

A rose is a Rose...

Summer's here! Vacation time! For somebody. Well, thank goodness Rose decided to stay on - we need the extra help. Ok, Rose...Rose? Where is she? Gone for a month!?!? But she's only been here a short while. What do you expect when you work with East Coast refugees? Well, Donna can take up the slack, right Donna? Donna...? Oh, she's gone for a couple weeks back east also? If you see a couple of relaxed women in Connecticut, tell 'em we're fine and to write us at Happy Dale Sanitarium... June 1982



P.O. Box 1087,  
Santa Barbara, CA 93102

(805) 963-1066

\*\*\*\*\*

Filename	English translation	PMODE	PCLEAR	Locations
FIRECOV	Fireworks Cover	4	4	7 & 145
MARTIAN	Martian Madness	(2)	(4)	26 & 160
FINDIT	Find It	4	(4)	45 & 175
STRING	String Art	3/4	4	65 & 190
SCRAMBLE	Scrambler	0	1	79 & 201
DISKEDIT	Disk Edit (32K disk only)	(0)	(1)	108 & 224
SPACEACE	Space Ace (CLOADM - No disk)	(2)	(4)	132 & 243

Locations are for the R/S CTR-80. If the first copy of a program won't load, try the second. If neither copy loads, return the tape for disciplining and a prompt replacement. If you get an OM, FC, or SN error while loading or running a program, you probably have to enter the PMODE and PCLEAR values for the program directly from the keyboard. (Values in parenthesis are not set in the program). \* These programs may use high speed. Be sure that the computer is slowed down again before doing I/O to tape (POKE 65494,0).

\*\*\*\*\*

Fireworks Cover for the 4th of July! Yeah, I know this is the June issue, but this way you can have this running on the 4th (you KNOW that we won't have the July issue out by then...).

Just a little madness for the masses. Martian Madness is a poor man's Space Invader type game written in BASIC. For a BASIC program, there is a LOT of animation on the screen! If your machine works in high speed, you can add the following line to the program to make it more interesting:

```
!10 POKE 65495,0
```

Note - if you add the above line to the program, be sure to do a 'POKE 65494,0'<enter> from the keyboard when you are done with the game to slow CoCo back down.

I lost it, so you Find It! A grid is drawn, you start out in the upper left hand corner of the grid, and you attempt to find the secret square by using the arrow keys to move. When you stop, an arrow shows you the general direction of the secret square. The whole thing is timed, so luck and good guesswork are required!

You've probably seen some of the pretty graphic art used in our cover programs. Wouldn't it be nice to have a little control over the finished design? String Art lets you play with the various PMODE, SCREEN, stepping, balance, etc. parameters that are used in creating pretty patterns with straight lines. This is one program where you sit down and experiment. One picture may look like last night's leftovers, and with a minor change evolve into this

morning's sunrise. And as you become engrossed in playing Picasso, you may find yourself watching tomorrow's sunrise...

Before you get all mixed up by an OM error, type 'PMODE 0: PCLEAR!'<enter> from the keyboard. Now you are ready to CLOAD Scrambler. What for? Because you want to put lists of presidents, Roman numerals, or leading NFL rushers (football players?) in order! You can put them in either ascending or descending order - all at the touch of the arrow keys. The up and down arrow keys move you up and down the list, the right arrow takes an item out of the list, and the left arrow reinserts the item in front of the item on the left.

If you don't want to arrange NFL rushers, you can create your own lists for Scrambler to scramble and for you to sort! Just change the number of lists in line !840 (if you want a different number than the 3 that come with the program), the number of items in the list in lines !850 to !865, and the items themselves in the data statements (lines !880 on). That's right, to change the lists you have to do some simple program modification. But the author made it easier by commenting the program well, so his logic is easy to follow.

