED
4900 GOSUB 1400:GOSUB 1450
4920 GOSUB 1550
4930 IF C(I+1)=99999 GOTO 4950
4940 I=I+1:GOTO 4920
4950 GOSUB 1500:M(22)=T
4960 CLS:INPUT"INPUT CARRY OVER FROM PRIOR YEARS "; M(23)
4970 M(24)=M(21)+M(22)+M(23):M(36)=M(24)
4980 GOSUB 1750
4990 FOR J=22 TO 24:PRINT USING F$(2); J, M(J):NEXT J
5000 PRINT USING F$(2); 36, M(36)
5010 GOSUB 1700
5100 CLS:PRINT"CASUALTY & THEFT LOSSES"
```

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5110 INPUT"HOW MANY LOSSES ARE YOU CLAIMING";Z9
5120 IF Z9=0 M(29)=0:GOSUB 1750:GOTO 5200
5130 IF Z9>1 PRINT"FILL IN FORM 4684":INPUT"FORM 4684
TOTAL =";M(29)
5135 IF Z9>1 M(37)=M(29):GOSUB 1750:PRINTUSING F$(2);
29,M(29):GOTO 5200
5140 INPUT"LOSS BEFORE REIMBURSEMENT";M(25)
5150 INPUT"INSURANCE REIMBURSEMENT";M(26)
5160 IF M(26)>M(25) THEN M(27)=0 ELSE M(27)=M(25)-M(26)
5170 M(28)=M(27):IF100<M(27) THEN 100=M(28)
M(29)=M(27)-M(28):M(37)=M(29)
5180 GOSUB 1750
5190 FOR J=25TO29:PRINTUSING F$(2);J,M(J):NEXTJ
5200 PRINTUSING F$(2);37,M(37)
5210 GOSUB 1700
5250 CLS:PRINT"MISCELLANEOUS DEDUCTIONS"
5260 PRINT"INPUT UNION DUES 1 BY 1 OR SUMMED"
5270 GOSUB 1400:GOSUB 1450
5280 GOSUB 1550
5290 IF C(I+1)=99999 GOTO 5310
5300 I=I+1:GOTO 5280
5310 GOSUB 1500:M(30)=T:GOSUB1750:PRINTUSING F$(2);
30,M(30):GOSUB1700
5350 CLS:PRINT"INPUT OTHER MISC. DED. 1 BY 1 & ENTER ON SCHEDULE A"
5360 GOSUB 1400:GOSUB 1450
5370 GOSUB 1550
5380 IF C(I+1)=99999 GOTO 5400
5390 I=I+1:GOTO 5370
5400 GOSUB 1500:M(31)=T:M(32)=M(31)+M(30):M(38)=M(32)
5410 M(39)=M(33)+M(34)+M(35)+M(36)+M(37)+M(38)
5415 M(41)=M(39)-M(40):IF M(41)<0 THEN M(41)=0
5420 GOSUB 1750
5430 PRINTUSING F$(2);32,M(32):PRINTUSING F$(2);38,M(38)
5440 PRINTUSING F$(2);39,M(39)
5450 PRINTUSING F$(2);40,M(40):PRINTUSING F$(2);41,M(41)
5455 IF M(41)=0 PRINT:PRINT "USE SHORT FORM OR SEE PAGE 11
INSTRUCTIONS. "
5460 PRINT "ENTER ";M(41);"ON FORM 1040 LINE 33 WHEN COMPUTING TAX
5470 IF M(41)=0 PRINT"UNLESS SHORT FORM IS USED.
```



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