



TRIANGLE SINCLAIR USERS' GROUP

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*** WELCOME ***

If you're an old timer in the group then please bear with me. There are a lot of new members who are confused about what a current issue of the newsletter is. We have gotten a few letters that say something like... "I thought you guys would treat me better than this. When do I get the current issue of the newsletter?".

We are sorry for any confusion but this IS the most current issue of the newsletter. It is being typed on May 15, 1985. Last summer the newsletter missed four issues. After much discussion, the group decided that the dating of the newsletter would not be "updated". Instead, we would try to catch up by putting out four "quick" issues. As the saying goes "the best laid plans of men and mice...". After a year the newsletter is still four months behind, but we are not any farther behind. If all goes well we do hope to get "up to date" this summer. So do not worry, this is the current issue. If you want back issues, here are the current prices: Vol. II, No. 1-4, \$5.00; Vol. II, No. 5 through No. 12, \$1.50/issue; Vol. II complete \$9.50. Add \$1.00 for shipping and postage.

One result of trying to publish several issues a month is that writers do not have enough lead time to write an article and have it mailed to us in time to be included in the next issue. Part II of Dr. Paul Hunter's series on bank switching for the ZX 81 did not reach us in time to be included in this issue. However, his series will continue in the next issue.

2068 NOTES: A TUTORIAL ON MACHINE CODE PROGRAMMING by Dick Scoville

I recently finished writing a name-and-address filer for the TSUG mailing list, but, as usually happens, there are a couple of things in the program that should be changed. I've decided to rewrite it, but rewrite it "in public" and describe to you the steps I'm taking as I go along.

It will take more than one article to finish it--how many I don't know. This month I'll try to get you excited about the project, so we can begin next month with a kind of skeleton idea of what we want. No real machine-code programming knowledge will be required to do the construction (unless you want to add some special features of your own) but you will need some kind of a hex loader, and a disassembler will make the whole project more fun. As for the loader, you probably have one already. If not, write one. It is a challenge to make them as short as possible:

```

9 LET a=10: LET b=11: LET c=1
2: LET d=13: LET e=14: LET f=15
10 INPUT "Use lower case: "a#
12 IF a#(1)="s" THEN STOP
14 LET h=16+VAL a#(1)+VAL a#(2)
) : LET a#=a#(3 TO )
16 REM Do something with h,
    probably poke it to a
    predetermined address,
    but, for demonstration,
    just ...
17 PRINT h:
18 IF a#="" THEN GO TO 10
19 GO TO 12
    
```

Surely, you can do better than that!

For a disassembler, my 5# "mcdis" is OK--that is what I'll use, doing the coding by looking up the code of each mnemonic as I need it. As I've said many times, HOT Z for the 2068 is great, and a program of the size we're thinking about would be child's play, but, like a good camera, it takes some getting used to before you are comfortable with it. Don't stop reading, though, if you have no disassembler at all--it is not a necessity.

The object of our program is to pack as many names and addresses (or whatever) into an unadorned 2068 as possible, and to give the user as much speed and ease as possible as he adds, revises, deletes, searches, rearranges, prints, etc. The present TSUG filer can hold more than 500 names and addresses the code to manipulate them, the BASIC that is the friendly interface between the user and the machine code, and some machine code that allows the use of a Radix-10 to print the address labels--that's not bad. Here's how the memory looks (not to scale):

BASIC PROG &VARS	MACH. CODE	NAMES ADDR, ETC	UDG ETC

(The printer routine is in 1 REM of the BASIC program.)

Each NAME file has seven "fields": name, address, city, state, zip, extra and special. Each of the fields can be up to 32 characters long. I chose seven because I only needed seven, but eight is a better choice, especially since it is a good idea to have separate fields for first-name and last-name to facilitate alphabetizing them.

So each NAME file will have eight fields, called 1, 2, 3, ..., 8. Besides its use as a name-and-address filer, here are some other possibilities:

FLD FLD CONTENTS

```

1 Date
2 AM appointments
3
4 PM appointments
5
6 short diary
7 or
8 memos

```

or

```

1 Room in house
2 Furniture item or whatever
3 How obtained,
4 cost, etc.
5 Description,
6 notes,
7 value,
8 etc.

```

or

```

1 Stock name
2 Number of shares
3 Purchase
4 info
5 Value and price,
6 high and low, etc.
7 Sales
8 info

```

As you can see, the 8-field, 32 character max-per-field isn't ideal for all applications. We could make these numbers variables but screen display and management can become a headache. Remember, any portion of a field that isn't filled won't take up space in memory--the used portion of each field will be packed right next to the preceding one.

Remember also that we aren't writing the kind of program that begins

```

"Hello, how are you? (G/B) "
"Type in your name."
"Hi, (DICK) , what border
color would you like?"
etc., etc.

```

Such programs gobble up space, and are written for people who don't know the program--in fact, for the people, who, among the intended users, have the least understanding. The program you write will be *y o u r s* in the sense that you will know exactly what's in it and you will be able to tailor it--for example, by breaking into its BASIC--without making it longer.

Although this is a preliminary article, I don't want to end it not having given you something to do at the trusty 2068. So let me explain how I expect to move input data, which at first is in the form of a BASIC string--say d\$--to its place in upper memory. Poking up each character (using BASIC) is OK, but the BASIC uses a lot of bytes, and it is slow. Here is an economical and fast way of doing it using the LPRINT command:

Choose an unused portion of upper memory--I'll choose the portion that begins at DD00 = 56576 dec (DD = 221 dec). Next, enter the following simple program.

```

DD00 (data) 10DD
DD02 LD HL, (00DD) 2A00DD
DD05 LD (HL),A 77
DD06 INC HL 23
DD07 LD (00DD),HL 2200DD
DD0A RET C9

```

Now enter the following BASIC program:

```

100 POKE 26703,2: POKE 26704,221
110 INPUT d$
120 LPRINT d$;
130 POKE 26703,0: POKE 26704,5
140 STOP

```

Now GOTO 100 and, at the prompt, type in and enter a little something.

Finally, examine your memory starting at DD00. You will see your entry starting at DD10. The contents of DD00-DD01 is the address of your first unused byte. If you GOTO 100 again, you will enter your second message directly above the first. If you omit the semi-colon in line 120, what happens? Hint: 0D=13dec is the standard ASCII control character for "carriage return line feed."

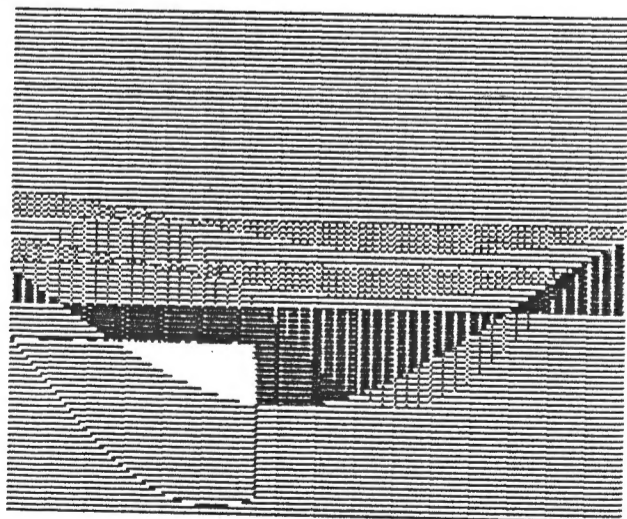
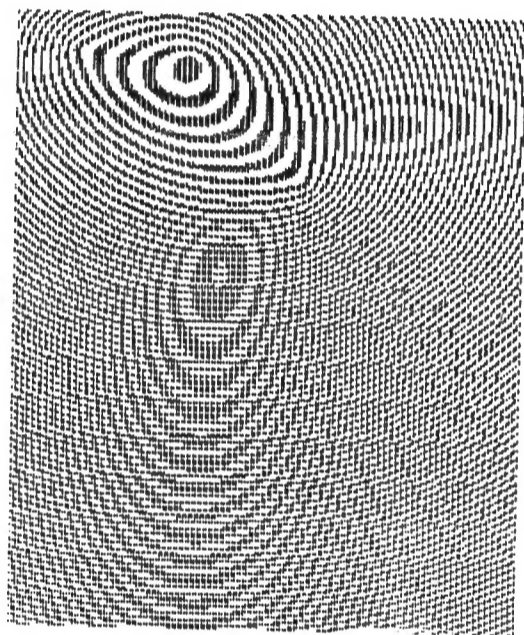
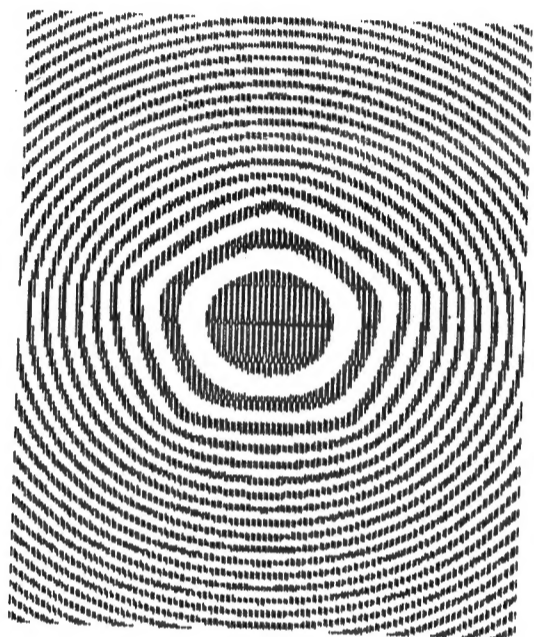
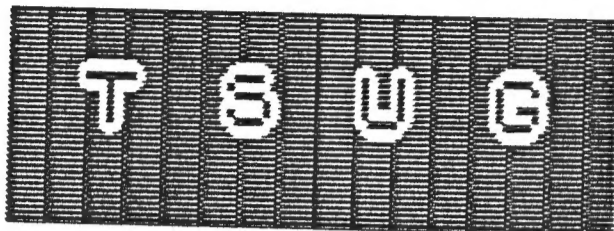
How does this work? Roughly, LPRINT calls into play a portion of the BASIC interpreter that generates a stream of characters (getting rid of semi-colons, commas, TABs, etc., and replacing them with certain ASCII control characters.) As each character of the stream is generated, it is placed in register A and a call is made to the routine whose address is at 26703. This is the spot where we poked the address DD02 of our routine. Normally, at 26703 is the address 0500, and we restored 26703 to its normal value after we finished our LPRINT command.

