RAINBOW
The Color Computer Monthly Magazine
ON DISK

January 1992

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:

The Game of Mill Experiment with artificial intelligence and the CoCo with this centuries-old game.

Directory Helper This BASIC utility helps you copy or delete groups of disk files in one move.

Christmas Home A graphics program that brings you home for the holidays.

Poke Text A tutorial/program that shows you how to put text characters directly onto the screen.

Disk Table Print disk-granule-allocation reference tables in decimal and Hex.

DeSpace The easy way to make your programs more efficient by taking unnecessary spaces out of them.

Screen Selector Adjust the CoCo 3's screen colors and cursor parameters on the fly.

Check Disk A Disk-BASIC version of the MS-DOS CHKDSK command.

Photo Database Keep track of camera settings for your negatives — a must for photographers.

By the Numbers A subroutine that converts whole numbers to their written equivalents.

The Compressor *TC*, a shareware file-archive/compression program by John Lauro. Versions for all CoCos are included.

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

Archiver Use UnTC to decompress Disk BASIC archive files. Also included is *Ar*, Version 1.3, a popular OS-9 file-archive\compression utility written by Carl Krieder.

The Separator Use Sep, a BASIC09 utility, to break merged executable files into their component modules.

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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 an ?OM 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 January 1992 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**	read.me.first
JAN	MENU	ar.man
021	MILLDRV	sep.hlp
021	* MILL	**CMDS Directory**
021	+ MILL	
027	DIRECT	**Page** **Filename**
039	XMASHOME	11 UnTC
039	POKETEXT	10 ar
040	DISKTABL	**SOURCE Directory**
040	DESPACE	
040	SCREEN	**Page** **Filename**
041	CHKDSK	011 UnTC.c
042	CAMERA	034 sep.b09
042	NUMBERS	
010	* TC12	* Machine-language program
010	* TC3	+ Assembly-language source file
010	* TC31	# ASCII documentation file
010	# TC12	
010	# TC3	Special thanks to John Lauro, author of *TC*,
010	# TC31	and Carl Krieder, author of *ar*, for their permission to put these file-archive/compression programs on this month's RAINBOW ON DISK. And remember, please register shareware you use.

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