If you have disks, it is sometimes nice to be able to directly look at and even modify the data that is stored on them. Disk Edit is a tool for doing just that! The instructions in the program are thorough and are easily accessible in case you have questions while running the program. The main thing to remember is that you can modify the BUFFER (the image of the disk sector that is displayed on the screen) all you want to. It does not change what is on the disk until you WRITE it to the disk. However, once you have written to the disk, the old sector that was there is gone forever. If you lose the data on a disk because you wrote over the directory or something, be thankful that you have a backup... or KICK yourself hard for not having a backup! By the way, if you have a !6K disk system, you can use Disk Edit, but you must type 'PMODE 0: PCLEAR !'<enter> from the keyboard first.

Gimme a fly swatter - I wanna play Space Ace! What's a bug killer got to do with the outer limits? The ships in Space Ace dance like flies (and they're just as pesky). You use the left and right arrow keys to move your ship, and the up arrow key to fire. This is a machine language program, so to load it type 'CLOADM"SPACEACE"'<enter>. Then type 'EXEC'<enter> to play!

The program loads into the screen display area and on into the first area normally used by the graphics pages and BASIC programs (user RAM). If you have a disk system, the first 2048 bytes of the user RAM is used by the DOS, so this program will NOT work on a disk system (even if Jon Shirley said that the DOS "...does not take up RAM." - May 1982 TRS-80 Microcomputer News). If you wish to make a backup of Space Ace without the title page, just load it in and type 'CSAVEM"SPACEACE",2048,399!,3667'<enter>. If you wish to make a copy with the title page intact, you have to type in and RUN the following routine:

```

5  10 PCLEAR 4: REM SO SPACE ACE WON'T WRITE OVER THIS ROUTINE
10 20 CLOADM"SPACEACE": REM GET THE TITLE PAGE
20 30 IF INKEY$="" THEN 20: REM WAIT FOR A KEY TO BE HIT
30 40 CSAVEM"SPACEACE",!024,399!,3667: REM SAVE TO TAPE
40 50 GOTO 20: REM DO ANOTHER COPY OR HIT THE BREAK KEY

```

Putting a hex on addition...

Lesson 1 - when you add 800 hex to !600 hex you do NOT get 2400 hex. You get !E00. Remember that, Dave! And remember to tell those people that tried to put last month's Notebook on disk that the '&H!600's in line 5 should have been changed to '&H!E00's (not '&H2400's). And the saving of Notebook Description to disk should have been given as 'SAVEM"NOTEDESC",&H!E00,&H7FFF,&H!E00'<enter>.

Also, Don McGarry of Centerport, New York mentioned that you can get lower case with Notebook by changing the following lines:

```

30 I=ASC(I$): IF I>96 AND I<!23 THEN I=I-96 ELSE IF I<KC THEN I=I+KC
62 I2=PEEK(PC+I*32+I!): IF I2<27 THEN I2=I2+96 ELSE IF I2>95 THEN I2=I2-64

```

Copy this down...

If you have a disk system with only one disk, you can make a copy of a program on one disk and put it on another disk by simply typing 'COPY "filename/ext"<enter>. You will be prompted when to swap the disks in and out. Nice going, Tandy, and thanks to Edgar Poulin of Sherbrooke, Quebec, Canada for pointing this out.

May I say it again, may I?

Many people have called looking for specific programs and/or specialized information. I try to help, but I usually end up telling them to get copies of the RAINBOW and/or Color Computer News (see their ads in these pages) because that's what I do. I can't stress enough that if you are interested in really using your CoCo, these magazines are invaluable. Ads for new Color Computer goodies will appear there first, programming hints are found in their pages, and anything else that concerns you and your computer will probably be mentioned there.

Spring fever...

Thanks to Alexander Benenson of New York, New York, Lazkey makes these pages again! If you have a disk system, you can make a change to Lazkey that will allow you to load programs from disk without having to do that PEEK-POKE shuffle mentioned in last month's blue sheets:

- 1) Load (but do not EXEC) Lazkey as you normally would.
- 2) If you have 16K type 'POKE &H3FFA,&HC5: POKE &H3FFB,&H8F'<enter>. If you have 32K type 'POKE &H7FFA,&HC5: POKE &H7FFB,&H8F'<enter>.
- 3) Save your modified Lazkey to disk and you (may) never have to worry about it again.

