

RAINBOW

The Color Computer Monthly Magazine

ON DISK

August 1991

RAINBOW ON DISK contains the programs featured in the pages of THE RAINBOW, The Color Computer Monthly Magazine. It is intended as a companion to the magazine, not as a separate entity. The articles accompanying the programs in THE RAINBOW may include important information and system requirements necessary to the operation of the programs.

The disk is specially formatted and contains both BASIC and OS-9 operating system programs.

This edition of RAINBOW ON DISK includes:

Font Magician Add the IBM extended character set to the CoCo 3's graphics.
Text and Graphics With `PIXTEXT4`, you can place text directly on a `PMODE 4` screen.

Palette Control *Palette 40/80* allows you to change the foreground and background colors of the CoCo 3's 40- or 80-column screen to any of the 64 available colors.

Text-Screen Dump *TextDump* is a useful utility that allows you to dump 32-, 40- and 80-column screens from BASIC any time you need a hardcopy of the text on the current screen.

Tax Tables This program prints a six-column sales-tax chart for the percentage rate you choose.

Megatank Your mission is to save your home planet from alien invasion. But to accomplish your mission, you must battle five different waves of aliens — choppers, blades, bats, saucers and fireballs.

The Assembly Line An assembly-language technique for enlarging graphics images.

Ultralace: The Epson Version The ultimate shoestring desktop publisher for the CoCo 3.

The OS-9 "flip" side of this month's RAINBOW ON DISK includes:

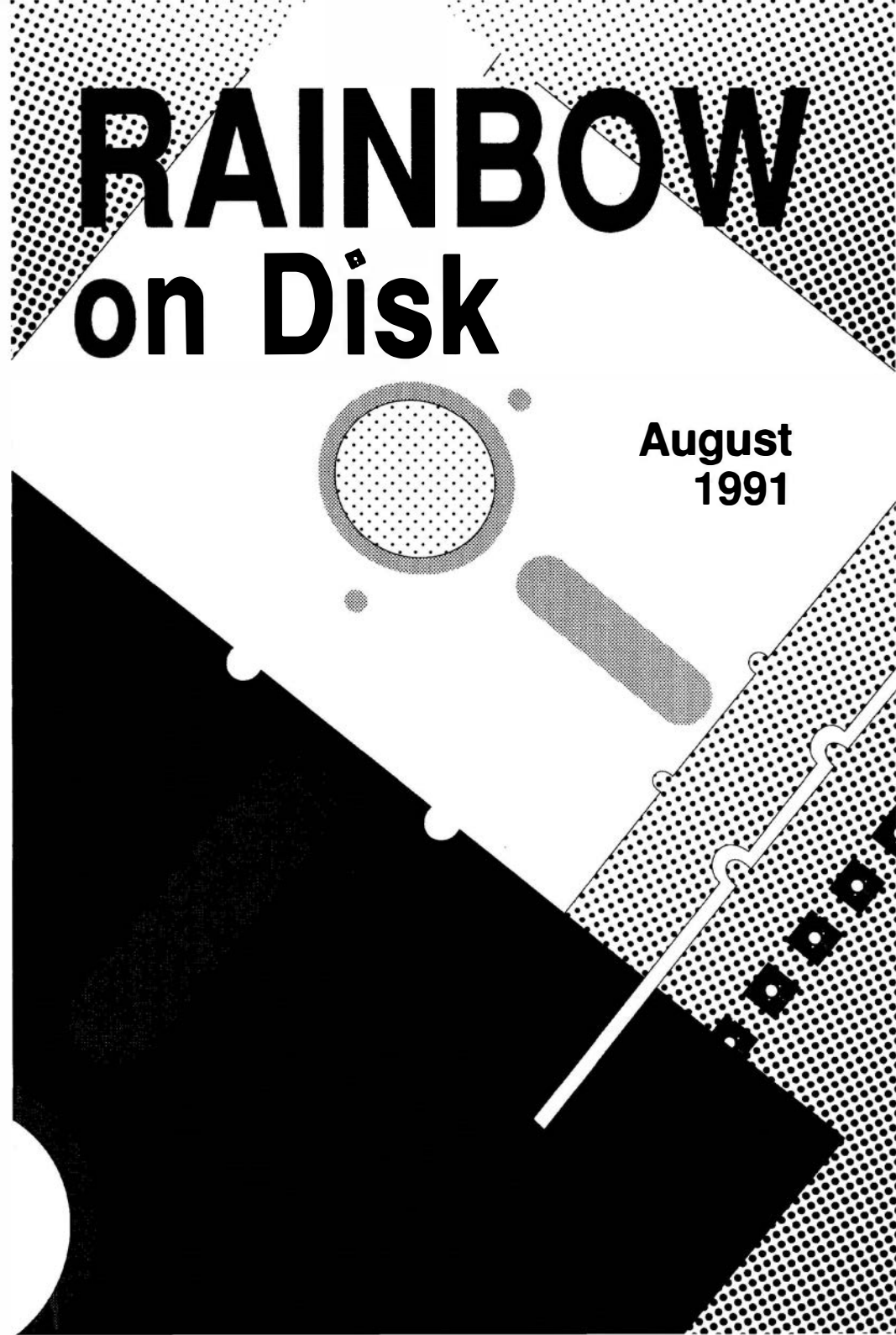
BreakPoint Sample programs to demonstrate writing system calls in C.