In other words, at 26703 is the address of the routine that does something with the stream--it channels it. Notice that our little routine assumes that the A register will contain the current stream character--it simply adds that character to the top of its list, and increments the address of the top of the list. You can have some fun by channeling the stream to the BEEPER port!

Next time, we'll start on the actual coding.

SCREENS

This is a new feature in the newsletter. If you have an interesting screen program for the TS 1000 or TS2068, then send in a copy of the screen and also the program. The first three screens were done by Dick Scoville. The last screen and the program was done by Lonnie Kendall.



```

10 FOR y=175 TO 0 STEP -2: PLO
T 0,y: DRAW 255,0: NEXT y
34 RANDOMIZE : LET a=INT (RND*
200+1)
40 LET n=INT (RND*58+21)
46 LET z=INT (RND*87+51)
52 LET zf=z: IF z>87 THEN LET
zf=87-(z-87)
58 LET w=INT (RND*zf+1)

```

```

60 IF w<10 THEN LET w=10
66 LET g=INT (RND*5+1)
72 LET c=INT (RND*2)
86 FOR x=0 TO 255 STEP g
90 LET y=SIN ((x+a)/n)*w+z
94 FOR p=y TO z: PLOT OVER c,X
P: NEXT p: FOR p=z TO y: PLOT O
VER c,X,p: NEXT p
96 NEXT x
99 IF INKEY$="c" THEN GO SUB 9
800
100 GO TO 34
9600 RANDOMIZE USR 64719: LET e$
=CHR$ 27+CHR$ 27+CHR$ 27
9810 LPRINT e$:"/":
9820 LPRINT e$;"G10;32;22";e$;"Z
";
9832 LET x=16384
9833 LET n=0
9834 LET s=0
9835 LET l=0
9836 LET p=0
9837 LPRINT CHR$ 27;CHR$ PEEK (X
+p);
9838 LET p=p+1: IF p=32 THEN LET
x=x+256: LET l=l+1: GO TO 9840
9839 GO TO 9837
9840 IF l=8 THEN LET x=x-2016: L
ET s=s+1: GO TO 9842
9841 GO TO 9836
9842 IF s=8 THEN LET x=x+1792: L
ET n=n+1: GO TO 9844
9843 GO TO 9835
9844 IF n=3 THEN RETURN
9845 GO TO 9834

```

P
R
I
N
T
E
R

Lines 9800 to 9845 are a screen dump for the Olivetti Pr 2300 printer.

MUSIC MAKER
by Jesse Duke

We all know the T/S 2068 can make music, but even to use the BEEP command you need to do a lot of foot work to play just one note. THE MUSIC MAKER is a fun program as well as a useful one. After you have composed your own song, or have copied an old stand-by, you can get a print out of the CODE STRING, and type it into the little subprogram below and use it in your own games etc. THE MM can compose, edit, play, and make hard copies of your work in a traditional staff format as well as the CODE STRING. THE MM allows you to change octaves, change play speed, use sharp & flat tones, repeat X# of times, and plot notes on staff, all with just a joystick!!!!!!

There is very little for me to explain about THE MM that it can't. In the lower part of the screen THE MM prompts you with questions. Use the joystick up and down, side to side, and the button to make your choice. The symbols in the upper left are standard NOTE DURATION symbols, and to start are set to = parts of a second. (you can change this later) They are.....
 $\circ = 1$, $\bullet = 1/2$, $\text{J} = 1/4$, $\text{J} = 1/8$, and $\text{F} = 1/16$ seconds. The \bullet indicates the note is 1 1/2 times normal. Ex. $\text{J} = 1/2 + 1/4$ seconds. The letters S T F mean the note can be sharp, both, or flat.

HAVE FUN JESSE DUKE

```

10 LET A$=""
20 LET B$="0000"
30 PRINT AT 10,7;"MUSIC MAKER"
40 PRINT " BY JESSE DUKE"
45 PAUSE 200
46 CLS
50 GO SUB 1000
60 GO SUB 2000
100 INK 0
110 LET NOTE=1
120 LET N$="0000211917161412110
99785048200-100"
130 LET SN=3: PRINT AT 20,7;"SE
LECT PITCH....."
135 GO SUB 900

```

```

140 PRINT AT SN,7;"-"
150 LET Q=(SN-1)*2
160 LET BEEP=VAL N$(Q+1 TO Q+2)
170 BEEP .05,BEEP
180 PRINT AT SN,7;" "
190 IF STICK (1,1)=1 THEN LET S
N=SN-1
200 IF STICK (1,1)=2 THEN LET S
N=SN+1
210 IF SN<3 THEN LET SN=3
220 IF SN>16 THEN LET SN=16
230 IF STICK (2,1)=1 THEN GO TO
250
240 GO TO 140
250 PRINT AT 20,7;"FLAT OR SHAR
P?"
254 GO SUB 900
255 LET SF=0
260 PRINT AT 1,10+SF;"-"
265 BEEP .05,BEEP+SF: PRINT AT
1,10+SF;" "
270 IF STICK (1,1)=4 THEN LET S
F=SF-1
280 IF STICK (1,1)=8 THEN LET S
F=SF+1
290 IF SF<-1 THEN LET SF=-1
300 IF SF>1 THEN LET SF=1
310 IF STICK (2,1)=1 THEN GO TO
330
320 GO TO 260
330 LET AS=(BEEP+SF)
335 GO SUB 900
338 PRINT AT 0,25;" "
340 PRINT AT 0,25;AS
350 PRINT AT 20,7;"SELECT DURAT
ION....."
360 LET T$="0016000402019900"
365 LET HALF=0
370 LET ST=2
375 PRINT AT 1,ST;"-"
380 LET Q=(ST-1)*2
390 LET TIME=VAL T$(Q+1 TO Q+2)
400 IF TIME=99 THEN GO TO 420
410 BEEP TIME/16,AS
420 PRINT AT 1,ST;" "
430 IF STICK (1,1)=4 THEN LET S
T=ST-1
440 IF STICK (1,1)=8 THEN LET S
T=ST+1
450 IF ST<2 THEN LET ST=2
460 IF ST>7 THEN LET ST=7
470 IF STICK (2,1)=1 THEN GO TO
500
480 GO TO 375
500 IF TIME<>99 THEN GO TO 530
510 LET HALF=1: BEEP .05,-20
520 GO TO 375
530 LET BS=TIME
540 IF HALF=1 THEN LET BS=TIME+
(TIME/2)
545 PRINT AT 1,25;" "
550 PRINT AT 1,25;(BS/16)
560 GO SUB 900
600 LET OP=13
605 PRINT AT 20,0;" "
610 FOR L=1 TO 5
620 PRINT AT 1,0P;"-"
630 BEEP .001,20+L
640 PRINT AT 1,0P;" "
645 GO SUB 700+(OP*10)
650 NEXT L
660 IF STICK (1,1)=4 THEN LET O
P=OP-1
670 IF STICK (1,1)=8 THEN LET O
P=OP+1
680 IF OP<13 THEN LET OP=13
690 IF OP>17 THEN LET OP=17
700 IF STICK (2,1)=1 THEN GO TO
720
720
710 GO TO 610

