

my complaints:

1. There are no equipment block diagrams, such as to describe programming models of the MPU, PIA or ACIA. This is a particular disadvantage when trying to describe the behavior of the peripheral chips.

2. There is no description of the hardware interrupt signals, even though there is a chapter on interrupts. Also, this chapter contains inaccurate or misleading statements.

3. The book departs from Motorola assembly language with several pseudo-ops, with some of the number base conventions and with indexed address notation.

4. The book uses no flowcharts to outline or generalize programs.

5. The chapter on floating-point arithmetic could have been written for any computer or microprocessor. It had no real how-to-do-it information and did not even mention any actual floating formats.

I feel that the book is not well organized, but this, I know, is a subjective matter.

Who am I? MSEE with ten years' experience on minis and interfacing. Owner of Altair 680 and MEK6800D2 kit. Instructor (moonlight job) on 6800 system at Midwest College of Engineering. 31 years as W9CUP.

I do like Barden's book (reviewed in January 1978 *Kilobaud*) and the *Scelbi 6800 Software Gourmet Guide and Cookbook*.

Terry A. Jackson
Lombard IL

More Articles on the 1802?

This is a brief letter of concern directed to your magazine. So far, most of the articles published deal directly with the 6800 series computers or the 8000 series computers. I agree these are popular, however, you seem to overlook the RCA CDP 1802 MPU.

Certainly a large audience exists for this computer, outcropping from the COSMAC Elf series, Netronics Elf II, COSMAC Micro tutor, UC 1800 and the COSMAC VIP. An outlay of only \$100 is needed for a basic computer.

Please publish more articles for the CDP 1802 COSMAC series.

Mike Otis
Aberdeen SD

I've said it before, Mike, but you've given me the opportunity to say it again . . . and I thank you. I don't have a magic hat to

reach into and pull out articles on a particular computer. We publish articles that have been written. If you, or any other 1802 owner, would like to see more material on the 1802, then go directly to your typewriter . . . do not pass GO . . . but perhaps you will collect that \$200! You're right about the 1802 gaining in popularity and I'll be happy to see more written about it.—John.

Computer-Portraits Franchise

I read with interest your letter and reply in the letters column of December 1977 on the subject of computer portraits. We are presently setting up a franchise organization that will allow just about anyone to go into computer portraits. The franchise fee will be, not \$7000 to \$10,000, but only \$5000 for everything, including the computer, line printer, TV camera, video monitor and software. We feel this system will have more capabilities than any other system available, and we are dedicated to continually upgrading all units in the field so it will remain so. Anyone desiring more information is invited to write me at Tri Mark Engineering, 12402 W. Kingsgate, Knoxville TN 37922.

Marshall Dudley
President

Sounds like a good topic for an article, Marshall.—John.

Demystifying the April Tic-Tac-Toe Program

I'm sorry about the errors in the Tic-Tac-Toe article appearing in the April *Kilobaud*. Basically what happened is:

1. I wrote the article before I had a printer and attempted to type the listings from my video.

2. *Kilobaud* returned a draft of the article. This draft contained numerous errors in the listing (my fault) and pages of program listing were out of order (*Kilobaud* placed page 10 in front of 9).

3. The new proof was sent to me and we still had problems. John Craig and I decided to hold publication of the article until I obtained a computer-generated listing.

4. I sent computer listings writ-

ten in North Star BASIC, since I no longer had Altair equipment. This changed the article drastically.

5. We decided to go with corrected versions of the typed listing so as not to change the article.

6. In the confusion, the necessary corrections were not incorporated and one additional typesetting error was added.

I have no Altair BASIC, so I cannot supply a listing. The corrections are shown in Fig. 1.

Other answers to questions are shown in Fig. 2.

In addition to the corrections, I have attached a North Star listing of a similar game (see below).

Thanks for your understanding.

Joseph J. Roehrig
Middle Village NY

```
30 FORA = 1TO3:A1 = A*10:FORA2 = 1TO10:FORA3 = 0TO3
105 IFA>64OR1>ATHENPRINT'ILLEGAL MOVE':GOTO90
200 M3 = -9
280 IFS>A6THENM2 = M2 + A6:A6:GOTO300
320 IFM2>M3THENM3 = M2:M4 = A
392 A1 = INT(M4-1)/16 + 1:A2 = M4-((A1-1)*16)
1000 PRINT'POSITIONS ARE':FORA = 0TO3:FORA1 = 1TO13STEP4:A2 = 20 + (A1*4)
```

Fig. 1.

```
NEXTA1,A Altair BASIC lets you end multi for loops with
NEXT by listing the variable of the loops to be ended
SS(A) Altair BASIC treats string variables similar to
numeric values. Thus :
Altair SS(1) could mean 'UU' and SS(2) would be 'CC'
North Star SS(1,2) = 'UU' and SS(3,4) = 'CC'
```

