

Animating Integer
BASIC
Low-Resolution
Graphics

The 6502 Resource Magazine
PET • Apple • Atari • OSI • KIM • SYM • AIM

Adding A
Voice Track
To Atari
Programs II

COMPUTE!

\$2.50
July,
1981
Issue 14
Vol. 3, No. 7
63379

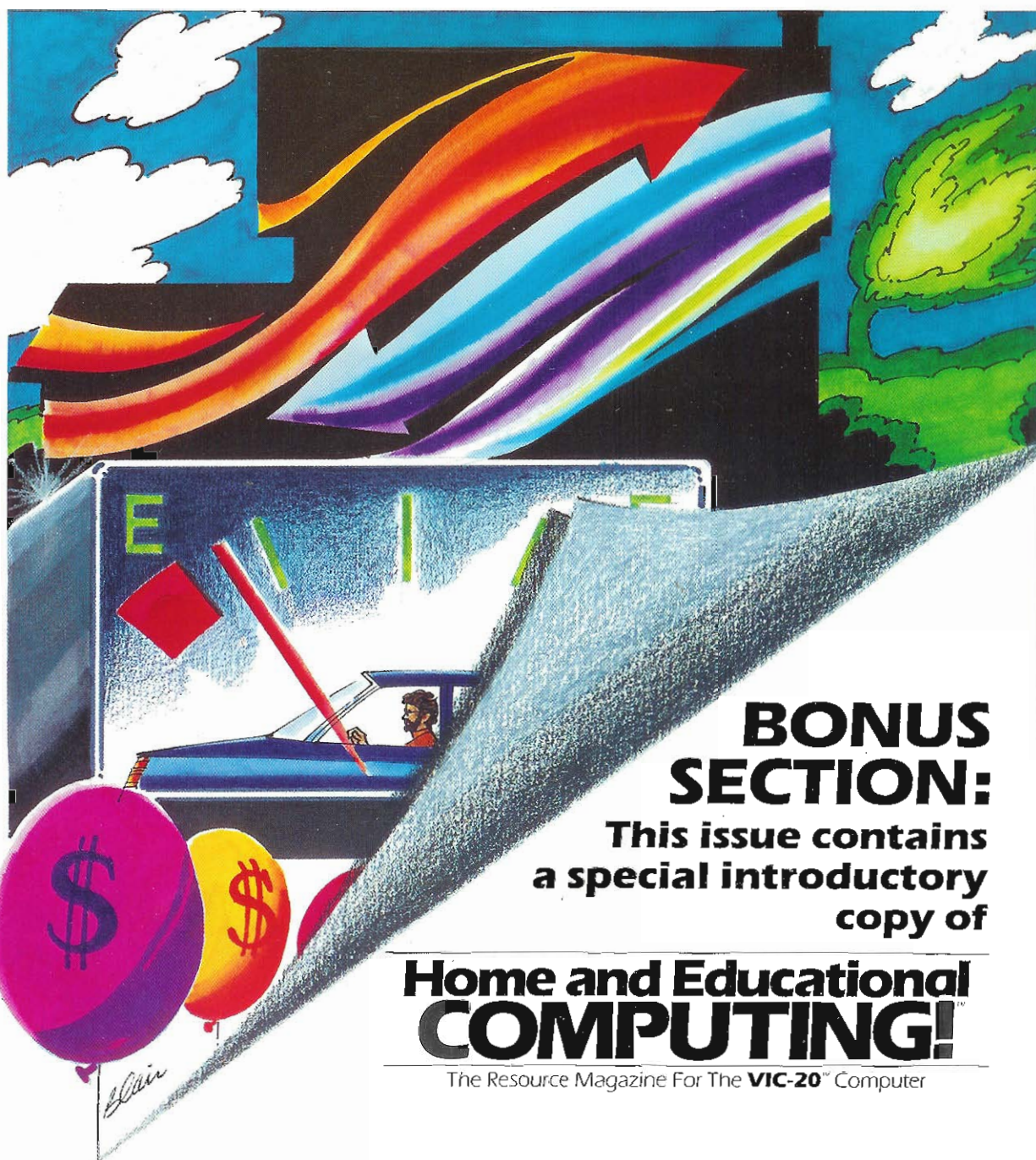
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BONUS SECTION:
This issue contains
a special introductory
copy of

**Home and Educational
COMPUTING!**

The Resource Magazine For The VIC-20™ Computer



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→ Your questions voiced and answered!

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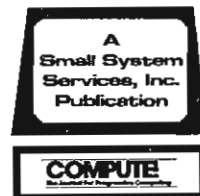



← "Atari Mio..."

→ 4.0? 2.1? 3.0? Upgrade?

COMPUTE! The Journal for Progressive Computing (USPS: 537250) is published 12 times each year by Small System Services, Inc., P.O. Box 5406, Greensboro, NC 27403 USA. Phone: (919) 275-9809. Editorial Offices are located at 200 East Bessemer Ave., Greensboro, NC 27401.

Domestic Subscriptions: 12 issues, \$20.00. Send subscription orders or change of address (P.O. Form 3579) to Circulation Dept., **COMPUTE!** Magazine, P.O. Box 5406, Greensboro, NC 27403. Controlled circulation postage paid at Greensboro, NC 27403. Application to mail at controlled circulation rates pending at Hickory, NC 28601. Entire contents copyright © 1981 by Small System Services, Inc. All Rights reserved. ISSN 0194-357X.