```

```

720 IF OP=13 THEN GO TO 130
730 IF OP=16 THEN BEEP BS/16,AS
740 IF OP=14 THEN GO TO 3000
750 IF OP=15 THEN GO TO 3100
760 IF OP=17 THEN STOP
765 GO SUB 900
770 GO TO 620
830 PRINT AT 20,7;"DELETE NOTE?"
.....
835 RETURN
840 PRINT AT 20,7;"PLAY SONG?..
"
.....
845 RETURN
850 PRINT AT 20,7;"ADD NOTE?..."
.....
855 RETURN
860 PRINT AT 20,7;"PLAY NOTE?..
"
.....
865 RETURN
870 PRINT AT 20,7;"STOP?....."
.....
875 RETURN
900 IF STICK (2,1)=1 THEN GO TO
900
905 IF STICK (1,1)<>0 THEN GO T
O 905
910 RETURN
1000 POKE USR "A",BIN 00000000
1010 POKE USR "A"+1,BIN 00110000
1020 POKE USR "A"+2,BIN 01001000
1030 POKE USR "A"+3,BIN 10000100
1040 POKE USR "A"+4,BIN 10000100
1050 POKE USR "A"+5,BIN 01001000
1060 POKE USR "A"+6,BIN 00110000
1070 POKE USR "A"+7,BIN 00000000
1100 POKE USR "B",BIN 00001000
1110 POKE USR "B"+1,BIN 00001000
1120 POKE USR "B"+2,BIN 00001000
1130 POKE USR "B"+3,BIN 00001000
1140 POKE USR "B"+4,BIN 11110000
1150 POKE USR "B"+5,BIN 10001000
1160 POKE USR "B"+6,BIN 10001000
1170 POKE USR "B"+7,BIN 11110000
1200 POKE USR "C",BIN 00001000
1210 POKE USR "C"+1,BIN 00001000
1220 POKE USR "C"+2,BIN 00001000
1230 POKE USR "C"+3,BIN 00001000
1240 POKE USR "C"+4,BIN 01111000
1250 POKE USR "C"+5,BIN 01111000
1260 POKE USR "C"+6,BIN 01111000
1270 POKE USR "C"+7,BIN 01111000
1300 POKE USR "D",BIN 00111111
1310 POKE USR "D"+1,BIN 00100000
1320 POKE USR "D"+2,BIN 00100000
1330 POKE USR "D"+3,BIN 00100000
1340 POKE USR "D"+4,BIN 00100000
1350 POKE USR "D"+5,BIN 11100000
1360 POKE USR "D"+6,BIN 11100000
1370 POKE USR "D"+7,BIN 11100000
1400 POKE USR "E",BIN 00111111
1410 POKE USR "E"+1,BIN 00100000
1420 POKE USR "E"+2,BIN 00111111
1430 POKE USR "E"+3,BIN 00100000
1440 POKE USR "E"+4,BIN 00100000
1450 POKE USR "E"+5,BIN 11100000
1460 POKE USR "E"+6,BIN 11100000
1470 POKE USR "E"+7,BIN 11100000
1500 POKE USR "F",BIN 00000000
1510 POKE USR "F"+1,BIN 00000000
1520 POKE USR "F"+2,BIN 00000000
1530 POKE USR "F"+3,BIN 00000000
1540 POKE USR "F"+4,BIN 00000000
1550 POKE USR "F"+5,BIN 00000110
1560 POKE USR "F"+6,BIN 00000110
1570 POKE USR "F"+7,BIN 00000110
1580 RETURN
2000 CLS
2005 GO TO 2160
2010 INK 4: BORDER 4: BEEP .01,3
0
2020 PRINT AT 2,0;"

```

```

2030 PRINT AT 17,0;"
2040 PRINT AT 0,0;"
2050 PRINT AT 1,0;"
2060 INK 3: BEEP .01,10
2070 PRINT AT 3,2;"": PRINT A
T 4,2;" "
2080 PRINT AT 5,2;"": PRINT A
T 6,2;" "
2090 PRINT AT 7,2;"": PRINT A
T 8,0;" "
2100 PRINT AT 9,0;"": PRINT A
T 10,0;" "
2110 PRINT AT 11,0;"": PRIN
T AT 12,0;" "
2120 PRINT AT 13,0;"": PRIN
T AT 14,2;" "
2130 PRINT AT 15,0;" "
2140 GO TO 2187
2160 INK 0
2165 FOR L=5 TO 13 STEP 2
2170 PRINT AT L,0;"-----"
2180 NEXT L
2185 GO TO 2010
2187 INK 2
2190 PRINT AT 0,2;"ABCDEF"
2200 PRINT AT 0,9;"FMS"
2210 PRINT AT 0,13;"DPANS"
2220 PRINT AT 0,19;"note..."
2230 PRINT AT 1,19;"time..."
2240 PRINT AT 3,5;"Ta": PRINT AT
4,5;"Tg"
2250 PRINT AT 5,5;"Sf": PRINT AT
6,5;"Fe"
2260 PRINT AT 7,5;"Td": PRINT AT
8,5;"Sc"
2270 PRINT AT 9,5;"Fb": PRINT AT
10,5;"Ta"
2280 PRINT AT 11,5;"Tg": PRINT A
T 12,5;"Sf"
2290 PRINT AT 13,5;"Fe": PRINT A
T 14,5;"Td"
2300 PRINT AT 15,5;"Sc": PRINT A
T 16,5;"Fb"
2310 RETURN
3000 IF LEN A$(4 THEN GO TO 770
3010 LET PLAY=(LEN A$/4)
3015 FOR J=1 TO PLAY
3020 LET C$=A$(J*4)
3030 LET Q=(J-1)*4
3040 LET QT=VAL C$(Q+1 TO Q+2)
3050 LET QN=VAL C$(Q+3 TO Q+4)
3060 BEEP (QT/16),QN
3070 NEXT J
3080 BEEP (BS/16),AS
3090 GO TO 770
3100 IF BS<10 THEN LET A$=A$+"0"
3110 LET A$=A$+STR$ BS
3120 IF AS<10 AND AS>=0 THEN LET
A$=A$+"0"
3130 LET A$=A$+STR$ AS
3140 IF ST=2 THEN LET G$="A"
3150 IF ST=3 THEN LET G$="B"
3160 IF ST=4 THEN LET G$="C"
3170 IF ST=5 THEN LET G$="D"
3180 IF ST=6 THEN LET G$="E"
3190 PRINT AT SN,(NOTE+7);G$
3200 OVER 1
3210 IF HALF=1 THEN PRINT AT SN,
(NOTE+7);"F"
3220 OVER 0
3230 IF SF=-1 THEN PRINT AT 17,(
NOTE+6);"F"
3240 IF SF=+1 THEN PRINT AT 17,(
NOTE+6);"S"
3250 LET NOTE=NOTE+1
4000 PRINT AT 20,0;" stop&
play? yes<>no
4020 IF STICK (1,1)=4 THEN GO TO
4100

```

```

4838 IF STICK (1,1)=8 THEN GO TO 4850
4848 GO TO 4820
4858 IF NOTE=25 THEN GO TO 4878
4868 GO TO 138
4878 COPY
4888 GO TO 168
4108 GO SUB 900
4118 PRINT AT 20,0;" WANT COPY ? YES<>NO
4128 IF STICK (1,1)=8 THEN GO TO 4200
4138 IF STICK (1,1)=4 THEN GO TO 4168
4158 GO TO 4128
4168 COPY
4188 LPRINT "8 OF NOTES "; (LEN A $/4)
4208 GO SUB 900
4218 LET E$=A$
4215 BEEP 1,30
4228 PRINT AT 20,0;" WANT ANOTHER VERSE? YES<>NO
4238 IF STICK (1,1)=8 THEN GO TO 4308
4248 IF STICK (1,1)=4 THEN GO TO 4268
4258 GO TO 4238
4268 LET E$=E$+A$
4278 GO TO 4215
4308 GO SUB 900
4318 LET OCT=0
4328 PRINT AT 20,0;" CHANGE OCTAVE? HIGH<NO>LOW -
4338 IF STICK (1,1)=4 THEN GO TO 4378
4348 IF STICK (1,1)=8 THEN GO TO 4398
4358 IF STICK (2,1)=1 THEN GO TO 5000
4368 GO TO 4338
4378 LET OCT=OCT+12
4388 GO TO 4408
4398 LET OCT=OCT-12
4408 BEEP 1,10
4485 PRINT AT 20,0;"
4418 GO SUB 900
4428 GO TO 4328
4508 IF OCT>24 THEN LET OCT=24
4518 IF OCT<-24 THEN LET OCT=-24
4538 LET PLAY=(LEN E$/4)
4548 LET C$=E$+B$
4558 FOR J=1 TO PLAY
4568 LET Q=(J-1)+4
4578 LET OT=VAL C$(Q+1 TO Q+2)
4588 LET ON=VAL C$(Q+3 TO Q+4)
4598 BEEP (OT/SPEED),(ON+OCT)
4608 NEXT J
4618 PRINT AT 20,0;" PLA Y<>REWORK
4628 IF STICK (1,1)=4 THEN GO TO 4588
4638 IF STICK (1,1)=8 THEN GO TO 4648
4635 GO TO 4628
4648 GO SUB 900
4658 PRINT AT 20,0;" CODE-PRINT<>REWORK
4668 IF STICK (1,1)=4 THEN GO TO 4708
4678 IF STICK (1,1)=8 THEN GO TO 4188
4688 GO TO 4668
4708 IF SPEED<10 THEN LET E$="0"+E$
4718 LET E$=STR$ SPEED+E$
4728 LET O$=STR$ (OCT/12)
4738 IF O$="0" THEN LET O$="00"