Fig. 2.

```
10 DIMS(64),W(3,76),S$(64),V(76)
11 DIMC9(64,8)
20 FORA=1TO10\FORA1=0TO3\READW(A1,A)\NEXTA1\NEXTA
30 FORA=1TO3\A1=A*10\FORA2=1TO10\FORA3=0TO3
40 W(A3,A1+A2)=W(A3,A2)+(16*A)\NEXTA3\NEXTA2\NEXTA
42 !"HOW SHALL I PLAY ? 1=BEST 2=GOOD"
44 INPUT " " 3=FAIR 4=POOR ? ",Q9
46 IFQ9<1THENQ9=1\IFQ9>4THENQ9=4
50 FORA=41TO56\FORA1=0TO3
60 W(A1,A)=(A1*16)+A-40\NEXTA1\NEXTA
70 FORA=57TO76\FORA1=0TO3\READW(A1,A)\NEXTA1\NEXTA
72 DATA1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,1,5,9,13,2,6,10,14
74 DATA3,7,11,15,4,8,12,16,1,6,11,16,4,7,10,13,1,22,43,64
76 DATA5,22,39,56,9,26,43,60,13,26,39,52,2,22,42,62,14,26,38,50
78 DATA3,23,43,63,15,27,39,51,4,23,42,61,8,23,38,53,12,27,42,57,16,27,38,49
80 FORA=1TO64\S$=S$+" "S(A)=0\NEXTA
83 DATA 1,21,41,61,1,18,35,52,4,19,34,49,4,24,44,64
84 DATA13,25,37,49,13,30,47,64,16,31,46,61,16,28,40,52
85 PRINT"YOUR MOVES ARE UU AND I'M CC"
86 FORA=1TO76\FORA1=0TO3\A2=W(A1,A)\A3=-1
87 A3=A3+1\IFC9(A2,A3)=0THENB9
88 GOTO87
89 C9(A2,A3)=A\NEXTA1\NEXTA
90 GOSUB1000\INPUT"YOUR BOARD, POSITION ? ",A1,A2
100 A=((A1-1)*16)+A2
105 IFA>64THEN118
107 IF1>ATHEN118
109 IFS(A)<>0THEN118\GOTO120
118 PRINT"ILLEGAL MOVE"\GOTO90
120 S(A)=1\S$(A,A)="U"
125 U2=A\U4=1\GOSUB1400
190 M5=0\FORA=1TO76
196 IFV(A)=4THEN410
198 IFV(A)=15THENM5=A
199 NEXTA\IFM5<>0THEN365
200 M3=-9
204 Y1=0
205 FORA=1TO64
```

(continued on page 110)

couple of copies of the order and check.

3. If you have heard nothing in a month it is time to get into action. Write a letter asking for the return of your money. Send a copy of your order to the firm and point out their promise of delivery within two weeks. Tell them that unless they respond immediately you will take the matter to the mail-order-fraud department of the post office, to your attorney general, and to the Better Business Bureau in his town. Keep a copy of this letter . . . and send me a copy.

4. If you hear nothing further within ten days, it is time to write to the post office, the attorney general, Better Business, and anyone else you can think of who might be interested. By all means, send a copy of the correspondence to me. I don't want to run ads from firms like this . . . and I just might be able to help you get your refund.

Book Manuscripts Wanted

The *Kilobaud* book department has been expanded recently and several books are in the works; more are needed . . . if you are looking for fame and fortune.

A publisher has two major functions, and *Kilobaud* is uniquely suited to both of these. First comes the printing of the book, which can be an expensive proposition. In our case, we edit the manuscript, do the drafting of any schematics, set the type, do needed photography, proof-read the type, lay out the pages, put the type, photos and draftings together on the page, shoot the negatives, make the printing plates, buy the paper, print the book, bind it and ship it. Everything is done right at *Kilobaud*! Few publishers have such a complete setup . . . or one nearly as efficient.

The second function is advertising and distributing the book. Again we have everything, including a magazine to help with the advertising. Our marketing staff prepares promotions for computer stores, bookstores, radio stores, etc. Our sales staff is in touch with all possible book outlets. With over a dozen books now being distributed, we know the market well.

What kind of books are needed? Microcomputer-fundamental books are still selling well, despite the large number of them out there. Books of programs for

microcomputer-users are exceedingly popular. Books on programming sell well. Heck, almost any book on computing sells. What are you waiting for? Wouldn't you like to see your name on a book cover?

If you have a book in the works you can do worse than get in touch with our book department and see if you have something viable. It sure is nice when those royalty checks come in.