(4) Ibid. Page 38.

LOC	OBJECT	LINE	SOURCE STATEMENT
		0100	;ROUTINE TO ELIMINATE
		0110	; DOS & FMS
		0120	;RELEASES 5200 BYTES
		0130	;
0000		0140	*= \$600
0600	A2FF	0150	LDX #\$FF
0602	9A	0160	TXS
0603	A923	0170	LDA #\$23
0605	850A	0180	STA \$0A
0607	A9F2	0190	LDA #\$F2
0609	850B	0200	STA \$0B
060B	A988	0210	LDA #\$88
060D	850C	0220	STA \$0C
060F	A907	0230	LDA #\$07
0611	850D	0240	STA \$0D
0613	A930	0250	LDA #\$30
0615	8D0C07	0260	STA \$70C
0618	A912	0270	LDA #\$12
061A	8D0D07	0280	STA \$70D
061D	208807	0290	JSR \$788
0620	A900	0300	LDA #\$00
0622	8508	0310	STA \$08
0624	6CFABF	0320	JMP (\$BFFA)
0627		0330	.END

Atari Data

Robert W. Baker
Atco, NJ

While recently converting a simple program from the PET to run on the Atari, I came across a few new quirks in Atari BASIC that I believe have not yet been documented. The problems have to do with using strings in DATA statements on the Atari. There is a vast difference in the ways Micro-soft and Atari handle this.

It appears that Atari uses commas to separate DATA elements regardless of where they appear. Even if a string is enclosed in quotes, commas are still recognized and create separate data elements. Adding quotes actually creates another problem since they are not optional. Any quotes in the DATA statement will actually be read as part of the string data. Here's a simple program that will quickly illustrate how the DATA statement works on the Atari:

```
10 TRAP 70
20 DIM A$(40)
30 DATA "TEST, WITH, COMMAS"
40 READ A$
50 PRINT A$
60 GOTO 40
70 END
```

When you run this program you'll see:

```
"TEST
WITH
COMMAS"
```

These three lines show that the commas are still recognized and actually create three separate data elements instead of one. Also, notice that the quotes are still part of the data as are the spaces after the commas. Thus, whenever placing strings within DATA statements on the Atari, you cannot have commas as part of the data. Also, there's no real reason to use quotes unless they're actually wanted in the data. You do not need quotes at all, even when there are spaces within the string constant.

While I'm at it, here's a copy of the program I converted for the Atari. It's a program that I use to record birthdays, anniversaries, and other important dates. The program allows you to display or print the recorded dates for any month, or the entire list. It has an option to suppress special dates unless specifically requested.

The information for any date is stored in separate DATA statements. The first five characters are the actual date in the form of "MM/DD". This is followed by two spaces and any specific data associated with that date. Special dates are identified by an asterisk as the first character in the data for that date (see program line 1000). The last DATA entry must be the word "END" to terminate the list correctly.

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For convenience, I normally use a separate line for each DATA statement constructed from the date itself. This makes the line very easy to locate and avoids duplication. Typically I make the month the thousands digits (1000-12000) and the day of the month the hundreds and tens digits (010-310). This leaves the ones digits for multiple events on the same date, up to 10 maximum of course.

Data recorded in the program is not sorted or re-ordered in any way. Dates are listed in the exact order found in reading the DATA statements, so they should be stored in the correct order. Whenever you update the program remember to save a new copy. For added convenience, you may want to also include the date of the last update as well (see program line 50). Just remember to avoid using commas in the data strings as discussed earlier!

```

10 REM -----+-----
20 REM DATE BOOK - FOR ATARI
30 REM BY: ROBERT BAKER
40 REM -----
50 REM LAST UPDATE: MM/DD/YY
60 REM -----
65 OPEN #1,4,0,"K"
67 DIM R$(40),M$(2)
70 PRINT CHR$(125); "*** DATE BOOK *** IM
PORTANT DATES ***"
80 PRINT :PRINT
90 PRINT "DISPLAY MONTH"
95 PRINT "(1-12, A=ALL, S=SPCL)";
100 INPUT M$: IF M$="" THEN 800
105 IF M$<"A" THEN M=VAL(M$)
110 IF M$="A" OR M$="S" THEN 200
120 IF M<1 OR M>12 THEN 800
200 PRINT :PRINT
210 P=0:PRINT "WANT PRINTED COPY (Y/N)";
220 INPUT R$: IF R$="Y" THEN P=1
300 PRINT CHR$(125); :RESTORE :L=0
310 READ R$
320 IF R$="END" THEN GOSUB 900:GOTO 70
330 IF R$(8,8)<>"*" THEN 400
340 IF M$="S" THEN PRINT R$:L=L+1: IF P=1
THEN LPRINT R$
350 GOTO 500
400 IF M$="A" OR VAL(R$(1,2))=M THEN PRI
NT R$:L=L+1: IF P=1 THEN LPRINT R$
500 IF L=20 THEN GOSUB 900:L=0
510 GOTO 310
800 CLOSE #1:END
900 PRINT :PRINT "PRESS ANY KEY TO CONTI
NUE";
920 GET #1,X
950 PRINT CHR$(125); :RETURN
1000 DATA 01/01 *D* GUESS WHO
12250 DATA 12/25 JANE DOE (1925)
12300 DATA 12/30 ME TWO (1950)
32000 DATA END

```

Announcing

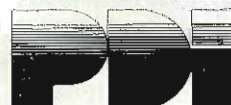
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