```

```

4748 IF VAL O$>0 THEN LET O$="0"+O$
4758 LET E$=O$+E$
4768 LPRINT : LPRINT E$
4778 GO TO 4188
5808 GO SUB 900
5805 LET SPEED=16
5818 PRINT AT 20,0;"SPEED CHANGE ? SLOWER<NO>FASTER
5828 PRINT AT 21,0;" A=";(16/SPEED);" SEC.
5838 IF STICK (1,1)=4 THEN LET S PEED=SPEED-1
5848 IF STICK (1,1)=8 THEN LET S PEED=SPEED+1
5858 IF SPEED<1 THEN LET SPEED=1
5868 IF STICK (2,1)=1 THEN GO TO 5838
5865 BEEP .25,-20
5878 GO TO 5828
5888 PRINT AT 20,0;" STAND BY TO PLAY
5898 PAUSE 100
5108 GO TO 4588

```

Here are a few sample screens from MUSIC MAKER.

```

-11701120220
odiff, FMS DPANS note..20 time..0.125
Ta
Tg
Sf
Fe
Td
Sc
Fb F
Ta
Tg
Sf
Fe
Td
Sc
Fb
SF

```

```

WANT COPY? YES<>NO
8 OF NOTES 2
odiff, FMS DPANS note..4 time..1
Ta
Tg
Sf
Fe
Td
Sc
Fb F
Ta
Tg
Sf
Fe
Td
Sc
Fb
SF

```

```

WANT COPY? YES<>NO
8 OF NOTES 10

```

```

-116011202201120220
odiff, FMS DPANS note..20 time..0.125
Ta
Tg
Sf
Fe
Td
Sc
Fb F
Ta
Tg
Sf
Fe
Td
Sc
Fb
SF

```

```

WANT COPY? YES<>NO
8 OF NOTES 2

```

VU-FILE AS A WORD PROCESSOR by Timothy Jordan

DEAR MR. DEWEY:

CURRENTLY, I DO NOT OWN A WORD-PROCESSING PROGRAM FOR MY T/S 2068 COMPUTER, BUT I DO PLAN TO BUY ONE SOMETIME FAIRLY SOON. HOWEVER, SANTA CLAUS BROUGHT ME A COPY OF THE DATABASE PROGRAM CALLED "VU-FILE," AND I HAVE BEEN USING IT AS SUCH WITH MUCH SUCCESS.

I DISCOVERED, THOUGH, THAT IT MAKES A FAIRLY GOOD SHOW AT WORD-PROCESSING, TOO! IN FACT, I AM WRITING THIS LETTER WITH MY VU-FILE PROGRAM RIGHT NOW! LET ME SHOW YOU HOW IT WORKS.

UPON ENTERING VU-FILE, I INDICATED THAT I WANTED TO ENTER A BRAND NEW FILE. UPON BEING GIVEN THE "RECORD LAYOUT" SCREEN I IMMEDIATELY PRESSED "STOP." THIS SET UP A RECORD CONTAINING A BLANK SCREEN (I.E., WITHOUT ANY "HEADINGS"). NEXT THE PROGRAM SWITCHED INTO "DATA FIELDS" MODE. I MOVED THE CURSOR TO THE BEGINNING OF EACH LINE (DOWN THE LEFT-HAND SIDE OF THE SCREEN) & PRESSED "ENTER" TO SELECT THE ENTIRE LINE AS A DATA FIELD. THE PAPER AND INK WERE KEPT AT THE DEFAULT VALUES OF BLACK INK ON WHITE PAPER. AFTER SELECTING EACH LINE ON THE SCREEN AS A DATA FIELD, I WAS READY TO BEGIN

(3)
TO TYPE MY LETTER!
THE ONLY DRAWBACKS ARE THE FOLLOWING. THE USER IS REQUIRED TO MANUALLY NUMBER EACH PAGE AS HE/SHE GOES TO BE SURE THAT THE COMPUTER KEEPS THEM IN PROPER ORDER. ALSO, VU-FILE HAS THE RESTRICTION OF 32-COLUMN MODE, WITH NO SPECIAL CHARACTERS AS A GOOD WORD-PROCESSOR WOULD OFFER. (VU-FILE DOES NOT EVEN ALLOW ANY INVERSE CHARACTERS.)

NOW FOR THE GOOD POINTS. I THINK THAT VU-FILE IS QUITE A GOOD PIECE OF SOFTWARE. (ANY DATABASE PROGRAM THAT CAN EASILY DOUBLE AS A WORD-PROCESSOR CAN'T BE ALL BAD.) PLEASE DON'T GET ME WRONG, NOW; VU-FILE IS NOT A

FANTASTIC SUBSTITUTE FOR A GOOD WORD-PROCESSING PROGRAM, BUT FOR THOSE EITHER ON A BUDGET OR WITH OTHER SOFTWARE PRIORITIES MIGHT MAKE GOOD USE OF IT UNTIL THEY GET AN ADEQUATE WORD-PROCESSOR, AND HAVE A GOOD DATABASE PROGRAM TOO!

SINCERELY,
TIMOTHY JORDAN

Timothy

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40 ASPEN GREAT FALLS, MT 59405



T. ALAN PATTISON
3422 French Loop NU
Olympia, WA 98502

April 13, 1985

Douglass F. Dewey
206 James St.
Carrboro, NC 27510

Dear Doug:

I would like to share with the TSUC through their newsletter my word processing program written in BASIC. I have enclosed a print-out of the listing as well as a few paragraphs of instructions.

Since I have never used anyone else's word processor, I don't even know if this one is very good, although it serves my purposes well. There is a cassette of the program enclosed for you to try out.

I've SAVED my Money Manager program on the opposite side of the cassette for you to evaluate if you so desire. You will have to follow the instruction sheet and enter some dummy data to get it to work.

If there are individuals who would like me to send them a cassette of the word processor rather than type it in, I'll be glad to do so for \$8 per cassette postpaid. Incidentally, I charge \$9 postpaid for my Money Manager cassette.

I forgot to mention, both programs are for the 2068. By the way, Doug, if you use the Money Manager program with a Spectrum emulator, you'll get an error code. Delete line 12 (ON ERR) and it'll run OK with the EMU.

Let me know when you have figured out how to run the Spectrum Microdrive. I'm going to England in June and would pick one up if I thought I could get it to work.

Sincerely,

A WORD PROCESSOR IN BASIC

After you have typed in the listing, SAVE it by entering GOTO 8500. When using the program, type in your paragraph without regard to format. When the paragraph is completed it will be stored with left justification and no split words on the right. The paragraphs will all be stored in one long string.

When you go to the correction routine, one paragraph will be displayed at a time. Press C for the next paragraph, A to correct a character, X to rewrite or delete paragraph, I to insert a new paragraph following the one you are editing.

To change, add, or delete a character in the paragraph being edited, move the inverse cursor with the arrow keys to the character you wish to change, then press A. You will be instructed to enter the new character, or press ENTER to insert a space after the character the cursor covers, or type "del" to delete the character. If you add or delete characters, you may need to rearrange the rest of the paragraph using the same process. (It might be easier to press X and re-write the paragraph -- then it will justify itself and eliminate split words.)

The inverse string in line 2035 reads "+v\$(a)+". All the characters from quotation mark to quotation mark are INVERSE, INCLUDING THE QUOTATION MARKS. Then there are normal quotation marks before and after the string of inverse characters.

I have incorporated Dick Scoville's print darkening routine in the program which you may call from the menu.

If you get out of the program, GOTO 50 if you do not want to lose any text you have entered.

Your text can be SAVED and LOADED as a character array.