Good News and Bad News

Perhaps you've noticed that prices on everything have been inching up. As long as we are all so enthusiastic about supporting an ever-growing government, one that has a strong vested interest in spending, not saving, inflation is going to be a fact of life. You've probably read about the recent postal hike and you may know about the next one that's coming. I sense that something has changed in postal rates for maga-

zines when I have to pay 72¢ a copy to mail an issue of *Kilobaud* and remember when I paid 5¢ each to mail *73 Magazine*.

The excuses include more than postage. Paper has doubled in price in recent months, with the grades of paper we used to use being phased out and forcing us to use what the paper mills are making . . . paper so thin it is getting difficult to turn a page without skipping one or two and hardly noticing it. Printers, needing bigger Rolls Royces and yachts, have upped their take . . . and so it goes.

The bottom line is an increase in *Kilobaud's* one-year subscription to \$18. Since about half of our subscribers opt for a three-year subscription for \$36, and we are not increasing this price, the net to us will be about 11 percent. This will put us back where we were when *Kilobaud* started.

With a very high percentage of the renewals coming through for three years, it will be the newcomers to the magazine who will foot the inflation on the one-year rate.

EDITOR'S REMARKS

(from page 7)

or give me a call for reservations and booth costs.

John Craig, RFD Box 100 D, Lompoc CA 93436, (805) 735-1023.

Article Submission

Hey, if you're going to write an article *don't* send it to more than one magazine at a time, OK? That isn't the way the game is played. I don't think any of us likes to be put in a position of "bidding" on a piece of material (and I won't), but even worse than that are the possible messes that can occur.

My most recent experience involving dual submissions resulted

LETTERS

(from page 20)

```
210 IFS(A) <> 0 THEN 350 \ M2=0
215 Y1=Y1+1
220 FOR Z9=0 TO 8 STEP 9
225 IFC9(A,Z9)=0 THEN EXIT 320
230 A6=C9(A,Z9) \ A6=V(A6)
240 IFA6 < 0 THEN 300 \ IFA6=11 THEN V(A9)=-1
260 IFA6=3 THEN 265 \ GOT 0270
265 M4=A \ GOT 0390
270 IFA6=0 THEN 300
280 IF 5 > A6 THEN 285 \ GOT 0290
285 M2=M2+A6 \ A6 \ GOT 0300
290 A7=INT(A6/5) \ IF A7=A6/5 THEN M2=M2+A7
300 NEXT Z9
320 IF M2 > M3 THEN 325 \ GOT 0350
325 M3=M2 \ M4=A
350 NEXT A \ IF Y1=1 THEN 355 \ GOT 0390
355 PRINT "IT'S A DRAW" \ END
365 FOR A1=0 TO 3 \ A6=W(A1,M5) \ IFS(A6)=0 THEN 366 \ GOT 0367
366 M6=A6
367 NEXT A1
368 PRINT "THE OLD", M5
370 S$(M6,M6)="C"
375 A1=INT((M6-1)/16)+1 \ A2=M6-((A1-1)*16)
380 PRINT "I WON WITH BOARD", A1, " POSITION", A2 \ GOSUB 1000
382 END
390 S$(M4,M4)="C" \ S(M4)=5
391 U2=M4 \ U4=5 \ GOSUB 1400
392 A1=INT((M4-1)/16)+1 \ A2=M4-((A1-1)*16)
400 PRINT "I WENT BOARD", A1, " POSITION", A2 \ GOT 090
410 PRINT " \ PRINT "YOU WON" \ GOSUB 1000 \ END
1000 PRINT "POSITIONS ARE", \ FOR A=0 TO 3 \ FOR A1=1 TO 1 \ STEP 4 \ A2=20+(A1*4)
1100 PRINT TAB(A2-4), A+A1, \ NEXT A1
1102 PRINT " \ NEXT \ PRINT " \ PRINT "
1105 FOR A=0 TO 3 \ PRINT TAB(A*15), "BOARD", A+1, \ NEXT \ PRINT "
1107 PRINT " \ PRINT "
1110 FOR A=1 TO 4 \ FOR A1=0 TO 4 \ STEP 16 \ A2=A+A1
1120 PRINT S$(A2,A2), S$(A2,A2), "/",
1121 PRINT S$(A2+4,A2+4), S$(A2+4,A2+4), "/",
1122 PRINT S$(A2+8,A2+8), S$(A2+8,A2+8), "/",
1123 PRINT S$(A2+12,A2+12), S$(A2+12,A2+12), " "
1125 NEXT
1125 IF A=4 THEN 1130
1127 PRINT "FOR A2=1 TO 4 \ PRINT "////////// " \ NEXT A2
1130 PRINT " \ NEXT \ PRINT " \ PRINT " \ RETURN
1400 FOR U1=0 TO 8
1410 U3=C9(U2,U1)
1420 V(U3)=V(U3)+U4
1430 NEXT \ V(0)=0 \ RETURN
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