Interrupted Again A software technique that eliminates the cartridge-interrupt problem.

OS-9 Hotline Use Tim Kientzle's *View 4.3* to view pictures from several graphics formats including GIF, VEF, CM3 and MGE.

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Instructions for Use

This disk is a "flippy," formatted under Disk Extended BASIC on the front side and under the Microware OS-9 operating system on the back. To access the OS-9 programs on the back, you must remove the disk from your drive, boot your OS-9 system, turn the disk over and reinsert it.

Before you run any of the programs on RAINBOW ON DISK, you should first use the Disk BASIC BACKUP command to make a backup of both sides of the disk, giving you a working copy. For the protection of the RAINBOW ON DISK master, the disk does not have write-protects notches, so you cannot accidentally write to it.

The Disk BASIC portions of the disk are menu-driven. To begin, type RUN"MENU" and press ENTER. A menu of the files appears, from which you may run any of the BASIC programs by pressing its corresponding letter key. The machine language programs, indicated by an asterisk, *will not run* properly from the menu. These machine language files must be loaded and executed with the LOADM and EXEC commands.

When a file is run from the RAINBOW ON DISK menu, part of the menu itself remains in memory. Because of this, you may encounter a ROM Error on some of the programs, indicating that the file is too large for memory. If this occurs, you will have to remove the disk and turn off your CoCo for a few seconds, then LOAD and RUN the program as you normally would from Disk BASIC, bypassing the menu.

How Do I Get to the OS-9 Programs?

The OS-9 side of RAINBOW ON DISK contains two directories: CMDS and SOURCE. It also contains a file, read.me.first, which explains the division of the two directories. The CMDS directory contains executable programs and the SOURCE directory contains the ASCII source code for these programs. BASIC09 programs will only be offered in source form so they will only be found in the SOURCE directory.

OS-9 is a very powerful operating system. Because of this, it is not easy to learn at first. However, while we can give specific instructions for using the OS-9 programs, you will find that the OS-9 programs will be of little use unless you are familiar with the operating system. For this reason, if you haven't "learned" OS-9 or are not comfortable with it, we suggest you read *The Complete Rainbow Guide to OS-9* by Dale Puckett and Peter Dibble.

The following is not intended as a course in OS-9. It merely states how to get the OS-9 programs from RAINBOW ON DISK to your OS-9 system disk. Use the procedures appropriate for your system. Before doing so, however, boot the OS-9 operating system according to the documentation from Radio Shack.

- 1) Type `load dir list copy` and press ENTER.
- 2) If you have only one disk drive, remove the OS-9 system disk from Drive 0 and replace it with the OS-9 side of RAINBOW ON DISK. Then type `chd/d0` and press ENTER. If you have two disk drives, leave the system master in Drive 0 and put the RAINBOW ON DISK in Drive 1. Then type `chd/d1` and press ENTER.
- 3) List the `read.me.first` file to the screen by typing `list read.me.first` and pressing ENTER.
- 4) Entering `dir` will give you a directory of the OS-9 side of RAINBOW ON DISK. To see what programs are in the CMDS directory, enter `dir cmds`. Follow a similar method to see what source files are in the SOURCE directory.
- 5) When you find a program you want to use, copy it to the CMDS directory on your system disk with one of the following commands:

One-drive system: `copy /d0/cmds/filename /d0/cmds/filename -s`

The system will prompt you to alternately place the source disk (RAINBOW ON DISK) or the destination disk (system disk) in Drive 0.

Two-drive system: `copy /d1/cmds/filename /d0/cmds/filename`

Once you have copied the program, you execute it from your system master by placing that disk in Drive 0 and entering the name of the file.

Many of these programs require special loading instructions and other information necessary to the proper functioning of the program. For complete instructions regarding each of the following files on RAINBOW ON DISK, refer to the August 1991 edition of RAINBOW magazine. (The corresponding page number is noted for your convenience.)

Front Side Disk BASIC Files		Back Side OS-9 Files	
Page	Filename		<code>read.me.first</code>
AUG	MENU		CMDS Directory
010	MKFONT	Page	Filename
013	LOADER	038	<code>view</code>
022	PIXTXT4		SOURCE Directory
023	PAL40-80	Page	Filename
023	TEXTDUMP	019	<code>Get_ID.c</code>
024	TAXTABLE	019	<code>test_Get_ID.c</code>
034	MEGATANK	019	<code>getpid.c</code>
042	ENLARGE1	019	<code>getuid.c</code>
042	ENLARGE2	019	<code>GBlkMp.c</code>
043	* ENLARGE	020	<code>GModDr.c</code>
043	+ ENLARGE	020	<code>test_GModDr.c</code>
057	ULE	020	<code>CpyMem.c</code>
057	ULT	021	<code>moddir.c</code>
		028	<code>FilePatch.b09</code>
		029	<code>irqpoll.asm</code>
		029	<code>clock60.ptc</code>

+ Assembly-language source

* Machine-language program

View 4.3 is provided on RAINBOW ON DISK courtesy of Tim Kientzle. List the `readme.txt` file in the VIEW directory to learn more about this shareware graphics viewer.

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If any manufacturing defect becomes apparent, return the defective disk within 30 days of purchase and it will be replaced free of charge. Please return the defective disk with a letter specifying the problem to RAINBOW ON DISK, The Falsoft Building, P.O. 385, Prospect, KY 40059.

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