- ALAN PATTISON

0>REM Alan Pattison
3422 French Loop NU
Olympia, WA 98502
5 LET v\$="": LET c=1: BRIGHT

```

10 LET x$=""
15 REM TEXT ENTERING
20 INPUT "Enter text: "; LINE
a$
31 PRINT a$;" ";
32 INPUT "Continue paragraph? ";s$
33 IF LEN s$>1 THEN BEEP .07,2
0: PRINT #0; FLASH 1;"ENTER Y OR N PLEASE! ": PAUSE 100: GO TO 3
2
34 IF s$="y" OR s$="Y" THEN LET x$=x$+a$+" ": GO TO 20
35 LET x$=x$+a$
38 INPUT "Store it? ";s$
40 IF s$="y" OR s$="Y" THEN GO SUB 1000: GO SUB 5000
50 CLS
60 PRINT
70 PRINT #0; BRIGHT 1;"Enter 1 to correct text, 2 to Print, 3 to start again, 4 for new paragraph, 5 to SAVE this text on tape, 6 to change type, 7 LOAD data
75 PAUSE 30
80 IF INKEY$="" THEN GO TO 80
100 IF INKEY$="3" THEN GO TO 20
0
110 IF INKEY$="2" THEN GO TO 80
0
115 IF INKEY$="4" THEN LET c=c+1: GO TO 10
120 IF INKEY$="1" THEN GO TO 20
00
125 IF INKEY$="5" THEN GO TO 70
00
126 IF INKEY$="6" THEN GO SUB 3
00: CLS : GO TO 70
129 IF INKEY$="7" THEN GO TO 70
50
130 GO TO 80
200 CLS : PRINT AT 10,6; FLASH 1;"ARE YOU SURE? (Y/N)"
210 INPUT s$
220 IF s$="y" OR s$="Y" THEN RUN
230 GO TO 50
300 IF PEEK 23607=60 THEN RANDOMIZE USR 65269: RETURN
310 POKE 23607,60: RETURN
800 REM PRINTING/SCREEN OR PRINTER
802 CLS : LET m$="S"
805 OPEN #5,m$
808 LET g=1
810 FOR l=1 TO c
820 FOR k=g TO LEN v$
830 IF v$(k)=q$ THEN GO TO 845
840 NEXT k
850 PRINT #5;v$(g TO k-1)
860 PRINT #5
870 LET g=k+1
880 NEXT l

```

```

890 INPUT "HARD COPY? (Y/N) ";m$
900 IF m$="y" OR m$="Y" THEN LET T m$="P": GO TO 805
910 CLOSE #5
930 GO TO 70
1000 REM ELIMINATING SPLIT WORDS AT LINE ENDS
1010 LET n=1
1020 GO SUB 1180
1030 LET n=n+33
1040 IF n>=LEN x$ THEN RETURN
1050 IF x$(n)=" " THEN GO TO 116
0
1060 GO SUB 1180
1070 IF x$(n)=" " THEN GO TO 103
0
1080 LET j=0
1090 GO SUB 1180
1100 LET j=j+1
1110 IF x$(n)>" " THEN GO TO 109
0
1120 FOR n=n TO n+j-1
1130 LET x$=x$(1 TO n)+" "+x$(n+1 TO )
1140 NEXT n
1150 GO TO 1030
1160 LET x$=x$(1 TO n-1)+x$(n+1 TO )
1170 GO TO 1020
1180 LET n=n-1
1190 RETURN
2000 REM CORRECTION ROUTINES
2010 CLS : LET g=1: LET a=1
2025 FOR l=1 TO c
2028 FOR k=g TO LEN v$
2030 IF v$(k)=q$ THEN GO SUB 203
5
2031 NEXT k
2032 LET g=k+1: LET a=g
2033 NEXT l
2034 CLS : GO TO 800
2035 PRINT AT 1,0;v$(g TO a-1)+" "+v$(a)+" "+v$(a+1 TO k-1)
2039 PRINT AT 19,0;"C FOR NEXT PAR., A TO CORRECT, X TO RE-WRITE PAR., I FOR MENU, I TO INSERT PAR. AFTER THIS ONE"
2040 IF INKEY$="" THEN GO TO 204
0
2045 IF INKEY$="c" OR INKEY$="C" THEN CLS : GO TO 2032
2050 IF INKEY$="8" AND a<k-1 THEN LET a=a+1
2055 IF INKEY$="6" AND a+32<k THEN LET a=a+32
2060 IF INKEY$="5" AND a>g THEN LET a=a-1
2062 IF INKEY$="x" OR INKEY$="X" THEN GO TO 3100
2065 IF INKEY$="7" AND a>g+31 THEN LET a=a-32
2070 IF INKEY$="1" THEN GO TO 50

```

```

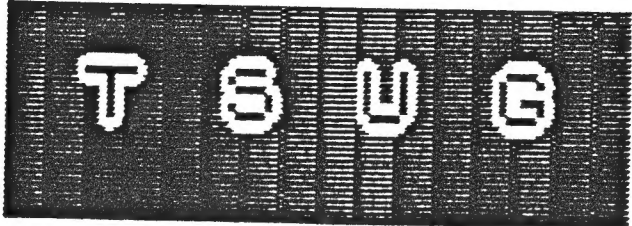
2072 IF INKEY$="I" THEN GO TO 25
00
2075 IF INKEY$="a" OR INKEY$="A"
THEN GO TO 3000
2076 PRINT AT 0,0;a;" ";v$(a);"
"
2110 GO TO 2035
2500 LET x$="": LET a$=""
2505 INPUT "Enter paragraph to i
nser: "; LINE a$
2510 PRINT a$;" ";
2520 INPUT "Continue paragraph?
(Y/N) ";m$
2530 IF m$="y" OR m$="Y" THEN LE
T x$=x$+a$+" "; GO TO 2500
2540 LET x$=x$+a$
2550 GO SUB 1000
2560 LET v$=v$( TO k-1)+q$+x$+v$
(k TO )
2565 LET c=c+1
2570 CLS : GO TO 800
3005 BEEP .07,30: INPUT "Insert
letter for correction or,(ENTER=
space, del=delete)";h$
3010 IF h$="" THEN LET v$=v$( TO
a)+ " "+v$(a+1 TO ): GO TO 3030
3015 IF h$="del" THEN LET v$=v$(
TO a-1)+v$(a+1 TO ): GO TO 3030
3020 LET v$(a)=h$
3030 CLS : GO TO 2035
3100 LET x$="": LET a$=""
3105 LET v$(g TO k-1)=""
3110 INPUT "XXX to delete or ent
er new par.:"; LINE a$
3115 IF a$="XXX" OR a$="xxx" THE
N LET v$=v$( TO g-1)+v$(k+1 TO )
: LET c=c-1: GO TO 800
3120 PRINT a$;" ";
3130 INPUT "Continue paragraph?
(Y/N) ";m$
3140 IF m$="y" OR m$="Y" THEN LE
T x$=x$+a$+" "; GO TO 3110
3150 LET x$=x$+a$
3160 GO SUB 1000
3170 LET v$=v$( TO g-1)+x$+v$(k
TO )
3180 CLS : GO TO 800
5000 LET q$=CHR$ 24: REM ADDING
PAR. TO STRING/CHR$ 24 DENOTING
END OF PAR.
5010 LET v$=v$+x$+q$
5020 RETURN
6000 RESTORE 6050
6010 FOR n=1 TO 29
6020 READ a
6030 POKE 65267+n,a
6040 NEXT n
6045 GO TO 50
6050 DATA 17,0,221,213,1,0,3,42,
54,92,36,126,167,31,182,18,35,19
,13,32,246,16,244,225,37,34,54,9
2,201

```

```

7000 CLS : PRINT AT 5,0;"YOUR TE
XT WILL BE SAVED AS DATA.WHAT NA
ME DO YOU WANT IT SAVED BY?": I
NPUT n$: PRINT ";n$
7005 PRINT "PREPARE RECORDER -
PRESS ANY KEY"
7010 PAUSE 0
7015 LET v$=v$+" "+STR$ c
7020 DIM w$(1,LEN v$)
7025 LET w$(1)=v$
7030 SAVE n$ DATA w$(): BEEP .01
,1: PRINT "REWIND TAPE & PRESS A
NY KEY TO VERIFY.": PAUSE 0: VE
RIFY n$ DATA w$(): BEEP .01,1: P
RINT "VERIFIED OK."
7035 DIM w$(1): LET v$=v$( TO LE
N v$-5)
7040 PAUSE 200: GO TO 50
7045 STOP
7050 CLS : PRINT "PREPARE RECORD
ER AND ENTER NAME OF DATA YOU WI
SH.": INPUT n$: PRINT ";n$
7060 PRINT "START RECORDER AND
PRESS ANY KEY"
7062 DIM w$(1,10000): LOAD n$ DA
TA w$(): LET v$=w$(1): DIM w$(1)
7065 LET r$=v$(LEN v$-4 TO LEN v
$)
7068 LET c=VAL r$
7070 LET v$=v$( TO LEN v$-5)
7075 LET q$=CHR$ 24
7080 GO TO 50
7090 STOP
8500 SAVE "UordP3" LINE 6000: BE
EP .5,1: PRINT "REWIND TAPE, TH
EN PRESS ANY KEY TO VERIFY.": PA
USE 0: VERIFY "UordP3": BEEP .5,
1: PRINT "SAVE VERIFIED OK."

