

# the RAINBOW

5803 Timber Ridge Drive • Prospect, KY 40059

First of all, welcome to the RAINBOW!

We'd like to open things up for volume one, number one with a little background on why the RAINBOW exists and what we hope to accomplish with this newsletter. If you are anything like us, we think you'll see that this Publication is well worth the small amount we'll be asking you to invest in it.

Most of us are among the first to be the proud owners of a TRS-80 COLOR Computer. And, if you are like we were, you were attracted to TRS-80 in the first place by all those great Programs available for the Models I, II and III.

But, where did that leave us? Except for some Programs in the manuals -- and the e-x-p-e-n-s-i-v-e ROM Packs offered by the Shack -- there just isn't a great deal out there right now. Oh, it is coming. But the wait seems long and there are a lot of things the COLOR Computer can do that its big brothers can't.

And, frankly, what software is available might be good or might be bad. I'm sure you, like I have, hear all sorts of stories about software that doesn't work, won't load, and so forth. One of the things we expect to be is YOUR representative to the software distributors. We'll be doing reviews and we'll give you the straight scoop. We feel confident that those dealers who have a good Product -- and who want to reach an interested and receptive market -- will be happy to let us review their software. And, be sure, you'll get a fair and honest appraisal from the RAINBOW.

We'll also pass along Programs on these pages. Those we come across ourselves, and those you may want to contribute. Don't be bashful. And don't think your Program has to be a "monster" to get reproduced here. (In fact, as you'll see shortly, the Program used to write the RAINBOW takes up just three lines.) So, send in your favorites and we'll share them with the world.

One most important thing. The RAINBOW is devoted to the COLOR Computer and the COLOR Computer only! While future issues will share some of the "secrets" of Program conversion, you won't find anything here about any other computer. No Mod III stuff, no Apple stuff, no Atari stuff. The RAINBOW is going to be the one -- and, to our knowledge ONLY -- Publication that's just for COLOR Computer owners. In other words, we think you'll find everything you read in the RAINBOW will have a direct application to YOUR computer.

Ah, the commercial. The RAINBOW costs money to print and mail. In order to pay some of those costs, we're charging \$12 a year for a subscription. We hope you'll find that reasonable and that you'll send a check by return mail. Frankly, that's pretty cheap for all the information you'll get. I hope you'll agree. Thanks a lot for listening. We look forward to hearing from you.

## MUSIC MADE EASY

For those of you who like music, let us first recommend the fine article on the COLOR Computer in the latest issue of "80-Microcomputing." By far the best Program there is one named "Music-Music-Music." And it is written for the COLOR Computer. But one of the things it does not do is allow you to play songs as a part of any other Programs you might wish to run. Its an entity (albeit a fine one) to itself.

What we were trying to do was put together a horse race Program which we were going to call Derby (remember, the RAINBOW comes from Louisville). We wanted the Program to play "My Old Kentucky Home" as the horses moved to the Post. But, a couple of trys in decoding notes from a music book into SOUND (and PLAY) statements left a lot to be desired.

Well, the "Music Music Music" Program solved that Problem for us, we used it to get a really good rendition of "My Old Kentucky Home." The Problem was, how to get that code into another Program.

Enter "Music Made Easy!" We Just wrote the following few lines, added them to their own little space on the "Music Music Music" Program, loaded a data tape for the song we wanted and then "broke" the original Program. That left all the notes in their array, each with the Proper code for SOUND's syntax.

We then instructed the COLOR Computer to GOTO6000 (the line where the codebreaker started). The result was a Printout of the Proper codes for SOUND. The codebreaker is listed below:

```
6000 FOR X=0 TO 750
6010 PRINT#-2,X, P(X)" "D(X)
6020 NEXT X
```

Here's the routine to Play the music for which you have obtained the codes. As to explanation: Lines 1-5 READ in the conversion of the code obtained in the previous Program and the numbers necessary to make SOUND work right. Line 10 is set to the number of notes -- which you will get from your codebreaker. Line 30 is a very important line, which converts musical "rests" into a FOR-NEXT loop. Line 40 actually Plays the note. And Line 60 onward is the code from the codebreaker, all in DATA statements.

Here's the Program:

```
1 DIM N(48)
2 FOR N=1 TO 48
3 READ N(N):NEXT
4 DATA 5, 19, 32, 45, 58, 69, 78,
      89, 99, 108, 117, 125, 133, 140,
      147, 153, 159, 165, 170, 176,
      180, 185, 189, 193
5 DATA 197, 200, 204, 207, 210, 213,
      216, 218, 221, 223, 225, 227,
      229, 231, 232, 234, 236, 237,
      238, 239, 241, 242, 243, 244
10 FOR X=1 TO 250:SET TO # NOTES
20 READ P,D
30 IF P=0 THEN FOR T=1 TO (D*5):NEXT
      GOTO50
40 SOUND N(P),D
50 NEXT X
60 DATA 17, 8, 10, 8, 12, 8, 17, 8
```

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## NEXT MONTH

We'll be looking at some longer Programs next month, and we expect to have a line Justifier and a screen Printer Program to talk about. We also expect to get a start on software reviews. So, take a look at our subscription blank and become an informed COLOR Computer owner! We'll be looking forward to hearing from you.