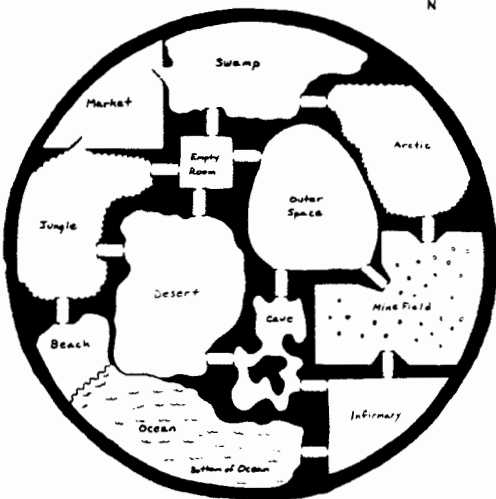
Getting in high gear...

You say that your CoCo won't take a Vitamin E POKE (POKE 65495,0). There may be a way to get it to run in high speed - even if you have a disk system! Contrary to what has been said in the past, putting faster 6821s or a faster 6809 in there won't do it. The March and June 82 issues of the Rainbow, however, suggested that you might try removing capacitors 73, 75, and 85 from inside CoCo. NOTES!!! - This is not guaranteed to work, it is mentioned for those of you who LIKE to hardware hack, it WILL void any warrantee you have on the machine, and it may introduce some interference in your video screen.

Map for last month's Ultimate Adventure

Speeding outta here...

Adventure Land



*Dave*

ed.

## EZ FILE

**Wizard Software**  
3416 LEBON ROAD  
POMPANO BEACH, FLORIDA 33068

With one disk drive, your Radio Shack Color Computer is capable of many things that you probably have never used before. In order to tap your computer's hidden capability, you need more than a disk drive. You need E-Z File. The same powerful, efficient, and user-friendly program that was a smash success with the Apple Computer is now available for the Radio Shack Color Computer... and it's better than ever! Although it is very easy to use, it still puts YOU in control. You create your files for anything from business transactions to stamp collections. Then, you enter as much or as little data as you like. You may save, load, list, edit, and print files. Furthermore, E-Z File has full cursor control, plus a complete file search or replace function to make your text editing easier. And if time is important, you will be glad to know that it is all done with the lightning speed of the Color Computer Disk Drive. So whether you need to organize your laboratory data, or simply would like to keep track of your recipes, this program is for you. Only \$24.95 on disk. Please specify the memory size when ordering. Send check or money order, and allow two weeks for delivery. You will not be disappointed.

**the RAINBOW**—the premier monthly Color Computer magazine one subscriber called a "pot of gold!"

We'll happily, cheerfully and instantly refund your money if, after seeing your first issue, you don't agree 100 percent.

The programs you'll get in **the RAINBOW** are its heart and soul. No junk here . . . you'll find some of the most imaginative games you've ever seen. But games aren't everything. Past issues have included mortgage amortization (which also teaches youngsters the meanings of the terms used to determine money at interest), an on-screen gin-scorer (for Hollywood gin, no less), a grader program to help teachers keep up with students' grades (or for the students to keep up with their own), a quiz program that will allow you to program any question and answer format into memory . . . just right for test-studying. Balance your checkbook? Figure income tax? Fun programs, useful programs and helpful programs: **RAINBOW** programs for your use!

**The RAINBOW** will make your Color Computer more useful than ever before.

- Game Programs
- Useful Utilities
- Honest Product Reviews
- Hints and Tips
- Software discounts

Subscribe to the **RAINBOW** today. A 12-month subscription is only \$12.