```



THE EARLY SINCLAIR
by Tony Brooks
TONY BROOKS
13724 Wanegarden Drive
Germantown
MD 20874
7 Feb. 1985

Dear Doug
I thought you might be interested in the enclosed leaflet about Sinclair products of earlier years. The leaflet is mainly about the MICRO-8, a radio billed as "The worlds smallest" and sold as a kit in 1964 for less than \$2. This leaflet also lists all of Sir Clives early products including his very first product the MICRO AMPLIFIER. I can remember bying one of these little amplifiers (it was about 1cm square) in about 1961. I did get the kit to function and I still have it, but I dont think I ever found a use for it.

After these early products Mr. Sinclair, as he was then, turned to pocket calculators and hi-fi products. The hi-fi products were notable for there low prices, but the only one I ever purchased was a loudspeaker. The calculators are more interesting. They started with a four function calculator (no memory) called the Sinclair Executive which sold for £70, and later that year (1972) a much cheaper calculator, the Cambridge, for £30. This latter calculator later was reduced to £10 in kit form. The Cambridge was upgraded with addition of a memory and eventually turned into the first low price scientific calculator still using the same four function chip!. This latter achievement was thought so remarkable at the time that Clive Sinclair was given the Queens award to industry. The final calculators produced were programmable calculators. The final one produced had 80 program steps and 9 memories. I purchased one of these for about

Also about this long Re produced a fully impractical what calculator with LED display after making batteries last about one hour.

Our third report has the QL looming excitedly on the horizon. Any week now this great machine should be released. Week by week new software, hardware, and accessories are being introduced. Disk drive interfaces, toolkits, RAM expansions, third party support for the QL is beginning to mount and you, the end-user, will be the prime beneficiary.

As promised, we begin this month's report with a brief review of West, a textual adventure game for the QL. Residing in Arizona as we do, we felt it only fitting to begin our reviews with this rip-roaring "shoot 'em up" story of robbers and rattlesnakes.

For those of you familiar with such Timex or Spectrum classics as "Smugglers Cove," or "The Hobbit," West should be put near the top of the list for classic adventure excitement. One starts near a ghost town. Speed of execution really helps here because you will encounter bank robbers who will shoot you quite dead if you do not "shoot" them first by typing quickly. The first time I sat at the keyboard reading instead of typing, I found myself dead for the first time.

One is allowed to be killed three times before the program locks up and you have to re-boot from scratch so be fore-warned! You may not need a quick trigger finger but you do definitely need a very fast typing finger and this adds to the excitement of the program. A quick typing finger not only stops robbers but also rattlesnakes!

One needs 100 points to advance to the next level. Points are accumulated by collecting loot from robbers, trinkets found along the way, etc. Be careful, though. When I climbed a marble staircase in one building, I found myself gazing at a large gold nugget to the north. When I went north to retrieve the nugget, the dastardly QL replied, "Oh, did I forget to mention a large gaping hole in the floor? Dead for the -- time."

One does not buy a QL for games but as the saying goes, "All work and no play..." When you finish your job costing analysis and your inventory summary, boot West for a challenging and entertaining time. A unique feature is the "notepad" which lets you make notes about where you are, etc. so that when you save the program for next time, you can start off remembering exactly where you left off. Both Zkul and West, two great adventure games, we have in stock.

CR(Curry rating) = B.

We now will examine two word processors- Quill, which is what we are using to write this report, and Tasword II, an excellent program for the Spectrum and the Timex 2068.

For those of you who purchase a QL and who now have your word processor on cassette and not on Spectrum microdrive, the first thing you will notice is how fast Quill loads off the QL microdrive--less than 30 seconds. Documents of a page or so in length take less than 15 seconds. A document of 50 lines per page takes up roughly 20 sectors

out of a possible 220-224 per microdrive cartridge. One can see this leaves room for a nice size document or a number of business letters.

Tasword is always in the equivalent of overwrite mode. If you type a line and then backspace you will overwrite unless you issue an extended command to insert a line. And then you have to remember to reformat the paragraph. Quill has an insert mode and an overwrite mode which you can switch between by using shift and the F4 key. If one is in insert mode and backspaces to insert, the program automatically gives you room and then reformats the whole paragraph as you go.


One can configure Tasword or Quill to work with practically any printer. Both have certain printer configurations in the software initially--Epson FX-80, for example. However, with Tasword, one imbeds printer codes in the text by means of graphic icons which you can easily forget what the icons stand for. One also, with this method, cannot see what the finished document will look like. With Quill, the program is set up initially for bold, underline, superscript and subscript. If one presses F4 to change the typeface to bold, the text is high-lighted on the screen. To turn bold off, one simply presses "B" for bold again and one reverts back to normal printing. Underlining is underlined, superscript is higher up on the line, etc. Quill is a "what you see is what you print" word processor and this is very nice.

The cursor keys on Quill let you move in four directions. What is also nice is that pressing the shift key and either the left or right arrow lets you move a word at a time instead of a letter at a time, and control plus shift and the up and down keys lets you move a paragraph at a time. Total number of words is always displayed, as well as what mode one is in(insert or overwrite), typeface in use, line number and page number and document name.

You can search and replace words on both of these programs. However, the QL program will search and replace for every occurrence of a word in one sequence whereas on Tasword II one searches for one word and one replacement and then has to start the sequence all over again. As in the other Psion programs, one can press F1 at anytime to access the help screens which are excellent.

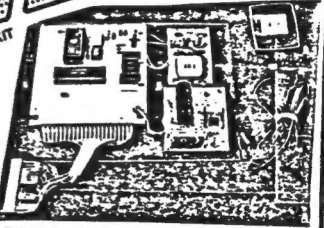
One serious drawback of Tasword is that it does not have tabs. One can set margins, left or right, but that is all. Quill has margins to indent paragraphs etc., and you can set margins from 0 to 80 columns. On Tasword you can only have 64 columns. Forced paging is possible, you can have headers and footers-all in all we rate Quill very highly. The only thing we did not like was that one has to print a whole page at a time. On Tasword, you can start and end at any line number one wishes to and we feel this comes in handy.

As you can see, we have now expanded to two pages for our report. The machine is not even out yet and already we are increasing our coverage! This report is being written on an FX-80 and in next month's issue we will show you some of the graphs it produces with the program Easel. Next month we will also review GraphiQL, a superb graphics program which we have in stock. Please write for information on any QL program you are interested in. We have sold out of QL User and are waiting for the April issue, so get your orders in now. We are also getting back issues. By next month's issue let's hope some of you have a QL on order!




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LETTERS

Here are a few of the letters which we have received in the last few months. Hopefully, one of our readers can answer a question or two. If you can answer some of the questions raised in these letters, or just want to discuss the problem, please write the author

Comments from Costa Rica - Jess Peeler
Report on Damaged/Surplus TS-1000 Computers

I have seen 2 sources for these damaged/surplus computers:

- (1) Zebra Systems, Inc.
- (2) American Surplus Trading - on p. 31, Radio Electronics, Dec '84

In 1984 I purchased a dozen of these surplus computers from Zebra Systems. They are sold on an as-is basis and all have one or more defects. Additionally, since only the computer is sold, one must provide power supply, cables, and T.V. interface adapter. Nevertheless, I consider them, at \$10 apiece, the bargain of the century.**

Now, to what was found in the dozen orphans which I had acquired.

My conjecture is that they were bought by the carload for a dollar or so per unit and were either Timex factory rejects or customer-returned computers which were found to have failed.

First thing noted was that all units had Timex 1000 identification completely removed - from both the top and bottom of the case. (Timex was ashamed!)

Mechanically, only 1 of 12 had suffered slight damage - in that the small screws holding the 2 case halves together were stripped out of the plastic stand-off supports.

Electronic problems:

- (a) 2 of the 12 had burned out Sinclair SCL chips - the special Ferranti "Sinclair Computer Logic" chip manufactured for Sinclair. This chip is still available (I believe) from Sinclair Research Limited, 4 Sinclair Plaza, Nashua, N.H., 03061 - at \$12.00 apiece. (Ask for IC-1, ULA Custom Chip)
- (b) 1 of 12 had a burned out Z-80A chip. This chip is available from dozens of suppliers for as low as \$2.50 each.