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## CPU SPEEDUP

Despite the stuff you may believe or have been told about the speed of the COLOR Computer's 6809E CPU, its really a Pretty swift little device. In fact, if you want to see a Radio Shack store manager's eyes boggle, just put a COLOR Computer next to a Mod III in his store, write a short for-next loop to count the numbers from 1 to 1,000 on both machines and then run them at the same time. Can you guess which computer finishes first? Yes, old COLOR Computer!

But, there's a way to make your COLOR Computer run even faster. Just POKE 65495,0. You'll be able to see this in action right away, because the cursor will start changing colors more quickly. To get back to the "normal" speed, just POKE 65494,0.

You have to go back to normal for cassette I/O and to transmit to the printer. If you don't, you get all sorts of messy garbage. And in reference to garbage, you probably will get some on the screen (or lose control) if you let your program end while you're still in the fast format. Making your last line read: "POKE 65494,0:END" will handle that problem just fine. Its a nice feature for all sorts of uses.

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## LP VII DRIVER

When you bought your LP VII, remember the disappointment when you discovered you really couldn't use the graphics because COLOR Computer owners needed a driver to make a conversion of bit codes?

Well, the wait is over. Even here in Louisville, the driver is available (at Computer Centers). And the best news of all is that it is FREE for those of us who bought the LP VII. We're not going to go into the business of patting the Shack on the back without cause, but in this case its justified.

Also in the area of FREE stuff, if you bought VIDEOTEX, Radio Shack has arranged to give you a free hour of the Dow Jones News Service. All you have to do is ask for it!

## M & N DECODED

Have you tried that little message board program in the Extended Color Basic manual that lets you print what sort of appear to be text letters on the graphics screen?

Since you cannot mix graphics and text on the same screen, some things can be really confusing without a label. We suggest you create a subroutine with all 26 graphics letters and then just execute the letters on the graphics screen when you want to label something.

Actually, that's not what this is all about, since that seems pretty easy to figure out. But, we were less than happy with the way two of the letters looked. A quick call to Ft. Worth brought the information that the customer service people at Radio Shack thought one of their programmers was just trying to get a bit too fancy with some of the letters.

Those letters in question are the "M" and the "N"...and they do look messy. Here's a suggestion for a way to draw them that's a little more clear:

M...D7U7F3E3D7  
W...D7R1E2F2R1U7BD7

We hope you'll like these!

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## OFFICIAL STUFF

the RAINBOW  
Published by FALSOFT  
Prospect, KY 40059

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TRS-80, COLOR COMPUTER ARE TRADE-MARKS OF TANDY CORP.

## WORD PROCESSOR

One of the biggest problems in trying to put the first issue of the RAINBOW together was in finding a way to type these articles out. It seemed a shame to write a computer newsletter on a typewriter.

The RAINBOW comes to you via a Line Printer VII and, yes, there is a short program in "Going Ahead With Extended Color Basic" that will, as Radio Shack says, let you use the keyboard for a typewriter. Only one problem -- you can't make a mistake in typing because the process of disabling the printer to fix them is really time-consuming. And, after all, who doesn't make mistakes?

Enter the following program:

```
10 PRINT@416,;LINE INPUT"(16 spaces)
   JA$
20 PRINT#-2,A$
30 CLS:GOTO10
```

And, you get a mini-text editor!

This program lets you enter your words without committing them to the printer buffer. In other words, if you make a mistake, just backspace and correct it. Not until you have

your whole line on the screen do you send it to the printer...so all you have to do is back up and fix your mistakes. For half-columns, like this one, just change the PRINT@ to 456.

What you are doing is positioning the cursor 40 spaces from the end of the screen. When the display "jumps" up, you stop typing and hit ENTER. Or, if you are trying for justified columns like these, you count the number of spaces to the end, back up and insert those spaces, between the words, and then ENTER the line. As you can see, justified lines are a slow process. We're working on a way to justify them automatically, and will have a report in the next issue of the RAINBOW.

You DO need Extended Color Basic to make this work. But, if you don't have it, the program will work with a regular INPUT. You just cannot use commas, quote marks and the like.

Try writing a letter with this and we think you'll like it. It is geared for an 80-column printer, but the logic is easy to follow if you need to adapt (for a Quick Printer II, perhaps?) Happy writing!

## SUBSCRIPTION FORM

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