Trademark of Tandy Corp

**The RAINBOW**

5803 Timber Ridge Dr.  
Prospect, KY 40059

Gentlemen:

YES! Sign me up for a one-year (12 issues) subscription to **the RAINBOW**. My \$12 is enclosed.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Payment enclosed

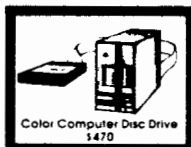
Charge my VISA Account # \_\_\_\_\_  Charge my MasterCard Account # \_\_\_\_\_

Signature \_\_\_\_\_ Card Expiration Date \_\_\_\_\_ INTERBANK # \_\_\_\_\_

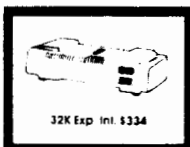
Subscriptions to **the RAINBOW** are \$12 per year in the United States. Canadian and Mexican rates are \$16 per year. Surface mail to other countries is \$26, air mail to other countries is \$44. All subscriptions begin with the current issue.

From Computer Plus to YOU . . .

**PLUS after PLUS after PLUS**



Color Computer Disc Drive 1470



32K Exp. Int. 1334



Line Printer VII 1315



Color Computer 4K 1310  
w/16K Ext. Basic 1459  
w/32K Ext. Basic 1525



Model 16 128K  
1 Drive 14299



Model III 16K 1839  
Model III 48K  
2 Disc & RS232C 12059

**BUY DIRECT** Here are just a few of our line offers . . . call TOLL FREE for full information.

<b>COMPUTERS</b>		<b>PERIPHERALS</b>		Microline 84 Parallel	1090
Model II 64K	53300	*Expansion Interface 32K	334	P. C. Plotter Printer	199
Model III 4K LEV I	599	16K RAM N.E.C. 200 N.S. chips	25	<b>DISK DRIVES</b>	
Model III 16K	839	DT-1 Data Terminal	599	R.S. Model III 15T-Drive	712
Model III 32K	945 50	64K Ram Chips	75	Traxx Tanon 40 Track MI	289
*Model III 32K	881 50	<b>MODEMS</b>		R.S. 1 Drive Exp. Mill	999
Model III 48K	1052	Link Direct Connect MI Mill	235	Color Computer Drive 0	470
*Model III 48K	924	Auto Ans. Dial		Primary Hard Disk	3999
Model III 48K		Telephone Interface II	169	<b>SOFTWARE</b>	
2 Disc & RS232 c	2059	R.S. Modem I D.C.	130	R.S. Software 10% off list	
Model III 48K		R.S. Modem II D.C.	210	Newdos 80 Mill	149
2 Disk No RS232 c	1799	<b>PRINTERS</b>		Color Computer Flex D.O.S.	99
Color Computer 4K	310	Daisy Wheel II	1695	<b>ETC.</b>	
Color Computer 16K		Epson MX80	479	Verbatim 5 Double Density	32
w/extended basic	459	Epson MX80 FI	589	Verbatim 8 Data Life	49 95
Color Computer 32K		Epson MX100	759	Ctr 80A recorder	52
w/extended basic	525	Line Printer VII	315	C. C. JoyStick	22
1 Color Computer 32K-64K		Line Printer VIII	620	*Computer Plus New Equipment	
w/extended basic	489	Line Printer V	1610	with NEC RAM installed	
Packet Computer 2	230	Microline 80	345	180 Day Computer Plus Warranty	
Model 16 1DR 128K	4299	Microline 82A	479	16MB R.S. Drive 0 Tanon Drive 1	
Model 16 2DR 128K	4999	Microline 83A	735	1 Color Computer 48K requires	
				Disk 0 and Flex D.O.S.	

We have the lowest possible Fully Warranted Prices AND a full complement of Radio Shack Software.

DEALER INQUIRIES ARE INVITED  
Prices subject to change without notice  
Not responsible for typographical errors  
185-80 is a registered trademark of Tandy Corp



call TOLL FREE 1-800-343-8124

**computer plus**

245A Great Road  
Littleton, CO 80140  
617-486-3193

Write for your  
free catalog