Electrical/Mechanical problems -

11 of the 12 units had suffered damage to the delicate plastic finger connections from the keyboard - as noted in a previous write up.

Final Count - of my dozen orphans, by carefully trimming the keyboard plastic finger connections and replacing one Z-80A chip, my net gain was 10 working computers and 2 available for spare parts. I could also, by purchasing the ULA Custom chip from Sinclair, restore the last 2 to working order. Therefore, for the computers alone, total parts comes to 12 x \$10 + \$2.50 (for Z-80A) + 2 x \$12 (for ULA) = \$146.50, or an average of \$12.21 apiece. Add \$5 to \$20 for the D.C. power supplies, connecting cables and T.V. switch/interface (depending on luck and skill in purchasing) and you're looking at a batch of TS-1000s for under \$35 apiece.

** My thinking is based on using the TS-1000 as a beginner's computer, as a simple business machine, and for those satisfied with black and white and no sound.

Dear Dick:

Got your note the other day. Here is my \$10 so I can once again set the newsletter.

A couple of years ago I acquired a Stringy Floppy interface for my Timex 1000 but I did very little with it at the time. A few months ago I dous this out and started playing with it again. I have been associated with Exatron (who developed the Stringy Floppy) for a long time and have always thought that this product had a lot of potential. I have started to develop a CP/M like operating system that would allow the Timex 1000 (or ZX-81) to function as a stand alone development system and also provide a good file storage interface for BASIC programs. All of the code is written in assembly and is being debugged presently (the actual code development is done on a Digital Group Z-80 system and then I download the Timex through the cassette interface. Slow but works).

From a users point of view, this will look just like standard CP/M 2.2 except that programs will start at 4100 hex instead of 100 hex and the interface to the BDOS will be via a JUMP instruction at 4005 hex instead of 5 hex. Basically, everything has been moved up 4000 hex bytes. I envision this system being burned into an 8k rom and replacing the regular ESF rom.

To access the operating system from a BASIC program, the user pokes the function and arguments into pre-assigned memory locations and then calls a special BDOS entry (the variable B\$(163) is used as a communications buffer). For example to open and read a data file, a program might look like:

```
100 DIM B$(163)
110 LET B$="HISTORY.DAT"
120 POKE 16417,15
130 LET A=USR(8192)
140 IF A=255 THEN PRINT "FILE NOT ON THIS TAPE":STOP
142 LET I=0
144 LET TOTAL=0
146 LET AVERAGE=0
150 POKE 16417,20
160 LET A=USR(8192)
170 IF A<>0 THEN PRINT "END-OF-FILE":GOTO 300
175 LET I=I+1
180 PRINT "CLIENT ";I;B$(1 TO 16)
190 PRINT "ADDRESS",B$(17 TO 32)
200 PRINT " ",B$(33 TO 48)
210 PRINT " ",B$(49 TO 64)
220 LET DUES=VAL(B$(65 TO 69))
230 LET RATE=VAL(B$(70 TO 74))
240 LET TOTAL=TOTAL+DUES
250 LET AVERAGE=AVERAGE+RATE
260 GOTO 150
300 PRINT "TOTAL DUES =";TOTAL
310 PRINT "AVERAGE RATE =";AVERAGE/I;"$/MONTH"
320 STOP
```

...or somethings similar. I have not progressed to the point of nailing down the exact details.

I have run into a couple of problem areas maybe you or one of your readers could help me with. How can I move the display file into high memory? Every time I try, the system crashes. Some times in slow mode the system responds faster than other times. Why and what can be done about this? I need to use low memory for data storage, which locations must be preserved (I use the rom BASIC only for the display file management)?

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1907 Alvarado Ave.

DR. H. WELDON BAKER
8515 PATTON ROAD
PHILADELPHIA PA 19118

March 9, 1985

Doug Dewey
206 James St.
Carrboro, NC 27510

Dear Doug:

I am writing in the hope that you or one of your colleagues in the TSUG can help with a problem I am having.

I am using my 1500 in my research at Temple; I have a "Report Generator" board (ENER-Z Corp. Ft. Washington PA) attached to the back, providing an interface with laboratory instruments- in the present instance, a spectrophotometer. The R.G. board, if you are not familiar with it, provides analog-to-digital input with 8-channel input (0-5v), programmable channel select & sampling interval/rate, real-time clock, digital I/O and a centronics interface (sort of). The version I have is EPROM controlled. I had originally planned to get the VOTEM, but at the time could not locate a supplier. The board works very well, and has sparked some very exciting and promising research possibilities.

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>> An I/O board for the 2068 OR for the Spectrum (to be used with 2068 + Spectrum ROM). Even some detailed plans for building such a board would help--- I have 2 or 3 such plans for use with the 1000, but know of none for the 2068. With such a board, I could do the same work with the 2068, bypass the 1000/1500, and have the HRG I need. I'm hoping someone in TSUG has some familiarity with this problem and can offer help.

Am I still a member? Is it dues-time yet?

Weldon

Our third report has the QL looming excitedly on the horizon. Any week now this great machine should be released. Week by week new software, hardware, and accessories are being introduced. Disk drive interfaces, toolkits, RAM expansions, third party support for the QL is beginning to mount and you, the end-user, will be the prime beneficiary.

As promised, we begin this month's report with a brief review of West, a textual adventure game for the QL. Residing in Arizona as we do, we felt it only fitting to begin our reviews with this rip-roaring "shoot 'em up" story of robbers and rattlesnakes.

For those of you familiar with such Timex or Spectrum classics as "Smugglers Cove," or "The Hobbit," West should be put near the top of the list for classic adventure excitement. One starts near a ghost town. Speed of execution really helps here because you will encounter bank robbers who will shoot you quite dead if you do not "shoot" them first by typing quickly. The first time I sat at the keyboard reading instead of typing, I found myself dead for the first time.

One is allowed to be killed three times before the program locks up and you have to re-boot from scratch so be fore-warned! You may not need a quick trigger finger but you do definitely need a very fast typing finger and this adds to the excitement of the program. A quick typing finger not only stops robbers but also rattlesnakes!

One needs 100 points to advance to the next level. Points are accumulated by collecting loot from robbers, trinkets found along the way, etc. Be careful, though. When I climbed a marble staircase in one building, I found myself gazing at a large gold nugget to the north. When I went north to retrieve the nugget, the dastardly QL replied, "Oh, did I forget to mention a large gaping hole in the floor? Dead for the __ time."

One does not buy a QL for games but as the saying goes, "All work and no play..." When you finish your job costing analysis and your inventory summary, boot West for a challenging and entertaining time. A unique feature is the "notepad" which lets you make notes about where you are, etc. so that when you save the program for next time, you can start off remembering exactly where you left off. Both Zkul and West, two great adventure games, we have in stock.

CR(Curry rating) = 8.

We now will examine two word processors- Quill, which is what we are using to write this report, and Tasword II, an excellent program for the Spectrum and the Timex 2068.

For those of you who purchase a QL and who now have your word processor on cassette and not on Spectrum microdrive, the first thing you will notice is how fast Quill loads off the QL microdrive--less than 30 seconds. Documents of a page or so in length take less than 15 seconds. A document of 50 lines per page takes up roughly 20 sectors

out of a possible 220-224 per microdrive cartridge. One can see this leaves room for a nice size document or a number of business letters.

Tasword is always in the equivalent of overwrite mode. If you type a line and then backspace you will overwrite unless you issue an extended command to insert a line. And then you have to remember to reformat the paragraph. Quill has an insert mode and an overwrite mode which you can switch between by using shift and the F4 key. If one is in insert mode and backspaces to insert, the program automatically gives you room and then reformats the whole paragraph as you go.


One can configure Tasword or Quill to work with practically any printer. Both have certain printer configurations in the software initially--Epson FX-80, for example. However, with Tasword, one imbeds printer codes in the text by means of graphic icons which you can easily forget what the icons stand for. One also, with this method, cannot see what the finished document will look like. With Quill, the program is set up initially for bold, underline, superscript and subscript. If one presses F4 to change the typeface to bold, the text is high-lighted on the screen. To turn bold off, one simply presses "B" for bold again and one reverts back to normal printing. Underlining is underlined, superscript is higher up on the line, etc. Quill is a "what you see is what you print" word processor and this is very nice.

The cursor keys on Quill let you move in four directions. What is also nice is that pressing the shift key and either the left or right arrow lets you move a word at a time instead of a letter at a time, and control plus shift and the up and down keys lets you move a paragraph at a time. Total number of words is always displayed, as well as what mode one is in(insert or overwrite), typeface in use, line number and page number and document name.

You can search and replace words on both of these programs. However, the QL program will search and replace for every occurrence of a word in one sequence whereas on Tasword II one searches for one word and one replacement and then has to start the sequence all over again. As in the other Psion programs, one can press F1 at anytime to access the help screens which are excellent.

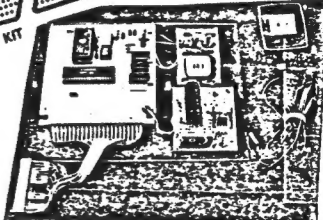
One serious drawback of Tasword is that it does not have tabs. One can set margins, left or right, but that is all. Quill has margins to indent paragraphs etc., and you can set margins from 0 to 80 columns. On Tasword you can only have 64 columns. Forced paging is possible, you can have headers and footers--all in all we rate Quill very highly. The only thing we did not like was that one has to print a whole page at a time. On Tasword, you can start and end at any line number one wishes to and we feel this comes in handy.

As you can see, we have now expanded to two pages for our report. The machine is not even out yet and already we are increasing our coverage! This report is being written on an FX-80 and in next month's issue we will show you some of the graphs it produces with the program Easel. Next month we will also review GraphiQL, a superb graphics program which we have in stock. Please write for information on any QL program you are interested in. We have sold out of QL User and are waiting for the April issue, so get your orders in now. We are also getting back issues. By next month's issue let's hope some of you have a QL on order!




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LETTERS

Here are a few of the letters which we have received in the last few months. Hopefully, one of our readers can answer a question or two. If you can answer some of the questions raised in these letters, or just want to discuss the problem, please write the author

Comments from Costa Rica - Jess Peeler
Report on Damaged/Surplus TS-1000 Computers

I have seen 2 sources for these damaged/surplus computers:

- (1) Zebra Systems, Inc.
- (2) American Surplus Trading - on p. 31, Radio Electronics, Dec '84

In 1984 I purchased a dozen of these surplus computers from Zebra Systems. They are sold on an as-is basis and all have one or more defects. Additionally, since only the computer is sold, one must provide power supply, cables, and T.V. interface adapter. Nevertheless, I consider them, at \$10 apiece, the bargain of the century.**

Now, to what was found in the dozen orphans which I had acquired.

My conjecture is that they were bought by the carload for a dollar or so per unit and were either Timex factory rejects or customer-returned computers which were found to have failed.

First thing noted was that all units had Timex 1000 identification completely removed - from both the top and bottom of the case. (Timex was ashamed?)

Mechanically, only 1 of 12 had suffered slight damage - in that the small screws holding the 2 case halves together were stripped out of the plastic stand-off supports.

Electronic problems:

- 2 of the 12 had burned out Sinclair SCL chips - the special Ferranti "Sinclair Computer Logic" chip manufactured for Sinclair. This chip is still available (I believe) from Sinclair Research Limited, 4 Sinclair Plaza, Nashua, N.H., 03061 - at \$12.00 apiece. (Ask for IC-1, ULA Custom Chip)
- 1 of 12 had a burned out Z-80A chip. This chip is available from dozens of suppliers for as low as \$2.50 each.

Electrical/Mechanical problems -

11 of the 12 units had suffered damage to the delicate plastic finger connections from the keyboard - as noted in a previous write up.

Final Count - of my dozen orphans, by carefully trimming the keyboard plastic finger connections and replacing one Z-80A chip, my net gain was 10 working computers and 2 available for spare parts. I could also, by purchasing the ULA Custom chip from Sinclair, restore the last 2 to working order. Therefore, for the computers alone, total parts comes to 12 x \$10 + \$2.50 (for Z-80A) + 2 x \$12 (for ULA) = \$146.50, or an average of \$12.21 apiece. Add \$5 to \$20 for D.C. power supplies, connecting cables and T.V. switch/interface (depending on luck and skill in purchasing) and you're looking at a batch of TS-1000s for under \$35 apiece.

** My thinking is based on using the TS-1000 as a beginner's computer, as a simple business machine, and for those satisfied with black and white and no sound.

Dear Dick:

Got your note the other day. Here is my \$10 so I can once again get the newsletter.

A couple of years ago I acquired a Stringy Floppy interface for my Timex 1000 but I did very little with it at the time. A few months ago I dug this out and started playing with it again. I have been associated with Exatron (who developed the Stringy Floppy) for a long time and have always thought that this product had a lot of potential. I have started to develop a CP/M like operating system that would allow the Timex 1000 (or ZX-81) to function as a stand alone development system and also provide a good file storage interface for BASIC programs. All of the code is written in assembly and is being debugged presently (the actual code development is done on a Digital Group Z-80 system and then I down load the Timex through the cassette interface. Slow but works).

From a users point of view, this will look just like standard CP/M 2.2 except that programs will start at 4100 hex instead of 100 hex and the interface to the BDOS will be via a jump instruction at 4005 hex instead of 5 hex. Basically, everything has been moved up 4000 hex bytes. I envision this system being burned into an 8k rom and replacing the regular ESF rom.

To access the operating system from a BASIC program, the user pokes the function and arguments into pre-assigned memory locations and then calls a special BDOS entry (the variable B\$(163) is used as a communications buffer). For example to open and read a data file, a program might look like:

```
100 DIM B$(163)
110 LET B$="HISTORY.DAT"
120 POKE 16417,15
130 LET A=USR(8192)
140 IF A=255 THEN PRINT "FILE NOT ON THIS TAPE":STOP
142 LET I=0
144 LET TOTAL=0
146 LET AVERAGE=0
150 POKE 16417,20
160 LET A=USR(8192)
170 IF A<>0 THEN PRINT "END-OF-FILE":GOTO 300
175 LET I=I+1
180 PRINT "CLIENT ";I;B$(1 TO 16)
190 PRINT "ADDRESS",B$(17 TO 32)
200 PRINT " ",B$(33 TO 48)
210 PRINT " ",B$(49 TO 64)
220 LET DUES=VAL(B$(65 TO 69))
230 LET RATE=VAL(B$(70 TO 74))
240 LET TOTAL=TOTAL+DUES
250 LET AVERAGE=AVERAGE+RATE
260 GOTO 150
300 PRINT "TOTAL DUES =";TOTAL
310 PRINT "AVERAGE RATE =";AVERAGE/I;"$/MONTH"
320 STOP
```

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Am I still a member? Is it dues-time yet?

Weldon

As April 1 was Mother's Day and there was not a quorum, elections were postponed until the May meeting. The results of the election are as follows:

- President: Doug Dewey
- Vice-President: Bill Roberts
- Secretary: Dick Scoville
- Treasurer: Mike Boyce
- Editors: Lonnie Kendall and Bill Roberts
- Membership Secretary: Pete Paglia

The first two members of our Board of Operators were also elected. Their office and names are:

- Special Assistance: Hiawatha Demby Jr.
- Refreshments: Carol K. Roberts

The Last Word

You may not have noticed that Lonnie Kendall is not only an editor of the newsletter but he is also our publisher. Lonnie is responsible for the BIG improvement in the printing of the newsletter. This man is doing a super job for the group and we should all appreciate his efforts.

The Triangle Users' Group meets once a month on the first Sunday of each month at 2:00 pm in the Dreyfus Auditorium of the Research Triangle Park facility just off of Cornwallis Road. The public is welcome, in fact the public is invited. Membership in our Users' Group is \$10.00 a year. We have a large public that we serve, and we need sustaining contributions in the form of money, articles for the newsletter, or occasional letters telling us you are interested in receiving our publication. The donation of goods and monies by members and business friends alike is a welcome occurrence and is also tax-deductible.

TRIANGLE SINCLAIR USERS' GROUP OFFICERS:

- President; Doug Dewey, 206 James ST., Carrboro, NC 27510, 919-933-3079.
- Vice-President; Bill Roberts, R-2 Tar Heel Manor Apts., Carrboro, NC 27510, 919-929-6104.
- Secretary; Dick Scoville, 2313 W. Club Blvd., Durham, NC 27705, 919-286-4959.
- Treasurer; Mike Boyce, 3313 East Oak Dr., Durham, NC 27712, 919-383-2000.

Board of Operators

- Special Assistance: Hiawatha Demby Jr.
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Send mail and inquires to Doug.

If you would like to join our Users' Group then fill out the application form below and send it along with a check for \$10.00 (1 year's membership) to Doug's address. You will receive 12 issues of the Triangle Sinclair User's Group Newsletter (they may be late, but you will get 12 issues).

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AGE: _____
 I own a: TS 1000 _____, TS2068 _____, OTHER: _____
 I plan to buy a QL _____
 I own a modem _____
 I want articles on: hardware projects _____, software _____,
 reviews _____, machine code _____.
 I would like to write some articles for the newsletter _____.
 I would like to _____

SEND TO: _____

 Doug Dewey
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